

ON WATCHING DIRTY MOVIES

Thesis for the Degree of M. A.
MICHIGAN STATE UNIVERSITY
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1976

ABSTRACT

ON WATCHING DIRTY MOVIES

By

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The purpose of this study was to explore the responses and reactions elicited in college-aged men and women as a result of their viewing an erotic film. This topic, among others, was first explored in the United States, via a survey research approach, by Alfred Kinsey and his co-workers (1953), who found striking differences between men and women in both the nature of their responses, in terms of their reported sexual arousal, or lack of it, and in what Kinsey postulated to be their inherent "capacities" for being stimulated by psychosexual stimuli, particularly visual stimuli. The results of recent experimentation, however, notably, by researchers at Hamburg University in Germany (Schmidt and Sigusch, et al., 1969, 1970, 1973), and by studies commissioned and funded by the President's Commission on Obscenity and Pornography (1970) suggest that Kinsey's results are now dated. The researchers suggest that the long accepted finding with respect to widely disparate sex differences in men's and women's responses to erotic material has either simply disappeared, or that Kinsey's survey method answers different questions than do experimental methods.

In addition to contradicting the results of Kinsey's original work, recent experimental efforts, which have usually involved subjects' actual

exposure to a variety of erotic stimuli--texts, slides, and film--and immediate recording of the subjects' responses, via physiological readings, subjects' self reports, or a combination of the two--have sought to define what kinds of personality, setting, and stimulus-related variables might be related to the process of becoming aroused by psychosexual stimuli.

For the purposes of this particular study, 155 subjects, 101 women and 54 men, mostly young, white, unmarried, MSU sophomores and freshmen, undergraduate students of psychology, participated. Initially, they were asked to respond to a number of personality measures and questionnaires: a Sexual Morality Scale, a Sexual Experience Scale, and the Mosher True-False Sex Guilt Inventory. In the case of the female subjects, an additional instrument, the Inventory of Feminine Values (Fand Inventory), was employed. The subjects then watched an erotic film, Constance Beeson's Unfolding, and finally, responded to a post-film questionnaire, an instrument devised by the writer in order to assess the subjects' reactions to the film.

By means of a multivariate cluster analysis, ten pre-film sexual attitude clusters (attitudes toward Masturbation, Premarital Sex I and II, Homosexuality, Women's Sexuality, Prostitution, Pornography, Adultery, Children's Sexuality, and Dirty Jokes); one sex experience cluster; and twelve post-film clusters (Fantasy, Arousal, Desire, Excitement, Watching, Embarrassment, Memories, Explicitness, Attractiveness, Photography, Plot, and Other Films) were defined from the combined sample of men and women. From the women's responses to the Fand Inventory, an additional eight clusters arose, although none of these clusters were employed in any

subsequent analysis. On the basis of several of the post-film clusters (Fantasy, Arousal, Desire, Excitement, Watching, Embarrassment, Memories, and Explicitness), together with a general index of the subject's moral orientation (Morality), path analyses, or causal diagrams (separate, although highly similar paths for the male and the female subjects), were constructed. These causal diagrams serve as proposed models which seek to define the processes, both physiological and psychological, the sequence of which results in the "end-product"--the subjects' reported sexual arousal, or lack of it, as it was, or was not, elicited by the film.

As the writer was primarily interested in ascertaining, to the best of her ability, the processes, or sequence of events, that culminate in a subject's sexual arousal within this experimental context, she had no particular hypotheses in mind in regard to the results of this study, except her feeling that women who scored high on the "self-directed" dimension of the Fand Inventory might be expected to report greater arousal upon seeing the film than those women who scored high on the "other-directed" dimension of the Fand. This, the only formally stated hypothesis, was not confirmed by the data. The study, however, was not without findings:

Pre-Film Clusters. From the results generated by her data, the writer found, in regard to the ten pre-film sexual attitude clusters, that sets of liberal/conservative attitudes tend to be highly and positively correlated with other sets of liberal/conservative attitudes; that there are certain behaviors toward which the majority of these subjects, at least, tended to be quite liberal (attitudes toward premarital sex

within an affectionate relationship, for example), while there are behaviors toward which the majority of subjects tended to be more conservative (masturbation and homosexuality); that the women consistently tended to be more conservative in all of the measured attitudes than were the men; and that liberal attitudes toward "women's role" tend to be related, in a positive direction, with other sets of liberal sexual attitudes, but do not seem to be directly related to the level of reported arousal in response to an erotic film.

A consistent finding in regard to the ten pre-film sexual attitude clusters--for the male sample, for the female sample, and for the combined group--was that the clusters tended to organize themselves into two blocks. The "core" of the first block of highly correlated attitudes was composed of attitudes toward Masturbation, Premarital Sex (I), Premarital Sex (II), and Homosexuality, while the core of the second block was composed of attitudes toward Women's Sexuality, Pornography, and Prostitution. Despite the generation of further hypotheses and subsequent checking, the reason underlying this consistent two-block "split" remains unknown to the writer.

Post-Film Clusters and Path Analyses. In regard to the post-film clusters and their organization into a path, or causal, diagram: as noted previously, several of the post-film clusters, together with a general index of sexual morality, were employed in the construction of models which seek to define what was happening to the subject as he/she watched the film. The variables themselves, which are labeled by process names, but which should not be construed as the named process, were generated by clustering the data from the subjects' responses to the

post-film questionnaire. The technique of path analysis treats each variable as a continuous variable and attempts to determine the extent to which each variable is causally influenced by each of the other variables in the study.

The model generated from the women's data indicated that the moral orientation (Morality) with which the woman entered the experimental situation had some impact upon whether or not the woman experienced a sexual fantasy (Fantasy) while viewing the film. A liberal sexual moral orientation was positively correlated with the experience of a fantasy, while a conservative moral orientation was negatively correlated with fantasy experience. If the woman did experience a sexual fantasy, there was a high probability of her then experiencing physiological sensations indicative of sexual arousal (Arousal); the state of arousal then led to feelings of a desire for sex (Desire). At the point of desire, one of two possible, although not equally probable events might occur. For the majority of women, feelings of desire were then followed by the experience of physical sensations associated with general, bodily excitement (Excitement), but for a smaller number of women, the feelings of desire led to feelings of embarrassment (Embarrassment), and the embarrassment was positively related to an original conservative moral orientation. The model for the women also predicted that for some women, the experience of generalized bodily excitement would lead to feelings of self consciousness (Watching), and then to feelings of embarrassment.

The model generated from the male data was basically similar to that proposed for the women. Moral orientation had some impact upon whether or not the male experienced a sexual fantasy. If the man

experienced a sexual fantasy, it was most likely that he then experienced the physiological indicators of sexual arousal, and arousal then led to desire. At the point of desire, it was most likely that the male, like the female, would then experience bodily sensations associated with general excitement, although some of the men, at the point of desire, became self-conscious and then embarrassed, while other men, at the point of desire, became embarrassed. Again, the experience of embarrassment was positively correlated with an initial conservative moral orientation. The male and female models differ in that the women seemed obliged to become excited before the Watching-to Embarrassment chain was activated, whereas the male data indicated a direct link from Desire-to-Watching, without the presence of the intervening variable, Excitement. The reason for this difference is not known.

Film. For the majority of these subjects, the viewing of the film, *Unfolding*, was, at best, a mildly arousing event. Although the women reported themselves as being slightly more aroused than the men, overall, subjects reported being only "mildly" aroused (point "2" on a five-point scale). The writer suggests that the reason for the comparatively low levels of arousal had to do with several of the qualities of the film itself: a hazy, confusing photographic style, the absence of a clearly defined storyline or plot, and a reliance upon dated, seemingly "corny" photographic metaphors for the sexual experience. Subjects seemed to have wanted more straightforwardness and explicitness, and less symbolism. It has been suggested that a certain degree of obscurity (i.e., "mystery") in regard to sexual images is tantalizing, imagination-provoking, and therefore arousing--more arousing than stark nakedness. Yet, it also

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appears to be true that at some point, obscurity becomes frustrating and antithetical to the arousal process. For many of these subjects, at least, Unfolding passed this point.

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ON WATCHING DIRTY MOVIES

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A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Psychology

1976

ACKNOWLEDGMENTS

To Dr. Don Grummon: A thanks and an apology--a thanks for his attempting to guide and to educate me; and an apology, for my being so panicked and overwhelmed upon this, the occasion of my first piece of research, that I proved unable/unwilling to listen and learn from his lessons concerning the philosophy of science, how one thinks about research, the construction of solid hypotheses, etc. . . .

To the countless people at the Computer Center, Tom Nichol, in particular: People who taught me the in's and out's of key-punching, duplicating, and listing; who listened patiently as I complained bitterly and cursed the computer for mistakes that usually turned out to be my own; who paid attention, even when they could offer no answers, after I had almost literally hurled them against the walls and demanded explanations when 1) my run had aborted, and I didn't know why, or 2) my run had gone through, and I didn't know what the hell the resulting print-out meant. . . .

Begrudgingly, to the damned computer: For making the sophisticated analysis, which was employed in this study, possible, although there were certainly occasions when I would have preferred that such techniques had remained uninvented. . . .

To my subjects, their capacity for sexual arousal, and their willingness to tell me about it. . . .

But mostly, with greater appreciation than I can possibly express, to Dr. Jack Hunter, my chairman:

--for having the presence of mind to become both an unbelievably adept statistician and a computer expert--a combination that enabled him to spend innumerable hours teaching me how to construct items, prepare data for the computer, analyze the results, and write them up. . .

--for his patience and willingness to reteach the entire content of 817. . .

--for being a good parent: demanding continuing work, but always willing to offer a reasonable explanation for the demands he made. . .

--for tempering my oft-times overzealous liberal perspective, although I still find myself in hearty, but healthy disagreement with him over many an issue, particularly those which concern men and women. . .

--for having listened to my virtually endless stream of grunts, groans, laments, and excuses:

". . . To begin with, Dr. Hunter; there are two things that never fail to scare me--numbers and machines. . . Do you suppose we could devise a way to do this project so that I don't have to use either? . . .

". . . Surprise, Dr. Hunter! I have systematically forgotten everything you taught in 817. I know what a mean and a standard deviation are, but beyond that, the only things that make sense to me are percentages. How about a very simple survey? . . .

". . . I don't know how to write items. Why can't I just use instruments that already exist, even though they are crummy? . . .

". . . I can't read a print-out: the numbers swim in front of my eyes. . .

". . . Now, Dr. Hunter, tell me again: Exactly what is a correlation? . . .

". . . Dr. Hunter, I have a question. The trouble is, I don't know enough to be able to know how to ask it . . .

". . . What do you mean; you don't believe in psychoanalysis? . .

". . . Regression? The only thing around here that's regressing is me. . .

". . . You want me to do what!? All I want to do is finish this thing, tomorrow, if possible. . ."

--for having listened, without once ever having asked, "Have you talked to your therapist about this?"

--for simply being there, and being of help. For as it turns out, if Jack had not been there, this thesis would not exist, at least in the fine form that it does; and if this thesis did not exist, my continued existence in this program would be, at best, highly questionable. . .

To all of these people, for all of this: Thank you.

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. . . . On first impression, Dr. Kinsey's face seemed too deeply lined for his 45 years and for its near immobility; he rarely smiled at us. Neither face nor voice seemed to reveal an emotional reaction to anything. No students gathered around him after class asking questions. His clear but monotonous Midwestern twang was so distinct and natural that we simply assumed he was a Hoosier, born and bred (He was from Hoboken!). Dr. Kinsey was, unquestionably, one of the ten worst dressed men of eminence this country has ever produced. His head was covered with flying hair that always seemed as if it had invented a scheme for defying combs. His clothes were almost execrable; nonetheless he invariably wore a little bow-tie. Although bow-ties were more fashionable then than now, they were hardly mandatory; on Dr. Kinsey they looked just plain funny. Yet, there they always were: the faultlessly neat, tiny bow providing a trim dividing line between two sets of shambles, rather like a plumber in a cummerbund. To make matters worse, when I first saw him, he had apparently just had his hair cut--or thought he had--or maybe had bolted from the barber's chair in the middle of the job. Anyway, it looked like a crew-cut half-done, neatly and closely cropped around the back and sides but left much too long in front, where it seemed to stick straight up. Amused and bemused are the only words I can use to describe how this initial unforgettable picture of Alfred Kinsey affected me: the high forehead overseeing the lined, gentle face with its quick, wise eyes inadequately demarcated from the sturdy, masculine body by the silly little bow-tie--and with his hair standing on end, he looked as though he were in a perpetual state of surprise, somewhat like the endearing look of a little boy who has never ceased finding all the world and all the people in it absolutely astonishing.

So there he stood week after week with the dead-pan face and nasal voice twanging monotonously on and on and on. We heard about the mean average frequency of prostitution in Bloomington, Indiana, versus Chicago; and about the percentile differences between the average number and frequency of nocturnal emissions in college-bred and non-college-bred men with all figures corrected against the total U.S. population according to the 1940 census. We heard about the total average frequency per week of intercourse for married men at all age ranges with figures seasonally adjusted. We pondered over the mean, median, and range for the percentage of orgasms per week in upper-class married and non-married, churchgoing and non-churchgoing Protestant women compared to the same figures for Catholic and Jewish women, with each statistical summary expressed with levels of confidence in statistical accuracy according to somebody's way of confidently computing accurately leveled statistics. We heard about penile lengths, vaginas, orgasms, coital positions, animal contacts, and homosexual experiences--all described numerically in that same deadly monotone. I left Dr. Kinsey's class at the end of the first few lectures with the vague feeling that he must be trying to tell us that sex was (or if not, should be) performed under a wet blanket--it could be a colorful one, but it must be wet.

When the course ended, I could not remember a single statistic the man had so laboriously gathered for us; and I felt as if I had learned but two Hard Facts (the things he kept telling us we were there to learn). The first one was that if one heard a forbidden word, like penis or orgasm, spoken frequently and matter-of-factly it soon lost absolutely all of its shock value; the second Hard Fact I learned was that there sure was an awful lot of sex going on . . .

--Mary Jane Sherfey,
The Nature and Evolution of Female
Sexuality

LITERATURE REVIEW

Initial Comment

Although the focus of the following piece of work is the response elicited in college-aged men and women as a result of their viewing an erotic film, the writer felt it both important and helpful to place the focal topic in a broader historical and research context. In order to accomplish this, the writer elected to spend a bit of time reviewing the Kinsey research, particularly the survey results and related hypotheses found in Kinsey's chapter, "Psychologic Factors in [the] Sexual Response," a chapter included in the larger work, Sexual Behavior in the Human Female (1953). This chapter deals not only with men's and women's reactions to erotic films, but also with an entire range of situations to which men and women seemed to react quite differently. Kinsey appears to ascribe the existence of these differences to men's and women's differing capacities for the conditioning of their sexual responses; the differing capacities lay the basis for the resulting substantial differences Kinsey found in men's and women's responses to such "psychologic" stimuli.

The discussion of Kinsey's work will then be followed by a review of some general variables that seem to be related to human beings' sexual arousal; a compilation of the current findings now available concerning men's and women's reactions to filmed erotic stimuli, per se, and the briefest of comments concerning some of the difficulties, both of

definition and experimental technique, related to research attempts to study and explore the nature of human sexuality.

* * *

It was Alfred Kinsey and his associates, who, during the 1950s, underscored what they felt to be striking differences between male and female reactions to the "psychologic factor in the sexual response." It was Kinsey's contention that apart from a few inherent capacities-- ". . . no one has to learn to become tumescent, to build up the neuromuscular tensions which lead to the rhythmic thrusts of coitus"--most other aspects of human sexual behavior appear to be the product of learning. Kinsey also asserted that males are more often conditioned by their sexual experiences and by a greater variety of associated factors than are females:

While there is great individual variation in this respect, among both the males and females, there is considerable evidence that the sexual responses and behavior of the average male, are, on the whole, more determined by the male's previous experience, by his association with objects connected with his previous sexual experience, by his vicarious sharing of another individual's experience, and by his sympathetic reaction to the sexual responses of another individual. The average female is often less affected by such psychologic factors. It is highly significant to find that there are evidences of such differences between males and females of the infrahuman mammalian species, as well as between human females and males (Kinsey, pp. 649-650).

A greater variability among responses seemed to be the hallmark of Kinsey's female data: "In our sample, the range in variation in responses to psychologic stimuli, is, . . . much greater among females than it is among males. While we may emphasize the differences which exist between the average female and the average male, it should be constantly borne in mind that there are many individuals, and particularly many females,

who widely depart from these averages." Individual variability notwithstanding, the evidence Kinsey marshalled in support of his major contention was varied and usually clear-cut. Whether it was the observation of the opposite sex, either nude or clothed; the viewing of portrayals of nude figures--photographs, drawings, and paintings--or of actual genitalia, of the opposite sex or one's own; being a witness to sexual action; engaging in fantasies concerning the opposite sex, whether while in reverie or while masturbating; experiencing erotic nocturnal dreams; or composing graffiti for bathroom walls--males far exceeded females in reporting that they had been sexually aroused by such stimuli.

There were, however, a few exceptions to this data trend. In regard to "watching commercial moving pictures" of "more or less erotic situations," women reported somewhat more often than men that they found such filmed portrayals erotically stimulating (48 percent of the 5411 women surveyed, as opposed to 36 percent of the 3731 men). Kinsey explained this discrepancy on the basis of the romantic content of such films:

Some of the stimulation provided by the moving pictures may depend upon the romantic content or the action it portrays, and some of it may depend upon the portrayal of some particular person. In a large number of instances, the erotic stimulation may depend upon the atmosphere created by the picture as a whole . . . Sometimes, the erotic arousal may depend upon the presence of the companion with whom one is attending the performance (Kinsey, p. 660).

Somewhat puzzling to Kinsey was the women's tendency to be stimulated by literary materials; again, he cited the effects generated by the emotional context of such works:

Erotic responses while reading novels, essays, poetry, or other literary materials may depend upon the general emotional context of the work, upon specifically romantic material in it (particularly if it is vernacular vocabulary), or upon the

specific descriptions of sexual activity. The reader may, thus, vicariously, share the experience of the characters portrayed in the book, and reactions to such literary material are some measures of the reader's capacity to be aroused psychologically. . . (Kinsey, p. 669).

In a sample composed of 5699 females and 3952 males, Kinsey found that although both men and women responded erotically in the same numbers while reading literary materials, ". . . twice as many of the females had responded to literary materials as had responded to the observation of the portrayal of sexual action and five times as many as had responded to photographs or other portrayals of nude figures." Possible psychoanalytic interpretations aside (i.e., suggestions that there are differences in the levels of "sex drive" or "libido" or innate moral capacities of the two sexes), Kinsey concedes that, ". . . at this point, we do not clearly understand why this should be so; we hesitate to offer any explanation of the present data."

[Note: This particular finding, in regard to women's responses to literary materials, was later substantiated by Jakobovits in a 1965 study involving twenty men and twenty women, half of whom read ten "hard core" (HC) stories, while the other half of the sample read ten "erotic realism" (ER) stories. The characteristics of "hard core" and "erotic realism" were defined according to criteria established by Kranhausen and Kraunhausen (1959). By means of rating scales, each of the subjects judged his or her batch of stories with respect to sexual arousal. Although both the men and women agreed in their judgments concerning the arousal properties of the ER stories, the women found the HC stories significantly more arousing than did the men, who, as a group, were more aroused by the ER stories. Equally, Kutschinsky (1970),

in a study involving seventy-two (forty-three men and twenty-nine women) young, mostly married Danish students, who were exposed to a variety of contemporary pornographic material--films, magazines, and texts--reported that the women found the texts more exciting than did the men (28 percent of the women, as opposed to 14 percent of the men). In contrast, Schmidt, Sigusch, and Schäfer (1973), in a study involving 120 male and 120 female German university students, found that when the "degree of affection" expressed in the stories read by their subjects was controlled for, the differences in reported arousal between the male and female subjects were not significant. "Why this is so" still remains unanswered, but the Kinsey, Jakobovits, and Kutschinsky findings, at least, do speak to the contention that True Confession magazines and the like have long served as an unregulated form of "women's pornography:"

Whether in a movie or any other form of erotica, the romantic story leading up to . . . intercourse is important in a woman's erotic fantasy. There is evidence of this in the circulation, among adolescent girls and women, of magazines and stories of true romance, true confession type. These narratives are, indeed, women's pornography (Stoller, 1970). They are so different from the carnal pictures and narrative that constitute man's pornography that the law . . . does not even recognize them as such (John Money and Anke Ehrhardt, 1972).]

* * *

In total, Kinsey discusses "thirty-three bases of data which agree in showing that the male is conditioned by his sexual experience more frequently than the female." In regard to only three of the items (viewing motion pictures, reading romantic literature, and being bitten), did as many females as males or more females than males report

responding with sexual arousal. Fewer females than males were affected in regard to twenty-nine of the thirty-three items. There were instances in which the percentage of females who reported responding to a named stimulus was only slightly below that percentage of affected males, but in regard to twelve of these items, the number of females who reported being erotically aroused was less than half of the number of males who reported arousal. Kinsey emphasized, however, the pervasiveness and impact of individual differences, and, again, noted the variability of the women's responses:

. . . there might be one third of the females in the population who are as frequently affected by psychologic stimuli as the average of the males. At the extreme of variation, however, there were two to three percent of the females who were psychologically stimulated by a greater variety of factors and more intensely stimulated than any of the males in the sample. Their response had been more immediate; they had responded more frequently, and they had responded to the point of orgasm with frequencies that far exceeded those known for any male. A few females were being regularly stimulated to the point of orgasm, and this almost never happens among the males (Kinsey, p. 668).

Despite the two-to-three percent minority, Kinsey contended that by and large, women are not aroused by, and do not respond to "psychologic" stimuli. He proposes that men's and women's differential responses are the source of marital arguments, sexual complaints (i.e., "All he's interested in is intercourse; he doesn't do anything to me."), and disputes concerning the logistics of love-making (i.e., "Should the lights be kept on or off? What is a man to do about women's tendency to be diverted easily from the process at hand: ". . . she doesn't put her mind to it. . ."?). Kinsey also holds male condition-ability responsible for the greater incidence of male exhibitionism, fetishism, transvestism, greater promiscuity, and a lesser ability to

tolerate discontinuity of his sexual outlet. In the process, Kinsey succeeds in constructing a psychological basis for the "double standard" of sexual behavior:

The capacity of males to respond to any type of female is actually a demonstration of the fact that psychologic conditioning, rather than the physical or psychologic stimuli that are immediately present, is a chief source of his erotic responses. As far as his psychological responses are concerned, the male, in many instances, may not be having coitus with his immediate sexual partner, but with any of the other girls with whom he has ever had coitus, and with the entire genus Female with whom he would like to have coitus (Kinsey, p. 684).

Equally, Kinsey reasons that because of the decidedly lower frequency of female responsiveness to a variety of psychological stimuli, there exists no traditional female pornography market, as such a market would make little psychological or commercial sense. (The writer, however, believes that Kinsey has turned this argument upside-down. There is no standard commercial pornography market for women, other than women's magazines, because women have been "conditioned"--they have learned--that they are not supposed to be aroused by such material that falls within the male domain. More will be said of this issue later in this paper.)

In speculating about possible causes which might produce the difference in responsiveness among men and women to psychologic stimuli, Kinsey states:

Many of the differences between the sexual responses of males and females have been recognized for centuries. It has been suggested that they depend upon differences in the abundance and distribution of the sensory structures in the male and female body. It has been suggested that they depend upon the differences in the roles which the males and females take in coitus. It has been suggested that they are in some way associated with the different roles males and females play in connection with reproduction. It has also been suggested that there are differences in the level of "libido" or "sex drive" or innate moral capacities of the two sexes. It has been suggested that the differences depend upon the basic differences in the physiology of orgasm in the male and female.

But we have already observed that the anatomy and physiology of the sexual response and orgasm do not show differences between the sexes that might account for the differences in their sexual responses. Females appear to be as capable as males of being aroused by tactile stimuli . . . they appear as capable as males of responding to the point of orgasm. Their responses are not slower than that of the average male, if there is sufficiently continuous tactile stimulation. We find no reason for believing that the psychologic nature of orgasm in the female or the physical or physiological or psychologic satisfactions derived from orgasm by the average female are different from the average male. But in their capacities to respond to psychosexual stimuli, the average female and the average male do differ (Kinsey, p. 688).

What Kinsey does not suggest, at least in the kind of language that enjoys popularity today, is that the differential responses to psychosexual stimulation, and, perhaps, the "capacity" itself, are dependent, at least in part, upon differential social conditioning. Or, more accurately, Kinsey, at points in his discussion, toys with the notion of the potential significance of differential social conditioning, but quickly dismisses the impact of such conditioning, or "cultural influences," as a viable explanation for the male/female differences; he prefers, instead, to tie the seemingly very different capacities for psychosexual arousal to inherent brain and hormonal differences (e.g., "Various interpretations may be offered of these differences between males and females. Many persons would . . . be inclined to look for cultural influences which might be responsible. But some sort of basic biologic factor must be involved, for at least some of the infrahuman species of mammals show the same differences . . . There are probably more basic neurologic explanations of these differences between females and males." p. 669).

It has become increasingly clear, through the results of recent experimentation, notably by researchers at Hamburg University in Germany,

and by studies commissioned and funded by the President's Commission on Obscenity and Pornography, that Kinsey's results are dated. Byrne and Lamberth (1970) suggest that the long accepted finding with respect to sex differences in response to erotic material has either simply disappeared, or that Kinsey's survey method answers different questions than do experimental methods. Mann (1970) draws attention to a number of pit-falls, commonly recited by researchers, which are believed to be "built in" to the survey research approach: the unreliability of sexual history gathered via interviews; the tendency for subjects to remember selectively, to willfully or inadvertantly distort answers, often in the direction of social acceptability; subject willingness to fill in memory gaps with fabrications in order to oblige the examiner; and the simple inability to remember past responses or events with a significant degree of precision. (In reflecting upon this list of cautions, many of which are simply assumptions, unsupported by actual evidence, the writer cannot help but be impressed by the "adversary" quality of the experimenter-subject relationship, as it is portrayed by various investigators.)

Equally important was/is women's relatively limited or non-existent exposure to erotic materials. As women are relatively less likely to purchase hard-core pornographic books, attend stag movies, etc. because of social pressures and custom, the "lessons" of which then become internalized, when asked whether they are frequently stimulated by such material, women indicate that they are not. Byrne and Lamberth, therefore, contend that the supposed sex differences in response to erotica are an artifact of cultural pressures with respect to exposure

to such material. Schmidt, Sigusch, et al. (1970) emphasize the traditional sexual orientation ascribed to women, the resultant orientation of erotic materials toward men, and women's seemingly lower arousal potential:

It could be argued that Western civilization women have few possibilities of obtaining experiences with psychosexual stimuli: Due to the traditional picture of women as "sexually passive," the supply of sexual stimuli is mainly oriented to men . . . Kinsey's data were collected twenty to thirty years ago. We know today that the double standard and corresponding differences in sexual behavior (e.g., premarital sex) were much more marked in the USA than they are today in the countries of Northwestern Europe. It is therefore not surprising that the reaction of the women we examined was different from that of the American women Kinsey interviewed. The degree of sex differences in psychosexual arousability is obviously a function of the grade of sexual emancipation of women in a social group or society. From this follows that a larger sex difference than that described by us would be seen if we dealt with women who are less sexually emancipated than those in our sample (Schmidt, et al. p. 10).

Further, Schmidt and Sigusch emphasize the distinction between culturally promulgated stereotypes and beliefs and the results of their recent experimental work: "Indeed, women are believed to be less aroused than men through pictures with sexual themes; factually, though (as measured on the incidence of physiological reactions in the genital area and on activation of sexual behavior) women are not less sexually aroused than men."

* * *

Since Kinsey's work, a good deal of experimentation has been directed toward the area of sexual arousal, and a variety of experimental techniques have been employed. Subjects have been asked their preferences concerning pairs of stimuli. Experimenters have counted the

minutes subjects have spent viewing slides, sorting pictures, and responding to double entendre words. The content of subjects' responses to TAT pictures, as well as readings of respiration rates, skin potentials and resistances, cardiovascular responses, penile erections, pupillary changes, and hormone levels have been subjected to analysis. Before addressing the issue of sex differences in response to psychosexual stimuli, particularly in regard to filmed portrayals of sexual activity, the writer would like to summarize some of the related, recent research findings. For the sake of convenience and organizational clarity, such findings will be classified as pertaining to either individual, setting, or stimuli-related variables.

Individual variables: Few standardized personality measures (i.e., personality inventory items) that are not directly related to sex have been found to be predictive of sexual arousal. Levitt and Brady (1965), in working with the Edwards Personal Preference Inventory, found only one measure to be correlated with sexual arousal. Sexual arousal is negatively correlated with the trait, "endurance" ("ability to stick to a job until done, despite lack of progress"); the researchers, thus, reason that the hard-working, persistent individual is less likely to be distracted by fantasy stimulation, or perhaps, evidence an unwillingness to report that he is. Mann (1970) reports that females scoring either high or low on the Mf scale of the MMPI show high GSR reactivity to pictures of male and female nudes; Mann notes that this finding suggests that females in these categories freely express sexual anxiety, but may also express some degree of positive affect. Byrne and Sheffield (1965), who have developed a measure by which they

distinguish their subjects as either "sensitizers" or "repressors," report that both sensitizers and repressors evidence comparable levels of sexual arousal to various stimuli, but that the sensitizers, who express a greater degree of anxiety, nonetheless report feeling more entertained and less bored than do the repressors, who express a lower degree of anxiety, but who manifest more anger and disgust. Schmidt, Sigusch, and Meyerberg (1969) found that their "conservative" (as measured by frequency of church attendance, political and premarital sexual attitude scales) male subjects judged a variety of sexually oriented slides to be less favorable and less arousing than did the more "progressive," or liberally minded subjects. These researchers emphasize the conflict, generated in their conservative subjects, by the feelings of arousal, on the one hand, and feelings of fear, guilt and sexual aversion on the other. (It may be that Byrne and Sheffield, although they employ different terminology, are, in fact, actually describing differences between subjects with a conservative sexual orientation and those subjects who adhere to a more liberal sexual orientation.)

The level of reported sexual arousal is influenced by the level of sexual experience and the degree of sexual guilt the subject experiences. Levitt and Brady (1965), Mann (1970), and Mosher (1970) all report that subjects who have had more sexual experience exhibit less "defensiveness" in recording sexual arousal and less negative affect as a result of being exposed to arousing stimuli than less experienced subjects. Experience, however, is not a measure of the individual's capacity to become aroused. Mosher measured college students' post-viewing feelings by means of an adjective checklist upon which the subjects could record the degree to which their feelings had changed as the result of viewing an erotic film

and found that his more experienced female subjects were more "eager for contact" and less "shocked" and "irritated" after viewing the films, while the less experienced subjects felt themselves to be less "peaceful," and more "shocked," "irritated," "benumbed," and "ashamed." (It might be noted that Mosher's less experienced subjects were also more conservative in their sexual and political attitudes.)

Compounding the effects of the extent of one's sexual experience is the relative absence or presence of sexual guilt. Mosher developed the Mosher Forced Choice Inventory, an instrument that measures sex guilt, hostility guilt and morality-conscience (Mosher, 1961, 1968, 1966, 1970). He concludes that sexual guilt is positively correlated with repression of sexuality and with conservatively oriented premarital sexual attitudes among college-aged men and women, while being negatively correlated with sex drive, level of sexual interest, and the degree of premarital sexual experience. Male subjects who manifest a high degree of sexual guilt are found to be more conservative and less sexually experienced, their sexual partnerships having been with an intimate, rather than casual partner (Mosher, 1970). After viewing pornographic films, such men report that they are more "jumpy" than their less guilty male counterparts. Equally, women who display higher levels of sexual guilt are found to be more religious, less politically liberal, and less likely to have engaged in oral-genital sex and masturbation. Their coital activity usually begins later than that of women who approach sexual activity with less guilt; they are inclined to make less frequent use of contraceptives and express regret at having done so. Such women, after exposure to pornographic films, report being more

"irritated," "disgusted," "benumbed," "embarrassed," and less "serene;" they also report increases in shame, depression, and guilt reactions. A woman who is both inexperienced and guilt-prone rates such films as being more pornographic and disgusting than the less guilty, more experienced women. Despite such negative after-effects, Mosher, whose less experienced, sexually guilty, and female subjects all tended to respond (via the checklist) in the same direction, contends that in an experimental situation, at least, sexual guilt does not preclude either arousal or the experiencing of physiological sensations associated with arousal when a subject is exposed to sexually stimulating material. The relative degree of guilt is related to negative affect following exposure; such guilt may also tend to inhibit an individual's voluntary exposure to pornography.

Finally, Mosher (1970) draws attention to another variable, one which he labels "sex callousness toward women." Sexually calloused men are found to have more liberal attitudes and to regard sex and love as separate entities; the degree of sex callousness is positively correlated with total sexual aggression. As a result of viewing pornographic films, such men demonstrate stronger physiological arousal, as indicated by reports of penile erections, and an increase in an affective state indicative of general activation and "uncontrolled approach tendencies" (i.e., "eager for contact," "driven," "impulsive," "wild," and "more aggressive.") Mosher notes, however, that such men, like their less calloused counterparts, evidence no appreciable increase in heterosexual behavior in the twenty-four hours following exposure and that the calloused attitudes decreased immediately after the viewing and

continued to decrease slightly twenty-four hours to two weeks later.

He suggests that this data might be construed as tentative evidence that pornographic films, rather than serving as a "trigger" for sexually exploitative behavior, may, instead, serve as a release or outlet:

"Seeing a stag film in the presence of male peers bolsters masculine esteem; it serves the same need as endorsing sex calloused attitudes."

It is also Mosher's contention that a period of more or less "institutionalized," or peer-supported callousness is embodied in the process of consolidating masculinity (although this may be true for only certain groups of men, fraternities, for example).

Setting variables: The data concerning the effectiveness of particular setting variables in the inducement of sexual arousal is sparse and unsystemized, perhaps partly owing to the fact that different atmospheres turn different people on. Mussen and Scodel (1955) and Martin (1964) both report that a restrictive, potentially punitive atmosphere is less conducive to eliciting sexual arousal than a more relaxed, permissive one. Subjects, then, tend to report higher levels of sexual arousal when the experimenter presents himself as a relaxed graduate student rather than a stern professor (It is probable that a stern graduate student, as opposed to a relaxed professor would generate similar results!). Mosher and Greenberg (1969) report that the experimenter's presence, relaxed or not, heightened expressed anxiety in seventy-two college females whose task it was to read a passage from Calder Willingham's book, Eternal Fire. Anxiety increased regardless of whether the subject scored high or low on a measure of sexual guilt. (It was the experimenters' contention that "guilt" is the result of a breach of internal standards, while "anxiety" is induced by an external

source--anxiety, perhaps over one's ability to hold on to his or her internal standards, despite external temptation?) Alcohol, as Clark (1952) reports, functions to lower guilt inhibitions and increase the number of sexual responses to TAT cards (subjects were first exposed to life-sized nude photographs).

Audience effects and their impact upon subjects' reported sexual arousal have also been studied. Amoroso, Brown, and Pruesse (1970) hypothesized that increased anxiety would decrease "performance" (defined as reported arousal or actions indicative of arousal or interest), so they introduced four observers as "graduate students interested in this experiment" and discovered that their subjects spent less time looking at the stimuli. As Masters and Johnson (1966) have demonstrated, the fact that one is hooked up or into a variety of measuring devices need not impair sexual arousal and performance (It might be noted, however, that Masters' and Johnson's subjects were a rather special sample). On a less dramatic scale, Amoroso, et al. report that their subjects, when connected with genuine-looking, but actually non-functioning physiological devices, saw the slides presented them as being more pornographic and stimulating. The subjects, Amoroso, et al., contend, felt that they would do well to be truthful, as they were attached to a device which could "accurately" monitor their responses (An alternative hypothesis for the Amoroso, et al. results might be that embarrassment is physiologically similar to arousal and may either increase arousal or be confused with it, by both the subjects who report what they are feeling and the experimenters who interpret the subjects' reports).

Nature of the stimulus: The depiction of nude individuals engaged in a particular activity is more arousing than clad individuals engaged in the same activity. Photographs are more stimulating than are line drawings. Films produce more arousal than photographs or slides. Levitt and Hinesley (1967) caution that the greater permissiveness of today's society may, in part, be responsible for the comparative arousability, or lack of it, induced by a particular stimulus; they note that the typical Playboy photograph and other such "girlie" pin-ups, often used in earlier experimental attempts, have ceased to be arousing, and that more stimulating, realistic, and explicit material may be needed to produce scaleable results. Yet, it is the writer's speculation that a balance must be struck, particularly, it seems, in the case of women, between stimuli which are arousing and stimuli which are so offensive that they actually serve to inhibit arousal, regardless of the degree of their realism. Mann (1970), in summarizing the effects of various stimulus characteristics, notes that responses are affected by the degree of realism, the degree of nudity, aesthetic value (stimuli of higher aesthetic value elicit stronger responses than comparable stimuli of lesser aesthetic value), subtlety, and congruence of the stimuli with individual preference for specific components of the portrayed activity. In line with the notion of stimuli congruence, Mann (1970), in a study of married couples, notes that the filmed stimuli which proved to be the most arousing were those which portrayed more conventional, socially acceptable sexual activities. Thus, the filmed portrayal of intercourse rated highly, while portrayals of sado-masochism and male homosexuality did not.

At this point, it is well to note the importance of one's fantasies as a stimulus-source of arousal. Although a subject's fantasies are imminently more difficult to control experimentally than are slides, photographs, drawings, or movies, several researchers (Mann, 1970; Byrne and Lamberth, 1970) emphasize the impact of fantasy as a powerful stimulus. Of their three experimental conditions--literary, photographic, and imaginary--Byrne and Lamberth found the imaginary or fantasy condition to be the most arousing to their male and female subjects. Equally, Mann contends that one's arousal capacity may be unrelated to one's actually having experienced a particular activity, and that it is perhaps the individual's fantasies concerning the activity which are most important in determining his or her degree of responsiveness to particular stimulus situations. The therapeutic value of utilizing an individual's sexual fantasies is made obvious by the use of such techniques not only in the attempted correction of "deviant" sexual behaviors, but also in aiding individuals to overcome chronic impotence, "frigidity," and other more "normal" sexual dysfunctions (see Helen Singer Kaplan, The New Sex Therapy, 1974). For, as Money and Ehrhardt (1972) emphasize:

The story of the regions and circuits of dimorphic sexual imagery in brain has not yet been uncovered. It is important that it eventually be uncovered, for in the human being, imagery is related not only to the more rare bizarreries of sexual arousal and behavior, but also to the very common problems of sexual apathy, impotence, and frigidity. Men and women so affected are unable to respond to sexual contact alone, and the images that might perhaps once have induced some arousal power. Such people may be too inhibited to pursue the other, elusive image that, although socially condemned, has always secretly been able to arouse them. They become erotically apathetic instead. Others may embark on an obsessive round of sexual encounters, seeking always to find the elusive image with maximal power to turn them on (p. 252).

Sex Differences in Responses to Psychosexual Stimuli: An Update

By way of introduction to the post-Kinsey findings concerning the differences between male and female responses to psychosexual stimulation, it would be appropriate to review the findings of the German researchers, Schmidt, Sigusch, and their co-workers, as theirs is considered to be the "pioneering" work in this area. In a 1970 study, in which fifty male and fifty female, mostly single, young (19-27 years), German students participated, the researchers found that both men and women responded (the overall mean difference between the groups was not significant) to a series of slides depicting activities ranging from the appearance of a girl in a one-piece bathing suit to a portrayal of a nude couple in coitus. Generally, the researchers report, men find pictures with sexual themes more sexually stimulating than do women, but subject ratings of both arousal and favorability in respect to such themes vary primarily in regard to the specific content of the activity portrayed. As was the case in the Kinsey study, the women in this sample judged those slides which involved high levels of affection (i.e., kissing; embracing with affection) more stimulating than did the men, but again, the difference was not statistically significant. Additionally, when one considers the women's ranking of the slides in regard to their arousal value, it becomes apparent that the slides depicting sexual activity are judged as being more arousing than the high affection scenes.

The greatest difference between the men and women was in their response to the solitary scenes depicting nudes and semi-nudes of the opposite sex; such themes were judged by the women as being less sexually arousing and less favorable than by the men. Of this finding, Schmidt

and Sigusch comment:

The fact that sex-specific differences are most pronounced in the solitary scenes, is, at this time, difficult to interpret. As a possible explanation, however, the following should be taken into consideration: In our society, pictures showing female nudes and semi-nudes are constantly offered to the public, while pictures of male nudes and semi-nudes are comparatively rare. Men, therefore, are, so to speak, "conditioned" to these stimuli--that is, they learn much more than women to react to such stimuli, and it is also expected of them. For women, the confrontation with male nudes and semi-nudes constitutes an unusual and thus more severely tabooed situation. This makes the stronger emotional response understandable (p. 20).

[Somewhat related to the issue of men's and women's differential responses to the depiction of solitary scenes is Byrne and Lamberth's (1970) finding in regard to male's and female's responses to slides depicting the solitary act of masturbation. They note that the response to portrayals of masturbation, by the same or opposite sex, appears to be an especially significant indicator of an individual's emotional response to sexual matters: "One might speculate that what is involved is a general acceptance of human sexuality as a source of pleasure or its rejection as a source of guilt."]

In summary, Schmidt and Sigusch report that the greatest difference between men and women was found in regard to their ratings of solitary scenes, which were judged less arousing and less favorably by the women in the sample. Pictures involving high levels of romantic content were judged more favorably by the women, although both the women and men considered them to be arousing. Slides portraying petting and coital activities fell somewhere in the middle: women judged them as being slightly, but not significantly, less arousing and less favorable than did the men. The researchers draw attention, however, to the considerable individual overlap among responses: one fifth of the women

considered the solitary scenes to be more arousing than the average (median) male; one third of the women found the petting and coitus scenes more arousing than the average male, and one half of the women judged the scenes showing affection to be more arousing than the average male subject. As thirty-five of the fifty women and forty of the fifty men noted and reported some sort of physiological reaction in the genital area, Schmidt and Sigusch conclude, ". . . practically speaking, women do not observe physiological genital reactions less often than men."

In a second study, Schmidt and Sigusch's subjects were 128 women and 128 men, again, largely single, young, sexually and politically liberal German university students. Each subject viewed either a black/white film, a color film, a series of black/white slides, or a series of color slides (taken from the films). Themes depicted ranged from male and female masturbation to orgasm to petting and coitus portrayals. (The components of the films/slides are described by the researchers as follows: "Petting I"--both partners undress to their underwear and pet; manual genital contact without reaching orgasm; "Petting II"--both partners undress completely and pet, manual genital contact, cunnilingus, and fellatio reaching orgasm; "Coitus I"--foreplay with manual genital contact, face-to-face coitus; "Coitus II"--foreplay with manual genital contact, cunnilingus and fellatio, coitus in different positions.)

Both men and women, as recorded on a nine-point scale of sexual arousal, were moderately aroused (female range: 4.5-5.0; male range: 4.4-5.6). There was no significant difference between the men's and women's reported arousal for the themes "Petting I" and "Coitus I," but the more intensive and unusual acts depicted in "Petting II" and

"Coitus II" were judged by the men as much more stimulating (significant at the .05 level). In regard to favorableness ratings, the majority of the women's responses fell in the category "neutral," whereas male ratings ranged between "neutral" and "somewhat favorable." For the themes Petting I, Petting II, and Coitus I, no significant sex differences were evident, although there was a tendency for the men to judge Petting II and Coitus I more favorably, while the women tended to rate Petting I more favorably. For the theme Coitus II, however, a significant sex difference did emerge, with the men judging this theme significantly more favorably than did the women. When the ratings of the four themes were combined, the men's ratings indicated that they had judged the stimuli as being significantly more favorable. Altogether, the men tended to describe the slides and movies as being more sexually arousing and more favorable than the women, but the difference, on the whole, was not pronounced; it represented an average tendency with large individual variability. As Schmidt and Sigusch emphasize, 42 percent of the women regarded the slides and films as being more arousing than the average man, and 41 percent of the women regarded the stimuli more favorably than did the average male subject.

The basic trends established by the German studies: that men tend to view portrayals of sexual activities slightly more arousing than do women (in no way were Kinsey's highly disparate responses replicated, except in regard to reactions to depictions of solitary nudes and semi-nudes); that a majority of men and women experience and report physiological reactions upon the viewing of psychosexual stimuli; that men and women respond differentially to the differences in content of the stimuli, the women preferring the more subtle, "romantic" material, the

men, the more "obscene" or explicit heterosexual stimuli--have been confirmed by further investigations (see Mosher, 1970; Byrne and Lamberth, 1970; Mann's review of the literature, 1970; Cairns, Paul, and Wishner, 1970). Mosher, who used copies of Schmidt and Sigusch's Petting and Coitus films, also found that the women responded to the Coitus I film with greater reported arousal, while the men reported that they found the Petting II film to be more arousing. One of the few exceptions to this trend is Kutschinsky's 1970 study of seventy-two, mostly married Danish students. More in keeping with the Kinsey results, Kutschinsky noted that 40 percent of the men reported being sexually aroused by an exposure to pornographic films, magazines, and texts, while only 7-10 percent of the women reported arousal. The difference in reported arousal reached the .001 level of significance. This experiment, however, differed in design from the studies previously alluded to: subjects were asked, retrospectively, rather than during or immediately after exposure, to recall if they had been sexually aroused. Kutschinsky also employed such terms as "sexual arousal," "urge for sexual activity," and "lust" as separate reaction categories, and reported that his results indicated that, ". . . apparently, it is possible to have an urge for sexual activity without being sexually aroused." The writer found both the distinction among rating categories and the previously quoted statement, in regard to the results of the study, to be confusing.

A perhaps more important exception to the trend of no significant differences between women's and men's reported arousal levels are the findings of Mann, Sidman, and Starr, whose sample of married women (married for at least ten years) ranged in age from thirty to sixty-four

years (median, 42.50). Mann et al. report that the difference in reported arousal was substantially greater ". . . than those reported by Schmidt and Sigusch . . . although the females in the present study were aroused to a greater degree than would have been common at the time of the Kinsey study." Evidently, the long-term exposure these women had experienced to a less permissive system of social conditioning had influenced their responses. Mann et al. propose: "It would be interesting to ascertain whether additional exposures to visual erotica, sufficiently spaced to minimize satiation effects, would result in increased arousal levels for the present group of female subjects, or whether social learning influences would remain dominant."

A factor perhaps involved in women's reactions to filmed psycho-sexual stimuli, particularly in regard to their ratings of sexual arousal, is the nature, or the orientation of the slides/films themselves. As noted earlier, Cairns et al., among others, suggest that females are more readily aroused by more subtly depicted eroticism than are males, who seem to respond more strongly to explicit portrayals of sexual activity. Mann et al. (1970), used seven films for their married couples study (female masturbation, an intercourse film, female homosexuality, group sex, male homosexuality, sadomasochism, and the film Unfolding), five of which were commercial products made expressly for male consumption, while one film (the intercourse film) was a home movie originally made by a couple for their own use and later released for public viewing. The film Unfolding was produced by a woman with a female audience in mind. Two of the commercial stag films, male homosexuality and sado-masochism, were so aversive to both male and female

subjects that the films failed to produce sexual arousal that differed significantly among the men and women. The men, however, found the other three commercial films (female masturbation, female homosexuality, and group sex) significantly more arousing than did the women. On the other hand, neither the intercourse film nor Unfolding elicited significantly different arousal reports from men and women. Thus, although the women did rate the arousal properties of each of the seven films somewhat lower than those given by the men, the differences attained significance for only three of the films, all of which were expressly produced to cater to male tastes. Mann et al., suggest that there remains the possibility that in his sample of married couples, the ". . . females may have approached males in arousal potential more closely than the results indicate, but the specific films were predominately designed to arouse males. Had more films similar to Unfolding or the 'intercourse' film been used in place of the male oriented stag films, females' mean ratings of arousal might have more closely approximated those for the males."

The most consistent and glaring difference between men and women in their reaction to psychosexual stimuli appears not to be either the physiological or psychological capacity to become aroused, but the after-effects: the emotional, or affective reactions experienced as the result of exposure to such stimuli. In this regard, women consistently react with more negative affect than do men, despite the fact that their ratings of sexual arousal often closely parallel those of the men. Schmidt and Sigusch, who used a semantic differential to measure affective states before and after viewing films and slides, report that their male subjects were significantly more "bored," "aggressive,"

"gregarious," "shocked," "repelled," "excited," "irritated," "cheered up," "emotional," "innerly agitated," and "impulsive" after having viewed the slides/films. The stimuli, therefore, had produced what the researchers term, "emotional activation and labilizing effects" upon their male subjects. The women, too, reported feeling more bored, aggressive, excited, shocked, repelled, cheered up, driven, emotional, jumpy, disgusted, irritated, angry, and dizzy after having viewed the slides/films than they had before the viewing. Out of a possible twenty-four characteristics, women showed significant (at the .05 level) changes on sixteen of them; the men changed significantly on eleven. Women, significantly more often than men, reported being shocked, irritated, and disgusted. Mann et al., in a study involving sixty-eight married couples, also acknowledge that their female subjects reported a greater number of aversive features in response to the film, while the men reported a greater number of arousal features. While the men's reactions ranged from "no reaction" to "slightly aroused," the women's ranged from "no reaction" to "mixed arousal and repulsion." Equally, Kutschinsky noted among his male subjects an "appreciable amount of sheer pleasure or zest during the session, in striking contrast to the women." Although strongly negative reactions (i.e., "virtuous indignation," "disgust," "decency outraged") were rarely reported by Kutschinsky's subjects, more women expressed such reactions than did men. (It should be noted that the subjects' most common reactions to the pornographic materials were "boring" and "inartistic.") Finally, Mosher, whose sample consisted of 194 men and 184 women, all single college

freshmen and sophomores--a younger, less experienced, less liberal sample than the German students--found that his male subjects, who reported changes in 25 percent of the thirty possible adjective descriptions, were characterized by such adjectives as "excited," "eager for contact," "interested," and "pepped up." (As stated previously, less experienced, guilty males tended to express emotional responses more similar to those of the typical female.) The women were characterized by more ambivalent, negatively tinged responses: although they, too, reported that they were more "excited," "emotional," "interested," and "attracted," they also reported increases in being "shocked," "irritated," and "repelled." Males, significantly more often than females, were "interested," "eager for contact," "attracted," "excited," "pepped up," "impulsive," "aggressive," and "driven," while females, to a significantly greater degree than males, were "repelled," "shocked," "irritated," "disgusted," "angered," "benumbed," "depressed," "ashamed," "embarrassed," and "jumpy."

In summarizing the affective sex differences, Mosher writes:

Men reported an increase in general activation, and in affects associated with approaching a sexual object and decreases in negative affect as a function of viewing films either of coital or oral-genital activity. If anything, more sexually experienced males were activated by oral-genital contact in the films. Females had less positive and more negative affect after viewing the oral-genital film than the coital film. They were activated particularly by the Coitus I film and reported mild increases in affect that may represent tendencies to approach sexual behavior, but they also reported increasing negative affect, particularly disgust in relation to the Petting II film (p. 301).

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Before leaving the issue of men's and women's differential responses to psychosexual stimuli, the writer thinks it worthwhile to take note of John Money and Anke Ehrhardt's (1972) speculations concerning this area. As Money and Ehrhardt note, the timing or frequency of coitus in human beings is not known to be phermonally regulated; nor is it regulated solely on the basis of some other, either masculine or feminine, vaginal or penile copulatory rhythm. There is, however, a "coital signalling system between the sexes, and it appears to be primarily visual and imagistic, when the couple are beyond arm's length, and haptic when they are closer." Either type of signal may be transmitted secondarily by means of language. Although Money and Ehrhardt agree that both men and women respond to the visual stimulus of a lover or potential partner in sex, they contend that a woman's arousal fantasy differs from that of a man. (They, again, emphasize the importance of sentiment, romance, and affection in women's fantasies.) They propose that recent investigators of human sexual arousal have, perhaps, concerned themselves with the wrong question:

There has been a great deal of misunderstanding of male and female differences concerning visual erotic imagery and arousal. A chief source of misunderstanding has been a confusion between the question of whether women do or do not get aroused by visual images and the question of how the imagery is programmed, allowing it to bring about erotic arousal (p. 251).

Seeking to clarify the confusion concerning the "comparison of projection versus objectification"--the basic male/female difference, as Money and Ehrhardt see it--". . . in the deployment of imagery," they contend that there is good empirical evidence to support this imagistic difference between the sexes, despite the absence of systematic experimental design. They invite the reader to test the following "hypothesis" on the basis

of "his or her experience:"

The man's arousal fantasy is not the exact reciprocal of the woman's, for it is much less focused on her wanting him, than on his wanting her, which is precisely the same focus of her fantasy. There is here a difference between the sexes which shows itself also in their differential response to pictorial erotica.

When he reacts to a sexy pin-up picture of a female, a man sees the figure as a sexual object. In imagery, he takes her out of the picture and has a sexual relationship. He may masturbate. It is not unheard of that he may make a genital aperture in the picture, and put his penis through it, and then masturbate.

The very same picture may be sexually appealing to a woman, but. . . She is not, in imagery, bringing the figure toward her as a sexual object, as does the man. She is projecting herself into the picture and identifying herself with the female to whom men respond. She herself becomes the sexual object.

What if the picture portrays a sexy male? The basic sex difference still manifests itself. Men are typically inattentive. If they are homosexual or bisexual, they may see the picture homosexually as a sex object, but they do not project themselves into the picture and identify with the man there represented. Women, unable to identify with the male figure, also do not respond to it as a sexual object. This explanation differs somewhat from Schmidt and Sigusch's reasoning that women do not respond to such stimuli because they have not been conditioned to do so. An exception may be an erotic pose of a male with a flaccid penis, especially if the picture also includes a female partner. Then a woman viewer may identify herself with the female figure and sees, in imagination, the male's non-erect penis as a challenge to her.

Depictions of sexual intercourse, especially in a movie, are erotically stimulating to women as well as to men, but the same difference of identification versus objectification appears once again. The woman viewer is likely to build her erotic excitement into a fantasy of enlarging her repertory of sexual skills, learning something from the female in the movie, with the intention of utilizing it on the next available occasion with her lover or sexual partner. The man viewer builds up a level of erotic excitement in imagining that the woman on the screen is having intercourse with him on the spot. It would not, in fact, be difficult for him to copulate with any live surrogate for the female in the movie (pp. 251-252).

As noted previously, there has been no experimental work, to date, which either confirms or disproves Money's and Ehrhardt's speculations.

* * * *

Problems Encountered in the Research of Sexual Arousal

Definition

Despite the proliferation of recent experimentation concerning the issue of human sexual arousal, however it is approached, several problems continue to plague potential investigators. The majority of these problems center around the difficulties involving definition and instrumentation, neither of which this paper seeks to resolve, but merely elucidate. (For an excellent discussion of what he calls the classification and definition, or taxonomy, of sexual behavior, see Frank Beach's article, "Retrospect and Prospect," in Sex and Behavior, 1965.) In regard to definitional and instrumentation obstacles, Jay Mann (1970) notes that students of human sexual behavior encounter,

. . . problems of definition and specification that are obviated for the animal researcher. First, human sexual motivation has usually been inferred from subjective reports rather than from reliable observations and measurement of discrete components of behavior, as in animal research. Secondly, investigators of human sexual behavior discuss sexuality in vague motivational terms such as "libido," rather than in response terms which can be operationalized, such as "intromission," "latency," and "frequency." Thus, animal researchers can define infrahuman sexual arousal in terms of specific overt responses and concomitant eliciting stimuli. Although covert responses occur, they are excluded from consideration because of their inaccessibility to study (p. 24).

In contrast, human sexual behavior cannot be defined

. . . only in terms of observable behavior or physiological changes, nor can eliciting stimuli be narrowly specified. Even in the absence of overt responses, the individual may experience subtle changes in affect which he

subjectively identifies as sexual arousal. Moreover, overt and covert sexual responses in a given individual may be associated with highly idiosyncratic stimuli . . . (p. 24).

(At the risk of bordering on heresy, the writer feels compelled to note that the animal researchers may be quite wrong. These investigators assume that their conclusions concerning the realities of infra-human sexual behavior and responses are correct, and their "subjects" cannot inform the experimenters of the possible incorrectness of their, perhaps, simplistic notions. The writer knows of no actual proof that animals are not subject to emotions and imagery--covert responses that underlie overt, measurable behavior.)

Despite such difficulties, Cairns, Wishner, and Paul make a stab at defining "arousal," a term which they view as referring to, "a perceptible increase in emotional tone, however slight, and 'sexual' refers to the content of the emotion. The content may be inferred from direct introspection, various kinds of verbal reports, and appropriate physiological measures . . ." Despite this definition, which still begs the question in regard to what "sexual" is, there still remains widespread theoretical disagreement concerning the boundaries of sexual behavior (again, see Beach, 1965). Whatever human sexual arousal may be, it is a complex phenomenon, composed of both physiological and psychological processes, comprising many response components and influenced by numerous individual, stimulus, and environmental variables. Responses may vary in strength and affective toning within different situational contexts; stimuli may vary in erotic value within different social contexts (Mann, 1970).

Instrumentation

Widespread use has been made of physiological indices in the measurement of sexual arousal. (For a comprehensive review of the literature, see Zuckerman, 1969; Mann, 1970.) Yet, such methods of measurement face several formidable obstacles. As noted by the President's report on pornography (1970), physiological measuring devices pose a potential threat of invasion of privacy, together with the danger that the device itself may interfere with the subject's response (this, despite the fact that the Amoroso et al. results may indicate the contrary, as well as the Masters and Johnson studies. It should be noted, however, that Masters' and Johnson's was a select, highly motivated, and practiced subject sample). There have been promising developments concerning the measurement of male arousal: most notably, a self-administered version of the penile plethysmograph and a technique for the measurement of urinary acid phosphatase, which is derived from the prostate gland. Both methods, however, have their own specific drawbacks. The problem of devising comparable measures for female subjects remains. Devices have been created to measure vaginal blood flow or temperature, but their use is not widespread; devices for the measurement of vaginal lubrication have yet to be refined. Females' urine analysis appears useless, as there are no accessory sexual glands in the female which secrete into the urinary tract. Julia Heiman (1974 paper presented before the American Psychological Association), however, was able to obtain satisfactory physiological readings from her female subjects by means of a vaginal photo-plethysmograph, a device developed by Sintchak and Geer (1974). This

device, like the mercury-filled penile strain gauge, which she employed for her male subjects, measures blood volume and pressure pulse in the genitals; it can be put on in privacy by the subject, who remains fully clothed.

Several of the most persistent problems involved in the interpretation of physiological data--the direction of the affect accompanying arousal and the seeming non-specificity of the physiological indicators of arousal (i.e., the physiological reactions involved in sexual arousal are also involved in other forms of emotional activation), as well as the facilitation and inhibition of responses--are summarized by Jay Mann:

To summarize the studies of physiological correlates of sexual arousal, it appears that both male and female subjects exhibit a variety of autonomic changes when presented with visual or symbolic erotic stimuli. Evidence indicates that the erotic stimuli may produce negative, positive, or ambivalent affective changes, but that these are difficult to differentiate on the basis of the physiological data alone. Moreover, autonomic responses appear to be susceptible to inhibition or facilitation by a number of environmental and subject variables, as well as by the nature of the stimulus. Such variables include the subject's sexual orientation, and the conditions under which the stimuli are presented (p. 36).

Further, as Mann, Sidman, and Starr note in the discussion of their married couples study,

. . . instrument measurement of such physiological responses is difficult to interpret since measures of central nervous system activation often fail to differentiate between sexual excitation and other forms of arousal, such as embarrassment, anxiety, guilt, or fear . . . even penile plethysmography is subject to distortion by random or voluntary movement or adaptation effects (p. 243).

Mann, among other investigators, concurs in the belief that the least equivocal indices of sexual arousal are direct measurements of secretory,

dermal, and vasocongestive changes in the genital and secondary sexual areas, as employed by Masters and Johnson (1966). Yet, such research is costly, complicated, and requires full laboratory facilities, as well as an especially motivated, and therefore, non-random sample of subjects.

Projective techniques have also been employed in the measurement of human sexual arousal, as in Barclay's studies (1965, 1969, 1971, 1972). The 1969 and 1972 studies also included the use of the measurement of APA secretions from the male subjects, in addition to the use of projectives. Projective techniques, however, provide little direct information concerning individual arousal levels. Researchers emphasize the ever-present difficulties involved in the use of projective tests, among them, low inter-rater reliability.

A majority of the current studies (Schmidt and Sigusch, 1969, 1970; Mosher, 1970; Mann, Sidman, and Starr, 1970; Kutschinsky, 1970) employ a self-report measure, including five, seven, or nine point scales for the recording of a subject's sexual arousal and his or her "favorability" ratings in regard to specific films; semantic differentials, adjective checklists, and subject rankings in order to assess affective changes and preferences for specific stimuli. Also frequently employed are checklists upon which the subject may record any physiological changes he or she is aware of. Again, it is Jay Mann who cogently summarizes the strengths and weaknesses of self-report measures:

The relative scarcity of studies employing subjective ratings of arousal appears to reflect a lack of confidence in the validity of subjective reports. Exponents of physiological measures cite the ease with which subjects, especially those with deviant sexual orientations, can fake ratings as

compared with physiological responses (Freund, 1957). The use of projective tests also reflects the prevalent assumption that subjects will not candidly divulge sexual preferences or responses if queried directly. Although some few subjects who are ashamed or fearful of revealing deviant object choice may, in fact, dissimulate, there appears little justification for believing that dissimulation must necessarily constitute a serious problem in laboratory studies. By guaranteeing anonymity through the use of self-selected code numbers, investigators could minimize subjects' reluctance to respond candidly. The experimental technique of requiring subjects to view erotic stimuli and to make simultaneous ratings of degree of arousal appears relatively free of the shortcomings ascribed to interview techniques (p. 39).

Mann, among others, seems to indicate that the use of a multiplicity of measures--subjective ratings, in addition to others (most ideally, a combination of subjective and physiological measures)--"probably constitute a useful source of data concerning response to erotic stimuli."

* * * *

METHODS

Initial Comment

This study is concerned with college-aged men's and women's responses, as elicited by the stimuli provided by an erotic film. The writer was interested in ascertaining, to the best of her ability, the process, the sequence of events, both physiological and psychological, that resulted in the "end-product"--the subjects' reported arousal, or lack of it. The variables involved in that process were defined by clustering the initial data, the subjects' recorded responses to a series of personality measures and questionnaires, administered both prior to, and following their viewing the film. Of special importance were the clusters derived from a post-film questionnaire, from which the majority of variables that were used subsequently as the basis for a path analysis, or causal diagram, were obtained. The causal diagram provides a proposed model for that which was happening to the subjects, physiologically and psychologically, as they watched the film.

The writer had no particular hypotheses in mind in regard to the results of this study, except her feeling that the women who scored high on the "self-directed" dimension of the Inventory of Feminine Values (the FAND Inventory) might be expected to report greater arousal upon seeing the film than women who scored high on the "other-directed" dimension. This, the only formal hypothesis, was not confirmed by the data.

Instruments: Pre-Film

Demographic Questionnaire. This questionnaire is composed of eleven multiple-choice items, designed to elicit information concerning the subject's age, marital, racial, and educational status, his/her political and religious preferences, together with the subject's rating of the relative strength of his/her political and religious commitments.

Inventory of Feminine Values. The Inventory of Feminine Values is a research instrument constructed to assess sex role perceptions of women. It was first designed by Alexandria Botwinik Fand in 1955 with the basic hypothesis that women's role could be characterized as varying on a continuum. On the one hand would be the "other directed" woman who sees her own satisfaction as secondary to those of her husband and children, and where the family responsibilities take precedence over fulfillment of her own potentials. The other end of the continuum is called "self orientation," where the importance of one's own talents and abilities can be realized directly.

Thirty-four statements compose the total instrument, seventeen of which represent an "other-directed" value, and seventeen of which represent a "self oriented" value. The strength of agreement is indicated on a five-point scale, ranging from "strongly agree" to "strongly disagree," with a mid-point of "no opinion." The sets are presented in pairs and scoring done on each of the seventeen. The score of the Inventory represents the differences in degree of agreement to each of these two separate sets of statements. In order to prevent results from being influenced by response sets, the statements are sometimes

worded positively and sometimes negatively. A score of zero is obtained by a balanced position, where partial agreement is offered to each of the opposing sets. The strongest possible "self oriented" position would be reflected by a score of +68, and the strongest "other oriented" position by a score of -68.

The IFV has been widely used for research purposes in the past fifteen years. Fand (1955) originally used a college sample. Ann Steinman (1957) later expanded its use, and it has since been copyrighted by the Maferr Foundation (Male-Female Family Role Research Foundation).

Several forms are available for research with women and have been used to identify role concepts in reference to respondents' position for their "own self," "Ideal Woman," "Average Woman," and "Man's Ideal Woman." The content of each form is identical, except that items are scrambled in different orders.

Split-half reliability of the Inventory, using the Spearman-Brown correction, is .81. The items were presented to seven judges for categorization, and only those were used where total agreement existed.

Some normative data exists, although the samples were not selected by random methods, but were used because of availability. Fifteen American samples, totalling 1094 women, represent undergraduates from public and private colleges, physicians, lawyers, artists, musicians, nurses, business women, housewives, and black professional women. Non-college samples all had high school education. The age ranges were from the late teens to the seventies, a majority being under forty. Thus, the norm represents a reasonable cross section of the better educated population in the United States.

A basic pattern was revealed which Steinman (1968) stated as follows: "Women show a set of life values regarding the female role, which are implicit in the fact of being female, and which transcend socio-economic levels, ethnic or racial background, age, level of education, occupational or professional level, and marital status."

The Inventory manual reports self-perceptions to be normally distributed with a slight tendency toward self-orientation. The overall mean for the 1094 respondents to this form was +3.05, and the standard deviation was 9.52. Age differences may exist, as Riordan found younger girls (high school, eleventh graders) were less likely to be self-oriented in their perceptions of themselves and their Ideal Woman. Kalka (1967), on the other hand, found college seniors to be more other-oriented than freshmen. These findings would imply that during the early college years, girls become more self-oriented than they were in high school, but then return to a more other-oriented position. Matthews and Tiedeman (1964) found that girls, as they matured, moved away from their beliefs of women's inferiority to men, but they became more concerned about other women's attitudes toward their discrepant positions.

Fand (1955) categorized her eighty-five subjects according to their opinions about themselves into six different categories and found a number of different patterns: 1) The subjects who held extreme views on the feminine role felt themselves to be the most different from the Average Woman; and 2) Both the most other-oriented and the most self-oriented subjects estimated men's Ideal Woman to be highly other-oriented. The family oriented believed themselves to be a close

approximation to what men wanted, and the self-oriented believed themselves to be exactly the opposite of what they thought men wanted.

For the purpose of this experiment, the Inventory of Feminine Values was administered to female subjects only. Both a self-oriented and other-oriented score was obtained, as well as a combined score. It should be noted that the version of the Fand Inventory administered to these women differs slightly from the original: for some items, wording was clarified in order to make the items less ambiguous; additionally, a comple of new items were employed as replacements for the most ambiguous items. (See the appendix for the original and revised Fand.)

Sexual Morality Scale. This instrument was devised by the experimenter in order to elicit information concerning the subject's attitudes toward a number of issues, including premarital sex, masturbation, oral-genital sex, homosexuality, pornography, and women's role during sexual intercourse. The scale consists of nineteen items, to which the subject reponded on the basis of a five-point scale, ranging from "strongly agree" to "strongly disagree."

Sexual Experience Scale. This instrument is a twelve item Guttman scale, to which the subject responds either "yes" or "no," depending upon whether or not he/she has engaged in a particular sexual activity. Appropriate versions of the instrument were employed for male and female subjects.

Mosher True-False Guilt Inventory. The Mosher True False Guilt Inventory was employed in this study as a measure of sex guilt. Mosher (1968) clarifies what is meant by a measure of guilt; his inventory is viewed as a conceptualization of a personality disposition. Guilt

becomes relevant in a situation where temptations to violate moral standards are present. Individuals who score high on this guilt measure are expected to inhibit the expression of sexual behaviors when faced with temptation. If transgressions do occur, the individuals who score high on this measure are expected to experience feelings of guilt, or to confess, punish themselves, or to make restitution. The inventory does not directly measure guilt as a feeling or state of the person at the moment, but rather, it is intended as a measure of the disposition toward responding under certain circumstances with a class of behaviors which may be described as "guilty."

Originally, Mosher (1961) developed an incomplete sentence test (MIST) to measure three aspects of guilt: sex guilt, hostility guilt, and morality conscience. Since the psychometric properties of MIST were not maximally desirable, a new inventory was constructed (MTFGI). A multi-trait, multi-method matrix analysis (Mosher, 1966) of the results provided good evidence of convergent and discriminant validity of the three guilt sub-categories. The split-half reliability coefficients of the three scales were in the .90s. A series of construct validation studies (Mosher, 1965, 1966, 1967; Mosher and Ruma, 1967) have been offered to support the Mosher scales as measures of guilt. Using the MTFGI, Ruma and Mosher found that this scale correlated significantly with ratings of interviews with delinquent boys for guilt over transgressions which led to their incarceration. It was felt that for the present study, the sex guilt items could be taken out of the rest of the inventory and used as a separate scale.

Film

The film used in this study is Unfolding, a film produced for use by the National Sex and Drug Forum; the film seeks to represent a female cinematographer's conception of women's sexual fantasies. Although it contains highly explicit close-ups of oral-genital contact, penile insertion, and other sexual activity, the close-ups are presented in an aesthetic manner. The film incorporates photomontages, frequent cuts to landscapes or scenes of birds in flight, and other techniques which lend to the film a poetic quality. The film has its own musical soundtrack (length: twenty minutes; 16mm).

Unfolding has been used in a study of this type before; Mann, Sidman, and Starr employed it as one of seven films in their study of married couples. The experimenters report that for the women in their study, Unfolding proved to be the most favorable, least aversive, and the next-to-the-least anxiety-provoking of the films. As the women's responses to the film were greater than that of the men's, Mann et al. concluded that the film was appealing in its more subtle (as opposed to the standard-fare stag film) depiction of sexuality. Interestingly, Unfolding seemed to elicit relatively lower levels of physiological responses from the subjects (the disparity was greater for males than for females) than did some of the other more explicit, aversive films, leading Mann et al. to conclude that physiological arousal may sometimes be inhibited by the poetic quality of a film, and that a film that is rated as non-arousing, may, nonetheless, elicit stronger physiological reactions.

Both male and female subjects rated Unfolding as being moderately arousing, and Mann et al. drew attention to the fact that, ". . . even

though males, relative to females, ranked Unfolding lower relative to all seven films, they assigned it a higher absolute arousal rating than did females. Thus, they were certainly not unaffected by it."

Post-Film Questionnaire

The post-film questionnaire employed in this study came as a result of a one-shot pilot study conducted during Winter Quarter, 1975. The film Unfolding was shown during one class session of Dr. Donald Grummon's Human Sexuality class, Psychology 290. The 133 students, 59 female and 74 male, who were present during this particular class session were asked to rate their level of arousal to the film on a five-point scale: "not at all aroused," "more unaroused than aroused," "moderately aroused," "more aroused than not," and "extremely aroused." After recording their arousal rating, students were asked, "Please briefly describe your feelings and reactions to the film. Include any bodily responses you were aware of, any fantasies you may have found yourself experiencing. What was it about the film, your reaction, or a combination of the two, that caused you to rate your arousal the way you did?"

It was from the students' comments and reactions that a good deal of the post-film questionnaire was derived. In addition to the ratings of the viewer's arousal, both generally, and to specific scenes in the film, and the viewer's report of his/her physiological state, the questionnaire includes such information as the viewer's reaction to a range of film characteristics (photography, music, attractiveness of the actors and actresses, the plot, or lack of it, the level of explicitness), the kinds of fantasies the viewer may have

experienced, the level of the viewer's self-consciousness or guilt, as well as the viewer's evaluation of the film in comparison with other erotic films he/she may have seen. Excepting specifically male and female physiological information, the post-film questionnaire was identical for both male and female subjects.

Procedure

All seven (five female, two male) experimental sessions took place in two regular classrooms in the psychology building, Olds Hall, on the Michigan State University campus. Classrooms were selected both for their availability at the given session time, and because they came equipped with movie screens. The number of subjects per session averaged twenty for the women, twenty-five for the men. In total, fifty-four men and 104 women volunteered to take part in the study, for which they received experimental credits. Subjects had been solicited via sign-up sheets posted introductory psychology class lecture halls. A female graduate student was in charge of the women's sessions, and a male undergraduate student was responsible for the male subjects.

Upon arriving, each subject received a packet of materials which included mimeographed copies of all of the testing instruments, together with two answer sheets of the kind frequently used at Michigan State for the administration of computer-scored examinations. Subjects were asked to pick a code name, composed of two letters and two numbers of their choosing, and to write that code name both at the top of both of their answer sheets and on the outside of their packets. As no other identification was required, subjects were assured of their anonymity.

After recording their code names, subjects were instructed to fill out the pre-film instruments, five questionnaires for the women (demographic information, Fand inventory, sexual morality scale, sex experience scale, and the Mosher sex guilt measure); four questionnaires for the men (all except the Fand inventory). After the majority of the subjects had indicated to the experimenter that they had completed the pre-film questionnaires, the film Unfolding was shown on a 16mm projector.

Upon completion of the film, the experimenter instructed subjects to record their responses to the post-film questionnaire on the second of their two answer sheets. Any pre-film information which any subject had failed to complete prior to the film showing was to be filled in after the subject had completed the post-film questionnaire. Despite instructions, three of the 104 women were later dropped from the sample because of their failure to complete all six of the questionnaires. Those subjects who showed further interest in the purpose of the experiment were invited to stay a bit after the session so that they might offer their comments, reactions, criticisms, etc. Relatively few of the subjects stayed to chat; they seemed far more interested in discussing their reactions among themselves as they filed from the room. The total time per session averaged seventy-five minutes.

Analysis

Initially, male and female groups were analyzed separately. Additionally, pre-film personality measures were analyzed separately from the responses to the post-film questionnaire. Except for the eleven items concerning demographic information, the four sets of

data--Women: Pre-film, Men: Pre-film, Women: Post-film, and Men: Post-film--were analyzed in the following manner: a principal axis factor analysis was performed, in which communalities were to be the largest correlations for each variable. Varimax rotations were then performed, and on the basis of the resultant factors, preliminary clusters were defined. Clusters were refined until they met satisfactorily with the criteria of content, inter-correlations among the items which comprised each cluster, and parallelism. After reviewing the results of the Separate Cluster Analysis, however, it was decided that the men's and women's responses were so similar that one set of "core clusters" was defined for the pre- and post-film. The following "Results" sections, therefore, are based on the data generated by the two sets (pre and post) of core clusters.

RESULTS: SUBJECTS

Before reviewing the results of the cluster analysis, the information supplied by the demographic questionnaire will be reviewed.

Subjects

Because of the fact that all of the subjects who participated in this study were solicited from introductory psychology classes at Michigan State University, the composition of the subject sample is limited, but probably more homogeneous than a more random sample might have been. In response to the eleven questions dealing with demographic information, the 104 females who volunteered to participate in the study, described themselves as young (81 percent were below the age of twenty), white (80 percent white; 18 percent black), unmarried (95 percent) university freshmen and sophomores (79 percent and 14 percent, respectively). The women's expressed religious preferences represented a wide range (33 percent Protestant, 29 percent Catholic, 9 percent Jewish, 16 percent atheist or agnostic), while their reported political preferences were decidedly either Democratic (36.5 percent) or Independent (28.8 percent); the Republican Party was represented by 17.3 percent of the female subjects. The women's assessment of their political views fell primarily into the two categories, "somewhat liberal" (33.7 percent) and "moderate" (40.4 percent), while the greatest percentage of the women (46.2 percent) described themselves as being "somewhat" religious.

Equally, the fifty-four male subjects described themselves as being young (68.5 percent under the age of twenty; 27.8 percent from ages twenty to twenty-four), white (98 percent), unmarried (96.3 percent), freshmen and sophomores (57.4 percent and 24.1 percent, respectively). The men also covered a wide range of religious affiliations (40.7 percent Protestant, 35.2 percent Catholic, 3.7 percent Jewish, 18.5 percent atheist or agnostic), but unlike the women, the men were more evenly distributed across political party preferences (20.4 percent Republican, 25.9 percent Democratic 38.9 percent Independent). The largest percentage of the men also described themselves as being "somewhat liberal" or "moderate" in their political views and "somewhat" or "slightly" religious.

The sample of subjects, then, who chose to participate in this study is typical of many psychological studies conducted in the United States, the results of which are based on the responses of young, white, liberal university freshmen and sophomores, whose popularity among investigators is rivalled only by that of the white rat. Because of the limited nature of this sample, caution should be taken in attempting to generalize the results of this study from this subject population to another. It should be also noted that a self-selection bias may also have been introduced, as all of the subjects who volunteered to participate knew beforehand that they would be asked to respond to questionnaires dealing with sexual information and that they would be viewing an erotic film.

RESULTS: PRE-FILM CLUSTERS

As noted previously, the results of the separate cluster analyses by sex were so similar that it was decided to define a set of "core clusters" common to both males and females. (For a detailed reporting of the results of the separate cluster analyses, see Appendix B.) Again, clusters were refined until they met the criteria of homogeneity of item content, sufficient strength of item intercorrelations within each cluster, and tests for parallelism. Initial discussion will concern the eleven pre-film clusters which are composed of items from the pre-film personality measures: the Sexual Morality Scale, the Sex Experience Scale, the Mosher True-False Guilt Inventory, and the Inventory of Feminine Values (Fand).

Following is a list of the core clusters which emerged from the pre-film personality measures (for detailed information regarding item intercorrelations for each cluster, see Appendix C):

1. Masturbation: a four item cluster which seeks to define the subject's attitude toward engaging in masturbatory activity--whether or not masturbation is acceptable or guilt-provoking; whether or not the subject judges masturbation as being "fun" and "all right."

2. Premarital Sex (I): a nine item cluster which seeks to define the subject's attitude toward engaging in premarital sexual intercourse--whether or not such action can be morally justified.

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3. Premarital Sex (II): a three item cluster which, again reflects the subject's attitudes toward premarital sexual intercourse. Although this cluster is concerned with the same area as Premarital Sex (I), the content of Premarital Sex (II) emphasizes the sex-with commitment (i.e., engagement or being in love) vs. sex-without-official commitment issue.

4. Women's Sexuality: a three item cluster which contains two statements concerning women's freedom to experiment in bed (i.e., variations in position during sexual intercourse), together with a general statement which contends that women should be as free as men to enjoy sex.

5. Homosexuality: a two item cluster which seeks to define the subject's attitude toward his/her participation in a homosexual relationship--whether or not such action would constitute a violation of his/her code of morality and the conditions under which a subject could visualize becoming involved in a homosexual liason.

6. Prostitution: a two item cluster which seeks to define the subject's attitude toward the statements, "prostitution is a sign of moral decay," and "prostitution should be legalized."

7. Pornography: a three item cluster which asks the subject's opinion of statements such as, "pornography is a harmless pasttime," "pornography leads to the commission of sexual crimes," and "pornography should be outlawed."

8. Adultery: a two item cluster which seeks to define the subject's reaction (in terms of guilt) as the result of some future adulterous action.

9. Children's Sexuality: a two item cluster which asks the subject if "sex play" is common among children and whether or not such sex play is regarded as "natural" and "innocent."

10. Dirty Jokes: a five item cluster which taps the subject's reaction toward the telling of "dirty jokes" in "mixed company."
(This cluster might also be called, "Everything you want to know about dirty jokes . . . and then some.")

An additional cluster, Sex Experience, arose from the pre-film personality information; the cluster is composed of 10 items from the twelve item Sex Experience Scale. Equally, eight clusters: Professional Woman, Working Mom, Assertion, Compliance, Sacrifices, Equal Rights, Marriage and Family Come First, and Husband--were defined from the women's responses to the Inventory of Feminine Values. The reader is referred to Appendix D for a detailed description of the clusters' content and the item intercorrelations for each cluster.

Table 1 illustrates the distribution of the pre-film personality scale items into their respective pre-film clusters; Table 2 presents a numerical summary of the pre-film items in terms of each cluster's alpha coefficient, the mean, standard deviation, and the range of possible responses for each set of items. This information is for the men and women combined.

Discussion of A Priori Personality Scales

Sex Experience

Of all the pre-film personality measures, only the Sex Experience scale emerged virtually intact. Only two of the original items were

Table 1. Scale Items Distributed by Cluster: Pre-Film

	Sex Experience	Sex Morality	Sex Guilt	Fand*
Experience	10			
Masturbation		2	2	
Premarital Sex I		3	6	
Premarital Sex II		3		
Women		3		
Homosexuality		1	1	
Prostitution			2	
Pornography		3		
Adultery			2	
Children			2	
Dirty Jokes			5	
Professional Woman*				4
Assertion*				3
Sacrifices*				3
Working Mom				2
Compliance*				3
Marriage and Family Come First*				4
Equal Rights*				3
Husband*				3
Residual	2	4	15	9

* Female data only.

Table 2. Pre-film Clusters: Men and Women Combined

	Number of Items	α	\bar{X}	SD	Range
Masturbation	4	.79	4.026	2.803	[0-10]
Premarital Sex I	9	.77	5.374	3.754	[0-19]
Premarital Sex II	3	.61	4.729	2.734	[0-12]
Women	3	.61	1.445	1.643	[0-12]
Homosexuality	2	.31	3.916	1.419	[0- 5]
Prostitution	2	.58	1.761	.812	[1- 3]
Pornography	3	.66	3.774	2.400	[0-12]
Adultery	2	.67	3.168	.942	[2- 4]
Children	2	.55	.496	.739	[0- 2]
Dirty Jokes	5	.82	4.529	1.915	[2- 7]
Experience	10	.90	2.600	2.859	[0-10]

dropped because of insufficient numerical strength: "I have kissed a man/woman" and "I have engaged in homosexual relations with a man/woman." Table 3 includes a summary of the relationship between the Sex Experience cluster and the other pre-film personality clusters. In terms of the magnitude of the correlational relationships, the degree of sexual activity in which the subject had engaged was most highly correlated with Premarital Sex (I), Women's Sexuality, Pornography, and Prostitution. Moderate relationships exist between Sex Experience and Masturbation, as well as between Sex Experience and Premarital Sex (II). Homosexuality, Adultery, and Children's Sexuality show lower relationships with Sex Experience, and Dirty Jokes shows none at all.

Table 3. Pre-film Clusters: Correlation Matrix

	Sex 501	Mastur- bation 401	Pre- marital Sex I 402	Pre- marital Sex II 403	Homosexu- ality 404	Women 405	Prosti- tution 406	Porno- graphy 407	Adultery 408	Child 409	Dirty Jokes 410
501	1.00	.18	.25	.54	.13	.17	.40	.41	.19	.08	.10
401	.18	1.00	.41	.37	.43	.26	.24	.28	.29	.46	.28
402	.25	.41	1.00	.49	.64	.49	.39	.49	.19	.20	.23
403	.54	.37	.49	1.00	.48	.49	.39	.49	.24	.35	.13
404	.13	.43	.64	.48	1.00	.40	.19	.28	-.07	.22	.38
405	.17	.26	.51	.49	.40	1.00	.54	.49	.19	.30	.29
406	.40	.24	.43	.39	.19	.54	1.00	.78	.32	.23	.28
407	.41	.28	.42	.49	.28	.49	.78	1.00	.22	.31	.37
408	.19	.29	.19	.24	-.07	.19	.32	.22	1.00	-.23	.15
409	.08	.46	.20	.35	.22	.30	.23	.31	-.23	1.00	.28
410	.10	.28	.23	.13	.38	.29	.28	.37	.15	.28	1.00
Experi- ence	.08	.26	.51	.26	.13	.43	.31	.30	.18	.13	-.01

Inventory of Feminine Values (Fand Inventory)

As stated previously, the Fand Inventory items distributed themselves among eight clusters. Table 4 shows the correlational relationships among the eight clusters, as well as the Fand clusters' relationship to the eleven pre-film clusters, and the Fand clusters' relationship with the "Desire" cluster, a post-film measure of reported arousal. It appears that the eight Fand clusters may be organized into two blocks: the first, containing Professional Woman, Assertion, and Sacrifices, and the second, containing Working Mom, Compliance, Marriage and Family Come First, and Husband. The "Equal Rights" cluster, which is of mixed content, does not appear to "belong" to either of the two blocks.

It is the writer's belief (and an untested belief, in this study) that the Fand Inventory represents not only a self-directed vs. other-directed dimension, but also a profession vs. marriage and family dimension. Thus, if women are to be categorized on the basis of their responses, it is likely that four groups would emerge: profession/self-directed, profession/other-directed, marriage and family/self-directed, and marriage and family/other-directed. It appears to the writer that the developer of the Fand had equated an orientation toward a career with self-directedness, while an orientation toward marriage and family was equated with other-directedness. This may be one reason why the instrument has such a stereotypic quality about it. (For a distribution, by percentage, of the women's responses to the Fand items, see Appendix D).

Table 4. Fand Inventory Clusters

	Professional Woman 1	Assertion 2	Sacrifices 3	Working Mom 4	Compliance 5	Marriage Family Come First 6	Husband 7	Equal Rights 8	Desire 9
1	1.00	.65	.40	.14	.17	-.03	-.38	.12	.17
2	.65	1.00	.25	.22	.25	.04	.11	-.05	.27
3	.40	.25	1.00	-.01	-.02	.56	.11	-.28	-.08
4	.14	.22	-.01	1.00	.52	.44	.33	.03	-.28
5	.17	.25	-.02	.52	1.00	.54	.55	.27	-.13
6	-.03	.04	.56	.44	.54	1.00	.35	.17	-.07
7	-.38	.11	.11	.33	.55	.35	1.00	.45	-.16
8	.12	-.05	-.28	.03	.27	.17	.45	1.00	.13
Masturbation	9	.28	.44	.33	-.02	0	.23	.04	.01
Premarital Sex I		.33	.30	.03	.38	.44	.14	.33	.08
Premarital Sex II		-.26	.03	.17	-.13	-.12	.21	.40	-.28
Women		-.38	-.07	-.20	.12	.37	.14	.43	.34
Homosexuality		.13	.14	.55	.20	.08	.34	.19	-.20
Prostitution		-.01	.47	-.16	.20	.30	-.07	.27	.17
Pornography		-.02	.24	-.17	.22	.36	.27	.45	-.04
Adultery		.22	.24	.17	-.03	.26	-.09	.35	-.03
Children		-.10	.13	.01	-.06	.08	.34	.42	.14
Dirty Jokes		.14	.19	.09	.31	.12	.24	.38	.06
Experience		.18	-.08	-.03	.02	.15	.09	.12	.30

In regard to the relationship between the Fand clusters and the other pre-film personality clusters: almost without exception, the Fand clusters showed greater correlations among themselves than they did with any of the other pre-film sexual attitude clusters. Generally, however, the relationships between the Fand clusters and the sexual attitude clusters conformed to a trend which will be further exhibited by the results of this study: that constellations of liberal attitudes tend to be related, in a positive direction, with other liberal attitudes, and that constellations of conservative attitudes tend to be related, in a positive direction, with other conservative attitudes. This relationship is not perfect, however. As can be seen in Table 4, the Premarital Sex (II) cluster, as well as the pornography, prostitution, and adultery clusters--despite the fact that they were all scored in a liberal direction (as were the Fand clusters)--correlate negatively with some of the Fand clusters. A possible reason for this breakdown will be proposed in the next section.

It had been originally hypothesized that women who, by their responses to the Fand Inventory, indicated that they were more self-directed, would report higher arousal rate in response to viewing the film. This hypothesis was not confirmed. As can be seen in Table 4, the "Desire" cluster, composed of those items which indicate the women's rated arousal to the film, both generally and to specific scenes, shows little relationship with the Fand clusters. Evidentially, liberal attitudes toward "women's role" tend to be positively related with other liberal sexual attitudes, but liberal attitudes toward women's role are not directly related to levels of reported arousal generated by the viewing of an erotic film.

Sex Guilt and Sex Morality Scales

There is a considerable degree of overlap, in terms of content, between the Sexual Morality Scale and the Mosher True-False Guilt Inventory; the correlation between the scales themselves is on the order of $+0.70$. In fact, it is the writer's belief that the Sex Guilt Scale is, at best, only an indirect measure of sexual guilt. What the scale appears to be is an instrument which attempts to measure the subject's standards of morality along a liberal/conservative dimension. Because of the fact that a conservative moral orientation tends to be accompanied by higher levels of guilt when the moral standards are breached, researchers have been able to use the scale as an indication of sexual guilt. The writer, however, finds the scale to be wanting, primarily because many of the items are entirely ambiguous (i.e., What is "sex play?"), and other items are so poorly written that they defy the subject being able to respond to them. (Example: true or false-- "Petting, I am sorry to say, is becoming a common practice.")

At any rate, it was from the items from these two scales that the majority of the pre-film clusters were constructed. Table 3 includes the matrix of these pre-film clusters and the relationships among them. As demonstrated by Table 3, the pre-film clusters for the combined sample of subjects may be organized into two blocks: the first, which is composed of Masturbation, Premarital Sex (I) and (II), and Homosexuality; and the second, which is composed of Women's Sexuality, Prostitution, and Pornography. The Women's Sexuality cluster may be viewed as an intermediate, or "swing" cluster which shows a definite relationship with both of the blocks. Its position as such is probably

because of its mixed content, as the cluster includes both personalized statements pertaining to acceptable intercourse behavior, as well as the general statement that women should enjoy as great a sexual freedom as do men.

The breakdown of the clusters into two distinct blocks had long been puzzling. Originally, it was the writer's guess (although this guess was not shared by her chairman) that the masturbation, premarital sex, and homosexuality clusters had grouped together because these are issues and behaviors that are directly and personally relevant to the subjects' lives, in a way that prostitution, pornography, and "women's rights" may not be. It was the writer's feeling that prostitution, pornography, and women's rights are socially relevant issues about which a college student may certainly hold an opinion, but that opinion may be more intellectualized than the subject's feeling toward his own sexual behavior. Because this explanation was not intuitively plausible for her chairman, and because the correlations between the sexual attitude clusters and the sex experience cluster did not appear to support this hunch, the writer was led to consider an alternative hypothesis.

The alternative hypothesis is stated as follows: There is not one, but two factors that differentiate groups of subjects from one another. The first factor is a basic liberal/conservative split in regard to sexual attitudes; a simple translation of this split is embodied in the statements, "Sex is good/Sex is bad." Yet, not all liberal (or conservative) subjects respond liberally (or conservatively) in all instances, in regard to each issue. This becomes particularly

evident if one considers Tables 11 and 12, in which the pre-film sexual attitude clusters are correlated with the post-film arousal clusters--Arousal, Fantasy, Arousal, and Excitement. Despite the fact that all of the clusters, both pre-film and post-film, were scored in the same direction (liberal), one finds a number of negative correlations, particularly in the men's data. It is in relation to the second block of sexual attitudes--pornography, prostitution, and women's sexuality--that the negative correlations occur most frequently. It is evident that some other factor, in addition to the liberal/conservative dimension, is differentiating subjects from one another. It was then hypothesized that the second differentiating factor might be whether or not the subject thought women were exploited. Thus, there are the following possibilities:

1. Sex is good; women are not exploited.
2. Sex is good; women are exploited.
3. Sex is bad.

With these statements in mind, the following structure was hypothesized:

1. Those subjects who felt that sex was OK (particularly premarital sex), and who felt that women are not exploited, would tend to be liberal, both in their attitudes toward premarital sex and toward prostitution and pornography.
2. Those subjects who felt that sex was good, but that women are exploited, would tend to be liberal in their attitudes toward premarital sex, but these same subjects would tend to reject prostitution and pornography as activities that exploit women.
3. Those subjects who felt that sex was bad, would tend to reject both premarital sex and prostitution and pornography.

4. There is also a fourth group of subjects, at least hypothetically: those subjects who felt that prostitution and pornography are the only morally justified activities in which one could engage before one marries. Such a subject would be conforming to the Victorian notion that marriage is sacred, that premarital sex is taboo, and that pornography and prostitution are the unlucky, but only, substitutes. Needless to say, the writer did not expect an abundance of this kind of subject to turn up in her sample.

In accordance with this hypothesis, the subjects' scores on the Masturbation, Premarital Sex (I), and Premarital Sex (II) were combined as "Sex A," and the scores for Pornography and Prostitution were combined as "Sex B." The Homosexuality cluster was excluded from Sex A, and the Women's Sexuality cluster was excluded from Sex B because the subjects were almost uniformly opposed to the homosexuality items and almost uniformly supportive of the women's sexuality items, so that the means of these two clusters were quite different from the remaining clusters.

The means, standard deviations, and ranges for Sex A and Sex B are as follows:

Sex A: $\bar{X} = 14.129$; SD = 6.710; Range = 0-41

Sex B: $\bar{X} = 5.535$; SD = 4.829; Range = 0-15

Using the absolute midpoint (20.5 for Sex A and 7.5 for Sex B), in order to divide subjects into high and low groups for each set of combined clusters, the following contingency tables were generated:

	Yes PM	No PM	
Yes P&P	95	18	113
No P&P	26	16	42
	121	34	

Combined Sample

	Yes PM	No PM	
Yes P&P	46	4	50
No P&P	2	2	4
	48	6	

Men

	Yes PM	No PM	
Yes P&P	49	14	63
No P&P	24	14	38
	73	28	

Women

PM = Premarital Sex
P&P = Prostitution & Pornography
Yes = Approve of
No = Disapprove of

As can be seen, the data did not "break" in a way that the previously proposed set of hypotheses was supported. There is simply not enough difference between the two blocks, and many more subjects showed up in the No PM/Yes P&P section than would have been predicted. At this point, then, the reason for the pre-film sexual attitude clusters having organized themselves into two distinct blocks is not known.

Tables 5 and 6 show the between-cluster correlations, pre-film, for men and women separately: they, too, exhibit the two-block structure. Based upon the women's responses, the Children's Sexuality cluster is included in the first block; this is probably because the women defined "sex play" as self-exploration and masturbatory activity. The Dirty Jokes cluster now falls within the second block, along with pornography and prostitution. This makes sense if one hypothesizes that the kind of "dirty jokes" the women had in mind are those in which women are "sexually objectified" butts of the jokes. Again, the Women's Sexuality cluster occupies an intermediate position, and Adultery is left as the "odd" cluster.

For the men, the Adultery cluster becomes part of the women-prostitution-pornography block, while the Children's Sexuality and Dirty Jokes clusters fall outside of the two-block structure. It may be that the men had defined children's "sex play" as some form of heterosexual activity, rather than as masturbation, so that the Children cluster does not find a place in the first block, as it had for the women.

Equally, the three correlation matrices also illustrate the fact that liberal (or conservative) attitudes in regard to one issue tend to be related to other liberal (or conservative) attitudes. For the men and women combined, this relationship is maintained with only two exceptions; for the women, the relationship held except for the correlation between Adultery and Homosexuality. For the men, this relationship breaks down to the extent that the Children's Sexuality and Dirty Jokes clusters do not "behave" according to what otherwise would be predicted. Yet, it should be noted that even for these clusters, the

unpredicted negative correlations are very low--an indication of a lack of relationship, rather than a substantial, and unpredicted negative relationship among sexual attitudes.

Table 5. Women: Pre-film Clusters

	1 Masturbation	2 Premarital Sex (I)	3 Premarital Sex (II)	4 Homosexuality	5 Children	6 Women	7 Prostitution	8 Pornography	9 Dirty Jokes	10 Adultery
1	1.00	.34	.31	.33	.60	.28	.16	.24	.29	.21
2	.34	1.00	.38	.59	.22	.54	.34	.35	.20	.14
3	.31	.38	1.00	.54	.52	.50	.23	.32	.19	.13
4	.33	.59	.54	1.00	.27	.38	.11	.12	.36	-.07
5	.60	.22	.52	.27	1.00	.38	.26	.37	.26	-.43
6	.28	.54	.50	.38	.38	1.00	.48	.43	.42	.05
7	.16	.34	.23	.11	.26	.48	1.00	.74	.33	.18
8	.24	.35	.32	.12	.37	.43	.74	1.00	.52	.12
9	.29	.20	.19	.36	.26	.42	.33	.52	1.00	.08
10	.21	.14	.13	-.17	-.43	.05	.18	.12	.08	1.00

Table 6. Men: Pre-film Clusters

	Masturbation	Premarital Sex (I)	Premarital Sex (II)	Homosexuality	Women	Prostitution	Pornography	Adultery	Children	Dirty Jokes
	1	2	3	4	5	6	7	8	9	10
1	1.00	.44	.38	.63	.07	.24	.21	.41	-.05	.23
2	.44	1.00	.56	.72	.35	.44	.41	.17	.07	.24
3	.38	.56	1.00	.40	.41	.24	.46	.26	-.09	-.09
4	.63	.72	.40	1.00	.43	.23	.67	.13	0	.39
5	.07	.35	.41	.43	1.00	.62	.59	.50	-.06	-.04
6	.24	.44	.24	.23	.62	1.00	.65	.49	.10	.13
7	.21	.41	.46	.67	.59	.65	1.00	.28	-.03	-.01
8	.41	.17	.26	.13	.50	.49	.28	1.00	.36	.24
9	-.05	.07	-.09	0	-.06	.10	-.03	.36	1.00	.31
10	.23	.24	-.09	.39	-.04	.13	-.01	.24	.31	1.00

A Note on the FAND Inventory

With the "two block" structure concerning sexual attitudes in mind, the FAND Inventory clusters were checked for a similar breakdown, and no clear evidence for such a structure emerged. It is the writer's guess that the reason for this non-appearance is the fact that none of the FAND items speak directly to the contention that "women are exploited." The FAND items, particularly those which comprise the "Sacrifices" cluster, at best, simply question the value of women's

traditional roles as wives, mothers, and homemakers, but the reason the respondent may have for challenging the traditional roles is not made clear by the items' content.

Pre-film Sex Differences

Although a great deal of similarity exists between the male and female responses to the pre-film personality measures, some sex differences do emerge. Table 8 shows the mean responses of the males, females, and the combined group of subjects when those means (and standard deviations) are converted into percentages. All of the statements which comprise the pre-film clusters were scored in such a way that agreement with the statement indicated agreement with a liberally worded item (i.e., "Masturbation is OK;" "pornography is a harmless pasttime," etc.). The percentages, then, indicate the degree to which the males, females, and the total group agreed with the liberally worded items. (Note: this relationship is exact for those items scored "agree" and "disagree;" the percentages are a rougher estimate for those items in which the subjects were given choices that ranged from "strongly agree" to "strongly disagree.")

For the total group, the subjects were most liberal in their attitudes toward Women's Sexuality, Children's Sexuality, and Premarital Sex (I). Pornography, Prostitution, Premarital Sex (II), and Masturbation follow in regard to the degree to which the total group of subjects agreed with the items. Liberal attitudes toward Adultery and Dirty Jokes are less common, and Homosexuality remains as the issue toward which the total sample evinced the least liberal attitudes.

Table 7. Pre-film Clusters: Men and Women Separately

	Men		Women		Range
	\bar{X}	SD	\bar{X}	SD	
Masturbation	3.352	2.240	4.386	2.925	[0-16]
Premarital Sex (I)	4.370	3.379	5.911	3.833	[0-19]
Premarital Sex (II)	3.093	2.180	5.604	2.595	[0-12]
Women	1.167	1.344	1.594	1.764	[0-12]
Homosexuality	3.833	1.411	3.960	1.421	[0- 5]
Prostitution	1.407	.681	1.950	.813	[1- 3]
Pornography	2.667	1.886	4.366	3.436	[0-12]
Adultery	2.963	.816	3.277	.986	[2- 4]
Children	.444	.629	.525	.791	[0- 2]
Dirty Jokes	4.278	1.985	4.663	1.863	[2- 7]
Experience	2.296	2.766	2.762	2.895	[0-10]

Table 8. Pre-film Clusters: Percentages

Cluster	Men			Women			Combined		
	Agree	Dis-agree	SD*	Agree	Dis-agree	SD*	Agree	Dis-agree	SD*
Masturbation	66	34	(22)	56	44	(24)	60	40	(28)
Premarital Sex (I)	77	23	(18)	69	31	(20)	72	28	(20)
Premarital Sex (II)	74	26	(18)	53	47	(22)	61	39	(23)
Women	90	10	(11)	87	13	(15)	88	12	(14)
Homosexuality	23	77	(28)	21	79	(28)	22	78	(28)
Prostitution	80	20	(34)	52	48	(41)	62	38	(41)
Pornography	78	22	(16)	64	36	(29)	69	31	(20)
Adultery	52	48	(41)	36	64	(49)	42	58	(47)
Dirty Jokes	54	46	(39)	47	53	(37)	49	51	(38)
Experience	77	23	(28)	72	28	(29)	74	26	(29)
Children	78	22	(31)	74	26	(40)	75	25	(37)

* Standard deviation converted into percentage .

A glance at Table 8 confirms the finding that for this sample, at least, the women were consistently more conservative in their attitudes toward all ten of the pre-film sexual attitude clusters than were the men. The women's attitudes also indicated a greater degree of variance. Premarital Sex (II) and Prostitution appear to be the two areas in which the greatest disparity between men and women existed for this sample. Adultery, Pornography, Masturbation, and Premarital Sex (I) show the next greatest difference, while attitudes toward Children's Sexuality,

Women's Sexuality, Homosexuality, and Dirty Jokes show lesser differences.

For the men, Women's Sexuality, Prostitution, Pornography, Children's Sexuality, Premarital Sex (I), and Premarital Sex (II) were the clusters eliciting greater degrees of agreement with the liberally worded items; Masturbation, Dirty Jokes, and Homosexuality follow. The degree to which the women found themselves in agreement with the liberally worded statements was similar to the men's, but again, was slightly different: Women's Sexuality, Children's Sexuality, Premarital Sex (I), Pornography, and Prostitution were the issues toward which the women evinced more liberal attitudes; this is followed by Premarital Sex (II), Masturbation, Dirty Jokes, Adultery, and again, Homosexuality, the issue toward which the women were least accepting.

A somewhat interesting finding is that masturbation, for both men and women, appears to be a far less acceptable activity than premarital sex. Evidently, masturbation remains, even today, a more taboo topic, one which the freedom of the "Sexual Revolution" has had relatively little impact upon, in terms of placing the activity in a more favorable light. Equally, the "Sexual Revolution" has done little to modify people's rejection of homosexuality, at least in terms of an activity they might envision themselves engaging in.

(For a breakdown of the clusters in terms of items and the percentage of subjects who agreed with each item, the reader is referred to Appendix C).

RESULTS: POST-FILM

Post-Film Clusters

From the data generated from the subjects' responses to the Post-film questionnaire, twelve distinct clusters emerged. Following is a summary of the content of these clusters:

Desire: an eight item cluster, which includes six items which ask the subject to rate his arousal (on a five-point scale) to the film as a whole and to specific scenes depicted in the film. This cluster also includes two items, the agreement with which is also indicative of overall arousal: "After seeing this film, I felt like masturbating" and "After seeing this film, I felt like making love."

Excitement: a six item cluster, the items of which seek to establish whether or not the subject experienced signs of general bodily excitement: increased heart rate, increased breathing rate, dry mouth, muscle tension, flushing, and sweating.

Arousal (Male and Female Specific): As the scales employed for these two clusters are non-comparable, they will be considered separately. Male Arousal is a seven item cluster which asks the subject whether or not he experienced any of the following signs of male sexual arousal: no erection, penis engorgement without erection, partial erection, full erection, and emission. (The item "ejaculation" was eliminated from this cluster because none of the men reported experiencing ejaculation as a result of watching the film.)

Equally, the Female Arousal cluster, composed of four items, seeks to establish whether or not the women experienced any of the following signs of sexual arousal: mild genital sensations (defined as "tingling"), strong genital sensations (defined as "throbbing" or "pulsating"), breast sensations, and vaginal lubrication. Again, the item "orgasm" was dropped from the cluster because none of the women reported experiencing it.

Fantasy: an eight item cluster, the items of which seek to establish whether or not the subject found himself/herself entertaining a sexual fantasy while watching the film, together with the specific content of that fantasy (i.e., fantasies involving one's current sexual partner, a past sexual partner, no one person in particular, etc.).

Memories: a two-item cluster which seeks to establish whether or not the subject found himself/herself having memories of his/her past sexual experiences, and whether or not those memories were pleasant or guilt-provoking.

Watching: a three item cluster which seeks to establish whether or not the subject experienced feelings of self consciousness or other discomfiture as the result of his/her preoccupation with other people watching him/her.

Embarrassment: a four item cluster which taps into feelings of embarrassment or guilt the subject may have experienced while watching the film (i.e., whether or not the subject felt guilty watching people making love; whether or not the subject began to feel guilty for the filmed couple; whether or not the subject experienced such feelings as, "I really shouldn't enjoy watching a film like this," and

"What would my mother say if she knew I was watching a film like this?").

Photography: a four item cluster which seeks to discern the impact the photographic quality of the film (including the fantasy-or dreamlike quality of the film, the interspersing of multiple nature shots, the multiple-overlay method of photography, and the fact that the film is black-and-white) exerted upon the subjects' arousal.

Plot: a two item cluster which seeks to define the impact of the film's absence of a formal plot exerted upon the subject's arousal.

Attractiveness: a two item cluster which seeks to determine whether or not the perceived attractiveness of the film's actors and actresses affected the subjects' reported arousal.

Explicitness: a two item cluster which asks the subjects how their arousal would have been affected had there been more explicit sexual activity (defined in terms of more scenes of sexual intercourse) and if there had been more explicit treatment of the male body.

Other Films: a four item cluster which asks the subjects to compare their reactions (in terms of strength of arousal) to the film Unfolding with three other commercially produced films: The Devil and Miss Jones; Behind the Green Door, and Deep Throat. The cluster also includes the more general item, "In comparison with other erotic films I have seen, this one . . . (was more arousing/as arousing/not as arousing/I have never seen a film such as this before).

For a detailed description of the post-film clusters' content and item intercorrelations, see Appendix E.

Discussion of Post-Film Cluster Relationships

Table 10 presents the correlation matrix for all twelve of the post-film clusters for the men and women combined; Tables 11 and 12 present this same information, together with the correlations between the post-film clusters, a summed Morality scale measure, and the eleven pre-film sexual attitude clusters, for men and women separately. Table 13 is a description of the post-film clusters, in terms of the number of items, the clusters' alpha coefficients, means, standard deviations, and scoring range, and Table 14 presents this same information for males and females separately.

Arousal Measures: Six clusters--Fantasy, Arousal, Desire, Excitement, Watching, and Embarrassment--appear to be the best indicators for attempting to define what happened to the subjects as they watched the film (a proposed model for the process of becoming aroused as the result of viewing an erotic film will be presented in the next section, "Path Analysis"). Desire, Excitement, Arousal, and Fantasy are all highly and positively correlated with one another; for both the men and the women, the Desire cluster and the male and female sexual Arousal clusters are so highly correlated as to be almost identical (correlations are .96 for the men and 1.0 for the women). It appears that whatever arousal the subject may experience is interfered with by either the presence of self consciousness as a result of a preoccupation with being watched, and/or by feelings of embarrassment or guilt, although the strength of the correlations seems to indicate that a preoccupation with being watched may operate as more of an interference than does an internal sense of guilt. (The writer wonders whether her presence also added to the subjects' feelings of self consciousness.) The degree of

Table 9. Post-Film Clusters: Men and Women Combined

	1	2	3	4	5	6	7	8	9	10	11	12
	Sex	Fantasy	Desire	Excitement	Watching	Embarrassment	Memories	Photography	Plot	Attractiveness	Explicitness	Other Films
1	1.00	.04	-.03	-.27	.18	.19	-.16	-.27	-.03	.05	-.28	-.62
2	-.04	1.00	.75	.56	-.31	-.06	.46	.02	-.22	.08	.23	.08
3	-.03	.75	1.00	.83	-.32	-.11	.38	.04	-.16	.33	.35	.19
4	-.28	.56	.83	1.00	-.44	-.25	.33	-.07	-.03	.09	.48	.35
5	.18	-.31	-.32	-.44	1.00	.52	-.31	-.08	-.13	-.27	-.07	-.08
6	.19	-.06	-.11	-.25	.52	1.00	.05	-.09	-.23	.26	.20	-.38
7	-.16	.46	.38	.33	-.31	.05	1.00	.06	.19	-.13	.21	.04
8	-.27	.02	.04	-.07	-.08	-.09	.06	1.00	.02	.41	-.32	.19
9	-.03	-.22	-.16	-.03	-.13	-.23	.19	.02	1.00	-.13	-.38	.05
10	.05	.08	.33	.09	.27	+.26	-.13	.41	-.13	1.00	0	.05
11	.28	.23	.35	.48	-.07	.20	.21	-.32	-.38	0	1.00	.13
12	-.62	.08	.19	.35	-.08	-.38	.04	.19	.05	.05	.13	1.00

Table 10. Men: Post-Film Clusters

	Fantasy 1	Arousal 2	Desire 3	Excitement 4	Watching 5	Embarrassment 6	Morality* 7	Memories 8	Photography 9	Plot 10	Other Films 11	12
1	1.00	.69	.60	.44	-.37	-.14	.07	.58	-.02	-.22	.01	.12
2	.69	1.00	.96	.55	-.39	-.40	.01	.49	-.04	-.51	.07	.33
3	.60	.96	1.00	.65	-.50	-.40	.18	.46	-.19	-.23	.21	.27
4	.44	.55	.65	1.00	-.39	-.27	.12	.48	-.35	-.02	-.02	.25
5	-.37	-.39	-.50	-.39	1.00	.39	-.07	-.44	.11	.21	0	.08
6	-.14	-.40	-.40	-.27	+.39	1.00	.21	-.20	-.11	-.07	-.07	-.44
7	.07	.01	.18	.12	-.07	-.21	1.00	.37	-.07	.17	.13	.10
8	.58	.49	.46	.48	-.44	-.20	.37	1.00	.25	.16	.24	0
9	-.02	-.04	-.19	-.35	.11	-.11	-.07	.25	1.00	-.29	.49	.19
10	-.22	-.51	-.23	-.02	.21	-.07	-.07	.16	-.29	1.00	-.17	.19
11	.01	.07	.21	-.02	0	-.07	.13	.24	.49	-.17	1.00	.03
12	.12	.33	.27	.25	.08	-.44	.10	.06	.19	.19	.03	1.00
Masturbation	.22	.19	.26	-.04	.14	.10						
Premarital Sex (I)	.10	.12	.25	.17	.01	.02						
Premarital Sex (II)	.10	.12	.40	.18	-.03	.20						
Homosexuality	.09	.18	-.29	-.23	-.01	-.07						
Women	-.16	-.02	.23	.28	-.32	-.02						
Prostitution	-.31	-.04	.07	.04	-.05	.15						
Pornography	-.26	-.18	-.14	-.16	.30	.24						
Adultery	-.14	.01	.19	.27	.05	-.01						
Children	-.31	-.35	-.22	-.07	.03	.27						
Dirty Jokes	-.09	.18	.12	.01	.10	.24						
Experience	-.05	-.01	0	.09	.05	0						

* scale score, not cluster

Table 11. Women: Post-Film Clusters

	1 Fantasy	2 Arousal	3 Desire	4 Excitement	5 Watching	6 Embarrassment	7 Morality*	8 Memories	9 Photography	10 Plot	11 Attractiveness	12 Other Films	13 Explicitness
1	1.00	.93	.87	.75	-.28	-.02	.38	.37	0	-.22	.15	.17	.27
2	.93	1.00	1.00	.89	-.24	.02	.24	.38	-.06	-.16	.23	.16	.52
3	.87	1.00	1.00	.94	-.21	.01	.25	.33	.12	-.13	.31	.18	.37
4	.75	.89	.94	1.00	-.39	-.19	.19	.22	-.09	-.03	.15	.28	.41
5	-.28	-.24	-.21	-.39	1.00	.52	-.12	-.18	-.07	.24	.31	-.07	-.10
6	-.02	-.02	.01	-.19	.52	1.00	-.30	.22	-.01	.26	.31	-.33	.27
7	.38	.24	.25	.19	-.12	-.20	1.00	.17	-.09	.07	.24	.02	.14
8	.37	.38	.33	.22	-.18	.22	.17	1.00	-.08	.21	-.24	-.16	.25
9	0	-.06	.12	.09	-.07	-.01	.09	-.08	1.00	.09	.33	-.08	-.35
10	-.22	-.16	-.13	-.03	-.24	-.26	.07	.21	.09	1.00	-.09	-.03	-.31
11	.15	.23	.31	.15	.31	.31	.24	-.24	.33	-.09	1.00	.13	.02
12	.17	.16	.18	.28	-.07	-.33	.02	-.16	-.08	-.03	.13	1.00	-.01
13	.27	.52	.37	.41	-.10	.27	.14	.25	-.35	-.31	.02	-.01	1.00
Masturbation	.43	.39	.42	.30	-.09	.25							
PM Sex I	.25	.06	.10	-.07	-.03	.40							
PM Sex II	.24	-.09	-.12	-.18	.01	.18							
Homosexuality	.34	.19	.17	.18	-.19	-.17							
Women	.28	.17	.29	.35	-.12	.10							
Prostitution	.30	.03	-.04	.12	.13	.33							
Pornography	.38	.11	.09	.05	-.08	.15							
Adultery	-.01	.16	.11	.07	.17	.33							
Children	.29	.08	.12	.11	-.14	.13							
Dirty Jokes	.21	.30	.26	.17	-.18	.04							
Experience	.28	.18	.24	.08	-.06	.32							

* scale score, not cluster

Table 12. Post-Film Clusters: Men and Women Combined

	Number of items	α	\bar{X}	SD	Score Range
Desire	8	.85	10.381	5.287	[2-28]
Excitement		.71	8.148	3.028	[0-12]
Arousal*	-	--	--	--	
Fantasy	7	.71	4.516	1.292	[0- 8]
Watching	3	.54	2.142	.912	[0- 3]
Embarrassment	4	.55	3.426	.894	[0- 4]
Photography	4	.63	4.581	1.622	[0- 6]
Plot	2	.44	1.561	.804	[0- 4]
Attractiveness	2	.44	2.387	1.474	[0- 6]
Explicitness	2	.34	1.148	1.070	[0- 4]
Other Films	4	.73	2.406	3.066	[0-12]
Memories	2	.68	1.103	.442	[0- 3]

* No combined score available, as male and female physiological measures are non-comparable.

Table 13. Post-Film Clusters: Men and Women Separately

	Men		Women		Score Range
	\bar{X}	SD	\bar{X}	SD	
Desire	10.167	5.145	10.495	5.358	[2-28]
Excitement	9.111	2.767	7.634	3.037	[0-12]
Male Arousal*	10.333	2.427			[0-14]
Female Arousal*			4.970	2.191	[0- 8]
Fantasy	3.981	1.533	4.802	1.034	[0- 8]
Watching	2.352	.820	2.030	.938	[0- 3]
Embarrassment	3.611	.756	3.327	.945	[0- 4]
Photography	4.778	1.329	4.475	1.750	[0- 6]
Plot	1.556	.685	1.564	.861	[0- 4]
Attractiveness	2.481	1.134	2.337	1.625	[0- 6]
Explicitness	1.481	.833	.970	1.138	[0- 4]
Other Films	4.685	3.511	1.188	1.892	[0-12]
Memories	1.111	.458	1.099	.434	[0- 3]

* These means and standard deviations are non-comparable.

Table 14. Post-Film Clusters: Percentages

Cluster	Men		Women		Combined	
	Lower	Upper*	Lower	Upper	Lower	Upper
Desire	69	31	67	33	68	32
		(20)**			(21)	(20)
Excitement	Yes 24	No 76	Yes 36	No 64	Yes 32	No 68
		(24)		(25)	(25)	(25)
Male Arousal	Yes 26	No 74	--	--	--	--
		(17)				
Female Arousal	--	--	38	62	--	--
				(27)		
Fantasy	Yes 50	No 50	40	60	Yes 44	No 56
		(19)		(13)	(16)	(16)
Watching	Yes 22	No 78	32	68	29	71
		(27)		(31)		(30)
Embarrassment	Yes 10	No 90	17	83	14	86
		(19)		(24)		(22)
Photography	Enhanced 20	Interfered 80	Enhanced 25	Interfered 75	24	76
		(22)		(29)		(27)
Plot	Plot needed 61	39	Plot needed 61	No 39	Plot needed 61	39
		(17)		(22)		(20)
Attractiveness	Yes 41	No 59	Yes 61	No 39	Yes 60	No 40
		(19)		(27)	(25)	(25)
Explicitness	Less needed 37	More 63	Less needed 24	More 76	Less needed 29	More 71
		(21)		(16)		(27)
Other Films		39		10		20
		(29)		(16)		(26)
Memories	Yes 63	No 37	Yes 63	No 37	Yes 63	No 37
		(15)		(14)		(15)

* Lower and upper ends of 5-point scale; ** Standard deviation converted into percentage.

relationship between the Watching and Embarrassment clusters, however, is substantial (r is $+0.52$ for the combined group).

The Memories cluster seems to function as a pale version of the other arousal measures, as it is positively correlated with Arousal, Excitement, Fantasy, and Desire, and negatively correlated with Watching and Embarrassment. This cluster appears to be most highly correlated with the Fantasy cluster, and may be a "sub-set" of the fantasy experience.

Discussion of Film Characteristics

It appears that the various characteristics of the film Unfolding (Photography, Plot, Attractiveness, and Explicitness) had, at best, only a moderate impact upon the subjects' reported arousal (in terms of Desire, Arousal, Excitement, and Fantasy). Table 10 indicates that for the combined sample, the effects of the photographic quality of the film, had little relation to the indices of the subjects' arousal. (A slightly different picture emerges, however, when one considers the cluster means; see "Sex Differences.") The style of photography did seem to affect whether or not the subjects considered the actors and actresses to be attractive (this is not surprising), and the negative correlation between Photography and Explicitness seems to indicate that if the subject was satisfied with the film, he/she did not care for more explicitness; those subjects who were less satisfied with the film seemed to prefer more explicitness.

The lack of a formal plot or storyline did seem to have some negative impact upon the subjects' arousal. It is the writer's guess that the peculiar style of photography, together with the lack of a definite

plot, caused the film to be, at best, confusing and annoying, and at worst, to become an active interference in the arousal process. Again, it should be noted that Beeson conceived this film as a depiction of women's sexual fantasies; the film's tone is very unlike the tone of either a typical "stag" film or the more popular commercial productions, such as The Devil and Miss Jones, Behind the Green Door, etc. It is both different, and it seems, less capable of generating high degrees of reported arousal.

Both the attractiveness of the actors and actresses and the level of explicitness of the film seemed to exert more of an impact upon the subjects' experience of arousal. Both the Attractiveness and Explicitness clusters were moderately correlated with the subjects' expression of Desire, but the Explicitness cluster is more highly related with both Excitement and Fantasy. The results seem to indicate that those subjects who found the actors and actresses to be attractive were the subjects who were likely to be more aroused by the film, and it was also these subjects who would have liked for the film to be more explicit.

A note regarding the Explicitness cluster: this cluster is not included as part of the male matrix because the cluster did not emerge from the male data, as it had from the female data. The reason for its absence from the male data is probably because the cluster contains the item, "If there had been more explicit shots the male body and genitalia . . .", an item which, by and large, is more relevant to the women's experience of the film than to the men's.

Because a relatively small percentage of either males or females reported ever having seen an erotic film (see Appendix B: separate cluster analyses), the correlations between the Other Films cluster and the remainder of the post-film clusters is both relatively meaningless and difficult to interpret, given that subjects were given four options from which to choose in responding to these items. In any case, it appears that with the exception of Other Film's correlation with Explicitness, this cluster has little relationship with the other post-film clusters.

Post-Film Sex Differences

As has been the case throughout this study, the responses given by the men and women, in regard to both the pre- and post-film measures are highly similar, but some sex differences do emerge. Table 15 shows the means and standard deviations of the post-film clusters for the combined sample, men, and women, after they have been converted into percentages.

It becomes apparent that although neither the men nor the women found Unfolding to be a particularly arousing film (the means indicate that both men and women rated Unfolding as being "mildly arousing"), a slightly larger percentage of the women reported being aroused (Desire); a greater percentage of women than men reported themselves being generally excited (Excitement); and a greater percentage of women than men reported signs of specifically sexual arousal (Arousal). Fewer women, however, reported that they had experienced sexual fantasies as they watched the film, and a greater percentage of women reported being Self conscious as a result of their feelings of being watched. Equally,

more women than men reported experiencing the interfering effects of embarrassment or guilt as they watched the film. Both men and women reported the same degree of experiencing memories of past sexual encounters.

Men's and women's reactions to the quality of the film itself are very similar. Both women and men found the photographic style of the film to be more of a distraction or interference than an aid to their arousal, although the men seemed to be slightly more negatively affected than were the women. An equal percentage of men and women indicated that if the film had had a more coherent plot or storyline, then their arousal would have been enhanced. An interpretation of the mean percentages of the Attractiveness items is more difficult because the subjects were offered a choice of four alternatives: that the actors/actresses were perceived as unattractive, and that lessened the subjects' arousal; that the actors/actresses were perceived as unattractive, but that this did not affect the subjects' arousal; that the actors/actresses were perceived as attractive, and that enhanced the subjects' arousal; or that the actors/actresses were perceived as attractive, but that this had no effect on the subjects' arousal. The mean of both the men's and women's responses falls between the two options, the actors/actresses were not attractive, but that this did not affect the subjects' arousal, and the actors/actresses were attractive, and this enhanced the subjects' arousal. It appears that a greater percentage of women than men reacted positively in terms of the relative attractiveness of the actors and actresses.

In regard to explicitness: both men and women seemed to indicate that if the film had been more explicit, they would have been more aroused. Again, it is believed that the reason the women scored higher in regard to this question is because of the item asking for more explicit treatment of the male body and genitalia. (For an item by item distribution of percentages, see Appendix E.)

In general, then, one might conclude that the experience of watching this particular film was, at best, a mildly arousing event for both men and women, although the women evidenced slightly greater levels of reported arousal. The women were, however, more susceptible to the effects of self consciousness and embarrassment. Despite its low arousal properties, Unfolding did manage to stimulate a considerable degree of fantasy activity among the subjects.

One might also conclude that several characteristics of the film itself, including a peculiar and confusing style of photography and the absence of a coherent plot, are implicated as contributors to the low levels of arousal reported by the subjects. It may be that the more "arty" a film such as this tends to be, the more likely is the possibility that the viewers will report lowered arousal levels, in contrast to their reactions to a more explicit, straightforward film.

Note: The experimenter chose this particular film for two reasons: 1) she had seen it several years ago, and had remembered being quite aroused by it, and 2) she wanted to exercise caution in the selection of a film that would not overly "objectify" women, as do most stag films and commercially produced porno films, which are designed primarily for male consumption. In choosing Beeson's film, the

experimenter hoped to minimize the possibility of either irritating or angering her female subjects. What the experimenter had failed to take into consideration was the passage of time and the fact that practically nothing becomes old more quickly than does pornography. From hearing comments the subjects made (particularly the men) as they filed out of the experimental sessions, the experimenter quickly realized that for many of the subjects, this film has a distinctly "dated" air about it. Several of the men scoffingly compared this film to early "hallucinogenic" films (i.e., movies depicting drug experiences) of the early 1960s. The fact that the film is now dated is an initial strike against it; the situation is then compounded by the style of photography (shifting and gauzy, with an overemphasis upon conventional, and seemingly phony photographic metaphors for the sexual experience--the sea, the sky, the mass take-off of seabirds at the precise moment of orgasm), and the lack of a coherent plot.

It is quite true that one experimenter and one film cannot please (or arouse) all of her subjects all of the time, but it is also quite apparent that a more explicit, less symbolic, more recently produced film may have been a more appropriate choice for a sample of 1970s college students.

RESULTS: PATH ANALYSIS

This section will summarize the preceding results in the form of a mathematical model of the processes which took place during the showing of the film. The specific form of the model is a "causal diagram" constructed using path analysis.* Path analysis treats each variable as a continuous variable and attempts to determine the extent to which each variable is causally influenced by each of the other variables in the study. The causal diagram for women is shown in Figure 1. This figure shows an arrow pointing from any variable to any other variable on which it has a direct causal influence. Thus, there is an arrow from Sexual Arousal to Sexual Desire, indicating a direct effect of Arousal on Desire. However, there is no arrow from Morality to Desire. This does not mean that Morality and Desire are uncorrelated, but rather that the correlation only represents an indirect causal link between the two. There is an indirect linkage from Morality to Fantasy to Arousal to Desire (and a predicted correlation of $-.31$), but the evidence suggests no direct link. The test used is partial correlation: the absence of an arrow from Morality to Desire means that if either Fantasy or Arousal is controlled or held constant, then Morality and Desire would be uncorrelated. The numerical weights on the links in the diagram (i.e., the "path coefficients") are all beta weights, though if

* For a more detailed explanation of the workings of path analysis, see Appendix F, a write-up by Dr. John Hunter.

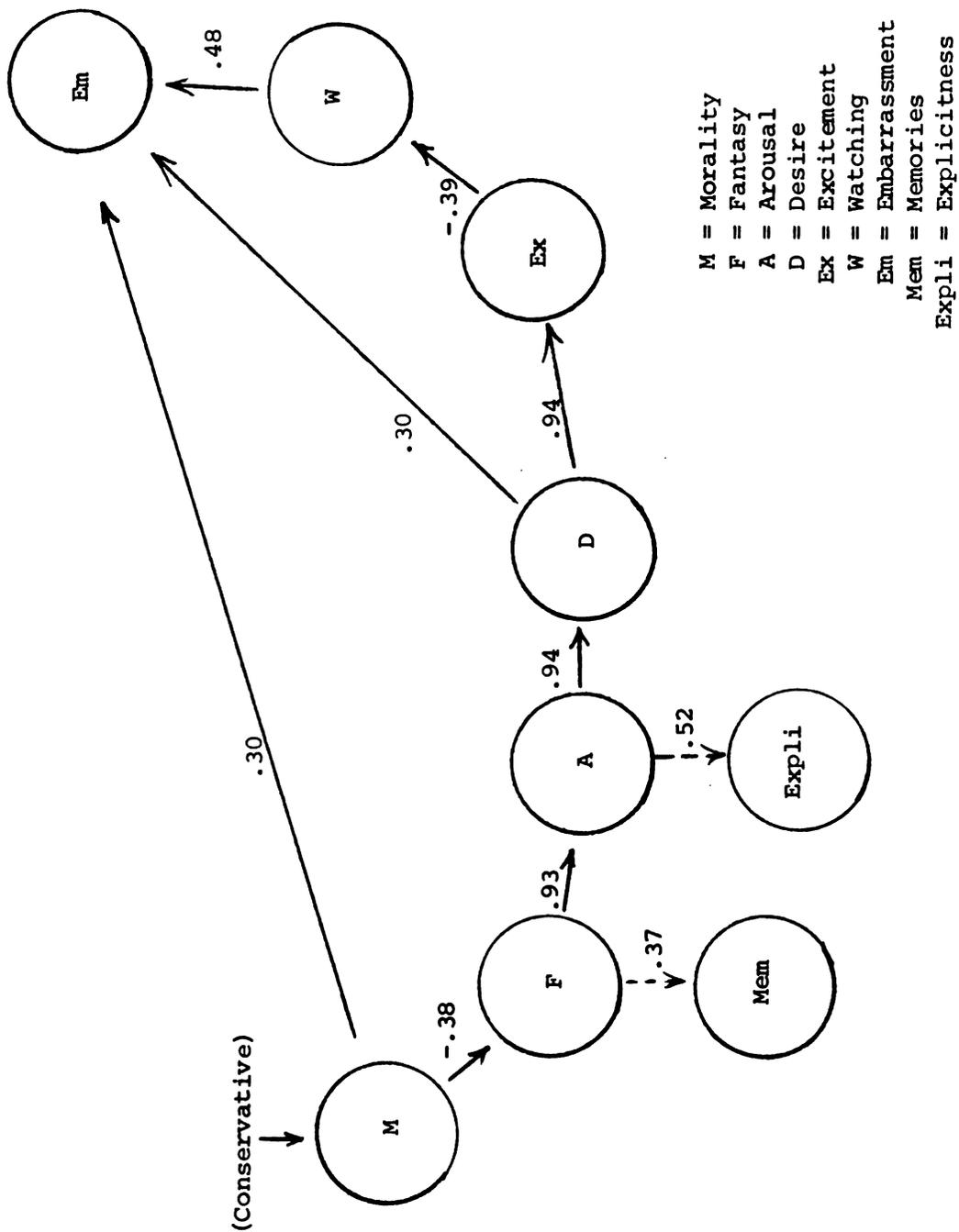


Figure 1: Proposed Model: Women

there is only one arrow pointing to a given variable, then the beta weight for that arrow is simply the correlation between the two corresponding variables. Finally, it should be noted that the correlations used in this diagram are corrected for attenuation and are thus not subject to the artifacts of applying path analysis to imperfect measurements.

Table 15 shows the actual correlations on which the path diagram of Figure 1 was based. Table 16 shows the predicted correlations obtained from the path diagram. Table 17 shows the error in deriving the correlations from the path diagram, and these errors are trivial. Thus, the data is consistent with the hypothesis of perfect fit between the path diagram and the correlations actually observed.

The only background variable in the diagram is an overall Sexual Morality score. This reflects the fact that sexual experience, and the FAND clusters were all unrelated to the post-film variables, and there was no apparent pattern to the differences in the correlations between the post-film variables and the different morality clusters.

The six process variables can be divided into two sets: a primary Fantasy-Arousal-Desire-Excitement chain and two subsidiary variables: Watching (Consciousness of others) and Embarrassment. These variables are named by process names, but it should not be forgotten that the variables are NOT the named process. Rather, each variable is an assessment of how the process took place differently in different women. For example, the Fantasy variable is a count of the number of types of sexual fantasy which each woman experienced while viewing the film. The "causal impact" of the Fantasy variable is thus largely a comparison

Table 15. Women: Actual Correlations

	M	F	A	D	Ex	W	Em
	1.00						
	.38	1.00					
	.24	.93	1.00	1.00			
	.25	.87	1.00	1.00			
	.19	.75	.89	.94	1.00		
	-.12	-.28	-.24	-.21	-.39	1.00	
	-.30	-.02	.01	.02	-.19	.52	1.00
Mem	.17	.37	.38	.33	.22	-.18	.22
Expli	.14	.27	.52	.37	.41	-.10	.27

Table 16. Women: Predicted Correlations

	M	F	A	D	Ex	W	Em
	1.00						
	-.38	1.00					
	-.35	.93	1.00				
	-.33	.87	.94	1.00			
	-.31	.82	.88	.94	1.00		
	.12	-.32	-.34	-.37	-.39	1.00	
	.06	-.15	-.17	-.18	-.19	.48	← thru W
	.30	-.11	-.11	-.10	-.09	.04	← thru M
	.36	-.26	-.28	-.28	-.28	.52	
	-.10	.26	.26	.28	.30		← thru D
	.26	0	0	0	.02	-.28	.52
Mem	-.14	.37	.34	.32	.30	-.12	.00
Expli	-.18	.48	.22	.49	.46	-.18	.00

Table 17. Women: Actual/Predicted

	M	F	A	D	Ex	W	Em
	0^a						
	.11	0^a					
	.08	0^b	.06				
	.13	-.07	$.01^b$	0^a			
	0	-.01	.10	.16	0^a		
	.04	-.02	.01	0	.09	0^b	
Mem	-.03	0	.04	.01	-.08	-.06	.22
Expli	-.04	-.21	0	-.12	-.05	.08	.27
							.07

a0 because corresponding correlation is incorporated directly into the model.

b0 because corresponding correlation was used to estimate a parameter in the model.

of the different implications of having versus not having sexual fantasies.

The four primary variables are very highly correlated and show direct links of .93, .94, .94. Suppose these path coefficients had actually been perfect. The interpretation would then have been stark and simple: Temporally, the first process to take place is the sexual fantasy; some women have them and some do not. If a woman has a sexual fantasy, then she experiences physiological sexual arousal. If she has no fantasy, then she experiences no arousal. If she experiences sexual arousal, then she entertains the explicit desire to have sex in some form. If there is no arousal, then there is no desire. Finally, if she thinks about having sex, then she becomes excited. If there is no desire, then there is no excitement either. Put it all together and a perfect causal chain would predict that there are two kinds of women: those who successively experience Fantasy-Arousal-Desire-Excitement in that order, and those who experience none of the four reactions.

Why are the primary path coefficients less than 1? This cannot be determined from the present data using any known form of analysis, but the following interpretation fits the known data and appears plausible. Consider the measurement of fantasy. The key consideration in constructing this variable was to detect whether or not a fantasy took place. Thus a rather extensive list of various types of fantasies was checked. However, no questions as to the characteristics of the fantasy were asked. In particular, the duration, vividness, and titillation of each fantasy or set of fantasies was ignored. Presumably, this would mean that presence-absence of fantasy would be perfectly

(given correction for attenuation) reflected in the score, but the potency of the fantasy would be only crudely measured. Thus, the fantasy score does not perfectly predict the arousal which the fantasy elicited.

Similarly, the arousal variable made no provision for individual differences in the pleasure of different sensations, and made no provision for individual differences in the threshold amount of arousal required to trigger the thoughts embodied in the desire to have sex. Finally, the desire variable was defective in two ways: 1) it left out many modes of sexual expression such as homosexual contact, the use of vibrators, etc., and 2) it left out the imagined context of the desired sex (especially "right here and now" versus "in my room" or "in my boy friend's room").

It is interesting that there is no link from Fantasy to Desire. Thus there were virtually no women who went from a sexual fantasy to the desire for sex without first experiencing physiological sexual arousal. Thus, the transition from these two modes of thought about sex was mediated by physiological events in the sex organs.

On the other hand, there is also no link from Arousal to Excitement. Thus, one might suppose that since both involve the activity of nerve fibers in the gut, that generalized excitement might simply be the "spill-over" from specifically sexual arousal to general excitement. However, the data show this NOT to be the case. Rather, the generalized excitement is produced by the thought of having sex. Thus, in this case, the transition between the two modes of physiological activity is mediated by the intervening thoughts of sex.

Taken together, the two preceding paragraphs lay out data on both sides of the James-Lange theory of emotion. The physiological sexual reaction precedes the mental reaction, and yet the mental anticipation of sex precedes the physiological anticipation of action.

Another missing link stands in sharp contradiction to the psychoanalytic theory of sexual function (i.e., libido theory): the missing link between Morality and Desire. The correlation between Morality and Arousal is only $-.24$. Thus, there are many pairs of women who are matched in Arousal but differ on Morality. Consider, for example, two highly aroused women, one of whom is prudish in her attitude toward sex and the other of whom is liberal. For the liberal woman, it is natural to go from arousal to thoughts of having sex, i.e., from arousal to desire. But the Victorian woman can only contemplate sex with embarrassment and guilt. Thus, the Victorian woman can spare herself considerable anxiety by repressing the sexual desire elicited by the arousal. If this happened in fact, then for any given level of arousal, women with more liberal attitudes toward sex would experience more desire than would conservative women. This in turn means that psychoanalytic theory predicts that there should be a substantial positive partial correlation between liberal sexual morality and desire with arousal held constant. The actual partial correlation is zero.

The first subsidiary variable was Watching: some women thought about being watched by the other women in the experiment; some did not. Among those women who experienced the full Fantasy-Arousal-Desire-Excitement reaction, watching only occurred after the full reaction, if it occurred at all. Women who experienced generalized excitement were

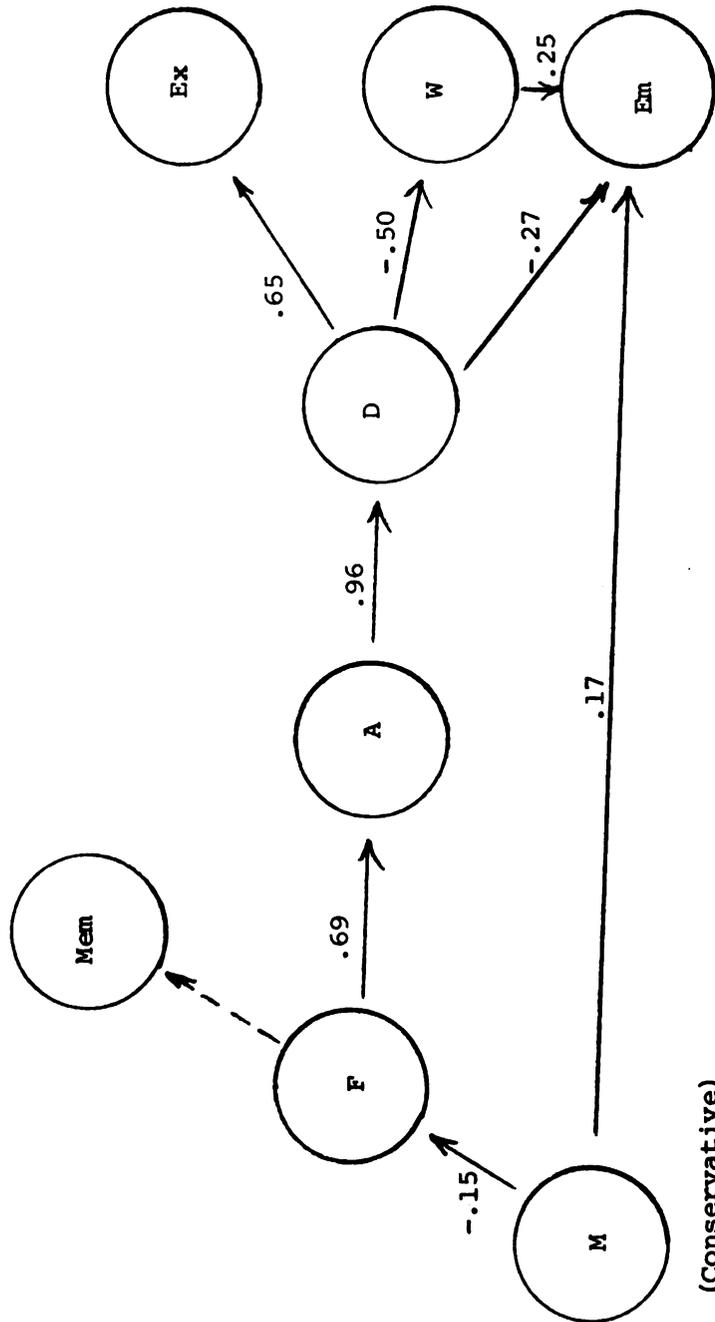
less than half as likely to think about being watched as were those women who were not excited. The most obvious interpretation of this data is that the primary reaction occupies all of a woman's attention and completely drowns out thoughts about external events.

The second subsidiary process is embarrassment. Here the path diagram shows three links: from Morality, from Desire, and from Watching. One interpretation of this is that there are several distinct processes that can bring about embarrassment. For example, some of the conservative women might have felt embarrassed about participating in the experiment, which would contribute to the path coefficient for Morality. Some women may have felt embarrassed that they were experiencing desire in a public place, which would contribute to the path coefficient for Desire. If it is largely the conservative women who are embarrassed by their own desires, then this process would also account for some portion of the path coefficient for Morality. Finally, most of the women who thought about being watched were also embarrassed (by about a 75-25 margin), and that would account for the path coefficient for Watching.

The background variable Morality makes only two contributions to the path diagram: First, Liberal women are about twice as likely to have sexual fantasies as are conservative women. Second, conservative women are about twice as likely to be embarrassed as are liberal women. In particular, this means that Morality was the only background variable which correlated with the occurrence of the primary reaction, and it only correlated $-.38$. Thus, correct prediction of a woman's response to the film could only be obtained 70 percent of the time from the

background variables gathered in this study. What other variables might have been operating? Some obvious candidates are: mood, menstrual cycle position, time since last positive (or negative) sexual experience. These would all have the character of "error" for a one week test-retest reliability study.

Figure 2 shows the path diagram for men, which is basically very similar to that for women. The key process links are again Fantasy to Arousal to Desire to Excitement. Thus, for men as for women, those who did not have fantasies did not become aroused; those who did not become aroused did not have desire; and those who did not become desirous did not become excited. That is, those who did not have sexual fantasies did not enter into the main process stream at all. On the other hand, there are two differences between the diagrams for men and for women: the link between Fantasy and Arousal is lower for men than for women (from .93 down to .69), and the link from Desire to Excitement is lower for men than for women (down from .94 to .65). What this means is that men tended to drop out of the main sequence at these two point. That is, some of the men who had fantasies did not go on to become aroused. Since men are lower than women on the Fantasy dimension, this probably means that more of the men who had fantasies were having "weak" fantasies which did not put them across their arousal threshold. However, another possibility is that men might be more experienced at having sexual fantasies than women, and that as a result of such practice have become adapted to the fantasies to such an extent that they have less effect for the highly experienced men who then do not become aroused. If there were such a difference in habituation to the effects of sexual



M = Morality
 F = Fantasy
 A = Arousal
 D = Desire

Ex = Excitement
 W = Watching
 Em = Embarrassment
 Mem = Memories

(Conservative)

Figure 2. Men: Proposed Model

fantasies, then it might also account for the fact that some of the men who were feeling desire did not become generally excited.

Another difference between the path diagrams for men and women is in the relation between the main process variables and the secondary process variables. The largest difference is in the location of the link between these two systems: for women the link was between Excitement and Watching, for men the link is between Desire and Watching. One interpretation of this is that thoughts of being watched occurred earlier in the time sequence for men than for women if they occurred at all. That is, those men who felt desire and had thoughts of being watched had those thoughts at the same time as they were feeling generalized excitement. On the other hand, that link is negative and stronger for men than for women; only some 25 percent of the men who felt desire went on to have thoughts of being watched.

A second difference between men and women is in the sign of the link between Desire and Embarrassment. For men this sign is negative. This suggests that men are not embarrassed at being sexually aroused; indeed the sexual desire tends to prevent later thoughts of embarrassment (perhaps because men might continue their desires longer after the film is over than women?).

For men as for women, morality is linked negatively to having fantasies and positively to feeling embarrassed.

The data for men replicate the finding for women in terms of cognitive-emotional interaction. The relation between fantasy and desire is mediated by physical arousal, but the link between arousal and generalized excitement is mediated by desire. Thus, neither thought

nor physiological events are dominant in the sequence of emotions elicited by the film.

The data for men also replicate the finding contrary to the psychoanalytic theory of sexual impulses. For men as for women, there is no impact of sexual morality on the link between arousal and desire. That is, the data for men as for women stand in direct contradiction to the psychoanalytic theory of repression.

Tables 18 and 19 show the predicted and actual correlations for men, and Table 20 shows the deviations. All departures from the predictions of the path diagram are negligible.

Table 18. Men. Actual Correlations

	M	F	A	D	E	W	Em	
	1.00							
	-.07	1.00						
	-.18	.69	1.00					
	-.01	.60	.96	1.00				
	-.12	.44	.55	.65	1.00			
	.07	-.37	-.39	-.50	-.39	1.00		
	.21	-.14	-.40	-.40	-.27	.39	1.00	
Mem	-.37	.58	.49	.46	.48	-.44	-.20	1.00

Table 19. Men: Predicted Correlations

	M	F	A	D	E	W	Em
M	1.00						
F	-.15	1.00					
A	-.10	.69	1.00				
D	-.10	.66	.96	1.00			
E	-.06	.43	.62	.65	1.00		
W	.05	-.33	-.48	-.50	-.33	1.00	
Em	.04	-.26	-.38	-.40	-.26	.39	← thru D
Em	.17	-.03	-.02	-.02	-.01	.01	← thru M
Em	.21	-.29	-.40	-.42	-.27	.40	1.00
Mem	.09	.58	.40	.38	.25	-.19	-.17

Table 20. Men: Errors--Actual, Predicted

	M	F	A	D	E	W	Em
M	1.00						
F	.08	1.00					
A	-.08	0 ^b	1.00				
D	.09	-.06	0 ^b	1.00			
E	-.06	.01	-.07	0 ^b	1.00		
W	.02	-.04	.09	0 ^b	-.06	1.00	
Em	0 ^b	.15	.00	-.02	.00 ^b	.01 ^a	1.00
Mem	-.26	0	.09	.08	.23	-.25	-.03

^aError caused by link from M to Em only, otherwise set to 0 by multiple R.

^bError is 0 because correlation is directly used as a parameter.

DISCUSSION

The purpose of this study was to explore the responses and reactions elicited in college-aged men and women as a result of their viewing an erotic film. This topic, among others, was first explored in the United States, via a survey research approach, by Alfred Kinsey and his co-workers (1953), who found striking differences between men and women in both the nature of their responses, in terms of their reported sexual arousal, or lack of it, and in what Kinsey postulated to be their inherent "capacities" for being stimulated by psychosexual stimuli, particularly visual stimuli. The results of recent experimentation, however, notably, by researchers at Hamburg University in Germany (Schmidt, Sigusch, et al., 1969, 1970, 1973), and by studies commissioned and funded by the President's Commission on Obscenity and Pornography (1970) suggest that Kinsey's results are now dated. The researchers suggest that the long accepted finding with respect to widely disparate sex differences in men's and women's responses to erotic material has either simply disappeared, or that Kinsey's survey methods answers different questions than do experimental methods.

In addition to contradicting the results of Kinsey's original work, recent experimental efforts, which have usually involved subjects' actual exposure to a variety of erotic stimuli--texts, slides, and films--and immediate recording of the subjects' responses, via physiological readings, subjects' self reports, or a combination of the two--have sought to define what kinds of personality, setting, and

stimulus-related variables might be related to the process of becoming aroused by psychosexual stimuli.

For the purposes of this particular study, 155 subjects, 101 women and 54 men, mostly young, white, unmarried MSU sophomores and freshmen, undergraduate students of psychology, participated. Initially, they were asked to respond to a number of personality measures and questionnaires: a Sexual Morality Scale, a Sex Experience Scale, the Mosher True-False Sex Guilt Inventory, and a demographic questionnaire. In the case of the female subjects, an additional instrument, the Inventory of Feminine Values (FAND Inventory), was employed. The subjects then watched an erotic film, Constance Beeson's Unfolding, and finally, responded to a post-film questionnaire, an instrument devised by the writer in order to assess the subjects' reactions to the film.

By means of a multivariate cluster analysis, ten pre-film sexual attitude clusters (attitudes toward Masturbation, Premarital Sex I, Premarital Sex II, Homosexuality, Women's Sexuality, Prostitution, Pornography, Adultery, Children's Sexuality, and Dirty Jokes); one sex experience cluster, and twelve post-film clusters (Fantasy, Arousal, Desire, Excitement, Watching, Embarrassment, Memories, Explicitness, Attractiveness, Photography, Plot, and Other Films) were defined from the combined sample of men and women. From the women's responses to the FAND Inventory, an additional eight clusters arose, although none of these clusters were employed in any subsequent analysis. On the basis of several of the post-film clusters (Fantasy, Arousal, Desire, Excitement, Watching, Embarrassment, Memories, and Explicitness),

together with a general index of the subject's moral orientation (Morality), path analyses, or causal diagrams (separate, although highly similar paths for the male and female subjects), were constructed. These causal diagrams serve as proposed models which seek to define the processes, both physiological and psychological, the sequence of which results in the "end-product"--the subjects' reported sexual arousal, or lack of it, as it was, or was not, elicited by the film.

This study shares common features with other studies conducted in regard to this topic (i.e., the West German studies and the work reported by the President's Commission on Pornography) in that it employs some of the same variables: sexual attitudes, sex experience, sex guilt, etc. The study also makes use of the film Unfolding, which has been used at least once in previous research (Mann, Sidman, and Starr's study of married couples). Yet, this study is unlike previous experimental efforts, both in its use of correlational, rather than analysis of variance statistical techniques, and in that it attempts to put the variables into some kind of coherent framework (i.e., the path analysis models) in order to attempt to explain not only which variables may be salient in the process of becoming aroused as a result of exposure to filmed erotic stimuli, but also in what way those salient variables might be related.

As the writer was primarily interested in ascertaining, to the best of her ability, the processes, or sequence of events, that culminate in a subject's sexual arousal within this experimental context, the writer had no particular hypotheses in mind in regard to the results of this study, except her feeling that women who scored high on the

"self-directed" dimension of the FAND Inventory might be expected to report greater arousal upon seeing the film than those women who scored high on the "other-directed" dimension of the FAND. This, the only formally stated hypothesis, was not confirmed by the data. The study, however, was not without findings:

Pre-Film Clusters. From the results generated by her data, the writer found, in regard to the ten pre-film sexual attitude clusters, that sets of liberal/conservative attitudes tended to be highly and positively correlated with other sets of liberal/conservative attitudes; that there are certain behaviors toward which the majority of these subjects, at least, tended to be quite liberal (attitudes toward premarital sex within an affectionate relationship, for example), while there are behaviors toward which the majority of subjects tended to be more conservative (masturbation and homosexuality); and that the women tended to be more conservative in all of the measured attitudes than were the men.

A consistent finding in regard to the ten pre-film sexual attitude clusters--for the male sample, for the female sample, and for the combined group--was that the clusters tended to organize themselves into two blocks. The "core" of the first block was composed of attitudes toward Masturbation, Premarital Sex I, Premarital Sex II, and Homosexuality. The "core" of the second block was composed of attitudes toward Women's Sexuality, Pornography, and Prostitution; the remaining clusters either fit into one of the two blocks, or were left out altogether, depending upon whether the data was male or female.

A couple of hypotheses were advanced in an attempt to explain the two-block organization: 1) that the first block of attitudes are those which are more personally relevant to the subjects' lives, while the second block is composed of socially relevant attitudes which are more easily intellectualized; and 2) that in addition to a basic liberal/conservative split among subjects, a second differentiating "strand" running throughout the data may be whether or not the subject believes women are exploited. Combinations of liberal-conservative/exploited-non-exploited attitudes may account for the differences between the blocks of attitudes. Further testing, however, did not support either hypothesis. At this point, the reason underlying the curious two-block "split" is not know.

FAND Inventory. Eight clusters arose from the women's responses to the FAND Inventory, although none were used in subsequent analysis: Professional Woman, Working Mom, Assertion, Compliance, Sacrifices, Equal Rights, Marriage and Family Come First, and Husband. Although there was a tendency for liberal sexual attitudes to be positively correlated with liberal attitudes toward "women's role," there was no evidence that liberal attitudes toward women's role were related to greater expressions of self-reported arousal as the result of the woman viewing an erotic film.

It is the writer's assertion, although it is untested in this study, that the FAND represents not only the "self-directed" vs. "other-directed" dichotomy, but also a profession vs. wife-and-homemaker dichotomy, and that the two dichotomies are not necessarily the same. The writer suspects that the FAND, therefore, taps into four sets of attitudes and beliefs, rather than two.

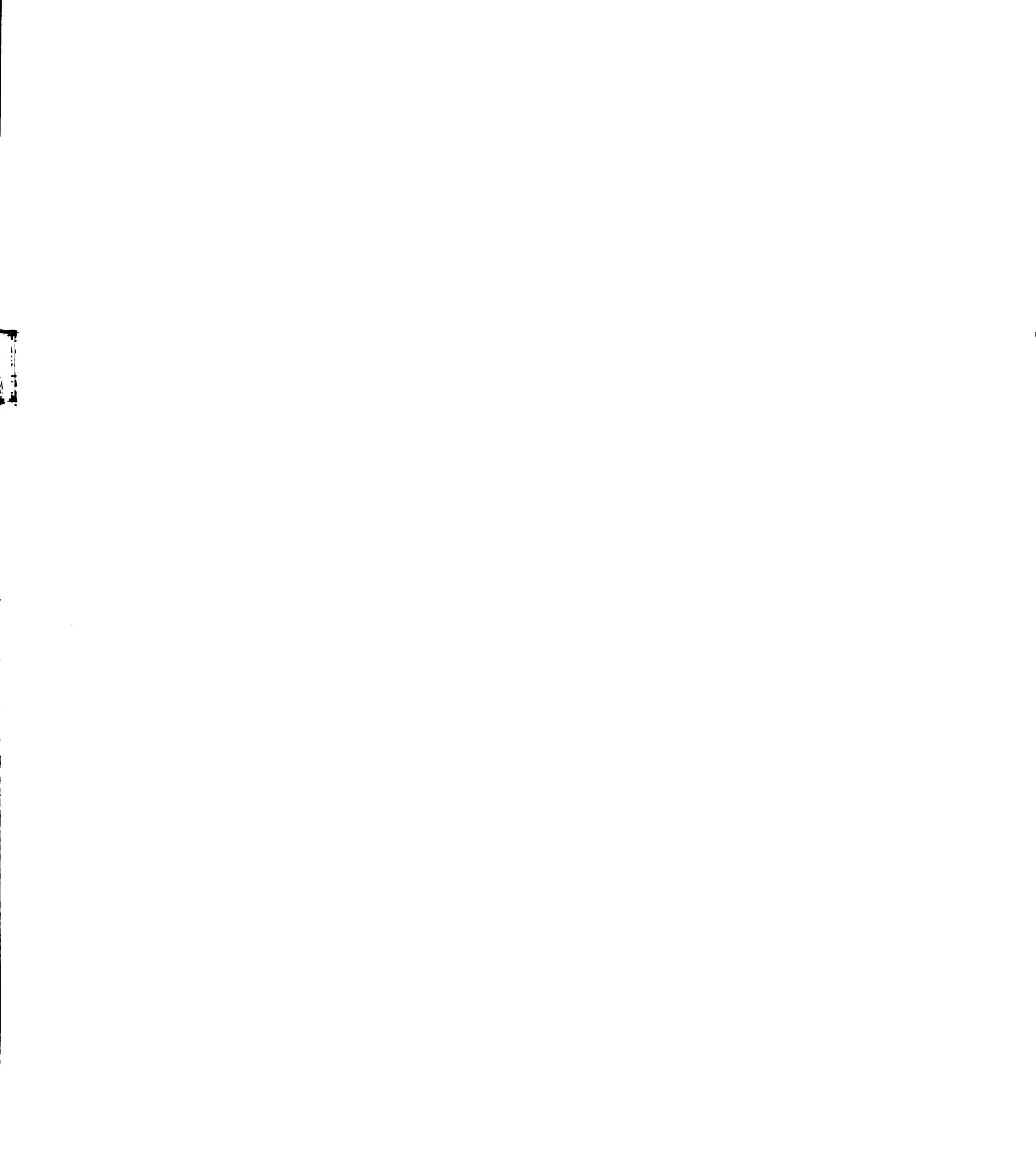
Post-Film Clusters and Path Analyses. As noted previously, twelve clusters arose from the subjects' responses to the post-film questionnaire: Fantasy, Arousal, Desire, Excitement, Watching, Embarrassment, Memories, and Explicitness--all of which were related to the process of becoming sexually aroused as a result of watching an erotic film--and Attractiveness, Photography, Plot, and Other Films, which are all related to the quality of this particular film. The first set of post-film clusters, together with a general index of the subject's moral orientation, were then employed as the basis for path analysis models which attempted to construct a picture of what happened to the subjects as they watched the film.

The model generated from the women's data indicated that the moral orientation (Morality) with which the woman entered the experimental situation had some impact upon whether or not the woman experienced a sexual fantasy (Fantasy) while viewing the film. A liberal sexual moral orientation was positively correlated with the experience of a fantasy, while a conservative moral orientation was negatively correlated with fantasy experience. If the woman did experience a sexual fantasy, there was a high probability of her then experiencing physiological sensations indicative of sexual arousal (Arousal); the state of arousal then led to feelings of a desire for sex (Desire). At the point of desire, one of two possible, although not equally probable events might occur. For the majority of women, feelings of desire were then followed by the experience of physical sensations associated with general, bodily excitement (Excitement), but for a smaller number of women, the feelings of desire led to feelings of embarrassment

(Embarrassment), and the experience of embarrassment was positively related to an original conservative moral orientation. The model for women also predicted that for some women, the experience of generalized bodily excitement would lead to feelings of self consciousness (Watching) and then to feelings of embarrassment.

The model generated from the male data was basically similar to that proposed for the women. Moral orientation had some impact upon whether or not the male experienced a sexual fantasy. If the man experienced a sexual fantasy, it was most likely that he then experienced the physiological indicators of sexual arousal, and arousal then led to desire. At the point of desire, it was most likely that the male, like the female, would then experience bodily sensations associated with general excitement, although some of the men, at the point of desire, became self-conscious and then embarrassed, while other men, at the point of desire, became embarrassed. Again, the experience of embarrassment was positively correlated with an initial conservative moral orientation. The male and female models differ in that the women seemed obliged to become excited before the Watching-to-Embarrassment chain was activated, whereas the male data indicated a direct link from Desire-to-Watching, without the presence of the intervening variable, Excitement. The reason for this difference is not known.

Film. For the majority of these subjects, the viewing of the film, Unfolding, was, at best, a mildly arousing event. Although the women reported themselves as being slightly more aroused than the men, as was the case in Mann, Sidman, and Starr's study of married couples, overall, subjects reported being only "mildly" aroused (point "2" on a five-point



scale). The writer suggests that the reason for the comparatively low levels of arousal had to do with several of the qualities of the film itself: a hazy, confusing photographic style, the absence of a clearly defined storyline or plot, and a reliance upon dated, seemingly "corny" photographic metaphors for the sexual experience. Subjects seemed to have wanted more straightforwardness and explicitness, and less symbolism. It has been suggested that a certain degree of obscurity (i.e., "mystery") in regard to sexual images is tantalizing, imagination-provoking, and therefore arousing--more arousing than stark nakedness. Yet, it also appears to be true that at some point, obscurity becomes frustrating and antithetical to the arousal process. For many of these subjects, at least, Unfolding passed this point. (What was needed, for the purposes of this experiment, was a sexy, but non-sexist, erotic film. The writer wonders if such a celluloid beast exists. . .)

In addition to extending current knowledge/explanations of what happens to a subject as a result of his/her exposure to filmed psychosexual stimuli, the writer believes that this study further elucidates the degree to which males and females, at least male and female college students, are similar in their responses within this particular experimental setting. This study reinforces the notion that the vast differences between men and women, which Kinsey found in his original survey, are more likely to be the result of differential social conditioning--the only explanation Kinsey did not advance in his interpretations of his results--rather than as the result of inherent and differing capacities men and women possess in regard to being aroused by "psychologic" stimuli, particularly visual stimuli. As Money and

Ehrhardt note, it is probably not the capacity to become aroused with which researchers should concern themselves, but rather, the manner in which that capacity displays itself.

As noted previously, this study may also have some implications for the psychoanalytic conception of libido, particularly in regard to the mechanism of repression, in that the path analysis models provided no statistical support for the existence of repression at the point at which such a mechanism would have been predicted to demonstrate its effects. (This is a particularly painful statement for the writer to make, given her long-standing belief in analytic explanations of the workings of the psychic apparatus. It should be noted, however, that there exists a great deal of debate over whether or not essentially unconscious processes can be adequately addressed and either proved or disproved by methods such as those employed in this study. There also exists a great deal of debate over whether or not there is such a thing as an unconscious, whatever its accompanying processes and attributes might happen to be . . .)

Finally, this study has some implications for the theory of emotion, particularly in regard to the constant interplay among situational, physiological, and cognitive-psychological components present in an individual's response to a sexual--or any other emotionally loaded--stimulus. If the models generated by the path analyses in any way accurately define what is going on emotionally for the subjects in this context, it becomes quickly apparent that the subject's response is a complex one, involving the interspersing of physiological and cognitive components. As Schacter and Singer have indicated,

there is an all-important cognitive component at work in a subject's interpretation of, or reaction to, a specific emotional context. The cognitive component--in this case, the experience of a fantasy--seems to determine the subsequent physiological reaction (sexual arousal); that physiological reaction is further cognitively interpreted (desire); this interpretation has further physiological consequences (excitement), which may, then, be related to further cognitive interpretations (self consciousness and embarrassment). It appears to the writer that further exploration of the nature of sexual fantasies: how they are generated, how they are interpreted, how they translate themselves into the physiological indicators of sexual arousal, together with their individual and sex-related differences--would be both a fruitful and tricky area for future research.

APPENDICES

APPENDIX A

INSTRUMENTS

APPENDIX A

INSTRUMENTS

Demographic Questionnaire

Part I

Instructions: Please complete the following questionnaire. Fill in the appropriate space on the purple answer sheet. Please answer every item (Items 1-9).

1. What is your sex?
 - a. Male
 - b. Female

2. What is your age?
 - a. Under twenty
 - b. From 20 to 24
 - c. From 25 to 29
 - d. From 30 to 34
 - e. 35 or over

3. What is your marital status?
 - a. Single
 - b. Married
 - c. Separated
 - d. Divorced
 - e. Widow, widower

4. To which racial group do you belong?
 - a. White
 - b. Black
 - c. Mexican American
 - d. Oriental
 - e. Other

5. What is your current educational status?
 - a. Freshman
 - b. Sophomore
 - c. Junior
 - d. Senior
 - e. Graduate student

6. What is your present religious preference?
 - a. Atheist, agnostic
 - b. Protestant
 - c. Catholic
 - d. Jewish
 - e. Other

7. What is your political affiliation?
 - a. Republican
 - b. Democrat
 - c. Independent
 - d. Other

8. How would you describe your political views?
 - a. Very liberal
 - b. Somewhat liberal
 - c. Moderate
 - d. Somewhat conservative
 - e. Very conservative

9. How religious would you say you are?
 - a. Very religious
 - b. Somewhat religious
 - c. Slightly religious
 - d. Not at all religious
 - e. Anti-religious

Part II

Inventory of Feminine Values (Revised)

Instructions: You are asked to indicate your opinion on each of the following items by selecting a number from one to five and marking it on your answer sheet in the corresponding place. Use the following scale:

STRONGLY AGREE-1 AGREE-2 NO OPINION-3 DISAGREE-4 STRONGLY DISAGREE-5

PLEASE RESPOND TO THESE STATEMENTS WITH YOUR TRUE OPINION. KEEP IN MIND THE WAY YOU REALLY ARE. CONTINUE USING YOUR PURPLE ANSWER SHEET. Part II begins with item 10 and ends with item 43.

10. Most ambitious and responsible husbands would not like their wives to work outside the home.
11. I usually pay no attention to other people's feelings.
12. A woman who works cannot possibly be as good a mother as the woman who stays at home.
13. I would like to gain recognition for the professional work I do.
14. I try to do what I think people want me to do.
15. I feel a conflict between what society dictates that I do as a woman and what I wish to do myself.
16. Should I marry, I would feel uncomfortable if my husband were not successful.
17. I sometimes feel I must do everything for myself, that I can accept nothing from others.
18. The needs of a family should come before a woman's professional ambitions.
19. I am not sure the joys of motherhood make up for the sacrifices.
20. I like listening to people better than talking to people.
21. I argue with people who try to give me orders.
22. Once a woman marries, marriage and children should come first in her life.
23. When I am with a group of people, I usually become the leader.
24. I worry about what people think of me.
25. I express my ideas strongly.
26. Professional success is more important for single women than for married women.
27. Should I marry, I would not change my political beliefs just to satisfy my husband.
28. If a marriage should fail, it is usually the woman's fault.
29. A working mother can give her children just as much love and attention as a mother who stays at home.
30. The greatest help a wife can give her husband is to encourage his progress and success.
31. For women, marriage is largely a story of one unjustifiable sacrifice after another.
32. I can put myself in the background and work hard for a person I admire.
33. Major decisions in a marriage should be equally shared by the husband and wife.
34. My primary goal in life is to raise happy children.

35. What I think of myself as a person is more important to me than what others think of me.
36. If we disagree, I would give in to my husband more often than I would expect him to give in to me.
37. The greatest satisfactions in life come from one's professional successes.
38. A woman can truly love only one man.
39. A woman should have interests outside the home.
40. I am sure what a woman gains from marriage makes up for difficulties she might experience.
41. Mothers should bring up their boys and girls to believe in equal rights and freedom for both sexes.
42. A woman's place is in the home.
43. If I really thought I could be famous, I would give up anything for it.

Part III

Sexual Morality Questionnaire

Instructions: Please indicate your opinion on each of the following items. Use the same scale you used in Part II:

STRONGLY AGREE-1 AGREE-2 NO OPINION-3 DISAGREE-4 STRONGLY DISAGREE-5

CONTINUE USING THE PURPLE ANSWER SHEET. PLEASE ANSWER EVERY ITEM.

Part III begins with item 44 and end with item 62.

44. I would engage in premarital sex only if I were in love with my partner.
45. I would engage in premarital sex only if I were engaged to be married to my partner.
46. I would engage in sexual relations only if I were married.
47. I believe that sexual intercourse is wrong, unless it is for the purpose of procreation.
48. I would feel OK having sex for no other reason than for physical enjoyment.
49. I personally reject the view that premarital sexual relations is bad.
50. For me, masturbation is an acceptable way to release sexual tension.
51. If I masturbated, I would not feel guilty about it.
52. I believe the only right position for sexual intercourse is with the man on top.
53. I don't think there is anything wrong with experimenting with different positions during sexual intercourse.
54. There is nothing immoral about oral genital sex.
55. I think women should be as free as men to enjoy sex.
56. Sexually aggressive women turn me off.
57. It is hard for me to envision myself as the initiator of sexual activity.
58. For me to engage in sexual relations with a person of the same sex would really violate my code of personal morality.

- 59. I think that watching erotic movies and reading pornographic books or magazines is a harmless past-time.
- 60. I believe all pornography should be outlawed.
- 61. I believe that pornography causes people to commit sexual crimes.
- 62. No sexual act is wrong, if it takes place between consenting partners.

Part IV

Sex Experience Scale (Female)

Instructions: Please indicate whether or not you have engaged in each of the following activities. Respond to every item. Remember that your answers are strictly confidential.

CONTINUE USING THE PURPLE ANSWER SHEET. Part IV begins with item 63 and ends with item 74.

- 63. I have kissed a man.
 - a. Yes
 - b. No
- 64. I have engaged in kissing which involved tongue contact.
 - a. Yes
 - b. No
- 65. I have had my clothed breast manipulated by a man.
 - a. Yes
 - b. No
- 66. I have had my nude breast manipulated by a man.
 - a. Yes
 - b. No
- 67. I have had my genitalia manually manipulated by a man.
 - a. Yes
 - b. No
- 68. I have had my breast orally stimulated by a man.
 - a. Yes
 - b. No
- 69. I have manually manipulated a man's genitalia.
 - a. Yes
 - b. No
- 70. I have had face-to-face heterosexual intercourse.
 - a. Yes
 - b. No
- 71. I have orally stimulated a man's genitalia.
 - a. Yes
 - b. No
- 72. I have had my genitalia orally stimulated by a man.
 - a. Yes
 - b. No
- 73. I have had heterosexual intercourse where I faced away from my male partner.
 - a. Yes
 - b. No

92. MASTURBATION is all right.
93. PETTING, I am sorry to say, is becoming an accepted practice.
94. "DIRTY" JOKES IN MIXED COMPANY are lots of fun.
95. SEX RELATIONS BEFORE MARRIAGE ruin many a happy couple.
96. UNUSUAL SEX PRACTICES are O.K. as long as they're heterosexual.
97. WHEN I HAVE SEXUAL DESIRES they are usually quite strong.
98. IF IN THE FUTURE I COMMITTED ADULTERY I would be ashamed but not say anything about it.
99. WHEN I HAVE SEXUAL DREAMS I cannot remember them in the morning.
100. SEX PLAY is quite common among children.
101. "DIRTY" JOKES IN MIXED COMPANY are exciting and amusing.
102. IF I COMMITTED A HOMOSEXUAL ACT IT would be because of the environment and need.
103. SEX RELATIONS BEFORE MARRIAGE are good in my opinion.
104. IF IN THE FUTURE I COMMITTED ADULTERY I wouldn't feel bad about it.
105. SEX should be saved for wedlock and child bearing.
106. WHEN I HAVE SEXUAL DREAMS I wake up happy.
107. THERE SHOULD BE NO SEXUAL RELATIONS BEFORE MARRIAGE.
108. PROSTITUTION is a result of society not recognizing the needs of her members.
109. "DIRTY" JOKES IN MIXED COMPANY should be avoided.

Part V

Post-Film Questionnaire

Instructions: This questionnaire is designed to assess your reactions to the film you have just seen. Please respond to every item by marking the appropriate space on your answer sheet. USE THE SECOND OF YOUR TWO ANSWER SHEETS FOR PART V. Part V begins with question 1 and ends with item 55.

1. Please indicate how sexually aroused you were while watching this film.

If you were not aroused at all, rate yourself 1.

If you were mildly aroused, rate yourself 2.

If you were moderately aroused, rate yourself 3.

If you were strongly aroused, rate yourself 4.

If you were extremely aroused, rate yourself 5.

Using the same five-point scale as above, rate the arousal you experienced while viewing the following scenes:

2. The scenes of the couple undressing one another.
3. The scenes of the couple embracing and kissing one another.
4. The scenes of the couple having intercourse.
5. The scenes of oral-genital sex.
6. The shots of the penis moving in and out of the vagina.

Toward the middle and end of the film, did you experience any of the following?

If you did, rate yourself 1.

If you are uncertain, rate yourself 2.

If you did not, mark 3.

7. Increased heart rate.
8. Increased breathing rate.
9. Dry mouth.
10. Muscle tension.
11. Muscle relaxation.
12. Flushing.
13. Sweating.

FEMALES: Did you experience any of the following?

If you did, mark 1.

If you are uncertain, mark 2.

If you did not, mark 3.

14. No genital sensations.
15. Mild genital sensations (i.e., tingling).
16. Strong genital sensations (i.e., throbbing, pulsating).
17. Breast sensations.

- 18. Vaginal lubrication.
 - 19. Orgasm.
-

MALES: Did you experience any of the following?

- If you did, mark 1.
- If you are uncertain, mark 2.
- If you did not, mark 3.

- 14. No erection.
 - 15. Penis engorgement without erection.
 - 16. Partial erection.
 - 17. Full erection, less than three minutes.
 - 18. Full erection, 3-6 minutes.
 - 19. Full erection, more than 6 minutes
 - 20. Emission.
 - 21. Ejaculation.
-
- 20. I noticed that my level of arousal:
 - a. Remained constant throughout the film.
 - b. Was greater during the first half of the film than the second half.
 - c. Was greater during the last half of the film than during the first half.
 - d. Fluctuated, depending upon which scene I was viewing.
 - 21. The dream-like or fantasy-like quality of this film:
 - a. Enhanced my arousal.
 - b. Had no effect on my arousal.
 - c. Interfered with my arousal.
 - 22. The nature shots in this film (beach scenes, seascapes, birds, etc.)
 - a. Enhanced my arousal.
 - b. Had no effect on my arousal.
 - c. Interfered with my arousal.
 - 23. The method of photography (multiple over-lays, etc.) in this film:
 - a. Enhanced my arousal.
 - b. Had no effect on my arousal.
 - c. Interfered with my arousal.
 - 24. The music accompanying this film:
 - a. Enhanced my arousal.
 - b. Had no effect on my arousal.
 - c. Interfered with my arousal.
 - 25. If this film had been in color:
 - a. I would have been more aroused.
 - b. Doesn't matter.
 - c. I would have been less aroused.

26. Part of my arousal was because I found myself having memories of my own past sexual experiences.
 - a. Yes
 - b. No
27. Part of my arousal was because I found myself having sexual fantasies.
 - a. Yes
 - b. No
28. In my fantasies, I imagined myself making love to the man/woman in the film.
 - a. Yes
 - b. No
29. In my fantasies, I imagined myself making love to my current sexual partner (i.e., husband, wife, boyfriend, girlfriend).
 - a. Yes
 - b. No
30. In my fantasies, I imagined myself making love to a past sexual partner.
 - a. Yes
 - b. No
31. In my fantasies, I imagined myself making love, but to no one person in particular.
 - a. Yes
 - b. No
32. If I had known more about the relationship that existed between the couple in the film:
 - a. I would be more aroused.
 - b. Doesn't matter.
 - c. I would be less aroused.
33. If the film had had more of a story or plot:
 - a. I would be more aroused.
 - b. Doesn't matter.
 - c. I would be less aroused.
34. If there had been more scenes of explicit sexual activity (i.e., more intercourse scenes):
 - a. I would be more aroused.
 - b. Doesn't matter.
 - c. I would be less aroused.
35. If there had been more explicit shots of the male body and male genitalia:
 - a. I would be more aroused.
 - b. Doesn't matter.
 - c. I would be less aroused.

36. As I watched the film, I put myself in the male's place, and imagined that I was doing what he was doing.
- Yes
 - No
37. As I watched the film, I put myself in the woman's place, and imagined what it would feel like if what was being done to her were being done to me.
- Yes
 - No
38. As I watched the film, I found the male attractive.
- No, and it lessened my arousal.
 - No, but I don't think it affected my arousal.
 - Yes, and it enhanced my arousal.
 - Yes, but I don't think it affected my arousal.
39. As I watched the film, I found the female attractive.
- No, and it lessened my arousal.
 - No, but I don't think it affected my arousal.
 - Yes, and it enhanced my arousal.
 - Yes, but I don't think it affected my arousal.
40. Did you, at any time during the film, experience such thoughts as, "I really shouldn't enjoy watching a film like this"? (Note: Whether you believe this statement or not, answer on the basis of whether or not such thought occurred to you.)
- Yes
 - No
41. Did you, at any time during the film, look around to see if anyone was watching you?
- Yes
 - No
42. Did you, at any time during the film, wonder if people were watching you?
- Yes
 - No
43. Did you, at any time during the film, feel like you wanted to turn around and see if other people were reacting as you were?
- Yes
 - No
44. Did you, at any time during the film, experience such thoughts as, "What would my mother say if she knew I was watching a film like this?"
- Yes
 - No

45. While watching the film, did you feel yourself getting "hot," your face flushing, your hands sweating?
- Yes
 - No
46. At any point during the film, did you find yourself becoming so involved that you began to feel guilty for the couple and what they were doing?
- Yes
 - No
47. At any point, did you find yourself feeling guilty about observing people making love?
- Yes
 - No
48. At any point during the film, did you find yourself remembering your own sexual experiences?
- No
 - Yes, and it was pleasant.
 - Yes, and it brought back feelings of guilt associated with those experiences.
49. At any point during the film, did you find yourself experiencing a sexual fantasy?
- No
 - Yes, and it was pleasant.
 - Yes, and I began to feel guilty about what I was doing in the fantasy.
50. Have you seen Deep Throat?
- No
 - Yes, and this film was more arousing than Deep Throat.
 - Yes, and this film was as arousing as Deep Throat.
 - Yes, and this film was less arousing for me than Deep Throat.
51. Have you seen Behind the Green Door?
- No
 - Yes, and this film was more arousing for me than Behind the Green Door.
 - Yes, and this film was as arousing for me as Behind the Green Door.
 - Yes, and this film was less arousing for me than Behind the Green Door.
52. Have you seen The Devil and Miss Jones?
- No
 - Yes, and this film was more arousing for me than The Devil and Miss Jones.
 - Yes, and this film was as arousing as The Devil and Miss Jones.
 - Yes, and this film was less arousing for me than The Devil and Miss Jones.

53. In comparison with other erotic films I have seen:
- a. I have never seen a film such as this before.
 - b. This film was more arousing than others I have seen.
 - c. This film was as arousing as others I have seen.
 - d. This film was less arousing than others I have seen.
54. After seeing this film, I felt like masturbating.
- a. Yes
 - b. No
55. After seeing this film, I felt like making love.
- a. Yes
 - b. No

APPENDIX B

**RESULTS OF SEPARATE CLUSTER ANALYSIS:
MEN AND WOMEN, PRE-FILM AND POST-FILM**

APPENDIX B

RESULTS OF SEPARATE CLUSTER ANALYSIS: MEN AND WOMEN, PRE-FILM AND POST-FILM

Results: Men, Pre-Film

Eleven distinct clusters emerged from the men's responses to the pre-film measures: the Sexual Morality Scale, the Sex Experience Scale, and Mosher's Sex Guilt Scale. Only the Sex Experience scale emerged intact as a cluster; the items which comprised the other scales were distributed throughout the clusters, usually on the basis of the content of the particular item. All of the correlations reported in this, and the following result sections, are drawn from a correlation matrix which has been corrected for unreliability. For a sample of 54 subjects, correlations of approximately .273 are significant at the .05 level, and correlations of approximately .354 are significant at the .01 level (Table, p. 536 from Glass and Stanley's Statistical Methods in Education and Psychology, 1970).

Attitudes Toward Premarital Sex. This cluster is composed of the following nine items, four items from the Sexual Morality scale and five items from the Mosher Sex Guilt scale:

I would engage in sexual relations only if I were married (R)*.

I believe that sexual intercourse is wrong, except for the purpose of procreation (R).

I personally reject the view that premarital sexual relations are bad.

No sexual act is wrong, if it takes place between consenting partners.

Sex relations before marriage help people to adjust.

If I had sex relations, I would not feel guilty.

Sexual relations before marriage are so common that they are no longer morally wrong.

Sex relations before marriage are good, in my opinion.

Sex should be saved for wedlock and childbearing (R).

There also emerged from the men's responses, a second cluster, which also dealt in part with premarital sexual attitudes, but in addition, included items that dealt more generally with the subject's attitude toward his sexual impulses and the conditions required before the subject would act on his impulses (the cluster will be referred to as "Attitudes toward Sexual Impulses"). The Attitude toward Sexual Impulses is a five item cluster, composed of three items from the Sexual Morality scale and two items from the Sex Guilt Scale. It strikes the writer that the "Impulses" cluster has a more personalized tone than does the "Attitudes Toward Premarital Sex" cluster, which includes a number of general, attitudinal statements.

* As is the case for all clusters, items were reflected so that the direction of the content agreed with the rest of the cluster. Items were consistently reflected in a liberal direction. (R) denotes a reflected item.

I would engaged in premarital sex only if I were in love with my partner (R).

I would engaged in premarital sex only if I were engaged to be married to my partner (R).

I would feel OK having sex for no other reason than for physical enjoyment.

When I have sexual desires, I usually try to curb them (R).

When I have sexual desires, I usually try to satisfy them.

Predictably, these two clusters were highly related to one another ($r = +.53$), although the second of the two clusters, "Attitudes Toward Sexual Impulses," was more highly correlated with the men's overall rating of their arousal to the film ($+.36$, as opposed to $+.19$).

"Attitudes Toward Masturbation": The third cluster which emerged from the men's responses is a cluster concerning the subject's attitude toward masturbation. It is composed of four items, two from the Sexual Morality Scale, and two from the Mosher Sex Guilt Scale:

For me, masturbation is an acceptable way to release sexual tension.

If I masturbated, I would not feel guilty about it.

Masturbation is fun.

Masturbation is all right.

The cluster was correlated $+.35$ with the Premarital Sex cluster and $+.51$ with Attitudes Toward Sexual Impulses.

"Attitudes toward Homosexuality": This cluster is composed of three items, one of which is from the Sexual Morality scale, and two of which are drawn from Mosher's Sex Guilt scale:

For me to engage in sexual relations with a person of the same sex would really violate my code of personal morality. (R).

If I committed a homosexual act, it would be because of environment and need.

Unusual sex practices are OK as long as they are heterosexual (R).

This cluster showed correlations of $_.35$ with "Attitudes Toward Premarital Sex," $+.30$ with "Attitudes Toward Sexual Impulses," and $+.29$ with "Attitudes toward Masturbation."

"Attitudes Toward Women's Sexual Freedom": This cluster is composed of four items, all of which are from the Sexual Morality scale. The items' content is related to women's behavior as sexual beings, both specifically during intercourse, and more generally:

I believe the only right position for sexual intercourse is with the man on top (R).

I don't think there is anything wrong with experimenting with different positions during intercourse.

I think women should be as free as men to enjoy sex.

Sexually aggressive women turn me off (R).

From the correlations, it appears that liberal attitudes toward women's expression of their sexuality are also related to liberal attitudes toward premarital sex ($r +.36$ with the "Attitudes toward Premarital Sex cluster) and liberal attitudes toward one's own sexual impulses ($r = +.52$ with "Attitudes Toward Impulses" cluster). Conservative attitudes are related to one another in the same fashion.

"Attitudes Toward Children's Sexuality": This cluster is composed of three items, all from the Sex Guilt scale:

Sex play among children is natural and innocent.

Sex play is quite common among children.

Sex play is not good for the mental and emotional well-being of children (R).

Evidently, children and the amount of "sex play" they may or may not engaged in, is not a particularly compelling issue for the men in this sample. Their attitudes toward children's sexually bear little relation to the attitudes they might hold toward their own sexual behaviors. This cluster correlates only +.15 with "Attitudes toward Premarital Sex," +.04 with "Attitudes toward Sexual Impulses." The cluster does correlate +.30 with a liberally scored Sex Experience cluster; liberal sex experience and liberal attitudes toward children's sexuality appear to be related.

"Attitudes Toward Prostitution": This cluster is composed of three items, all from the Mosher Sex Guilt scale:

Prostitution should be legalized.

Prostitution is the result of society not recognizing the needs of her members.

Prostitution is a sign of moral decay in society (R).

Not surprisingly, liberal (or conservative) attitudes toward prostitution are related to liberal (or conservative) attitudes toward premarital sex ($r = +.55$ with the "Attitudes toward Premarital Sex cluster), liberal attitudes toward one's own sexual impulses ($r = +.24$), liberal attitudes toward masturbation ($r = +.24$)--and liberal attitudes toward women's sexual freedom ($r = +.71$).

"Attitudes Toward Pornography": This cluster is composed of three items, all from the Sexual Morality scale:

I think that watching erotic movies and reading pornographic books and magazines is a harmless pasttime.

I believe that all pornography should be outlawed (R).

I believe that pornography causes people to commit sexual crimes (R).

As expected, liberal/conservative attitudes toward pornography are related to a host of other liberal/conservative attitudes. This cluster correlated .48 with Attitudes Toward Premarital Sex, .34 with Attitudes Toward Sexual Impulses, .21 with Attitudes Toward Masturbation, .49 with Attitudes Toward Homosexuality, and .58 with Attitudes Toward Women's Sexual Freedom.

"Attitudes Toward Adultery": This cluster is composed of three items, all from the Mosher Sex Guilt Scale:

If, in the future, I committed adultery, I would probably feel bad about it. (R)

If, in the future, I committed adultery, I wouldn't feel bad about it.

If, in the future, I committed adultery, I would feel ashamed, but not say anything about it. (R)

Again, as expected, the subject's liberal/conservative attitude toward adultery were related to a number of other liberal/conservative attitudes. This cluster correlated +.21 with Attitudes Toward Premarital Sex, +.30 with Attitudes Toward Sexual Impulses; +.42 with Attitudes Toward Masturbation, +.50 with Attitudes toward Women's Sexual Freedom, +.46 with Attitudes Toward Children's Sexuality, +.57 with Attitudes Toward Prostitution, and .40 with Attitudes Toward Pornography.

"Attitudes toward Dirty Jokes": This cluster is composed of five items, all from the Mosher Sex Guilt scale:

Dirty jokes in mixed company makes them more interesting.

Dirty jokes in mixed company are not proper. (R)

Dirty jokes in mixed company are lots of fun.

Dirty jokes in mixed company are exciting and amusing.

Dirty jokes in mixed company should be avoided. (R)

For some reason, Mosher seems to have a special interest in subjects' reactions to dirty jokes . . . in mixed company. Although this cluster's relationship to the other pre-film clusters ran in the expected direction, the correlations of the Dirty Joke cluster to other clusters were low-moderate, at best, the strongest of the correlations being +.34 with the Attitudes toward Adultery cluster.

Sex Experience: As stated previously, the Sexual Experience scale emerged as a cluster in its own right, almost totally intact, with three exceptions. The item, "I have kissed a woman," was dropped, as all 54 subjects responded positively to the statement, while the item, "I have had homosexual relations with another man," was not included for lack of statistical strength. Equally, the item, "There is nothing immoral about oral-genital sex," was more strongly related to the Sex Experience cluster than to any of the other clusters, and was, therefore, included with the remainder of the sex experience items although the inclusion of this item does upset content homogeneity.

The Sex Experience cluster was correlated, in the expected direction, with a number of the other pre-film clusters: +.25 with Attitudes Toward Premarital Sex, +.18 with Attitudes Toward Sexual Impulses, +.12 with Attitudes Toward Masturbation, +.37 with Attitudes Toward Homosexuality, +.42 with Attitudes Toward Women's Sexual Freedom, and +.30 with Attitudes Toward Children's Sexuality. The highest correlation this cluster showed with any of the other pre-film clusters was +.53, with the Attitudes Toward Pornography cluster.

Pre-film clusters and their relationship with the Arousal sub-scale: It is a consistent feature of the data generated by the responses of the fifty-four men, that the pre-film clusters, derived from personality measures, are more strongly related to one another than they are related to the men's reported arousal. The correlations of the eleven pre-film

clusters with an Arousal subscale* range from +.01 for the Sex Experience cluster to +.42 with the Attitudes Toward Homosexuality cluster. In the main, the correlations between the per-film clusters and the Arousal subscale are low to moderate: +.11 with Attitudes toward Dirty Jokes, +.13 with Attitudes toward Pornography, +.16 with Attitudes Toward Children's Sexuality, +.19 with Attitudes Toward Premarital Sex, +.20 with Attitudes Toward Adultery, +.25 with Attitudes Toward Masturbation, +.36 with Attitudes Toward Sexual Impulses. As stated previously, the Arousal subscale correlated +.42 with Attitudes Toward Homosexuality; for both the Sex Experience and the Attitudes toward Prostitution clusters, little relationship with reported arousal emerged (correlations were +.01 and +.08, respectively).

Results: Women Pre-Film

From the women's responses to the four pre-film measures--the Sexual Morality scale, Sexual Experience scale, the Mosher True-False Guilt Inventory, and the Inventory of Feminine Values--twenty distinct clusters emerged. As was the case for the male subjects, only the Sex Experience scale emerged intact as a cluster in its own right. The items from the other three instruments were distributed throughout the clusters, primarily upon the basis of the content of the particular items. As will be seen shortly, many of the clusters were similar to those which emerged from the male responses. The women, however, seemed to discriminate more finely among items of similar content. There are, therefore, several instances wherein the women's responses generated two-item clusters, while the men's responses had generated three-item clusters. At the same time, the pre-film clusters generated by the women's responses are not as "clean" (content-wise) as those of the men's. For a sample size of 1.01 correlations of .195 and significant at the .05 level of significance; correlations of approximately .245 are significant at the .01 level.

The first of the clusters which emerged from the women's responses might be labeled, "Attitudes Toward Sexual Activity Other Than Inter-course, with an Emphasis Upon Masturbation." (For convenience, this cluster will be referred to simply as the "masturbation cluster.") The cluster is composed of eight items, four items from the Sexual Morality scale, and four items from the Mosher Sex Guilt scale:

If I masturbated, I would not feel guilty.

For me, masturbation is an acceptable way to release sexual tension.

There is nothing immoral about oral-genital sex.

It is hard for me to envision myself as an initiator of sexual activity. (R)

When I was a child, sex excited me.

* The Arousal subscale is composed of seven items from the post-film questionnaire, which include the subject's rating of his overall arousal, together with six items which ask the subject to rate his arousal to specific sexual activities depicted in the film. The "Arousal subscale" is not to be confused with the "Arousal cluster" spoken of in the post-film result sections; the "Arousal cluster" includes two additional items.

Masturbation is fun.

Unusual sex practices might be interesting.

Masturbation is all right.

One might speculate that the reason the initiator item, the "unusual sex" statement, and the sex-as-a-child item appear in this cluster is that the women considered masturbation as unusual sex, which, obviously, is self-initiated, and which is likely to occur during childhood. The inclusion of the oral-genital item is more difficult to justify on this basis, yet what this cluster seems to imply is the women's willingness to participate in sexual activities (masturbation, oral-genital sex, female-initiated sexual encounters) which may still be less acceptable for this sample of women than even participation in premarital sexual activity. This cluster is of further interest in light of one finding derived from the men's responses: of all of the clusters which emerged from the men's pre-film data, the Attitudes Toward Homosexuality cluster showed the greatest relationship with the men's rating of their overall arousal to the film. For the women, it is this cluster which shows the strongest relationship with the women's rating of their arousal to the film ($r = +.44$). It may be that the acceptance or non-acceptance of various sexual activities or sex related issues (i.e., premarital sex, masturbation, pornography, etc.) are ordered in such a way that an acceptance or tolerance of homosexuality is a particularly discriminating issue among men, while an acceptance of masturbation/female-initiated sexual activity more sensitively discriminates among groups of women.

"Attitudes Toward Premarital Sex (I)": The second cluster which emerged from the women's responses is composed of eight items, three from the Sexual Morality scale, and five from the Mosher Sex Guilt scale:

I personally reject the view that premarital sexual relations are bad.

I would engage in sexual relations only if I were married. (R)

No sexual act is wrong, if it takes place between consenting partners.

Sex relations before marriage help people to adjust.

If I had sex relations, I would not feel guilty.

Sexual relations before marriage are so common that they are no longer morally wrong.

When I have sexual desires, I usually try to satisfy them.

Sex relations before marriage are good, in my opinion.

Except for two items, all of the statements in this cluster refer directly to premarital sex. One might speculate that these women had sexual intercourse in mind as the most frequent method of satisfying their sexual desires, and that the activity "between consenting adults" which was most frequently considered was again, sexual intercourse. Not surprisingly, this cluster showed a definite relationship with the Attitudes toward Masturbation cluster ($r = +.40$). Unlike the masturbation cluster, this cluster showed almost no relationship with the women's rating of their arousal to the film ($r = +.04$).

"Attitudes Toward Premarital Sex (II)": A second, three-item cluster, whose content is also related to premarital sexual activity, emerged from the female data. All three items are from the Sexual

Morality scale:

I would engage in premarital sex only if I were in love with my partner. (R)

I would engage in premarital sex only if I were engaged to be married to my partner. (R)

I would feel OK having sex for no other reason than for physical enjoyment.

If one considers how the first two items would read after being reflected, "I would engage in premarital sex if I were not engaged to be married," and "I would engage in premarital sex if I were not in love with my partner"—together with the content of the third item, "I would feel OK having sex for no other reason than physical enjoyment"—it might be said that this cluster deals with premarital sex in the absence of emotional commitment. This commitment includes both "official" commitment (engagement) and the "unofficial," but still acceptable state of being in love. It appears that the women in this sample seem to be clearly discriminating between sex-before-marriage, as opposed to no-sex-before-marriage, and sex-before-marriage-with commitment, as opposed to sex-before-marriage-without-emotional commitment.

This cluster correlated +.48 with Attitudes Toward Masturbation and +.34 with Attitudes toward Premarital Sex (I). It is perhaps not surprising that the more "liberal" attitudes encompassed by Premarital Sex (II) would be more strongly correlated with attitudes toward masturbation, oral-genital sex, and female-initiated sexual activity, than with Attitudes toward Premarital Sex (I). It seems that if the "sexual revolution" has accomplished anything, it has been to make premarital sexual activity more acceptable, particularly for unmarried women. Masturbation, among a handful of issues, remains as a more "taboo" activity.

"Conservative Sexual Attitudes": This is a four-item cluster, composed entirely of items from the Mosher Sex Guilt scale. The specific content of the items is a mixed bag, but the tone of the items is one of undeniable conservatism--toward premarital sex, "unusual sex" (whatever that might be), and childhood sexual activity:

Sex should be saved for wedlock and childbearing.

There should be no sexual relations before marriage.

Unusual sex practices are immature.

Sex play is not good for the mental and emotional well being of children.

As would be expected, this cluster correlated negatively with the more liberal clusters, Attitudes Toward Masturbation and Attitudes Toward Premarital Sex (I) ($r = -.35$ and $-.31$, respectively).

"Attitudes Toward Women's Sexual Freedom": This is a three item cluster, drawn entirely from the Sexual Morality scale:

I believe the only right position for sexual intercourse is with the man on top. (R)

I don't think there is anything wrong with experimenting with different positions during intercourse.

I think women should be as free as men to enjoy sex.

This cluster correlated a striking +.57 with the Attitudes toward Masturbation cluster, a relationship which is not surprising, considering that

the items in this cluster involve actions and attitudes that revolve around women's choice and initiative. Equally, the cluster correlates +.50 with Premarital Sex (II), which involves women's freedom to engage in sexual intercourse for physical pleasure alone--without the benefit of engagement, or even the existence of a "love relationship". This cluster also correlates healthily ($r = +.48$) with Premarital Sex (I), which involves the woman's freedom to engage in sexual relations without being married.

"Attitudes toward Homosexuality": This is a three-item cluster, composed of two items from the Sexual Morality Scale and one item from the Sex Guilt scale:

For me to engage in sexual relations with a person of the same sex would really violate my code of personal morality. (R)

If I committed a homosexual act, it would be because of environment and need.

I believe that sexual intercourse is wrong, unless it is for the purpose of procreation. (R)

Although the third item does not refer specifically to homosexuality, there is a logical basis for its inclusion in the cluster, as homosexual activity cannot be employed in the service of reproduction. As might be expected, liberal/conservative attitudes toward homosexuality are related to other liberal/conservative attitudes: this cluster showed correlations of +.44 with Premarital Sex (II), +.45 with Attitudes toward Masturbation, +.58 with Attitudes toward Women's Sexual Freedom, and +.69 with Attitudes toward Premarital Sex (I).

"Attitudes Toward Children's Sexuality": This cluster is composed of two items, both from the Sex Guilt scale:

Sex play among children is natural and innocent.

Sex play is quite common among children.

This cluster is most strongly correlated with the Attitudes toward Masturbation cluster ($r = +.61$), a finding which is to be expected as masturbation is the sexual activity most readily available to children. This cluster was also strongly correlated with both Attitudes toward Premarital Sex (II) and Attitudes Toward Homosexuality (r for both is +.52).

"Attitudes Toward Prostitution": This is a two-item cluster, drawn from the Sex Guilt Scale:

Prostitution is a sign of moral decay in society. (R)

Prostitution should be legalized.

The third of the prostitution items, "Prostitution is the result of society not recognizing the needs of her members," was not of sufficient strength to be included in this cluster, as it had been for the men, perhaps because the item is related more to the needs of male members of society than to the needs of female members. This cluster is moderately correlated with Attitudes Toward Premarital Sex (II) ($r = +.23$), Attitudes toward Homosexuality ($r = +.25$), Attitudes toward Masturbation ($r = +.28$), Attitudes toward Premarital Sex (I) ($r = +.33$), and Attitudes toward Women's Sexual Freedom ($r = +.48$).

"Attitudes Toward Pornography": This is a three item cluster, which is drawn entirely from the Sexual Morality scale:

I think that watching erotic movies and reading pornographic books or magazines is a harmless pasttime.

I believe that all pornography should be outlawed. (R)

I believe that pornography causes people to commit sexual crimes. (R)

This cluster is correlated moderately, and in the predicted direction, with other sexual attitudes: +.29 with Attitudes toward Homosexuality, +.32 with Attitudes toward Premarital Sex (II), +.37 with Attitudes toward Children's Sexuality, +.38 with both Attitudes toward Premarital Sex (I) and Attitudes toward Masturbation, and +.43 with Attitudes toward Women's Sexual Freedom. The cluster shows its strongest relationship with Attitudes toward Prostitution ($r = +.74$). For these women, at least, attitudes toward prostitution and pornography are strongly related, a finding which is not surprising, as these two issues are often presented together by both local and national media reports.

"Attitudes Toward Adultery": This is a two item cluster, drawn from the Sex Guilt scale:

If, in the future, I committed adultery, I would feel bad about it. (R)

If, in the future, I committed adultery, I would be ashamed, but not say anything about it. (R)

Although this cluster showed low to moderate positive correlations with a number of liberally-scored clusters (+.18 with Attitudes toward Prostitution, +.29 with Attitudes toward Masturbation, +.43 with Attitudes toward Children's Sexuality), its strongest relationship was with Conservative Attitudes Toward Sexuality, wherein $r = +.75$.

"Attitudes Toward Dirty Jokes": This cluster is composed of five items, all from the Sex Guilt scale, and all dealing with reactions to "dirty jokes" told in "mixed company":

Dirty jokes in mixed company makes them more interesting.

Dirty jokes in mixed company are not proper. (R)

Dirty jokes in mixed company are lots of fun.

Dirty jokes in mixed company are exciting and amusing.

Dirty jokes in mixed company should be avoided. (R)

Again, the writer marvels at Mosher's preoccupation with subjects' reactions to dirty jokes. Nonetheless, this cluster exhibited a variety of moderate, but predictable correlations with other attitudes these women held: the cluster correlated +.25 with Attitudes toward Premarital Sex (I), +.26 with Attitudes toward Children's Sexuality, +.29 with Attitudes Toward Homosexuality, +.33 with Attitudes toward Prostitution, +.35 with Attitudes toward Masturbation, and .42 with Attitudes toward Women's Sexual Freedom. The strongest correlation this cluster exhibited was +.52--with Attitudes toward Pornography.

Fand Inventory Clusters

The following eight clusters emerged from the Fand Inventory. Almost without exception, these clusters show stronger relationships with one another than they do with any of the clusters whose content deals

specifically with either sexual activity or attitudes toward sexually related issues.

"Professional Woman": The first of the clusters which emerged from the Inventory of Feminine Values is a four item cluster, composed of the following statements:

I would like to gain recognition for the professional work I do.
I feel a conflict between what society dictates that I do as a woman and what I wish to do for myself.

The greatest satisfactions in life come from one's professional successes.

If I really thought I could be famous, I would give up anything for it.

This cluster showed several moderate, positive correlations with a number of more specifically sexually oriented clusters: +.17 with Attitudes toward Masturbation, +.22 with Attitudes Toward Adultery, .26 with Attitudes toward Premarital Sex (II), and .30 with Attitudes toward Premarital Sex (I). The strongest correlation this cluster showed with any of the sex-attitude clusters was +.38--with Attitudes Toward Women's Sexual Freedom. Overall, however, the strongest correlations this cluster exhibited were with two other clusters from the Fand Inventory: the "Assertion" cluster and the "Marriage and Sacrifices" cluster, both of which will be described shortly.

"Working Mom": This cluster is composed of the items:

A woman who works cannot possibly be as good a mother as a woman who stays at home. (R)

A working mother can give her children just as much love and attention as a mother who stays at home.

Although this cluster was moderately correlated with a number of sexual attitude clusters--+.20 with Attitudes toward Prostitution, +.22 with Attitudes toward Pornography, .29 with Attitudes toward Homosexuality, and +.43 with Attitudes toward Premarital Sex (I)--its strongest correlations are, again, with two Fand clusters: "Compliance" and "Marriage and Family Come First." Both correlations are negative: -.52 and -.44, respectively.

"Assertion": The Assertion cluster is composed of the following three items:

I argue with people who try to give me orders.

When I am with a group of people, I usually become the leader.

I express my ideas strongly.

This cluster is moderately correlated with several of the sexual attitude clusters: .24 with Attitudes toward Pornography and -.24 with Attitudes toward Adultery, .28 with Attitudes toward Premarital (I), .34 with Attitudes toward Masturbation, and .47 with Attitudes toward Prostitution. Of the other Fand Inventory clusters, the Assertion cluster showed its strongest relationship ($r = .65$) with the Professional Woman cluster.

"Compliance": The Compliance cluster is composed of the following three items:

I try to do what people want me to do. (R)

I worry about what people think of me. (R)

I can put myself in the background and work hard for someone I admire. (R)

Because all of the Compliance items were reflected (i.e., after reflection, they read: "I do not try to do what people want me to do," "I do not worry about what people think of me," and "I cannot put myself in the background and work hard for someone I admire), the correlations between this cluster and a number of the sexual attitude clusters were both positive and moderate. Had the content of the Compliance cluster not been reflected, moderate, negative correlations would emerge with Attitudes toward Homosexuality (-.22), Attitudes toward Adultery (-.26), Attitudes toward Prostitution (-.30), Attitudes toward Pornography (-.36), Attitudes toward Women's Sexual Freedom (-.37), and Attitudes Toward Premarital Sex (I) (-.45). Of the eight Fand-generated clusters, Compliance showed the strongest relationship with the Professional Woman cluster (-.65).

"Marriage, Motherhood, and Sacrifices": This is a three item cluster, composed of the following statements:

I am not sure the joys of motherhood make up for the sacrifices. For women, marriage is largely a story of one unjustifiable sacrifice after another.

I am sure what a woman gains from marriage makes up for the difficulties she might experience. (R)

The two sexual attitude clusters with which Marriage, Motherhood, and Sacrifices showed the greatest, although, again, moderate correlations were with Attitudes toward Masturbation ($r = +.25$) and Attitudes toward Homosexuality ($r = +.32$). Its highest correlations with other Fand clusters were with Professional Woman ($r = +.40$) and Marriage and Family Come First ($r = -.56$).

"Equal Rights": The "Equal Rights" cluster is composed of the items:

Should I marry, I would not change my political beliefs just to satisfy my husband.

Major decisions in a marriage should be equally shared by the husband and wife.

Children should be brought up to believe in equal rights for the sexes.

The highest correlations this cluster showed with any of the sexual attitude clusters were .28 with Premarital Sex (II) and .34 with Attitudes toward Women's Sexual Freedoms. The highest correlation "Equal Rights" showed with any of the other Fand-generated clusters was -.45 with the "Husband" cluster.

"Marriage and Family Should Come First": This is a four item cluster, composed of the following statements:

The needs of a family should come before a woman's professional ambitions.

Once a woman marries, marriage and family should come first in her life.

My primary goal in life is to raise happy children.

A woman's place is in the home.

"Marriage and Family Should Come First" showed a number of moderate, negative correlations with the sexual attitude clusters: $-.24$ with Attitudes Toward Dirty Jokes, $-.27$ with Attitudes Toward Pornography, $-.34$ with Attitudes Toward Children's Sexuality. Correlations with Attitudes toward Masturbation, Attitudes toward Premarital Sex (I), and Attitudes toward Premarital Sex (II), were even more modest ($-.20$, $-.16$, and $-.21$, respectively). Of all of the sexual attitude clusters, "Marriage and Family Should Come First," correlated most strongly with Attitudes toward Homosexuality ($-.51$). Of the Fand-generated clusters, those correlating most strongly with "Marriage and Family Should Come First" were "Husband" ($+.35$), "Working Mom" ($-.44$), "Compliance" ($+.54$), and "Marriage, Motherhood, and Sacrifices" ($-.56$).

"Husband": The final Fand-generated cluster is composed of the items:

Should I marry, I would feel uncomfortable if my husband were not successful.

Most ambitious and responsible husbands would not like their wives to work outside the home.

A woman can truly love only one man.

This particular cluster exhibited moderate, negative correlations with several liberally scored sexual attitude clusters: $.35$ with Attitudes Toward Adultery (here, the correlation is positive, as the Adultery cluster was scored in a conservative direction), $-.36$ with Attitudes toward Premarital Sex (I), $-.37$ with Attitudes toward Homosexuality, $-.38$ with Attitudes toward Dirty Jokes, $-.40$ with Attitudes toward Premarital Sex (II), $-.43$ with Attitudes Toward Women's Sexual Freedom, and $-.45$ with Attitudes toward Pornography. The "Husband" cluster also showed moderate correlations with five of the Fand-generated clusters: $-.33$ with "Working Mom," $.35$ with "Marriage and Family Should Come First," $-.38$ with "Professional Woman," $-.45$ with "Equal Rights," and $.55$ with "Compliance."

Sex Experience Cluster. As stated previously, the twelve items of the Sex Experience scale emerged intact as a cluster. On the whole, the relationship between the Sex experience cluster and the rest of the pre-film clusters was slightly higher than had been the case for the men. The highest correlations the Sex Experience cluster showed with any of the pre-film clusters were with Attitudes Toward Premarital Sex (I) ($r = .53$) and Attitudes toward Masturbation ($r = .52$), thus supporting the contention that liberal/conservative sexual attitudes are reflected by liberal/conservative ranges of sexual experience. Attitudes toward Prostitution, Women's Sexual Freedom, and Conservative Sexual Attitudes followed in terms of the strength of their correlations with the Sex Experience cluster ($.40$, $.38$, and $-.37$, respectively). The "Equal Rights" cluster, Attitudes toward Premarital Sex (II), Attitudes toward Adultery, "Compliance," Attitudes toward Pornography, "Assertion," and Attitudes toward Homosexuality all showed moderate correlations with the Sex Experience cluster ($.30$, $.29$, $.27$, $-.26$, $.21$, $.18$, and $.17$,

respectively). Six clusters--Attitudes toward Dirty Jokes, "Professional Woman," "Working Mom," "Marriage, Motherhood, and Sacrifices," "Marriage and Family Come First," and "Husband"--all exhibited little, if any, relationship with the Sex Experience cluster (correlations for these clusters ranged from $-.09$ to $.10$). It is not surprising that the two clusters which directly reflect the women's attitudes toward engaging in sexual activity should have the greatest relationship with sex experience.

Pre-Film Clusters and Their Relationship With the Arousal Subscale:

Following are the correlations between the pre-film clusters, generated from the women's responses, and an Arousal subscale. As noted previously, the arousal subscale is composed of the first six items from the post-film questionnaire, which ask that the subject(s) rate his/her arousal on a five-point scale, both for specific scenes depicted in the film, and for the subject's overall assessment of how aroused he/she was throughout the film.

Attitudes toward Masturbation	+ .44
Attitudes Toward Women's Sexual Freedom	+ .29
"Working Mom"	+ .28
Attitudes toward Dirty Jokes	+ .27
"Assertion"	+ .26
Conservative Attitudes Toward Sexuality	- .22
Attitudes toward Homosexuality	.14
"Husband"	- .14
"Professional Woman"	.14
Attitudes Toward Children's Sexuality	.12
"Compliance"	- .12
"Equal Rights"	.12
Attitudes toward Premarital Sex (II)	.12
Attitudes toward Adultery	- .10
Attitudes toward Pornography	.09
Marriage, Motherhood, and Sacrifices	.08
Attitudes toward Prostitution	.07
"Marriage and Family Should Come First"	.06
Attitudes toward Premarital Sex (I)	.04

As can be quickly seen, with the exception of one cluster, Attitudes Toward Masturbation, whose correlation is a moderate $.44$, none of the pre-film clusters correlated highly with the Arousal subscale. This finding, which is similar to the data generated by the men's responses, reinforces several contentions: 1) that constellations of attitudes, defined along either liberal or conservative lines, tend to go together (i.e., liberal/conservative attitudes toward premarital sex, prostitution, masturbation, pornography, etc., being related); 2) that, as had been the case for the men, the clusters derived from the women's responses to personality measures--Sex Guilt, Sex Morality, Sex Experience, and the Inventory of Feminine Values--are more highly correlated with one another than they are to the women's reported arousal to the film;

and 3) that for the women, (this might also be the same for men, but the Fand was not administered to the male sample), liberal sexual attitudes are related to liberalized views of "women's role," although the clusters derived from the Fand Inventory are themselves, like the other personality clusters, not highly correlated with the women's reported arousal.

Results: Men, Post-Film

Desire: From the items which comprised the post-film questionnaire, a number of distinct clusters emerged from the men's responses. The first of these clusters is labeled "Desire", a nine item cluster, which includes items which deal with the subject's reported arousal to the film as a whole, his arousal to specific scenes depicted in the film (the scenes of the couple undressing one another; scenes of the couple embracing and kissing one another, scenes of intercourse, scenes of oral-genital sex, and the close-up shots of the penis moving in and out of the vagina), the form the subject's arousal took (i.e., stable arousal throughout the film, arousal greater during the first half of the film, or the last half, or arousal which fluctuated, depending upon the scene being depicted), and whether or not the subject felt like making love or masturbating after having viewed the film. The weakest item in this cluster is the item, "After seeing the film, I felt like masturbating;" the strongest item, the one most predictive of the males' overall arousal, is the item, "Indicate how aroused you were to the scenes of the couple having intercourse." (See appendix for all cluster item inter-correlations.)

Self-Reported Physiological Excitement: General: This cluster is composed of six items, that reflect awareness of physiological state of arousal: whether or not the subject experienced increased heartrate, increased breathing rate, dry mouth, muscle tension, flushing, or sweating. This cluster correlated .63 with the Arousal cluster, although it should be noted that these items reflect a general state of arousal, which may be caused by anxiety, among other things, as well as by sexual arousal.

Self-Reported Physiological Arousal, Male Specific: As may be ascertained from the label, this cluster includes items which are specific to male sexual arousal: whether or not the subject experienced an erection; penis engorgement without erection; partial erection; full erection for either less than three minutes, three to six minutes, or for more than six minutes; or emission. The item, "ejaculation," was dropped from the cluster because none of the men reported experiencing ejaculation as a result of having viewed the film. Not surprisingly, this cluster correlated .90 with the Desire cluster and .63 with the general physiological cluster.

Fantasy: The six items in this cluster seek to ascertain whether or not the subject had experienced any sexual fantasies while he viewed

the film and the nature, or content, of those fantasies: whether the subject had envisioned himself making love to the woman portrayed in the film, making love to a past sexual partner, his current sexual partner, or to no person in particular. Also included in this cluster is the item, "I put myself in the man's place, and imagined that I was doing what he was doing."

Of the fifty-four men, 57.4 percent reported that they had experienced sexual fantasies while viewing the film; 18.5 percent reported fantasies of making love to the woman portrayed in the film, 50 percent reported fantasies of making love to their current sexual partner, 16.7 percent reported fantasies of making love to a past sexual partner, and 44 percent reported fantasies which involved making love to "no person in particular." Evidently, some of the men experienced more than one kind of fantasy while viewing the film. Additionally, 51.9 percent of the men reported that they had imagined putting themselves in the man's place and doing what he was doing. This cluster correlated .58 with the Desire cluster, .44 with the Excitement cluster, and .71 with the male Arousal cluster.

Memories: This is a two item cluster whose items reflect whether or not the subject experienced memories of his past sexual experiences and whether or not those memories contributed to his arousal. The cluster correlated .44 with the Desire cluster, .48 with the general physiological cluster, .46 with the male Arousal cluster, and .58 with the Fantasy cluster.

Self-Consciousness/"Guilt II": This four item cluster is composed of the following statements:

Did you, at any time during the film, experience such thoughts as, 'I really shouldn't enjoy watching a film like this'?

Did you, at any time during the film, wonder if people were watching you?

Did you, at any time during the film, look around to see if anyone was watching you?

At any point during the film, did you find yourself feeling guilty about observing people making love?

The cluster correlated -.40 with the Arousal cluster, -.45 with the general physiological cluster, -.44 with the male physiological cluster, -.32 with the fantasy cluster, and -.49 with the memories cluster.

Film Characteristics, I and II: For the men, two, two-item clusters emerged which were related to the characteristics of this particular film. "Film characteristics, I" asks the subject to respond to the method of photography employed in the film (multiple overlays, shifting scenes) and the fact that the film was in black-and white, rather than in color. "Film characteristics, II" seeks the subject's reaction to the dream-like, or fantasy-like quality of the film and to the presence of the nature shots that are interspersed among the scenes of sexual activity.

Comparison with Other Films, I and II: These two clusters are, again, each composed of two items, and involve the subject's comparison of the film Unfolding with other erotic films the subject may have seen.

"Other Films, I" involves the subject's comparison of Unfolding with the movies Deep Throat and the Devil and Miss Jones, which have been shown on the MSU campus, sometimes on the same bill. "Other Films, II" involves the subject's comparison of Unfolding with Behind the Green Door, also shown on the MSU campus during the past year, together with the general statement: "In comparison with other erotic films I have seen, this film was . . . more arousing/less arousing/as arousing . . ." Both clusters, although healthily related to one another ($r = .49$), evidenced only low correlations with the Arousal cluster (.23 and .17, respectively).

Of the fifty-four men, 55.6 percent had not seen Deep Throat, 83.3 percent had not seen Behind the Green Door, and 63 percent had not seen the Devil and Miss Jones. Of the men who had seen these films, however, a good percentage rated Unfolding as being less arousing (i.e., 37 percent of those who had seen Deep Throat, 9.3 percent of those who had seen Behind the Green Door, and 27.8 percent who had seen the Devil and Miss Jones rated Unfolding as being less arousing.) In response to the general question, "In comparison with other erotic films I have seen . . .," 66.7 percent of the men rated Unfolding as less arousing than other erotic films they had viewed.

Sexual Morality, Sex Experience, and Sex Guilt Measures: When the Sexual Morality scale, the Sex Experience scale, and the Sex Guilt Scale were scored as unitary instruments (Sections I and II of the Results Section deal with the instruments after they have been broken down into clusters), the following relationships emerged: the Sexual Morality scale correlated a modest .23 with the Desire cluster for the male subjects, .32 with the Sex Experience scale, and $-.64$ with the Sex Guilt scale. Somewhat surprisingly, the Sex Experience scale showed no relationship with the men's rating of their reported arousal, the correlation being $-.01$. The highest correlation the Sex Experience scale showed with any of the post-film clusters was .47 with the Memories cluster, thus underscoring the obvious conclusion that the more sexual experience one accumulates, the greater number of memories one has at one's disposal. Equally, the Sex Guilt measure, when scored as a whole, showed only a moderate, negative correlation with the men's rating of their arousal ($r = -.32$), thus supporting the contention that the higher one's score on the Sex Guilt scale, the lower one's reported arousal.

A number of the items which appeared in the post-film questionnaire were not of sufficient statistical strength to be included in the post-film clusters. Unlike the women, the men did not seem to be affected by such film characteristics as the presence or absence of a story or plot, or the perceived attractiveness of the actors and actresses in the film or at least these items did not emerge as clusters in their own right as they had for the women. From the strength of the correlations, it appears that the film, as an immediate stimulus, serves to induce physiological reactions, both general and specifically sexual, together with cognitive changes (i.e., fantasies), which are more directly related to

the arousal the subject reports himself having experienced than are the personality measures, which, as stated previously, are more highly correlated with one another than they are to the subject's reported arousal.

Results: Women, Post-Film

As will be seen shortly, the clusters which emerged from the women's responses to the post-film questionnaire are similar to those generated by the male data:

Desire: As for the men, this cluster is composed of those items from the post-film questionnaire which reflect the women's overall reported arousal to the film, their reported arousal to specific scenes depicted in the film, the course their arousal took (constant throughout the film, greater during the first half as opposed to the last half or vice-versa, fluctuating, depending upon the scene), and whether or not they felt like masturbating or making over after they had seen the film. Again, the item that was most predictive of the women's overall arousal was the item asking them to rate their arousal to the scenes of the couple engaging in sexual intercourse. As had been the case in Mann's study of married couples, in which the film Unfolding was one of several films the couples viewed, the women rated themselves as being slightly more aroused by this film than the men, the mean reported arousal of the women being 1.525 on a five-point scale, with a standard deviation of .918, while the mean reported arousal of the men was 1.259, with a standard deviation of .843. Both the men and the women rated Unfolding as being "mildly" arousing.

Excitement: As for the men, this cluster is composed of items which reflect a state of general excitement: whether or not the subject experienced increased heartrate, increased breathing rate, dry mouth, muscle tension, flushing, or sweating. For the women, this cluster correlated .94 with the Desire cluster.

Self-Reported Arousal-Female Specific: This cluster includes items which are specific to female sexual arousal: whether or not the women experienced mild genital sensations (defined as "tingling"), strong genital sensations ("throbbin" or "pulsating"), breast sensations, and vaginal lubrication. The item "no genital sensations" was dropped because of an unintended, but nonetheless confusing, double-negative wording, and the item "orgasm" was dropped because none of the women reported orgasm as a result of watching the film. This cluster correlated .89 with the general physiological cluster and a startling 1.0 with the Desire cluster.

Fantasy: Female: The items in this cluster reflected whether or not the women experienced sexual fantasies while viewing the film, together with the content of those fantasies: whether or not the subject imagined herself making love to the man portrayed in the film, making love to a current sexual partner, and whether or not the viewer had

fantasized putting herself in the woman's place and imagining, "what it would feel like if what were being done to her were being done to me." Approximately 53 percent of the women reported that they had experienced sexual fantasies while watching the film. Only 11 percent of the women reported that they had imagined making love to the man portrayed in the film; 66 percent reported that they had imagined making love to their current sexual partner, and 68 percent reported that they had imagined putting themselves in the woman's place. Unlike the results for the men, the item, "In my fantasies, I imagined myself making love, but to no one person in particular," was not of sufficient statistical strength to be included in this cluster; only 14 percent of the women reported experiencing a fantasy of this type.

Again, it appears that the act of fantasizing, as a result of an erotic stimulus, plays an important role in subjects' arousal. Males seemed to identify with the male role, and females with the female role, although there was slight evidence for some cross-sex identification: 9 percent of the men reported imaging themselves being in the female's place, while approximately 7 percent of the women reported imagining themselves in the male's place. It also appears that the women's fantasies tended to be more personalized than those of the men's: most women who reported fantasies which involved their current sexual partner, and only 14 percent reported fantasies involving no person in particular, while a much larger percentage of the men reported a non-specific fantasy.

The Fantasy cluster correlated .88 with the Desire cluster, .74 with the Excitement cluster, and .86 with the female specific physiological Arousal cluster.

Memories: This cluster is composed of two items which reflect whether or not the subject experienced fantasies of past sexual experience, and whether or not those memories contributed to her arousal. The cluster evidenced only moderate correlations with the Desire, general physiological, and female-specific physiological clusters ($r = .22, .12,$ and $.27,$ respectively).

Self Consciousness Clusters, I, II, and III: Each of these clusters is composed of two items which are related to some component of self consciousness, uneasiness, or guilt that the viewer may have experienced while watching the film.

The first of these clusters is composed of the items:

Did you, at any time during the film, wonder if people were watching you?

Did you, at any time during the film, feel like you wanted to turn around and see if other people were reacting as you were?

This cluster's correlation with the Desire cluster was $-.29$; it did, however, correlate $.46$ with the general physiological cluster, thus supporting the contention that the general arousal items reflect a state of emotional arousal that is not specific to sexual arousal, but may include elements of self consciousness, anxiety, guilt, etc.

The second of these clusters is composed of the items:

Did you, at any time during the film, experience such thoughts as, 'I really shouldn't enjoy watching a film like this'?

Did you, at any time during the film, experience such thoughts as, 'What would my mother say if she knew I was watching a film like this'?

This cluster correlated $-.21$ with the Desire cluster, $-.23$ with the Excitement cluster, and $-.27$ with the female Arousal cluster.

The third of the Self Consciousness clusters is composed of statements that are more directly related to guilt:

At any point during the film, did you find yourself becoming so involved that you began to feel guilty for the couple and what they were doing?

At any point during the film, did you find yourself feeling guilty about observing people making love?

Although this cluster correlated only $-.16$ with the Desire cluster, it was more highly correlated with both the Sex Guilt and Sex Experience scales ($.46$ and $.52$, respectively).

Film Characteristics, I, II, and III: From the women's responses to the post-film questionnaire, three clusters having to do with particular characteristics of the film Unfolding emerged:

Film Characteristics I included three items which involved the subject's reactions to the dream-like, or fantasy quality of the film, the presence of interspersed nature shots, and the method of photography.

Film Characteristics II: is a two item cluster involving the subject's reaction to the fact that the film did not have a clearly defined story or plot and to the fact that the relationship between the couple in the film was not clearly defined (except for the obvious fact that the couple were lovers).

Film Characteristics III: is a two item cluster which deals with the film's level of explicitness. Subjects were asked how their arousal would have been affected if the film had been more explicit (i.e., more intercourse scenes) and if there had been more frequent and explicit shots of the male body and genitalia. Although this film was designed to portray women's sexual fantasies, as is the case in the majority of commercially produced erotic films, more attention (photographically speaking) is devoted to the female body than to the male body. A number of the women who had taken part in the pilot study had commented, sometimes quite angrily, upon the differential treatment of male and female bodies.

"Film Characteristics, I", the photography cluster, correlated $.21$ with the Desire cluster, a finding that seemed to indicate that for the women who found themselves aroused by the film, the method of photography, the numerous nature shots, and the dream-like, or fantasy-like quality of the film had either enhanced their arousal, or at least, had not interfered with it. "Film Characteristics, II", the relationship-plot cluster, showed little relationship with the women's rating of their arousal ($r = .11$). "Film Characteristics, III," the explicitness cluster correlated $.36$ with the Desire cluster, thereby indicating that for the women who found themselves aroused by the film, more explicit portrayals of both sexual activity and the male body would have enhanced

their arousal or not interfered with it. Unlike the other two film characteristic clusters, the explicitness cluster showed moderately strong correlations with the Excitement cluster ($r = .41$), the female Arousal cluster ($r = .52$), and the Fantasy cluster ($r = .41$). Not surprisingly, this cluster correlated $-.55$ with the Self Consciousness III cluster (guilt for watching people making love, guilt for the couple and what they were doing).

Comparison with Other Films: This cluster is composed of four items, three of which seek the subject's comparison of Unfolding with Deep Throat, Behind the Green Door, and the Devil and Miss Jones. The fourth item is a general statement "In comparison with other erotic films I have seen, this one . . . was more arousing/as arousing/less arousing." The majority of women in this sample reported that they had not seen any of the specifically designated films (96 percent had not seen Deep Throat; 96 percent had not seen Behind the Green Door, and 91 percent had not seen the Devil and Miss Jones). In response to the general question, 58 percent of the women reported that they had never seen "a film such as this before" and of the women who had seen other erotic films, 12.5 percent reported Unfolding as being more arousing, 7.7 percent reported Unfolding as being as arousing, and 18.9 percent reported Unfolding to be less arousing than other films they had seen. Considerably fewer women than men reported ever having seen an erotic film, and the women tended to rate this film, which is more subtle than many commercially produced "porno" films, more favorably than did the men. This cluster correlated a moderate $.22$ with the Desire cluster, $.29$ with the Excitement cluster, and $.16$ with the female-Arousal cluster.

Attractiveness: This cluster, which did not emerge as a distinct cluster from the male data, is a two item cluster which seeks to ascertain the effects the attractiveness of the male and female actors and actresses portrayed in the film exerted on the viewer's arousal. The cluster correlated $.30$ with the arousal cluster, thus indicating that if the female viewer found the actors and actresses attractive, her arousal was enhanced. It may be the case that attractive models provide a greater basis for identification, and in this way, serve to enhance arousal. The Attractiveness cluster did not, however, show any relationship with the Fantasy cluster ($r = .03$).

Post-Film Clusters and Their Relationship with Personality Measures

Sex Morality Scale: When the Sex Morality scale was scores as a whole, it was found that liberal sexual morality was related to higher arousal ratings to the film ($r = .26$). The scale correlated $.47$ with the Sex Experience scale, thus supporting the contention that liberal sexual morality and liberal sexual experience tend to go together. Equally the Morality Scale correlated $-.71$ with the Sex Guilt scale (high score on the Sex Guilt scale is high guilt), thus supporting the conclusion that high levels of sex guilt are related to more conservative moral tendencies.

Sex Experience Scale: The Sex Experience Scale for the women was moderately related to their level of reported arousal, the correlation being .29. Sex Experience seemed to matter more for the women in this sample than for the men.

Sex Guilt Scale: As stated previously, the Mosher True-False Guilt Inventory, when scored as a unitary instrument (rather than being clustered), correlated highly (and negatively) to the liberally-scored Sexual Morality scale. The scale also correlated .45 with the Sex Experience Scale (scored so that low score indicated low sex experience), thus supporting the contention that high sex guilt and low sex experience tend to go together. The Sex Guilt scale's relationship with the level of the women's reported arousal was, again, modest: $-.24$.

Inventory of Feminine Values: For the purpose of this study, in addition to being clustered, the women's responses to the Inventory of Feminine Values was scored three times: once, in order to obtain a "self-oriented" score, once, for an "other-oriented" score, and as a combined score (other-directed plus self-directed). The correlations between these scores and the Desire cluster ranged from low to moderate: $+.24$ for Desire and the "self-oriented" score, $+.14$ for the Desire cluster and the "other-directed" score, and $+.03$ for the Desire cluster and the combined score. Of all the personality measures, the Fand Inventory, when scored as a unitary instrument, evidenced the least relationship with the women's overall arousal, although the results of the cluster analysis were slightly different.

In summary, a number of clusters emerged from the women's responses to the post-film questionnaire. As was the case for the men, it was the general physiological cluster, the female-specific physiological cluster, and the fantasy cluster that were most highly related to the subjects' overall arousal to the film. The unitarily-scored personality measures, were, at best, only moderately correlated with the women's overall arousal, although they did exhibit distinct relationships with one another.

APPENDIX C

PRE-FILM "CORE CLUSTERS":

MEN AND WOMEN COMBINED

APPENDIX C

PRE-FILM "CORE CLUSTERS":
MEN AND WOMEN COMBINED

Attitudes Toward Masturbation

Items:

- 50. For me, masturbation is an acceptable way to release sexual tension.
- 51. If I masturbated, I would not feel guilty about it.
- 82. Masturbation is fun.
- 92. Masturbation is all right.

	50	51	82	92
50	.71	.65	.46	.54
51	.65	.54	.30	.55
82	.46	.30	.25	.37
92	.54	.35	.37	.49
Masturbation	.85	.74	.50	.70
Premarital Sex I	.29	.33	.27	.24
Premarital Sex II	.33	.15	.33	.22
Women	.17	.14	.21	.19
Homosexuality	.30	.21	.45	.25
Prostitution	.15	.18	.17	.15
Pornography	.25	.19	.22	.11
Adultery	.34	.33	-.18	.32
Children	.25	.23	.49	.30
Dirty Jokes	.15	.23	.25	.15
Experience	.23	.23	.10	.17

Attitudes Toward Premarital Sex (I)

- 46. I would engage in premarital sex only if I were married (R)
- 49. I personally reject the view that premarital sexual relations are bad.
- 62. No sexual act is wrong, it if takes place between consenting partners.

- 76. Sex relations before marriage help people to adjust.
- 78. If I had sex relations, I would not feel guilty.
- 81. When I have sexual desires, I usually try to curb them (R).
- 83. Sexual relations before marriage are so common that they are no longer morally wrong.
- 86. When I have sexual desires, I generally try to satisfy them.
- 103. Sex relations before marriage are good in my opinion.

	46	49	62	76	78	81	83	86	103
46	.44	.42	.19	.45	.42	.9	.36	.24	.29
49	.42	.38	.39	.28	.33	.22	.21	.29	.38
62	.19	.39	.11	.14	.15	.13	.21	.03	.23
76	.45	.28	.14	.30	.28	-.02	.35	.28	.50
78	.42	.33	.15	.28	.33	.16	.38	.37	.27
81	.09	.22	.13	-.02	.16	.08	.01	.47	.20
83	.36	.21	.21	.35	.38	.01	.22	.18	.29
86	.24	.29	.03	.28	.37	.47	.18	.27	.30
103	.49	.38	.23	.50	.27	.20	.29	.30	.44
Masturbation	.21	.16	.12	.24	.18	.27	.08	.40	.24
Premarital Sex I	.66	.62	.34	.55	.57	.28	.47	.52	.66
Premarital Sex II	.32	.22	.09	.27	.28	.35	.12	.42	.23
Homosexuality	.43	.34	.28	.44	.35	.20	.24	.24	.49
Prostitution	.37	.21	.30	.08	.23	.10	.17	.17	.40
Pornography	.39	.31	.32	.21	.17	0	.20	.06	.32
Adultery	.03	.06	.15	-.11	.02	.49	-.04	.14	.15
Children	.25	.07	-.05	.25	.19	-.10	.09	.16	.05
Dirty Jokes	.23	.09	.04	.28	.04	-.08	.18	.15	.16
Experience	.33	.24	.15	.22	.26	.34	.27	.33	.23

Attitudes Toward Premarital Sex (II)

- 44. I would engage in premarital sex only if I were in love with my partner (R).
- 45. I would engage in premarital sex only if I were engaged to be married to my partner (R).
- 48. I would feel OK having sex for no other reason than for physical enjoyment.

	44	45	48
44	.48	.43	.33
45	.42	.36	.26
48	.33	.26	.23
Masturbation	.19	.17	.30
Premarital Sex I	.05	.52	.30
Premarital Sex II	.70	.59	.47
Women	.18	.44	.25
Homosexuality	.19	.42	.24
Prostitution	.15	.18	.36
Pornography	.28	.32	.26
Adultery	.15	-.05	.32
Children	.10	.29	.13
Dirty Jokes	.06	.12	.05
Experience	.06	.30	.10

Attitudes Toward Women's Sexuality

52. I believe the only right position for sexual intercourse is with the man on top (R).
53. I don't think there is anything wrong with experimenting with different positions during sexual intercourse.
55. I think women should be as free as men to enjoy sex.

	52	53	55
52	.43	.49	.25
53	.49	.53	.30
55	.25	.30	.17
Masturbation	.28	.46	.08
Premarital Sex I	.31	.37	.17
Premarital Sex II	.23	.37	.19
Women	.65	.74	.40
Homosexuality	.29	.23	.19
Prostitution	.26	.30	.42
Pornography	.30	.22	.36
Adultery	-.10	.16	.19
Children	.25	.13	.17
Dirty Jokes	.22	.11	.18
Experience	.23	.37	.17

Attitudes Toward Homosexuality

58. For me to engage in sexual relations with a person of the same sex would really violate my code of personal morality (R).
 70. If I committed a homosexual act it would be because of the environment and need.

	58	70
58	.24	.19
70	.19	.24
Masturbation	.22	.17
Premarital Sex I	.25	.34
Premarital Sex II	.27	.17
Women	.22	.15
Homosexuality	.46	.46
Prostitution	.04	.13
Pornography	.14	.12
Adultery	.09	-.16
Children	.13	.07
Dirty Jokes	.19	.16
Experience	.06	.06

Attitudes Toward Prostitution

79. Prostitution is a sign of moral decay in society. (R)
 90. Prostitution should be legalized.

	79	90
79	.45	.41
90	.41	.45
Masturbation	.07	.25
Premarital Sex I	.17	.30
Premarital Sex II	.14	.37
Women	.42	.30
Homosexuality	.05	.19
Prostitution	.65	.65
Pornography	.47	.54
Adultery	.27	.15
Children	.03	.27
Dirty Jokes	.19	.16
Experience	.20	.21

Attitudes Toward Pornography

59. I think that watching erotic movie and reading pornographic books or magazines is a harmless pasttime.
 60. I believe all pornography should be outlawed. (R)
 61. I believe that pornography causes people to commit sexual crimes.

	59	60	61
59	.19	.33	.28
60	.33	.59	.55
61	.28	.55	.49
Masturbation	.16	.30	.07
Premarital Sex I	.32	.28	.19
Premarital Sex II	.26	.43	.25
Women	.16	.40	.37
Homosexuality	.06	.27	.19
Prostitution	.48	.49	.50
Pornography	.42	.77	.70
Adultery	.25	.06	.10
Children	-.05	.31	.32
Dirty Jokes	.19	.27	.24
Experience	.15	.25	.17

Attitudes Toward Adultery

87. If in the future I committed adultery, I would probably feel bad about it (R).
 98. If in the future I committed adultery, I would be ashamed, but not say anything about it. (R)

	87	98
87	.53	.50
98	.50	.53
Masturbation	.21	.21
Premarital Sex I	.12	.15
Premarital Sex II	.10	.24
Women	.02	.25
Homosexuality	0	-.10
Prostitution	.18	.27
Pornography	.09	.22
Adultery	.72	.72
Children	-.11	-.22
Dirty Jokes	.05	.16
Experience	.09	.17

Attitudes Toward Children's Sexuality

89. Sex play among children is natural and innocent.
 100. Sex play is quite common among children.

	89	100
89	.42	.38
100	.38	.42
Masturbation	.30	.28
Premarital Sex I	.12	.13
Premarital Sex II	.20	.24
Women	.12	.26
Homosexuality	.10	.18
Prostitution	.06	.24
Pornography	.19	.20
Adultery	-.13	-.16
Children	.63	.63
Dirty Jokes	.14	.21
Experience	.01	.16

Attitudes Toward Dirty Jokes

80. Dirty Jokes in mixed company makes them more interesting.
 91. Dirty jokes in mixed company are not proper (R).
 94. Dirty jokes in mixed company are lots of fun.
 101. Dirty jokes in mixed company are exciting and amusing.
 109. Dirty jokes in mixed company should be avoided. (R)

	80	91	94	101	109
80	.42	.35	.44	.58	.43
91	.35	.42	.45	.35	.67
94	.44	.45	.53	.67	.42
101	.58	.35	.67	.53	.38
109	.43	.67	.42	.38	.48
Masturbation	.13	.16	.20	.20	.27
Premarital Sex I	.13	.08	.22	.25	.12
Premarital Sex II	.05	.05	.03	.14	.17
Women	.01	.28	.23	.21	.28
Homosexuality	.24	.24	.19	.44	.22
Prostitution	.14	.21	.23	.23	.17
Pornography	.18	.23	.33	.28	.25
Adultery	-.18	.37	.19	-.07	.20
Children	.32	.04	.04	.34	.23
Dirty Jokes	.64	.65	.73	.73	.69
Experience	.01	.04	-.03	-.12	.07

Experience

- 30./64. I have engaged in kissing that involved tongue contact.
 31./65. I have had my clothed breast manipulated by a male.
 32./66. I have had my nude breast manipulated by a man.
 33./67. I have had my genitalia manipulated by a man.
 34./68. I have had my breast orally stimulated by a man.
 35./69. I have manually manipulated a man's genitalia.
 36./70. I have had fact-to-face heterosexual intercourse.
 37./71. I have orally stimulated a man's genitalia.
 38./72. I have had my genitalia orally stimulated by a man.
 39./73. I have had heterosexual intercourse where I faced away from my male partner.

	30	31	32	33	34	35	36	37	38	39
70	.26	.61	.60	.40	.42	.37	.19	.24	.23	.14
31	.61	.37	.70	.59	.48	.47	.18	.30	.28	.16
32	.60	.70	.58	.67	.70	.61	.34	.40	.33	.24
33	.40	.59	.67	.70	.78	.74	.47	.53	.50	.32
34	.42	.48	.70	.78	.68	.74	.44	.54	.51	.34
35	.37	.47	.61	.74	.74	.67	.51	.63	.53	.33
36	.19	.18	.34	.47	.44	.51	.35	.47	.45	.60
37	.24	.30	.40	.53	.54	.63	.47	.50	.73	.46
38	.13	.28	.33	.50	.51	.53	-.15	.73	.44	.49
39	.14	.16	.24	.32	.34	.33	.60	.46	.49	.24
Masturbation	-.03	.30	.60	.17	.13	.18	.32	.33	.20	.39
Premarital										
Sex I	.27	.24	.33	.32	.35	.35	.53	.31	.32	.41
Premarital										
Sex II	.14	.16	.16	.13	.06	.21	.28	.17	.15	.33
Women	.03	.27	.26	.31	.33	.47	.26	.33	.33	.35
Homosexuality	-.27	-.12	-.02	.12	.14	.12	.38	.14	.09	.27
Prostitution	.17	.02	.15	.20	.22	.32	.31	.23	.23	.26
Pornography	.09	.15	.16	.25	.15	.30	.25	.27	.25	.16
Adultery	.09	.07	.13	.16	.15	.13	.15	.14	.07	.16
Children	.01	-.03	.07	.05	.02	.17	.19	.08	.11	.20
Dirty Jokes	-.04	-.06	-.03	-.04	0	.05	.01	.08	-.07	.02
Experience	.51	.61	.76	.84	.83	.82	.59	.71	.66	.49

Residual Items

47. I believe that sexual intercourse is wrong unless it is for the purpose of procreation.
 54. There is nothing immoral about oral genital sex.
 56. Sexually aggressive women turn me off.
 57. It is hard for me to envision myself as the initiator of sexual activity.
 63. I have kissed a woman/man.
 74. I have had homosexual relations with another woman/man.
 75. When I was a child, sex excited me.
 77. Unusual sex practices are immature.

84. If I had sex relations I would feel a lot less bored.
85. Sex play is not good for the mental and emotional well being of children.
88. Unusual sex practices might be interesting.
93. Petting, I am sorry to say, is becoming an accepted practice.
95. Sex relations before marriage ruin many a happy couple.
96. Unusual sex practices are OK as long as they're heterosexual.
97. When I have sexual desires, they are usually quite strong.
99. When I have a sexual dream, I cannot remember it in the morning.
104. If, in the future, I committed adultery, I wouldn't feel bad about it.
105. Sex should be saved for wedlock and childbearing.
106. When I have sexual dreams I wake up happy.
107. There should be no sexual relation before marriage.
108. Prostitution is a result of society not recognizing the needs of her members.

Pre-Film Clusters: Percentages by Item

	Women					Men					
	1	2	3	4	5	1	2	3	4	5	
			<u>Masturbation</u>					<u>Masturbation</u>			
50.	10.6	34.6	16.3	21.2	17.3	16.*	16.7	20.4	14.8	1.9	
51.	13.5	52.9	9.6	11.5	12.5	17.*	24.1	13.0	16.7	3.7	
82.	41.3	57.7				48.✓	57.4				
92.	76.0	23.1				58.✓	79.6				
			<u>Premarital Sex (I)</u>					<u>Premarital Sex (I)</u>			
46.	10.6	1.9	5.8	42.3	38.5	12.*	3.7	3.7	24.1	68.5	
49.	43.3	42.3	2.9	9.6	1.9	15.*	59.3	0	7.4	5.6	
62.	37.5	44.2	5.8	8.7	3.8	28.*	42.6	7.4	9.3	5.6	
76.	74.0	26.0				42.✓	85.2				
78.	71.2	27.9				44.✓	88.9				
81.	41.3	57.7				47.✓	29.6				
83.	69.2	29.8				49.✓	77.8				
86.	52.9	46.2				52.✓	68.5				
103.	73.1	26.0				69.✓	90.7				
			<u>Premarital Sex (II)</u>					<u>Premarital Sex (II)</u>			
44.	24.0	31.7	3.8	26.0	14.4	10.*	7.4	16.7	42.6	18.5	
45.	1.0	6.7	11.5	54.8	26.0	11.*	0	13.0	37.0	50.0	
48.	10.6	26.9	6.7	35.6	20.2	14.*	29.6	9.3	7.4	1.9	

Pre-Film Clusters: Percentages by Item
(Continued)

	Women					Men				
	1	2	3	4	5	1	2	3	4	5
	<u>Children's Sexuality</u>									
89.	83.7	15.4				55.✓	10.7	9.3		
100.	44.2	58.4				66.✓	64.8	35.2		
	<u>Dirty Jokes</u>									
80.	33.7	65.4				46.✓	46.3	53.7		
91.	30.8	67.3				57.✓	29.6	70.4		
94.	39.4	58.7				60.✓	46.3	53.7		
100.	33.7	64.4				67.✓	44.4	55.6		
109.	35.6	62.5				75.✓	35.2	64.8		
	<u>Experience (Entire Scale)</u>									
31.	99.0	1.0				29.	100.			✓
32.	95.2	3.8				30.	96.3	3.7		✓
33.	94.2	5.8				31.	92.6	7.4	(c)	✓
34.	90.4	9.6				32.	92.6	7.4	(c)	✓
35.	83.7	16.3				33.	81.5	18.5	(c)	✓
36.	81.7	18.3				34.	87.0	13.0	(c)	✓
37.	75.0	25.0				35.	87.0	13.0	(c)	✓
38.	55.8	44.2				36.	66.7	33.3	(c)	✓
39.	58.7	41.3				37.	66.7	33.3	(c)	✓
40.	59.6	40.4				38.	57.4	42.6	(c)	✓
41.	33.7	66.3				39.	42.6	57.4	(c)	✓
42.	1.9	98.1				10.	3.7	96.3	(c)	✓

*, P = all members are percentages; (c) = cluster item; * = five-option response
✓ = 2-option response

APPENDIX D

FAND INVENTORY CLUSTERS:

WOMEN ONLY, PRE-FILM

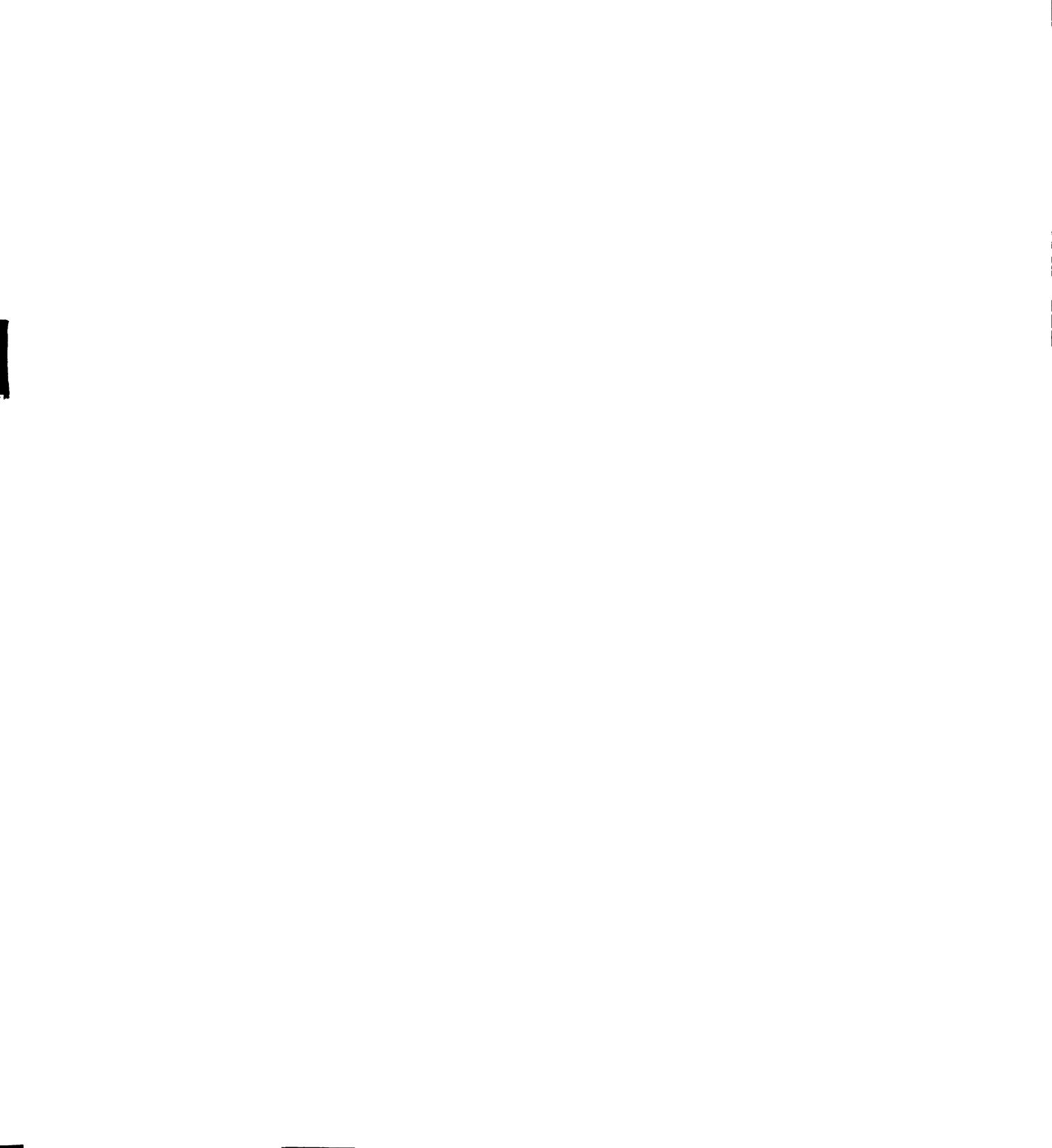
APPENDIX D
Inventory of Feminine Values (Original)

Please read the following instructions carefully. You are asked to indicate your opinion on each item below by selecting a number from one to five and then marking it on the answer sheet in the corresponding place. Use the following scale:

STRONGLY AGREE-1 AGREE-2 NO OPINION-3 DISAGREE-4 STRONGLY DISAGREE-5

PLEASE RESPOND TO THESE STATEMENTS WITH YOUR TRUE OPINION. KEEP IN MIND THE WAY YOU REALLY ARE.

1. An ambitious and responsible husband does not like his wife to work.
2. I usually pay no attention to other people's feelings.
3. A woman who works cannot possibly be as good a mother as the one who stays home.
4. I would like to do something that everybody knows is important.
5. I try to do what I think people want me to do.
6. A woman has a conflict in what she has to do as a woman and what she wishes to do for herself.
7. A woman should get married even if the man does not measure up to all of her hopes.
8. I sometimes feel that I must do everything myself, that I can accept nothing from others.
9. The needs of a family come before a woman's personal ambitions.
10. I am not sure that the joys of motherhood make up for the sacrifices.
11. I like listening to people better than talking.
12. I argue with people who try to give me orders.
13. Marriage and children should come first in a woman's life.
14. When I am with a group of people, I usually become the leader.
15. I worry about what people think of me.
16. I express my ideas strongly.
17. Single women need personal success, but all a married woman needs is her husband's success.
18. I would not get married if I had to give up what I really believe in order to get along with another person.
19. It is up to the woman to make a marriage work.
20. A working mother can get along as well with her children as can a mother who stays at home.
21. The greatest help a wife can give her husband is to encourage his progress.
22. It is unfair that women have to give up more than men in order to have a good marriage.
23. I can put myself in the background and work hard for a person I admire.
24. A wife's opinion should be as important as the husband's opinion.
25. My main interest is to raise normal, well behaved children.
26. How I develop as a person is more important than what others think of me.
27. If we disagree, I would give into my husband more often than I would expect him to give into me.
28. The greatest satisfactions in life come from what you do yourself.
29. I would like to marry a man to whom I could really look up.
30. A woman should have interests outside the home.



31. I am sure that what a woman gains from marriage makes up for the sacrifices.
32. Modern mothers should bring up their boys and girls to believe in absolute equal rights and freedoms for both sexes.
33. A woman's place is in the home.
34. I would rather be famous, admired, and popular throughout the nation than to have the constant affection of just one man.

* * * *

Number of items	α	\bar{X}	SD	Range	
4	.48	8.554	2.802	0-16	Professional Woman
2	.56	2.040	1.985	0- 8	Working Mom
3	.55	5.634	2.383	0-12	Assertion
3	.50	5.455	2.382	0-12	Compliance
3	.56	7.317	2.465	0-12	Sacrifices
3	.49	1.356	1.651	0-12	Equal Rights
4	.73	10.248	3.477	0-16	Marriage and Family Come First
3	.47	6.861	2.703	0-12	Husband

Professional Woman

13. I would like to gain recognition for the professional work I do.
 15. I feel a conflict between what society dictates I do as a woman and what I wish to do for myself.
 37. The greatest satisfactions in life come from one's professional successes.
 43. If I really thought I could be famous, I would give up anything for it.

	13	15	37	43	
13	.10	.23	.18	.05	
15	.23	.12	.10	.15	
37	.18	.10	.36	.43	
43	.05	.15	.43	.26	
	.31	.34	.61	.50	Professional Woman
	.22	.04	.03	-.04	Working Mom
	.22	.25	.27	.40	Assertion
	.30	.18	-.10	-.07	Compliance
	0	.18	.21	.32	Sacrifices
	.31	-.01	.01	.10	Equal Rights
	.04	-.03	-.01	-.06	Marriage & Family
					Come First
	-.13	-.22	-.20	-.12	Husband

Working Mom

12. A woman who works cannot possibly be as good a mother as the woman who stays at home. (R)
 29. A working mother can give her children just as much love and attention as a mother who stays at home.

	12	29	
12	.42	.39	
29	.39	.42	
	-.21	.38	Professional Woman
	.64	.64	Working Mom
	.02	.27	Assertion
	.37	.29	Compliance
	-.02	-.03	Sacrifices
	-.02	.06	Equal Rights
	.45	.11	Marriage & Family
			Come First
	.29	.13	Husband

Assertion

21. I argue with people who try to give me orders.
 23. When I am with a group of people, I usually become the leader.
 25. I express my ideas strongly.

	21	23	25	
21	.08	.29	.08	
23	.29	.79	.50	
25	.08	.50	.27	
	.26	.42	.43	Professional Woman
	.22	.09	.06	Working Mom
	.26	.93	.50	Assertion
	.10	.14	.19	Compliance
	.19	.05	.19	Sacrifices
	-.14	.03	.04	Equal Rights
	.14	0	-.08	Marriage & Family
				Come First
	-.06	.07	.17	Husband

Compliance

24. I worry about what people think of me (R)
 14. I try to do what people want me to do (R)
 32. I can put myself in the background and work hard for a person I admire.

	24	14	32	
24	.30	.30	.26	
14	.30	.25	.19	
32	.26	.19	.19	
	.26	-.21	.21	Professional Woman
	.32	.37	.20	Working Mom
	.04	.16	.18	Assertion
	.61	.49	.42	Compliance
	-.02	-.10	.01	Sacrifices
	.08	.18	.15	Equal Rights
	.14	.24	.44	Marriage & Family
				Come First
	.29	.38	.26	Husband

Sacrifices

19. I am not sure the joys of motherhood make up for the sacrifices.
 31. For women, marriage is largely a story of one unjustifiable sacrifice after another.
 40. I am sure what a woman gains from marriage makes up for difficulties she might experience (R).

	19	31	40	
19	.44	.34	.33	
31	.34	.25	.22	
40	.33	.22	.25	
	.31	.37	-.02	Professional Woman
	.01	-.07	.04	Working Mom
	.15	.12	.15	Assertion
	.03	-.18	.11	Compliance
	.67	.49	.49	Sacrifices
	-.05	-.24	-.17	Equal Rights
	.43	.07	.42	Marriage & Family
				Come First
	-.02	-.18	.38	Husband

Equal Rights

27. Should I marry, I would not change my political beliefs just to satisfy my husband.
33. Major decisions in marriage should be equally shared by husband and wife.
41. Mothers should bring up their boys and girls to believe in equal rights and freedom for both sexes.

	27	33	41	
27	.47	.76	.33	
33	.26	.14	.14	
41	.33	.14	.22	
	0	-.09	.28	Professional Woman
	0	-.04	.08	Working Mom
	-.09	-.11	.13	Assertion
	.17	.13	.11	Compliance
	-.07	-.32	-.05	Sacrifices
	.70	.36	.46	Equal Rights
	.13	-.07	.19	Marriage & Family
				Come First
	.34	.16	.18	Husband

Marriage & Family Come First

18. The needs of a family should come before a woman's professional ambitions (R).
22. Once a woman marries, marriage and children should come first in her life. (R)
34. My primary goal in life is to raise happy children (R).
42. A woman's place is in the home (R).

	18	22	34	42	
18	.35	.51	.34	.28	
22	.51	.61	.45	.43	
34	.34	.45	.38	.39	
42	.28	.43	.39	.31	
	.17	-.11	.11	-.25	Professional Woman
	.28	.23	.17	.43	Working Mom
	.06	.05	.10	-.12	Assertion
	.36	.39	.27	.34	Compliance
	.38	.25	.58	.22	Sacrifices
	-.02	.12	.02	.30	Equal Rights
	.59	.79	.61	.56	Marriage & Family
					Come First
	.07	.24	.18	.41	Husband

Husband

16. Should I marry, I would feel uncomfortable if my husband were not successful (R).
10. Most ambitious and responsible husbands would not like their wives to work outside the home (R).
38. A woman can truly love only one man (R).

	16	10	38	
16	.21	.19	.25	
10	.19	.21	.25	
38	.25	.75	.31	
	-.29	-.10	-.16	Professional Woman
	.19	.21	.07	Working Mom
	.06	.12	-.02	Assertion
	.44	.16	.20	Compliance
	-.08	.03	.21	Sacrifices
	.15	.12	.38	Equal Rights
	.06	.23	.21	Marriage & Family
				Come First
	.45	.45	.55	Husband

Residual Cluster

11. I usually pay no attention to other people's feelings.
17. I sometimes feel I must do everything for myself, that I can accept nothing from others.
20. I like listening to people rather than talking to people.
28. If a marriage should fail, it is usually the woman's fault.
30. The greatest help a wife can give her husband is to encourage his progress and success.
35. What I think of myself as a person is more important to me than what others think of me.

36. If we disagree, I would give in to my husband more often than I would expect him to give in to me.
 39. A woman should have interests outside the home.

Fand Inventory Clusters: Percentages by Item.

	1	2	3	4	5
<u>Professional Woman</u>					
13.	42.3	34.6	9.6	7.7	4.8
15.	16.3	27.9	19.2	26.0	10.6
37.	1.9	11.5	16.3	47.1	23.1
43.	3.8	5.8	9.6	42.3	38.5
<u>Working Mom</u>					
12.	1.9	10.6	4.8	36.5	43.3
29.	42.3	31.7	5.8	17.3	2.9
<u>Assertion</u>					
21.	7.7	43.3	13.5	30.8	4.8
23.	1.0	37.5	15.4	36.6	10.6
25.	12.5	46.2	8.7	31.7	1.0
<u>Compliance</u>					
24.	16.3	46.3	10.6	20.2	6.7
14.	4.8	21.2	15.4	37.5	20.2
32.	14.4	43.3	21.2	19.2	1.9
<u>Sacrifices</u>					
19.	9.6	33.7	12.5	26.9	17.3
31.	0	13.5	6.7	46.2	33.7
40.	12.5	28.8	34.6	22.1	1.9
<u>Equal Rights</u>					
27.	57.7	31.7	4.8	2.9	2.9
33.	89.4	8.7	1.0	0	1.0
41.	59.6	26.0	10.6	2.9	1.0
<u>Marriage & Family Come First</u>					
18.	14.4	28.8	23.1	25.0	8.7
22.	10.6	18.3	12.5	30.8	27.9
34.	7.7	16.3	14.4	42.2	16.3
42.	1.0	1.9	7.7	26.0	63.5
<u>Husband</u>					
16.	7.7	43.3	10.6	24.0	14.4
10.	8.7	17.3	4.8	43.3	26.0
38.	15.4	13.5	13.5	39.4	18.3

APPENDIX E

POST-FILM CORE CLUSTERS:

MEN AND WOMEN COMBINED

APPENDIX E

POST-FILM CORE CLUSTERS: MEN AND WOMEN COMBINED

Desire

(All items are from the Post-Film Questionnaire)

1. Please indicate how sexually aroused you were while watching this film.
2. [Rate the arousal you experienced while viewing.] The scenes of the couple undressing one another.
3. [Rate your arousal while viewing.] The scenes of the couple embracing and kissing one another.
4. [Rate your arousal while viewing.] The scenes of the couple having sexual intercourse.
5. [Rate your arousal while viewing.] The scenes of oral-genital sex.
6. [Rate your arousal while viewing.] The shots of the penis moving in and out of the vagina.
54. After seeing this film, I felt like masturbating.
55. After seeing this film, I felt like making love.

	1	2	3	4	5	6	54	55
1	.70	.49	.49	.75	.65	.67	.18	.42
2	.49	.38	.58	.54	.50	.34	.05	.30
3	.49	.58	.34	.53	.42	.25	.12	.26
4	.75	.54	.53	.88	.69	.73	.20	.56
5	.65	.50	.42	.69	.60	.64	.09	.41
6	.67	.34	.25	.73	.64	.48	.07	.43
54	.18	.05	.12	.20	.09	.07	.03	.20
55	.42	.30	.26	.56	.41	.43	.20	.31
Desire	.84	.62	.58	.94	.77	.70	.18	.56
Excitement	.73	.42	.49	.71	.59	.54	.28	.51
Fantasy	.55	.49	.46	.60	.45	.48	.34	.50
Memories	.36	.27	.12	.33	.25	.33	-.03	.35
Watching	.36	.16	.19	.22	.17	.10	.06	.40
Embarrassment	.11	.12	.06	.07	.07	.08	-.01	.06
Photography	.09	.06	.24	.03	.04	0	.21	.04
Plot	0	.01	.01	.12	.18	.18	.30	.06
Attractiveness	.29	.22	.28	.28	.27	.25	.04	.07
Explicitness	.36	-.24	-.08	.44	.34	.52	.24	.26
Other Film	.20	-.04	.04	.19	.15	.21	.07	.15

Excitement

Did you experience any of the following?

7. Increased heart rate
8. Increased breathing rate
9. Dry mouth
10. Muscle tension
12. Flushing
13. Sweating

	7	8	9	10	12	13
7	.48	.60	.17	.35	.35	.30
8	.60	.36	.27	.32	.20	.19
9	.17	.27	.16	.25	.24	.21
10	.35	.32	.25	.29	.27	.27
12	.35	.20	.24	.27	.27	.36
13	.30	.19	.21	.27	.36	.23
Desire	.45	.42	.43	.58	.43	.37
Excitement	.69	.60	.40	.54	.52	.48
Fantasy	.16	.34	.30	.41	.35	.26
Watching	.17	.17	.17	.24	.46	.22
Embarrassment	.15	.11	-.20	.28	.31	.17
Memories	.22	.22	.19	.27	.06	.12
Photography	-.03	-.16	0	-.03	-.01	.01
Plot	.09	-.03	-.11	.06	-.09	0
Attractiveness	.02	.01	.16	.13	-.04	.01
Explicitness	.36	.35	.13	.16	.38	.18
Other Films	.18	.18	.04	.30	.21	.20

Fantasy

27. Part of my arousal was because I found myself having sexual fantasies.
28. In my fantasies, I imagined myself making love to the man/woman in the film.
29. In my fantasies, I imagined myself making love to my current sexual partner (i.e., husband, wife, boyfriend, girlfriend.)
30. In my fantasies, I imagined myself making love to a past sexual partner.
31. In my fantasies, I imagined myself making love but to no one person in particular.
- 36./37. As I watched the film, I put myself in the males' place and imagined that I was doing what he was doing.
As I watched the film, I put myself in the woman's place, and imagined what it would feel like if what was being done to her were being done to me.
49. At any point during the film, did you find yourself experiencing a sexual fantasy?

	27	28	29	30	31	36	49
27	.67	.29	.32	.12	.35	.55	.66
28	.29	.14	.05	.16	.23	.22	.23
29	.32	.05	.11	-.03	.04	.41	.29
30	.12	.16	-.03	.05	.14	.20	.13
31	.35	.23	.04	.14	.15	.14	.33
36	.55	.23	.41	.20	.14	.50	.52
49	.66	.23	.29	.13	.33	.52	.58
Desire	.59	.38	.32	.15	.24	.55	.44
Excitement	.52	.30	.20	.04	.10	.45	.43
Fantasy	.82	.37	.33	.21	.38	.71	.76
Memories	.20	.01	.40	.27	.06	.33	.36
Watching	.17	.13	.12	.07	.15	.30	.18
Embarrassment	.06	.11	-.21	.04	.21	.05	.03
Photography	0	.04	.07	.09	-.11	.10	-.03
Plot	-.18	-.24	-.05	-.04	-.06	0	-.20
Attractiveness	-.02	.13	0	.18	.04	.09	-.14
Explicitness	.19	-.02	.27	-.09	-.18	.39	.25
Other Films	.05	.02	.18	-.09	-.14	.18	.07

Arousal (Female Only)

Did you experience any of the following?

15. Mild genital sensations (i.e., tingling)
16. Strong genital sensations (i.e., throbbing, pulsating)
17. Breast sensations
18. Vaginal lubrication

	15	16	17	18
15	.21	.25	.25	.24
16	.25	.24	.24	.30
17	.25	.24	.31	.36
18	.24	.30	.36	.35
Desire	.46	.61	.44	.60
Excitement	.36	.53	.38	.60
Fantasy	.38	.65	.38	.55
Arousal	.45	.49	.56	.59
Memories	.18	.15	.19	.28
Watching	.12	-.03	.10	.30
Embarrassment	.05	-.15	.08	-.03
Photography	.02	-.18	.19	-.15
Plot	-.12	-.12	-.21	.13
Attractiveness	.06	.15	.22	.05
Explicitness	.30	.31	.19	.29
Other Films	.05	.12	.11	.06

Arousal (Male Only)

Did you experience any of the following?

14. No erection
 15. Penis engorgement without erection
 16. Partial erection
 17. Full erection, less than 3 minutes
 18. Full erection, 3-6 minutes.
 19. Full erection, more than 6 minutes
 20. Emission
- } Sub-cluster

	14	15	16	17	18	19	20
14	0	.11	.04	.02	-.14	-.04	-.14
15	.11	.01	.17	.05	-.12	-.06	.14
16	.04	.17	.09	.22	-.02	.14	.21
17	.02	.05	.22	.91	.63	.54	.39
18	-.04	-.12	-.02	.63	.23	.51	.15
19	-.04	-.06	.14	.54	.51	.35	.24
20	-.14	.14	.21	.39	.15	.24	.17
Desire	-.16	.25	.54	.62	.50	.49	.49
Excitement	-.19	-.03	.21	.35	.52	.30	.40
Arousal	-.02	.11	.30	.98	.47	.59	.41
Fantasy	-.15	.12	.25	.49	.52	.46	.26
Memories	.10	.01	.10	.27	.37	.40	.11
Watching	-.06	-.04	-.02	.36	.37	.40	.11
Embarrassment	.09	.08	-.01	.28	0	.16	.56
Photography	.32	-.08	-.17	-.02	.11	-.11	-.16
Plot	.04	-.10	-.10	-.38	-.51	-.33	-.06
Attractiveness	.10	.12	.12	-.01	-.03	-.07	-.02
Explicitness	-.77	.10	.04	-.03	-.08	.04	.11
Other Films	-.05	-.13	.35	.22	.10	.24	.19

Memories

26. Part of my arousal was because I found myself having memories of my own past sexual experiences.
48. At any point during the film, did you find yourself remembering your own sexual experiences?

	26	48
26	.55	.52
48	.52	.55
Desire	.44	.11
Excitement	.30	.19
Fantasy	.42	.24
Memories	.73	.73
Watching	.30	.15
Embarrassment	-.08	0
Photography	.11	-.03
Plot	.22	.06
Attractiveness	.03	-.22
Explicitness	.17	.13
Other Films	.11	-.04

Watching

41. Did you at any time during the film, look around to see if anyone was watching you?
42. Did you, at any time during the film, wonder if people were watching you.
43. Did you, at any time during the film, feel like you wanted to turn around and see if other people were reacting as you were?

	41	42	43
41	.24	.34	.19
42	.34	.47	.32
43	.19	.32	.21
Desire	+.05	+.35	.12
Excitement	.08	.40	.23
Fantasy	.11	.29	.11
Memories	.11	.27	.13
Watching	.48	.70	.44
Embarrassment	.26	.34	.23
Photography	.11	.07	-.16
Plot	.21	.01	-.02
Attractiveness	-.16	-.12	-.15
Explicitness	.01	0	.10
Other Films	-.08	.23	-.01

Embarrassment

40. Did you, at any time during the film, experience such thoughts as, "I really shouldn't enjoy watching a film like this"?
44. Did you, at any time during the film, experience such thoughts as, "What would my mother say if she knew I was watching a film like this?"

46. At any point during the film, did you find yourself becoming so involved that you began to feel guilty for the couple and what they were doing?
47. At any point during the film, did you find yourself feeling guilty about observing people making love?

	40	44	46	47
40	.41	.16	.28	.41
44	.16	.09	.18	.15
46	.28	.18	.21	.22
47	.41	.15	.22	.32
Desire	.10	.12	.08	.08
Excitement	.15	.09	.12	.13
Fantasy	.11	-.01	.09	-.07
Memories	.01	.04	-.09	-.06
Watching	.29	.26	.23	.24
Embarrassment	.64	.30	.45	.57
Photography	.01	-.03	.07	.12
Plot	-.02	.19	.07	.21
Attractiveness	-.19	.05	-.20	-.16
Explicitness	-.06	.10	-.13	.30
Other Films	.14	.20	.13	.27

Photography

21. The dreamlike or fantasy-like quality of this film (enhanced/had no effect/interfered) with my arousal.
22. The nature shots in this film (enhanced/had no effect/interfered) with my arousal.
23. The method of photography (enhanced/had no effect/interfered) with my arousal.
25. If this film had been in color (I would have been more aroused/doesn't matter/less aroused).

	21	22	23	25
21	.57	.46	.52	.15
22	.46	.29	.29	.15
23	.52	.29	.45	.23
25	.15	.15	.23	.08
Desire	.14	.14	0	.19
Excitement	.04	.05	-.03	-.22
Fantasy	.10	.11	-.04	-.13
Memories	.04	-.16	.05	-.12
Watching	.03	.09	.04	.02
Embarrassment	.20	.08	-.01	-.07
Photography	.76	.53	.67	.28
Plot	.06	.01	.25	-.26
Attractiveness	.36	.28	.17	.10
Explicitness	-.29	-.13	-.19	-.10
Other Films	.16	.08	.08	.11

Plot

32. If I had known more about the relationship that existed between the couple in the film (I would be more aroused/doesn't matter/less aroused).
33. If the film had had more of a story or plot (I would be more aroused/doesn't matter/less aroused).

	32	33
32	.33	.28
33	.28	.33
Desire	.01	.18
Excitement	.09	.12
Fantasy	-.05	-.19
Memories	.19	.02
Watching	.17	.03
Embarrassment	.16	.10
Photography	.16	.73
Plot	.55	.55
Attractiveness	-.23	-.19
Other Films	.08	.03

Attractiveness

38. As I watched the film, I found the male attractive.
39. As I watched the film, I found the female attractive.

	38	39
38	.33	.29
39	.29	.33
Desire	.12	.24
Excitement	.06	.04
Fantasy	.02	.07
Memories	-.03	-.12
Watching	-.16	-.14
Embarrassment	-.13	-.15
Photography	.37	.08
Plot	.20	.05
Attractiveness	.55	.55
Explicitness	.15	.16
Other Films	.12	.06

Explicitness

34. If there had been more scenes of explicit sexual activity (i.e., more intercourse scenes--I would be (more aroused/doesn't matter/less aroused).
35. If there had been more explicit shots of the male body and male genitalia, I would be (more aroused/doesn't matter/less aroused).

	34	35
34	.26	.21
35	.21	.26
Desire	+.15	.19
Excitement	.11	.35
Fantasy	.15	.07
Memories	.11	.09
Watching	.04	.03
Embarrassment	-.30	.11
Photography	-.39	.08
Plot	-.22	-.14
Attractiveness	.09	.08
Explicitness	.48	.48
Other Films	-.22	.35

Other Films

50. Have you seen Deep Throat?
51. Have you seen Behind the Green Door?
52. Have you seen The Devil and Miss Jones?
53. In comparison with other erotic films I have seen (I have never seen a film such as this/this film was more arousing/as arousing/less arousing).

	50	51	52	53
50	.34	.18	.28	.29
51	.76	.28	.58	.35
52	.42	.29	.35	.27
53	.43	.22	.39	.39
Desire	.15	.07	.16	.10
Excitement	.30	.07	.26	.27
Fantasy	.06	.17	-.03	.01
Memories	.04	.22	.01	-.15
Watching	.10	.12	-.10	0
Embarrassment	.29	.13	.26	.31
Photography	.17	.24	.05	.04
Plot	.08	.05	.15	-.14
Attractiveness	0	.01	.01	.11
Explicitness	.13	.01	0	.20
Other Films	.43	.22	.39	.39

Residual Items

11. Muscle relaxation.
14. No genital sensations
19. Orgasm (Ejaculation)
20. I noticed my level of arousal . . .
24. The music accompanying this film . . .
45. While watching the film, did you feel yourself getting "hot,"
your face flushing, your hands sweating?

Post-Film Clusters: Percentage by Item

	Women					Men				
	1	2	3	4	5	1	2	3	4	5
			<u>Desire</u>					<u>Desire</u>		
1.	12.5	41.3	30.8	14.4	1.0	14.8	48.1	29.6	3.7	1.9
2.	55.8	30.8	7.7	5.8	0	35.2	44.4	14.8	5.6	0
3.	44.2	37.5	10.6	7.7	0	53.7	27.8	9.3	9.3	0
4.	17.3	26.0	30.8	21.2	4.8	14.8	31.5	31.5	20.4	1.9
5.	29.8	26.9	25.0	14.4	3.8	22.2	40.7	18.5	13.0	5.6
6.	25.0	27.9	15.4	20.2	11.5	22.2	31.5	24.1	16.7	5.7
54.	12.5	83.7				13.0	85.2			
55.	56.7	39.4				53.7	40.7			
			<u>Excitement</u>					<u>Excitement</u>		
7.	39.4	23.1	35.6			18.5	37.0	44.4		
8.	18.3	32.7	47.1			11.1	27.8	61.1		
9.	21.2	11.5	67.3			18.5	16.7	64.8		
10.	50.0	10.6	39.4			24.1	18.5	57.4		
12.	24.0	16.3	59.6			6.7	16.7	77.8		
13.	12.5	4.8	82.7			3.7	9.3	87.0		
			<u>Fantasy</u>					<u>Fantasy</u>		
27.	52.9	47.1				57.4	42.6			
28.	11.5	88.5				18.5	81.5			
29.	64.4	34.6				50.0	50.0			
30.	29.8	69.2				37.0	63.0			
31.	13.5	85.6				40.7	59.3			
36.	7.7	91.3				51.9	48.1			
37.	66.3	31.7				9.3	90.7			
49.	41.3	53.8	2.9							

Post-Film Clusters: Percentage by Item
(Continued)

	Women					Men				
	1	2	3	4	5	1	2	3	4	5
	<u>Female Arousal</u>					<u>Male Arousal</u>				
15.	63.5	15.4	21.2			14.	40.7	7.4	51.9	
16.	24.0	9.6	66.3			15.	27.8	24.1	46.3	
17.	11.5	8.7	79.8			16.	55.6	5.6	38.9	
18.	28.8	11.5	59.6			17.	11.1	5.6	83.3	
						18.	9.3	9.3	81.5	
						19.	5.6	5.6	88.9	
						20.	0	5.6	94.4	
	<u>Memories</u>					<u>Memories</u>				
26.	70.4	26.0					63.0	37.0		
48.	19.2	76.0	2.9				25.9	74.1	0	
	<u>Watching</u>					<u>Watching</u>				
41.	6.7	91.3					9.3	90.7		
42.	39.4	58.7					25.9	74.1		
43.	49.0	49.					29.6	70.4		
	<u>Embarrassment</u>					<u>Embarrassment</u>				
40.	18.3	79.8					16.7	83.3		
44.	23.1	75.0					11.1	88.9		
46.	5.8	92.3					3.7	96.3		
	<u>Photography</u>					<u>Photography</u>				
21.	17.3	27.9	54.8				7.4	24.1	68.5	
22.	20.2	55.8	24.0				16.7	42.6	40.7	
23.	15.4	19.2	65.4				7.4	18.5	74.1	
25.	48.1	51.0	1.0				77.8	18.5	3.7	

Post-Film Clusters: Percentage by Item
(Continued)

	Women					Men					
	1	2	3	4	5	1	2	3	4	5	
32.	21.2	75.0	2.9			7.4	88.9	3.7			
33.	32.7	58.7	7.7			42.6	55.6	1.9			
		<u>Attractiveness</u>					<u>Attractiveness</u>				
38.	28.8	49.0	8.7	12.5		25.9	68.5	0	5.6		
39.	15.4	60.6	2.9	20.2		14.8	24.1	44.4	16.7		
		<u>Explicitness</u>					<u>Explicitness</u>				
34.	62.5	26.9	9.6			25.2	13.0	1.9			
35.	57.7	32.7	8.7			11.1	46.3	42.6			
		<u>Other Films</u>					<u>Other Films</u>				
50.	92.3	2.9	0	2.9		55.6	3.7	1.9	37.0		
51.	96.2	1.9	0	0		83.3	1.9	3.7	9.3		
52.	91.3	3.8	1.0	1.9		63.0	1.9	5.6	27.8		
53.	57.7	12.5	7.7	18.3		20.4	5.6	5.6	60.7		

APPENDIX F

PATH ANALYSIS

APPENDIX F

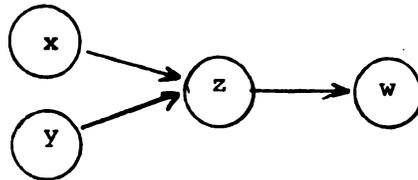
PATH ANALYSIS

Introduction

a. Path analysis is a procedure for systematically combining the use of partial and multiple correlation to study the causal relations among a set of variables. Within a path analysis any variable may be both an independent variable and a dependent variable. A variable will act as an independent variable if it is used to explain some other variable. However, that "independent variable" may in turn be explained in terms of other variables in which case it is acting as a dependent variable. The set of all variables in a discourse is called a system.

b. In path analysis two kinds of diagrams can be drawn: a qualitative causal diagram and a quantitative causal diagram. The qualitative diagram represents the variables by circles and uses arrows pointing from one variable to another to indicate causal influence.

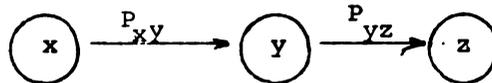
EXAMPLE



x has causal influence on z.
 y has causal influence on z.
 z has causal influence on w.

c. The quantitative path diagram assumes that all relations in the system are linear functions (except for unexplained "error"). It can then be shown mathematically that all the correlations in the system can be determined by attaching a number to each link in the qualitative diagram. That number is called a "path coefficient."

EXAMPLE



Theory

- (1) $r_{xy} = P_x$
- (2) $r_{yz} = P_{yz}$
- (3) $r_{xz} = P_{xy} P_{yz}$

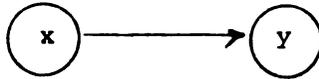
Estimation

- (1) $P_{xy} = r_{xy}$
- (2) $P_{yz} = r_{yz}$
- (3) test model: is $r_{xz} = P_{xy} P_{yz}$?

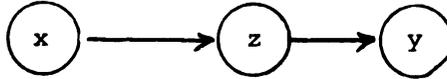
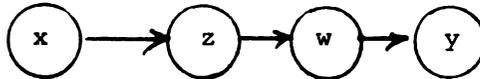
Basic Definitions

Direct link

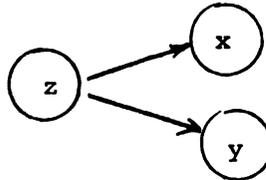
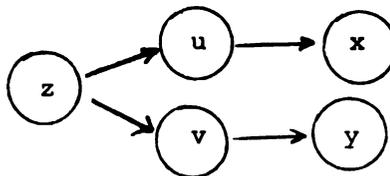
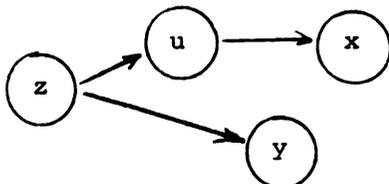
The variable x has a direct link to the variable y if and only if x exerts a direct causal influence on y . If x exerts a direct influence on y , then the causal diagram shows an arrow from x to y .

EXAMPLEIndirect causation

The variable x is said to have an indirect causal influence on the variable y if and only if there is a set of intermediate variables z_1, z_2, \dots, z_r such that x exerts a direct causal influence on z_1 , z_1 exerts a direct causal influence on z_2 , \dots , z_r exerts a direct causal influence on y .

EXAMPLEEXAMPLESpurious relation

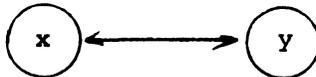
The variable x is said to bear a spurious relation to y if and only if they have a common antecedent cause, i.e., if and only if there is some variable z which exerts a direct or indirect causal influence on x and which also exerts a direct or indirect causal influence on y .

EXAMPLEEXAMPLEEXAMPLE

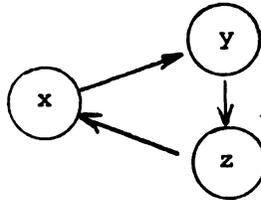
Recursive systems

If the causal diagram can be laid out so that all the causal arrows point in one direction, then the system is "recursive." If that definition sounds vague, its because its really the word "non-recursive" that has the clean definition. The definition of nonrecursive will be given in two parts.

If two variables each have a direct causal influence on each other, then the system is nonrecursive. The graphic symbol for such a two way causal relation is a two headed uncurved arrow, such as that below.



A causal cycle is a set of variables such that (1) each variable exerts a direct causal influence on the next and (2) the last variable in the list exerts a direct causal influence on the first. An example is given below:

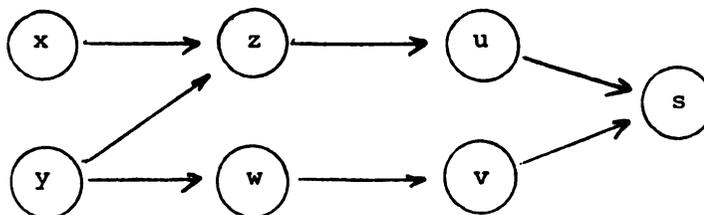


If the system has a causal cycle, then the system is nonrecursive. Note that the case of two variables which influence each other is a special case of a causal cycle with two variables in the cycle.

Exogenous and endogenous variables

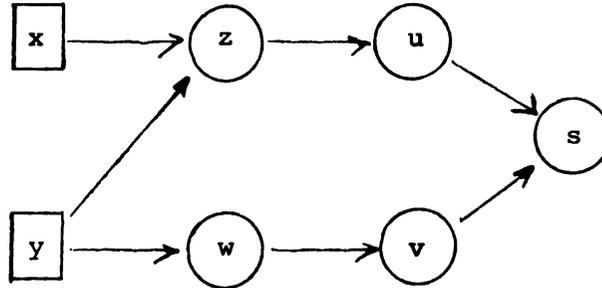
In a recursive system, there must be certain variables which are used to explain other variables but which are not themselves explained, i.e., variables whose causal antecedents are regarded as outside the scope of the given discourse. Such "starter" variables are called "exogenous" variables, i.e., those variables which are out-side the explanatory scope of the system are ex-ogenous. All other variables are called "endogenous" variables, i.e., the en-dogenous variables are those which are explained in-side the system.

EXAMPLE:



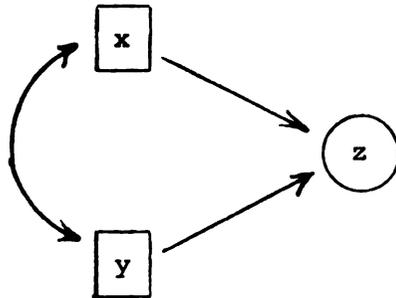
If an author wishes to lay stress on the fact that certain variables are exogenous variables, then he will inscribe the variable in a box instead of a circle.

EXAMPLE:



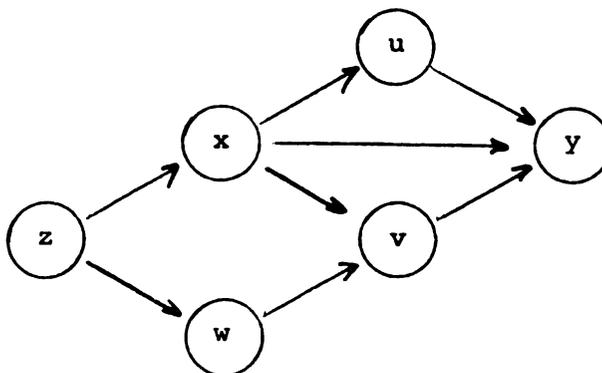
If the exogenous variables are not independent of one another, then they are connected with a curved two-way arrow. The curvature of the arrow indicates that the causal nature of the correlation is unknown.

EXAMPLE:



Warning

The definitions above are not necessarily mutually exclusive. In particular one variable x can exert a direct influence on the variable y, it can exert indirect influence along several paths, and it can be spuriously related as well. An example of this is given below:

EXAMPLE:

- x exerts a direct influence on y
- x exerts indirect influence on y through u and v
- z is a common antecedent to both x and y

Quantitative Path Analysis in a "Recursive" System

a. Let us first make certain assumptions:

- 1) Qualitative path diagram is given
- 2) We are given a population correlation matrix
- 3) The model fits exactly.
- 4) The system is "recursive."

Then all we need do is estimate the path coefficients and that's easy:

Theorem If x and y are both exogenous variables, then there is no assumed causal direction so you can write either P_{xy} or P_{yx} . In either case

$$P_{xy} = P_{yx} = r_{xy}$$

Theorem If x is the only variable which exerts influence on y, then

$$P_{xy} = r_{xv}$$

Theorem If x_1, x_2, \dots, x_r each have a direct causal effect on z, and if the multiple regression of z on x_1, x_2, \dots, x_r is

$$\hat{z} = \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \dots + \beta_r x_r$$

then,

$$Px_1z = \beta_1$$

$$Px_2z = \beta_2$$

$$\vdots$$

$$Px_rz = \beta_r$$

b. Let us eliminate the assumption that the model fits exactly. Then the estimation of the path coefficients is done the same way, but we don't know that they are correct. The question is: How do we test the model? That is how do we calculate the predicted correlations between the variables from the path diagram and the estimated path coefficients? And that's not so easy! One nice write-up is Lewis-Beck, Michael S., Social Science Research, 1974, 2 (June), 95-108.

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