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MALE INTERNET PORNOGRAPHY CONSUMERS AND THEIR ATTITUDES TOWARD MEN AND WOMEN

A Dissertation

SUBMITTED TO THE GRADUATE FACULTY

In partial fulfillment of the requirements for the

Degree of

Doctor of Philosophy

By

Ryan Joseph Burns
Norman, OK
2001

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MALE INTERNET PORNOGRAPHY CONSUMERS

AND THEIR ATTITUDES TOWARD MEN AND WOMEN

A Dissertation APPROVED FOR THE
DEPARTMENT OF COMMUNICATION

BY

D Lawrence Wiede

Dan O'Hair

Robert Brighey

Courtney Vaughn

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ABSTRACT

Grounded in pornography literature from the conservative-moralist, liberal, and feminist perspectives, and utilizing traditional theories of media effects, this study examined habitual male consumers of Internet pornography and their attitudes and beliefs about men and women. Two hundred sixty-five (N = 265) men completed an online survey that measured their perceptions of women in sexual, feminine and negative terms, their traditional attitudes about women, their perceptions of men performing traditional masculine behaviors increases, and their adherence to a masculine gender role schemata. Results revealed that men who habitually consume high amounts of Internet pornography are more likely to describe women in sexual terms, view women in stereotypically traditional feminine gender roles, and perceive them in positive terms. Also, habitual consumers perceive a world inhabited by masculine men, and report the highest level of self-perceived possession of masculine personality characteristics. Findings are discussed in terms of existing media effects theories, and suggestions for future research are presented.

Chapter I

Introduction

Background of the Problem

Human sexuality has received more thought and discussion than any other aspect of human behavior (Malamuth & Donnerstein, 1984). From the earliest primitive etchings, through modern media representations, people from all civilizations have recorded their sexual activities and their ideas about sex (Kinsey, Pomroy & Martin, 1948). Erotic art and pornography have been produced in abundance in every historic epoch and culture and appear always to have been produced by males for males (Roth, 1982). Although controversy about sexually explicit portrayals in the media is centuries old (Brown & Bryant, 1989), and pornography has been the focus of intense debates within the field of media studies (Kipnis, 1992; Ross, 1989; Williams, 1989), modern sexual mass media content designed to appeal to general audiences is growing more plentiful.

Modern pornography history in the United States started in the 1960's, when public displays of pornographic materials became more common. Pornographic film production mushroomed in the 1970s, when adult theaters became more noticeable, in part due to better production quality and increased graphic content. By the 1980s, pornography saw "the complete transformation of the industry into big business with large-scale distributors, theater chains, and technological advances" (U.S. Department of Justice, 1986, pp. 1366-1367).

Technological advances and pornography are inextricably linked. Sexual media have proceeded hand in hand with the invention of new technologies of image reproduction and dissemination (McNair, 1996; Wallace, 1999). The pornography industry has been a pioneer in various types of electronic technologies ("An adult affair", 1997), and pornography is

often a driving force during the fledgling, emergent periods of new media technologies. Innovations in production and distribution have made pornography widely available to a larger audience: Mechanized engraving, photography, motion pictures, electronic video, 1-900 numbers, satellite TV, cable, digital video discs (DVD), and home computers (O'Toole, 2000; Weaver, 1991). The connection between the erotic and the electronic is also motivation for the development of new Internet technologies, where the "erotic possibilities are part of the discussions of some of the groups designing cyberspace systems" (Stone, 1991, p. 105). Essentially, lust motivates technology (Saenz, 2000). The Internet is no exception. The Internet pornography marketplace drives the development and use of cutting-edge technological Web innovations, and encourages individuals to use the newest technology to acquire adult material.

By satisfying humanity's long-standing interest in sexually explicit imagery, the commercial pornography market is an integral part of the Internet (McNair, 1996). Innovations in technology, such as the Internet, provide new opportunities in the pursuit and provision of sexual material. Unexpected technological advances of the Internet have been due to the ingenious uses of the technology for the production, dissemination, and consumption of sexual media (Durkin & Bryant, 1995).

With the advent of the Internet and the proliferation of Usenet newsgroups, the popularity of sex as a discussion topic, and the suitability of the medium as a marketplace for sexual partners and pornographic goods and services of every conceivable kind exploded (Cronin & Davenport, 2001). It became apparent that sexual markets are everywhere. "Not just in red light districts, singles and gay bars, but wherever companionable bargains are

struck with an overtone of sex, gender or courtship . . . most seek, in the sexual market, partners and experiences of high sexual status" (Nelson, 1993, pp. 92-93).

As far back as 1986, the Attorney General's Commission on Pornography recommended that Congress should enact legislation to prohibit the exchange of information concerning child pornography through computer networks (Brown & Bryant, 1989). Writing about early methods of transferring pornography across computer networks, Brown and Bryant (1989) noted that "computer information services offer open adult channels in which subscribers participate in sexually explicit conversations with other subscribers logged into the system" (p. 20). The current form of Internet pornography has taken a slightly different direction. The Internet has the capacity and potential to disseminate vast amounts of pornographic material in a seemingly unregulated marketplace with large national and international audiences (Thomas, 1997). The Internet is not simply a disorganized swap meet for the technically savvy, but an open, interactive and hierarchical system (Holderness, 1995), comprised of an ethereal sexual datasphere, providing pseudo-anonymity and catering to every sexual practice (O'Toole, 2000).

The Internet has increasingly been used by producers and consumers of pornography (McNair, 1996), and this has resulted in a great deal of concern about the prevalence of pornographic material available through the Internet. According to two Web ratings services, Media Metrix and Forrester Research, about one in four regular Internet users visits an adult-oriented Web site at least once a month (Egan, 2000). This increased use and popularity of Internet pornography has heightened media coverage of the obscene material available on the Internet and the possible detriment it poses to society. A flurry of articles in 1995 started appearing in U.S. media analyzing the dangers of the spread of pornographic material

through the Internet. The July issue of *Time* magazine centered around a Carnegie Mellon study on the marketing of pornography on the Internet. Although highly flawed (Chapman, 1995; Godwin, 1995; Hoffman & Novak, 1995; Rheingold, 2000; Thomas, 1995), the study, and resultant media coverage, intensified pressure on the United States Congress to censor sexual Internet material (Elmer-Dewitt, 1995; McNair, 1996;) because of availability to children (Thomas, 1997). This led to the Communications Decency Act (Exon & Coates, 1995), the controversial and futile attempt at regulating online content, followed by similar federal legislation, the Child Online Protection Act (Albiniak, 1999 ;Munro, 1997). The failed Communications Decency Act (CDA) and the Child Online Protection Act (COPA) during the mid-1990s represented Congressional attempts to regulate content available to U.S. Internet users. The CDA and COPA were illustrative of strong public response to the prevalence of pornography on the Internet, which many perceived as problematic.

Statement of the Problem

Given the lengthy history of sexual representation, pornography research has taken numerous forms with many different findings and implications. Various authors have disagreed about the nature of these effects on behavior and attitudes (Allen, D'Alessio & Brezgel, 1995; Linz, 1989). Writers have concluded, based on their reviews of the literature or their own investigations, that pornography is *or is not* linked to antisocial outcomes. Despite the 1970 Presidential Commission on Obscenity and Pornography (Presidential Commission, 1970; Miller & McKinney, 2001), the 1986 U.S. Department of Justice report on pornography (U.S. Department of Justice, 1986), and one Surgeon General's Workshop, the effects of pornography consumption remain disputed (Allen, Emmers, Gebhardt, & Giery, 1995). The inconsistencies, based on examination of laboratory, field, and historical

data, create an inability to find a unifying voice from the scientific community. No consensus exists within the scientific community about the effects of exposure to pornography (Allen, Emmers, et al., 1995).

Distinct problematic areas arise when the methods and participants of previous research are considered. First, several meta-analytic reviews (Allen, Emmers, et al., 1995; Allen, D'Alessio & Brezgel, 1995; Allen, D'Alessio, & Emmers-Sommer, 1999) of published pornography research revealed that the studies limited their investigation to traditional forms of pornography. "Traditional" pornography consists of photographic images in magazines and books, video, audio, and written texts. Even though in 1986 the Attorney General's Commission on Pornography made specific mention of Internet pornography in their recommendation to Congress (Brown & Bryant, 1989), none of the studies in the meta-analyses inquired into the consumption of computer-mediated Internet pornography. This isn't necessarily due to lack of rigor, but is symptomatic of the time at which many of the studies were conducted: Large-scale use of Internet pornography was not prevalent, or at least the public did not perceive it as problematic.

Second, the majority of pornography research has focused on the behavior of available people who were recruited by researchers to *become* pornography consumers in laboratory settings (Hui, 1986) and did not focus on habitual users of sexually explicit media. Although such experimental research attempts to avoid the difficulties involved with aggregate studies and self-report methods (Quinsey, Steinman, Bergerson, & Holmes, 1975), laboratory studies are not without shortcomings. In experiments, the problems include a lack of real punishment or sanctions for the expression of negative attitudes or behavior; respondents' inhibitions while being observed or interviewed; respondents being allowed a

much more limited range or responses than they could have in the real world; the use of willing college students as the norm; and an "experimenter demand" effect (Childress, 1991; Fisher & Griener, 1994; Brannigan, 1987; Brannigan and Goldenberg, 1987; Christensen, 1986).

Finally, research has mostly been concerned with short-term behavioral and attitudinal effects of exposure to pornography (Preston, 1990) by concentrating primarily on the relationship between men's exposure to pornography and aggression and violence toward women. By focusing on women as the victim (Roiphe, 1994), and pornography as a change agent in laboratory settings (Hui, 1986), such studies have ignored the parallels between pornography content and real-life experience (Brummett, 1988). However, there is an abundance of scholarly work on women and mass media, but little has been written about men (Craig, 1991). (Many feminists would challenge this statement, arguing that everything written about women has been, in fact, about men.)

Few studies have empirically investigated pornography's effect on the social construction of masculine sexuality (Brod, 1996; MacKinnon, 1992), gender stereotypes (Brownmiller, 1975), and beliefs about masculinity and femininity (Frable, Johnson, & Kellman, 1997). Specifically, what are the effects of increased amounts and continued exposure to Internet pornography on the construction of sexuality and gender stereotypes? Traditionally, heterosexual, male-targeted pornography has visually communicated the "male means masculine" stereotype, and pornographic sex episodes involve virile, red-blooded men (Frable et al., 1997). There is a need for empirically derived measurements of feelings, thoughts, and behaviors regarding masculine gender role beliefs (Bargad & Hyde, 1991) of men who habitually receive the visual messages of masculine sexuality. There is limited

empirical insight into the effects that prolonged consumption of Internet pornography has on attitudes and behaviors. There is much to be investigated about pornography in relation to male sexuality (Brod, 1996).

In an effort to remedy these methodological concerns, this investigation focuses on Internet pornography. The study of Internet pornography provides the naturalistic platform on which to focus on the effects of long-term, habitual consumption of pornography. In the Internet sexual datasphere, the amount of Internet pornography is limitless and is continuously being replenished (McNair, 1996). Adult Websites are increasing in popularity and receive multiplying amounts of Internet traffic (Egan, 2000). Accessing pornography on the Internet has the benefit—for those members of society who prefer not to frequent adult bookstores—of privacy (a computer and a modem are all one needs); safety (HIV is one virus which computers are unable to carry); and user-friendliness (many Internet pornography services offer an unprecedented selection of material). Internet pornography provides pseudo-anonymity and provides access to material that may be illegal in the user's location (O'Toole, 2000). Because viewing Internet pornography is a solitary act (Burns, 1998; Emmers-Sommer & Burns, 2000), the unregulated Internet market place (Thomas, 1997) is the perfect forum for the casual connoisseur of adult material, or the habitual, possibly pathological consumer of pornography.

Definitions of Terms

Pornography

To clarify the goals of this project, it is important operationally define three terms: Pornography, the Internet, and gender schema. First, definitions of pornography come from two non-mutually exclusive sources: Feminist authors and social scientists. Feminist anti-

pornography analysis focuses on the collective harm pornography inflicts on women (Dworkin, 1981; Lederer, 1980; MacKinnon, 1993). Many feminists posit that pornography is an expression of male supremacy, sexual subordination (Kittay, 1988), sex discrimination (MacKinnon, 1992), violence, and is synonymous with violent media (Rubin, 1995). According to this perspective, pornography constructs what a woman is in terms of its view of what men want sexually, such that acts of rape, battery, sexual harassment, prostitution, and sexual abuse become acts of inequality (Baldwin, 1984). The feminist definition of pornography is "verbal or pictorial material which represents or describes sexual behavior that is degrading or abusive to women in such a way as to endorse the degradation" (MacKinnon, 1993, p. 121). For social science researchers, pornography means sexually explicit materials regardless of their moral or aesthetic qualities (Smith, 1976). The term is descriptive rather than pejorative (Frable, Johnson, & Kellman, 1997).

For the purposes of this project, pornography is defined as media material used or intended to increase sexual arousal (Allen, D'Alessio, & Brezgel, 1995; Allen, D'Alessio, Emmers, & Gebhardt, 1996; Allen, Emmers, et al., 1995). This is a functional definition of the material as opposed to a structural definition. This functional definition assumes that "how a person uses the material — or the effect that the material creates — is the relevant fact" (Allen et al., 1999, p. 140). This definition of pornography resonates in the pornography effects perspectives covered in the literature review. For example, the conservative-moralist perspective of pornography takes issue with violent sexual materials that visually communicate anti-female and anti-social messages while increasing sexual arousal. The liberal perspective maintains that materials used or intended to increase sexual arousal can be functional, beneficial, for the most part harmless, and can provide messages of

fantasy and sexual stimulation. Finally, the feminist perspective argues that all material intended to increase sexual arousal visually communicates an anti-female ideology, objectifies and dehumanizes women, portrays women as servants to men's sexual desires, denies female sexuality, and promotes sexual and social subordination.

Internet

The Internet was created in the 1960s by the U.S. Defense Department and has evolved from a tool exclusively used by the Defense Department to an information medium used by millions of people (Aldridge, Forcht, & Pierson, 1997; Thomas, 1997). The Internet is a worldwide system of computer networks. It is a public, cooperative, and self-sustaining facility accessible to hundreds of millions of people worldwide. The Internet is essentially a communication medium made up several interactive communication components (Costigan, 1999), such as electronic mail and newsgroups (asynchronous) and chat rooms (synchronous), MUDs and MOOs (multi-user domain and multi-user domain object oriented, respectively). For many Internet users, E-mail is the most practical application of the Internet, and the most widely used part of the Internet is the World Wide Web (WWW).

Gender Schema

Finally, gender schemas are an extension of self-schemas, which are knowledge structures that help us understand our own behavior (Markus, Crane, Bernstein, & Siladi, 1982). Attention has shifted away from the impact of self-schemas on the processing of self-relevant information to the exploration of the impact of self-schemas on judgments of and behavior toward others (Fong & Markus, 1982; Markus & Smith, 1981). The knowledge that, at times, schematic information processing can be a liability has generated interest in schemas that are evoked on the basis of gender (Bem, 1981; Crane & Markus, 1982; Frable & Bem, 1985). Bem (1981, 1985) found that a gender schema guides an individual to process incoming information in gender-related terms. Compared with gender aschematic individuals, gender schematic individuals have a greater readiness to process interactions with a member of the opposite sex through the use of a heterosexuality subschema. This

schema leads individuals to "encode all cross-sex interactions in sexual terms and all members of the opposite sex in terms of sexual attractiveness" (Bem, 1981, p. 361). Gender schemas are defined as the processing of information on the basis of a heterosexuality schema (Mohr & Zanna, 1990). A pertinent example is treating a woman as a sexual object, which is defined as employing a gender schema that leads to biased schematic information processing and/or overt sexually motivated behavior.

Significance of the Study

In a broad sense, the focus of this study is to examine the relationship between consumption of Internet pornography and attitudes and beliefs about masculinity, masculine gender roles, and women. More narrowly defined, the emphasis of this study is on men who view Internet pornography and whether they (1) believe most men are masculine, (2) believe most women are sexy, (3) are gender schematic, and (4) have traditional attitudes about women. Concurrently, this study is an attempt to understand the consequences of using new technology in the pursuit of sexual material, which is, according to Pavlik (1998), the most important and most difficult of tasks. It is important because the consequences of technological change are what make technology matter, and it is difficult because many of the technologies are still looming on the technological horizon and have not yet taken their final shape (Pavlik, 1998).

Despite the abundant social scientific research on the effects of pornography and the controversy over Internet pornography, there is limited empirical insight into the effects that prolonged consumption of Internet pornography has on attitudes and behaviors. Pornography is produced for and consumed by men. Pornography magnifies the "male means masculine" stereotype, and masculine sex episodes are acts of virile, red-blooded men (Frable et al.,

1997). In pornographic depictions, men are never sexually inadequate (Smith, 1976), are always in charge of the sexual interaction (Cowan, Lee, Levy, & Snyder, 1988; Dietz & Evans, 1982), and deviations from this pattern are treated derisively (Palys, 1986; Smith, 1976). Given this, there is a need for empirically derived measurements of feelings, thoughts, and behaviors regarding masculine gender roles (Bargad & Hyde, 1991). What are the effects of pornography on masculine personality attributes, goals, lifestyles, preferences, and ambitions? Similar to the general questions listed above, these concern aspects of men's lives, often described as the "masculine role." For many decades, few social scientists questioned the nature, much less the appropriateness, of the so-called conventional "masculine role." Males were simply expected to become masculine, and no one questioned whether this was part of the natural scheme of their life.

Past theories of and research on pornography have identified key components in elucidating the effects of pornography. Yet most of these theories were derived from or utilized in research which focussed on anti-social behaviors resulting from short-term exposure to pornography. However, Zillmann and Bryant (1984) and Berkowitz (1984) maintain that long-term exposure to pornography is more likely that short-term exposure to activate behaviors and attitudes. Consequently, theories that focus on the way individuals use stimuli around them to learn about the world, explain the way heavy media consumers come to accept the corresponding mediated reality, and provide a link between media content and real-life experience the most appropriate theories for this study. Therefore, Social Learning (Bandura, 1977), Cultivation Theory (Gerbner, 1969), and the Homology Hypothesis (Brummett, 1988) provide viable theoretical perspectives from which to examine the relationship between consumption Internet pornography and beliefs about men and women.

The implications of these theories for pornography, masculine gender role endorsement, and the perception of women will be taken up in the following chapter.

Chapter II

Literature Review

Pornography

Prior to the reports of the 1970 Presidential Commission on Obscenity and Pornography (Presidential Commission, 1970; Miller & McKinney, 2001), little was known about the use of pornography (Bryant & Brown, 1989), and knowledge about the effects of explicit erotic stimuli on behavior was severely limited. In terms of research, what existed was a few scattered studies examining responses to "cheesecake" photographs (Clark, 1952) and erotic passages from novels. In general, the behavioral effects under investigation were severely limited and involved only affective, evaluative, and imaginative responses. By the latter part of the 1960s, a few investigators went beyond such research to examine various responses to pictorial stimuli. In some investigations, response measures began to include assessment of subjective and physiological excitement and self-reports of over sexual activity. Following American court decisions between 1958-1973 that liberalized the availability of pornography in this country, several studies documented explosive growth of pornographic media content, especially during the early 1970s, followed by periods of relative stability (Bryant & Brown, 1989).

Despite having no end to sexual representation, and regardless of a lack of conformity of findings, there are trends in the field of pornography research that attempt to explain the effects of consumption. Among the longest running efforts to study the use of sexually explicit material by consumers who voluntarily consume such fare is the work of the Indiana University for Sex Research, most widely known as the Kinsey studies (Bryant & Brown, 1989), who published *Sexual Behavior in the Human Male* (Kinsey, Pomeroy, & Martin,

1948) and *Sexual Behavior in the Human Female* (Kinsey, Pomeroy, Martin & Gebhard, 1953). These studies were followed by Master's and Johnson's study Human Sexual Response (Masters & Johnson, 1966) and Shere Hite's (1979; 1981) *The Hite Report on Female Sexuality* and *The Hite Report on Male Sexuality.* In addition to these monolithic studies, there have been two U.S. government reports: the 1970 Presidential Commission on Obscenity and Pornography (Miller & McKinney, 2001; Presidential Commission, 1970) and the 1985 Attorney General's Commission on Pornography (Allen, Emmers, et al., 1995; U.S. Department of Justice, 1986).

Internet pornography

There is an almost unlimited amount of information available on the Internet, and a sizable chunk of it is related to sex. A large portion of the sexual material contains pornography, and the offerings range from soft-core erotic images of male and female models, to hard-core sexually explicit images, online movies, sound files, and interactive games (Thomas, 1997). From the Internet's earliest days, sites for sexually explicit material quickly took root and flourished. Consumption of sexually oriented materials by Americans is sky-rocketing and is now a well-entrenched part of contemporary culture (Wasserman, 2000). In fact, "sex" is the number one searched topic on the Internet (Cooper, 1998; Freeman-Longo & Blanchard, 1998; Crocket, 2000). In 1999-2000, it is estimated that adult sites make $500 million to $1 billion a year in subscription fees (Gimein, 1999; Crocket, 2000). Danni's Hard Drive, one of the best-known adult sites on the Internet, made $5.2 million in 1999 (Flynn, 2000). Analysts predict adult content will continue to dominate the U.S. and western European paid online content market, which accounts for 69 percent of revenues for paid online content by the end of 1998 and will remain the market leader in

2003 at 58 percent (Flynn, 2000). In other words, adult content constitutes more than 10 percent of all online retailing (Crocket, 2000). One news article wrote that an estimated 37 percent of Web surfers find their way to adult Websites (Flynn, 2000), and another maintained that 13 percent of Internet users over age 12 visited the top 10 Internet sex sites, eighty-four percent of whom were men (Crocket, 2000).

One of the biggest concerns over Internet pornography is the availability of such material to children (Thomas, 1997). This led to controversial attempts at regulating online content. One example is the Communications Decency Act (CDA) of 1995, proposed by Senators Jim Exon (D-Neb.) and Daniel Coats (R-Ind.). The CDA was part of the Telecommunications Bill approved by the House of Representatives on August 4, 1995. The CDA provided for "protection against harassment, obscenity and indecency to minors by means of telecommunications devices" (Exon & Coates, 1995, p. 1). When the Senate passed the Telecommunications Bill, the CDA was grafted onto and passed along with the bill. The CDA would establish regulatory control over the content of speech on the Internet, criminalize making available "indecent" content to persons under 18, and impose other speech crimes on Internet users.

In 1997, the CDA was struck down by the Supreme Court. The Court viewed the CDA as vague in terms of content and scope, and was found to have negligent distinctions between indecency and obscenity (Meeks, 1997). A unanimous U.S. Supreme Courts decided ACLU v. Reno (117 S. Ct. 2329) which upheld the ACLU's preliminary injunction prohibiting the enforcement of the CDA. A year after the Supreme Court struck down the CDA, Sen. Dan Coats introduced the Child Online Protection Act (COPA) that would prohibit commercial Websites from distributing material considered harmful to minors to

users younger than 17 years of age. The COPA, dubbed "son of CDA" and "CDA II" by critics, had a narrower focus than the original legislation because it covers only material deemed "harmful to minors", not things judged to be indecent (Munro, 1997; Albiniak, 1999). The COPA required distributors of commercial Websites deemed "harmful to minors" to secure credit card, adult access codes, or an adult personal identification number before letting users peruse their pages (Stein, 1998).

Even with heightened regulatory awareness, risk of prosecution, and social pressures to control Internet pornography, many people continue to use on-line services to pursue their sexual interests and to make contacts with others for a multitude of sexual agendas (Cooper, Scherer, Boies, & Gordon, 1999). With new technologies, pornography is easier to access than ever before (Kuhn, 1996). Young (1997) identified "sexual fulfillment" as a major psychological reinforcements underlying the use of the Internet. Internet erotica may be a safe, viable alternative to a potentially emotionally and physically risky real life encounter.

Attitudes individuals hold about computer use for sexual and romantic purposes appear to parallel closely those they hold toward sexuality in general. Cyberspace sexuality seems to be regarded by both mental health professionals and laypersons with a measure of trepidation—that too much of a good thing might be detrimental. This wariness seems to extend to commonly accepted concepts that are used in research on sexuality (Cooper, Scherer, Boies, & Gordon, 1999).

Two divergent perspectives developed among scholars on Internet sexuality. The first position to emerge was that Internet sexuality is pathological. This perspective is consistent with a medical model and tends to focus on addiction and compulsivity (Bingham & Piotrowski, 1996; Durkin & Bryant, 1995; Van Gelder, 1985; Young, 1997). The second

position regards on-line sexuality as more adaptive, emphasizing sexual exploration and relatedness (Cooper, 1998; Cooper & Sportolari, 1997; Leiblum, 1997).

The first studies of Internet sexuality, or "cybersex," emphasized the pathological aspects of sexual behavior. Durkin and Bryant (1995) focused on the use of the Internet for criminal and deviant behavior. They distinguished various motivations for erotic computer communication, from mild flirtations to seeking and sharing information about sexual services to frank discussions of specific deviant sexual behavior. They posited that cybersex allows a person to operationalize sexual fantasies that would otherwise have self-extinguished if it were not for the reinforcement of immediate feedback provided by on-line interactions.

A few authors recently presented more adoptive views of the use of the Internet for sexual purposes. Newman (1997) argued that the creation of the Internet allows new ways to candidly discuss sexuality. Cooper and Sportolari (1997) examined the notion of romance in cyberspace. They coined the term "computer mediated relating" (CMR) to describe the interactions taking place through the use of e-mail. Leiblum (1997) viewed cybersex as a type of sexual expression that ranges along a continuum from simple curiosity to obsessive involvement.

In addition to large-scale university and government studies, there are numerous investigations found in the social science literature that examine the effects of exposure to sexually explicit imagery. The following literature review is divided into two expansive sections. The first section reviews pornography research that is characterized by its distinct epistemic perspectives. These are the conservative-moralist perspective, liberal perspective, and the feminist perspective (Linz & Malamuth, 1993). The second section reviews specific

theories and constructs that are relevant to pornography research and this study. They are social learning theory (Bandura, 1977), cultivation theory (Gerbner, 1969), and the homology hypothesis (Brummett, 1988).

Even though the perspectives and theories are heuristically linked, it is appropriate to separate them into two overarching sections to examine each perspective and theory on its own merits. Doing so allows for independent review of each theory, irrespective of the emotional and political rhetoric contained in many of the perspectives. For example, some research within the conservative-moralist perspective uses social learning theory, cultivation theory, and aggression models. But if all the research that was guided by these theories were grouped under the conservative-moralist perspective, it might give the inaccurate impression that these theories are inherently linked to the conservative political approach to regulating pornography. As such, perspectives and theories are separated. These perspectives and theories are used as a backdrop for investigating Internet pornography, and to position an argument on how thoughts, attitudes, and behaviors of individuals are influenced by exposure to sexually explicit Internet imagery.

Cooper, Scherer, Boies, and Gordon (1999) conclude that Internet users access sexual sites for many different reasons and purposes. The theoretical arguments and observations remain to be investigated and supported empirically. There is an important gap in knowledge about Internet users who access sexual sites, which could be partially filled by collecting, describing, and examining data on these individuals.

Considering the aforementioned popularity and prosperity of Internet pornography, the controversial nature of this new sexual medium, and taking into account the ease with which individuals can access such materials, the following three research questions are posed

as a necessary first step to address more important research hypotheses. Creating a profile of men who consume Internet pornography and documenting their motivations for doing so will provide insight into the characteristics of their Internet use. In addition to determining their online behavioral patterns, reporting demographic measures of consumers of Internet pornography will also help ascertain if these findings are analogous to findings in prior research on pornography and Internet usage:

RQ1: What characteristics describe consumers of Internet pornography?

RQ2: What types of Internet pornography do individuals consume?

RQ3: What reasons do individuals report for consuming Internet pornography?

Perspectives

Conservative-Moralist Perspective

The conservative-moralist perspective focuses on the effects of sexually explicit material that are considered anti-social (i.e., violence, aggression, negative attitudes toward women). More broadly, the conservative-moralist approach suggests that sexually explicit materials often attack basic societal and religious values. As a result, the viewer might become influenced by what he or she sees and is likely to commit immoral acts.

The development of pornography law in the U.S. is the written embodiment of the conservative-moralist perspective. From a jurisprudence viewpoint, the conservative-moralist perspective assumes that the predominant effect of exposure to pornography has the tendency to deprave and corrupt those minds open to immoral influences. The U.S. Supreme Court rendered its first authoritative decision on pornography in *Roth v. United States* (1957). The Court ruled that "obscene" material was not protected by the First Amendment to the Constitution. It identified obscene material as those that appeal to a "prurient interest" in sex

and that are presented in a "patently offensive" way. The Roth case set the standard for identifying materials that "fuel an overemphasis on sex and individual self gratification and that may encourage illicit fantasies and acts" (Linz & Malamuth, 1993, p. 8).

The conservative-moralist perspective argues that pornography contributes to dysfunctional patterns by creating role models or situations where rewards stem from violent sexual behavior. The hypotheses in this aggression model argue that it is the violent nature of the material that is behind the harmful effects. Aggression models do not argue that exposure to sexual stimuli is harmful. Instead it is the "sexualized violence" that has a negative impact. If there is no violence in the pornography, and the material could be classified as "softcore", erotica, or consensual sexual behavior, then it should not impact the consumer's behavior negatively (Allen et al., 1999).

If pornography portrays anti-social behavior positively, for both assailant and for the victim, then the material contributes to the learning of an antisocial behavior. The key question remains whether the material does, in fact, create a role model from which the consumer of the material learns the behavior. To the extent that the material reflects or justifies a fantasy that discriminates, it is cause for concern. Demonstration of a connection between the physiological responses of convicted sexual offenders and material depicting the criminal acts of which those persons were convicted would add validation to victim testimony. Although the conditions for causality might not be met, the association would provide an indicator of potential negative behavioral outcomes (Allen et al., 1999).

The conservative-moralist perspective focuses whether or not the violent themes in pornography lead the viewer to hold certain anti-social attitudes or to commit acts of aggression toward another person (Donnerstein, 1984). This belief is the impetus for research

that examines the relationship between expcsure to pornography and anti-social attitudes toward women, such as the trivialization of rape (Allen, Emmers, et al., 1995; Baron & Straus, 1984; Corne, Briere, & Esses, 1992; Davies, 1997; Malamuth, 1983; Malamuth & Check, 1985; Malamuth, Haber, & Feshbach, 1980; Malamuth, Heim, & Feshbach, 1980; Perse, 1994; Zillmann & Bryant, 1982;).

Zillmann and Bryant's research (1982, 1984) is supportive of the argument that pornography is detrimental to women. These researchers exposed both women and men undergraduate students to sexually explicit films for six weeks to assess the effects of "massive" exposure to pornography on perceptions and attitudes about women and rape. They found that the men exposed to massive doses of pornography (four hours over six weeks time) became less supportive of statements about sexual equality and became more lenient in assigning punishment to a rapist whose crime was described in a newspaper account than did men in control groups with less or no exposure to pornography.

Malamuth and Check (1985) found that college men's frequency of reading sexually explicit magazines correlated positively with their beliefs that women enjoyed forced sex. Check (1984) also found that more frequent exposure to pornographic media was associated with greater acceptance of violence against women, general sexual callousness, and greater rape myth acceptance (defined as false or prejudiced beliefs about rape, rapists, and/or rape victims) (Burt, 1980). Linz, Donnerstein, and Penrod (1988) exposed male college students to nonerotic violent films and nonviolent erotic films yet failed to support Zillmann and Bryant's (1982, 1984) findings that sexually explicit films negatively affect beliefs and attitudes about women. Instead, Linz et al. (1988) found that participants exposed to R-rated film violence against women showed a tendency to be less sympathetic to a rape victim when

compared with those exposed to nonviolent erotic films. In other words, their claim that violent, nonsexaul depictions were more likely to lead to calloused attitudes toward rape victims than sexual or pornography films were parallel with findings of aggression theories and models.

Aggression approaches represent a set of theories that argue that "the erotica or sexual behavior in the material is not the source of negative effects. The source of negative effects is the violence or aggression in the material" (Allen, Emmers, et al., 1995, p. 9-10). Aggression models assert that pornography without violence is not harmful, whereas pornography linked with violence promotes anti-social attitudes. Aggression approaches suggest that the harmful effects of pornography begin when sexual acts have violent overtones (Zillmann, 1984), and male aggression is a central theme in the sexual encounter.

In summary, the conservative-moralist perspective is characterized by the concern that aggressive and violent themes in pornography may lead the viewer to commit acts of aggression toward another person, and focuses on the effects of sexually explicit material that are considered anti-social. More broadly, the conservative-moralist approach suggests that sexually explicit materials often attack basic societal and religious values. As a result, the viewer might become influenced by what he or she sees and is likely to commit immoral acts. This perspective assumes that the viewer's experience of the material creates beliefs that are anti-social and harmful to women. As the consumer of pornography views the actions in the material as desirable (either psychologically or physiologically), a set of responses creates the belief in the consumer that the behavior depicted would create a reward if enacted in the real life. The following section examines the liberal perspective.

Liberal Perspective

When considering the effects of pornography, various perspectives are concerned with different types of pornography. Whereas the conservative-moralist perspective primarily relies on violent pornography as a means of arousal when making the case about the harmful effects of porn, the liberal perspective relies on erotica as a means of arousal. The liberal perspective contends that nonviolent erotica generates minimal or no negative effects. Advocates of a liberal perspective maintain that sexually explicit materials are functional, beneficial, for the most part harmless, and provide fantasy and sexual stimulation (Linz & Malamuth, 1993). Several writers argue that sexual content is educational, therapeutic, entertaining and increases sexual pleasures and fantasies (Perse, 1994).

Studies have investigated whether exposure to nonaggressive, sexually explicit stimuli may have educational effects (Kelley, Dawson, & Musialowski, 1989). One study showed greater improvements in sexual knowledge and more physiological desensitization following participation in the course with film supplements, compared to textbook-only and no course groups (Vorgeas, 1973). A second study accounted for the effect of course participation by comparing college students who viewed the explicit films with those who listened to informational videotapes (Byrd, 1978). In a third study, Watts (1977) found that the lecture method of college instruction produced greater gains in sexual knowledge than did the incorporation of explicit sexual pictures, but no differences in sexual attitudes were observed. Other examples of the educational uses of pornography include Winnick's (1971) interviews with patrons of adult movies. Winnick (1971) found that many men reported they gained information about sexual practices, learned about female bodies and anatomy, and satisfied their curiosity about sexual practices through the viewing of adult films. Propper

(1971) reported a positive relationship between exposure to sexual material and knowledge about sex.

Therapeutic uses of sexually explicit materials have been documented for adolescents, medical students, disabled adults and sexually dysfunctional people (Yaffe, 1982). Wilson (1978) argued that erotica can prevent sexual problems because it provides information about sex, relieves sexual anxieties and inhibitions, and facilitates communication about sex between partners. Also, the use of sexual materials is common in the assessment and treatment of sex offenders and sexual dysfunctionals, may offer compensation for the inescapable limits of human existence and help people deal with societal taboos (Kelley et al., 1989).

Entertainment is another functional use of erotica. Winnick (1971) found that men who attended adult movies reported that they found the movies humorous and derived pleasure from critically evaluating the plots, settings, and technical aspects of the film.

Another possible effect of porn is a cathartic release, which is an emotional freedom that relieves sexual urges. Pornography acts as a sort of imperfect substitute for the real thing, and is a "masturbatory catharis for the masses" (Paige, 1998, p. 15). The catharsis argument is frequently used by individuals from the liberal perspective to support appeals for lessening restrictions on pornography. The catharsis argument is similar to uses and gratifcations theory.

Uses and gratifications (Blumler & Katz, 1974) holds that people are active in their selection of media content for specific reasons. These reasons influence attention levels, how they interpret the content, how actively they use the content, and attitudinal and cognitive effects. In the case of pornographic media, uses and gratifications would offer the

explanation that people actively seek pornography to satisfy certain desires, whether they are sexual arousal, entertainment, or to learn about sex. Uses and gratifications presents the use of pornographic media in terms of the gratification of social or psychological needs of the individual, and in turn, people's needs influence how they use and respond to pornography (McQuail, 1987).

But the liberal perspective primarily focuses on the positive impact of erotica. What about violent pornography and its possible anti-social effects? Liberal advocates would argue that the violence in pornography acts as release that can relieve aggressive urges. Sexually violent pornography represents the "next best thing" to going out and acting on these violent urges.

Pornography also functions to enhance sexual pleasure. According to Winnick's (1971) findings, some men reported that attending adult movies led to sexual arousal and inspired sexual acts with their partners. A few respondents suggested that the films encouraged safe fantasies with unknown and unrealistic women. Some patrons of adult movies reported that they enjoyed sex more after viewing adult movies and used the films to become sexually primed for their partners (Nawy, 1973).

The previous research investigated positive effects for individuals, but some research has gone so far as to connect pornography and pro-social responses (Mueller & Donnerstein, 1981; Tennenbaum, 1971). One experiment investigated the roles of exposure to sexually explicit stimuli and affect induction on speed of prosocial response to a suffering victim (Kelley, 1987). In the nonsexual control portion, subjects read positive, moderate, or negative affect statements. Then they participated in the prosocial portion of the experiment in which they terminated a victim's simulated pain by depressing a lever on 14 successive trials. Affect

ratings showed more positive affect toward an opposite-sex compared to same-sex victim on a brief scale. Negative affect induction resulted in slower response speed only among males who viewed a female victim. These results indicated that affective responses to a victim's pain may have some sex-related positive components.

In a second investigation of the effects of exposure to sexually explicit stimuli, participants viewed explicit heterosexual, opposite- or same-sex masturbatory slides and then participated in some prosocial response interaction. Faster response speeds were observed among males in the heterosexual slide, female victim condition, and among females in the heterosexual slide and male masturbatory, male victim conditions. Affect and sexual arousal responses suggested an explanation based on transfer of arousal from prior stimulation that influenced victim perception and eventual prosocial behavior. Results were interpreted as indicating the utility of affective and sexual arousal responses in explaining variability in prosocial response speed (Przybyla, 1985).

An important aspect of pornography that is often overlooked is the relationship between sexual explicitness and sexual fantasies. The liberal perspective takes full advantage of the relationship between sexually explicit external images and sexual fantasy. Kelley et al. (1989) posed the following questions: If someone read aloud an erotic story, and the audience was asked to imagine the images from the story, would the story be sexually arousing because it was being read aloud? Or would the individual's imagined fantasy be the means of arousal? An example is if someone imaged scenes from a sexual movie seen two weeks ago, would that cause arousal because the scenes were actually from the film? Or would the imagined fantasy be the means for arousal? Kelly et al. (1989) argued that the behavioral effects of sexual fantasy closely parallel those of explicit images. In general,

fantasy influences sexual arousal, sexual behavior, and affective responses, as well as other behaviors and can be influenced by personality variables, attitudes, and fantasy content. All these effects can be found for sexual explicitness as well. Therefore, sexual fantasy can be thought of as a specific medium of sexual explicitness, just as movies or magazines can be thought of as a similar medium. Given that most people engage in sexual fantasizing (Campagna, 1985; Davidson & Hoffman, 1986), and that sexual fantasies increase sexual enjoyment for the fantasizer, (Crepault & Couture, 1980), there must be positive effects of such behavior maintaining it.

One effect that sexual fantasy has been shown to have is that of increasing sexual arousal and enjoyment. Campagna (1985) exposed college students to a sexual story, a nonsexual story, or asked them to generate a sexual fantasy. As assessed by a brief check list, participants who generated their own sexual fantasy were more aroused than either the participants exposed to explicit sexual stimuli or to nonsexual stimuli. Stock and Geer (1982) found women to respond with sexual arousal to both sexual fantasy and to a sexual audiotape, and psychological imagery was significantly correlated with genital arousal in the fantasy condition.

Not only does sexual fantasizing result in arousal, but it has also been found to increase sexual satisfaction in general. Davidson and Hoffman (1986) administered a questionnaire on marital satisfaction, sexual fantasizing, and sexual satisfaction. Analyses suggested that married women use sexual fantasies to achieve sexual arousal and also to achieve orgasm during intercourse. Lenze and Zeiss (1984) also found that women who fantasized during masturbation were more likely to experience orgasm during intercourse.

In addition to claims that sexually explicit materials are functional, beneficial, for the most part harmless, and provide fantasy and sexual stimulation, the liberal perspective argues laboratory research that connects exposure to harmful effects is not externally valid. Most laboratory studies to date have used a basic stimulus-response model of human behavior (Preston, 1990), and such research demonstrating harmful consequences of exposure to erotica is methodologically flawed, artificial, and not generalizable to real-world exposure (Linz & Malamuth, 1993; Brannigan & Goldenberg, 1984).

Although experimental research attempts to avoid the difficulties involved with aggregate studies and self-report (Quinsey, Steinman, Bergerson, & Holmes, 1975), the problems of laboratory experiments focusing on pornography's negative effects include the publication of studies only if they have positive results, lack of precise definitions of violence and aggression, and the ethical inability to produce real violence (Brannigan, 1987; Brannigan & Goldenberg, 1987; Childress, 1991; Christensen, 1986; Fisher & Griener, 1994).

In addition to criticizing the external validity of laboratory experiments, advocates of the liberal model argue that individual differences explain people's reactions to erotica (Linz & Malamuth, 1993). Attitudinal predispositions, such as sex guilt (believing that sexual thoughts are harmful) and sexual authoritarianism (less tolerance for sexual expression) lead people to label sexual content as harmful and to advocate its restriction (Kelley & Byrne, 1983). In this sense, the liberal perspective is similar to uses and gratifications theory which explains that reasons for using media content and personal predispositions influence exposure (Rubin, 1984, 1985, 1986).

In summary, the liberal perspective contends that nonviolent erotica generates minimal or no negative effects. Advocates of the liberal perspective maintain that sexually explicit materials are functional, beneficial, for the most part harmless, and provide fantasy and sexual stimulation. Advocates of the liberal perspective also argue that there is little valid evidence that porn is linked to harmful effects, and instead, the material may relieve sexual urges, with the medium acting as a sort of imperfect substitute for the real thing. The following section examines the feminist perspective.

Feminist Perspective

As reviewed earlier, the conservative-moralist perspective is concerned with the effects of violent pornography, and the liberal perspective regards erotica as functional and beneficial. The final perspective reviewed, the feminist perspective, argues that pornography conveys an anti-female ideology. Although not all feminists are anit-pornograhy (Roiphe, 1994), in general terms the feminist perspective asserts that pornography objectifies and dehumanizes women, portrays women as servants to men's sexual desires, denies female sexuality, and promotes sexual and social subordination of and violence toward women. The feminist perspective emphasizes that "pornography depicts women as whores or prostitutes, and thus as receptacles for any sexual indignity and even rape and torture" (Linz & Malamuth, 1993, p. 44). The feminist perspective may seem similar to the conservative-moralist perspective, but they differ in one key element: The feminist perspective does not differentiate between violent and non-violent pornography. Unlike the conservative-moralist perspective or liberal perspective, the feminist perspective does not differentiate between violent or non-violent, hardcore or softcore, pornography or erotica. The feminist perspective

sees all sexually explicit material as a form of discrimination against women (MacKinnon, 1989, 1992, 1993).

Feminist authors, such Catherine MacKinnon (1989; 1993), Andrea Dworkin (1981), Susan Brownmiller (1975), and Gail Dines (1995) consider porn an illegal form of sexual discrimination in which the material creates through visual communication a sexually oppressive social system. MacKinnon (1989, 1992, 1993) and Dworkin (1981) assert that the making of pornography itself is an action or practice—not a free speech issue—involving the sexual exploitation of real human beings. Pornography is about domination, not partnership or mutual pleasure. Rarely are genuine acts of affection like holding hands or kissing depicted. Instead porn shows women's naked bodies on display in all manner of contortions, being done "to", not "with". The resulting product (photo or film) is a permanent record of the abuse (Kuhn, 1996).

According to this perspective, women are dehumanized in pornography by being presented as sexual objects; in postures of sexual submission or in scenarios of degradation; as enjoying pain or humiliation or experiencing sexual pleasure at being raped; or in scenarios of injury and torture in a context that "sexualizes" these conditions. In the feminist model, objectification has a quite specific meaning: Through the process of representation, women are reduced to the status of objects.

Anti-pornography feminists argue that pornography teaches men to despise women and see them as less human than themselves (Davies, 1997). Anti-pornography feminists endorse a linear causality relationship between exposure to pornography and violence toward women. This causal view asserts that there is a direct relationship between exposure to pornography and sexist attitudes and behaviors.

Advocates of this perspective argue that sexually explicit material conveys an antifemale ideology. Pornography is seen as objectifying and dehumanizing women, portraying women as servant to men's sexual desires, denying female sexuality, and promoting sexual and social subordination of and violence against women (Brownmiller, 1975; Lederer, 1980). The feminist perspective is concerned that men's consumption of pornography contributes to the development of negative and discriminatory attitudes about women. Even nonviolent pornography depicts women as subordinate to men, existing solely for the satisfaction of others, and as willing and eager to accommodate any and every male sexual desire. Continued exposure to this view of women as subordinate results in the acceptance of this view of women and might lead to subordinating and discriminating behaviors. Advocates of the feminist model argue that these beliefs and attitudes justify male dominance and female submissiveness, may be rape supportive, and may be associated with a broader acceptance of violence in nonsexual situations (Linz & Malamuth, 1993). Research conducted under this model frequently centers on attitudes or beliefs about sexual aggression against women.

The feminist perspective relies on the assumption that pornography is a powerful socializing agent. As the major sources of informal sex education for male teens, pornography teaches males to view women as second-class citizens whose main purpose is to provide sexual services for men (Kuhn, 1996). Pornography operates to define women exclusively in terms of a male-defined female sexuality. As a commodity and as a constellation of messages primarily about gender, sexuality, and sexual relationships, pornography may cultivate an acceptance of patriarchal social structures (Perse, 1994). In sum, it is a fundamental contention of much feminist analysis that the "primary impact of

pornography lies in the preservation and perpetuation of sex-trait stereotypes (perceptions of certain social roles as more appropriate for men or for women, and personality characteristics as more applicable to one sex than the other) and the continued acceptance of beliefs about male sexual aggression directed against women. The content of pornography is a vivid source of stereotypes about women and men". (Perse, 1994, p. 110).

In summary, the feminist perspective asserts that pornography objectifies and dehumanizes women, portrays women as servants to men's sexual desires, denies female sexuality, and promotes sexual and social subordination of and violence toward women. The defining characteristic of the feminist perspective is that it does not differentiate between violent or non-violent, hardcore or softcore, pornography or erotica—the feminist perspective sees all sexually explicit material as a form of discrimination against women.

As previously stated in the beginning of the literature review, the perspectives and theories used to investigate pornography effects have been separated into two overarching sections. The preceding section reviewed the conservative-moralist, liberal, and feminist perspective. The following section examines three broad theories that will be used as a backdrop for investigating Internet pornography: Social learning, cultivation theory, and the homology hypothesis.

Theories

Pornography and Social Learning Theory

Social learning theory (Bandura, 1977) argues that people use the stimuli around them to learn about the world (Check & Malamuth, 1983). Social learning theory asserts that media teach about the world beyond personal experience and provide a source for learning appropriate and inappropriate of behavior. This media function creates the possibility of

contributing to an understanding of social interaction patterns. Pornography promotes dysfunctional patterns by portraying individuals as role models and exhibiting sexual situations where rewards stem from deviant behavior (Check & Malamuth, 1983). "If pornography portrays anti-social behavior positively, for both assailant and for the victim, then the material contributes to the learning of an antisocial behavior. The key issue is whether the material does, in fact, create a role model from which the consumer of the material learns the behavior" (Allen, Emmers, et al., 1995, p. 8). From this standpoint, pornography serves as a source of information about the legitimacy of various forms of sexual behavior and the responses of other parties; it demonstrates the objectification of women and legitimizes the use of male coercion to gain sexual satisfaction (Allen, D'Alessio & Brezgel, 1995). This style of media learning, by definition, constitutes a vicarious event: The consumer does not receive the information necessary for evaluation of the behavior as a result of direct experience with rewards or punishments. The information comes as a result of observing fictional accounts designed to entertain individuals. Social learning theory asserts that sexual material portraying women as willing and sometimes eager victims of sexual assault creates the basis for action (Allen, Emmers, et al., 1995; Allen et al., 1999).

Pornography research from a social learning theory perspective primarily investigates whether or not the violent themes in pornography lead the viewer to hold certain anti-social attitudes or to commit acts of aggression toward another person (Donnerstein, 1984). Whether one believes that pornography serves as a model for the eventual actions of the sexual criminal, or represents an ideology that supports the practice of rape, the argument is for a link between mass communication content and individual action (Allen et al., 1999). This belief is the impetus for research that examines the relationship between exposure to

pornography and anti-social attitudes toward women, such as the trivialization of rape (Zillmann & Bryant, 1982), a greater acceptance of violence against women, and general sexual callousness (Check, 1984).

For the most part, the social learning research tradition focuses on the effects of traditional pornography. This form of pornography is finite in quantity because magazines, books, and videos have a definite beginning and end. This form of material involves barriers to its access because some communities may restrict certain types of pornography. Also, to obtain such material the user has to go out into public, often an adult bookstore, to purchase the materials. Yet as stated previously, Internet pornography is available in seemingly limitless quantities, with infinite options and sources, and few barriers to access or restrictions on the amounts of pornography consumed. This media environment is the perfect forum for pornography consumers to learn about the sexual world beyond their personal experience. In congruence with social learning theory, pornographic Internet media provide a source for learning appropriate and inappropriate sexual behavior. This medium creates the possibility for long term, habitual, male consumers to use the sexual imagery to develop and modify their understanding of male-female social patterns.

Previous research suggests the existence of anti-social effects of pornography and the promotion of dysfunctional anti-female attitudes. Given this assumption, Internet pornography might also impact the way men see women. Specifically, is there a relationship between exposure to Internet pornography and anti-female attitudes? Based on the aforementioned traditional pornography effects research, the following four hypotheses are posed:

Hypothesis 1a: As a man's consumption of Internet pornography increases, he is more likely to perceive women in sexual terms.

Hypothesis 1b: As a man's consumption of Internet pornography increases, he is more likely to perceive women in feminine terms.

Hypothesis 1c: As a man's consumption of Internet pornography increases, he is more likely to perceive women in negative terms.

Hypothesis 2: As a man's consumption of Internet pornography increases, his traditional attitudes about women increases.

These hypotheses share the assumption that habitually consuming pornography may be associated with certain beliefs about men, women, masculinity and femininity. Specifically, as the consumer of the material views the content of the material as desirable (either psychologically or physiologically), the user's response to the material coincides with a belief that the behavior or attitudes depicted would create a reward or positive outcome if enacted in real life.

Pornography and Cultivation Theory

As in the case of aggression and violence, the cultivation framework could provide an additional perspective to social learning theory as another way of thinking about the effects of pornography. Cultivation theory and its constructs will be imported into a computer-mediated environment to examine the linkage between Internet pornography and attitudes. Grounded in the assumption that individuals understand themselves and their world in relation to the symbolic, media environment, cultivation research is concerned with understanding the cumulative contributions of the stereotypical sexual patterns in pornography. While most cultivation research in the United States has focussed on television,

the application of the theories and methods of cultivation analysis to pornography promises to enhance our understanding of its effects (Preston, 1990). A shift to the cultivation model allows for an exploration of the broad role pornography might play in the social construction of sexual reality (Diamond, 1985). The basic assumptions of cultivation theory are a logical choice to study the attitudinal effects of viewing high amounts of Internet pornography.

Designed primarily to investigate television and its pervasive and recurrent patterns of symbolic representation, cultivation theory concentrates on the imparting of stable, resistant, and widely shared assumption and conceptions reflecting the social and institutional status quo (Gerbner, Gross, Morgan, & Signorielli, 1986). Cultivation theory offers an internally consistent application to the study of sexual media instead of television. In this application, cultivation theory is used to explain how pornography offers omnipresent and repetitive messages about sexuality. Cultivation theory applied to pornography research asserts that over time, heavy viewers of pornography come to accept the mediated sexual reality of pornography as their perception of actual (sexual) reality. Cultivation theory offers an important theoretical foundation for understanding the function of the media in the social construction of sexual reality, and offers research strategy for empirically testing that relationship (Preston, 1990). For example, cultivation theory would account for users who consumed high amounts of violent pornography and reported an endorsement of anti-female beliefs, such as rape myth acceptance.

Cultivation theory could also provide a perspective to answer questions of whether male users who consume high amounts of heterosexual pornography endorse dichotomous masculine-feminine gender beliefs, and if they possibly support traditional, stereotypical engendered attitudes and values (i.e., "men are masculine" and "women are sexy"). Exposure

to high amounts of pornography may be what accounts for the distinct consequences of viewing this media: Namely, the cultivation of shared conceptions of reality (Gerbner, Gross, Morgan, & Signorielli, 1986) that are consistent with the messages in mediated sexual imagery. Grossberg and Treichler (1987) support this notion by suggesting that there is a strong potential of mediated gender-role portrayals to influence and shape attitudes and perceptions. In addition, proponents of schema theory (Martin & Halverson, 1981; Bem, 1981) suggest that sex role stereotypes have a clarifying and extending function in helping individuals develop schemas pertaining to social information. Individual's knowledge and understanding of sex stereotypes are developed and maintained when they evaluate conceptual information (such as pornography) as appropriate or inappropriate for his or her own gender. It is by means of these stereotypes that we categorize, explain, and evaluate our behavior in various domains (Markus, Crane, Bernstein, & Saladi, 1982). In this way the individual develops organizational structures (schema) for sex-stereotyped behaviors that are more common to his/her own sex than for the other sex. Such a process offers the individual an understanding of gender-relevant and gender-irrelevant activities. Subsequently, when the person encounters social activities that are appropriate for the self, she/he explores the activities and may search for gender or sex information relevant to the activities (Carter, 1987). These notions necessitate inquiry into the relationship between sexual Internet media and gender roles.

Given the increasing popularity and prevalence of pornography on the Internet, the central hypothesis of cultivation theory research can be applied to the study of Internet pornography. Internet pornography is easily attained by anyone, with little restrictions on availability or content, a variety of prurient options and participants, all in a seemingly

limitless amount. Cultivation theory offers a rational tool for arguing that consumption of high-amounts of Internet pornography gradually leads to the adoption of certain beliefs about the nature of human sexuality.

This line of inquiry suggests the possibility that exposure to Internet pornography can influence perceptions of facts, norms, and values of media consumers through selective presentations and by emphasizing certain sexual themes. By applying the ideas expressed in the previous cultivation theory literature to a computer-mediated environment, the researcher will examine the ability of pornographic media to cultivate certain perceptions. To this end, the following hypothesis is posed:

Hypothesis 3: As men's consumption of Internet pornography increases, their perceptions of men performing traditional masculine behaviors increases.

Pornography and the Homology Hypothesis

In "The Homology Hypothesis: Pornography on the VCR", Brummett (1988) argues that media texts may be especially effective when the content, the medium used to convey the content, and the real life experiences that make the content relevant are formally or structurally linked. His hypothesis states that "one factor that enhances the ability of media content to respond to real life experiences at a formal level and to offer motives for confronting those experiences is the extent to which a particular medium shares many of the formal characteristics that link content and experience" (p. 202). In addressing the concept of "homology", he focuses on parallels among media content, the experience of consuming the content, and real life experiences, in which "realms of time and space seem joined" (p. 202).

Brummett's (1988) homology hypothesis also maintains that when there are formal parallels among content, experience, and medium, the content affects the audience's motives

for living through "real" or unmediated experiences. The message in the medium gains its power from emphasis and repetition, and this occurs when the medium makes the same points found in formal links between content and experience. The experience of a medium is a real experience, as well as a representational experience of the content. As both an experience and a representation, "the medium does this by serving as a formal bridge between the fictitious media content on the one hand, and the real world on the other" (Brummett, 1988, p. 252). The medium is a real experience but in an imaginary, fictive context, sort of a symbolic halfway house. Brummett's (1988) work illustrates the potential effects of a certain kind of content carried in a particular medium: heterosexual, male-dominant pornographic videos viewed at home on the VCR (Czerwinski, 1992). He argues that pornography is "homologous" with the VCR on four dimensions: control and freedom, commodification and intimacy.

Control and freedom are closely related. "Control" represents control over machines, such as the control the VCR extends to television, and sexual control, such as the "exercise of total control that is never challenged" (p. 209) in pornographic videos. "Freedom" represents freedom from the programming constraints of ordinary broadcast television, and "freedom" in pornographic videos is manifest in freedom from moral constraints and freedom from worry about disease (Brummett, 1988).

Commodification and intimacy are two more closely related characteristics. The television and VCR are themselves commodities, the tapes they play are owned or rented commodities, and the television itself shows us commodities through its commercials. Pornography represents a commodity also by turning human beings into human bodies, and the bodies themselves are reduced to the commodities of their component parts. Brummett

(1988) offers support for the idea that the television is an "intimate" medium. Its small size allows it to fit into the home, and its unobtrusive qualities allow it to blend into the ongoing activities of the home and become an integral part of interaction. Pornographic videos represent intimacy by showing extreme close-ups that focus on particular sex organs.

Brummett's explanation of homology between pornography and the VCR is theoretically relevant and structurally similar to the experience of consuming Internet pornography and the development and/or maintenance of a gender schema. In fact, it is reasonable to expect there to be an increased sense of homology between pornography and the Internet. The similarities between content, the experience of consuming the content, and real life experience should be amplified and attenuated more than the similarities between pornography and the VCR due to the unlimited amount of Internet pornography and lack of control on the Internet. Regardless, just as there is a homology between pornography and the VCR, there is a homology between pornography and the Internet which like the former, is characterized by control and freedom, commodification and intimacy.

"Control" represents a control over computers, the ability to navigate the World Wide Web, and to make his work more efficient. "Control" in terms of Internet pornography is apparent in the ability to control what types of pornography is consumed, at what time, for how long and how much pornographic material he chooses to view.

"Freedom" on the Internet represents being free from location and time constraints when seeking self-relevant information. "Freedom" in Internet pornography represents the freedom to stay at home and access this material without going to an adult bookstore or magazine stand, and freedom from social inhibitions and restrictions.

Home computers are a "commodity", as well as the peripherals and components of computers. The "commodification" of Internet pornography is evident in the ability to download and save the image, movie and sound files. Once the user saves the pornographic files onto his computer hard drive, he owns them. He can open the files and look at or watch at any time, and can trade and disseminate at will.

The "intimacy" of the Internet is evident in current technological trends of providing ubiquitous Internet access on wireless phones, hand-held computers, and Internet-only computers for throughout the house. "Intimacy" of the Internet is evident in the way we communicate with each other (e-mail, synchronous chat, bulletin boards), the way we shop, invest, entertain ourselves and even make friends and find romantic partners. This intimacy of Internet pornography is similar to the intimacy issues in pornographic videos (showing extreme close-ups that focus on particular sex organs). But the intimacy is increased because consuming Internet pornography is a solitary activity (find cite), while viewing pornographic videos is, in part, a social activity such as a bachelor party.

The primary reason this study relies in part on the homology hypothesis is because of its ability to explain the links between media content and real life experience, and assumes that formal parallels exist between text and experience. To illustrate this, suppose a man habitually consumes heterosexual, male-dominant Internet pornography. From this he gains a knowledge structure that helps him understand, develop, and maintain his own gender schema (i.e., the real life experience). This is accomplished because the content (male-dominant pornography), the medium used to convey the content (the Internet), and the real life experiences (his existing gender schema) that make the content relevant are formally or structurally linked. This gender schema allows for his processing of information on the basis

of a heterosexual gender schema learned from the pornography. This schema represents the formal parallel between text (pornography) and his experience with his gender schema.

The knowledge that, at times, schematic information processing can be a liability has generated interest in schemas that are evoked on the basis of gender (Bem, 1981; Crane & Markus, 1982; Frable & Bem, 1985). Bem (1981, 1985) found that gender schemas guide an individual to process incoming information in gender-related terms. Gender schema theories maintain that gender is a major component around which people organize information (Lobel, Bar-Davd, Gruber, Lau & Bar-Tal, 2000). These theories assert that gender-related information is organized in the form of a schema, an abstract knowledge structure that serves to guide attention, retrieval, behavior, and social judgements (Martin & Halverson, 1981, 1987).

The focus of gender schema theory (Bem, 1981; Strangor & McMillan, 1992) is that gender schemas are central to individual's organization of information regarding sex-typed stereotypes. A gender-schema is likely to be highly available and centrally implicated in information processing about gender in general, and about the gender aspects of the self and others in general (Markus, Crane, Bernstein, & Saladi, 1982). Therefore, gender schemas serve to guide individuals' social functioning and the degree to which they engage in sex-typing behavior.

Recently, attention has shifted away from the impact of gender-schemas on the processing of self-relevant information to the exploration of the impact of gender-schemas on judgments of and behavior toward others (Fong & Markus, 1982; Markus & Smith, 1981). For example, Fong and Markus (1982) found that individuals who search for information about other that is related to their own self-schemas. These authors had extroverted and

introverted participants select questions from a list that tapped introversion, extroversion, or neither of the personality traits. Results demonstrated that extroverted participants picked more extroverted questions while introverts selected more introverted questions. In light of such findings, Taylor and Crocker (1981) suggest that the characteristics of schematic processing that are useful in some situations will be liabilities in others. They state that employing the wrong schema can lead an individual "to selectively encode all the wrong data, define ambiguous or contradictory information as being consistent with the schema, evaluate behavior using the wrong criteria, generate incorrect expectations about future events, and employ behavioral scripts that are completely inappropriate to the situation" (p.117).

Compared with gender aschematic individuals, gender schematic individuals have a greater readiness to process interactions with a member of the opposite sex through the use of a heterosexual subschema. Such "cognitive sexism", then, is defined as the processing of information on the basis of a heterosexuality schema when another schema would be more situationally appropriate. This schema leads individuals to "encode all cross-sex interactions in sexual terms and all members of the opposite sex in terms of sexual attractiveness" (Bem, 1981, p. 361). Perceiving women in sexual terms, then, is defined as employing a heterosexuality schema that subsequently leads to biased schematic information processing and/or overt sexually motivated behavior when, given the situation, other schemas would be more appropriate (McKenzie-Mohr & Zanna, 1990). An example of this is the aforementioned man who habitually consumes heterosexual, male-dominant Internet pornography. The content (male-dominant pornography), the medium used to convey the content (the Internet), and the real life experiences (the existing gender schema) are formally

linked, resulting in a heterosexual gender schema learned from the pornography. Bem's (1981; 1985) gender schema theory predicts that in an interaction with a woman, this individual will employ his gender schema that will lead to biased schematic information processing and/or overt sexually motivated behavior. For example, McKenzie-Mohr and Zanna's (1990) investigation of whether exposure to pornography activates a heterosexuality schema, they found that pornography primes a heterosexuality gender schema, and when this schema is primed, the men are both cognitively and behaviorally sexist when interacting with a woman.

If using a heterosexuality schema can lead individuals to be both cognitively and behaviorally sexist, under what conditions is this schema likely to be evoked? Research by Nisbett and Ross (1980) and Tversky and Kahneman (1974) suggests that whether an individual evokes a heterosexuality schema over other, more appropriate schemas depends, to some extent, on the cognitive availability of the schema. The availability of a schema depends, in part, on how recently the schema has been activated or primed (Taylor & Crocker, 1981).

The homology hypothesis is useful in the study of Internet pornography because, as Brummett maintains, when text (pornography) and medium (Internet) are homologous with each other and with certain experiences (gender schema), the effectiveness of the texts should be strengthened. Based on the aforementioned writing on the homology hypothesis, the following hypothesis is posed:

> Hypothesis 4: As a man's consumption of Internet pornography increases, his adherence to a masculine gender role schemas increases.

Chapter III

Methods and Procedures

Overview

In this chapter, the methods used in this study are explained. Specifically, this chapter provides (1) an overview of and rationale for online data collection, (2) a description of the sampling protocol, (3) an outline of the procedures used for the collection of data, (4) a summary of measurement instruments, and (5) an explanation of data analysis techniques used in answering the research questions and hypotheses.

Rationale

The Internet is a dynamic and unique communication research environment. The number of people using the Internet, the amount, type and possible uses of Internet technologies, and the communication capabilities of the Internet are rapidly escalating (Smith & Leigh, 1997). As people invest more time and energy into their "cyber existence," social science researchers are increasingly questioning how this technology affects human thought and behavior. Researchers may find the Internet to be a useful research tool to investigate a rich communication environment. The Internet has the potential to serve as an alternative or supplemental source of queries and participants for traditional investigations.

It is, perhaps, surprising that the suitability of the Internet for conducting research remains relatively unexplored (Brennan, Rae, & Parackal, 1999; Mann & Stewart, 2000). To this point, the majority of Internet and computer-mediated communication (CMC) research has been conducted in laboratories under controlled experimental conditions (Sudweeks & Simoff, 1999). There have been some initiatives in quantitative research settings (Smith, 1997), and Jones's (1999) ground-breaking *Doing Internet Research* examined a range of

theoretical and practical aspects (Mann & Stewart, 2000). But for the most part, social science researchers are just now starting to take full advantage of the research capabilities of the Internet, and its ability to portray an accurate picture of the reality of virtuality (Jones, 1999; Sudweeks & Simoff, 1999).

Some of the obvious advantages of conducting surveys online over traditional survey media are the representative nature of the sample, practicality, access to participants, and the possibility of anonymity.

Representativeness

Web-administered research tools are nearly the only way to target a specific online population that is characterized by its Internet usage. Internet research allows for the access of particular populations who embody specific characteristics (Carver, Kingston, & Turton, 1999). Furthermore, target populations that are involved in activities that preclude them from coming forward and identifying themselves for any number of social or personal reasons may be more easily tapped into online (Coomber, 1997).

The most appropriate way to study habitual Internet pornography users is to go directly to the source by sampling from that population. For a study that seeks only to generalize to a population with high Internet usage and dependence, Internet research could be considered the natural—if not the only way—of accessing these groups (Mann & Stewart, 2000).

Practicality

The Internet has become a mainstream means of communication and "has the potential to become an important medium for the conduct of . . . survey research" (Sell, 1997, p. 297). Also, the Internet presents survey researchers with an unprecedented tool for the

collection of data. The costs in terms of time and money for publishing a survey on the Web are low compared with costs associated with the conventional surveying methods (Brennan, Rae, & Parackal, 1999; Vohovar & Batagelj, 1996). The data entry stage is practically eliminated for the survey administrator, and software can ensure that the data acquired from participants is free from common entry errors (Brennan, Rae, & Parackal, 1999; Schmidt, 1997).

Access

Assuming that potential participants have the appropriate technology, Internet research methods allow researchers to capitalize on the ability of the medium to cross the time and space barriers which might limit face-to-face research (Mann & Stewart, 2000). In addition, Internet research methods are practical ways to collect data from individuals or groups who are geographically distant (Baym, 1995), and Sell (1997) advocates that Internet research allows researchers to access "rare, hidden, and geographically dispersed populations" (p. 297). It also facilitates collaboration between colleagues who may be on different sites, even on different continents (Cohen, 1996). As a global system, the Internet allows for cross-cultural comparisons of issues (Coomber, 1997).

Pseudo Anonymity

Some issues are so sensitive that participants might be reluctant to discuss them face-to-face with a researcher (Sell, 1997). Not only does Internet research have the potential to diffuse the embarrassment that might be present one-to-one, but there is also some agreement between focus group practitioners that the online environment allows groups to speak about sensitive issues in an open and candid way without fear of judgment or shyness that characterizes face-to-face groups (Sweet, 1999). This perceived anonymity, more accurately

defined as psuedo-anonymity, may lead ultimately to the collection of data that is higher in accuracy and less affected by social desirability (Anderson, 2000). Even though online surveys present advantages and new opportunities, this method is not failsafe. When conducting online surveys, the respondent's answers are transferred electronically from the webpage to the researcher or server. The responses for each question—which have a corresponding "button" for the subjects to "click on" with their mouse to indicate their answer—are transferred from the respondent to an remote, online database where the researcher can access the data. A dynamic website with survey-to-database interaction directly collects the responses with no researcher-respondent interaction. However, this does *not* guarantee that hackers cannot intercept communication of confidential information or break into the database.

Power Analysis

According to Cohen (1992a), all null hypotheses, at least in their two-tailed forms, are false. For social scientists, this means that an effect always exists within a given population although the effect may be so small that it remains undiscovered and/or does not warrant investigation. Power analysis provides for scholars the means necessary by which to both find the effect and decide if it should be pursued. The size of the examined effect in the target population should be easier to find the larger it is (Cohen, 1992b).

Power analysis should be done a priori to the actual study (Cohen, 1994). If no effect is found, the researcher then does post-hoc analyses to determine why no effect was discovered. Commonly, a statistical power analysis takes into account alpha, power, effect size, and finally sample size.

Significance Criterion

The significance criterion, or alpha (α), is set commonly at .05 (Cohen, 1990; 1994) and will be for this investigation as well. The alpha level, which represents Type I error, is the probability of rejecting the null hypothesis given that the null hypothesis is true (Agresti & Finlay, 1997; Carolson & Thorne, 1997). Thus, the researcher can be 95% confident that the effect was discovered because it truly exists and not discovered due to chance (Hagan, 1997). As the alpha level decreases, power also decreases. The "tailedness" of a statistical test, whether it is one- or two-tailed, can affect power. One-tailed tests were used in this study which increased power given that the null hypothesis is false (Cohen, 1992a).

Power

According to Cohen (1992a), the power of a statistical test is the probability that it will provide statistically significant results. The power of a test, then, is the probability of rejecting the null hypothesis when it is false, or power = 1 - β, with β representing Type II error, the probability of incorrectly accepting the null hypothesis (Carolson & Thorne, 1997). For a fixed α-level, power increases as sample size increases. For a fixed parameter value and sample size, power decreases as α decreases. The reason that extremely small values are not normally used in the social sciences for α, such as $\alpha = .001$, is that the power of the test is too low. Researchers might be unlikely to reject the null hypothesis even if the true parameter is far from the null hypothesis (Agresti & Finlay, 1997). A standard criterion for power within the social sciences is 80% ($\beta = .20$). The rationale for this criterion is that the probability of Type II error would be too great if power were lower than .80, and a large sample size (N) would be needed to detect effect sizes if power were higher than .80 (Cohen,

1992). Therefore, the sample size for this study will be determined using a power level of .80 ($\beta = .20$).

Effect Size

There is some debate concerning how to estimate a desired effect size. The researcher must determine what effect size he or she is interested in finding, which is dependent upon the phenomenon being studied. The desired effect size may be determined by (1) examining prior research, that is, what have other researchers found in studies of similar phenomena, (2) using substantive knowledge of the topic, and (3) using conventions of effect size (Cohen, 1992b). It should also be noted that in social science research, small and medium effect sizes are common, therefore, desired effect size should be established with this in mind.

Cohen (1992a) established a guideline for determining the small, medium, and large effect sizes dependent upon the researcher's use of statistical test and alpha level. Because the hypotheses in the current investigation are concerned with the differences between three groups created from a single predictor variable (Frey, Botan, Freidman, & Kreps, 1991), the researcher will use one-way ANOVAs to test the hypotheses. According to Cohen (1992a), effect sizes for a one-way ANOVA are: small = .10; medium = .25; and large = .40.

Sample Size

Taking into account the alpha level, desired power, and desired effect size, the researcher may establish the sample size (N) that is necessary for any given statistic test. For one-way ANOVAs with three groups each, an alpha level of .05, a power level of .80, a sample size of 322 would be needed to reveal small effects, 52 participants to reveal medium effects, and 21 participants to reveal large effects (Cohen, 1992). Because small and medium

effects are common, and because Internet research is new and uncharted, this study collected surveys from 348 heterosexual male participants to consider all effects sizes.

Participants

The following section provides a detailed description of how the researcher obtained the sample of men who consume Internet pornography, and includes a characterization of the sample.

Recruitment of Participants

The targeted participants for this project are heterosexual men. Pornography is produced for and consumed by men, magnifies the "male means masculine" stereotype, and masculine sex episodes are acts of virile, red-blooded men (Frable et al., 1997). The research hypotheses were constructed to measure men's perception of other men, their attitudes toward women, and their adherence to masculine gender roles. This research focuses on heterosexual men who view heterosexual pornography because of the possibility that these individuals endorse a heterosexuality subschema that affects their attitudes toward men and women. Qualifications for participation in the study included respondents that were: (1) male, (2) heterosexual, (3) were at least 18 years of age, and (4) viewed Internet pornography. Given that the purpose of this study is to investigate heterosexual male Internet pornography users' attitudes and beliefs about men and women, three hundred forty-eight (N = 348) voluntary male Internet pornography consumers participated in this study.

To increase the likelihood of recruiting heterosexual male pornography consumers, participants for this study were recruited from sexually-oriented Usenet newsgroups under the alt.sex hierarchy that provide heterosexual content. With over 500 subgroups, ranging from bondage to swingers, alt.sex, now saturated with personal and commercial

advertisements, has long been one of the most trafficked and discussed newsgroups (Cronin & Davenport, 2001). Adult newsgroups contain sexual depictions of females, male-female sexual acts, and female-female (lesbian) sexual acts. These newsgroups provided a forum for the dissemination and acquisition of such pornographic image files, digital videos, and text files.

A list of all heterosexually-oriented Usenet newsgroups under the alt.sex hierarchy was compiled and a systematic sample was drawn from this population by posting study announcements in every fifth newsgroup every day for three weeks. The announcement asked individuals to respond to an on-line questionnaire about Internet pornography and attitudes toward men and women, which was posted on a website constructed for the purpose of this study. The announcement represented the "call for participants" and included a brief explanation of the study. Because the survey was placed and administered on a web page, the URL of the survey website will be included. Once the study announcements were posted, individuals accessed the research project web page. Prior to beginning the survey, participants had to navigate through introductory web pages that included the "Informed Consent Form" (appendix H) and instructions on how to enter their responses.

If individuals chose to participate, they were linked through hypertext to the online survey. The survey was constructed as an .html form placed webpage. The responses for each question had a corresponding "button" for the participants to "click on" with their mouse to indicate their answer. When participants submitted their completed survey, the .html code of the survey page was designed to "post" their responses to a remote CGI (Common Gateway Interface) bin. Using a form to post results to a cgi-bin ensures that responses are not e-mailed to the researcher or posted in an easily accessible location that could jeopardize

participant anonymity. The only information contained in the CGI bin was the numeric string of data of responses, the respondents' IP (Internet Protocol) address, and a time and date stamp of submission. An IP address is a series of 10 numbers (i.e., 198.69.223.34) that identifies only the computer of each visitor. No names, e-mail addresses, or other personally identifiable data were collected. IP addresses were collected to ensure that no one completes the survey more than once. An IP log was compiled from the web server log files with each IP address listed in ascending order. IP addresses were matched with the posted survey results and when duplicate IP addresses were found, the corresponding survey results were omitted from analysis. As a result, 62 completed surveys were omitted.

A limitation to this method is that some respondents' computers may have used dial-up service through telephone modems to access the Internet. This could be problematic because when a computer dials in to the Internet through a telephone modem, the computer is assigned a new IP address each time it logs on the Internet. This could have enabled a user to access and complete the survey under one IP address, disconnect from his or her service provider, and then re-connect later and complete the survey under a newly assigned IP address. Also, since many respondents reported being in a long-term relationship, it is possible that these partners use the same computer. If both partners completed the survey on the same computer under the same IP address, then it would have appeared in the IP log that the same user attempted to complete the survey twice. This may have resulted in erroneously deleting one partner's submission. A final limitation of collecting IP addresses is that people may use their computer at work and at home, for example, to access and complete the survey website. If a participant wanted to fill out the survey more than once, all they would have to

do is go different computers and complete the survey. The IP addresses would look different, yet it would be the same person.

Given that travel on the Internet is non-linear, flexible, and with a perception sense of anonymity, online participants are free from real-world sanctions and behavioral expectations and are not easily monitored or controlled. These concerns demonstrate the potential for unmeasurable systematic error as a result of the sample selected. Also, self-selection is an issue. For example, individuals who chose to participate might be heavier users of the Internet in general and may have more of an interest in using the Internet to develop and maintain interpersonal relationships. To counter this and to increase the representativeness and reliability of the sample, a systematic sample of adult Newsgroups was used.

Participants

This study received 515 completed surveys. Because this research focuses on heterosexual men who view heterosexual pornography, 95 respondents (18.44%) who indicated they were female, 12 respondents (2.33%) who indicated they were homosexual, and 60 respondents (11.65%) who indicated they were bisexual were not included in the statistical evaluation. This left 348 usable surveys from heterosexual men.

Procedure

This section describes the research design for the study, the online data collection method, measurement instruments employed in the online survey, and data analyses to be performed on the completed data set.

Research Design

Online survey methodology was used for this study. A closed-ended, quantitative survey was deemed most appropriate for this research project. One reason was that survey research is particularly useful in gathering descriptive information about populations too large for every member to be studied (Frey et al., 1991). For example, it would be impractical and unrealistic to observe men's viewing habits of Internet pornography, and quite impossible to observe the cumulative effects this behavior has on their attitudes and beliefs. The survey consisted of both closed- and open-ended questions. The closed-ended questions were designed to empirically measure men's attitudes toward masculinity and their attitudes toward women. The open-ended question consisted of user's spontaneous descriptions of women. The open-ended question was included in order to aid in the determination of whether user's with high exposure to Internet pornography view women in sexual terms, see them as sexual objects or sexual agents.

Online Survey Format

When starting an online survey research project, many components of the traditional pen-and-paper survey model seem to be a natural fit – but it is in the technical application where the similarities erode. The way the sample for the study is conceived, defined, and selected deviate greatly from traditional models. The virtual participants are "pulled to" the online research material rather than the research material "pushed onto" real-world

participants. Personal interaction between participant and researcher is (usually) non-existent, which reduces researcher personal attribution effect (researcher characteristics influence people's behavior), researcher unintentional expectancy effect (researchers inadvertently influence subjects' responses), and intersubject bias (subjects being influenced by one another) (Frey et al., 1991). Participants are viewed and treated differently than in real life, and the way data are acquired and handled offers unique security and technical challenges. But because the human is the central object, participant, information generator, and consumer of Internet pornography, we can rely on the basic assumption that the methodology developed in social sciences is appropriate and adequate (Sudweeks & Simoff, 1998).

Following some of the procedures for online survey research developed by Witmer, Coleman, and Katzman (1999), the online survey included: (1) response scale choices listed after each item to keep the response options fresh in participant's minds and to minimize scrolling in the browser window, (2) response boxes aligned so that participants can use minimal key strokes, (3) explicit rules and directions, and (4) a good deal of "white space" for ease of readability. (See survey in Appendix M).

Instruments

Consumption of Internet pornography. Consumption of Internet pornography was measured by asking how much time (in hours and minutes) per week the participant spent viewing Internet pornography (see appendix A). "Habitual consumption" was operationalized by hours and minutes per week spent looking at Internet pornography. The cumulative data from all participants was used to determine low, medium, and high amounts of consumption. The mean amount of time spent viewing Internet pornography was 321.62 minutes (5 hours, 22 minutes) per week (SD = 331.31; 5 hours, 31 minutes). Each respondent was assigned to

either low, medium, or high groups based on their number of hours spent viewing pornography. The low consumption group (N = 134) included respondents who spent less than 120 minutes per week viewing Internet pornography; the medium consumption group (N = 110) spent between 120 minutes and 360 minutes per week; the high consumption group (N = 104) spent more than 360 minutes per week.

Types of Internet pornography. To assess what types of Internet pornography the sample consumed, participants were asked what types of pornography they view (Table 1), such as softcore erotica or hardcore materials, violent or nonviolent pornography, certain fetishes, and which type they view most often (Table 2). In addition, they were asked what other types of pornography they consume (e.g., magazines, videos at home, 1-900 numbers).

Reasons for consumption. Reasons for consuming Internet pornography were measured by assessing respondents' support or rejection of reasons for viewing Internet pornography (Frable et al., 1997). The measure contains 17 five-point Likert-type items (see appendix C). The original version of the scale (Frable et al., 1997) reported six subscales which differentiated between individual's motivations for consuming Internet pornography. The original study reported six subscales: 1) to make sex more interesting, 2) to relieve sexual tension, 3) to turn on a sexual partner, 4) for sexual thrills, 5) to enjoy a social event, and 6) to learn about sex.

Given that this scale was developed with an offline sample (Frable et al., 1997), participant's reasons for viewing Internet pornography was also determined using a Principal Components Analysis with Varimax Rotation to determine the dimensionality of the scale with the online sample. In the current study, the scale was composed of five factors instead of the expected six. The initial factor analysis revealed five factors with eigenvalues greater

than 1 that accounted for 59.6% of the variance. Inter-item correlations were examined to detect "bad items" which did not have cross factor loadings of .60 or higher on one factor or higher than .40 on another, resulting in the removal of items 1, 11, and 14 (see appendix C).

The second factor analysis examined items with cross factor loadings of .60 or higher on one factor but not higher than .40 on another (Table 9). Scree-plots indicated five factors with eigenvalues greater than 1 that accounted for 64.08% of the variance (Table 4). The scale was shown to be reliable with a coefficient alpha of .731. The distribution of scores for reasons for consuming Internet pornography are in Figure 1.

The first factor indicates a motivation for viewing Internet pornography to make sex more interesting (e.g., "Sex is boring and this makes it more interesting"). The reliability coefficient alpha for the first factor was .77. The second factor indicates that a motivation is relieve sexual tension (e.g., "To masturbate"). The reliability coefficient alpha for the second factor was .74. The third factor represents a motivation to turn on a sexual partner (e.g., "My sexual partner wants me to"). The reliability coefficient alpha for the third factor was .74. The fourth factor represents a motivation to enjoy a sexual thrill (e.g., "I like to see bizarre sexual acts"). The reliability coefficient alpha for the fourth factor was .82. And finally, the fifth factor indicates the motivation of learning about sex (e.g., "Because I'm curious"). The reliability coefficient alpha for the fifth factor was .73.

One reason for viewing Internet pornography that was reported in the original scale (Frable et al., 1997), "To enjoy a social event", did not emerge in the current study's factor analysis. Emmers-Sommer & Burns (2000) also found a low level of endorsement for viewing Internet pornography as a social event.

In addition to determining Internet activities and behaviors of consumers of Internet pornography, this research will determine consumer's attitudes and beliefs about men and women.

Men see women in sexual, feminine, and negative terms. To assess whether respondents see women in sexual, feminine, or negative terms, (Byrne, 1977; Gross, 1978), respondents were asked to generate spontaneous descriptions of women (appendix G). The online questionnaire provided blank lines and participants were instructed to type in all the qualities that come to mind when they think of a woman. A master list of all attributes (N = 1,322) generated by 280 of the 348 (80%) participants who listed terms was prepared[2].

After the master list of all attributes (N = 1,322) was compiled, the researcher followed the coding protocol set forth in Frable et al., (1997). First, the researcher reduced the list by alphabetizing and eliminating duplicate terms, which reduced the list to 850 attributes. Any attribute mentioned only once was then removed, reducing the final list to 524 attributes. If an attribute was mentioned only once it was considered an outlier since only one of the 280 participants mentioned the term. This suggests that it was not an attribute commonly used to describe women since the individual attribute was mentioned only once out of the 1,322 total attributes generated by participants.

Second, to reduce the list even further, two undergraduate communication students were trained to equate all semantically identical terms. Working together, the coders were given a Microsoft Word file with the list of 524 attributes (Appendix I). They were instructed to combine terms when they had the same meaning, when the terms were directly connected to each other, when they were interchangeable, and when the interpretation of the meaning of the terms was the same. Disagreements between the two coders were resolved by discussing

with the researcher the term in question until there was 100% agreement. Examples of descriptive terms the coders deemed semantically identical are mother, motherhood, mothering, motherly, and mothers, which were collapsed into the descriptive term "mother"; intellectual, intelligence, and intelligent, which were collapsed into the descriptive "intellect"; and soft, softer, and softness, which were collapsed into the descriptive term "soft". This reduced the list to the final 190 attributes (Appendix J).

Coding protocol. Once the final list of attributes was tabulated, two undergraduate communication students, who were uninformed of the nature of the study and trained by the researcher, were each provided with a Microsoft Excel file with the 190 terms listed alphabetically in the first column. They were provided with written instructions (Appendix K) on how to evaluate each term with respect to its sexuality. They were instructed to numerically indicate in the second column where each term fit along an "unrelated to sex" to "very related to sex" 7-point continuum (1 = unrelated to sex or sexuality, 7 = very related to sexuality). Then they evaluated each term with respect to its femininity/masculinity and numerically indicated in the third column where each term fit along a "very feminine" to "very masculine" 7-point continuum (1 = very masculine, 7 = very feminine). Finally, they evaluated each term with respect to its positive/negative evaluative connotation and numerically indicated in the fourth column where each term fit along a "very negative" to "very positive" 7-point continuum (1 = very negative, 7 = very positive).

Operational definitions. Three undergraduate communication students who were uninformed of the nature of the study, were trained by the researcher to measure how "sexual", "feminine", "masculine", "positive" and "negative" each term was. Examining the level of sexuality, femininity, and negativity of the terms generated will provide insight into

how men who view Internet pornography perceive women. Therefore, it is important to operationally define what a "sexual", "feminine", "masculine", "positive" and "negative" term is.

A "sexual" term was defined as a word that relates to sex or sexuality. The three coders were trained by the researcher to determine how much each word does or does not relate to sex or sexuality by indicating where each term fit along an "unrelated to sex" to "very related to sex" 7-point continuum. Examples of attributes with low and high scores on the sexuality dimension include intelligent, stressed, and talkative, versus sensuous, horny, and breasts.

"Feminine" and "masculine" terms were defined as words that are stereotypically used to describe women and men. Coders were trained to apply a simplified and standardized conception or image of men and women. Coders were instructed — for the purpose of this study — to view the feminine/masculine dichotomy as a conventional, formulaic, and oversimplified conception, opinion, and image of women and men. Coders were instructed to determine how feminine or masculine each term was by indicating where the term fit along a "very feminine" to "very masculine" 7-point continuum. Examples of attributes with low and high scores on the feminine/masculine dimension include elegant, mothering, and fickle, versus ambitious, brave, and chauvinistic.

Coders were instructed that a "positive" term was one that displayed approval, had a favorable tone, and emphasized what is good and affirmative. Coders were instructed that a "negative" term was one that was highly critical of another and lacks all positive, affirmative, desirable, or encouraging features. Coders were trained to determine the evaluative connotation of the term by indicating where each term fit along a "very positive" to "very

negative" 7-point continuum. Examples of attributes with low and high scores on the evaluative dimension include self-confident, trustworthy, and responsible, versus lazy, manipulative, and immature.

Upon completion, the two coders met with the researcher to review the judgements and to measure agreement. Some disagreements were resolved by discussing the term and the researcher's tie-breaker coding. Observed agreement was then established by summing all occurrences of agreement between the two coders and dividing the sum by the number of possible agreements (N=190). Observed agreement for the sexuality subscale was .832; observed agreement for the gender subscale was .881; observed agreement for the evaluative subscale was .851.

For reliability purposes, 20 percent of the coded attributes were evaluated again by the third coder. This coder was also an undergraduate communication student, uninformed of the nature of the study, and trained by the researcher in all steps of the content analysis protocol. Intercoder reliability was determined with Cohen's Kappa. Reliability for the sexuality subscale was $\underline{k} = .738$; Intercoder reliability for the gender subscale was $\underline{k} = .764$; and intercoder reliability for the evaluative subscale was $\underline{k} = .68$.[3]

After the final list of attributes was coded, mean sexuality, gender, and valuation scores were calculated for each attribute from the two coders' ratings. Finally, the researcher took the mean sexuality, gender, and valuation scores and determined each participant's mean sexuality, gender and valuation score based on the attributes the participants reported (Appendix J).

Attitudes toward women. Attitudes toward women was assessed using Spence, Helmreich and Stapp's (1973) short-version of the Attitudes Toward Women (ATW) scale

(appendix E). The scale consists of 25 Likert-type questions about the rights and roles of women in such areas as vocational, educational, and intellectual activities; dating behavior and etiquette; sexual behavior; and marital relationships. Statements include, "Women should worry less about their rights and more about becoming good wives and mothers," and "Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day." Correlations between scores on the short (25-item) and full (55-item) version were .95 or above, and the ATW scale had been found to yield reliability scores between .86 and .96 (Spence, Helmreich, & Stapp, 1973). In this study, the ATW scale was shown to be reliable with a coefficient alpha of .899.

Given that this scale was developed with an offline sample (Spence, Helmreich, & Stapp, 1973), participant's attitude toward women was also determined using a Principal Components Analysis with Varimax Rotation to determine the unidimensionality of the scale with the online sample. The original version of the scale (Spence et al., 1973) was a unidimensional measurement of attitudes toward women, yet in the current study, the scale was multidimensional. The initial factor analysis revealed seven factors with eigenvalues greater than 1 that accounted for 54.12% of the variance. Inter-item correlations were examined to detect "bad items" which did not have cross factor loadings of .60 or higher on any factor, resulting in the removal of items 2, 6, 7, 9, 17, 20, 22, and 23 (see appendix E).

The second factor analysis examined items with cross factor loadings of .60 or higher on one factor but not higher than .40 on another (Table 10). Scree-plots indicated four factors with eigenvalues greater than 1 that accounted for 54.87% of the variance (Table 6). The first factor (Table 10), which was comprised of five items, was used as the "Attitude Toward

Women" criterion variable in the one-way ANOVA, with amount of time spent viewing Internet pornography as the predictor variable.

Men are masculine. To assess whether men with high exposure to Internet pornography perceive a world replete with masculine men, participants completed Park and Rothbart's (1982) "Perception of in-group/out-group homogeneity" questionnaire (appendix D). Given that the participants for this project were men, and given that the research hypotheses are directed toward male's perception of other men's adherence to masculine gender roles, the only the masculine statements of the scale were included. The questionnaire contained 18 statements that assesses "estimates of the percentage of *other men* who 'might agree with various beliefs or attitude statements'" (p. 1056). The statements were stereotypically masculine (M) with respect to gender connotation, and either favorable (+), neutral (0), or unfavorable (-) with respect to social desirability. Participants were asked to make estimates of the percentage of men who would endorse or agree with such statements as, "I am not afraid to challenge a superior if I disagree with their statement, and "When playing card or board games, I become extremely upset if I don't win." Park and Rothbart (1982) and Frable et al. (1997) reported that this scale had been found to yield reliability scores between .87 and .92. In this study, the "Perception of in-group/out-group homogeneity" questionnaire scale was shown to be reliable with a coefficient alpha of .86.

Given that this scale was developed with an offline sample nearly 20 years ago (Park & Rothbart, 1982), participant's attitude toward women was determined using a Principal Components Analysis with Varimax Rotation to determine the unidimensionality of the scale with the online sample. The original version of the scale (Park & Rothbart, 1982) was a unidimensional measurement of whether men perceive a world replete with masculine men.

Yet in the current study, the scale was multidimensional. The initial factor analysis revealed four factors with eigenvalues greater than 1 that accounted for 51.78% of the variance. Inter-item correlations were examined to detect "bad items" which did not have cross factor loadings of .60 or higher on any factor, resulting in the removal of items 2, 6, 9, 12, 15, 16, 17, and 18 (see appendix D).

The second factor analysis examined items with cross factor loadings of .60 or higher on one factor but not higher than .40 on another (Table 11). Scree-plots indicated three factors with eigenvalues greater than 1 that accounted for 55.93% of the variance (Table 7). The first factor (Table 11), which was comprised of four items, was used as the "Men are Masculine" criterion variable in the one-way ANOVA with amount of time spent viewing Internet pornography as the predictor variable.

Masculine Gender Schemas. To establish respondent's self-perceived possession of masculine and feminine sex-typed characteristics, participants completed the short version Bem Role Sex Inventory (BSRI). The BSRI (Bem, 1974) assesses masculinity and femininity in terms of the respondent's self-perceived possession of positive personality characteristics having sex-typed social desirable, stereotypically masculine and feminine personality characteristics (Bem, 1981; 1985). The BSRI is designed to assess the degree to which individuals endorse heterogeneous cultural masculine and feminine clusters as self-descriptive (Lenney, 1991). Given that hypothesis 3 is only concerned with male respondent's adherence to masculine gender roles, the feminine and neutral personality characteristics will be removed, leaving 20 masculine personality characteristics (appendix F). The BSRI is currently one of the most frequently used sex role instruments; in fact, it is among the five most frequently used psychological tests reviewed in *Mental Measurements*

Yearbook (Mitchell, 1985). In previous studies (Bem, 1974; Wilson & Cook, 1984), the "masculinity" subscale has shown a reliability score between .86 to .88. In this study, the masculinity subscale of the BSRI questionnaire scale was shown to be reliable with a coefficient alpha of .89.

Given that the BSRI was developed with an offline sample (Bem, 1974; 1981; 1985), participant's possession of masculine personality characteristics were determined using a Principal Components Analysis with Varimax Rotation to determine the unidimensionality of the scale with the online sample. The original and subsequent versions of the masculine subscale (Bem, 1974; 1981; 1985) were unidimensional measurements of masculine personality characteristics. Yet in the current study, the scale was multidimensional. The initial factor analysis revealed four factors with eigenvalues greater than 1 that accounted for 58.3% of the variance. Inter-item correlations were examined to detect "bad items" which did not have cross factor loadings of .60 or higher on any factor, resulting in the removal of items 6, 7, 9, 12, 13, 14, 16, and 17 (see appendix F).

The second factor analysis examined items with cross factor loadings of .60 or higher on one factor but not higher than .40 on another (Table 12). Scree-plots indicated three factors with eigenvalues greater than 1 that accounted for 65.92% of the variance (Table 8). The first factor (Table 12), which was comprised of five items, was used as the "Masculine Gender Schema" criterion variable in the one-way ANOVA with amount of time spent viewing Internet pornography as the predictor variable.

Data collection

After the call for participants was posted in adult Newsgroups and respondents chose to participate, they accessed an introductory webpage that explained the nature of the study

and listed the researcher, the researcher's e-mail, and university affiliation. To aid in filtering out individuals who accidentally discovered the project website, potential respondents were asked whether they consume Internet pornography. If they answered "yes", they were linked through hypertext to the informed consent form (appendix G) that explained all of the criteria for consent and potential risks of participation. At this point, the website informed the participants that the study was designed to collect information on individuals who view computer-mediated sexually explicit material. At the informed consent form webpage they were given the option of agreeing or disagreeing to voluntarily participate in the study. Clicking the "I do not agree to participate" button on the informed consent page linked them away from the survey to a commercial search engine (www.yahoo.com). Clicking the "I agree to participate" button on the informed consent page indicated that the participant read and agreed to the information provided on the informed consent form and sent them on to the survey. Therefore, clicking on the " I agree to participate " link was an indication of consent to participate.

Macromedia Dreamweaver 3.0 was used for the construction of online .html form-based survey that allowed respondents to click on their answer to indicate their response to each question. Perl (Practical Extraction and Reporting Language), a script programming language, was used to develop a common gateway interface (CGI) which allowed the user's browser to send the submitted survey responses into a database. The completed responses appeared in numeric string format which was transferred from the database into SPSS for final statistical analysis.

At the end of the survey respondents had the opportunity to e-mail the researcher with questions, comments, or requests for project results. They were reminded that if they chose to

voluntarily send the researcher an e-mail, their anonymity could not be guaranteed. Respondents were informed that after the project was completed, the results will be posted on the website so that the respondents can see how their participation aided in the understanding of the effects of Internet pornography.

Analysis of Data

Preliminary statistical analyses. The researcher conducted various preliminary analyses in order to prepare for further analyses and address important statistical questions. First, the researcher ran frequencies on all items to ensure that there were no missing data and determine whether outliers existed which might affect analysis. Second, summary scores were computed for all descriptive, predictor, and criterion variables. These summary scores were computed for each variable by averaging all participants' scores across each variable. Third, the researcher ran frequencies and descriptive tests (e.g., measures of central tendency, deviation scores, correlations) on all scales and demographic items. Fourth, the researcher ran factor analyses for variables whose dimensionality may be in question, and then assessed scale reliabilities using Cronbach's alpha. It is after these preliminary procedures that primary statistical analyses were run.

Primary statistical analysis. To answer research question 1, "What characteristics describe consumers of Internet pornography?", respondents were asked their gender, age, race, highest level of education attained, relationship status, sexual orientation, and amount of Internet and Internet pornography usage (Appendix A). Means and standard deviations were calculated to provide a general descriptive profile of male Internet pornography consumers and are reported in the Chapter IV.

To answer research question 2, "What types of Internet pornography do individuals consume?", respondents were asked what types of Internet pornography they enjoy viewing, and which type in particular they viewed most often (Appendix B). Means and standard deviations were calculated to provide a general descriptive profile of male Internet pornography consumers and are reported in the Chapter IV.

To answer research question 3, "What reasons do individuals report for consuming Internet pornography?", respondents were asked to gauge their support or rejection of possible reasons for viewing Internet pornography (Appendix C). Means and standard deviations were calculated to provide a general descriptive profile of male Internet pornography consumers and are reported in the Chapter IV.

To answer Hypothesis 1 (a, b and c), "As men's consumption of Internet pornography increases, they are more likely to perceive women in sexual (or feminine, or negative) terms," the researcher conducted three, one-way ANOVAs. To accomplish this, the researcher took the mean sexuality, gender, and valuation scores from the two coders' ratings and determined each participant's mean sexuality, gender and valuation score based on the attributes the participant reported. Each participant's amount of pornography consumed (high, medium, or low) served as the predictor variable, with their sexuality, gender, and valuation score serving as the criterion variables. Two hundred seventy-four of the 348 participants provided responses to the open ended statement, "Write down all the qualities that come to mind when you think of women." Since the group sizes were uneven (low = 107, medium = 55, high = 112), post hoc Games-Howell tests were conducted to ascertain where group differences lie.

To answer Hypothesis 2, "As men's consumption of Internet pornography increases, their traditional attitudes about women increases," the researcher conducted a one-way ANOVA. Each participant's amount of pornography consumed (high, medium, or low) served as the predictor variable with their Attitudes Toward Women scale score as the criterion variable. Post hoc Games-Howell tests were conducted to ascertain where group differences lie.

To answer Hypothesis 3, "As men's consumption of Internet pornography increases, their perceptions of men performing traditional masculine behaviors increases," the researcher conducted a one-way ANOVA. Each participant's amount of pornography consumed (high, medium, or low) served as the predictor variable with their "Perception of in-group/out-group homogeneity" questionnaire score as the criterion variable. Post hoc Games-Howell tests were conducted to ascertain where group differences lie.

To answer Hypothesis 4, "As men's consumption of Internet pornography increases, their adherence to a masculine gender roles schemata increases," the researcher conducted a one-way ANOVA. Each participant's amount of pornography consumed (high, medium, or low) served as the predictor variable with their Bem Sex Role Inventory questionnaire score as the criterion variable. Post hoc Games-Howell tests were conducted to ascertain where group differences lie.

Chapter IV

Results

Overview

This chapter presents the results of the data analyses. Primary data analyses, such as scale reliabilities, distribution of scores, and factor analyses will not be covered here as they were reported in the previous Method chapter. Specifically, this chapter includes results of analyses conducted to answer the research questions and hypotheses.

Research Question One

Research Question 1 asked, "What characteristics describe consumers of Internet pornography?" As indicated in prior research on Internet pornography (Emmers-Sommer & Burns, 2000), respondents were demographically diverse. The average age of a participant was 34.07 years of age (SD = 11.72), with an age range of 18-76.[1] Ninety-three percent of the sample was white (N = 324), 1.7 % was black (N = 6), 1.4% was Hispanic (N = 5), 3.7% (N = 13) reported "other". Regarding highest level of education received, 2.0% (N = 7) reported having some high school, 8.6% (N = 30) reported having a high school diploma or a GED, 38.8% (N = 135) reported having some college, 29.3% (N = 102) reported having a bachelors degree, 19.8% (N = 69) reported having a masters degree, and 1.4% (N = 5) reported "other". The majority of the sample reported being in a serious relationship. Specifically, 2.0% (N = 7) reported dating multiple persons seriously, 15.8% (N = 55) reported dating one person seriously, 5.7% (N = 20) indicated that they were engaged, and 38.5% (N = 134) reported that they were married. In addition, 25.6% (N = 89) reported not dating anyone in particular, 6.0% (N = 21) reported casually dating multiple persons, and 6.3% (N = 22) reported casually dating one person.

Participants reported being online an average of 8.51 years (SD = 6.75). In terms of consuming pornography online, participants indicated consuming online porn for an average of 6.71 years (SD = 5.75). Participants spent an average 321.62 minutes per week (SD = 331.31) consuming pornography.

Research Question Two

Research Question Two asked, "What types of Internet pornography do individuals consume?" Given that this research focuses on heterosexual men who view heterosexual pornography, the following results are limited to the 265 heterosexual male participants. They reported consuming a variety of types of Internet pornography. Specifically, types of Internet pornography consumed involved a range of sexualities, intensities (e.g., nonviolent softtcore erotica, hardcore, violent coercion), and interests (e.g., fetishes, S&M). In addition to Internet pornography, participants also reported what other various mediums of pornography they consumed. Results are offered in Table 2.

Research Question Three

Research Question Three asked, "What reasons do individuals report for consuming Internet pornography?" Given that this research focuses on heterosexual men who view heterosexual pornography, the following results are limited to the 348 heterosexual male participants. As noted in Table 3, participants primarily used Internet pornography to relieve sexual tensions, to masturbate, and for a turn on. A secondary reason for using Internet pornography was to enjoy sexual thrills, because they were bored, and to see bizarre sexual acts.

Hypothesis 1a

To answer Hypothesis 1a, "As men's consumption of Internet pornography increases, they are more likely to perceive women in sexual terms," a one-way ANOVA was conducted. Hypothesis 1a was not supported, $F(2, 271) = 1.12$, $p \leq .327$, $\eta^2 = .034$. As noted in the Method chapter, Cohen (1994) suggested examining group differences even if the statistical test was non-significant to determine the basis of the non-significance. Thus, a follow-up Games-Howell test was run to identify distinctions among groups and found little variability existed among the low consumption group ($M = 2.96$), the medium consumption group ($M = 2.95$), and the high consumption group ($M = 3.24$) and their perceptions of women in sexual terms. However, it should be noted that the high consumption group reported the highest average score. Thus, men who consume high amounts of Internet pornography have a tendency to perceive women in more sexual terms.

Hypothesis 1b

To answer Hypothesis 1b, "As men's consumption of Internet pornography increases, they are more likely to perceive women in feminine terms", a one-way ANOVA was conducted. Hypothesis 1b was partially supported, $F(2, 271) = 4.90$, $p \leq .008$, $\eta^2 = .035$. A follow-up Games-Howell test was conducted to identify distinctions among groups and found significant differences between the low consumption group ($M = 4.83$) and high consumption group ($M = 5.43$) and their perceptions of women in feminine terms. No significant differences were found involving the medium consumption group.

Hypothesis 1c

To answer Hypothesis 1c, "As men's consumption of Internet pornography increases, they are more likely to perceive women in negative terms", a one-way ANOVA was

conducted. Although statistically significant differences between groups were found, hypothesis 1c was not supported, $F(2, 271) = 3.98$, $p \leq .02$, $\eta^2 = .062$. A follow-up Games-Howell test was conducted to identify distinctions among groups and found significant differences between the low and high groups and their perception of women in negative terms. However, the low consumption group ($M = 5.81$) perceived women in *more* negative terms than the high consumption group ($M = 5.32$).

Hypothesis 2

To answer Hypothesis 2, "As men's consumption of Internet pornography increases, their traditional attitudes about women increases", a one-way ANOVA was conducted. Hypothesis 2 was partially supported, $F(2, 345) = 2.896$, $p \leq .014$, $\eta^2 = .027$. A follow-up Games-Howell test was conducted to identify distinctions among groups and found significant differences between the low consumption group ($M = 3.27$) and the high consumption group ($M = 3.58$) and their attitudes toward women. Thus, men who consume high amounts of Internet pornography report more traditional attitudes about women. No significant differences were found involving the medium consumption group.

Hypothesis 3

To answer Hypothesis 3, "As men's consumption of Internet pornography increases, their perceptions of men performing traditional masculine behaviors increases", a one-way ANOVA was conducted. Hypothesis 3 was partially supported, $F(2, 345) = 7.69$, $p \leq .001$, $\eta^2 = .043$. A follow-up Games-Howell test was run to identify distinctions among groups and found significant differences between the low consumption group ($M = 51.74\%$) and high consumption group ($M = 58.97\%$) and their perceptions of men performing traditional masculine behaviors. Thus, men who consume high amounts of Internet pornography

perceive a higher percentage of men performing traditional masculine behaviors. No significant differences were found involving the medium consumption group.

Hypothesis 4

To answer Hypothesis 4, "As men's consumption of Internet pornography increases, their adherence to a masculine gender roles schemata increases", a one-way ANOVA was conducted. Hypothesis 4 was primarily supported, $F(2, 345) = 5.32$, $p \leq .008$, $\eta^2 = .081$. A follow-up Games-Howell test was conducted to identify distinctions among groups. The test found significant differences between the low consumption group ($M = 4.64$) and the high consumption group ($M = 5.07$) and respondents' adherence to a masculine gender roles. Thus, men who consume high amounts of Internet pornography report more adherence to a masculine gender role schemata.

Chapter V

Discussion

Conclusions, Implications, and Recommendations

This chapter summarizes the current study and its findings, discusses its limitations, and lists recommendations for further investigation into Internet pornography. Specifically, this chapter provides (1) a review of the rationale for studying the attitudes of habitual male Internet pornography consumers, (2) a discussion of the results of the research questions and hypotheses in light of the theoretical underpinnings and pornography effects perspectives, (3) the limitations of this study and online research methods, and (4) recommendations for future Internet pornography research.

Review of Purpose and Rationale

Human sexuality has received more thought and discussion than any other aspect of human behavior. From the earliest primitive etchings, through modern media representations, people from all civilizations have recorded their sexual activities and their ideas about sex (Kinsey, Pomroy & Martin, 1948; Malamuth & Donnerstein, 1984). Eros and technology have combined historically to produce publicly available erotic representations. From Greek vases to Japanese prints to the Web's adult site of the day, pornography offers one of the most enduring corroborations of technology and the desire to view sexually explicit imagery (Cronin & Davenport, 2001).

Given the lengthy history of sexual representation, pornography research has taken numerous forms with many different findings and implications. Several meta-analytic reviews (Allen, Emmers, et al., 1995; Allen, D'Alessio & Brezgel, 1995; Allen, D'Alessio, & Emmers-Sommer, 1999) of published pornography research revealed that the studies limited

their investigations to traditional forms of pornography. Also, the majority of pornography research has focused on the behavior of available people who were recruited by researchers to become pornography consumers in laboratory settings. In addition, research has mostly been concerned with short-term behavioral and attitudinal effects of exposure to pornography (Preston, 1990) by concentrating primarily on the relationship between men's exposure to pornography and aggression and violence toward women.

Existing theories that have been used in pornography research cannot be uncritically adapted and forced onto an examination of online phenomena. The theories used in this research, social learning theory, cultivation theory, and the homology hypothesis, were developed prior to commercial Internet technologies, yet their basic concepts served as a guide to investigate pornography in an online context.

To review, social learning theory primarily explains whether or not the violent themes in pornography lead the viewer to hold certain anti-social attitudes. But when applied to Internet pornography, it provides a vehicle through to which to explain the relationship between consuming high amounts of Internet pornography and anti-social attitudes toward women.

Cultivation theory was used because when applied in this project, it frames an investigation of whether exposure to high amounts of Internet pornography accounts for the distinct consequences of viewing this media: Namely, the cultivation of shared conceptions of reality (Gerbner, Gross, Morgan, & Signorielli, 1986) that are consistent with the messages in mediated sexual imagery.

Finally, the homology hypothesis focuses on parallels among media content, the experience of consuming the content, and real life experiences. The homology hypothesis

offers an explanation by arguing that media texts, such as Internet pornography, are especially effective when the content, the medium used to convey the content, and the real life experiences that make the content relevant are linked. For men who consume high amounts of Internet pornography, the homology hypothesis offers an explanation of how a psychological connection exists between the content (pornography), the medium (computer and the Internet), and the individuals' real lives.

In an effort to remedy these methodological concerns, to extend social learning theory, cultivation theory, and the homology hypothesis to an online environment, and to examine the uses of new technologies for sexual purposes, this investigation concentrated on male attitudes associated with the consumption of Internet pornography. Focusing on Internet pornography provides a naturalistic platform on which to examine the effects of long-term consumption of pornography. There is an almost unlimited amount of sexual material available on the Internet, and it is continuously being replenished. Given that the amount and type of pornography that Internet users can access is not limited to real world constraints, an Internet forum provides an opportunity to study habitual users. And considering that a majority of Internet pornography consumers are men, this study looked at the relationships between consumption of Internet pornography and their attitudes about men and women.

Based on the goals of this study, three research questions and six hypotheses were posited to aid in the understanding of the attitudes of heterosexual men associated with their habitual consumption of Internet pornography:

- What characteristics describe consumers of Internet pornography?
- What types of Internet pornography do individuals consume?
- What reasons do individuals report for consuming Internet pornography?

- As men's consumption of Internet pornography increases, they are more likely to perceive women in sexual terms.
- As men's consumption of Internet pornography increases, they are more likely to perceive women in feminine terms.
- As men's consumption of Internet pornography increases, they are more likely to perceive women in negative terms.
- As men's consumption of Internet pornography increases, their traditional attitudes about women increases.
- As men's consumption of Internet pornography increases, their perceptions of men performing traditional masculine behaviors increases.
- As men's consumption of Internet pornography increases, their adherence to a masculine gender role schemata increases.

The findings of these research questions and hypotheses are addressed in the following sections.

Research Questions

This section provides the findings of the current research questions concerning 1) the characteristics of heterosexual males who consume Internet pornography, 2) the types of Internet pornography consumed, and 3) the reasons men report for consuming Internet pornography. In addition, the findings are discussed with the theoretical frameworks guiding this investigation. Finally, explanations and implications are addressed.

Characteristics of Internet pornography consumers. This sample was demographically diverse, but there are several trends that are noteworthy. Most of the participants were white and in their mid-30's. They were well-educated, with more than half (51.3%) of the sample

reporting at least a bachelors degree as their highest level of education attained. The majority of the sample (58.5%) reported that they were dating one person seriously, were engaged, or were married. The relationship status is of interest when combined with the most popular reason for consuming Internet pornography: To relieve sexual tensions. The majority of men in this sample is in a serious heterosexual relationships with a woman, yet they are using Internet pornography to masturbate, to help relieve sexual tension, and to get turned on.

For the men who are habitually consuming Internet pornography, they may be learning anti-female attitudes from the depictions of women as sexual objects. The vicarious learning of negative female attitudes that results from habitually consuming Internet pornography may transfer into their real lives and translate into attitudes that manifest themselves in their relationship with their female partner. Also, the cumulative effects of habitual consumption of hardcore heterosexual Internet pornography may cultivate the belief that certain sexual behaviors or actions (e.g., multiple partners, certain sexual positions, violent or degrading acts) are typical, normal, or acceptable. Habitual consumption of pornographic sexual behavior could result in the belief that most couples perform the types of sexual encounters demonstrated in hardcore heterosexual Internet pornography.

Another characteristic of interest is how long participants have viewing Internet pornonography in relation to how long they have "been online. Results indicate that the average user has been an Internet user for more than eight years (8.51), and has been accessing Internet pornography for almost seven of those years (6.71). This findings gives credence to the notion that technological advances are due (in part) to the ingenious uses of the technology for the production, dissemination, and consumption of sexual material. Put simply, once these individuals learned how to access the Internet and navigate the World

Wide Web, they soon found their way to adult Internet sites and have remained there as frequent or habitual consumers.

The final relevant characteristic of Internet pornography consumers is their average amount of pornography consumed per week. One of the claims of this project is that by studying Internet pornography the researcher would be able to study habitual consumers of pornography. This is an improvement on previous experimental pornography research that focused on the behavior of available people who were recruited by researchers to *become* pornography consumers in laboratory settings (Hui, 1986).

The findings show that participants spent approximately 45 minutes per day looking at Internet pornography. When this is combined with the indication that the average user has been accessing Internet pornography for more than five years, it clearly demonstrates that this project was able to measure attitudes and beliefs associated with long-term, habitual consumption of pornography. These characteristics of individuals who consume Internet pornography in this study are similar to the findings in prior research on habitual consumers of Internet pornography (Emmers-Sommer & Burns, 2000).

Determining the demographics and Internet usage characteristics of individuals who consume Internet pornography lends illustrative insight into the behavior of consumers of Internet pornography as well as a description of the study participants. But one concern about Internet research is the representativeness of the sample gathered online. An argument could be made that it is impossible to adequately quantify the demographic characteristics of the entire population of Internet pornography consumers from which to draw a representative sample. However, an attempt can be made to look at the demographic characteristics of Internet users in general, and then to compare the current study's demographic findings to the

known characteristics of Internet users. This is an effort to infer representativeness of this sample by showing its similarity to the demographics of general Internet users.

The University of California at Los Angeles Center for Communication Policy publishes the UCLA Internet Report, "Surveying the Digital Future". The report serves as a comprehensive examination of the Internet (UCLA Internet Report, 2000). The 2000 UCLA Internet Report states that the 25-35 year-old age group uses the Internet the most, logging on 11.3 hours per week (this includes use at home and at work). The average participant age in the current research project fell within the upper limits of 25-35 year old range.

The UCLA Internet Report also states that the higher the education level the more likely the use the Internet. The very highly educated have a correspondingly high level of use: 86.3 of those with either an undergraduate college degree or an advanced degree use the Internet (UCLA Internet Report, 2000). Considering that more than half of this project's sample reported having at least an undergraduate degree, the UCLA Internet Report's findings that education and Internet usage are positively related suggests that this project's sample of highly educated individuals is representative of the general Internet population.

The representativeness of online samples is always called into question. But because the demographic of Internet pornography consumers reported in this study are similar to the known demographics of Internet users in general, there is support for the argument that online sampling from newsgroups can provide a sample that appears to be representative of — or is similar to — the Internet population in general.

Types of Internet pornography consumed. Participants reported consuming a variety of pornography types. But when asked which type they viewed most often, a pattern emerged. The most commonly viewed type was heterosexual pornography (46.8%), which

was defined as "pictures or online videos depicting heterosexual oral or genital intercourse". The second most commonly viewed type was softcore pornography (24.5%), which was defined as "pictures or online videos with content similar to that in Playboy". The third most commonly viewed type of pornography represented a tie between lesbian pornography (14.3%), which was defined as "pictures or online videos depicting homosexual oral or genital intercourse between women", and hardcore pornography (14.3%), which was defined as "hardcore pictures or online videos similar to *Hustler*". These consumption patterns of these individuals are similar to the findings in prior research on traditional pornography (Frable et al., 1997), as well as Internet pornography (Emmers-Sommer & Burns, 2000).

An explanation as to why the most commonly viewed type of Internet pornography is pornographic imagery depicting heterosexual oral or genital intercourse is that this type of material may not be legally sold in many locations and jurisdictions. If a consumer cannot get this type of pornography at their local store, the Internet can provide access to hard-to-find materials. These findings give support to the notion that Internet pornography allows consumers access to materials that aren't available in their area, such as oral, vaginal, or anal penetration.

An additional area of interest is that the other three most commonly viewed types of pornography (softcore, hardcore and lesbian imagery) offering suggestions or implications of penetration are readily available in the "real world" to most consumers at any newsstand, convenience store, or bookstore. Mainstream adult publications, such as *Playboy*, feature softcore images of women (Lane, 2000), *Penthouse* features images of lesbian women, and *Hustler*'s hardcore imagery is "aggressively genital, often violent, and raw" (Lane, 2000, p.

xviii). This type of material is available to most U.S. consumers, and the Internet is not the only place these types of material can be acquired.

One explanation is that accessing pornography online — even when it is available at the local convenience store — allows for consumer privacy. It eliminates the inconvenient, potentially embarrassing, and occasionally unnerving trips to adult theaters and bookstores (Lanes, 2000). The findings that habitual Internet pornography consumers frequently access e-versions of "traditional" pornography suggests that even when softcore, hardcore and lesbian pornography is available in the "real world", users still prefer to get this material online.

Also of interest is what respondents did not report. Only 9 respondents (.03%) in this study reported that they most commonly viewed pornographic images in which a woman is forced to have sexual intercourse and does not appear to be enjoying it. Only 17 respondents (.06%) reported that they most commonly viewed pornographic images that depict "sadomasochistic" sex (i.e., consensual whipping, spanking). This low level of consumption of violent imagery does not support the conservative-moralist perspective's concern about pornography effects. To review, the conservative-moralist perspective focuses on the anti-social effects of violent sexual materials that are intended to increase sexual arousal. However, because this study reports so little consumption of violent pornography and such a low percentage of men habitually consume violent imagery, the negative effects of consuming violent imagery maintained by the conservative-moralist perspective is negligible.

Reasons for consuming Internet pornography. The study that originated the "Reasons for consuming pornography" scale (Frable et al., 1997), which was an investigation of the uses of traditional forms of pornography, found six subscales which differentiated between

individual's motivations for consuming Internet pornography: 1) to make sex more interesting, 2) to relieve sexual tension, 3) to turn on a sexual partner, 4) for sexual thrills, 5) to enjoy a social event, and 6) to learn about sex.

In the current research on Internet pornography, five of the six reasons emerged. Participants primarily used Internet pornography to relieve sexual tensions, to masturbate, and for a turn on. A secondary reason for using Internet pornography was to enjoy sexual thrills, because they were bored, and to see bizarre sexual acts. Less reported reasons include that viewing Internet pornography makes sex interesting, and to learn about sex.

The fact that respondents reported using sexual materials for sexual purposes is not surprising, is consistent with other studies (Emmers-Sommer & Burns, 2000; Frable et al., 1997), and is compatible with the liberal perspective on the effects and uses of pornography. Habitual consumption of Internet pornography for self-gratification purposes supports the liberal perspective on the use of pornography. To review, the liberal perspective maintains that materials used or intended to increase sexual arousal can be functional, beneficial, for the most part harmless, and can provide fantasy and sexual stimulation. Given that participants primarily used Internet pornography to relieve sexual tensions, to masturbate, and for a turn on, this situation supports the liberal perspective's claims that pornography is for the most part harmless because it provides fantasy, sexual stimulation, and is a cathartic release.

In addition, these findings are also relevant because of what uses respondents did *not* endorse. Respondents in this study did not report using Internet pornography to enjoy a social event. The study that originated the "Reasons for consuming pornography" scale (Frable et al., 1997) found the individuals viewed traditional pornography for the "enjoyment of a social event", which may take the form of a group event, like pornographic movies in a

theater or at a bachelor party. Yet in the current study, respondents did not support the notion of viewing Internet pornography as a social event. This suggests that unlike traditional forms, consuming Internet pornography is a private event.

Also, participants did not endorse the use of Internet pornography to turn on a sexual partner. As such, viewing Internet pornography is a sexual activity that is not shared with friends and sexual partners. This may be due to the design of the computer itself. Computers are not intended for use by more than one person. They have one screen, one mouse, and one keyboard. Even the name "personal computer" implies that it is for one person's use. Finding that viewing Internet pornography is a solitary act is consistent with other studies (Emmers-Sommer & Burns, 2000), and may simply be an extension of the individualistic nature of the technology and not the material itself. Viewing Internet pornography as a personal endeavor possibly refutes the liberal perspective's argument that pornography is educational and therapeutic when viewed with a partner (Perse, 1994).

The finding that men view this material by themselves has supportive implications and confirmatory suggestions for social learning theory. Because habitual consumers view this material in seclusion, they lack "real world" punishment or sanctions for the expression of negative attitudes, or for the approval of anti-female behavior. The solitary consumer does not receive information from other viewers (i.e., viewing a pornographic film with other men at a bachelor party) necessary for evaluation of the mediated sexual behavior. The solitary consumer does not have the benefit of input from other viewers, such as their partner, who may comment on the appropriateness of the portrayed sexual behavior. This leads to the consumption of unchecked and unhindered messages about sexuality. Therefore, habitual

consumption of Internet pornography serves as a source of biased information about the legitimacy of various forms of sexual behavior.

Finally, participants did not endorse the use of Internet pornography to learn about sex. Since participants averaged 34.5 years of age, this group may not have needed to use pornography to learn about sex, while a younger sample may have reported using Internet pornography to learn about sex. Emmers-Sommer and Allen (1999) found that understanding media was strongly related to age. That is, the older the consumer the more likely he or she was to realize that media images were not "real life" and that the depictions were entertainment. Although Internet pornography sites "require" that a user is 18 years of age or older to enter the site, a minor can easily access the site by lying about his or her age. Given that younger consumers are less adept at understanding media (Emmers-Somer & Allen, 1999), it is possible that minors who habitually view Internet pornography are less able to delineate between real life and the mediated sexual encounters. Therefore, the social learning that takes place when viewing Internet pornography may be amplified. Younger viewers, who are less sexually experienced, would see the pornographic situations as "real life" and not understand that the images are for entertainment, and that the sexual situations are contrived and manipulated. This situation could have policy implications for developing stricter controls of minors accessing adult material on the Internet.

Research Hypotheses

This section provides analysis of the findings that Internet pornography consumers perceive women in sexual, feminine, and negative terms. This section also provides analysis of findings that men's consumption of Internet pornography is related to traditional attitudes

about women, their perception of men performing traditional masculine behaviors, and their adherence to masculine gender schemata.

Hypothesis 1a, "As men's consumption of Internet pornography increases, they are more likely to perceive women in sexual terms" was not statistically supported, $p \geq .05$. Nevertheless, as demonstrated in Appendix J, men were not at a loss when offering sexual attributes about women. In addition, the high consumption group (more than 45 minutes per day) reported the highest average scores of describing women in sexual terms. The words used by men in the high consumption group to describe women are more sexual and related more to sexuality than the terms used by men with moderate and low levels of consumption. Men with high levels of habitual consumption of Internet pornography perceive women more sexually, and use more sexually expressive words in their description of women than those with moderate or low levels of consumption.

The pornographic media these men consume portray women in a highly sexualized fashion. Social learning theory asserts that such media teach about the world beyond personal experiences. Pornographic media depictions of women as sexual agents provide a source for learning appropriate attitudes about the sexual nature and role of women, and legitimizes the sexual objectification of women. The men in the high consumption group have learned through their consumption of pornography that viewing women in sexual terms is acceptable.

Also, the finding that habitual consumers describe women in sexual terms can be illustrated with the tenets of cultivation theory. The habitual consumers understand their "real world" in relation to repeated and consistent symbols and messages in Internet pornography. The cumulative effect of habitual consumption of sexual portrayals of women has led these men to endorse a world view of women that is sexualized, and is in conjunction with sexual

media representations of women. Given that a primary focus of heterosexual Internet pornography is feminine sexuality, habitual consumption has resulted in these men endorsing a belief system about the sexuality of women that mirrors the portrayals of women in heterosexual Internet pornography.

Finally, the findings that men with high levels of habitual consumption of Internet pornography perceive women more sexually and use more sexually expressive words in their description of women is consistent with the feminist perspective's explanation of the effects of pornography. To review, the feminist perspective argues that all material intended to increase sexual arousal conveys an anti-female ideology, objectifies and dehumanizes women, portrays women as servants to men's sexual desires, denies female sexuality, and promotes sexual and social subordination. The sexualized perception and description of women by habitual consumers of Internet pornography confirms feminist perspective argument that pornography sexually objectifies and dehumanizes women.

Hypothesis 1b, "As men's consumption of Internet pornography increases, they are more likely to perceive women in feminine terms", and Hypothesis 2, "As men's consumption of Internet pornography increases, their traditional attitudes about women increases", were both partially supported. These two hypotheses are grouped together in this analysis because they both investigate men's attitudes about women's roles in society. The high consumption group reported higher average scores than the medium and low consumption group in their description of women in feminine terms. The high consumption group also reported higher levels endorsement and agreement with traditional, conventional attitudes about women.

In their description of women, the high consumption group reflected an oversimplified conception of women and "femininity", and perceived them in terms that are formulaic, contrived, and stereotypically feminine. Also, the men reported an increased level of approval of women in traditional gender roles. In this case, the "traditional" sexual roles for women are that of sexual objects, that of a sexual provider who serve men for their prurient satisfaction. The high consumption group approved of women in this sense, which is also the way that women are portrayed in pornography. The high consumption group displayed approving and supportive attitudes of women in traditionally feminine vocational, educational, and intellectual activities; dating behavior and etiquette; sexual behavior; and marital relationships.

From a social learning theory standpoint, the findings of this study suggest that pornography serves as a source of information about the appropriateness of certain attitudes. Specifically, the appropriateness of certain behaviors for women. In the case of pornography, social learning theory would assert that Internet pornography provides a source of information about acceptable female behavior and traditional women's roles. Pornography depicts women as willing and submissive partners and in stereotypically feminine gender roles. Social learning theory supports the notion that long-term exposure to sexualized imagery contributes to the learning of anti-female attitudes. Ultimately, consumption of high amounts of Internet pornography results in perception of women in conventional feminine terms.

Finally, the findings that men with high levels of habitual consumption of Internet pornography perceive women in more feminine terms and approve traditional female gender roles is consistent with the feminist perspective's explanation of the effects of pornography.

The feminist perspective argues that pornography portrays women as servants to men's sexual desires and promotes social subordination. Because habitual consumers of Internet pornography perceive women in feminine terms they may see women's possession of feminine qualities as indicative of their role as servants of men's sexual desires. And because habitual consumers of Internet pornography approve of women in traditional gender roles, they may have learned from pornography a belief system that promotes social inferiority of women.

Hypothesis 1c, "As men's consumption of Internet pornography increases, they are more likely to perceive women in negative terms", was not supported. There *were* differences between the low and high groups and their perception of women in negative terms. However, the low consumption group perceived women in *more* negative terms than the high consumption group. This is contrary to what was expected.

The high consumption group consumed more than 45 minutes of pornography per day, and many in this sample reported viewing Internet pornography for more than five years. Even though this group perceives women in sexual terms and in feminine roles, they did not necessarily perceive them in a negative fashion. It is possible that after years of habitual exposure they came to appreciate women for their sexuality and view them positively. The high consumption group used terms such as "assertive", "clever", "hardworking", "independent", and "powerful" to describe women. Findings suggest that the high consumption group views women in a positive fashion, possibly as powerful individuals, and may enjoy using pornography as a way to see these powerful women in sexual situations.

The high consumption group enjoys viewing women sexually, is comfortable with them in feminine roles, and the pornographic depictions of women in this fashion is a visual match with their cognitive template of women. This perceptual balance may reinforce their schematic construct of sexual and traditional views of women, thus leading to positive attitudes about women. Seeing women in sexual roles and feminine portrayals is a satisfying experience because it is analogous with their perceptual structure of women.

In congruence with social learning theory, Internet materials that portray women in sexual circumstances and conventional roles provide a source for learning appropriate and inappropriate sexual behavior. If these men already hold sexual and feminine notions about women, then the affirmative messages in pornography about women's traditional sexual and social roles is parallel with their attitudes about women as sexual providers. This would result in pornography confirming their attitudes about women as sexual objects, ending in a positive perception of women given that they fit the men's mental structure.

Finally, the finding that respondents with high levels of consumption perceived women in *less* negative terms than the medium and low consumption group is compatible with the liberal perspective on the effects and uses of pornography. Habitual consumers of Internet pornography may consume pornography because of the sexual fantasy it creates. Sexual fantasies have been shown to increase sexual arousal and enjoyment (Campagna, 1985). Not only does sexual fantasizing result in arousal, but also has been found to increase sexual satisfaction in general (Davidson & Hoffman, 1986; Lenze & Zeiss, 1984). Because Internet pornography satisfies a fantasy for the habitual consumer which increases sexual satisfaction in general. This increased satisfaction results in the men's perception of women

in less negative terms because it is women who are the enabler, subject, and enhancer of the satisfying sexual fantasy.

Hypothesis 3, "As men's consumption of Internet pornography increases, their perceptions of men performing traditional masculine behaviors increases" was partially supported. The high consumption group made higher estimates than the low and medium consumption groups of the percentage of men who perform traditional masculine behaviors. The high consumption group, who estimated that more than half of other men perform traditional masculine behaviors, perceives a world inhabited by masculine men.

This assumption is grounded in cultivation theory, which explains that these men understand their world in relation to a symbolic pornographic media environment. The cumulative effect of high amounts of consumption over several years of exposure to stereotypical masculine sexual patterns has resulted in the belief that most men behave in a conventional masculine fashion. The sexualized imagery in Internet pornography offers omnipresent and repetitive messages about acceptable masculine behavior in sexual situations. The repetitive representation has resulted in the high consumption group's acceptance and endorsement that the stereotypical masculine behavior is normal, common, and that most men behave this way. Cultivation theory explains that the heavy viewers of Internet pornography gradually come to accept the mediated sexual reality of pornography, and endorse a pornographic model as their perception of reality.

From a social learning theoretical standpoint, the findings of this study suggest that repeated portrayals of masculine sex episodes which celebrate acts of virile, red-blooded men (Frable et al., 1997) may lead to the belief that this behavior is expected of men, and definitive of what it means to be "masculine". Given that pornography promotes

dysfunctional patterns by portraying highly sexualized men as role models and exhibiting sexual situations where rewards stem from deviant behavior (Check & Malamuth, 1983), habitual consumers of Internet pornography learn the appropriateness of sexually stereotypical masculine behaviors. In pornographic depictions, men are never sexually inadequate (Smith, 1976) and are always in charge of the sexual interaction (Cowan, Lee, Levy, & Snyder, 1988; Dietz & Evans, 1982). Social learning theory maintains that habitual consumers of Internet pornography use visual sexual stimuli to learn about appropriate and inappropriate sexual behavior. The finding that habitual consumers of Internet pornography view a world full of highly masculine men corresponds with their traditional, conventional attitudes about women.

Hypothesis 4, "As men's consumption of Internet pornography increases, their adherence to a masculine gender role schemata increases" was supported. The low consumption group reported the lowest level of adherence to the masculine gender schemata. The medium consumption group reported a moderate level of adherence, and the high consumption group reported the highest level of adherence to the masculine gender schemata. The significant differences among the low and high consumption groups indicate that those who consume high amounts of Internet pornography report the highest level of self-perceived possession of masculine personality characteristics. Consuming high amounts of Internet pornography is related to identification with and connection to a traditional, conservative masculine gender schema.

Practical implications of this finding include an application and interpretation of gender schema theory (Bem, 1981; Crane & Markus, 1982; Frable & Bem, 1985; Lobel et al., 2000; Mohr & Zanna, 1990). The masculine gender schema these men endorse is a

knowledge structure that helps them understand their own behavior and impacts their judgments of and behavior toward others (Fong & Markus, 1982; Markus & Smith, 1981). Gender schematic individuals have a greater readiness to process interactions with a member of the opposite sex through the use of a heterosexuality subschema (Bem, 1981, 1985). Regardless of the appropriateness of the situation, this schema leads men to encode all cross-sex interactions in sexual terms, and to view women in terms of sexual attractiveness.

Because habitual consumers of Internet pornography report the highest level of self-perceived possession of masculine personality characteristics, their interactions with women are managed through their recall of their masculine gender schema. Habitual consumer's non-sexual interactions with women are still deciphered in sexual terms based on this hyper-masculine gender schema. Their masculine gender schema, which is connected to their habitual use of Internet pornography, informs their demeanor, impacts their judgments of cross-sexual situations, and influences their behavior toward women.

In addition to the daily interactions of these men with women in professional, social, and academic settings, this finding is increasingly relevant because the majority of the sample (58.5%) reported that they were dating one person seriously, were engaged, or were married. These men are enacting a masculine gender schema that they learned (in part) from Internet pornography and are employing that schema in their behavior toward their relational partner.

The homology hypothesis also offers a theoretical explanation by arguing that media texts, such as Internet pornography, are especially effective when the content, the medium used to convey the content, and the real life experiences that make the content relevant are linked. The homology hypothesis allows for the exploration of parallels among media

content, the act of consuming the content, and real life experiences of the consumers. For the men in the high consumption group, psychological connections exist between the content (pornography), the medium (computer and the Internet), and real life.

These men consume high amounts of sexualized media (the content) through the Internet (the medium). This pattern of behavior is habitually repeated given that these men report using the Internet for well over six years, and have been accessing Internet pornography for five of those years. The experience of using a computer to act upon sexual urges, and through the experience of gathering Internet pornography, has enabled these men to become intimately connected with their computer. This connection is amplified when parallels are drawn between their online experiences and their real life. These men report in their real life seeing women in sexual terms, approve of them in traditional feminine roles, see other men performing masculine behaviors, and are themselves adherent to traditional masculine gender schema. These real life experiences make the pornographic media content relevant and more effective in teaching them behaviors and reinforcing attitudes. Internet pornography makes the same points found in their real life. Through these similarities, there is an informal link between content and experience. In this sense, pornographic media are an informal bridge between the fictitious media content and the real world.

Limitations

As in any study, a discussion of limitations is warranted. In this study, there were limitations presented by the methods, theories, scales utilized for this research, and the generalizability of the findings. This section covers these limitations.

Although collecting data online has significant methodological advantages, there can be disadvantages to collecting data online as well. These disadvantages can be categorized broadly in two areas, which are not independent of one another: sampling and procedures (Anderson, 2000). Sampling issues are always of the utmost importance in social scientific investigations. However, many times an ideal, random, representative sample is literally impossible. Such is the case with the investigation of consumers of Internet pornography, in part because of the population itself. The sample in this study was limited to heterosexual men who happened to access the same adult newsgroups on the same day that the researcher posted the call for participants in the adult newsgroups.

Another limitation is the possibility that this project includes inductive measurement artifacts, rather than exclusively deductive measurements. This research project was intended to be deductive in nature, was concerned with testing and confirming hypothesis, and was an attempt to apply existing knowledge to the production of new knowledge. It was designed to investigate broad theories (e.g., Social Learning), narrow those theories down to specific research hypotheses (i.e., "As men's consumption of Internet pornography increases, their perceptions of men performing traditional masculine behaviors increases), collect observations to address the hypotheses, which finally lead to confirmatory (or not) testing of the hypotheses with specific data.

Even though this study may espouse pure deductive logic, most social research involves both inductive and deductive reasoning processes at some time in the project. Even in the most constrained experiments, researchers may observe patterns in the data that lead them to develop new theories. As such, it is possible that this project project includes inductive measurement artifacts. Post hoc analysis of this project reveals characteristics indicative of inductive reasoning and thinking. For example, this study included specific observations and measurements of men's behavior and attitudes. The researcher detected patterns of answers and regularities of attitudes. These regularities could have led to the formulation of research hypotheses, and finally could have supported general conclusions and theories. In the inductive approach, which moves from the specific observation to the general theory, arguments about Internet pornography are based on individual experience and observations. The ultimate limitation is the restrictive possibility that only confirmatory and positive instances of the phenomena under investigation which had common traits indicated a larger commonality, and this commonality was used to support general conclusions about men's consumption of Internet pornography.

Another limitation is that participants voluntarily self-selected themselves for participation. Only those people who had the time to participate and wanted to answer questions about their Internet pornography use completed the online survey. Due to the tremendous amount of Internet traffic in these newsgroups and considering there are no requirements to read or post messages in these newsgroups, there is no way to know how many people saw the call for participants in the newsgroup and decided—or declined—to participate.

However, visitor statistics were kept for the main page of the survey website. In the month that the survey was online, over 2,500 people visited the survey site. Out of those visitors, roughly 400 filled out the survey. This could be loosely construed as a "response rate". Of the people who saw the call for participants in the newsgroup, followed the link to the informed consent form of the survey website, 6.25% of them went on the complete the survey. A low response rate to surveys is often deemed a problem. The fear is that different response rates will bring with them differential response patterns by various segments of the population; some segments will be over represented and others under-represented. However, a low response rate does not necessarily mean that responses will be biased (Dalecki, Whitehead, & Blomquist, 1993).

This situation calls into to question the differences between the 6.25% of visitors who filled out the survey and the 93.75% who chose not to participate. The problem of non-respondents or late respondents is a vexing one for users of Internet surveys. The literature contains many hypotheses about who does not answer questionnaires, whether there is a difference between respondents and non-respondents and if there is a difference, whether or not it influences findings (Boek, 1990).

Babbie (1973) pointed out the response bias and low response rate are not necessarily related. In summarizing the literature on response rate characteristics, Dolsen and Machlis (1991) noted that "nonrespondents are not quite different from the rest of the survey sample" (p. 273). Goudy (1976) concluded that limited change would appear with the addition of later responses and the assumed impact of non-response bias on variable relationships has been exaggerated. Wellman, Hawk, Roggenguck and Buhyoff (1980) confirmed Goudy's findings and contend that increasing response rates may lead to increased precision, but adds little to

accuracy. Moreover, Armstrong and Overton (1977) contend that we can predict nonrespondent behavior from early respondents. One caveat to these conclusions is based on studies that were done with relatively homogenous populations (Bernick & Pratto, 1994).

Another methodological issue is the opportunity for data to be falsified in online surveys. Although there is little reason to support this likelihood, and no research to support it as a problem, it is possible that a person could falsify all information given that they were at a location where the researcher could not watch them answer the survey. Of course with any survey, participants may have been untruthful, either deliberately or unconsciously.

Another limitation of methodology is that this study involved a one group, one shot, cross-sectional design. No direct comparison group was accessed from which to make current, direct comparisons.

One limitation inherent to non-experimental conditions is the questionable direction of the relationship between the variables (i.e., the use of Internet pornography and user's attitudes toward men and women). The participants in this study may have already held certain attitudes about men and women and they may enjoy viewing pornography because it verifies and supports their beliefs. For example, the participants may possess traditional attitudes about women, or perceive women in sexual terms, before they access Internet pornography. The participants could have held these attitudes about men and women *a priori.* They found that Internet pornography verifies and reinforces their gendered beliefs system. In this case, Internet pornography does not necessarily effect their beliefs about men and women, but it is the belief system that is the motivation for viewing pornography.

The concern over the direction of the relationship between variables is somewhat mitigated because results of the current study are similar to the findings in pornography

studies that used laboratory experimental conditions in which causality was more accurately determined (e.g., Allen, Emmers, et al, 1995).

Limitations of the theories driving this research are also evident given that the theories were developed to explain "real world" phenomena, were not initially intended to be used to study Internet user behavior, and were constructed before the commercial use of the Internet gained popularity.

The design of this study is a quandary that no one study can address (Emmers-Sommer & Burns, 2000). Experimental research designs have the benefit of random assignment that eliminates participant self-selection as a rival hypothesis. However, experimental pornography research focuses on the behavior of available people who were recruited by researchers to *become* pornography consumers in laboratory settings (Hui, 1986) and is unable to study habitual users of sexually explicit media. To counter the inability to study habitual pornography consumers, nonexperimental online studies of Internet pornography consumers allow access to individuals who purposefully and willingly view this material in a naturalistic setting. But, online nonexperimental designs suffer from self-selection issues as a rival hypothesis. This concern is somewhat quelled though because results of the current study are similar to the findings of pornography studies that used true experimental conditions in which causality was more accurately determined (e.g., Allen, Emmers, et al, 1995).

Social learning theory (Bandura, 1977) argues that people use the stimuli around them to learn about the "real" world (Check & Malamuth, 1983), and asserts that "traditional" media teach about the world beyond personal experience and provide a source for learning appropriate and inappropriate. Cultivation theory, designed primarily to

investigate television and its pervasive and recurrent patterns of symbolic representation, was developed to study the impact of stable, resistant, and widely shared assumption and conceptions reflecting the social and institutional status quo (Gerbner, Gross, Morgan, & Signorielli, 1986). The homology hypothesis is possibly the most applicable theory to study Internet pornography given that it was originally developed to explain the impact of pornography and new technology (the VCR).

Although these theories were not advanced specifically to explain and predict online behavior, these theories provide viable perspectives from which to examine the relationship between habitual consumption Internet pornography and beliefs about men and women. The selection of these theories may prove to be as limiting as they are illuminating. When examining a relatively new phenomenon, such as consumption of Internet pornography, relying on existing theory from which to glean explanations and potential causal factors may exclude alternative possibilities from being well thought-out and included in the investigation (Anderson, 2000).

Another apparent limitation is the variance in dimensionality of the scales used to measure the criterion variables. The original version of the "Reasons for consuming Internet pornography" scale, which measured respondents' support or rejection of reasons for viewing *traditional* pornography (Frable et al., 1997), was a multidimensional scale with six factors. But in the current investigation, the scale reported only five of the original six factors. The original version of Helmreich and Stapp's (1973) short-version of the Attitudes Toward Women was a unidimensional measurement of rights and roles of women. However, in the current investigation, the ATW was multidimensional five factor scale. The original version of the Bem Sex Role Inventory (Bem, 1974) was a unidemensional assessment of

masculinity and femininity in terms of the respondent's self-perceived possession of positive personality characteristics. However, in the current study, the BSRI was a multidimensional four factor scale. The original version of Park and Rothbart's (1982) "Perception of in-group/out-group homogeneity" was a unidimensional questionnaire that assessed estimates of the percentage of *other men* who might agree with various beliefs or attitude statements. However, in the current study, it was a multidimensional two factor scale. The variance in the dimensionality of the scales suggests that some of the questions and resulting multiple factors within the scales were measuring more than what the scale purported to measure.

Another limitation pertaining to the scales is that for each scale, several items were removed which did not have cross factor loadings of .60 or higher on one factor or higher than .40 on another. The "Reasons for consuming Internet pornography" scale was reduced from 17 items to 14 items; the ATW scale was reduced from 25 items to 17 items; the BSRI was reducted from 18 items to nine items; and the perception of in-group/out-group homogeneity questionnaire was reduced from 20 items to 14 items.

The variance in the dimensionality of the scales, the different number of factors between the "real world" use and the Internet use of the scale, and the removal of "bad items" does not necessarily indicate that the scales are unreliable, nor does it not effect the results. This may be because the original versions of the scales were developed with relatively homogenous people and real world populations. When applied to a much more diverse, international sample, these scales were not limited to the measurement of expected, constricted outcomes. This confirms the notion that because these scales were developed with real world participants, new scales and improved measurements need to be developed to measure on-line phenomena.

Additionally, given that the survey was available to anyone in the world with a computer and Internet connection, a portion of the visitors were from non-English speaking countries who spoke English as a second language (e.g., 10% of visitors to the survey website were from Germany). This situation may have resulted in poor interpretation of questions, directions, and examples of media depictions of softcore and hardcore pornography (e.g., "softcore pictures or online videos with content similar to that in *Playboy*").

Other limitations are the relatively low levels of effect sizes in the one-way ANOVAs. The low degree of association between and effect (amount of Internet pornography consumed) and the dependent variables (e.g., attitude toward women, gender role schema) suggests that little variance in the dependent variables is attributable to the effect.

The final limitation is that the results presented here are due to an aggregate data set. Therefore, conservative steps must be taken when extending these findings to the Internet population in general, or to any individual who consumes Internet pornography. Although assertions can be made about the characteristics of male Internet pornography consumers and their attitudes toward men and women, it is too soon to make absolute claims about all Internet pornography consumers. It is important to view these results as preliminary, and as a starting point for extending existing knowledge about pornography in general. In no way should the results of this study be used to establish standards, norms, or definitive characteristics of male Internet pornography consumers.

Because of the limitations presented, and because the scope of this study was limited as well, there are directions in which researchers should take the study of Internet pornography. Some of these suggestions are listed below.

Recommendations for Future Studies

Future studies of Internet pornography should focus on whether the findings from previous research on traditional forms of pornography apply to Internet pornography, and whether the theories about traditional pornography can be extended to the Internet. Considering that the pornographic material online is essentially the same as the traditional forms (the biggest differences the amount available and the medium of dissemination), future studies could incorporate the same theories, methods, and research questions which have already been used to study traditional pornography. This could be done by exploring other attitudes, opinions and variables associated with consumption of Internet pornography. For example, future research could examine Internet pornography consumers' rape myth acceptance, acceptance of interpersonal violence, perception of self and partner's attractiveness. In addition, empirical content analysis of the Internet and of pornography websites could dispel — or confirm — the stereotype that the Internet is just another medium to disseminate and obtain pornography.

In addition, future studies could examine the Web technologies used by commercial pornography sites and the effects these technologies may have on users' adoption of new technology. Does the technology used by adult sites influence web development? Is there a relationship between commercial pornography sites, the image distribution technologies and software they use (i.e., real-time synchronous video), and the rate of adoption of these technologies among consumers? This suggestion is based on the hypothesis that the Internet pornography marketplace drives the development and use of cutting-edge Web innovations in the production, distribution, and consumption of sexual material.

Also, future research projects could be designed to sample general Internet users on their use of Internet pornography and attitudes associated with its use. Instead of focussing exclusively on habitual users, such a study could investigate the patterns of use and attitudes of Internet users in general—not just habitual pornography consumers. This tactic might afford a more accurate representation of the attitudes associated with Internet pornography by allowing for comparison between groups of individuals who consume Internet pornography and those groups that do not.

Finally, future studies could investigate women's use of Internet pornography. Most studies of pornography to date have assumed that pornography is essentially a masculine habit. But the popular media have suggested that more and more women are logging on to Internet pornography. Future research could examine what reasons women have for accessing Internet pornography and whether their attitudes are different than men's. Finally, legal analyses of Internet pornography could examine the policy implications of regulating adult sites, and economic analysis of Internet pornography businesses could examine the impact of adult material on the Internet economy.

CONCLUSION

The purpose of this study was to investigate heterosexual male, habitual consumers of Internet pornography and their attitudes and beliefs about men and women. To this end, three research questions were posed to gain a better understanding of the characteristics of Internet pornography consumers. In this study, the average Internet pornography consumer was a white male, was in his mid-30s, spent about 45 minutes per day looking at Internet pornography, had been online for over six years, and had been accessing Internet pornography for over five years, was well-educated, was in a serious relationship, and primarily used Internet pornography for self-gratification purposes.

In addition, this study had six hypotheses that were designed to aid in the understanding of men's attitudes associated with habitual consumption of Internet pornography. The hypotheses shared the assumption that habitually consuming pornography creates beliefs about other men, masculinity, women, and femininity. This study found that males' habitual consumption of Internet pornography was associated with certain beliefs and attitudes about men and women. Men who habitually consume high amounts of Internet pornography are more likely to describe women in sexual terms, view them in stereotypically traditional feminine gender roles, and perceived them in positive terms. Also, male habitual consumers of high amounts of Internet pornography perceive a world inhabited by masculine men, and report the highest level of self-perceived possession of masculine personality characteristics.

Endnotes

[1] Originally, the sample age range was 17-76. Because the 17-year-old male had clearly violated the terms of the various Internet porn sites' 18-year-old age requirement, his entire case was excluded from the data set prior to any analyses being conducted.

[2] 274 of the 348 participants provided responses to the open ended statement, "Write down all the qualities that come to mind when you think of women."

[3]The percentage of *observed* agreement for this subscale was .846.

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Table 1: Types of Internet Pornography Consumed (N = 265)

Type of Internet Pornography	Yes	No
Softcore (e.g., Playboy/Playgirl)	166	89
Homosexual Porn (women)	186	79
Homosexual Porn (men)	67	198
Heterosexual Porn	236	29
Hardcore Photo/Video	191	74
Women Coerced	47	218
Graphic Photos (e.g., exposed genitalia)	174	91
S&M (mutual consent)	70	195
Fetish (e.g., watersports)	108	157
Lingerie/Swimsuits	146	119

* Even though this research focuses on heterosexual men who view heterosexual pornography, a small portion of men reported being heterosexual yet viewed homosexual pornography.

Table 2: Types of Internet pornography consumed most often (N = 265)

Type of Internet Pornography	Yes	No
Softcore (e.g., Playboy/Playgirl)	65	200
Homosexual Porn (women)	38	227
Homosexual Porn (men)*	14	251
Heterosexual Porn	124	141
Hardcore Photo/Video	64	201
Women Coerced	9	256
Graphic Photos (e.g., exposed genitalia)	38	227
S&M (mutual consent)	17	248
Fetish (e.g., watersports)	34	231
Lingerie/Swimsuits	24	241

* Even though this research focuses on heterosexual men who view heterosexual pornography, a small portion of men reported being heterosexual yet viewed homosexual pornography most often.

Table 3: Non-Internet Forms of Pornography Consumed (N = 265)

Type of Pornography	Yes	No
Pornographic Magazines	105	160
XXX Rated Films (Theater)	14	251
XXX Rated Videos	169	96
XXX CD ROM	53	212
Phone Sex	12	253
Audio Porn (e.g., audiotapes)	19	246
Live Theater	34	231

Table 4: Reasons for Men's Consumption of Internet Pornography (N = 265)

Reason	(SA)*	(A)*	(N)*	(D)*	(SD)*
Makes sex interesting					
It helps make sex more interesting	44	96	89	28	8
Sex is boring and this makes it interesting	7	24	49	58	127
Enjoy seeing unusual positions, acts	79	123	34	16	13
Relieve sexual tensions					
To masturbate	140	75	22	17	11
To help me relieve sexual tension	105	96	30	25	9
To turn me on	107	112	28	12	6
Turn on a sexual partner					
Turn my sexual partner and me on	45	70	68	36	46
My sexual partner wants me to	6	19	81	53	106
My sexual partner and I just do	30	48	97	37	53
Enjoy sexual thrills					
Because I'm bored	57	104	42	37	25
For thrills	47	112	58	24	24
Like to see bizarre sexual acts	37	81	45	46	56
Enjoy a social event					
It's a social event	9	13	67	50	126
Because my friends approve	3	14	125	37	86
Learn about sex					
That's how I learned about sex	13	45	47	49	111
Because I'm curious	91	116	36	15	7
To get information about sex	30	89	65	34	47

*(SA) strongly agree
*(A) agree
*(N) neither agree nor disagree
*(D) disagree
*(SD) strongly disagree

Table 5: Scree Plot for Reasons for Consuming Internet Pornography

Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.264	23.311	23.311	2.264	16.171	16.171
2	1.923	13.733	37.044	1.977	14.122	30.293
3	1.601	11.435	48.479	1.922	13.727	44.020
4	1.379	9.853	58.332	1.643	11.739	55.759
5	1.082	7.729	66.061	1.442	10.302	66.061

Extraction Method: Principal Component Analysis.

Table 6: Scree Plot for Attitudes Toward Women scale

Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.975	27.901	27.901	3.750	14.999	14.999
2	2.528	10.112	38.013	3.066	12.263	27.263
3	1.630	6.521	44.534	2.180	8.721	35.983
4	1.228	4.911	49.445	2.171	8.684	44.668
5	1.208	4.833	54.278	1.773	7.094	51.761
6	1.123	4.494	58.772	1.478	5.911	57.672
7	1.036	4.145	62.917	1.311	5.244	62.917

Extraction Method: Principal Component Analysis.

Table 7: Scree plot for Perception of In-Group/Out-Group Homogeneity questionnaire

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.447	34.471	34.471	3.447	34.471	34.471
2	1.227	12.265	46.736	1.227	12.265	46.736

Extraction Method: Principal Component Analysis.

Table 8: Scree plot for Bem Sex Role Inventory questionnaire

Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.224	37.314	37.314	3.459	24.708	24.708
2	1.920	13.715	51.029	3.106	22.185	46.893
3	1.211	8.650	59.679	1.790	12.786	59.679

Extraction Method: Principal Component Analysis.

Table 9: Factor loadings for the Reasons for Consuming Internet Pornography

Item	1	2	3	4	5
Turn my sexual partner and me on	**.800**	.142	.161	.00	-.215
My sexual partner and I just do	**.865**	.00	.179	.00	.00
My sexual partner wants me to	**.770**	.00	.00	.289	.207
To help me relieve sexual tensions	.00	**.774**	.00	.252	.00
To masturbate	.00	**.856**	.00	.00	.00
To turn me on	.110	**.749**	.216	-.140	.00
I enjoy seeing unusual positions and acts	.00	.159	**.781**	.185	.00
Because I am curious	.00	.00	**.676**	.150	.187
Like to see bizarre sexual acts	.235	.00	.00	**789**	.00
To get information about sex	.135	.00	.263	**.692**	.00
That is how I learned about sex	-.128	.141	.161	**.681**	.136
Because my friends approve	.364	.00	.00	**.668**	.00
Sex is boring and this makes it interesting	.148	.00	.00	.140	**.760**
Because I am bored	.00	.00	.165	.00	**.829**
Total % of variance: 66.06	16.17	14.122	17.73	11.74	10.3

Table 10: Factor loadings for the Attitude Toward Women scale

Item	1	2	3	4	5
Both husband and wife should be allowed the same grounds for divorce	**.842**	.00	.128	.00	.00
Women should assume their rightful place in business and all the professions along with men	**.803**	.161	.00	.00	.00
Women should be given equal opportunity with men for apprenticeship in various trades	**.757**	.276	.128	.00	.00
The modern girl is entitled to the same freedom from regulation and control that is given to the modern boy	**.821**	.149	-.133	.154	.00
Women should worry less about their rights and more about becoming good wives and mothers.	.122	**.717**	.271	.00	.00
Sons in a family should be given more encouragement to go to college than daughters	.159	**.685**	.00	.303	.152
It is ridiculous for a woman to run a construction company and for a man to stay home and wash clothes	.192	**.728**	.265	.00	.00
A woman should not expect to go exactly the same places or to have quite the same freedom of action as a man	.126	**.488***	.134	.267	.203
Women should be concerned with their duties of childbearing and house tending, rather than with desires for professional and business careers	.137	**.674**	.145	-.354	.132
Swearing and obscenity are more repulsive in the speech of a woman than of a man	.00	.159	**.807**	.00	.00
Telling dirty jokes should be mostly a masculine prerogative	.112	.299	**.722**	.00	.00
Intoxication among women is worse than intoxication among men	.00	.00	**.687**	.277	.288
In general, the father should have greater authority than the mother in the bringing up of children	.00	.337	**.593***	.418	.00
There should be a strict merit system in job appointment and promotion without regard to sex	.00	.00	.160	**.854**	.00

Table 10: (continued)

Item	1	2	3	4	5
Economic and social freedom is worth far more to women that acceptance of the ideal of femininity which has been set up by men	.161	.248	.00	.00	**.628**
The husband should not be favored by law over the wife in the disposal of family property or income	.00	.00	.129	-.108	**.821**
Women earning as much as their dates should bear equality the expense when they go out together	.00	.00	.00	.00	**.907**
Total % of variance: 63.42	28.49	14.05	8.18	6.69	5.99

*In the initial factor analysis, these items had cross factor loadings of .60 or higher on one factor but not higher than .40 on another.

Table 11: Factor loadings for the Perception of In-Group/Out-Group Homogeneity Scale

Item	1	2
I would prefer climbing in the mountains to relaxing at or wandering along the beach	**.712**	.140
When playing card or board games, I become extremely upset if I don't win	**.713**	.206
I enjoy being in leadership positions	**.651**	.251
I like jobs that involve working out of doors	**.655**	.00
I prefer to live alone	**.473***	.256
I would rather watch "Star Wars" than "Gone with the Wind"	**.515***	.184
If I get a chance to crowd in front of other people waiting in line, I'll do it	.00	**.786**
Sometimes I push very hard to get what I want, even when I know I'm wrong	..258	**.694**
I often seek out competitive challenges - whether intellectual or athletic	.260	**.718**
In my opinion, there is no place for meek people in the business world	.327	**.561***
Total % of variance: 48.08	25.793	22.283

*In the initial factor analysis, these items had cross factor loadings of .60 or higher on one factor but not higher than .40 on another.

Table 12: Factor loadings for the Bem Sex Role Inventory

Item	1	2	3	4
Strong personality	**.751**	.271	.219	.102
Self-reliant	**.430***	.185	.00	.291
Analytical	**.813**	.00	.233	.110
Act as a leader	**.770**	.373	.00	.125
Defend my own beliefs	**.864**	.00	.141	.106
Willing to take risks	.00	**.718**	.250	.217
Ambitious	.00	**.702**	.1	.107
Dominant	.527	**.547***	-.3	.00
Assertive	.163	**.711**	.290	.00
Willing to take a stand	.120	**.667**	.185	.291
Competitive	.363	**.644**	.00	-.147
Make decisions easily	.175	.254	**.786**	.00
Independent	.299	.191	**.688**	.294
Individualistic	.00	.00	.00	**.841**
Total % of variance: 66.12	23.8	21.66	10.89	9.81

*In the initial factor analysis, these items had cross factor loadings of .60 or higher on one factor but not higher than .40 on another.

Figure 1: The distribution of scores for reasons for consuming Internet pornography

Appendix A: Demographics questionnaire

1. Sex (Check one):
__ Male
__ Female

2. Age:

3. Race (Check one):
__ White
__ Black
__ Hispanic
__ Other

4. What is the highest education level you have attained? (Check one):
__ Some high school
__ High school or GED
__ Some college
__ Bachelor's degree
__ Graduate degree
__ Other

5. What is your current relational status? (Check one):
__ Not dating anyone in particular
__ Casually dating multiple persons
__ Casually dating one person
__ Dating multiple individuals seriously
__ Dating one person seriously
__ Engaged
__ Married

6. How would you describe your sexual orientation? (Check one):
__ heterosexual
__ homosexual
__ bisexual

7. How long have you been online?
____ years and ____ months

8. How long have you been viewing pornography online?
____ years and ____ months

9. How much time PER WEEK do you spend viewing pornography online?
____ hours and ____ minutes

Appendix B: Types of Internet pornography consumed

11. SPECIFICALLY, what type(s) of pornography do you enjoy viewing? (Check all that apply):

( ) Softcore pictures or online videos with content similar to that in Playboy or Playgirl
( ) Pictures or online videos depicting homosexual oral or genital intercourse between women
( ) Pictures or online videos depicting homosexual oral or genital intercourse between men
( ) Pictures or online videos depicting heterosexual oral or genital intercourse
( ) Hardcore pictures or online videos similar to Hustler and Cheri
( ) Pictures or online videos in which a woman is forced to have sexual intercourse and does NOT appear to be enjoying it
( ) Pictures or online videos depicting graphically exposed genitals
( ) Seeing pictures or online videos that depict "sadomasochistic" sex (i.e., consensual whipping, spanking)
( ) Pictures or online videos that depict a specific fetish (consensual bondage, piercing, watersports,", etc.)
( ) Pictures or online videos featuring softcore material, such as lingerie or swimsuits

12. Of the type(s) of pornography that you marked in question #12, which ONE type do you view MOST OFTEN? (CHECK ONE):

( ) Softcore pictures or online videos with content similar to that in Playboy
( ) Pictures or online videos depicting homosexual oral or genital intercourse between women
( ) Pictures or online videos depicting homosexual oral or genital intercourse between men
( ) Pictures or online videos depicting heterosexual oral or genital intercourse
( ) Hardcore pictures or online videos similar to Hustler and Cheri
( ) Pictures or online videos in which a woman is forced to have sexual intercourse and does NOT appear to be enjoying it
( ) Pictures or online videos depicting graphically exposed genitals
( ) Seeing pictures or online videos that depict "sadomasochistic" sex (i.e., consensual whipping, spanking)
( ) Pictures or online videos that depict a specific fetish (consensual bondage, piercing, watersports,", etc.)
( ) Pictures or online videos featuring softcore material, such as lingerie or swimsuits

Appendix B: (continued)

13. Besides online pornography, what other types of pornography do you use? (CHECK ALL THAT APPLY):

( ) magazines
( ) X-rated movies (in theater)
( ) X-rated videos at home
( ) X-rated CD ROM's
( ) Phone sex
( ) Audio (pornographic audio depictions)
( ) Live theater (lingerie shows, nude modeling, etc.)

Appendix C: Reasons for Consuming Internet Pornography

The following is a list of statements about your possible reasons for viewing Internet pornography. Please click on the response that best fits your experience according to the following key:

( ) agree strongly
( ) agree mildly
( ) neither agree nor disagree
( ) disagree mildly
( ) disagree strongly

Why do you view Internet pornography?

1. It helps make sex more interesting.
   ( ) agree strongly
   ( ) agree mildly
   ( ) neither agree nor disagree
   ( ) disagree mildly
   ( ) disagree strongly

2. Because my friends approve.
3. I enjoy seeing unusual positions and acts.
4. To help me relieve sexual tensions.
5. To get information about sex.
6. Turn my sexual partner and me on.
7. To masturbate.
8. My sexual partner and I just do.
9. Because I am bored.
10. Sex is boring and this makes it interesting.
11. For thrills.
12. My sexual partner wants me to.
13. Like to see bizarre sexual acts.
14. It is a social event.
15. To turn me on.
16. That is how I learned about sex.
17. Because I am curious.

Appendix D: Perception of In-Group/Out-Group Homogeneity Questionnaire

Please estimate the percentage of men who would perform each behavior or endorse each statement. DO NOT answer these based on how you feel about these statements. Answer them based on what percentage of OTHER MEN you think would agree with these statements or would perform each behavior.

1. I am not afraid to challenge a superior if I disagree with their statement.
2. I enjoy being in leadership positions.
3. If I get a chance to crowd in front of other people waiting in line, I'll do it.
4. I agree with the saying "it's not how you play the game, but whether you win or lose."
5. In my opinion, there is no place for meek people in the business world.
6. I tend to let my room get cluttered and messy, hoping someone else will clean it up.
7. If I am served bad food in a restaurant, I send it back.
8. When playing card or board games, I become extremely upset if I don't win.
9. Many groups, such as racial minorities, think of themselves as disadvantaged and expect too many special privileges.
10. I would rather watch "Star Wars" than "Gone with the Wind."
11. Sometimes I push very hard to get what I want, even when I know I'm wrong.
12. I would enjoy repairing my own automobile.
13. I prefer to live alone.
14. I like jobs that involve working out of doors.
15. Even when I need help, I dislike accepting it from other people.
16. I often seek out competitive challenges - whether intellectual or athletic.
17. I would prefer climbing in the mountains to relaxing at or wandering along the beach.
18. I often have the fantasy of being a race car driver.

Appendix E: Short Version of Attitudes Toward Women Scale

The statements listed below describe attitudes toward the role of women in society that different people have. There are no right or wrong answers - only opinions. Please indicate your opinion by clicking on either:

( ) agree strongly
( ) agree mildly
( ) neither agree nor disagree
( ) disagree mildly
( ) disagree strongly

1. Swearing and obscenity are more repulsive in the speech of a woman than of a man.
   ( ) agree strongly
   ( ) agree mildly
   ( ) neither agree nor disagree
   ( ) disagree mildly
   ( ) disagree strongly

2. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.
3. Both husband and wife should be allowed the same grounds for divorce.
4. Telling dirty jokes should be mostly a masculine prerogative.
5. Intoxication among women is worse than intoxication among men.
6. Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing dishes and doing the laundry
7. It is insulting to women to have the "obey" clause remain in the marriage service.
8. There should be a strict merit system in job appointment and promotion without regard to sex.
9. A woman should be as free as a man to propose marriage.
10. Women should worry less about their rights and more about becoming good wives and mothers.
11. Women earning as much as their dates should bear equality the expense when they go out together.
12. Women should assume their rightful place in business and all the professions along with men.
13. A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man.
14. Sons in a family should be given more encouragement to go to college than daughters.
15. It is ridiculous for a woman to run a construction company and for a man to stay home and wash clothes.
16. In general, the father should have greater authority than the mother in the bringing up of children.
17. Women should be encouraged not to become sexually intimate with anyone before marriage, even their fiancés.

18. The husband should not be favored by law over the wife in the disposal of family property or income.
19. Women should be concerned with their duties of childbearing and house tending, rather than with desires for professional and business careers.
20. The intellectual leadership of a community should be largely in the hands of men.
21. Economic and social freedom is worth far more to women than acceptance of the ideal of femininity which has been set up by men.
22. On the average, women should be regarded as less capable of contributing to economic production than are men.
23. There are many jobs in which men should be given preference over women in being hired or promoted.
24. Women should be given equal opportunity with men for apprenticeship in various trades.
25. The modern girl is entitled to the same freedom from regulation and control that is given modern boy.

Appendix F: Short Version of the Bem Sex Role Inventory

Below is a list of personality characteristics. Using these characteristics to describe yourself, please indicate how true of you each characteristic is. Please do not leave any characteristic unmarked. There are no right or wrong answers - only opinions. Please indicate your opinion by clicking on:

( ) never of almost never true
( ) usually not true
( ) sometimes by infrequently true
( ) occasionally true
( ) often true
( ) usually true
( ) always true

1. Defend my own beliefs
   ( ) never of almost never true
   ( ) usually not true
   ( ) sometimes by infrequently true
   ( ) occasionally true
   ( ) often true
   ( ) usually true
   ( ) always true

2. Independent
3. Assertive
4. Strong personality
5. Forceful
6. Have leadership abilities
7. Willing to take risks
8. Dominant
9. Willing to take a stand
10. Aggressive
11. Self-reliant
12. Athletic
13. Analytical
14. Make decisions easily
15. Self-sufficient
16. Individualistic
17. Masculine
18. Competitive
19. Ambitious
20. Act as a leader

Appendix G: Open Ended Question

Write down all the qualities that come to mind when you think of women:

Appendix H: Informed Consent Form

Individual Informed Consent Form for Research
University of Oklahoma, Norman

This survey is part of research being conducted under the auspices of the University of Oklahoma-Norman Campus. This document is intended to provide information so survey respondents can acknowledge informed consent for participation in a research project.

Title: Male Internet pornography consumers and their attitudes toward men and women
Principal investigator: Ryan Burns, Department of Communication
Faculty sponsor: Dr. Tara Emmers-Sommer, Department of Communication

This research is designed to gather the opinions of individuals who habitually view Internet pornography.

Be advised that you are not required to answer any question that could incriminate you and any information given regarding child abuse must be reported by the researcher. As with all Internet activities your confidentiality can not be guaranteed.

Please read the statements below:

1. The questions in this survey are related to adult oriented and/or sexually explicit material.
2. I do not find images of nude adults, adults engaged in sex acts, or other sexual material to be offensive or objectionable.
3. I am 18 years of age or older.
4. I understand the standards and laws related to downloading the adult material, and am solely responsible for my actions.
5. My participation in this study is entirely voluntary. Refusal to participate will involve no penalty.
6. I understand I am entitled to no benefits for participation.
7. I may terminate my participation at any time prior to the completion of this study without penalty by selecting the "EXIT" icon below. (Be advised that any information already relayed to researcher can not be retrieved.)
8. Any information I may give during my participation will be used for research purposes only. Responses will not be shared with persons who are not directly involved with this study.
9. All information I give will be kept confidential.
10. The researcher is not responsible if the security of the data set is compromised by hackers.
11. I understand that there are no foreseeable risks for participating in this study.

Appendix H: (continued)

12. If I have questions regarding my rights as a research participant. I can contact the Office of Research Administration at (405) 325-4757 or e-mail them at irb@ou.edu.
13. I know the investigator is available to answer any questions I may have regarding this research study. If I have any questions, I can reach the investigator (Ryan Burns) by phone at (405) 325-3003 ext. 21130, by e-mail (texan@ou.edu), or by contacting the Department of Communication, 101 Burton Hall, University of Oklahoma, Norman, OK, 73019.

"I understand that by clicking on the icon below that I am agreeing to participation."
(proceed icon)

"I do not wish to participate."
(exit icon)

Appendix I: Coding protocol and coding sheet for equating semantically identical descriptive terms

Introduction: To analyze the terms that men use to describe women, respondents in this research project were asked to generate spontaneous descriptions of women. The following is the complete list of all terms generated by respondents.

Instructions: Combine terms when they have the same meaning, when terms are directly connected to each other, when they are interchangeable, and when the interpretation of the meaning of the terms is the same.

acquaintance
active
affectionate
aggressive
alluring
ambitious
ambivalent
amusing
analytic
analytical
angelic
angry
annoying
appearance
argumentative
arrogant
artistic
assertive
athletic
attentive
attractive
attractiveness
availability
bashful
bawdy
beautiful
beauty
belief-driven
bewildering
big-breasted
bitchy
bitter
blonde
boring
bossy
brains
brash
breast size
brilliant
bum
calculating
calm
candid
capable
care-takers
careful
caregiver
caring
catty
challenging
changeable
charm
cheap
chest
childbearing
child-carriers
childish
childlike
children
class
cleanliness
clever
clothing
cold
collaborative
collegial
comfortable
comforting
comforting
communication
communicative
companionable
companions
companionship
compassion
compassionate
compelling
competent
competitive
complainers
complaining
complex
complimentary
conceited
confidant
confidant
confident
conniving
conservative
considerate
consistent
constructive
conversation
cooperative
co-worker
coy
cozy
creative
critical
cuddly
cunning
curious
curvaceous
curvy
cute
deceitful
decent
deceptive
decorative
dedicated
deep
delicate
delicious
demanding
dependable
dependant
dependent
designers
desirable
desired
detail
detail oriented
determination
determined
devious
different
different view point
difficult
difficult
diplomatic
disciplined
diverse
dominant
dominating
dumb
easy-going
economical
egotistical
emotional

Appendix I (continued)

emotionally-based
emotive
empathetic
energy
engaging
enigmatic
enjoyable
enthralling
enticing
enveloping
envious
equal
equals
erotic
erratic
essential
ethic
expressive
eyes
faithful
family glue
family-minded
fascinating
fashionable
fast-learners
fearless
feeling
feminine
femininity
fickle
figure
firm
flexible
forceful
formidable
forthright
friend
friendly
fun
funny
games-player
generous
genitals
genteel
gentle
gentleness
gentler
goddesses
good communicators
good conversationalist
good listeners
good looking
gossipy
grace
graceful
greedy
group oriented
guardian
guile
hair
hard
hardheaded
hardworking
helpful
helpless
high maintenance.
hips
holistic
homemaker
honest
honesty
Honor
horny
hostile
hot
huggable
humor
humorous
hungry
idealistic
ignorant
important
impossible
impulsive
incompetent
inconsistent
Indecisive
independent
indirect
individual
initiators
inscrutable
insecure
insightful
inspiration
inspiring
intellectual
intelligence
Intelligent
interesting
intimacy
intoxicating
intriguing
intuitive
in-tune
irrational
jealous
jealousy
kind
kindly
knowledgeable
lazy
leader
leaders
leadership
leading
legs
less aggressive
less analytical
less assertive
level headed
liars
life
life-giving
lips
logical
long hair
longsuffering
love
lovely
lover
loving
lower aspirations
loyal
loyalty
lustful
mammalian
manipulating
manipulative
master
maternal
matriarchal
mature
mental
mom
moody
more emotional
mother
motherhood
mothering
motherly
mothers
motivated
multitasking
musical
mysterious
nagging
natural
natural
necessary
necessary
needy
networking
nice
nice body
nice smell
non-aggressive

Appendix I: (continued)

non-aggressiveness
non-analytical
non-cooperative
nurture
nurturing
obeying
obsessive
obtuse
open minded
opinionated
oppressed
organized
oriented
outgoing
outspoken
parenting
partner
passionate
passive-aggressive
patient
patient
peace makers
perception
perceptive
perfume
persevering
personality
petite
petty
picky
pig-headed
play
Pleasant
pleasing
pleasure
poise
polite
powerful
practical
pragmatic
pregnant
pretentious
pretty
prideful
productive
providing
prudence
pure
purity
quick-witted
realistic
receptive
relaxing
reliable
resentful
resilience
resilient
resourceful
respect
responsible
ridiculing
romantic
round
safe
sarcastic
scared
scary
scent
secretive
seducing
seductive
self dependent
self reliant
self-centered
self-indulgent
selfish
self-pitying
self-reliant
self-sufficient
sensitive
sensual
sensuous
sentimental
sex
sexiness
sexual
sexuality
sexually
sexy
sharing
sharp
short
slave
slut
slutty
sly
small
small-breasted
smart
smell
smooth
sociable
social
soft
softer
softness
sophisticated
soulmate
spiritual
spouse
stable
stamina
stereotyped
stimulating
straight-forward
strange
strength
strong
strong willed
strong-minded
stupid
submissive
supple
supportive
sweet
sweetness
sympathy
talented
talkative
tasty
teachers
tease
tedious
tenacious
tender
tenderness
thinkers
thinking
thorough
thoughtful
thoughtfulness
timid
touchy-feely
traditional
trapped
trite
true
trustful
trusting
trustworthy
truthful
two-faced
ugly
unconfident
underestimated
underrated
understanding
unfair
unfairly
unfeeling
unfree
unimaginative
unpleasant
unpredictable
unstable
unsure
untrusting
unusual
users
vaginal

Appendix I: (continued)

varied
vengeful
verbal
versatile
vibrant
vindictive
voice
voluptuous
wanting
warm
warmth
weak
whiners
whiny
wife
willed
wise
wit
witty
wonderful
work
working
worldly
worthy
yum
yummy

Appendix J: Final list of the 190 attributes and the number of times the term was reported by respondents

Attribute	N
affectionate	5
aggressive	5
alluring	2
ambiguous	2
ambitious	9
analytic	8
angry	2
arrogant	2
artistic	3
assertive	6
athletic	4
attentive	2
attractive	16
beautiful	60
bitch	7
bitter	2
breasts	3
calculating	2
calm	2
capable	10
careful	2
caring	67
charm	5
cheap	2
childbearing	2
childish	3
clever	6
comfortable	3
comforting	2
communication	6
companions	6
compassion	16
competent	3
competitive	6
complaining	3
confidant	3
confusing	4
conniving	2
constructive	2
cooperative	2
creative	2
cuddly	3

Appendix J: (continued)

curvaceous	3
cute	2
deceitful	6
dependable	4
dependant	3
desirable	8
detail	2
determination	2
devious	4
difficult	2
dominant	3
emotional	31
empathetic	3
equal	4
expressive	2
eyes	2
family	2
fashionable	2
fearful	2
feeling	2
feminine	21
fickle	2
forceful	2
friend	8
fun	10
generous	2
gentle	19
grace	8
group oriented	2
guile	2
hard	3
hardworking	3
honest	5
horny	2
humor	10
ignorant	2
impulsive	3
inconsistent	4
indecisive	4
independent	20
individual	2
inscrutable	2
insecure	4
inspiration	2

Appendix J: (continued)

intellect	54
interesting	6
intriguing	2
intuitive	8
irrational	2
jealous	4
kind	11
lazy	2
leader	4
legs	2
less aggressive	2
life-giving	2
loving	35
loyal	3
manipulating	13
mental	2
moody	5
mother	22
multitasking	2
mysterious	10
nagging	2
natural	2
necessary	2
nice	12
nurturing	3
obsessive	2
opinionated	2
organized	3
partner	3
passionate	2
patience	6
perceptive	3
petty	2
pleasant	6
poise	2
polite	2
powerful	10
pragmatic	2
pretty	10
protective	3
pure	2
relaxing	2
reliable	7
resilience	2

Appendix J: (continued)

resourceful	2
respect	2
responsible	2
scared	2
secretive	2
seducing	2
selfish	3
sensitive	17
sensual	8
sentimental	2
sex	70
sharing	2
short	2
slut	3
sly	2
smart	24
smell	2
smooth	4
sociable	12
soft	37
spiritual	3
strange	2
strength	45
stupid	2
submissive	3
supportive	5
sweet	9
sympathetic	3
talkative	7
tasty	2
teacher	2
tedious	2
tender	6
thinkers	2
thoughtful	6
trustful	2
trustworthy	5
ugly	2
underestimated	2
understanding	5
unfair	2
unfeeling	3
unpredictable	4
users	2

Appendix J: (continued)

vain	3
valuable	2
vengeful	2
voice	2
voluptuous	4
warm	14
weak	4
whiners	4
willful	3
wise	2
wit	3
work	2
yummy	2

Appendix K: Code book for determining the how "sexual", "feminine", "masculine", "positive" and "negative" each term is

Terms Men Use to Describe Women

Instructions: These instructions accompany the Microsoft Excel file you were given by the researcher with 190 terms listed alphabetically in the first column.

You are to numerically indicate in the second column where each term fits along an "unrelated to sex" to "very related to sex" 7-point continuum (1 = unrelated to sex or sexuality, 7 = very related to sexuality). A "sexual" term is a word that relates to sex or sexuality.

unrelated to sex	1	2	3	4	5	6	7	related to sex

You are to numerically indicate in the third column where each term fits along a "very feminine" to "very masculine" 7-point continuum (1 = very masculine, 7 = very feminine). "Feminine" and "masculine" terms are words that are stereotypically used to describe women and men. Apply a simplified and standardized conception or image of men and women. For the purpose of this study, please view the feminine/masculine dichotomy as a conventional, formulaic, and oversimplified conception, opinion, and image of women and men.

very masculine	1	2	3	4	5	6	7	very feminine

You are to numerically indicate in the fourth column where each term fit along a "very positive" to "very negative" 7-point continuum. A "positive" term is one that displays approval, has a favorable tone, and emphasizes what is good and affirmative. A "negative" term is one that is highly critical of another and lacks all positive, affirmative, desirable, or encouraging features.

very negative	1	2	3	4	5	6	7	very positve

Appendix L: Final list of the 190 attributes and the average sexuality, gender and evaluative score for each term

Descriptive term	average sexuality	average gender	average evaluative
affectionate	6	6	7
aggressive	4	1	6
alluring	6	7	7
ambiguous	1	4	2
ambitious	4	1	7
analytic	1	1	4
angry	1	4	1
arrogant	1	4	1
artistic	1	4.5	4
assertive	4	1	6
athletic	1.5	1	7
attentive	1	4	7
attractive	6	7	7
beautiful	5	6	6
bitch	7	7	2
bitter	1	5	1.5
breasts	6.5	7	1.5
calculating	1	5.5	4
calm	1	4.5	5
capable	2	4	6
careful	1	4.5	5
caring	1	5	6
charm	2	5.5	6.5
cheap	5	4	1
childbearing	5.5	7	4
childish	1	5	1
clever	1	4	7
comfortable	1	4	4
comforting	2	7	6
communication	1	4	4
companions	3	5	4
compassion	1.5	6	7
competent	1	4	4
competitive	1.5	1	6
complaining	1	5.5	4.5
confidant	1	4	6
confusing	1	6	1.5
conniving	1.5	7	1
constructive	2	4	4
cooperative	2.5	4	6
creative	2	4	7

Appendix L: (continued)

cuddly	6	6.5	7
cunning	2	4.5	3.5
curvaceous	7	7	6
cute	6	6	7
deceitful	1	6	1
dependable	1	4	6
dependant	1	6	2
desirable	6	7	7
detail	1	4	4
determination	1	4	7
devious	1	4.5	1
difficult	1	4	1
dominant	1	2.5	6
emotional	3	6	4
empathetic	2	4	6
equal	1	4.5	7
expressive	3	4	4
eyes	6	6	4
family	5	7	4
fashionable	2	7	6
fearful	1	4	2.5
feeling	1	7	6
feminine	6	7	4
fickle	6.5	7	3.5
forceful	2	4	5.5
friend	3	4	7
fun	3	4	7
generous	2	6	7
gentle	2	5	6
grace	1.5	6	6.5
group oriented	1	4	4
guile	1	4	4
hard	1	4	4
hardworking	2	2	6.5
honest	1.5	5.5	7
horny	6.5	7	1.5
humor	3	4	6
ignorant	1	4	1.5
impulsive	1	5.5	4
inconsistent	1	5	1
indecisive	2	7	1
independent	1	4	6.5
individual	1	4	4.5
inscrutable	1	4	4.5

Appendix L: (continued)

insecure	2.5	5	1
inspiration	1	4	7
intellect	1	3.5	7
interesting	1.5	2	7
intriguing	1	6	7
intuitive	1	7	7
irrational	1	4	1
jealous	2	6.5	1
kind	1	5	7
lazy	1	4	1
leader	1	1	7
legs	6	6.5	4
less aggressive	1	6.5	2
life-giving	6	7	7
loving	5	6	7
loyal	1	4	7
manipulating	1	4	1
mental	1	4	1
moody	1	6	1.5
mother	2	7	7
multitasking	1	4	4
mysterious	1.5	4	4.5
nagging	2	6	1
natural	2	4	4.5
necessary	2.5	4	4.5
nice	1	4	7
nurturing	1	7	7
obsessive	2	4	1.5
opinionated	1.5	6	4
organized	1	2	7
partner	7	7	4
passionate	6	6.5	6
patience	1	4	6
perceptive	1	7	6
petty	1	6.5	1
pleasant	2.5	4	6.5
poise	1	6.5	7
polite	1	6	7
powerful	3	1	6
pragmatic	1	4	7
pretty	6	6.5	7
protective	1	6	6
pure	1	7	6.5
relaxing	1	4	7

Appendix L: (continued)

reliable	1	5	7
resilience	1	4	7
resourceful	1	1	7
respect	1	2	7
responsible	1	2	7
scared	1	4	1
secretive	1	4	1.5
seducing	7	7	4
selfish	2	6	1.5
sensitive	3	6	6
sensual	7	7	6
sentimental	2	6	4
sex	7	5	3
sharing	1	6	7
short	2	6	1
slut	7	7	1
sly	1	4	1
smart	1	3	6.5
smell	6	4	4
smooth	6	7	7
sociable	1	4	4
soft	5	7	6
spiritual	1	4	7
strange	1	4	1
strength	2	1	7
stupid	1	4	1
submissive	6.5	6	1
supportive	1	6.5	7
sweet	5	6	7
sympathetic	1	5	6
talkative	1	7	4
tasty	7	7	7
teacher	1	6	4
tedious	1	4	2
tender	6	5	6.5
thinkers	1	4	6
thoughtful	1	4.5	7
trustful	1	4	7
trustworthy	1	4	7
ugly	6	4	1
underestimated	1	7	7
understanding	1.5	4	7
unfair	1	4	1
unfeeling	1	3	1

Appendix L: (continued)

unpredictable	1	4.5	1.5
users	3	6	1
vain	1	7	1
valuable	2	6	7
vengeful	1	6	1
voice	2	6	4
voluptuous	7	7	7
warm	3.5	6	7
weak	1	6	1
whiners	2	6.5	1
willful	1	4	4
wise	1	4	7
wit	1	4	7
work	1	1	7
yummy	7	7	6.5