ESTIMATING COMMUNITY STANDARDS: THE USE OF SOCIAL SCIENCE EVIDENCE IN AN OBSCENITY PROSECUTION

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Abstract Elements of the legal test for obscenity of sexually explicit material indicted in a criminal case are examined. A cross-section of residents of Mecklenburg County (Charlotte, NC) were randomly assigned to view either one of the sexually explicit films and the sexually explicit magazine charged in the criminal case, or a control film. Before and after the viewing, residents judged the materials' appeal to a prurient interest (a shameful, morbid, unhealthy interest in sex) and patent offensiveness (community tolerance for such material). The results indicated that the respondents felt that the films and magazine did not appeal to a shameful, morbid, or unhealthy interest in sex, nor did they perceive these materials as going beyond the level of tolerance regarding depictions of sexual conduct for the average adult in that community. A lower percentage of subjects thought the community tolerated the materials they had just viewed than when they were asked to report on what they personally tolerated. Fewer people felt the films appealed to a shameful, morbid, or unhealthy interest in sex after they had an opportunity to see them than before viewing. The advantages of providing jurors in obscenity cases with information about community standards based on summations of personal tolerance for materials actually charged in these cases, rather than hypothetical judgments about the community and obscenity, is discussed.

Introduction

There are few in-depth studies of the public's tolerance of pornographic or "obscene" materials. Existing studies tend to be from national surveys that only broadly describe respondents' "concern" about the pervasiveness of pornography in U.S. society (e.g., Yankelovich, Clancy, and Schulman 1986; Donnerstein and Bates 1987). Studies of trends in public opinion on permissiveness toward pornography suggest a complex pattern of shifting levels of tolerance. Some investigators (e.g., Smith 1987) have concluded that support for government regulation of pornography rose rapidly from 1975 to 1977 and then fell between 1977 and 1982. Comparisons of trends from the mid-1970s to the mid-1980s do suggest a slight decrease in public tolerance. These national studies, while interesting, are of limited value from a legal perspective because of the special requirements of obscenity law in the United States.

While the First Amendment of the U.S. Constitution protects all communicative material, including books, magazines, and films, and while these protections further extend to material containing nudity and sexually frank conduct, these constitutional protections do not extend to that which is legally "obscene." Thus, the sale and dissemination of obscene material may be criminally proscribed by law. However, as described by the U.S. Supreme Court, obscenity and constitutionally protected material are separated by only a "dim and uncertain line" (Bantam Books 1963).

The decision of whether material is or is not "obscene" is a task that may be left to either a single judge or, more often, to a jury (the judge or jury is thus the "trier of fact" as to the issue of obscenity). Both must apply the proper legal standards in arriving at a just conclusion. While individual states, in theory, are free to adopt their own

1. Mere possession in one's own home, with the exception of child pornography (Osborne v. Ohio 1969), cannot be subject to criminal prosecution due to the overriding privacy concerns (Stanley v. Georgia 1969).
standards for the determination of obscenity, they cannot subject to
criminal proscription that material which is protected, in the interpreta-
tion of the Supreme Court, by the First Amendment of the U.S. Con-
stitution. The current legal standard of that Court to be applied in decid-
ing whether material may be considered to be “obscene” is the tripartite test announced in the case of Miller v. California (1973),
more commonly referred to as simply the “Miller Test.” This test, in
general, is statutorily codified by most states to be their criminal “obscenity” statute.

Pursuant to the Miller decision, in order to find material to be “ob-
scene,” the trier of fact (be it a judge or a jury) must determine (a)
whether the average person, applying contemporary community stand-
ards, would find that the work, taken as a whole, appeals to the prurient interest; (b) whether the work depicts or describes, in a pat-
ently offensive way, sexual conduct specifically defined by applicable state law; and (c) whether the work, taken as a whole, lacks serious literary, artistic, political, or scientific value. While the three-part test announced in Miller only discussed “community standards” in relation to the first prong of the test (“prurient interest”), subsequent decisions by the Supreme Court have clarified that the second prong (“patent offensiveness”) is, similarly, to be judged with regard to “contem-
porary community standards,” while the remaining element (“serious value”) is not, but is, instead, to be judged with reference to the “rea-
sonable person” (Smith v. United States 1977; Pope v. Illinois 1987).

Therefore, obscenity is to be judged not by the personal opinions of the jurors, but, rather, by the jurors utilizing the concepts of the “average person applying contemporary community standards” and the “reasonable person.”

In Miller, the Supreme Court specifically rejected the concept of a nationwide “contemporary community standard,” and, instead, left to the individual states the determination of the scope of the relevant “community” by which the questioned material was to be judged. Thus, states are free to adopt a statewide standard for the relevant contemporary community, a smaller geographical boundary (i.e., a countywide standard), or, in fact, are allowed to not define the community at all, thereby allowing the trier of fact to draw upon their knowledge of the community or vicinage from which they come to decide how the “average person, applying contemporary community standards” would evaluate the particular material (Hamling 1974).

2. While the Supreme Court did not specifically limit the types of sexual conduct that could be found to be patently offensive, it did provide such examples as representations or descriptions of ultimate sexual acts, normal or perverted, actual or simulated, and representations and descriptions of masturbation, excretory functions, and lewd exhibition of the genitals (Miller 1973, 25).

Estimating Community Standards

The purpose of this study was to ascertain the contemporary community standards of adults in Mecklenburg County, North Carolina, regarding sexually explicit material, both generally and with particular regard to five videotape films and a magazine that were subject to criminal indictments as allegedly being “obscene,” and to determine, given those standards, whether the materials either appealed to a prurient interest or were patently offensive. The concept of “prurient interest” was defined in this study, pursuant to Supreme Court decisions, as being an “unhealthy, shameful, or morbid interest in sex” (Roth 1957; Brockett 1985). “Patent offensiveness” is considered to be descriptions or representations that go “substantially beyond the customary limits of candor” in such matters (Roth 1957, 478, fn. 20). This has been generally interpreted by courts to be the level of “tolerance” or “acceptance” of such materials in the community. Given that the North Carolina standard jury instructions regarding obscenity utilize “tolerance,” this study defined “patent offensiveness” in terms of the level of tolerance for such materials. This study, as described below, however, can just as easily be conducted utilizing an “acceptance” standard if local interpretation so requires. While the substantive findings of this study may be limited to the county in which the data were collected, the methods used for determining “contemporary community standards” and the “prurient appeal” and “patent offensiveness” of sexually explicit materials and the implications for the introduction of this form of scientific evidence by experts in obscenity trials have, we maintain, more general application.

EXPERT TESTIMONY IN OBSCENITY CASES

Under most circumstances, the prosecution in a criminal obscenity
action is not constitutionally required to introduce affirmative expert testimony in order for the trier of fact to determine whether or not materials are obscene. This is so because the Supreme Court has held that the materials themselves are the “best evidence of what they represent,” and that, in general, no such expert testimony is necessary in order for the prosecution to meet its burden of proof of the obscenity of charged materials (Paris Adult Theatre 1973). Thus, it is assumed that the trier of fact will know, or can determine on its own (beyond a reasonable doubt), the relevant community standards.

The Supreme Court has, however, further noted that the defendant in a criminal obscenity prosecution should be free to introduce “appro-

3. However, as noted by the Ninth Circuit U.S. Court of Appeals, while the materials may be the “best evidence of what they represent, . . . the materials will not supply any information as to the community standards by which they are to be judged” (United States v. 2,200 Paperback Books 1977, 566 and 570).
priate" expert testimony at trial (Kaplan 1973). In reaching this conclusion, the Court cited Justice Frankfurter's concurring opinion in the earlier decision of Smith v. California (1959) in which he noted:

The uncertainties pertaining to the scope of scierent requisite for an obscenity prosecution and the speculative proof that the issue is likely to entail, are considerations that reinforce the right of one charged with obscenity—a right implicit in the very nature of the legal concept of obscenity—to enlighten the judgment of the tribunal, be it the jury or as in this case the judge, regarding the prevailing literary and moral community standards and to do so through qualified experts . . . . for community standards or the psychological or physiological consequences of questioned literature can as a matter of fact hardly be established except through experts. . . .

Since the law through its functionaries is "applying contemporary community standards" in determining what constitutes obscenity . . . it surely must be deemed rational, and therefore relevant to the issue of obscenity, to allow light to be shed on what those "contemporary community standards" are. Their interpretation ought not to depend solely on the necessarily limited, hit-or-miss, subjective view of what they are believed to be by the individual juror or judge. It bears repetition that the determination of obscenity is for juror or judge not on the basis of his personal upbringing or restricted reflection or particular experience of life, but on the basis of "contemporary community standards." (Smith 1959, Frankfurter, J., concurring, 164-66)

USING PUBLIC OPINION POLLS TO ASSIST THE JURY IN DETERMINING COMMUNITY STANDARDS

Expert testimony on community standards has often included submission of results from public opinion polls. A recent case that fully discusses these matters is the decision of Saliba v. State of Indiana (1985). After reiterating that jurors are not instructed to evaluate obscenity based on their personal opinions, the court said:

. . . . expert testimony based on a public opinion poll is uniquely suited to a determination of community standards. Perhaps no other form of evidence is more helpful or concise: "A properly conducted public opinion survey adequately insures a good measure of trustworthiness, and its admission may be necessary in the sense that no other evidence would be as good as survey evidence or perhaps even obtainable as a practical matter." (Saliba 1985, 1185)

6. Admissibility of expert testimony and public opinion surveys is also subject to the fundamental prerequisite of legal relevancy and must also be admissible under the local rules of evidence. By these rules, expert testimony is properly admissible when it can assist the trier of fact to either understand the evidence or to determine the facts in issue (Federal Rule of Evidence, 702; adopted in most states). However, even relevant evidence can be excluded by the trial court if its probative value is substantially outweighed by the danger that it would be unfairly prejudicial or would have a tendency to either mislead the jury or to confuse the issues (Federal Rule of Evidence, 403).

The admissibility of a public opinion poll depends primarily upon what the court in Saliba termed certain "circumstantial guarantees of trustworthiness," including whether generally accepted survey techniques were used in conducting the poll and correct statistical methods were utilized in evaluating the results of the poll. The court laid out a specific set of criteria, generally accepted by most social scientists as necessary to ensure a poll's reliability and validity, so as to establish admissibility. Most important among these is that the "relevant universe" is examined, that a representative sample is drawn from this universe, and that the sample, questionnaire, and interviews be designed in accordance with generally accepted scientific standards.

Because our study was to evaluate contemporary community standards in North Carolina, we were concerned with the North Carolina Supreme Court's views about the admissibility of expert witness testimony and, in particular, public opinion survey research. Two decisions of that court, State of North Carolina v. Anderson (1988) and State of North Carolina v. Mayes (1988), had addressed this area and had generally concluded that survey evidence would be admissible in a criminal obscenity prosecution as long as the study was conducted pursuant to accepted methodology, and the opinions garnered therefrom were relevant to the issues before the court. In Anderson, however, the court had excluded certain testimony that it perceived was not particularly directed nor limited to the specific type of materials subject to prosecution, and because the particular study there had not focused on the materials alleged to be obscene, or on materials that were reasonably similar.

In addition to the concerns noted in Anderson, a Federal District Court had similarly issued an opinion excluding a public opinion study from evidence because the court there had found that the descriptive language of a telephone survey did not adequately convey "the impact of the visual image" and did not sufficiently apprise the interviewee "of the nature of the charged materials" (United States v. Pryba 1988, 1229–30). It was in particular regard to the concerns noted in the Anderson and Pryba decisions that the following study was designed.
The Present Study

The study reported here was proffered as evidence in the *State of North Carolina v. Cinema Blue of Charlotte, Inc.* (1989). In this study, an attempt was made to gather social science data to inform the jury as to whether the average adult in Mecklenburg County, NC, applying contemporary community standards, would find that five movies and one magazine alleged to be obscene by the state, either appealed to a prurient interest in sex or were patently offensive.

The project was informed by a concern for what types of information would be considered relevant, and thus legally admissible, according to the courts in *Saliba, Anderson, and Mayes*. Specifically, the project was designed to: (1) provide information gained from a scientifically selected sample of persons from the community of Mecklenburg County, (2) whose opinions about what the community tolerated, what they personally would tolerate, and what they personally found to appeal to a prurient interest were formed on the basis of (3) viewing the specific materials challenged in the case.

The study is strengthened by several design features. First, a sample of adults was randomly selected from the community. The use of such a probability procedure is the best way of assuring a representative sample of adults from the community. These adults were then randomly assigned to view either the allegedly obscene materials or control materials, and to then render opinions as to prurient appeal and patent offensiveness. As in any experiment, random assignment of subjects to test conditions and control conditions allows us to rule out the possibility that individual subject characteristics are responsible for the findings.

Second, the questions asked of participants in this study allow us to assess both the participant’s view of what the “community” tolerates and whether or not he or she, personally, should be permitted to view these materials. It is possible that participants’ perception of what is tolerated in the community differs substantially from their own reports of tolerance. This difference (should it occur) is, in itself, scientifically interesting. In addition, by aggregating the individual opinions across the sample—for both the study samples’ guess about the community and their own views—we are able to estimate two forms of community tolerance. Both may provide jurors with an indication of the “contemporary community standards” that meaningfully augments their own judgments about what the community tolerates (although we will argue that the aggregation of personal judgments is the more useful of the two).

Third, the procedures employed in the present study permit us to compare subjects’ opinions about community tolerance (i.e., patent offensiveness) and prurient appeal, both before and after viewing the materials charged in the case. Also, any shifts in opinion from pre- to postfilm viewing (should they occur) can be correlated with other variables measured in the study so that we might understand why subjects’ opinions about the materials changed.

Finally, the participant recruitment procedures used here permit us to compare participants who volunteered for the study, knowing they may be asked to view sexually explicit materials, with those who declined to participate. With this information we are able to estimate the effects of any self-selection bias on responses to key questions.

**FILM AND MAGAZINE VIEWING STUDY**

A sample of Mecklenburg County residents were contacted by telephone. The sample was compiled through random digit dialing using a list of digits, not weighted by prefix, obtained from Survey Sampling Inc., Fairfield, Connecticut. Potential respondents who could not be reached were called back three times with next-day calling staggered by time. Once contacted, the respondents were administered an interview that involved four components: (1) selection of an adult respondent in the household 18 years old or over; (2) assessment of demographic characteristics including: age, education, race, and sex (the interviewers were instructed to recruit within quotas corresponding to the proportions within each of these demographic categories in the population [see n. 8]); (3) subject recruitment “to possibly view a movie . . . and fill out a questionnaire about it?” and (4) subject recruitment to possibly view “adult, X-rated sexually explicit films.” Once respondents agreed to participate in the study, they were informed that they would receive $50.00 upon completion of the project, which, they were told, would last approximately two-and-a-half hours. Participants were then given the address of the study site.

A breakdown of response rates at each stage of subject recruitment is presented in Table 1. A total of 614 adults completed the initial telephone interview. Of these, 380 respondents indicated that they would be willing to participate in a film-viewing project; 8 indicated they were “not sure,” and 226 declined participation. From this group, a total of 284 respondents agreed to participate in the study once they were informed that they might be asked to watch an X-rated video. Of these respondents, 244 were scheduled for a film-viewing session. One hundred thirty-two subjects reported for a film-viewing session. One subject left once the video began, and two were dismissed with payment because all video viewing set-ups were being used simultaneously. A total of 129 subjects participated in the film-magazine evaluation study.
Table 1. Breakdown of Subject Loss at Each Stage of Film Evaluation Study

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<tr>
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<th>N</th>
<th>Percentage Remaining</th>
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<tr>
<td>Total numbers called</td>
<td>5,810</td>
<td>100</td>
</tr>
<tr>
<td>Nonworking numbers</td>
<td>1,585</td>
<td>73</td>
</tr>
<tr>
<td>No answer/no contact</td>
<td>867</td>
<td>58</td>
</tr>
<tr>
<td>Business or government</td>
<td>613</td>
<td>47</td>
</tr>
<tr>
<td>Ineligible county</td>
<td>8</td>
<td>47</td>
</tr>
<tr>
<td>Eligible households</td>
<td>2,737</td>
<td>100</td>
</tr>
<tr>
<td>Refusals</td>
<td>1,063</td>
<td>61</td>
</tr>
<tr>
<td>Call-back at last contact</td>
<td>219</td>
<td>53</td>
</tr>
<tr>
<td>Answering machine</td>
<td>199</td>
<td>46</td>
</tr>
<tr>
<td>Busy signal at last contact</td>
<td>190</td>
<td>39</td>
</tr>
<tr>
<td>Language or hearing problem</td>
<td>104</td>
<td>35</td>
</tr>
<tr>
<td>Over quota for demographic category</td>
<td>320</td>
<td>23</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>28</td>
<td>22</td>
</tr>
<tr>
<td>Completed telephone interview</td>
<td>614</td>
<td>100</td>
</tr>
<tr>
<td>Refused to participate in a film-viewing project</td>
<td>226</td>
<td>14</td>
</tr>
<tr>
<td>Declined to view an X-rated video</td>
<td>104</td>
<td>10</td>
</tr>
<tr>
<td>Could not be scheduled for viewing session</td>
<td>40</td>
<td>9</td>
</tr>
<tr>
<td>Scheduled but cancelled by researchers</td>
<td>22</td>
<td>8</td>
</tr>
<tr>
<td>Failed to show for scheduled session</td>
<td>90</td>
<td>5</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>N</th>
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<tbody>
<tr>
<td>Total subjects viewing films</td>
<td>129</td>
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</table>

We acknowledge that nonresponse in this study is higher than would be the case if respondents were simply asked their opinions over the telephone. However, the unique demands placed on respondents who must report for a laboratory study of this nature may preclude a lower nonresponse rate. In a subsequent section we assess the potential bias resulting from nonresponse at the most critical drop point—once respondents have been informed that they may be viewing X-rated materials.

ASSIGNING SUBJECTS TO FILM VIEWING CONDITIONS

The study began January 21, 1989, and was terminated on February 8, 1989. A seven-step procedure was followed with subjects: (1) consent form completion, (2) prefilm questionnaire administration, (3) movie viewing, (4) completion of postmovie questionnaire, (5) magazine viewing, (6) completion of magazine questionnaire, and (7) debriefing and payment.

Subjects reported to the viewing sessions not knowing if they would be asked to watch an X-rated film or a nonexplicit film. Subjects were randomly assigned to view either one of five sexually explicit films: Unnatural Phenomenon 2 (N = 25), The Big Switch (N = 24), How to Get A'head (N = 20), Penetration 2 (N = 21), Cumshot Revue Vol. 4 (N = 20), or a nonexplicit control film, Nothing in Common (N = 19).

OBTAINING INFORMED CONSENT

Prior to participating in the study, each subject assigned to an X-rated viewing condition was given a consent form to read over and sign. This document informed them that they would be asked to view a sexually explicit, X-rated adult video and a magazine of the same content.

PREFILM QUESTIONNAIRE ADMINISTRATION

Subjects were then given a questionnaire and instructed to take it to one of ten separate video viewing rooms and complete it. They were asked to indicate length of residence in Mecklenburg County, newspaper subscription, video movie consumption, cable subscription, political affiliation, political attitudes, religiosity, religious service attendance, attitudes about current events, education level, age, and religious affiliation. Most important, the following set of instructions were given and questions asked.

The next few questions deal with X-rated videos and adult movies and magazines. The nudity and sex shown in these types of adult material include: nude bodies and close-up graphic depictions of a variety of sexual activities, such as sexual intercourse, ejaculation, bondage, oral sex, anal sex, group sex, and variations of these acts by adult performers.

Do you think it is or is not tolerated in your community for the average adult to see adult movies, video cassettes, and magazines showing nudity and sex if they should want to?

<table>
<thead>
<tr>
<th>Tolerated</th>
<th>1 2 3 4 5 6 7 8</th>
<th>Not Tolerated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely No</td>
<td>1 2 3 4 5 6 7 8</td>
<td>Definitely Yes</td>
</tr>
</tbody>
</table>
Some adult movies, video cassettes, and magazines show actual sex acts in great detail and with close-ups of sexual organs. Would viewing this type of material appeal to an unhealthy, shameful, or morbid interest in sex?

Definitely Yes 1 2 3 4 5 6 7 8 Definitely No

FILM VIEWING

Upon completing the prefilm questionnaire, subjects were instructed to return it to one of the staff members. The subject was then taken to the viewing room and shown how to turn off the video cassette recorder (VCR). Subjects were instructed at that time to turn off the VCR once they had viewed the videocassette and report to the staff person. The staff person then started the VCR and left the room. All subjects viewed the film alone, and their viewing was timed to ensure that they had viewed the film in its entirety.

POSTFILM QUESTIONNAIRE

When subjects returned from their movie viewing room, they were given a postfilm questionnaire and instructed to return to their room, alone, to complete it. This questionnaire assessed subject attitudes on a number of current issues, including gun control, censorship, and religious tolerance. Most important, they were given the following instructions and questions.

In the first questionnaire you filled out, we asked you about X-rated videos, adult movies, and adult magazines. We said that the nudity and sex shown in these adult materials include: nude bodies and close-up graphic depictions of a variety of sexual activities. This includes: sexual intercourse, ejaculation, bondage, oral sex, anal sex, group sex, and variations of these acts by adult performers.

Was the movie you saw today what you expected to see, given this definition of X-rated videos, adult movies, and magazines?

Definitely No 1 2 3 4 5 6 7 8 Definitely Yes

The next few questions deal only with the X-rated video that you saw today. The scenes you saw in this film may have included nude bodies and close-up graphic depictions of a variety of sexual activities, including: sexual intercourse, ejaculation, oral sex, anal sex, group sex, and variations of these acts by adult performers.

Have you ever viewed a film or video like the one you just saw?

Yes ____ No ____

Estimating Community Standards

If you answered Yes, about how many times in the last five years?

This question was followed by questions on community tolerance and personal tolerance that were similar to those in the pretest. The appeal to prurient interest question was not preceded by the sentence concerning adult movies and videotapes in general, and reference was made, rather, to the particular film just viewed.

MAGAZINE VIEWING AND MAGAZINE QUESTIONNAIRE ADMINISTRATION

After completion of the postfilm questionnaire, subjects were given a packet that contained the magazine Pregnant and Sexy and a questionnaire. They were instructed to take the packet back to their room, look at the magazine, and complete the questionnaire. This questionnaire included questions similar to the postfilm questionnaire, except that the questions on film viewing were modified to apply to magazine viewing. Subjects were not asked about their definition of X-rated videos, and subjects were given the following instructions.

The next few questions deal with the X-rated magazine that you just viewed. You may feel exactly the same way about the magazine you just examined as you did about the video that you viewed. If you feel the same way, it is okay to give the same answers you gave on the questionnaire about the video. If you feel differently about the magazine, you can, of course, indicate that also.

SUBJECT PAYMENT AND DEBRIEFING

Once the postmagazine questionnaire had been completed, subjects were paid $50.00 and thanked. Subjects were then asked if they had any questions about the study. The research assistants were instructed to answer each question honestly and completely.

CONTROL FILM SUBJECTS

Control subjects did not participate in the magazine-viewing phase of the study, and they viewed a nonexplicit film (Nothing in Common). Their postfilm questionnaire did not include questions on whether the film they viewed met their definition of an "X-rated" film, and they were asked the prurient appeal question with the preface sentence in both the pre- and postfilm questionnaire. Otherwise, control subjects were treated in an identical manner to the sexually explicit film-viewing subjects.
Results

SUBJECT CHARACTERISTICS

On the average, subjects in the film and magazine evaluation sample have lived in Mecklenburg County for about 19 years, and the majority of people subscribe both to a daily newspaper and cable television. Over 50% of the persons in the sample consider themselves to be politically conservative to very conservative and over 80% say they are somewhat to very religious. Most had completed high school, over half had some college or completed a college education, and over half were married. The ages of subjects ranged from 18 to 69 years. The majority had an annual income over $30,000 per year, although at least 20% indicated a yearly income under $20,000 per year.  

INITIAL ASSESSMENT OF SUBJECT SAMPLE SELECTION BIAS

Despite our efforts to establish quotas within demographic categories, some respondents were more willing to participate in the film-viewing study than others once they had been informed over the telephone that they may be asked to watch an X-rated film. Table 2 shows the number and percentage of respondents, broken down by the primary demographic variables—age, sex, race, and education—who agreed and who did not agree to participate after they were told they may be asked to view X-rated materials. By comparing the percentages in the “agree to participate” column for each demographic category, we see that nonwhites were more likely to volunteer for the study than whites ($\chi^2 = 14.25, df = 1, p < .05$), males more than females ($\chi^2 = 10.36, df = 1, p < .05$), and younger persons more likely to volunteer than older persons ($\chi^2 = 8.36, df = 1, p < .05$). Respondents with a moderate level of education were slightly more likely to volunteer than respondents with either higher or lower levels of education, although differences between categories were nonsignificant ($\chi^2 = 3.52, df = 2, p = n.s.$).

As a further check of response bias, we compared the percentage of subjects who volunteered for the present study with participants in a telephone survey of community standards conducted in 1987 that employed a substantially larger sample of Mecklenburg County residents. Table 3 presents these comparisons by the four demographic

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7. Charges were dropped against three of the films prior to trial. The films Cunshoth Revue Vol. 4 and The Big Switch were, however, prosecuted. A total of 44 subjects viewed these films. On the average, subjects in that sample lived in Mecklenburg County for about 18 years and the majority of people subscribe both to a daily newspaper and cable television. Forty-five percent of the persons in the sample consider themselves to be politically conservative to very conservative and over 80% indicate they are somewhat to very religious. Most had completed high school, over half had some college or completed a college education, and over half were married. The ages of subjects ranged from 18 to 62 years. The majority had an annual income over $30,000 per year, although at least 20% indicated a yearly income under $20,000.

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<th>Race</th>
<th>Participate</th>
<th>Not Participate</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>White</td>
<td>70% (186)</td>
<td>30% (81)</td>
<td>100% (267)</td>
</tr>
<tr>
<td>Black</td>
<td>88 (97)</td>
<td>12 (13)</td>
<td>100% (110)</td>
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<th>Sex</th>
<th>Participate</th>
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<tbody>
<tr>
<td>Male</td>
<td>85 (115)</td>
<td>15 (21)</td>
<td>100% (136)</td>
</tr>
<tr>
<td>Female</td>
<td>70 (168)</td>
<td>30 (73)</td>
<td>100% (241)</td>
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<table>
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<th>Education</th>
<th>Participate</th>
<th>Not Participate</th>
<th>Total</th>
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<td>12 years or less</td>
<td>73 (101)</td>
<td>27 (37)</td>
<td>100% (138)</td>
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<tr>
<td>13–15 years</td>
<td>82 (80)</td>
<td>18 (17)</td>
<td>100% (97)</td>
</tr>
<tr>
<td>16 or more</td>
<td>72 (102)</td>
<td>28 (39)</td>
<td>100% (141)</td>
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<thead>
<tr>
<th>Age</th>
<th>Participate</th>
<th>Not Participate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–39</td>
<td>80 (177)</td>
<td>20 (43)</td>
<td>100% (220)</td>
</tr>
<tr>
<td>40 or older</td>
<td>67 (105)</td>
<td>33 (51)</td>
<td>100% (156)</td>
</tr>
</tbody>
</table>

---

**Table 2.** Comparison of Subjects Who Agreed and Did Not Agree to Participate in the Study

---

8. A random digit dialing telephone sample (Survey Sampling, Inc., Fairfield, Connecticut) of Mecklenburg County residents was conducted in July, 1987, as part of a study of community standards in an unrelated legal proceeding. A total of 875 households were contacted. Two hundred sixty nine resulted in incompleteness due to: language difficulties (35), busy signal (38), answering machine (62), or “call backs” who were never reached (71). Sixteen respondents terminated the interview midstream, and 346 declined to be interviewed at all. A total of 407 respondents, 18 years old or older, completed the interview.

Respondents were questioned about length of residence in Mecklenburg County, television and newspaper consumption habits, political affiliation, religiosity, and a variety of other issues. In addition, level of education, income, race, sex, and age was assessed. Response formats for the questions used in the 1987 survey and the pretest questions asked in this 1989 study were identical. Subjects were also given the same description of X-rated videos used in the film evaluation study and asked the three questions pertaining to tolerance in the community for adult movies, belief that the respondent should be able to see these materials, and appeal to an unhealthy, shameful, or morbid interest in sex.

Respondents were instructed to answer “Yes” or “No” for each question. Rather than answering “Yes” or “No,” subjects in the film evaluation study were asked to circle a number between 1 and 8 anchored by the terms “Definitely No” and “Not Tolerated” for the first question and “Definitely No” and “Definitely Yes” for the second and third questions. In comparisons involving the 1987 survey and the 1989 film evaluation project data, we make the assumption that the response formats for the film evalu-
Table 3. Comparison of Four Demographic Characteristics for Film Study Participants and 1987 Survey Respondents

<table>
<thead>
<tr>
<th>Race</th>
<th>Sex</th>
<th>Age</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>18-29</td>
</tr>
<tr>
<td>Black</td>
<td>24%</td>
<td>76%</td>
<td>55%</td>
</tr>
<tr>
<td>White</td>
<td>31</td>
<td>98</td>
<td>71</td>
</tr>
<tr>
<td>N</td>
<td>1987 survey</td>
<td>22.2%</td>
<td>77.8%</td>
</tr>
<tr>
<td>N</td>
<td>90</td>
<td>315</td>
<td>187</td>
</tr>
</tbody>
</table>
Table 4. Comparison of 1987 Survey Results, "Before" and "After" Film Viewing (X-rated film viewing subjects only) on Beliefs About Community Tolerance, Viewing Materials, and Appeal to Shameful and Morbid Interest in Sex

<table>
<thead>
<tr>
<th>1987 Survey</th>
<th>Before Film</th>
<th>After Film</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Do you think it is or is not tolerated in your community for the average adult to obtain and see adult movies, video cassettes, and magazines showing nudity and sex if they want to?&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tolerateda</td>
<td>42.7%</td>
<td>59.1%</td>
</tr>
<tr>
<td>N</td>
<td>156</td>
<td>65</td>
</tr>
<tr>
<td>Not tolerated</td>
<td>57.3%</td>
<td>40.9%</td>
</tr>
<tr>
<td>N</td>
<td>209</td>
<td>45</td>
</tr>
<tr>
<td>&quot;Do you believe you should be able to see any such showing of actual sex acts in adult movies, video cassettes, or magazines if you want to?&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Definitely yes</td>
<td>69.0%</td>
<td>74.5%</td>
</tr>
<tr>
<td>N</td>
<td>265</td>
<td>82</td>
</tr>
<tr>
<td>Definitely no</td>
<td>31.0%</td>
<td>25.5%</td>
</tr>
<tr>
<td>N</td>
<td>119</td>
<td>28</td>
</tr>
<tr>
<td>&quot;Some adult movies, videocassettes, and magazines show actual sex acts in great detail and with close-ups of sexual organs. Would viewing this type of material appeal to an unhealthy, shameful, or morbid interest in sex?&quot;b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Definitely yes</td>
<td>20.5%</td>
<td>43.6%</td>
</tr>
<tr>
<td>N</td>
<td>71</td>
<td>48</td>
</tr>
<tr>
<td>Definitely no</td>
<td>79.5%</td>
<td>56.4%</td>
</tr>
<tr>
<td>N</td>
<td>275</td>
<td>62</td>
</tr>
</tbody>
</table>

a Respondents to the 1987 survey answered "Yes" or "No" to this question. Subjects in the film evaluation study were asked to circle a number between 1 and 8, anchored by the terms "Tolerated" and "Not Tolerated." These subjects were also instructed to circle a number between 1 and 8, anchored by "Definitely No" and "Definitely Yes." for the second and third questions. In some cases, respondents to the 1987 survey volunteered the response "don't know." These rates were 10.3% for question 1, 5.7% for question 2, and 15.0% for question 3. Respondents indicating "don't know" are not considered here.

b The postviewing wording of this question was: "Did you viewing of this X-rated video appeal to any unhealthy, shameful, or morbid interest in sex that you might have?"

Estimating Community Standards

an unhealthy, shameful, or morbid interest in sex than were baseline respondents.

At least two statistical techniques are available that permit us to take this sampling bias, and any bias resulting from underrepresentation in a demographic category, into account for each of the major findings. We will discuss the results of the application of one of these techniques to our data following our report of the major findings.

Subject Responses After Film Viewing and Comparisons Pre- and Postfilm Viewing

Column 3 of table 4 shows the responses of subjects to the three critical questions after viewing the films. (It is important to remember that subjects were instructed to answer these questions only with reference to the film they had viewed that day.) For these analyses, responses were summed across all of the X-rated film-viewing conditions. As can be seen from the table, a majority of subjects believe that it is tolerated in their community for the average adult to obtain and see the adult video cassettes charged in the case. Seventy-five percent believe they personally should be able to see any such showing of actual sex acts in adult movies, video cassettes, or magazines, and 16% believe viewing the type of material charged in the case appealed to an unhealthy, shameful, or morbid interest in sex.

Changes pre- and postfilm viewing (again, summed across the five sexually explicit film conditions) were also examined for each of the three outcome variables in comparing the mean differences from pre- to postviewing. Comparisons of pre- and postfilm subject responses on the belief that these materials are tolerated in the community showed no significant change from pre- to postfilm viewing ($t = 1.41$, $df = 108$, $p > .15$). Likewise, there was no statistically significant change in subjects’ opinions about whether they should be allowed to see such materials ($t = .51$, $df = 109$, $p > .50$). There was, however, a statistically significant change in subjects’ perception that the materials appealed to a shameful, unhealthy, or morbid interest in sex before and after viewing. Subjects were less likely to find the materials appealed to such interests after viewing ($t = 6.75$, $df = 108$, $p < .0001$). Forty-four percent of the subjects believed that such material appealed to morbid, shameful, or unhealthy interest in sex before seeing a film. After they viewed a film, the percentage dropped to 16%.

Computation of Pearson $r$ correlations designed to "explain," post hoc, the shift toward finding the materials less likely to appeal to prurient interests were also undertaken. A change score reflecting the shift for each subject was computed and this score was then correlated with the demographic and attitudinal variables measured for all subjects, as
well as the items designed to assess whether subjects had seen a film like the one they had just viewed at any time during the last five years. Only one variable was significantly correlated with the change score—the variable assessing the number of films like these subjects had seen before \( r \{N = 110\} = -.186, p < .05, \text{two-tailed} \). The sign of the coefficient indicates that the more films of this sort subjects have seen, the less they changed in their evaluation of the films from pre- to postviewing.

**ESTIMATING THE EFFECTS OF SUBJECT SAMPLE SELECTION BIAS ON RESPONSES TO THE PRIMARY OUTCOME VARIABLES**

As noted earlier, some types of respondents were more willing to participate in the film-viewing study than others, once they had been informed that they might be asked to watch an X-rated film. We noted that, of the 388 telephone interview respondents who completed the initial interview and did not definitely decline to participate in the film-viewing project, some 104 (100 with complete questionnaires) refused when informed of the possibility they would see an X-rated film. It is now appropriate to ask whether or not the failure to include opinions from these 100 telephone interview respondents who had refused has grossly distorted the percentages responding positively (or negatively) to the three obscenity questions in table 4. Stated in more technical terms, we may ask: Have the sample self-selection processes governing the willingness of individuals to participate in the film-viewing study—whether by the explicit race, sex, education, and age categories (see tables 2 and 3) or implicitly by unmeasured variables (such as religiosity or political conservatism which were not ascertained in the telephone recruitment interviews) or by personal positions of individuals on the dependent variables themselves—so truncated the frequency distributions observed in the film-viewing study that the percentage estimates in table 4 are grossly biased and inaccurate?

We applied the mixture modeling approach developed by Rubin (1977) to ascertain the extent to which the “after film” response distributions in table 4 could be biased by sample self-selection. (See the appendix for further details on this as well as an alternative method for estimating response bias.)

Table 5 reports the centers and interval limits (upper and lower bounds) for the subjective 95% intervals we obtained from applying the mixture modeling procedure to the three response variables. The centers of the subjective intervals in table 5 can be compared with the corresponding “after film” percentages reported in table 4 to ascertain how much the mean percentage responses differ after applying the
Estimating Community Standards

FURTHER SUBSTANTIATION OF THE FINDINGS

In addition to the foregoing evidence that the study did not plausibly suffer from a subject self-selection threat before viewing the films, we undertook additional analyses to further increase our confidence in the results we obtained after subjects had viewed the films. It is necessary to rule out the possibility that answering the questions about tolerance/patent offensiveness and prurient appeal twice, once in the prefilm questionnaire and again in the postfilm questionnaire, might have caused subjects to think more carefully about these issues than they normally would, and lead them to change their opinion as a result of this reflection (a testing-effect bias). Specifically, it may be the case that the significant change from pre- to postfilm viewing on the questionnaire item about unhealthy, shameful, or morbid interest in sex that we observed was the result of subjects giving this question further consideration from the time of completing the prefilm questionnaire to the time they completed the postfilm questionnaire, and not the result of changing their opinions because they had seen the film. To test this possibility, we compared the responses of the neutral-film control group subjects before and after the film viewing on this questionnaire item. The results of this statistical test revealed a nonsignificant change between pre- and postfilm evaluations for the control group on the prurient appeal question ($t = 1.15, df = 18, p > .26$).

POSTMAGAZINE QUESTIONNAIRE RESPONSES

Only subjects who viewed one of the X-rated films were shown the magazine _Pregnant and Sexy_ and completed the postmagazine questionnaire; the control group did not see this magazine. The results indicate that, overwhelmingly, subjects felt that they personally should be permitted to view sexual acts like those depicted in the magazine (subjects scoring 5 or above on the 1–8 scale anchored “Definitely No” and “Definitely Yes” = 74%), and that the content of the magazine did not appeal to a morbid, shameful, or unhealthy interest in sex (subjects scoring 5 or above on the 1–8 scale anchored “Definitely No” and “Definitely Yes” = 22%). Subjects were divided evenly on the question of whether it was tolerated in their community for the average adult to obtain and see adult magazines showing such nudity and sex if they should want to (subjects scoring 5 or above on the 1–8 scale anchored “Tolerated” and “Not Tolerated” = 50%).
Discussion

The results of this study demonstrate the following: (1) the particular films and magazine viewed by the participants in this study, and charged in the case *State of North Carolina v. Cinema Blue of Charlotte, Inc.*, do not, for the majority of adult residents in Mecklenburg County, North Carolina, appeal to a self-reported shameful, morbid, or unhealthy (prurient) interest in sex; (2) there is a substantial shift in these opinions before and after viewing the films—far fewer people felt the films appealed to a prurient interest in sex after they had an opportunity to see them than before; (3) the particular films and magazine viewed by the participants were not, according to the majority of subjects, patently offensive—that is, they did not go substantially beyond the customary limits of candor (tolerance) in Mecklenburg County, NC, in depictions of sex; (4) a much lower percentage of people think other members of the community tolerate the films and magazine they just viewed than is the case when people are asked to report on what they personally tolerate, or should be allowed to view; and (5) statistical analyses designed to determine if these results were affected by sample selection bias (the tendency for men, younger persons, and persons already more tolerant of sexually explicit materials to be more likely to volunteer for the study) showed no plausible support for such contaminating effects.

The procedures and analyses employed in the study met the criteria for the type of information most likely to be considered relevant and, thus, legally admissible according to the courts in *Saliba, Anderson, and Mayes*, and corrects for the perceived failings as noted by the *Pryzbu and Anderson* courts. This particularly included obtaining information from a scientifically selected sample of persons from the community whose opinions were formed on the basis of viewing the specific materials challenged in the case.

More generally, the research technique described here has implications for the role of the social scientist in assisting jurors and judges in determining contemporary community standards toward patent offensiveness and prurient appeal of sexually explicit materials in this and other jurisdictions.

As noted in the introduction, the test for obscenity outlined in *Miller v. California* (1973) and adopted by nearly every state has several elements. More fully stated, the jury or judge must decide whether (1) the average person, (2) applying contemporary community standards would find that (3) the work, taken as a whole (4) appeals to the prurient interest; (5) whether the average person applying contemporary community standards would find that the work depicts or describes in a patently offensive way (6) sexual conduct specifically defined by state law; and (7) whether the work . . . lacks serious literary, artistic, and political or scientific value (Bingham 1978). We will consider elements 1 through 5 in light of the evidence presented in this study. 9

DEFINING THE AVERAGE PERSON

Obscenity law often appears to presume that a properly constituted jury approximates a collection of average people, and that their opinions are the opinions of the “average” person in the community (Bingham 1978). Even if the pool from which jurors are initially drawn is representative of the community, there is no guarantee that, once a jury is ultimately selected for participation in the trial, it is even representative of the jury pool, much less the community, due to attorney challenges and the small sample size (12 jurors). In contrast, social science holds that, to validly determine anything about the collective opinion in the community, it is necessary to gather a sample of people from the community who are selected in such a way as to assure that they are representative of the population from which they are selected (in practice this means that all members of the population have an equal chance of being included in the sample).

The law also seems to presume that there is such a thing as an “average” person—an individual who is average on each of a set of major social dimensions or at least a person of “average” sexual instincts. (Neither the “average person” nor “contemporary community standards” may include a consideration of children in their calculus, *Pinkus v. United States* 1978). In essence, this idea is similar to the now discredited concept of the “average man” advanced by the social statistician Quetelet in the nineteenth century. Quetelet suggested that the means of various traits could be combined to form one paradigmatic human being who would represent the “type” for a group, a city, or a nation. Later debate focused on the possibility that such a paradigmatic individual could actually be located in a population (Kruskal and Tanner 1978). The problem with this notion is that while it is possible to find an individual who is average on a few important traits,

9. Elements 6 and 7 of obscenity law are not discussed here for several reasons. Element 6, sexual conduct defined by state law, is primarily a matter for legislatures to decide, and social scientists have, in our opinion, little to say about this issue. Element 7, whether the work lacks serious literary, artistic, political, or scientific value, does not involve estimating the opinions of the community (community standards) based on survey research or a film-viewing study such as the one we have described here, and, as such, this form of expert testimony will not be discussed here.
the probability of finding a single individual who is average on a larger number of social characteristics than two or three is very small.

Social scientists only speak of the "average" person as a set of characteristics defining a sample of persons (for example, we reported statistics that allow us to say that the "average" resident of Mecklenburg County is a married white female; who has resided there for 19 years, 3.3 months; and who is a Democrat). But the average person is purely hypothetical. There is no one individual who possesses exactly these characteristics in the sample. Rather than searching for the average person's opinion, social scientists seek the "average" level of agreement or disagreement to questions put to respondents, once a representative sample of persons has been obtained. In this respect, social science may come as close as is possible to the legal concept of the "average person" as a composite or synthesis of the community (United States v. Treanor 1975; Urbana ex rel. Newlin v. Downing 1989). In this study, we gathered a cross-section of the community of Mecklenburg County through scientific sampling and computed the "average" level of prurient appeal and patent offensiveness of certain sexually explicit materials among members of the community.

DEFINING CONTEMPORARY COMMUNITY STANDARDS

The second element, contemporary community standards, can also be viewed from either a legal perspective or competing social science perspective. Obscenity cases are unique criminal proceedings in that they are virtually the only cases where a jury is asked to take into account the consensus of the community before making a judgment about the guilt or innocence of a defendant charged with a crime. Jurors are faced, by law, with the burden of articulating community standards, and not even local or state legislative bodies are allowed to usurp the function of the jury by setting guidelines for those standards (Smith v. United States 1977). Judges do not always instruct jurors regarding the operating legal definition of community, nor will the judge necessarily instruct jurors how to arrive at a consensus on community standards.

Because the jury is called upon to make what amounts to a sociological and psychological assessment of the standards of the community, it would seem imperative that it have access to reliable social-scientific data collected from the community. In U.S. society, when a politician, a news organization, a business, and, particularly, the government itself wants to know how the people in a particular community feel about a particular issue, they rely upon scientifically accepted means of determining these opinions—the selection of a representative cross-section of persons from the community who are surveyed about their opinions. Such evidence serves a similar function in an obscenity case (Rudolf and Fargo 1988).10

Expert testimony from scientific studies may not, however, override the jury's final determination of these standards; the opinions of experts being nonbinding on the trier of fact, who may give the expert testimony whatever weight is deemed fit or may ignore it altogether. However, the methods used to collect these data, the data itself, and the means whereby social scientists arrive at an opinion of what materials the "average" person, applying contemporary community standards, would find patently offensive or appealing to the prurient interest should be provided to the jury in order that it may thoroughly execute its charge in an obscenity case. To exclude such evidence and testimony would seem to ensure a guessing game on the part of the trier of fact as to the applicable community standards or, in the words of Mr. Justice Frankfurter, result in a "... hit-or-miss subjective view of what [such standards] are believed to be."

Patent Offensiveness. At least two types of "tolerance" can be mea-
sured through a community survey—the opinions of a representative sample of persons about what they think the community tolerates, and the collective opinions of these same individuals about what they personally should be allowed to view. In this study, we asked subjects about both. The findings reported here (see table 4) indicate that a much lower percentage of people think the hypothetical “community” tolerates the films they just viewed than is the case when people are asked to report on what they personally tolerate (what they should be allowed to view). If we define community tolerance as the sum of individual responses about what people personally would tolerate, we would conclude that the community of Mecklenburg County is overwhelmingly tolerant of these materials, by a margin of 3 to 1.

A similar discrepancy between personal standards and perceived community standards has been detected in other investigations of tolerance of sexually explicit materials. Herrman and Bordner (1983) found little consistency between personal standards and the perceptions of community standards in a sample of 750 residents of Atlanta, Georgia, and surrounding counties when respondents were presented with a written list of acts often featured in pornography. Personal judgments were much less conservative than perceived community standards for evaluating the descriptions. The authors noted that, with the exception of rape, little overlap occurred between the two sets of attitudes.

The belief in empirically false propositions about others in the social world found in our study and in other investigations of tolerance for sexually explicit materials may be an example of “pluralistic ignorance” (O’Gorman 1988). The literature on social perception contains an abundance of evidence of pluralistic ignorance, but the direction of the discrepancy is usually in favor of the individual’s own attitudes. Usually, people are motivated to overestimate support for their values among others (e.g., Fields and Schuman 1976–77)—an effect known as the “egocentric bias.” In the present study, we found individuals perceiving less, rather than more, support for their beliefs about sexually explicit materials.

Through what processes might the social environment have misinformed its inhabitants about attitudes toward sexually explicit materials? We propose that the discrepancy between perceptions of the community standard, and the individual adults’ own standards in the present study, is the result of recent legal events in Mecklenburg County. During the past two years, several arrests for obscenity and obscenity trials where defendants had been found guilty had taken place in the community. These were well publicized. Subjects may have assumed that, since there had been a large number of arrests and several guilty verdicts, most people in the community must not tolerate these types of materials (a phenomenon we would call “prosecution-induced intolerance”). The greater the attention given law enforcement activities by the media in a community, the more the average observer may assume that citizens of the community are intolerant. However, when members of the community are individually questioned, they may express a much higher level of tolerance for sexually explicit materials.

This misperception, primarily gained from the mass media, may also have consequences for interpersonal interactions, which in turn also influence perceptions about community beliefs. The erroneous belief in lack of tolerance for sexually explicit materials in the community may lead people to be hesitant to speak out honestly about their own opinions for fear they are deviant. Here, another theory of public opinion may come into play. This unwillingness to speak out may be an example of the more general tendency toward a “spiral of silence” in public opinion whereby a silent majority falsely perceives itself to hold a minority opinion and, thus, remains quiet in order to avoid personal ridicule (Noelle-Neumann 1974 and 1984). Mosher (1989) has speculated that public opinion toward pornography and obscenity may be very susceptible to this effect. Most Americans, according to this view, favor the continued availability of sexually explicit material for adults, yet they are very reluctant to either state that they personally enjoy viewing these materials or defend others’ rights to view them.

The end result, should these mass communication/social psychological processes be operating, is that the legal system may be an unwitting but critical contributor to the very standard it is trying to discover through the criminal fact-finding process. Members of the community (including jurors themselves) may assume the community does not tolerate sexually explicit materials because such materials are not tolerated by local law enforcement officials (as evidenced by continued prosecutions).11

It might be informative to jurors for a social scientist to present evidence about both perceptions of the community and individual levels of tolerance. It should be acknowledged, however, that most policy decision making based on public opinion research relies on the summation of individual opinions rather than “guesses” by respondents about others’ opinions and behaviors. As social scientists, we place far more

11. Whatever the cause, the discrepancies noted in this study between what people perceive is tolerated in their community with what is actually tolerated (as determined by the summation of individual personal opinion responses) have one additional legal implication. These findings call into sharp question the general legal assumption that a judge or jury, without any assistance whatsoever, knows or can determine beyond a reasonable doubt the contemporary community standards by which both prurient appeal and patent offensiveness are to be judged.
confidence in a procedure whereby we ask people if they should personally be free to engage in a specific behavior (such as watching a movie) and summing these individual responses in order to obtain "the average" response, than we would be in asking people to report on what they perceive the "average" person would do in the same situation.

Appeal to Prurient Interest. The other element of the obscenity test evaluated in this study is whether the work, taken as a whole, appeals to prurient interest. In our study we found a statistically significant shift toward rejection of the proposition that the material appealed to a morbid, unhealthy, or shameful interest in sex, once subjects had viewed the materials. Since the shift brought subjects back to the baseline level established in the 1987 telephone survey of Mecklenburg County, it may be that the film/magazine-viewing subjects' initial opinions about the degree to which sexually explicit materials appealed to a "bad," or unhealthy, interest in sex were also affected by "prosecution-induced intolerance." Actually viewing the materials at issue reestablished prevailing community norms. Viewers were "reassured," having now seen the materials for themselves, that they did not appeal to a prurient interest. Our analysis of the mean levels of opinion shift for persons who report having had experience with these materials versus those who have not is consistent with this conclusion. Those who had reported "not seeing films like these before" substantially modified their positions toward less belief in prurient appeal, while those that reported seeing them shifted only slightly or not at all.

Summary and Conclusions

Our findings suggest that the procedures described in the present study, whereby respondents view the specific materials charged in obscenity trials rather than make hypothetical judgments about obscenity, will produce substantially different and, we would argue, more accurate assessments of community standards regarding sexually explicit materials than can be obtained by survey or telephone interviews alone. There may exist a substantial portion of the community who have inaccurate (or nonexistent) perceptions of these materials, before actually seeing what these materials contain. Once they are faced with the materials, our findings suggest that their evaluations may be altered substantially.

Future research should be directed to investigating the robustness of the shift in opinion detected in the present study, to the differences in subjects' perception of the "community" standard relative to their individual standards, collectively measured, in other jurisdictions, and to the magnitude of such changes as a function of the degree of obscenity litigation across jurisdictions. If these shifts and differences can be found elsewhere, they would point to a serious bias in lay and jury decision making whereby laypersons consistently overestimate intolerance of sexually explicit materials in their community.

Appendix

Recently, a number of advances have been made in statistical methods for the diagnosis of, and correction for, subject selection bias (Berk 1983; Berk and Ray 1982). Two of the principal approaches to the correction for sample selection bias are represented by the selection modeling methods of Heckman (1979) and the Bayesian mixture modeling methods of Rubin (1977). Heuristically, the selection approach models the probability of being a nonrespondent (nonparticipant in the present study) as a function of known characteristics of nonrespondents (e.g., sociodemographic variables) and then enters a function of this probability (called a hazard rate for nonresponse) into a statistical model for the correction of the frequency distribution on a dependent variable (such as one of the questions in table 4) that has been obtained from respondents (participants in the present study). By contrast, the mixture approach takes as given the distribution on a dependent variable for the sample of respondents, constructs statistical models of the unobserved distribution of the dependent variable for nonrespondents, and then mixes the observed and unobserved distributions of the dependent variable and outputs this mixed distribution (or some function thereof, such as the mean). Recent methodological work (Wainer 1986) suggests that each approach has its strengths and weaknesses, but there currently is no clear consensus among statisticians that one is always preferable to the other.

We report the results of applying the mixture modeling approach to ascertain the extent to which the "after film" response distributions in table 4 could be biased by sample self-selection. This decision is based largely on the fact that the mixture modeling produces probability intervals as output. These achieve our goal of displaying the sensitivity of the "after film" response distributions to various assumptions about selectivity bias. By comparison, the selection modeling approach focuses on providing an answer to the question of whether or not significant selection bias exists under a single, untestable assumption. Nonetheless, it should be noted that we also subjected the data on
film-viewing responses in table 4 to analyses by the selection modeling procedure. Results from the latter analyses are consistent with those from the mixture modeling analyses reported here.

The Rubin (1977) method can be thought of as summarizing the results of simulations in which one uses data on both independent and dependent variables for respondents to generate reasonable hypothetical responses for nonrespondents. The method has two key parameters. The first parameter, $\theta_1$, formalizes subjective notions about how similar the regression slopes relating a dependent response variable $Y$ to a set $X$ of independent variables are likely to be for respondents and nonrespondents. Technically, $\theta_1$ is the subjective coefficient of variation (the standard deviation divided by the mean) for the nonrespondents' regression coefficients. It is used to place an interval (e.g., a 95% or 2-standard-deviation-relative-to-estimated-coefficient interval) around the regression coefficients for the respondents within which the analyst expects the regression coefficients for the nonrespondents, if it were possible to estimate them, would fall. Similarly, the second parameter, $\theta_2$, formalizes subjective notions about how similar the analyst believes the expected value (mean) of $Y$ is likely to be for respondents and nonrespondents with equal $X$ means (i.e., with equal means on those independent variables that are observed for both groups). In practice, the mixture modeling method is applied with $\theta_1$ and $\theta_2$, taking on a range of numerical values in order to study the sensitivity of the bias correction outputs to these parameters. Rubin (1977) indicates that coefficients of variation are used because they are well suited to summarizing notions of large and small effects (e.g., $\theta_1 = 0.01$ seems small, while $\theta_1 = 1.0$ seems large). The method assumes unbiased (i.e., centered at the expected values of the regression slopes for respondents) and normal prior distributions of the regression and subjective parameters and that certain of these distributions are joint while others are independent. The sensitivity of numerical results to these assumptions is not known, but, based on the behavior of similar statistical methods, it is reasonable to expect that the sensitivity declines as the sample size increases.

In the present context, the dependent $Y$ variables to which we applied Rubin's mixture modeling selection bias correction procedure are the three "after film-viewing" response variables (table 4), while $X$ is a matrix containing observations on the eight independent sociodemographic variables on which information was obtained from all adults who completed the telephone survey. (Note that data on both the three, $Y$-response variables and the eight, $X$-variables are available for the 109 telephone survey respondents who participated in the film-viewing study and viewed one of the X-rated films, whereas only data on the eight independent $X$-variables are available for the 100 tele-

phone survey respondents who declined to participate after being informed that some films would be X-rated.)

References


*United States v. Treatment.* 1975. 524 F.2d (8th Cir.) 320.


*Urbana ex rel. Newlin v. Downing.* 1989. 43 Ohio St. 3d 109, 539 N.E. 2d 140.
