

# Internet Pornography: A Social Psychological Perspective on Internet Sexuality

William A. Fisher  
University of Western Ontario, Canada

Azy Barak  
University of Haifa, Israel

*Spectacular growth in availability of sexually explicit material on the Internet challenges sexual science to study antecedents and consequences of experience with such content. The current analysis attempts to provide a conceptual and empirical context for emerging work in this area. Our discussion begins with a summary of some of what has been learned from existing research concerning sexually explicit materials in contexts other than the Internet, and considers lessons from this work that may inform emerging research concerning Internet sexuality. A social psychological theory, the Sexual Behavior Sequence (Byrne, 1977), is then applied in an initial effort to conceptualize a number of antecedents and consequences of experience with Internet sexuality. Discussion closes with consideration of an agenda for future research concerning antecedents and consequences of experience with Internet sexually explicit materials.*

Spectacular growth in availability of sexually explicit material on the Internet has created an unprecedented opportunity for individuals to have anonymous, cost-free, and unfettered access to an essentially unlimited range of sexually explicit texts, still and moving images, and audio materials (Cheney, 2000; Elmer-Dewitt, 1995; Freeman-Longo, 2000; Harmon & Boeringer, 1996; Mehta & Plaza, 1998; Rimm, 1995; Wysocki, 1998). In a fashion never before imagined, men and women—and boys and girls—can acquire sexually explicit content on the Internet, effortlessly and privately, as a direct expression of their sexual and personal characteristics and inclinations. Sexually explicit materials so obtained, in turn, may act to alter, not at all or more or less profoundly, the sexual and personal dispositions that incline individuals to seek out Internet sexuality in the first place.

Growth in access to Internet sexually explicit material challenges sexual science to conceptualize antecedents and consequences of experience with such content. One view, based upon relevant theory and research (e.g., Bogaert, 1993, 2001; Eysenck, 1978; Malamuth, 1989a, 1989b; Malamuth, Addison, & Koss, 2001; Mosher, 1980, 1988; Rimm, 1995; Snyder & Ickes, 1985), suggests that antisocial personality characteristics will encourage some individuals to seek out antisocial sexually explicit materials from among those available on the Internet. The “goodness of fit” of antisocial personality characteristics with antisocial sexual content will, it is speculated, promote a tremendous depth of involvement in antisocial sexual stimuli.

Individuals may lose awareness of the constraints of reality regarding enactment of antisocial sexual behavior, and uniquely strong negative effects of antisocial sexual content on the Internet may be seen among those predisposed to access such material.

A related view, also based upon relevant theory and research (e.g., Barak & Fisher, 1997; Barak, Fisher, Belfry, & Lashambe, 1999; Bogaert, 1993, 2001; Fisher & Barak, 1991; Malamuth et al., 2001; Mosher, 1980, 1988; Snyder & Ickes, 1985), suggests that normal range individuals will ordinarily choose sexually explicit Internet materials which are not antisocial in nature. The “poorness of fit” of normal range personality characteristics with antisocial sexual content will, in fact, provoke avoidance of antisocial sexual stimuli, termination of contact with such stimuli if encountered, and rejection of the antisocial sexual messages of such stimuli. According to this analysis, most individuals have a lifetime learning history and set of expectancies about acceptable and unacceptable sexual behavior that is sufficient to deter them from accessing or acting on antisocial sexual content on the Internet.

The current discussion attempts to provide a conceptual and empirical context for considering antecedents and consequences of experience with Internet sexually explicit materials. At present, research concerning experience with Internet sexuality is at an early stage of development, and focused discussion of these issues may prove particularly valuable as sexual science moves toward more intensive study of this area. We begin this paper with a summary of some of what has been learned from existing research concerning sexually explicit materials, in contexts other than the Internet, and consider lessons from this work that may inform the study of Internet sexuality. A social psychological theory, the Sexual Behavior Sequence (Byrne, 1977), is then applied as an heuristic guide in an initial effort to conceptualize a number

---

The authors would like to thank Donn Byrne for his comments on an earlier version of this manuscript.

Address correspondence to William A. Fisher, Ph.D., Department of Psychology and Department of Obstetrics and Gynaecology, Social Science Centre 6430, University of Western Ontario, London, Ontario, Canada, N6A 5C2; email: fisher@uwo.ca.

of antecedents and consequences of experience with Internet sexuality. Our discussion closes with consideration of an agenda for future research concerning Internet sexually explicit materials. What follows, then, is a social psychological perspective—and certainly not *the* social psychological perspective—on aspects of Internet sexuality.

### WHAT DO WE KNOW ABOUT SEXUALLY EXPLICIT MATERIALS OUTSIDE THE CONTEXT OF THE INTERNET? LESSONS FOR THE STUDY OF INTERNET SEXUALITY

#### *What do We Know About Defining Sexually Explicit Materials?*

Conceptual and operational definition of terms is prerequisite to meaningful scientific discussion and research concerning sexually explicit materials, on or off the Internet. A three-part conceptualization of *erotica*, *degrading pornography*, and *violent pornography* has been suggested to guide theory and research in this area (Check & Guloien, 1989; Donnerstein & Berkowitz, 1981; Fisher & Barak, 1989; Zillmann & Bryant, 1989).

Definitions of *erotica*, *degrading pornography*, and *violent pornography* are based on the manifest content of sexually explicit materials. It is assumed that the content of sexually explicit material will be a distinguishing characteristic of such material and critical determinant of antecedents and consequences of experience with it (Fisher & Barak, 1991). Content-based definitions of *erotica* generally hold that such material involves sexually explicit, nondegrading, and nonviolent portrayal of consensual sexual activity (Check & Guloien, 1989; Donnerstein & Berkowitz, 1981; Fisher & Barak, 1989). Content-based definitions of *degrading pornography* hold that such material is sexually explicit and degrades, debases, and dehumanizes people, generally women, in a fashion that endorses such degradation (Check & Guloien, 1989; Zillmann & Bryant, 1989). Content-based definitions of *violent pornography* assert that such material is sexually explicit and depicts and endorses the utility and normativeness of sexual violence, usually directed by men against women (Check & Guloien, 1989; Donnerstein & Berkowitz, 1981; Fisher & Barak, 1989).

Definitions of *erotica*, *degrading pornography*, and *violent pornography* can be problematic. A primary concern is that achieving agreement about whether sexually explicit materials—on or off the Internet—fall into the broad categories of *erotica*, *degrading pornography*, or *violent pornography*, remains an unrealized objective. Although researchers such as Barron and Kimmell (2000) and Cowan and Dunn (1994) have studied the reliability of judgments of degradation and violence in small fragments of sexually explicit materials (e.g., 5-minute clips from full-length videos, and individual scenes in magazines, videos, and stories), our ability to reliably categorize complex and intact sexually explicit offerings, in the units in which they are experienced and interpreted by users, remains to be established. Moreover, whether or not sexually explicit

materials that are categorized as *erotica* or as *degrading pornography* or *violent pornography* are actually spontaneously perceived and interpreted as such by consumers of sexually explicit material remains an entirely unanswered empirical question. Is it the case that what the researcher designates as *violent pornography* is spontaneously perceived and interpreted by the average male as an endorsement of the utility and normativeness of violence against women? Is it the case that what the researcher designates as *erotica* is spontaneously perceived and interpreted by the average female as a nondegrading sexual portrayal?

What lessons can be taken from efforts to define sexually explicit materials and applied to inform research on Internet sexuality? We would suggest that concerns regarding reliability and validity of definitions of sexually explicit materials can and should be addressed empirically, in order to facilitate meaningful study of Internet sexuality. Research concerning categorization of sexually explicit materials, in the complex and intact forms in which they are experienced, can address reliability concerns in an ecologically valid fashion. Research concerning the crucial question of whether or not categorizations of *erotica*, *degrading pornography*, and *violent pornography* reflect spontaneous perceptions and interpretations of consumers of such material can address critical validity issues that have been raised. Until reliability and validity concerns about the definition of sexually explicit materials have been addressed, it will be difficult to map the content of Internet sexuality, to conceptualize or study effects of Internet sexually explicit materials, or to craft educational interventions or sociolegal policies concerning Internet sexuality.

#### *What do We Know About the Prevalence of Sexually Explicit Materials?*

Research interest in sexually explicit materials is historically associated with concern that such materials are enormously prevalent and are saturating society at an accelerating rate with each passing year (Fisher & Barak, 1991). During the 1980s, a time of intense research interest in sexually explicit materials, a report in the *Psychology of Women Quarterly* informed readers that X-rated materials in the U.S. represented “. . . an estimated \$8 billion industry of misogyny per year” (Cowan, Lee, Levy, & Snyder, 1988, pp. 309-310) and the U.S. Attorney General’s Commission reported that *violent pornography* was “. . . the most prevalent form” of sexually explicit material (U.S. Attorney General’s Commission, 1986, p. 323). At the same time, a best-selling human sexuality textbook speculated that \$1 billion per year of the U.S. sexually explicit media industry involved sales of child pornography (Hyde, 1986) and the important antipornography documentary film, *Not a Love Story*, informed its viewers that the sexually explicit media are controlled by organized crime (Sherr-Klein, 1981).

Systematic studies of the prevalence of sexually explicit materials appear at first glance to verify views about the saturation of western society with *violent pornography* (see Barron & Kimmel, 2000; Cowan et al., 1988; Dietz &

Evans, 1982; Malamuth & Spinner, 1980; Smith, 1976). A closer look at research findings in this area, however, provides a cautionary tale of conflicting and inconsistent results. We find, for example, that Malamuth and Spinner (1980) report a steady increase in sexual violence in *Playboy* and *Penthouse* across the 1970s, from about 1% to 5% of all text and pictures. Scott and Cuvelier (1987; see also Scott & Cuvelier, 1993), however, studied some of the same magazines over some of the same years and found that, over all of the 30 years of *Playboy's* publication, sexually violent pictures (.16 per issue) or cartoons (.58 per issue) were extraordinarily rare, and were actually decreasing in frequency of occurrence over time. In the realm of sexually explicit videos, Cowan et al. (1988) reported that fully 51% of X-rated videos sampled portrayed the rape of a woman, whereas Palys (1986) and Garcia and Milano (1991) found vastly less sexual violence in such videos, and Palys (1986) determined that levels of sexual violence in X-rated videos had been declining across the decade under study. Other researchers (Barron & Kimmell, 2000) report very high levels of sexual violence overall in sexually explicit magazines, videos, and Internet sex story postings, but at the same time note that the perpetrators of sexual violence in these media are usually or often women (65%, 49%, and 42% of perpetrators of sexual violence were women in magazines, videos, and Internet postings, respectively).

Initial reports of the prevalence of sexually explicit material on the Internet are eerily reminiscent of initial reports of the prevalence of print and video pornography. For example, Rimm's (1995) *Georgetown Law Review* paper, "A Survey of 917,410 Images, Descriptions, Short Stories, and Animations Downloaded 8.5 Million Times by Consumers in Over 2000 Cities . . ." (since heavily criticized for methodological flaws; see Hoffman & Novak, 1995) provoked a *Time* magazine cover story concerning the saturation of the Internet with pornography (Elmer-Dewitt, 1995). The *Time* magazine cover story was quickly followed by passage of the U.S. Communications Decency Act of 1996, designed to suppress the flood of Internet pornography, but the Communications Decency Act itself was quickly declared unconstitutional. Current reports indicate variously that the online pornography industry will gross \$366 million by 2001 (Spenger, 1999) or that it *already* grosses in excess of \$1 billion ("Blue Money," 1999), and reports indicate that a spectacular 69% of all e-commerce involves the purchase of sexual materials ("Blue Money," 1999). Other sources report that 15% of all Internet users accessed one of the top five "Adult" websites in a recent month (Cooper, Scherer, Boies, & Gordon, 1999), that sex is the most frequently searched topic on the Internet (Freeman-Longo & Blanchard, 1998), and that all of the top eight word searches on the Internet involve pornography (Sparrow & Griffiths, 1997). In another example, Canada's national newspaper of record recently printed a two-part series entitled "The Triple-X Crisis. Is Pornography Out of

Control?" (Cheney, 2000). This report informs readers that 3.8 million Canadians visited an Internet sex site in October of 2000 and reports that the average user visits Internet sex sites on 4 days per month. We note in passing that taking these statistics seriously requires us to believe that approximately 25% of all Canadian males, aged birth to death, visited an Internet sexuality site last month, and did so on an average of 4 different days.

In addition to inconsistencies and prima facie questionable claims in research on the prevalence of sexually explicit materials, on and off the Internet, we note the nearly complete absence of research on the central and obvious issue of consumer preference for different types of sexual content. In an effort to address the critical question of what sort of sexually explicit material, if any, men might choose to see in a free-choice situation, Bogaert (1993; see also Bogaert, 2001) conducted a very simple and very informative study. Undergraduate males who were already participating in a study were given the opportunity to sign up, for experimental credit, for additional research that would involve viewing their choice of 14 videos. Subjects were permitted to choose to see videos depicting common sexual acts, novel sexual acts, sexually insatiable females, sexual violence, or child pornography. Results showed that undergraduate men's modal choice—51% of all men—was to decline to see *any* sexually explicit video, either because they did not need further experimental credit or because they were simply not interested. The second most frequent choice (15% of all men) was to see erotic depictions that were nonviolent and involved female sexual insatiability. The next most frequent choices were to view a control film, *Saturday Night Live* (8%), a video that portrayed sexual novelty including sexual activity with animals (8%), or a video depicting common sexual acts (7%). Men's least common choices, in this free-choice setting, were to see sexually violent videos (4%) or child pornography (3%). Bogaert's (1993) research emphasizes the central but generally ignored point that contact with sexually explicit material is a self-regulated choice which may be exercised or declined by individuals and that experience with sexually explicit materials should be studied in such a context by sexual scientists. When ecologically valid opportunities to choose are given, as is the case in this single study, the modal choice was not to bother to see *any* sexually explicit material at all, and the *least* common choice was to view violent pornography or child sexual activity. Such findings place an important qualification on experimental research concerning the effects of sexually explicit stimuli, in which exposure to such stimuli is enforced on individuals (e.g., Check & Guloien, 1989; Zillmann, 1989)<sup>1</sup>.

<sup>1</sup> We refer to Bogaert's (1993) research as an ecologically valid approach, in relation to the fact that this research models well an individual's ability to choose, in real-world settings, whether to use or to avoid Internet sexually explicit materials. The fact that Bogaert's (1993) study utilized university undergraduates who were participating in an experiment is a potential limitation on our ability to generalize these findings.

What lessons can be taken from attempts to assess the prevalence of sexually explicit materials and applied to inform research on Internet sexuality? First, the record strongly suggests that it is important to avoid moral panic and premature pronouncements about the saturation of society with Internet pornography. Wildly conflicting statements, often doubtful on their face, about the extraordinary amount of sexually explicit material that is available, the extraordinary amount of such material that is sold, and the extraordinary proportion of all e-commerce accounted for by sales of sexual material, are quickly accepted. Such claims can just as quickly turn into a source of scientific embarrassment when the data are closely examined. Second, it is instructive to note that a degree of precision is warranted in assessments of the prevalence of sexually explicit materials on the Internet. Categories of erotica, degrading pornography, and violent pornography are almost always collapsed into the single category of "pornography" reflecting a presumably homogeneous "... industry of misogyny" (Cowan et al., 1988, p. 309-310; see also Malamuth et al., 2001). Such collapsing of all sexually explicit materials into a single category of "pornography" eliminates our ability to map out the prevalence of different types of sexually explicit materials on the Internet, or to consider effects of different types of sexually explicit content on the Internet, in any meaningful fashion, even ignoring serious reliability and validity concerns articulated earlier. Finally, Bogaert's (1993) research reminds us that use of erotic or pornographic materials is an individual choice. Studies of prevalence of different types of sexually explicit material on the Internet must include studies of consumer preference for various types of sexually explicit content in free-choice settings.

#### ***What Do We Know About Antecedents and Consequences of Experience with Sexually Explicit Materials?***

In working toward an understanding of Internet sexually explicit materials, it would be useful to consider research concerning personality characteristics that incline individuals to seek out sexually explicit media. It would also be useful to consider research findings concerning effects of contact with sexually explicit media on individuals who have chosen to consume such material.

With respect to antecedents of self-directed experience with sexually explicit media, perhaps the most comprehensive study of personality factors that incline individuals to seek out such materials was conducted by Bogaert (1993). Bogaert assessed a range of relevant individual differences in a sample of undergraduate men, including aggression, altruism, delinquency, dominance, hypermasculinity, Machiavellianism, psychoticism, sensation seeking, erotophobia-erotophilia, and attraction to sexual aggression. Men's sexual experience, past sexual media exposure, history of sexual aggression, and current sexual behavior were assessed as well. The men were then asked to choose which of a number of videos they would like to view. The videos

were presented to participants with titles and descriptions which established them as involving common sexual acts, novel sexual acts, sexually insatiable females, sexual violence, and children engaging in sexual acts, or as nonviolent, nonsexual, or violent nonsexual video material. After statistically controlling for social desirability, *none* of the individual difference characteristics assessed were associated with men's tendencies to choose to see the sexually violent or common sexual acts videos. Choice of female sexual insatiability videos was associated with erotophilia; choice of child sexual videos, which was very rare (3% of all males chose to see this stimulus), was associated with history of exposure to sexual media and with the personality traits of aggression and dominance; and choice of novel sexual acts videos was associated with history of exposure to sexually explicit media. Attraction to sexual aggression (Malamuth, 1989a, 1989b) was not correlated with choices to view any of the categories of sexual media under study. (See Bogaert, 2001, for additional results).

A single study known to us is relevant to the question of the antecedents of self-regulated exposure to Internet sexuality. Barak et al. (1999) examined individual difference correlates of choosing to access sexually explicit Internet sites in a sample of university men. These investigators found *no* association of men's social desirability, sensation seeking, attitudes toward women, rape myth acceptance, hypermasculinity, or erotophobia-erotophilia with time spent surfing sexually explicit Internet sites. The only correlate of the time men spent surfing sexually explicit Internet sites was men's past experience with sexually explicit media.

Other research of some relevance to the question of the antecedents of consumption of sexually explicit materials tells us that convicted sex criminals are either less likely or at least not differentially likely to have experience with sexually explicit media (see Abel, Becker, & Mittleman, 1985; Becker & Stein, 1991; Gebhard, Gagnon, Pomeroy, & Christensen, 1965; Goldstein, 1973; Langevin, Lang, Wright, Hand, Frenzel, & Black, 1988; see Marshall, 1988, and Malamuth et al., 2001, for conflicting evidence) and that it is egalitarian and not sexist attitudes toward women which are correlated with viewing sexually explicit movies or videos in natural settings (Padgett, Brislen-Slut, & Neal, 1989; Reis, 1986). Still other research indicates that in general, erotophilic individuals, who show dispositionally positive affective, evaluative, and approach responses to sexuality, are more likely than erotophobic individuals to choose to consume sexually explicit materials (Fisher, Byrne, Kelly, & White, 1988), and that male (vs. female) gender is associated with more frequent consumption of sexually explicit material (Kinsey, Pomeroy, Martin, & Gebhard, 1953; Fisher & Byrne, 1978).

With respect to research concerning the effects of exposure to sexually explicit media on individuals who have chosen to have contact with such material, research is limited. We do know that in two separate studies reported by Barak et al. (1999), amount of self-directed exposure to Internet sexually explicit sites had no significant effects on post-

exposure measures of university men's rape myth acceptance, attitudes toward women, acceptance of women as managers, or on a measure of likelihood of sexual harassment. In another potentially relevant study, Malamuth et al. (2001) examined factors such as family violence, delinquency, attitudes supporting violence, sexual promiscuity, hostile masculinity, and pornography use—defined as amount of exposure to sexually explicit magazines—as correlates of sexual aggression against women, in a national sample of men enrolled in postsecondary education. The authors report that men who were highest in hostile masculinity, sexual promiscuity, and pornography use as defined in this research were most likely to report a history of sexual aggression against women. At the same time, however, the researchers note that “. . . we cannot conclude on the basis of these analyses that pornography use is a cause or an outcome of sexual aggressive tendencies . . .” (Malamuth et al., 2001, p. 79). Characteristics of this research, including its cross-sectional design and coding of sexually explicit magazine use as “pornography,” seriously limit the ability of this study to address the question of effects of self-directed exposure to different types of sexually explicit materials, on or off the Internet. Findings that individuals who seek out sexually explicit movies or videos in natural settings have egalitarian and not sexist attitudes toward women (e.g., Padgett et al., 1989; Reis, 1986), and findings for a lack of association of sexual criminality with exposure to sexually explicit media (Abel, Becker, & Mittleman, 1985; Becker & Stein, 1991; Gebhard et al., 1965; Goldstein, 1973; Kutchinsky, 1973, 1985, 1991; Langevin et al., 1988; see Marshall, 1988 for contrasting evidence) are also not consistent with a view that self-directed exposure to sexually explicit materials results in antiwoman attitudinal shifts or antisocial sexual behavior.

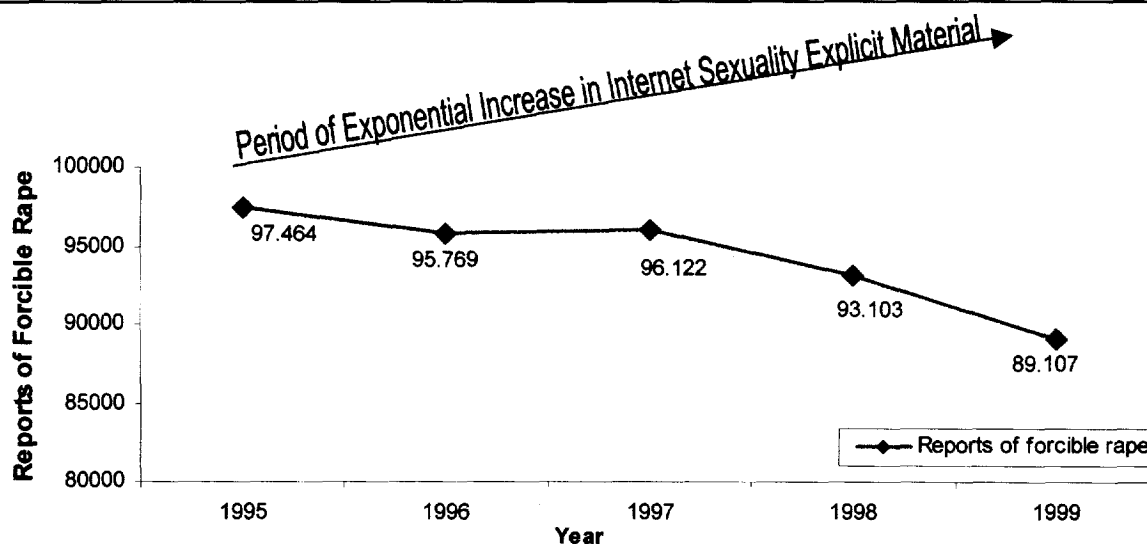
As an additional and crude estimate of consequences of exposure to sexually explicit Internet materials on individuals who seek contact with such content, in Figure 1 we

plot rates of reported forcible rape in the United States from 1995 to 1999 (U.S. Federal Bureau of Investigation, 2001). This time interval is by all accounts a period of exponential growth in the availability and use of all forms of Internet sexually explicit materials (Cheney, 2000; Elmer-Dewitt, 1995; Freeman-Longo, 2000; Harmon & Boeringer, 1996; Mehta & Plaza, 1998; Rimm, 1995; Wysocki, 1998). Although open to a variety of interpretations, we note that the rate of reported forcible rape in the U.S. fell consistently and significantly throughout this time period of spectacular increase in access to and use of Internet sexually explicit materials of all kinds.

Although there is an enormous amount of research concerning the effects of experimentally enforced exposure to sexually explicit materials on individuals who have not chosen to see such materials (see Davis & Bauserman, 1993; Donnerstein, Linz, & Penrod, 1987; Fisher & Barak, 1991; Fisher & Grenier, 1994; Malamuth et al., 2001; Malamuth & Donnerstein, 1984; Zillmann & Bryant, 1989, for reviews of this literature), extrapolating findings from such research is a risky proposition. Effects of Internet or other sexually explicit materials are almost certainly a joint function of the personality characteristics of the individual who seeks out such materials and of exposure to such materials per se (Bogaert, 1993; Check & Guloien, 1989; Fisher & Barak, 1991; Malamuth et al., 2001; Padgett et al., 1989; Reis, 1986). Experiments involving enforced exposure to sexually explicit materials ignore the influence of synergistic or buffering personality characteristics that might amplify or attenuate effects of exposure and which are correlated with the inclination to seek or to avoid sexually explicit material. Findings from enforced exposure experimental paradigms, therefore, cannot be generalized readily to assumptions about effects of self-directed, real world exposure to Internet sexually explicit materials.

What lessons can we carry forward from research con-

**Figure 1. Reported cases of forcible rape (U.S. Federal Bureau of Investigation, 2001) during a period of exponential growth in availability and use of Internet sexually explicit material.**



cerning antecedents and consequences of exposure to sexually explicit materials to inform research concerning Internet sexuality?

First, we note that research on antecedents of self-directed exposure to sexually explicit materials is very limited, and that use of an ecologically valid research paradigm that examines individual difference correlates of choice of Internet sexually explicit materials is needed. Existing research (e.g., Barak et al., 1999; Bogaert, 1993; Fisher et al., 1988) has already identified a variety of individual difference correlates of choice of sexually explicit media, on and off the Internet, that are potentially highly relevant to moderating effects of exposure to such materials.

Second, we note that research concerning effects of exposure to sexually explicit materials on those who choose to consume them is also rare, and existing findings by and large fail to confirm fears of strong antisocial effects of self-directed exposure to sexually explicit media. A significant lesson to carry forward for emerging research on Internet sexuality involves the importance of conducting ecologically valid research concerning effects of self-regulated exposure to Internet sexually explicit materials on individuals who choose to consume them. Such research will be able to capture compound effects of the personality characteristics of those inclined to access Internet sexuality and of Internet sexually explicit materials per se.

#### **A SOCIAL PSYCHOLOGICAL PERSPECTIVE ON INTERNET SEXUALLY EXPLICIT MATERIALS: CONCEPTUALIZING ANTECEDENTS AND CONSEQUENCES OF EXPERIENCE WITH INTERNET SEXUALITY**

As sexual scientists confront the challenge of understanding antecedents and consequences of contact with Internet sexually explicit materials, we believe there is considerable advantage to be gained by applying social psychological theory to guide conceptual and research efforts. A number of relevant theories (e.g., Sexual Behavior Sequence, Byrne, 1977; Theory of Reasoned Action, Fishbein & Ajzen, 1975; Excitation Transfer Theory, Zillmann & Bryant, 1984; Social-Cognitive Theory, Bandura, 1986; Confluence Model, Malamuth et al., 2001) could serve as a basis for understanding factors which would incline an individual to access Internet sexually explicit materials, and could be extended as a basis for conjecture about how access to Internet sexually explicit materials will condition the individual's future sexual behavior. We have chosen the Sexual Behavior Sequence (Byrne, 1977, Byrne & Kelley, 1986; Fisher, 1986; Fisher & Barak, 2001) as a basis for conceptualizing antecedents and consequences of experience with Internet sexually explicit materials for a number of reasons. The Sexual Behavior Sequence focuses on understanding sexual stimuli; the arousal, affective, cognitive, and behavioral responses they evoke; and the effect of these responses in conditioning the future approach or avoidance of sexual stimuli and sexual behavior. As such, the Sexual Behavior Sequence provides a conceptually comprehensive heuristic guide for an initial attempt to understand some of the factors

that will incline an individual to access Internet sexually explicit material and for understanding some of the internal psychological and external behavioral responses to such stimuli. In addition, the Sexual Behavior Sequence directly addresses the question of how the effects of experience with Internet sexuality may influence an individual's future sexual behavior. Although we believe that the Sexual Behavior Sequence is a conceptually comprehensive heuristic guide that addresses both antecedents and consequences of experience with Internet sexuality, we emphasize that it is utilized here only as a conceptual roadmap of constructs which are potentially important in the study of Internet sexuality and as a basis for hypothesis generation. Alternative models are available (e.g., Excitation Transfer Theory, Zillmann & Bryant, 1984; Confluence Model, Malamuth et al., 2001) and should be explored.

#### ***The Sexual Behavior Sequence***

The Sexual Behavior Sequence (Byrne, 1977; Byrne & Kelley, 1986; Fisher, 1986) is a social psychological model of the antecedents and consequences of sexual behavior that can be applied to conceptualizing experience with Internet sexuality. As can be seen in Figure 2, the Sexual Behavior Sequence asserts that individuals respond to unconditioned and conditioned erotic cues with sexual arousal and affective and cognitive responses. Sexual arousal, affect, and cognitions may motivate and guide preparatory sexual behaviors that affect the likelihood of overt sexual behaviors. Overt sexual behaviors, according to the model, have subjectively positive or negative consequences that will influence the future probability of the responses that led to the sexual behavior in the first place, by way of a feedback loop specified by the model.

#### ***Sexual Stimuli—Sexual Arousal—Sexual Behavior***

According to the Sexual Behavior Sequence, individuals respond to unconditioned sexual stimuli with physiological sexual arousal. Unconditioned erotic stimuli can include tactile stimulation of the genitals, exposure to pheromones, and possibly, visual sexual cues such as exposure to the genitals or breasts or observation of copulatory behavior (Byrne, 1977; Fisher, 1986; Gallup, 1986). The Sexual Behavior Sequence also asserts that any other discriminable stimulus which is associated with an unconditioned erotic stimulus can become a conditioned erotic stimulus with the capacity to elicit physiological sexual arousal itself.

According to the Sexual Behavior Sequence, individuals who come into contact with erotic stimuli and who are sufficiently sexually aroused for a sufficient period of time are motivated to engage in preparatory sexual behavior that will increase the likelihood of overt sexual behavior. Preparatory sexual behaviors which increase the likelihood of overt sexual behavior can involve actions such as locking one's bedroom door and plugging in a vibrator, making sexual overtures to an opposite-sex or same-sex partner, or seeking sexual companionship in a singles bar or in an Internet chat room. If preparatory sexual behaviors are suc-

cessful, sexual behavior will result, and sexual behaviors have outcomes that may be experienced as subjectively positive or negative events. Outcomes are assumed to feed back into the system to condition the future greater or lesser likelihood of the chain of events that led to the sexual behavior and outcome in question.

Considering only the erotic stimulus—physiological arousal—preparatory behavior—sexual behavior—outcome level of the Sexual Behavior Sequence, let us turn to the example of a neophyte male Internet user. Having discovered JJJ's Thumbnail Post (<http://www.pornno.com/gallerypost.shtml>) in the course of idle surfing, our Internet user has viewed text, images, and video clips depicting a variety of stimulus themes—including consensual heterosexual intercourse, bondage and discipline, interracial anal intercourse, urination, and cumshots, all depicted as discriminable stimulus accompaniments of unconditioned erotic stimuli such as copulatory behavior and breast and genital imagery. Our Internet explorer settles on a stimulus theme that he finds idiosyncratically to be arousing—cumshot still and moving images of a male ejaculating onto the face, hair, breasts, and vulva of a female. Over time, the Internet user finds that cumshot themes in general have become a conditioned erotic stimulus with the capacity to elicit high levels of physiological sexual arousal and with the ability to motivate preparatory sexual behaviors, sexual behaviors, and outcomes. Whether or not the acquisition of the cumshot theme as a conditioned erotic stimulus will ever be translated into covert fantasy or overt behavior involving ejaculation onto a woman's face or body will be a function of affective and cognitive responses which are simultaneously evoked by the sexually explicit Internet

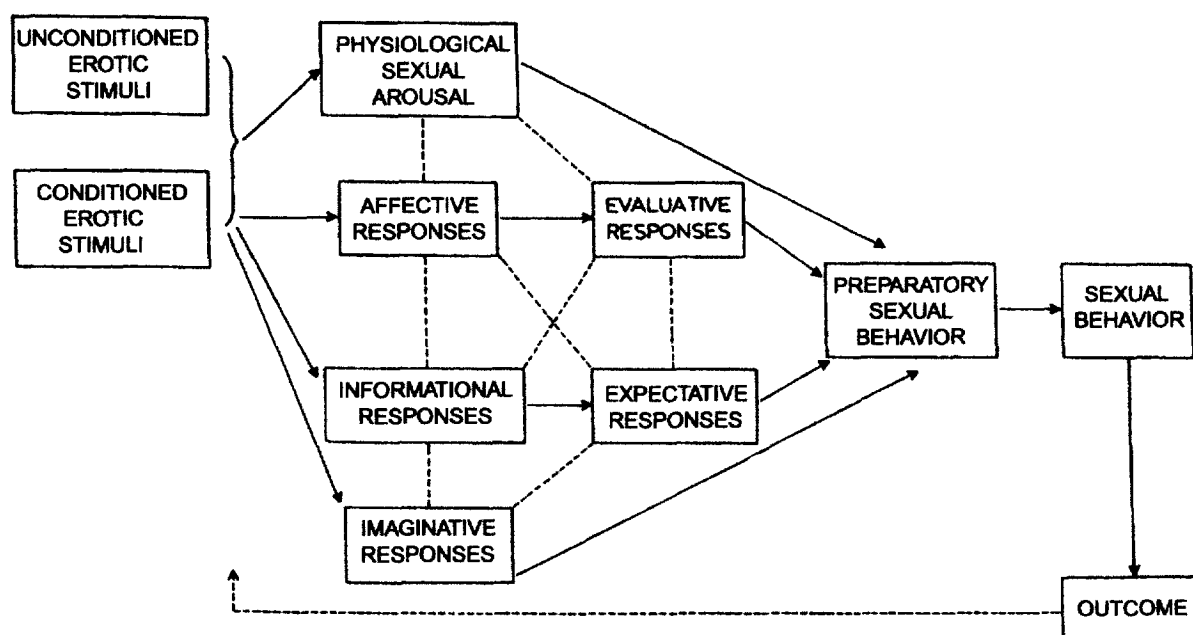
stimulus category in question and whose roles are also specified by the Sexual Behavior Sequence.

### *Sexual Stimuli—Affective Responses—Sexual Behavior*

The Sexual Behavior Sequence asserts that individuals respond to erotic stimuli with affective and evaluative responses as well as with physiological sexual arousal. According to the Sexual Behavior Sequence, affective and evaluative responses to sexual stimuli, along with physiological sexual arousal responses to such stimuli, will together influence the occurrence of preparatory sexual behavior, overt sexual behavior, and the subjective outcome of such behavior (see Figure 2).

From the perspective of the Sexual Behavior Sequence, individuals acquire affective and evaluative responses to erotic stimuli as a function of the association of erotic stimuli with rewarding or punishing experiences over the life span (Fisher, 1986; Fisher et al., 1988). An individual who has experienced predominantly rewarding experiences in association with sexuality is expected to develop a generalized trait disposition of erotophilia and should respond to sexual cues with positive affect and evaluations. An individual who has experienced predominantly punishing experiences in association with sexuality is expected to develop a generalized trait disposition of erotophobia and should respond to sexual cues with negative affect and evaluations. Positive affective and evaluative responses to sexual stimuli should incline the individual to engage in preparatory sexual behavior and sexual behavior and to experience the outcome of this sexual behavior as subjectively positive. Such a positive outcome will strengthen the future likelihood of further contact with similar sexual stimuli, the future likelihood of similar arousal and affective

Figure 2. The Sexual Behavior Sequence (Byrne, 1977).



tive and evaluative responses, similar preparatory and overt sexual behaviors, and similar outcomes. In contrast, negative affective and evaluative responses to sexual stimuli should motivate the sexually stimulated individual to avoid the sort of preparatory sexual behavior and overt sexual behavior suggested by the sexual stimulus and to experience the sexual stimulus, and any arousal or behavior which it eventuates, as hedonically negative events that will condition future avoidance of sexual stimulation of the sort that triggered this sequence of responses.

According to the Sexual Behavior Sequence, then, experience with Internet sexually explicit materials will be a self-regulated activity that will take place in part as a function of an individual's erotophobic or erotophilic disposition to respond to Internet sexuality with positive or negative affect and evaluations. Erotophilic individuals should seek out and enjoy Internet sexually explicit materials, and may incorporate what is acquired from Internet sexually explicit materials into their preparatory and overt sexual behaviors, and should enjoy these behaviors, all else being equal. This sequence of responses, involving additional pairings of sexuality with positive affective responses, should also strengthen the erotophilic disposition which provoked it in the first place. Erotophobic individuals, in contrast, will experience contact with Internet sexually explicit materials as an emotionally negative event and will evaluate such materials negatively and avoid contact with them. By extension, erotophobic individuals will also avoid preparatory and overt sexual behaviors related to Internet sexually explicit materials. This sequence of responses, involving additional pairing of sexuality with negative affect, should strengthen the individual's erotophobic disposition and his or her inclination to avoid Internet sexually explicit materials in the future.

Let us return to our example of the Internet user who has acquired a sexual arousal response to the theme of ejaculation on a woman's face or body. Let us further assume, in accord with the Sexual Behavior Sequence, that the individual in question is erotophilic and that in fact it is his affective and evaluative positivity to sexuality which brought him to surf Internet sex sites and to acquire conditioned sexual arousal to cumshots in the first place. Sexual arousal and positive affective and evaluative responses to cumshot stimuli should, according to our model and all else being equal, affect the individual's preparatory sexual behavior, sexual behavior, outcomes, and future probability of the sequence of events that provoked them. In the current case, the erotophilic individual likely has an erotophilic partner (for a review of evidence of assortative mating by erotophilic and erotophobic men and women, see Fisher et al., 1988), and the individual may be motivated to engage in a preparatory sexual behavior which involves discussion with a partner of incorporating an arousing new sexual activity—say, ejaculation onto her breasts—during sexual intercourse. Such discussion could be instrumental in the occurrence of a sexual behavior of this sort and could provoke a positive personal and dyadic outcome that would strengthen the future likeli-

hood of this entire sequence of events. Alternatively, and almost certainly more realistically, the individual who is sexually aroused and affectively positive to the prospect of ejaculation on a partner's body might receive such a negative interpersonal reaction to either the discussion or performance of this behavior that the outcome would be profoundly negative and result in the future unlikelihood of anything remotely associated with cumshot activity. Or, the individual in question who is sexually stimulated by the cumshot theme might chose a preparatory behavior such as a generic sexual overture to a partner which results in a conventional sexual behavior such as sexual intercourse, accompanied by a covert sexual fantasy of cumshot activity. This personally rewarding outcome would condition the increased likelihood of this sequence of events in the future without involving potentially negative partner responses. For the individual who is aroused by the prospect of ejaculation onto a partner's body and who is affectively and evaluatively positive concerning this activity, the question of whether the overt or covert version or any version of this scenario will be enacted will depend heavily on the individual's cognitive responses to this category of sexual behavior, as specified by the Sexual Behavior Sequence and discussed following.

#### *Sexual Stimuli—Cognitive Responses—Sexual Behavior*

According to the Sexual Behavior Sequence, erotic stimuli evoke categories of cognitive responses that—together with arousal and affective responses—determine preparatory sexual behavior, overt sexual behavior, and the outcomes of such behavior. Cognitive responses to erotic stimuli include informational responses, expectative responses, and imaginative responses. Informational responses to sexual stimuli consist of beliefs about sexual activity, and expectative responses are subjective probability estimates concerning the outcomes of sexual activity. Imaginative responses to sexual stimulation involve script-like representations of entire sexual episodes which may be used to test out safely and in private contemplation a pattern of behavior that one is considering implementing, or which may be used to experience, solely in private contemplation, a behavior that one would never consider actually implementing.

From the perspective of the Sexual Behavior Sequence, information, expectancies, and imaginative responses will heavily affect an individual's experience with Internet sexually explicit materials. Consider our example of the erotophilic Internet surfer who has acquired sexual arousal responses to the stimulus category of ejaculation onto a female's face or body. From the perspective of the Sexual Behavior Sequence, the individual's informational, expectative, and imaginative responses to the prospect of ejaculation on a partner's face or body will determine the nature of his preparatory sexual behavior, sexual behavior, and outcomes. Assume, for example, that our protagonist is sexually aroused and affectively positive about the possibility of engaging in sexual activities that include ejaculation onto his partner. Assume as well that (a) the surfer in

question believes that ejaculation onto his partner's breasts is a relatively reserved form of this behavior, as suggested by depictions he has seen on the Internet (an informational response); (b) the surfer in question believes that his partner would probably respond tolerantly to discussion of this activity and to its actual occurrence, as suggested by past experience with the partner (an expectative response); and (c) the surfer in question can imagine a sequence of cumshot activity behaviors producing a positive outcome for himself and his partner (an imaginative response). In such a case, contact with Internet sexually explicit stimuli may trigger overt experimentation with behavior and possibly a positive outcome and increased future likelihood of such behavior. If, in contrast, the individual's informational, expectative, and imaginative responses suggest that ejaculation onto the partner's breasts would almost certainly provoke negative responses which are vividly imagined, the individual might choose to confine his cumshot activity to covert fantasy accompaniment of conventional sexual activity as discussed earlier. Or, the surfer in question might choose to redirect his sexual fantasy to what he imagines to be a more acceptable behavior. In either case, it is the avoidance of an overt sexual behavior that would have a positive outcome and that would continue in the future.

#### ***All Together Now: Arousal, Affective, Cognitive, and Behavioral Responses to Internet Sexually Explicit Materials***

From the perspective of the Sexual Behavior Sequence, exposure to Internet sexually explicit materials may trigger the acquisition of conditioned sexual arousal responses, affective and evaluative responses, informational and expectative responses, and sexual fantasy responses. These internal psychological reactions to Internet sexually explicit stimuli will together determine the occurrence and nature of preparatory sexual behavior, overt sexual behavior, the outcome of such behavior, and the future probability of sexual behavior, including future contact with Internet sexually explicit materials. The Sexual Behavior Sequence thus conceptualizes experience with Internet sexually explicit material as a choice made by an active perceiver and interpreter of such material. The Sexual Behavior Sequence also emphasizes that the individual brings a lifetime learning history, involving emotional responses to sexuality, beliefs about sexual activity, and expectations and imagination concerning the outcomes of sexual behaviors, to experience with Internet sexuality. In contrast to implicit "Monkey see, monkey do" assumptions which seem to have guided much research on exposure to erotica and pornography (see Fisher & Barak, 1991), the Sexual Behavior Sequence conceptualizes contact with Internet sexually explicit material as a self-regulated event which will occur or not occur as a function of an individual's arousal, affective, and cognitive responses to sexuality. The individual's internal affective and cognitive responses to Internet sexually explicit materials will determine whether or not future contact with Internet sexuality is sought or

avoided, and will determine the sort of behavioral responses which are or are not provoked by experience with Internet sexually explicit materials. Finally, experience with Internet sexuality should also affect the future development an individual's arousal, affective, and cognitive responses to sexuality and his or her future sexual behavior, most likely in a direction which is consistent with the individual's preexisting response tendencies in these areas. Understanding an individual's experience with Internet sexually explicit material requires consideration of multiple and simultaneous arousal, affective, and cognitive responses of the individual to sexual stimulation.

The Sexual Behavior Sequence can also be applied as a conceptual guide for clinical interventions designed to assist individuals who have self-designated or socially-designated problems with Internet sexuality, including excessive and interfering preoccupation with Internet sexually explicit materials, inappropriate behavior stemming from contact with Internet sexuality, or personally or socially problematic replacement of sexual activity on the Internet for sexual activity with a partner (Barak & King, 2000; Cooper, Putnam, Planchon, & Boies, 1999; Putnam, 2000; Schwartz & Southern, 2000). In such cases, diagnostic focus on arousal, affective, and cognitive factors that provoke or permit dysfunctional behavior might prove useful in understanding the problem and in formulating an intervention plan. Is the individual who is preoccupied with Internet sexually explicit materials in a way that is interfering with his or her work and relationships and finances involved in such maladaptive activity because Internet sexuality is more arousing to the individual than competing, noninterfering sources of sexual arousal? Is the individual more affectively positive to Internet sexuality than he or she is affectively negative to the consequences of excessive involvement? Is the individual unable to anticipate and imagine the individual consequences and social stigma occasioned by his or her behavior? And would interventions targeted at augmenting access to adaptive sources of sexual arousal, at increasing affective negativity to the consequences of his or her activity, and at encouraging the individual to imagine the negative reactions of employers and partners (e.g., Orzack & Ross, 2000; Putnam, 2000), be effective in assisting the individual to avoid excessive and interfering use of Internet sexually explicit materials?

#### **WHERE DO WE GO FROM HERE WITH INTERNET SEXUALLY EXPLICIT MATERIALS? A CONCEPTUALLY BASED RESEARCH AGENDA**

In crafting an agenda for future research on Internet sexually explicit materials which integrates the issues discussed in this paper, we prioritize conceptually driven and ecologically valid research, guided by the Sexual Behavior Sequence and other relevant models. This agenda will focus on examining effects of preexisting arousal, affective, and cognitive responses to sexuality on self-regulated consumption of Internet sexually explicit materials in free-choice settings that model well the natural environment.

This research agenda will also examine effects of self-regulated experience with Internet sexually explicit materials on individuals' arousal, affective, and cognitive responses to sexuality, and examine how effects on these internal responses may contribute to changes in individuals' covert sexual fantasy and overt sexual behavior over extended periods of time.

Based upon the Sexual Behavior Sequence and related research (Byrne, 1977; Fisher, 1986), we hypothesize that individuals with strong preexisting sexual arousal responses to sexually explicit materials, and strong preexisting positive affective and cognitive responses to sexuality, will engage in relatively greater self-regulated consumption of Internet sexually explicit materials (compared to individuals with preexisting weaker or more negative arousal, affective, and cognitive responses to sexuality). Based upon the current analysis, we also anticipate that experience with Internet sexuality will reinforce individuals' preexisting arousal, affective, and cognitive responses to sexuality. Those who approach Internet sexuality with strong arousal responses and positive affective and cognitive responses to sexuality will find these response tendencies strengthened. Those who approach Internet sexuality with weak arousal responses and negative affective and cognitive responses to sexuality will find these response dispositions made more pronounced. Finally, based on the Sexual Behavior Sequence (Byrne, 1977; Fisher, 1986), we expect that experience with Internet sexuality will affect individuals' covert imaginative and overt sexual behavior in a fashion that is consistent with his or her arousal, affective, and cognitive responses to sexuality. Individuals who approach Internet sexuality with strong arousal responses and positive affective and cognitive responses to sexuality will be more inclined to incorporate elements of Internet sexual scenarios into their covert and overt sexual behavior, all else being equal, and in accord with the expected outcomes of these behavioral choices. In contrast, individuals who approach Internet sexuality with weak arousal responses and negative affective and cognitive responses to sexuality will be unlikely to incorporate Internet sexual scenarios into their covert or overt sexual behavior.

By happy coincidence, existing Internet technology provides an exceedingly suitable methodology for executing the research agenda we have articulated. Assume, for example, that a researcher is able to create a panel of Internet users, representing both sexes, and sampling the age range from 18 to 65. Further assume that, after appropriate informed consent, the panel of Internet users completes a series of assessments of baseline sexual arousal responses to a range of sexually explicit stimuli, and a set of measures of affective—evaluative, informational—expectative, and imaginative responses to sexuality. Assume as well that the research subjects complete a profile of current sexual behavior and attitudinal and behavioral measures—such as attitudes toward women, rape myth acceptance, sexually coercive behaviors, and inappropriate and interfering utilization of Internet sexuality—which represent potential

negative outcomes of self-regulated exposure to Internet sexually explicit materials. This battery of baseline assessments would be completed online. Participants would then be given free access to the Internet for a period of, say, 1 or 2 years, with informed consent to the proviso that software installed on their computers will sample Internet utilization at given intervals of time and will automatically and anonymously communicate these data to the researchers. Moreover, halfway through the period of study and at its conclusion the researchers will conduct repeat Internet-based assessments of arousal responses to sexually explicit stimuli and affective—evaluative, informational—expectative, and imaginative responses to sexuality. In addition, subjects will again complete assessments of sexual behavior, attitudes toward women, likelihood of rape, coercive sexual behavior, and inappropriate and interfering utilization of Internet sexuality at these intervals.

A research strategy with these characteristics would permit empirical study of such central questions as the self-regulation of experience with Internet sexually explicit materials, in relation to preexisting individual difference characteristics, and the mapping over extended periods of time of self-regulated experience with Internet sexually explicit materials by men and women across the age range. Such a research strategy would also permit prospective examination of the effects of self-regulated exposure to Internet sexuality over time on arousal, affective, cognitive, and behavioral responses, and on a range of possible antisocial attitudinal and behavioral outcomes of self-regulated experience with Internet sexually explicit materials. It is our hope that this research agenda will contribute to conceptually and empirically fruitful investigation which will inform understanding, policy, and practice concerning Internet sexuality in coming years.

## REFERENCES

- Abel, G. G., Becker, J. V., & Mittleman, M. S. (1985, July) *Sex offenders*. Paper presented at the 11th annual meeting of the International Academy of Sex Research, Seattle, WA.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Barak, A., & Fisher, W. A. (1997). Effects of interactive computer erotica on men's attitudes and behavior toward women: An experimental study. *Computers in Human Behavior, 13*, 353–369.
- Barak, A., & Fisher, W. A. (2001). Toward an Internet-based, theoretically driven, innovative approach to sexuality education. *The Journal of Sex Research, 38*, 324–332.
- Barak, A., Fisher, W. A., Belfry, S., & Lashambe, D. R. (1999). Sex, guys, and cyberspace: Effects of Internet pornography and individual differences on men's attitudes towards women. *Journal of Psychology and Human Sexuality, 11*, 63–91.
- Barak, A., & King, S. A. (2000). The two faces of the Internet: Introduction to the special issue on the Internet and Sexuality. *CyberPsychology and Behavior, 3*, 517–520.
- Barron, M., & Kimmel, M. (2000). Sexual violence in three pornographic media: Toward a sociological explanation. *The Journal of Sex Research, 37*, 161–168.
- Becker, J., & Stein, R. M. (1991). Is sexual erotica associated with sexual deviance in adolescent males? *International Journal of Law and Psychiatry, 14*, 85–95.
- Blue Money. (1999, May 27) *The Guardian (Online)*, p. 5.
- Bogaert, A. F. (1993) *The sexual media: The role of individual differences*. Unpublished doctoral dissertation, University of Western Ontario, London, Ontario, Canada.

- Bogaert, A. F. (2001). Personality, individual differences, and preferences for the sexual media. *Archives of Sexual Behavior*, 30, 29–53.
- Byrne, D. (1977). Social psychology and the study of sexual behavior. *Personality and Social Psychology Bulletin*, 3, 3–30.
- Byrne, D., & Kelley, K. (Eds.). (1986). *Alternative approaches to the study of sexual behavior*. Hillsdale, NJ: Erlbaum.
- Check, J. V. P., & Guloien, T. H. (1989). Reported proclivity for coercive sex following repeated exposure to sexually violent pornography, non-violent dehumanising pornography, and erotica. In D. Zillmann & J. Bryant (Eds.), *Pornography: Research advances and policy considerations* (pp. 159–184). Hillsdale, NJ: Erlbaum.
- Cheney, P. (2000, December 2). The triple-X crisis. Is pornography out of control? *The Globe and Mail*, pp. F4–F5.
- Cooper, A., Putnam, D. E., Planchon, L. A., & Boies, S. C. (1999). Online sexual compulsivity: Getting tangled in the Net. *Sexual Addiction and Compulsivity*, 6, 79–104.
- Cooper, A., Scherer, C. R., Bois, S. C., & Gordon, B. I. (1999). Sexuality on the Internet: From sexual exploration to pathological expression. *Professional Psychology: Research and Practice*, 30, 154–164.
- Cowan, G., & Dunn, K. F. (1994). What themes in pornography lead to perceptions of the degradation of women? *The Journal of Sex Research*, 31, 11–21.
- Cowan, G., Lee, C., Levy, D., & Snyder, D. (1988). Dominance and inequality in X-rated videocassettes. *Psychology of Women Quarterly*, 12, 299–311.
- Davis, C. L., & Bauserman, R. (1993). Exposure to sexually explicit materials. An attitude change perspective. *Annual Review of Sex Research*, 4, 121–210.
- Dietz, P. E., & Evans, B. (1982). Pornographic imagery and prevalence of paraphilia. *American Journal of Psychiatry*, 139, 1493–1495.
- Donnerstein, E., & Berkowitz, L. (1981). Victim reactions in aggressive erotic films as a factor in violence against women. *Journal of Personality and Social Psychology*, 41, 710–724.
- Donnerstein, E., Linz, D., & Penrod, S. (1987). *The question of pornography: Research findings and policy implications*. New York: Free Press.
- Elmer-Dewitt, P. (1995). On a screen near you: Cyberporn. *Time*, 146, 1.
- Eysenck, H. J. (1978). *Sex and personality*. London: Sphere.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fisher, W. A. (1986). A psychological approach to human sexuality: The Sexual Behavior Sequence. In D. Byrne & K. Kelley (Eds.), *Alternative approaches to the study of sexual behavior* (pp. 313–172). Hillsdale, NJ: Erlbaum.
- Fisher, W. A., & Barak, A. (1989). Sex education as a corrective. In D. Zillmann & J. Bryant (Eds.), *Pornography: Research advances and policy considerations* (pp. 289–320). Hillsdale, NJ: Erlbaum.
- Fisher, W. A., & Barak, A. (1991). Pornography, erotica, and behavior: More questions than answers. *International Journal of Law and Psychiatry*, 14, 65–83.
- Fisher, W. A., & Barak, A. (2001). Online sex shops. Phenomenological, psychological, and ideological perspectives on Internet sexuality. *Cyberpsychology and Behavior*, 3, 575–590.
- Fisher, W. A., & Byrne, D. (1978). Sex differences in response to erotica? Love versus lust. *Journal of Personality and Social Psychology*, 36, 117–125.
- Fisher, W. A., Byrne, D., Kelley, K., & White, L. A. (1988). Erotophobia-erotophilia as a dimension of personality. *The Journal of Sex Research*, 25, 123–151.
- Fisher, W. A., & Grenier, G. (1994). Violent pornography, antiwoman thoughts, and antiwoman acts: In search of reliable effects. *The Journal of Sex Research*, 31, 23–38.
- Freeman-Longo, R. E. (2000). Children, teens, and sex on the Internet. *Sexual Addiction and Compulsivity*, 7, 75–90.
- Freeman-Longo, R. E., & Blanchard, G. T. (1998). *Sexual abuse in America: Epidemic of the 21st century*. Brandon, VT: Safer Society Press.
- Gallup, G. G., Jr. (1986). Unique features of human evolution in the context of evolution. In D. Byrne & K. Kelley (Eds.), *Alternative approaches to the study of sexual behavior* (pp. 13–42). Hillsdale, NJ: Erlbaum.
- Garcia, L., & Milano, L. (1991). A content analysis of erotic videos. *Journal of Psychology and Human Sexuality*, 3, 95–103.
- Gebhard, P. H., Gagnon, J. H., Pomeroy, W. B., & Christensen, C. V. (1965). *Sex offenders*. New York: Harper and Row.
- Goldstein, M. J. (1973). Exposure to erotic stimuli and sexual deviance. *Journal of Social Issues*, 29, 197–219.
- Harmon, D., & Boeringer, S. B. (1996). A content analysis of Internet-accessible written pornographic depictions. Retrieved from <http://www.acs.appstate.edu/~sbb/netporn.html>.
- Hoffman, D. L., & Novak, T. P. (1995). A detailed analysis of the conceptual, logical, and methodological flaws in the article. "Marketing pornography on the information superhighway." Retrieved January 7, 2002 from <http://www.2000.ogsm.vanderbilt.edu/rimm.cgi>.
- Hyde, J. (1986). *Understanding human sexuality* (3rd ed.). New York: McGraw-Hill.
- Kinsey, C., Pomeroy, W. B., Martin, C. E., & Gebhard, P. H. (1953). *Sexual behavior in the human female*. Philadelphia: Saunders.
- Kutchinsky, B. (1973). The effect of easy availability of pornography on the incidence of sex crimes: The Danish experience. *Journal of Social Issues*, 29, 169–181.
- Kutchinsky, B. (1985). Pornography and its effects in Denmark and the United States: A rejoinder and beyond. *Comparative Social Research*, 8, 301–330.
- Kutchinsky, B. (1991). Pornography and rape: Theory and practice? Evidence from crime data in four countries where pornography is easily available. *International Journal of Law and Psychiatry*, 14, 47–64.
- Langevin, R., Lang, R. A., Wright, P., Handy, L., Frenzel, R. R., & Black, E. L. (1988). Pornography and sexual offenses. *Annals of Sex Research*, 1, 335–362.
- Malamuth, N. M. (1989a). The Attraction to Sexual Aggression Scale: Part 1. *The Journal of Sex Research*, 26, 26–49.
- Malamuth, N. M. (1989b). The Attraction to Sexual Aggression Scale: Part 2. *The Journal of Sex Research*, 26, 324–354.
- Malamuth, N. M., Addison, T., & Koss, M. (2001). Pornography and sexual aggression: Are there reliable effects? *Annual Review of Sex Research*, 11, 26–91.
- Malamuth, N. M., & Donnerstein, E. (Eds.). (1984). *Pornography and sexual aggression*. Orlando, FL: Academic Press.
- Malamuth, N. M., & Spinner, E. (1980). A longitudinal content analysis of sexual violence in the best-selling erotic magazines. *The Journal of Sex Research*, 16, 226–237.
- Marshall, W. L. (1988). The use of sexually explicit stimuli by rapists, child molesters, and nonoffenders. *The Journal of Sex Research*, 25, 267–288.
- Mehta, M. D., & Plaza, D. E. (1998). A content analysis of pornographic images on the Internet. Retrieved from <http://www.queensu.ca/cpu/mehta/pron.htm>.
- Mosher, D. L. (1980). Three dimensions of depth of involvement in human sexual response. *The Journal of Sex Research*, 16, 1–42.
- Mosher, D. L. (1988). Pornography defined: Sexual involvement theory, narrative context, and "goodness of fit." *Journal of Psychology and Human Sexuality*, 1, 67–85.
- Orzack, M. H., & Ross, C. J. (2000). Should virtual sex be treated like other sex addictions? *Sexual Addiction & Compulsivity*, 7, 113–125.
- Padgett, V. R., Brislen-Slutz, J. A., & Neal, J. A. (1989). Pornography, erotica, and attitudes towards women: The effects of repeated exposure. *The Journal of Sex Research*, 26, 479–491.
- Palys, T. S. (1986). Testing the common wisdom: The social content of video pornography. *Canadian Psychology*, 27, 22–35.
- Putnam, D. E. (2000). Initiation and maintenance of online sexual compulsivity. Implications for assessment and treatment. *CyberPsychology and Behavior*, 3, 553–564.
- Reis, I. (1986). *Journey into sexuality: An exploratory voyage*. New York: Prentice-Hall.
- Rimm, M. (1995). Marketing pornography on the information superhighway: A survey of 917,410 images, descriptions, short stories, and animations downloaded 8.5 million times by consumers in over 2000 cities in forty countries, provinces, and territories. *Georgetown Law Review*, 83, 1849–1934.
- Schwartz, M. F., & Southern, F. (2000). Compulsive cybersex: The new tea room. *Sexual Addiction & Compulsivity*, 7, 127–144.
- Scott, J., & Cuvelier, S. J. (1987). Violence in *Playboy* magazine: A longitudinal analysis. *Archives of Sexual Behavior*, 16, 279–288.
- Scott, J., & Cuvelier, S. J. (1993). Violence and sexual violence in pornography: Is it really increasing? *Archives of Sexual Behavior*, 22, 357–370.
- Sherr-Klein, B. (Director). (1981). *Not a love story*. [Film]. Ottawa: National Film Board of Canada.

- Smith, D. D. (1976). The social content of pornography. *Journal of Communications*, 26, 16–33.
- Spenger, P. (1999, September 30). The porn pioneers. *The Guardian (Online)*, pp. 2–3.
- Snyder, M., & Ickes, W. (1985). Personality and social psychology. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (Vol. II, 3rd ed., pp. 883–943). New York: Random House.
- Sparrow, P., & Griffiths, M. D. (1997). Crime and IT: Hacking and pornography on the Internet. *Probation Journal*, 44, 144–147.
- U.S. Attorney General's Commission. (1986). *Attorney General's Commission on Pornography: Final report*. Washington, DC: U.S. Department of Justice.
- U.S. Federal Bureau of Investigation (2001). Retrieved from <http://www/fbi.gov> using a search for "forcible rape."
- Winick, C. (1985). A content analysis of sexually explicit magazines sold in an adult bookstore. *The Journal of Sex Research*, 21, 206–210.
- Wysocki, D. K. (1998). Let your fingers do the talking: Sex on an adult chatline. *Sexualities*, 1, 425–452.
- Zillmann, D. (1989) Effects of prolonged consumption of pornography. In D. Zillmann & J. Bryant (Eds.), *Pornography: Research advances and policy considerations* (pp. 127–158). Hillsdale, NJ: Erlbaum.
- Zillmann, D., & Bryant, J. (1984). Effects of massive exposure to pornography. In N. M. Malamuth & E. Donnerstein (Eds.), *Pornography and sexual aggression* (pp. 115–138). Orlando, FL: Academic Press.
- Zillmann, D., & Bryant, J. (Eds.), (1989). *Pornography: Research advances and policy considerations*. Hillsdale, NJ: Erlbaum.

Manuscript accepted May 30, 2001