FEMALE IMAGES IN VIDEO GAMES AND THE EFFECT

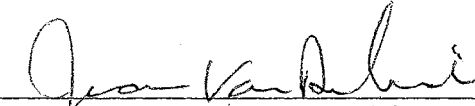OF BODY IMAGE ON COLLEGE AGE WOMEN

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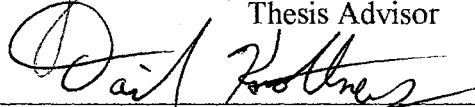Stillwater, Oklahoma
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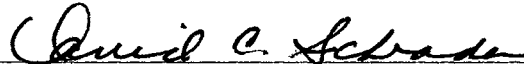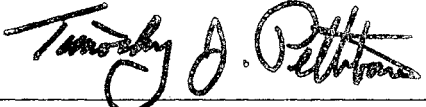
OF BODY IMAGE ON COLLEGE AGE WOMEN

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Chapter I

Introduction

Background

Socialization, according to Kramer (1991) is defined as "the process of learning

the rules of the social group or culture to which we belong or hope to belong and of

learning how to define ourselves and others within that setting" (73). There are external

pressures to conform to the norms of the social group that we interact in. Society dictates

what being a woman and a man is, thus representing gender roles. A role is "the set of

responsibilities, privileges, and obligations that are connected to a particular social

position, or status" (Kramer 1991:73). For example, in western society a woman is

expected to take care of children. This is her gender role that has been set up by society.

Socialization occurs through many channels in society. It is through the mass media that

society receives information about who we are and who we should strive to be.

Body image as it relates to the mass media has been researched extensively. Video

games are a new form of media that are drawing attention to sociologists who are

concerned with body image. Instead of live models that project an ideal body type, there

are virtual models that project an even more unrealistic body type. This is of interest to

sociologists because body image is maintained mostly through the mass media (Gamman

& Marshment 1989).

Women in the mass media has been a thoroughly researched subject in many

fields. Feminist theory is often used in examining female portrayals in the mass media.

Studies include women in commercials (Allan & Coltrane 1996), advertisements (Lafky,

et al. 1996), and television (Steenland 1995). Often times female portrayals are looked at

through certain artifacts such as *Playboy* (Bogaert et al. 1993; Scott & Cuvelier, 1987),

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classic animated Disney films (Seyler 1998), and comic strips (Williams 1986). Through examination of these types of media, researchers are able to understand the content and the socialization that occurs on women through the mass media on women in society. Thus far there have been many efforts to examine women in the mass media and the effects women have on society. However, there is a new wave of media (the video game) that deserves attention in the 21st century. It is a new channel of media that has not been explored in much depth in relation to female portrayals or in relation to social and rhetorical aspects.

One of the most popular influences in the mass media today is the video game. Video games have become a major part of American culture. Boys, girls, and adults are playing video games for entertainment. In today's society there are many outlets in which we communicate or be persuaded by, including television, radio, internet, e-mail, and interactive games, to name a few. Video games are at the top of the list for most popular toys. These video games are not the PacMans and Froggers of the past; rather they are a new wave of technology and visual effects (Spector 1999).

With the increase in video game technology there is now the capability to virtually bring the characters to life. Some of the characters and scenes in today's video games are violent and sexy. Clearly, not even Miss PacMan was thought of in such a manner. Just as there are ratings on musical albums, there are ratings on video games as well. There are even some games that now require a person to be over the age of 18 to play. This is significant considering that video games are sold in toy stores. Adults are playing just as much as children because there are now mature (18 and up) video games.

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Significance of the Study

Video games have been a part of popular culture since their inception and remain popular. With the new wave of video games there arises adventure games with heroes and heroines. If the game becomes popular enough these heroes and heroines become icons. Within popular culture we not only have 'real' icons that we adore and look up to, but now we have 'virtual icons' as well. As technology increases society begins a new channel of socialization that delves into the cyber world. This is becoming more and more important to sociologists because this technology is widespread (Becker 2000). Questions arise about the influence and effects of these new wave video games on people in society. Are there new role models to be found in these video games, be they positive or negative? Is there only a fine line between reality and virtual reality for those who play video games? Finally, what makes one video game more popular than another does, and what are the desirable characteristics that players are looking for?

The current research is concerned with all of these questions, however role models are of special interest. More specifically, the current study is concerned with the effects that video game images have on women in society. The representations of women in new video games are important because women are often the main characters in them. There are many new video games that have women as the primary character, including Tomb Raider, Parasite Eve, Dino Crisis, and many more. Studies that examine and attempt to explain the effects of video games will assist in the understanding of this new area of popular culture.

One game in particular, Tomb Raider, has many sequels and stars Lara Croft. Tomb Raider has captured many people's attention because of its popularity and its rated level of 'for teens'. Not only are there sequels to the game, but there are web sites and a

movie that has been made based on the game. This game is adventurous in nature and is one of the only new wave games that have a female heroine. Tomb Raider has many followers and there are thousands of web sites in which people chat about the game, show pictures, videos, and gives cheats and hints about how to win them (www.gamespot.com). There was a popular movie that came out in the summer of 2001 entitled Tomb Raider that was inspired by the large amount of followers.

Two other games that include female heroines are Parasite Eve and Dead or Alive. These games are not as popular as Tomb Raider, but they do grab the attention of many video game players and follow the same genre. Tomb Raider, Parasite Eve, and Dead or Alive will all be used in this study. While each of these games were included in this study, there was not as much information available on them as there is for Tomb Raider. Thus this study focused on a new line of inquiry in video games as popular culture/media and the effects they have on women's images of their own bodies.

Purpose and Objectives of the Study

Researchers including sociologists, psychologists, and communication theorists have analyzed many different phenomena contained in the mass media and popular culture, however there is not much information about the new wave of video games. The purpose of this research was to examine one particular type of video game in the hopes of uncovering some of the effects video games have on women in society. There are two types of games that are particularly popular: sports and adventures. First, sports games show a player who is a member of a sporting team/individual sport. Second, adventure games feature the player as the main character and must complete some type of task. The

latter type of games is the subject of inquiry for this research, more specifically the games in which the main character is a woman.

While adventure games containing a female heroine are popular among all ages, they are extremely popular among college age students (ISDA 1999). Therefore, regardless of whether the players of these types of games are men or women, the images of these video games are wide spread among the college student population. With this in mind, it could be said that almost all college age women are either directly or indirectly exposed to these types of games. There are a number of outlets in which women are exposed to these games, including: playing the games themselves, watching someone they know play the games, knowing someone who plays the games, or even merely seeing advertisements for the games. It is through these different outlets that women are directly effected by the new age video games.

Through two social psychological experiments utilizing feminist theory I examine female heroines in order to better understand how women feel about their bodies and their selves as a direct effect of the portrayals in video games. The first experiment was exploratory in nature and did not yield significant results. Therefore, a second exploratory experiment was done. Tomb Raider, Parasite Eve, and Dead or Alive were excellent starting points in understanding the influence of video games because of their immense popularity. They are also some of the few games that star female heroines.

Some studies examine the video games themselves (Gottschalk 1995), while others emphasize who plays video games (Kaplan 1982). However, there has not been much research on the influences of video games on gender socialization, women in particular. Also, most content analyses have been directed on violence within the video games (Anderson & Dill 2000; Ballard & Lineberger 1999). Third, most of the studies

that have been done concentrate on older rather than newer games. This research is dedicated to filling in some of the gaps in the literature about the effects of video games on women. This research looked not only at female portrayals in video games, but it examined and analyzed how a specific medium effects and influences society, women in particular. More specifically, this research examined some of the most popular icons in popular culture today.

Also, visual sociology has become more popular because it is claimed that there is not enough emphasis on pictures in the standard journal articles. Becker writes, "The social sciences have lagged behind the natural sciences in the use of visual materials. For a long time, sociologists viewed visual imagery as the mark of a reformist perspective that, they were taught was not 'real science'" (Becker 2000:334). Simply put, there are new ways of analyzing and presenting data that are not being utilized such as photographs, charts, hyperlinks, and even interactive CD-ROMs. This study is a contribution to visual sociology by including pictures and web sites. This allows readers to visually understand the analysis rather than merely reading about it. It is also impossible to appreciate video games of today without a visual component. Visual sociology allows for the depiction of characters in video games as an essential part of this research.

This study begins with a theoretical framework in which feminist theory will be examined in respect to gender differences and the body.

General Limitations

One limitation of this study is that there is limited scholarly research accessible because this is a new area of study. I supplement the available data with data I collected

from Internet sites, magazines, and newspaper articles. Even though this seems somewhat unorthodox, video games are a subject of popular culture and information can only be found in popular culture outlets. There is however an abundance of research done on female portrayals in the mass media and on video games in general. However, some of the research on video games in social journals is somewhat out of date. This is because there has been a lapse in research on this subject since the inception of the new wave video games.

A second limitation of this study is that it only encompasses women who are in college. Therefore findings cannot be generalized across all age groups. There may be differences of the effect that portrayals of women in video games have between age groups. However, the current study examines one of the most influential groups in regards to video game exposure (ISDA 1999). A possible follow up study could include studying either younger or older women.

A third limitation is that this study is exploratory in nature and therefore there is a small sample size used for both of the experiments. In order to delve into this new area of study, only a small portion of the population is studied. College-age students are readily available and are also one of the most influenced by video games (ISDA 1999).

Chapter II

Theoretical Framework

This chapter discusses the most recent literature on feminist theory and gender roles, especially the relationships between feminist theory and the body. The mass media and video games as a new channel of mass media are also discussed. In order to understand how the mass media effects women, it is important to understand why men and women react differently to situations in society. Secondly, it is important to look at the gendered conceptions of the body in general as well as the body as social in order to understand how the body cannot be separated from the social self. The effects of the body on the self are crucial in the understanding of body image and self-esteem. Thirdly, it is important to give background on how the mass media portrays women through its many mediums. Lastly, this study introduces video games.

Socialization and the Self

Socialization is typically defined as "the ways in which the individual learns to fit into society, and, to a lesser degree, how this process changes not only the individual but society as well" (Bush and Simmons 1981:135). Typically, sociologists either view socialization from a macrolevel or a microlevel. For the purposes of this research, socialization will be looked at on a microlevel. As was stated in chapter 1, socialization involves the process of learning the rules of the social group or culture to which we belong or hope to belong and of learning how to define others and ourselves within that setting (Kramer 1991). It is through socialization that individuals begin to act and react to their social world.

The construction of reality and the self is important to understand how women in society define their body and in effect a part of their self. Mead defines reality as

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emergent symbolic meaning and constructions of socially mediated objects. "Symbolization constitutes objects not constituted before, objects which would not exist for the context of social relationships wherein symbolization occurs" (Mead 1934:78). Reality for Mead is made up of symbols that we receive and give. In other words, symbolization must occur for there to be a reality. What does something mean if it is true? The individual is the self and society is the other. The meaning of the self arises in symbolic interactionism, thus becoming reality. The mind and knowing are passive until symbols are passed to others which in turn becomes reality.

In *Mind, Self, and Society*, Mead discusses the idea of the "I" and the "me" as parts of the self. I believe these are essential in determining what Mead feels is reality. "If one determines what his position is in society and feels himself as having a certain function and privilege, these are all defined with reference to an "I," but the "I" is not a "me" and cannot become a "me" (Mead 1934:173). What Mead is implying by this is that the "I" can react to the "me," but it cannot be transformed in to the "me." Mead views society as created first and the self as a reaction to society. The "me" is what society dictates as reality and we act accordingly. However, the "I" is the impulsive part of us that we claim is the "real me." Mead dispels the notion that there is a bad "I" and a good "me" and vice versa, but rather that both the "I" and the "me" make up our self.

The current research is an attempt to reintroduce the body back into the self. It is the perpetuation of the body through various channels in society that enables the self to react. The body is not defined as biological, but rather as a part of the self. Furthermore, society dictates what type of a body should be part of the self. What is of concern here is the "me" that has been conditioned to be attracted to and develop a certain type of body.

Feminist Theory: Gender Roles

"One is not born, but rather becomes, a woman. No biological, psychological, or economic fate determines the figure that the human female presents in society; it is civilization as a whole that produces this creature, intermediate between male and eunuch, which is described as feminine" (de Beauvoir 1949). Sociologists argue that gender roles are learned through socialization and institutions. The roles that are to be played by adults are gained through socialization that predominately occurs during childhood. It is through the learning of gender roles that women experience situations differently from men. This study examines self perception of body image and its relationships to video games. For the purposes of this study I looked more closely at socialization and institutional causes of gender differences as a major conjecture of feminist theory.

Within socialization there are two definitions that are the building blocks of gender differences. Social groups can be defined as, "collections of individuals who share ways of perceiving, communicating, and interpreting actions" (Wood 1998:289). Social locations are "individuals' places within particular social communities that influence how they think and act, as well as how they perceive others, situations, and events" (Wood 1998:289). Socialization permits two gender groups, male and female, in which they share common views on who they are and how to look upon others. An example of this notion is the boy who learns to be strong and play sports in contrast with the girl who learns to love and nurture her babydoll.

Institution on the other hand is defined as the roles that women come to play in various institutional settings. Institution plays the role of a type of regulator in society. Women are often expected to take care of their children when the appropriate time

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comes. One might understand better that a woman who is placed in the private home might view situations differently than a working man, based on their experiences.

Again, social institutions can play a large part in gender differences. There are different expectations of women and men as far as family, intimate relationships, reproduction, and work. Women are placed in charge of the family sphere (including reproduction and care for children) as well as possibly working in the public sphere. This notion of a woman's place in society is adhered to. It is for this reason social institutions can influence how we perceive our gender differences (Kramer 1991). It is not difficult to understand from this perspective how it is possible for institutions to have such a profound effect on how, according to our gender, we interpret situations in our life.

Sontag (1997) claims that women in society are always changing their roles throughout their lives. He argues, "gender roles vary radically and change over time, which makes us suspect there can be no universal description where gender is concerned—and this is precisely what many women have been arguing for" (93). What this implies is that even though there are gender differences, they are not universal in nature. One woman in modern society may be socialized to be a lawyer in the public sphere and another might be socialized to stay in the private sphere in order to take care of her family. Conversely, a man might be socialized to have either a steady public job or a stay at home business in order to take care of his family as well as work. In today's society there are so many different roles that both men and women play that it is difficult to distinguish gender differences. However, there is an implicit norm where the body is concerned. Even though there have been changes to the expected gender roles, views about the body have not changed. In fact, I argue that in today's society these views have become even more detrimental to women than they have in the past.

A Feminist Sociology of the Body

Dorothy Smith (1990) argues traditional sociology does not allow for real-life experience of women in its methodologies and theories. Smith claims, "We know and use practices of thinking and inquiring sociologically that sever our knowledge of society from the society we know as we live and practice it" (1990:28).

The current research is in large part based on Smith's (1990) notion that a feminist sociology must emerge in order to encompass all people's experiences and perspectives. In accordance with a feminist sociology, this research looks more closely at women's experiences and perspectives with the mass media, specifically with video games. Also of importance is that a feminist sociology examines current ideology and knowledge (Smith 1990). This is important to this research because feminist theory does challenge and attempt to redefine the situation of women in society. More specifically, feminist theory in relation to the body attempts to understand women's physique in reference to culture, various institutions, and the mass media to name a few.

Morgan & Scott (1993) and Witz (2000) question why there was an absence of a sociology of the body until recently. Of course feminist theory by its nature has always examined the body, but sociology has passed over it somewhat in the past. Sociology as a discipline established its credibility by claiming that it was not biological in nature. Instead, it was concerned with the social and the cultural. The body, at first glance appears to fall under the biological category (Morgan & Scott 1993). The body does, of course, have biological aspects, but there is much more to the human body besides its working parts.

Turner's, *The Body and Society* (1984) was the breakthrough work from body as biological to body as the social. Turner insisted that the body should be the focal point in sociological analysis. In the past sociologists were content to separate the body from anything social, however the body became interesting to sociologists because of Turner's link between the body and society. It was his work that spawned a new research program on the sociology of the body. This is the springboard to the social construction of the body.

Defining the Body and the Self

"Breasts, thighs, lips, eyes, heart, belly, navel, hair, penis, nipples, anus, brain, guts, and balls" (Synnott 1993:1). These are all body parts, but they mean so much more. The body is composed of many physical components that work together to keep us alive, enable us to be mobile, allow us to have intercourse, and permit us to think. However, bodies are much more than just physical parts, they are socially constructed. The body also represents the self. The body is a social category that has many different meanings in different contexts. The age, gender, and color of bodies represent many different meanings to people. The context in which a body is presented also changes from culture to culture, population to population, or society to society. Individuals gain a social identity based on their bodies, it is a focal point of their self-concept (Synnott 1993).

Bodies represent a large part of an individual's self (Synnott 1993). Examples of this can be seen in those who diet or exercise in order to change or alter their bodies. They are in effect trying to change their self both physically and socially. In other words, depending on their culture, it might be perceived more attractive to be thin and women currently do not see themselves as thin. Women will then attempt to change how they view themselves as well as how others view them. Thus how people define their bodies

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and their selves is of interest to sociologists because it is a social construction. More specifically, how women define their bodies and how women's bodies are perceived by society is of the most importance to feminist theory and the current research.

Body Image and Self-esteem

Body image and self-esteem have been extensively studied in regards to both men and women. Franzoi (2001) did a study on benevolent sexist beliefs and women's body self-esteem. The results of the study concluded that women who held many benevolent sexist beliefs used more cosmetics when preparing for romantic dates. The women studied also had a positive attitude toward sexual attractiveness that can be altered through the use of cosmetics.

Diron & Harper (2001) also investigated body image among mothers and daughters. This study examined the maternal pressures on daughters in reference to body image. The results of this study indicated that college-age daughters felt that there was pressure from their mothers to eat better, exercise more, and have an attractive appearance. The conclusion was that mothers play a pivotal role in the body image of young women.

The following are two studies that examined adolescents and body image. Pesa et al. (2000) tested whether overweight adolescents differed from normal and underweight adolescents with respect to depression, self-esteem, trouble in school, school connectedness, family connectedness, sense of community, autonomy, protective factors, and grades. The results indicated that overweight adolescents suffer from low self-esteem due to their body image. Another study conducted by Adams et al. (2000) looked at 4th and 7th graders in regards to body size, weight concerns, and weight control practices

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based on grade, race, socioeconomic status, and gender. The results indicated that early in a child's social development, grade level, gender, race, and SES are influential in the perception of ideal adult body size and the opposing gender adult body size.

The following two studies examined body image in regards to college students. Hoyt & Kogan (2001) studied college-age men and women in regards to relationship satisfaction and body image. The results indicated that women who were overweight and underweight were more dissatisfied with their appearance than men were. Men were more dissatisfied with their relationships and sex life than were women. Forbes et al. (2001) studied college-age men and women in regards to body dissatisfaction. College students were classified as masculine, feminine, androgynous, or undifferentiated gender type. Results indicated that women who were classified as feminine or undifferentiated were more dissatisfied with their bodies than the women who were classified as masculine or androgynous. Similar results were also found for men. Regardless of gender type, women had thin body ideals and greatly overestimated male preferences for slender female bodies.

These types of studies are important to the current study because they examine how people feel about their body. Body image is seen as socially constructed in these studies and is therefore created by society. More importantly these studies conclude that there is dissatisfaction among women in regards to self-esteem and body image. This dissatisfaction leads to eating disorders and other psychological detriments. The current study is based on the idea that the female body is under much scrutiny in society.

The Female Body in Society

Natalie Angier's *Woman, An Intimate Geography* (1999) dispels many commonly held myths about women and their bodies. Angier celebrates the female body by discussing its physiology but escapes the stigma of biological determinism. From a discussion of the female genitals to hormones to menopause she covers all the boundaries of a woman with science and medicine as her tools. Angier feels that women should celebrate their bodies and know that there are choices about what we do with and to our bodies. Angier (1999) affirms, "Ultimately, of course, every woman must decide for herself, from her clay of givens and takings, what has made her a woman" (xx). This is a great example of how women's bodies are a social issue and not just biology. Angier connects the biological with the social by dispelling common myths about the biology of women. At this point in defining the body it is important to converge to the biological and social aspects of woman.

One of the major aspects of the current research involves the measuring of body image. The female video game characters all have one thing in common: large breasts. In some cases they get larger with sequels. Thus it is important to define what breasts are and what they mean in society. Is it just in American society that there is this obsession of breasts or is it worldwide? Angier (1999) reports that the emphasis or rather obsession that is placed on breasts seems to be concentrated in the United States more so than any other society. In Asia and Africa breasts are not as sexualized. For example in Africa women can be seen topless sunbathing or washing clothes and there won't be a second glance (139). In the United States there is not an obsession with breasts per se, but rather with the eye-pleasing breast. We do not love the functions of the breast and the

nourishment that is found within it that feeds our babies, but rather the curvy, supple look of them. This is where Angier dispels a myth about women's breasts.

'Real' women have differently shaped breasts that come in many sizes. When we think about breasts we visualize perfect orbs preferably large, with upturned nipples and no imperfections. We associate sagging breasts with older women, which isn't accurate. Women of all ages can have sagging breasts and they can also have breasts that are not roundly shaped. Angier discusses the many different types of breasts: "I've seen breasts as varied as faces: breasts shaped like tubes, breasts shaped like tears, breasts that flop down, breasts that point up, breasts that are dominated by thick, dark nipples and areolae, breasts with nipples so small and pale they look airbrushed" (140). In the United States our fetish with perfect breasts is so extreme that women even alter their breasts through plastic surgery to achieve the ideal sexual appeal. The next major body part that needs to be addressed is the disproportion of the midsection and legs.

The female characters that are displayed in video games have unnaturally small waists and hips. Urla and Swedlund (2000) use Barbie as a model to discuss the prevailing popular culture. Urla and Swedlund discuss the dimensions of Barbie along side the African American Shani doll and the average female U.S. Army recruit. The findings are listed in the table below.

Table 1. Waist, hip, and thigh measurements of Barbie, Shani, and the average female U.S. Army recruit (Urla and Swedlund 2000:415)

	Waist	Hip circumference	Hip breadth	Thigh circumference
Barbie	20"	32.50"	11.6"	19.25"
Shani	20"	31.25"	11.0"	20.00"
Average female U.S. Army recruits	31"	38.10"	13.49"	22.85"

The most alarming statistic is that the waist of the average female U.S. Army recruits was over 10 inches larger than Barbie and Shani. Even more notable was that the Ken doll and African American Ken were measured against male U.S. Army recruits and there was a difference between all areas of no more than an inch (Urla & Swedlund 2000). The actual size of the Ken dolls is directly proportional to human males; the Barbie dolls are a distorted version of human females. "Barbie truly is the unattainable representation of an imaginary femaleness" (Urla and Swedlund 2000:417). Women's bodies are scrutinized under the public eye and the representation of body parts, not to mention the whole body in the media is unrealistic expectation for women to obtain. Female heroines in video games support this idea and even take the disproportion even further. The small waist ideal now has some women electing surgery to have ribs removed. With one or two less ribs it may be possible to obtain the Barbie waist.

Sexuality also causes many women to alter their bodies. Brook (1999) claims that we are living in a heterosexual economy that is continuing to be constrained by male desires. Eating disorders and plastic surgery are continuing to rise. "For some, it is evident that, as women gain more civil status, particularly in the workforce, cultural forces acting in the interest of masculinity will seek to cut them down to size again" (Brook 1999:66). Plastic surgery, which is usually used to reduce body size or increase bust size, is arguably determined by what men desire. On the other hand, eating disorders take on two different forms. The bulimic body, in which women binge and then purge, is very characteristic of a capitalist society. Women consume and then attempt to maintain the body ideal that has been set up by a heterosexual economy. The anorexic body, on the other hand, "would seem to be one of the most exemplary of docile bodies of our society in terms of exerting an inexorable will over recalcitrant flesh" (Brook 1999:66).

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Society does not praise her for attaining the male inspired ideal, instead she is considered to have a psychological disorder. Society perpetuates that women are fat, however when women, such as anorexics achieve the ideal body they are penalized (Brook 1999).

It can be seen that there is a contradiction about women's bodies in many different societies. There are many examples of different types of constraints throughout history that illustrate how society attempts to cut women's bodies down to size. For example, ancient foot binding was a cultural tradition followed by women in Neo-Confucian China. Women's feet were tightly wrapped to keep them small (Bernikow 1992). Some women were even crippled so that they could not walk properly. "For purposes of binding, 5 to 7 were the optimum years in a girl's physical, mental, and social maturation. Her prepubescent bones were still flexible" (Blake 2000:434). A five or seven year old girl is expected to crush the bones in her feet in order to honor her family and way of life.

In Western culture, the corset was popular throughout the 19th century. Middle class women were considered domestic, feminine, and there were clear lines drawn between male and female spheres of life. The corset allowed for a "sharp cultural contrast" between the male and female body (Bordo 1989:26, In Jaggar and Bordo). However, in order for women to achieve this desirable contrast they had to eat less food, not be as mobile, and constantly bind their waists smaller and smaller. Many women would actually die or become seriously ill from wearing them because of what the tightly fitting undergarment did to their internal organs.

The female body is at once aesthetically pleasing as well as useful. Useful, in terms of women being contained to their own sphere and not being able to perform activities outside of that sphere. Foucault (1978, 1979) discusses the useful body as well

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as issues regarding power and sexuality. The corset is an example of his notion of the useful body in accordance with the aesthetic norm. In other words, the aesthetic body and the useful body often run parallel and support one another.

Sexuality is another way the female body is portrayed in society, particularly in pornography. Pornography is one of the largest mediums that encompass how women are viewed in a heterosexual economy. Most pornography is developed and viewed by men. The form of media that is being utilized in this study, video games, could be seen as a more accepted form of pornography. Pornography has been defined in many ways; however, Andrea Dworkin and Catharine MacKinnon claim that,

> "Pornography is defined as the graphic, sexually explicit
> subordination of women whether in pictures or in words that also
> includes one or more of the following: women are presented
> dehumanized as sexual objects, things, or commodities; or women
> are presented as sexual objects who enjoy pain or humiliation; or
> women are presented as sexual objects who experience sexual
> pleasure in being raped; or women are presented as sexual objects
> tied up or cut up or mutilated or bruised or physically hurt; or
> women are presented in postures of sexual submission; or
> women's body parts are exhibited, such that women are reduced to
> those parts; or women are presented being penetrated by objects or
> animals; or women are presented in scenarios of degradation,
> injury, abasement, torture, shown as filthy or inferior, bleeding,
> bruised, or hurt in a context that makes these conditions sexual"
> (From Pornography: Private Right or Public Menace? 1998:94).

At the heart of pornography is the idea that women are seen as objects rather than human beings. Their bodies are usually in submissive positions and/or being degraded. This is also true for other forms of media. The current study utilizes slides of female video game characters in provocative and submissive positions. How women's bodies are portrayed across all media is subject to the male gaze and approval. It is at this point that the female body and women in the mass media converge.

Female Portrayals in the Mass Media and Popular Culture

Thievon (1992) suggests that, "critics claim that women have historically been portrayed in the majority of advertisements filling the mass media as playing the roles of either sex-objects or housewives" (1). The mass media is one of the main channels in society in which men and women are socialized towards their respective gender roles. Men and women transmit messages through society about their respective gender types. They also receive messages through society about who they should be and why they are different from the opposite sex. Society rules how they view themselves in terms of gender and behavior. The mass media is just one aspect of what feminist theory observes in our society.

This study is a contribution to feminist theory, media studies and socialization. First, I would like to discuss the mass media as a tool for socialization. Yes, family plays a large part in the socialization process, but the mass media is much more engaging in that all of society views the mass media together. In other words, each family has their own way of teaching, but the mass media teaches us all in the same way. There have been numerous studies in which women were looked at in reference to the mass media.

Boynton (1999) studied women's reactions to women's bodies as presented in sexually explicit magazines. Through focus groups the study revealed that the participants associated or dissociated themselves with the women in the magazines. Participants discussed their own sexuality, relationships and body image. In a similar study, Spitzer et al. (1999) compared body size in population versus body size in media. This study was a comparison over four decades (1950s to 1990s). Playboy centerfolds, Miss America Pageant winners, and Playgirl models were used for the body size in the

media. The results indicated that in the 1990s body size and shape of the average young adult became increasingly different from the ideal promoted in the media.

Honeycutt (1995) looked at how television talk shows affect how women see themselves and their bodies. 48 shows were analyzed to find five different weight representations including: disgusting, pathetic, bizarrely beautiful, transformed, and reflective. Results indicated that television talk shows reinforce a low body weight as well as what to do to correct a weight problem.

Hoover (1977) studied body size in reference to popular images of body shape. Results indicated that the fat body shape perpetuated in society affects how overweight people in society feel about their bodies. It is difficult for overweight people to have a positive self image because of the popular images of the fat body shape.

Ogle (1999) studied mother-daughter relationships in regards to the thin-ideal in the mass media. In-depth interviews were used in order to understand the reciprocal socialization process between adolescent girls and mothers. Results indicated that mothers and daughters did interact in regards to the thin-ideal in the mass media and their own bodies. These are just a few of the studies that have been done to uncover some of the effects of the mass media on women in society. The following sections address some of the specific areas within the mass media in reference to portrayals of women. These themes are: women as sexual objects, the perfectly shaped woman, mass media's effect on self-esteem and body image among women, cultural forces that influence gender roles.

Women as Sexual Objects

Zoonen claims that, "a core element of western patriarchal culture is the display of woman as spectacle to be looked at, subjected to the gaze of the (male) audience"

(1994:87). Through the idea that women are spectacles and gazed at by men is obviously nothing new, but most women are unaware that they are in a reserved position to look at men, but the opposite is true for men to look at women (Zoonen 1994).

Women are portrayed as sexual objects not only in pornography, which is sexual, but also in the supposedly non-sexual advertisements of drinks, tools and cars. However, these ads are highly sexualized. Women are seen draped over cars and wearing a bikini with a beer in hand. It is these types of advertisements that put women in the spotlight because they are usually the most popular commercials, and they are usually shown during prime time. Men will be more inclined to buy a product if the woman in the advertisement is sexy, thin, and preferably blonde (Zoonen 1994).

Another example is that women look at *Sports Illustrated* magazines and watch men look at the magazines and feel inadequate because they don't measure up to the perfect model. Although women tend to fall under a male gaze, it is interesting to look at how women view themselves as sexual objects. Walsh-Childers (1996),

> The cover of *Sports Illustrated*'s twentieth anniversary
> swimsuit issue, for instance, shows a deeply tanned Kathy
> Ireland wearing a canary yellow strapless bikini. She's
> seated near a tropical-looking pool, knees about shoulder-width
> apart, and her arms are crossed so that she's holding the top
> of each shin with her opposite-side hand. The effect is to create
> the maximum possible cleavage below the model's 'come hither'
> smile (82).

It is through this description that we may start to see that there is an immense emphasis placed on breasts, hips, and tan skin. Women feel that, in order to be sexy, they must have an hourglass shape and a bronze skin tone. For instance, even though tanning is very harmful to the skin women still go to tanning beds to get that deep dark glow. Women feel the need to be tan because they see the male gaze on bombshells in bikinis on the cover of Sports Illustrated (Walsh-Childers 1996).

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Allan and Coltrane reached a similar conclusion when they compared television commercials of the 1950's and 1980's. Their study showed that there has been a change in the images of men, but not women. Allan and Coltrane claim, "as sex objects and potential mates, women tend to be pictured as preoccupied with their physical beauty and attractiveness" (Allan and Coltrane 1996:187). It is through these types of sex object portrayals that women again fall under the male gaze. Allan and Coltrane argue that though there is a significant difference between the men of the 1950's and 1980's as far as their portrayals on commercials are concerned. Women remain as sexual objects throughout time.

Allan and Coltrane also stress the impact that mass media portrayals have on children as they learn their gender roles. Boys and girls will watch television and begin to learn what the stereotypical relationships and jobs are for men and women. They will then develop a sense of who they should attempt to become, which is reinforced of course by family as well (Allan and Coltrane 1996). Allan and Coltrane do a wonderful job of including the development of both boys' and girls' gender roles in our society.

The Perfectly Shaped Woman

Socialization about body size is achieved through the family and also through the mass media. Cash, Ancis, & Strachan (1997) claim that, "cultural forces influence body-image development in gender-contingent ways, such that women in our society possess more dysfunctional body-image attitudes than do men" (433). They studied college women to see if there was a relationship between gender attitudes and body-image attitudes. Their findings confirmed that women with conventional expectations and preferences about gender roles in male-female social relations were more invested in their

looks and, to a greater extent, had internalized societal standards for and maladaptive

assumptions about their physical appearance (Cash et al. 1997).

Coward also examined women's bodies as they are portrayed through mass

media. She claims,

> Somewhere along the line, most women know that the image is
> impossible, and corresponds to the wishes of our culture rather
> than being actually attainable. We remain trapped by the image,
> though, because our culture generates such a violent dislike of fat,
> fragmenting our bodies into separate areas, each of them way too
> big (1992:418).

Coward argues women receive the message that a perfect body is a good thing to aspire

to have, but it is not necessarily possible to attain. She also points out that the selection

process of models is hidden and women don't realize that not everyone can attain perfect

bodies. As a society, we have an ideal that women should be built the way so few models

are. According to Coward this is not true when you consider the ratio of female models

to the general population of women in the United States (1992).

Coward also explains that many of the models we see on television are touched up

after photographs are taken, a factor not always considered when advertisements with

beautiful, perfectly shaped women are viewed. She also considers the factor that being

shaped well allows women to fall under the male gaze, whereas a heavyset woman does

not. Coward explains, "it is not a shape (that which) suggests power or force. It has

already been fairly widely documented how women often choose to remain 'fat' because

of the power which somehow accrues to them" (1992:414). Coward discusses the idea of

powerlessness among perfectly shaped women. She claims that heavy-set women have a

power that thin women do not possess. A heavy-set woman will be looked at as a person

before she is looked at as a woman. This is power in the sense that a thin woman will

have difficulty getting information across to males because they see her as a woman

before a person. Overall, Coward provides a lot of insight on the perfectly shaped beautiful woman that are seen on billboards, in magazines, and on television.

Mass Media's Effect on Self-esteem and Body Image among Women

Many young girls have doubts about who they are and who they should strive to be. Peirce writes that, "while the children are learning gender roles from their families and at school, they are also seeing them reinforced in the media" (1995:81). Some of them will develop eating disorders, and some of them will fall into bouts of depression. Mass media reinforces what our family and friends teach us about our gender roles (Peirce 1995).

More often than not the media describes women as having menial concerns about romance, fashion, beauty, and pop stars. For example, the mass media seldomly addresses issues that would depict women as individuals. An analysis was performed by Peirce on *Seventeen* and *Teen* magazines to see if it followed traditional ideology. Traditional ideology includes the importance of looking good, finding a man, and taking care of a home. The results were that appearance was the dominant category for both of the magazines. In *Seventeen* magazine pages devoted to appearance have actually increased by ten percent since 1985 (Peirce 1995).

These magazines teach teenage girls about gender roles. Pierce claims that "teens are still learning how to live in the world, so it wouldn't be going too far to suggest that the ingredients for message receptiveness are there: inadequate social realities and media dependency" (1995:84). Mass media does indeed reflect in some ways what women believe they should be like.

Women integrate what they see and hear into their own selves. Jean Kilbourne agrees that "many women internalize these stereotypes and learn their 'limitations,' thus establishing a self-fulfilling prophecy" (1995:125). A woman begins to see her face as a type of mask and her body as an object. It is interesting to note that more than one million dollars is spent every hour on cosmetics (Kilbourne 1995). Women are made to feel dissatisfied and ashamed of themselves because they cannot achieve 'the look.' All of this leads to dieting, depression, and possibly eating disorders.

In 1995, one in five college-age women had an eating disorder (Kilbourne 1995). This statistic may be surprising to some, but not to the women who have had experiences with the desire to be thin. The statistics are even starting to apply to young girls. According to Kilbourne, a study conducted at the University of California showed that eighty percent of fourth-grade girls in the Bay Area are watching their weight. It is through these alarming statistics that we may begin to see that woman are internalizing stereotypes from the mass media about being sexy, thin, and beautiful (Kilbourne 1995).

Cultural Forces that Influence Gender Roles

More often than not it is easy to turn on the television and see a woman in a commercial portraying a stereotypical role. Lafky, Duffy, Steinmaus, and Berkowitz did a study on female stereotyping in advertisements and gender role expectations. It is through this study that we may start to see how taken in women and men are by the images they see in advertisements (Lafky et al. 1996).

The three hypotheses used in the Lafky et al. (1996) study were: (1) even short-term exposure to sex-stereotyped images will affect audience perceptions of gender roles, (2) exposure to gender stereotypes in advertising will cultivate among viewers more

traditional attitudes toward gender roles, (3) there will be a statistically significant relationship between the gender of the subjects and the ways in which the subjects draw upon heuristics to cognitively process advertising images that include representation of gender roles. The results supported all of the hypotheses. It is through this study that we may gather the conclusion that what we see and hear through advertisements affects us in how we develop our gender roles. It is one of the most important sources of information about ourselves and who we should strive to be. It should then be no surprise that women see models with perfect bodies and aspire to be just like them. We are very susceptible to the mass media because it surrounds us at all times.

There are various recurring themes of women in advertisements. Often women are portrayed in advertisements that are reminiscent of medieval times. MacCurdy discusses historical resonance in modern ads. She claims that there are four images that can still be seen today in advertisements. "The courtly lady, the Virgin Mary, the temptress, and the sex object are still with us. These four images are not representational but are fantasy images based on the unmet needs of contemporary women" (MacCurdy 1994:34).

Advertisements that depict the courtly lady include Elizabeth Taylor's White Diamonds perfume, Estee Lauder makeup, and Halston perfume. These advertisements depict a woman as being beautiful, perfectly shaped, and unattainable to lowly men. The Virgin Mary image is displayed in mother and child ads. The temptress image usually involves groups of women together in a manner, which dictates power. They are usually wearing some form of black leather. Calvin Klein advertisements illustrate this image. Finally, the sex object woman is depicted as a commodity to be bought, sold, traded, and shown off. Once again Calvin Klein depicts the woman at the will of man: "An infamous spread for jeans includes a Harley motorcycle on one page and a shirtless man

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dressed in jeans, grabbing a woman by her naked buttocks, on the other page"
(MacCurdy 1994:41). These depictions demonstrate that women are portrayed in a
certain way, so that they are objectified. When women view these depiction's they often
wonder what is right and wrong. Who is the proper woman to be, or rather who does *he*
want me to be?

Video Games as a new channel of media

Violence and video games has been researched, but not on the effects of those
who play them. However, there are many studies on the violence found in video games
and the habits of those who play them. Beginning with the inception of video games in
the 1970's there has been a concern for the violent content of the games and the effects of
violence on children. Also, there is significant concern over how long children spend
playing video games and the effects that associated with long playing time. Buchman
and Funk (1996) investigated the playing habits of 900 children in grades four through
eight. They found that children decreased in their playing habits at home from grade four
to grade eight. However, arcade game playing had increased from grade four to grade
eight. Also noted was that boys played more than girls. Another study found that 25% of
adolescents visited arcades at least once per week and 18% visited at least three times per
week (Fisher 1995). Lastly, Phillips et al. (1995) reported that more than 60% of children
playing video games played longer than they had intended to play.

When considering gender differences in video games, both in habit and in choice
of games, there are major differences. According to Buchman & Funk (1996) boys play
video games more than girls do. Interestingly, boys also tend to choose violent sports
games and girls tend to choose violent fantasy games (Funk & Buchman 1994). Parents

and educators alike have addressed the violence factor. In 1994 the Video Game Rating

Act was established, along with two rating systems. The first was the Recreational

Software Advisory Council (RSAC), which implemented a number based content system

in which manufacturers answered a complex questionnaire. A score from zero to four

was used to rate each game for violence, nudity, and language. The other rating system

was the Entertainment Software Rating Board (ESRB). This rating system used

independent raters in order to rate games into age-based categories, Everyone, Early

Childhood, Teen, Mature, and Adults Only (Cesarone 1998). The ratings can be seen on

individual games and Adults Only is only sold to those who are eighteen years of age or

older. This of course introduces the notion that adults are playing video games as well as

children and teens.

Video game ratings carry one of seven logos showing age recommendations:

> EC (Early Childhood) - age 3+
> KA (Kids to Adult) - age 6+: Minimal violence, slapstick
> comedy, some crude language.
> E (Everyone) - As of January 1998, the new "Everyone"
> designation replaced the "Kids to Adults" rating.
> T (Teens) - age 13+: Violence, profanity, mild sexual
> themes
> M (Mature) - age 17+: More intense violence, profanity,
> mature sexual themes
> A (Adult Only) - Adults only: due to graphic violence and
> sexual themes, not for persons under 18.
> RP (Rating Pending) - Product has been submitted to the
> ESRB and is awaiting final rating (www.mediafamily.org)

Other effects of video games that have been studied are the portrayals of women

in video games. Dietz (1998) conducted one of the only studies in this area through a

content analysis and study of gender socialization. She reviewed 33 popular Nintendo

and Sega Genesis video games for portrayals of women and violent themes. Her findings

were that there were no females in 41% of the games that contained characters, and in

28% of these women were portrayed as sexual objects. Also, nearly 80% of the games

included violence and aggression as part of the objective to be completed in the game. Dietz also noted that most of the characters were Anglo (1998). This study was one of the first attempts to explain the presence of women in video games and the portrayal of them; however, there is a weak point in this study. Although the methodology of her study seemed appropriate, the video games that were chosen included sports games such as football, baseball, basketball, and hockey. This would clearly bias the results because there are no women in these sporting games. Video games often mirror real life games, especially of a sporting nature. For example, there are no women in the NFL, so there are no women in the NFL video games. Simply put, a clear examination of video games and women's portrayals in them can only be done by looking at games that can possibly include women, such as fantasy action games.

Fantasy action games are those that involve role-playing and have objectives or tasks that the player must do. There is typically a hero or heroine that must complete certain tasks. Players will submerse themselves into these roles. Gilmore & Crissman (1997) studied high school males and gender identity and violence. The findings indicated that the males strongly identified themselves with the main characters and strove to defeat the virtual enemies.

Darley (2000) discusses narratives and interaction in video games by illustrating the idea that the player reveals a plot as they progress through the game. These types of games often have films included in which the player watches and picks up clues as to what must be done next. There are various ways in which these types of games are set up. Often, the main character (the player) must talk to other characters or manipulate objects in order to uncover the plot. This is how the player advances to the next level. Also, depending on the plot of the game the player may also have to kill other characters

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in order to advance. Fantasy action games are a very different kind of video games than have been seen in the past because they create a sense of reality when playing them through a three-dimensional world (Darley 2000).

Video games have also changed over time from the very simplistic to the very complex and real. Spector (1999) discusses the variety of choices available to role-playing game designers that will make them cutting edge. There are role-playing games that borrow from past games, but they are not the same simplistic games from a decade ago. There is even a discussion of how the role-playing games can become even more realistic (Spector 1999).

Kent (2001) discusses new types of game consoles that can be used in order to play video games. "Games that formerly tool place in 2-D side-scrolling worlds now unfold, more often than not, in glorious 3-D" (Kent 2001:90). These new game consoles also allow for a wider variety of games. The extra data storage now available in game consoles allows developers to expand their game's capabilities.

In recent years there has been an increase in technology including virtual reality, the Internet, video games, and many more. Gergen (1991) sees the self as becoming increasingly saturated because of the perpetual flow of images, experiences, and alternative identities in the postmodern world. According to Gergen (1991), "In the postmodern world there is no individual essence to which one remains true or committed. One's identity is continuously emerging, re-forming, and redirecting as one moves through the sea of ever-changing relationships. In the case of 'Who am I?' it is a teeming world of provisional possibilities" (1991:139). This notion of no true individual essence is thought to have come about because of technological advances. It is high tech

communication that has allowed us a variety of people with whom we may interact with and thus our selves have become overwhelmed and are merely hyperreality personalities.

Gergen evokes Baudrillard's concept of hyperreality. Hyperreality, according to Baudrillard (1988) is "the new linguistic condition of society, rendering impotent theories that still rely on materialist reductionism or rationalist referentiality" (2). This means that what each person perceives as reality or their self is really just a simulation. The underlying idea from Baudrillard is that nothing is real until we see it or hear about it on TV or the radio. The mass media predicts what we think, buy, do, and give us a "hyperreality" (Baudrillard 1988). Therefore our selves are really products of society and technology in a postmodern society. The postmodern turn is very clear when examining the video game trend.

When one plays or engages in a video game they experience a sense of hyperreality because they are so emerged in the character that they are playing. In a sense, the video game player loses her/his own identity while playing and instead only knows him or herself as the character in the video game. With the growing popularity of video games and their increased hyperreality traits, it is now important to examine and understand the effects that these games have on those who play them.

Lastly, the popularity of video games can be illustrated by looking at the sales of video game units and the actual sales of games bought. According to Cohen (2000), computer games are now a $20 billion-a-year worldwide business. In 1999 video games contributed more than $6 billion in sales and $730 million in operating profits. Sony has sold 75 million Playstations, 27 million of them in the United States alone. Playstation 2 is the new game console being sold and it has a hefty price of $299. Playstation 2 can be used to play original Playstation games, CDs and DVDs. This game console is now an

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entertainment system with many capabilities. Also available is the Sega Dreamcast for $149 that includes Sega Net, which allows for online game playing (Cohen 2000). It can be seen from the profits of video games and game consoles that the popularity of this phenomenon is large and widespread. The magnitude of video games is why it is important for research to be done in this new area of media.

The Top Games that feature heroines

This study is concerned with those games that feature female heroines in order to find out if the images of women in these games affect college age women. The games that I chose to include in this experiment were Tomb Raider (including all of the sequels), Parasite Eve, and Dead or Alive. Most adventure games follow the same format; thus an exploration of one of these games should be sufficient in explaining the nature of the others as well. In order to understand how the popularity of these games began, I will discuss Tomb Raider in detail. In order to understand the nature of these games, the history of Tomb Raider, a brief biography of the main character, the associated movie, and web sites will be examined. One of the easiest and only ways to find information on video games is through web sites.

Example Game: Tomb Raider

History of Tomb Raider. Work began on the original Tomb Raider in 1993 and was designed by Core Design of Europe, published by Eidos. The first time Tomb Raider appeared was on the Sega Saturn game console in November 1996. However, the Sony Playstation console is what made it famous. Tomb Raider is credited with making

Sony Playstation the most popular game console. Toby Guard, the creator of Tomb Raider had originally designed Lara Croft (the main character) to be a military character. However, through several revisions she became a levelheaded treasure hunter. The popularity of Lara Croft began to grow and companies were looking for endorsements. Once Tomb Raider truly took off Core Design became very guarded about the portrayal of Lara Croft and what can be said about her (www.gamespot.com).

Once Tomb Raider had established a name for itself fans began to construct web sites, merchandise, and even artwork of Lara Croft and the game itself. At trade shows and events, models line up to portray her. The game even inspired a motion picture starring Angelina Jolie released in June 2001. The movie was a hit for Tomb Raider fanatics. Nearly every year since Tomb Raider's premier in 1996 Core Design has come out with a sequel. The Tomb Raider phenomenon has reached worldwide recognition and anyone who plays video games will recognize the name Lara Croft (www.gamespot.com).

Lara Croft. The character of Lara Croft was born on February 14, 1968 in Wimbledon, Surrey, daughter to Lord Henshingly. She was raised as an aristocrat and attended boarding school and a Swiss finishing school through her teen years. She loves rock climbing and acrobatics and above all else tomb raiding. She has written travel books and has many other publications as well (www.gamespot.com). Most of Lara's life is revealed through the games that are played and the movie; such as her home, the whereabouts of her father, and her enemies. Her tomb raiding ability is emphasized by her capabilities at repelling, climbing, using a wide variety of firearms, swimming, physical strength, and lastly her cunning intelligence. Lara is an all-around superwoman.

Tomb Raider: The Movie. Tomb Raider: The Movie was directed by Simon West and produced by Paramount Pictures. It was released in June 2001 as a summer blockbuster. The movie was filmed all over the world and included Iceland, Cambodia, and the English countryside. Finally after some debate about who would be selected to play Lara Croft, Angelina Jolie was chosen. Ian Glen, Jon Voigt, Leslie Phillips, and Daniel Greg are just a few of the other actors that starred in this film. There was a serious debate about who would be chosen to play Lara Croft because of Tomb Raider's large popularity. Some of the initial guesses included Demi Moore, Elizabeth Hurley and Sandra Bullock. Fans were concerned about who could pull off the Lara Croft character with her British accent and powerful physique. The most interesting fact about the film is that Angelina Jolie performs most of her character's stunts herself (www.gamespot.com).

Tomb Raider Web Sites. With the increase in popularity of the Tomb Raider phenomenon came associated web sites. Fans wanted to not only find out about upcoming sequels, walkthroughs, and hints; they also wanted to know more about Lara Croft's character. Soon web sites began producing official and unofficial pictures of Lara Croft and her depictions in the Tomb Raider games (See figures 11-14). Some of the more famous web sites are:

www.tombraider.com	www.gamespot.com
www.tombraiderchronicles.com	www.tomb2000.com
www.tombraiders.net	catlantis.dreamwater.net
www.tombnews.com	www.tombraiders.com

These sites include many pictures, merchandise, information about the Lara Croft models, hints, cheats, and walkthroughs. They also include news about upcoming Tomb Raider games. The above web sites are the top eight sites that will be analyzed in this study.

Using the literature, I have formulated the following experiments. I became interested in this because I believe there is a redefinition of what is considered the ideal body for women in society. I believe that video games are major contributors to this redefinition of the ideal female body. Throughout this chapter I have laid the groundwork for feminist theory in regards to gender differences and the body. I have also discussed the current trends on women in the mass media and video games in general. Based on the above theoretical framework and literature review the following research questions are the focus of this study:

Experiment 1:

RQ1: How do the portrayals of women in video games effect women's self-esteem and body image?

H$_1$: Women's self-esteem and body image will decrease after viewing portrayals of women in video games.

Experiment 2:

RQ2: What are the effects of the portrayals of women in video games on women in society?

RQ3: How do women in society perceive female images in video games?

RQ4: In reference to other forms of mass media, have video games redefined women's views of the ideal female body?

Chapter III

Methodology

Triangulation has been utilized in order to broaden the results of this research. Social scientists use triangulation in order to employ different methods in order to obtain the information sought (Singleton & Straits 1999). Using different methods to solve a problem or answer a research question is valuable because it allows researchers to more adequately define and analyze data. This study incorporates both quantitative and qualitative methods through two separate experiments. Experiment 1 involved the use of Likert-type instruments and Experiment 2 involved the use of an open-ended questionnaire.

Also of importance is the notion of combining a feminist methodology with a social psychological theory. Taylor (1998) discusses how a feminist methodology can be incorporated into other methods of study in social movements. Taylor's research on a postpartum depression self-help movement incorporated not only a social movement framework, but feminist methodology as well. "I have attempted to show that a combined gender and social movements approach offers a more complex reading of women's self-help than we find in feminist accounts" (Taylor 1998:375). Congruently the current study utilizes both social psychology and feminist theory. The nature of video games in relation to body image has direct ties to gender inequality as well as traditional sociological theory. The use of both types of approaches in turn blend together in order to make a more valuable study.

Experimentation

Since this is an exploratory study, experiments can often offer the best approach for investigating the causes of phenomena or a phenomenon (Singleton & Straits 1999;

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Pestello 1979). Experimentation is useful in this study because it allows for an examination of the effects of a particular stimulus. The controlled environment of an experiment typically generates high internal validity. This is important so that the results are not skewed. One of the advantages of an experiment that uses both pretest and posttest as well as a control group is that a significant result is extremely powerful. Other than chance, the significant result is indicative that the treatment did in fact effect the subjects. This type of experiment rules out many extraneous variables by utilizing a control group and pretest-posttest. The posttest results for the control group should be the same. Congruently, if there is an effect found in the results of the experimental group than it can be said that the treatment was the cause.

The downfall of the controlled environment has to do with external validity (Singleton & Straits 1999). In other words, would the same results be found using a different group of subjects, or in some other setting? Other issues that are of concern here are evaluation apprehension and other motives of experimental subjects.

First, in an experiment, subjects may experience anxiety about being evaluated. Subjects are under the assumption that they are being evaluated and may want to please the experimenter (Rosenberg 1965). Subjects may then be overly sensitive to the treatment variable and thus not respond spontaneously to it. As with any experiment this study must allow for this phenomenon, as it is unavoidable. In the directions for the current experiments subjects will be urged to respond honestly. The subject matter of the current study (sexy images of women in video games, self-esteem, and body image) might cause the subjects to attempt to "look good" in their responses.

Secondly, the experimental subjects could have other motives. For example, in the current study subjects will be offered extra credit for one of their courses for

participating. This could cause some problems with receiving honest data from the

subjects. Another problem could be that some subjects would sabotage the experiment

because they feel they are in a subordinate position. Although there are issues and

problems concerning validity and bias, experiments are still widely used and are one of

the better methods used in order to explain a particular occurrence.

The conduction of an experiment involves the following steps:

Figure 1. (from Singleton & Straits 1999) Experiment 1 follows this format and
Experiment 2 is a deviation of this format.

Pretesting

↓

Subject recruitment ←————————————————→ Acquisition of
                                                                           informed consent

↓

Introduction to
experiment

↓

Manipulation of
independent variable

↓ ←————————————————— Random Assignment

Measurement of
dependent variable

↓

Debriefing
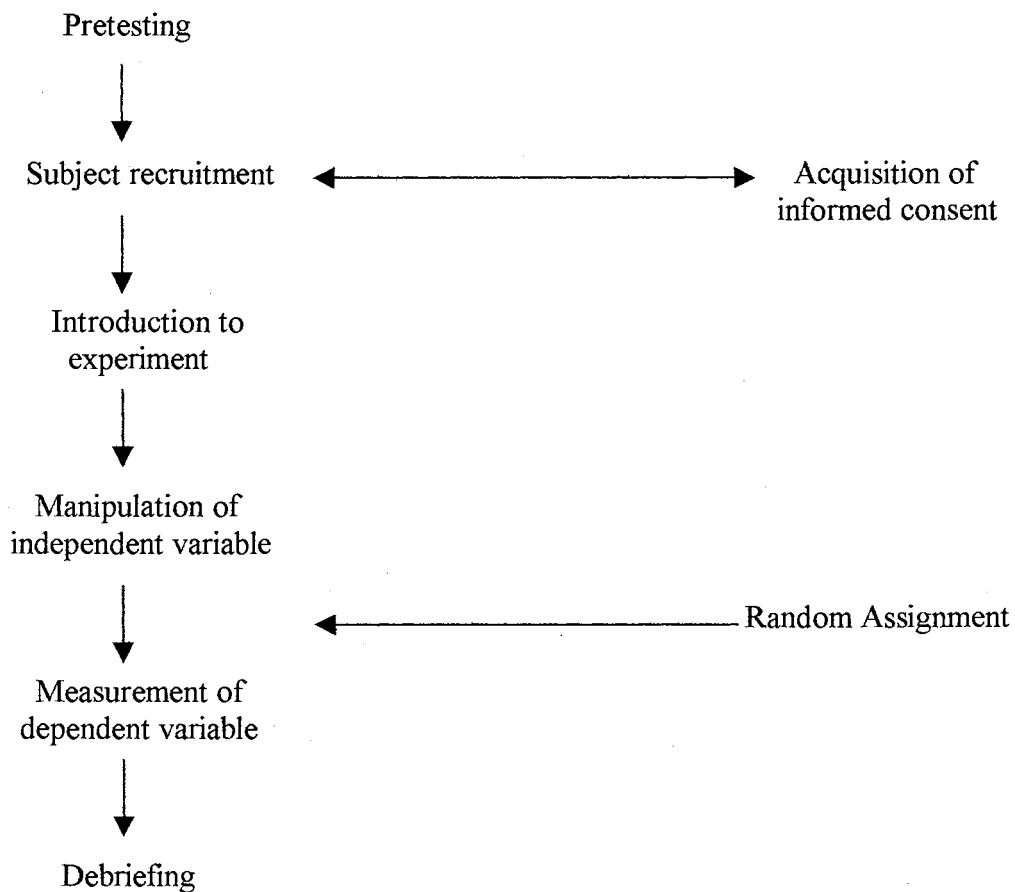
As I have stated earlier, an experiment is a good method suited for studying video

games because it involves looking specifically at the effect female portrayals in video

games has on actual women. The pretest-posttest control group is the design that was used for Experiment 1. This experiment directly assessed how women were made to feel about their own body images based on their own body type and self-esteem after being exposed to a treatment variable.

Experiment 1

Research Questions for Experiment 1

RQ1: How do the portrayals of women in video games effect women's self-esteem and body image?

H_1: Women's self-esteem and body image will decrease after viewing portrayals of women in video games.

Subjects

The subjects for this experiment consisted of female students from introductory speech communication courses at Oklahoma State University. Ten classes were solicited in order to obtain 106 subjects. College age students (aged 18-25) are highly susceptible to video games because of the increase in age in playing them. Therefore, college-aged women more than likely know someone who plays video games (ISDA 1999). As discussed in chapter 2, college age women are also highly influenced by portrayals of women in the mass media as well as the social groups around them. Video games are unique in that they are discussed as well as played. It is for this reason that they become icons in our popular culture. For the most part video games are played and discussed during college years as a favorite pass time (ISDA 1999).

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A sample size of 86 (44 experimental, 42 control) was achieved for this experiment. There were 20 subjects that were excluded from the experiment because they did not attend the second portion of the experiment. Forty-four of the women participated in the experimental group and forty-two in the control group used for reliability purposes. The following demographic information was self-reported by the participants. The ages ranged between 18 and 25 with a mean age of 20. There were 26 freshman, 37 sophomores, 19 juniors, and 4 seniors. The average height of participants was 65 inches, the average weight was 134 pounds, and the average frame was medium. Lastly, the average body mass index (BMI) was 22.3023.

Procedure

This experiment involved a prescreening test as well as one other treatment session. Prospective participants were read the consent script. The script included a general statement about the subject of the experiment, however it did not reveal the actual purpose. First, subjects were obtained through a demographic questionnaire so that a sample could be obtained. Also, the subjects were asked to fill out the Rosenberg self esteem questionnaire and the body image scale. Following the prescreening test subjects that possessed the qualities of the target population and have not been exposed to the treatment were assigned to either an experimental or control group and were identified by the last four digits of their social security number. All of the students fit the criteria for the experiment and there were no exclusions. All of the subjects were notified to come back for the experimental session.

The identification numbers (last four digits of their social security numbers) were used in order to assign subjects to either the experimental or control group. A random

numbers table was utilized in order to select subjects for the experimental and control

groups, thus ensuring a random selection sample. A control group was utilized in order

to rule out biases and confounding explanations of the effect of the slides on subjects.

The use of a control group was also used in order to assess the reliability of the

instruments. Two separate rooms were reserved, one for the experimental subjects and

the other for the control group.

Once the subjects arrived they were placed in one of the rooms according to their

assignment based on their identification number. The experimental group (n=44) viewed

a number of slides controlled by the experimenter. These slides consisted of images of

women in video games gathered from various Internet sites. Each slide was viewed for

approximately 30 seconds so that reliability of the treatment was not jeopardized. After

the slide show subjects filled out the self-esteem and body image instruments again. The

subjects were then excused from the experiment. This portion lasted approximately 45

minutes.

The control group (n=42) followed the same method except they did not view

slides of images of women in video games. Instead they viewed images of the video

games that depict different scenes and no characters. Again, the control group answered

the self-esteem and body image instrument in the same manner as the experimental

group. This portion lasted approximately 45 minutes. The subjects were then excused

from the experiment.

Instruments and Materials

The first questionnaire dealt with demographic information as well as a screen to

eliminate a biased sample. (See Appendix A) This questionnaire inquired about age,

body type, and degree to which participants have played video games in the past. It also asked for the last four digits of the subject's social security number. It is through the demographic questionnaire that those who did not fit into the targeted population would be excluded. However, all of the subjects that were solicited did fall into the target population.

A solicitation script was used in order to gain the participation of the students. Each student was offered extra credit in their class if they consented to participate. Those who chose not to participate or did not fall into the target population were offered some other form of extra credit (See Appendix B). The experimenter also read the consent script in order to inform the potential participants about the experiment and potential risks (See Appendix C). This script mapped out and defined how the experiment would proceed and the length of time that was to be expected. It also described the "mock" purpose of the study and guaranteed their anonymity.

The slides that were used for both the experimental and control groups were pictures found on the Internet. The experimental slides included images that depict women in video games (See Appendix D). The selection of images was based on two major criteria. The first is that the woman's body was fully or partially portrayed. In other words, there may be some slides of characters from the waist up and some that illustrate the full body. Secondly, the image was of a video game character and not a model posing as the character. The selection of images for the control group (See Appendix E) consisted of two criteria. First, there were no characters in the images. Secondly, there were no words or titles in the images. The slides were gathered from the following sites: www.atpictures.com, cgi.afkamm.co.ok (experimental slides), www.gamespot.com (control slides). The experimental sides consisted of pictures of

women from Tomb Raider, Parasite Eve, and Dead or Alive. The control group slides consisted of screenshots from Metal Gear Solid II, Grand Theft Auto III, and Star Wars Rogue Leader: Rogue Squadron II.

The first instrument, the Rosenberg scale (Rosenberg, 1965) was used to evaluate self-esteem. (See Appendix E). This scale is widely used to measure self-esteem. It inquires about how one feels about themselves in terms of not only their body, but their personality and self-concept as well. This instrument consists of 10 items on a 4-point Likert scale from strongly agree to strongly disagree. The instrument had a reliability alpha range from .8621 to .8875 for this experiment.

The second instrument used was the MBSRQ-AS body image questionnaire (Cash et al. 1986) to measure how the subjects felt about their bodies (See Appendix F). This instrument is comprised of the following subscales: appearance evaluation, appearance orientation, body areas satisfaction, overweight preoccupation, and self-classified weight. There are 34 items that include multiple choice and 5-point Likert scales ranging from definitely disagree to definitely agree. The MBSRQ-AS has been used extensively and in national survey research as well as applied and clinical research. The instrument had a reliability alpha range from .8040 to .8212 for this experiment.

Data Analysis

Data analysis for this experiment included several primary statistics of the data in order to answer the research question, as well as secondary statistics used as follow-up. There are a few statistical tests that were used in order to answer the research question. The first were descriptive statistics in which means were obtained in order to look for differences between pretest and posttest for both the experimental and control groups respectively. Descriptive statistics were also used in order to find the means for each

item on both the self-esteem and body image questionnaires by group. The second

technique that was used was a 2x2 mixed ANOVA looking at both experimental and

control groups (between-subjects) as well as both pretest and posttest (within-subjects).

This test was done separately for both self-esteem and body image. Thirdly, A one-way

ANOVA was also used in order to look for an interaction between the experimental and

control groups in regards to both self-esteem and body image respectively. The posttest

scores were used for this test. A follow-up Tukey test was done on frame size for both

self-esteem and body image. Lastly, Pearson Correlations were used for height, weight,

posttest self-esteem, and posttest body image.

The following are the secondary tests that were used as a follow-up to the primary

statistical procedures. These tests focused on the experimental group only. A 2 x 2

ANOVA was also utilized to look at self-esteem by change between pretest body image

and posttest body image. Subjects were placed in low, moderate, or high self-esteem.

Another one-way ANOVA was used to look at the levels of self-esteem and the posttest

for body image in the experimental group. Subjects were again placed in low, moderate,

or high self-esteem. Lastly, a one-way ANOVA was done for the subscales of the body

image instrument and self-esteem.

Experiment 2

A second experiment was implemented because the results from experiment 1

were not significant. This experiment emphasized qualitative method of obtaining data.

Qualitative research methods allow for more expansive responses from the subjects. In

this experiment subjects were asked to respond extensively to how they felt rather than

being forced into a choice. This type of depth in responses offered comprehensive

meanings in order to understand the phenomenon. In this particular study there were

sensitive issues (self-esteem and body image) that the subjects had to deal with when

responding to questions. An open-ended format allowed the subjects to be more

comfortable with describing how they felt about the treatment.

Research Questions for Experiment 2

RQ2: What are the effects of the portrayals of women in video games on women

in society?

RQ3: How do women in society perceive female images in video games?

RQ4: Have video games redefined society's view of the ideal female body?

Subjects

The subjects for this study consisted of female students from introductory speech

communication courses at Oklahoma State University. Five classes were solicited in

order to obtain approximately 30 subjects. A sample size of 23 was achieved for this

experiment. There were no subjects excluded from the experiment because of age or year

in school. The ages ranged between 18 and 25 with a mean age of 20. There were 3

freshman, 15 sophomores, 3 juniors, and 2 seniors. The average height of participants

was 65 inches, the average weight was135 pounds, and the average frame was medium.

Lastly, the average body mass index (BMI) was 22.32.

Procedure

Experiment 2 involved a deviation of the classic experimental design. A

controlled environment was still utilized, however there was not any forced choices as

there were in Experiment 1. This experiment involved one session in which subjects were exposed to a treatment and then asked to fill out an open-ended survey. Prospective participants were read the consent script. The script included a general statement about the subject of the experiment, however it did not reveal the actual purpose. All of the students fit the criteria for the experiment and there were no exclusions.

One room was reserved for the experimental subjects. This experiment did not utilize a control group or a pretest-posttest design. Instead it was hoped that the subjects would report in an open manner how they felt about the slides that they had been shown. Once the subjects arrived they were placed in a controlled experimental room in order to view the slides. The subjects (n=23) viewed a number of slides controlled by the experimenter. These slides consisted of images of women in video games gathered from various Internet sites (also used in Experiment 1). Each slide was viewed for approximately 30 seconds so that reliability of the treatment was not jeopardized. After the slide show, subjects filled out the open-ended survey in regards to how the slides made them feel. The subjects were then excused from the experiment. This portion lasted approximately 45 minutes.

Instruments and Materials

The questionnaire dealt with demographic information in regards to the subjects' age, year in college, body type, weight, and height. (See Appendix H) It is through the demographic questionnaire that those who did not fit into the targeted population would be excluded. However, all of the subjects that were solicited did fall into the target population.

A modified solicitation script (from Experiment 1) was used in order to gain the participation of the students. Each student was offered extra credit in their class if they consented to participate. Those who chose not to participate were offered some other form of extra credit (See Appendix I). The experimenter also read the consent script in order to inform the potential participants about the experiment and potential risks (See Appendix J). This script mapped out and defined how the experiment would proceed and the length of time that was to be expected. It also described the "mock" purpose of the study and guaranteed their anonymity.

The slides that were used for the experimental group were pictures found on the Internet. The experimental slides included images that depict women in video games (the same that were used in Experiment I) (See Appendix D). Again, the selection of images was based on two major criteria. The first is that the woman's body is fully or partially portrayed. In other words, there may be some slides of characters from the waist up and some that illustrate the full body. Secondly, the image is of a video game character and not a model posing as the character. The slides were gathered from the following sites: www.atpictures.com, cgi.afkamm.co.ok (experimental slides). The experimental sides consisted of pictures of women from Tomb Raider, Parasite Eve, and Dead or Alive.

The instrument that was used for this experiment was a series of open-ended questions that inquired about the subjects' self-esteem, body image, and general feelings and attitudes about the slides that were viewed. (See Appendix K).

Data Analysis

The data for the second experiment was analyzed by reporting the answers of the subjects in regards to the questions asked in the open-ended questionnaire. The data

analysis for this experiment followed a deductive format. The responses from the questions asked were grouped under the specific research questions. Then, the answers to each of the individual questions (in accordance with the research questions) were then grouped together in order to report the findings. Finally, similar answers were grouped together in order to discover similarities among the subjects.

Chapter IV

Results- Experiment 1

Primary Analyses

The research question inquired whether or not there would be a change in the scores on the self-esteem and body image instruments from pretest to posttest. Means and standard deviations were compiled. The results of this test were that there were no differences between pretest and posttest for the experimental or control group. Table 2. illustrates those means and standard deviations.

Table 2. Means and standard deviations of experimental and control groups

Group		Mean	Std. Deviation	N
PRETEST	Control Group	3.3381	.4466	42
SELF-ESTEEM	Experimental Group	3.2841	.4159	44
POSTTEST	Control Group	3.3262	.4834	42
SELF-ESTEEM	Experimental Group	3.2909	.4159	44
PRETEST	Control Group	3.1380	.3423	42
BODY IMAGE	Experimental Group	3.2680	.3625	44
POSTTEST	Control Group	3.1891	.3633	42
BODY IMAGE	Experimental Group	3.3168	.3638	44

The means for the self-esteem scale are based on a range from 1 to 4. The means for the body image scale are based on a range from 1 to 5.

Descriptive statistics were also used to calculate each item by group. Table 3. lists the means and standard deviations of both the experimental and control groups for each item on the self-esteem and body image scales. There were no significant changes between each item from pretest to posttest for the experimental or the control group.

Table 3. Descriptive statistics for each item by group (self-esteem and body image)

Self-Esteem Pretest

Group	1	2	3	4	5
Experimental	3.7857±.4153	3.7143±.4572	3.5476±.5927	3.3810±.5824	3.6190±.5824
Control	3.6591±.4795	3.6818±.4712	3.6136±.4925	3.2955±.5094	3.5000±.6647
Group	6	7	8	9	10
Experimental	3.3333±.5703	3.2143±.6063	2.8810±.8890	2.7143±.8913	3.1905±.8334
Control	3.3182±.5182	3.2045±.5094	2.6364±.8651	2.7955±.8235	3.1364±.7653

Self-Esteem Posttest

Group	1	2	3	4	5
Experimental	3.7143±.4572	3.6429±.5329	3.6190±.6228	3.3810±.5389	3.5238±.8036
Control	3.5227±.6643	3.4318±.6611	3.5455±.5037	3.2727±.5440	3.5455±.5479
Group	6	7	8	9	10
Experimental	3.3095±.6044	3.3571±.6177	2.6667±1.0515	2.9048±.9055	3.1429±.7831
Control	3.2727±.5852	3.2955±.5937	2.8182±.8700	2.9318±.7894	3.2727±.7583

Body Image Pretest

Group	1	2	3	4	5
Experimental	4.2857±.8913	4.2857±.8635	3.2381±.6917	2.2619±1.0606	3.3571±.9582
Control	4.3636±.7803	4.4318±.5866	3.4545±.8199	2.4318±1.2085	3.3182±.9344
Group	6	7	8	9	10
Experimental	3.3571±1.1650	3.1429±1.0948	2.5714±1.2126	3.3333±.5703	3.1429±1.0017
Control	3.2273±.9367	3.2500±.9912	2.5682±1.1289	3.5455±.6631	3.2045±.8235
Group	11	12	13	14	15
Experimental	2.9286±.9974	2.6190±1.0110	2.7381±1.0136	2.2857±.9699	3.2143±1.0009
Control	2.7273±1.1687	2.9318±1.0869	2.9545±.9872	2.2273±.9115	3.5455±.9265
Group	16	17	18	19	20
Experimental	2.2619±.8281	3.3571±.9833	3.4286±.9408	3.7381±.9642	1.9286±.8942
Control	2.6818±1.0063	3.6364±.9667	3.5455±.9754	3.9318±1.0869	1.7273±.7270
Group	21	22	23	24	25
Experimental	2.0476±.8250	3.3095±1.4226	3.7619±1.2651	3.5476±.6700	3.1905±.6713
Control	2.5000±1.0230	3.9091±1.3779	3.9773±1.1100	3.1818±.6203	2.9091±.6404
Group	26	27	28	29	30
Experimental	3.7619±.7262	3.9048±1.1436	2.8095±1.1313	2.6667±1.0969	3.1905±1.0647
Control	3.8182±.7857	4.0227±.8209	3.0455±1.0555	2.9091±1.2165	3.3636±1.1016
Group	31	32	33	34	
Experimental	2.7857±.9249	2.8571±1.1385	3.8333±.9084	3.5476±.7715	
Control	3.2045±.9042	3.2045±1.0248	3.6364±1.0363	3.7273±.6237	

Body Image Posttest

Group	1	2	3	4	5
Experimental	4.0714±.8665	4.1190±.7055	3.2857±.7083	2.4524±1.2138	3.3571±.9058
Control	4.0682±.8463	4.2273±.7108	3.5000±.7625	2.5000±1.0000	3.4091±.8712
Group	6	7	8	9	10
Experimental	3.2619±1.1906	3.3810±1.1033	2.7619±1.2651	3.3095±.6044	3.1905±.9170
Control	3.3182±1.0515	3.3636±1.0136	2.7500±1.1023	3.6818±.5613	3.3864±.8948
Group	11	12	13	14	15
Experimental	2.9762±.9997	2.6905±1.1150	2.8571±.9258	2.3810±1.0110	3.3095±.7805
Control	2.9545±1.0987	2.9318±1.0207	2.9091±1.0525	2.4318±.9250	3.4545±.9010
Group	16	17	18	19	20
Experimental	2.6905±.9750	3.4286±1.0393	3.4534±1.0170	3.5714±.9408	1.7381±.7005
Control	2.6136±1.1456	3.5227±.8209	3.6591±1.0103	4.2045±.8513	1.8636±.7951
Group	21	22	23	24	25

Experimental	2.2619±.8571	3.4286±1.5325	3.8810±1.2337	3.5238±.6713	3.1905±.6713
Control	2.6818±.9590	3.9773±1.3552	4.0455±1.0987	3.1818±.5816	2.9773±.5902
Group	**26**	**27**	**28**	**29**	**30**
Experimental	3.7619±.6172	3.9048±1.0075	2.8571±1.0948	2.7143±1.0884	3.2143±1.1377
Control	3.8182±.7857	4.0682±.7894	3.0682±1.0869	3.0909±1.1169	3.2727±1.1687
Group	**31**	**32**	**33**	**34**	
Experimental	2.9286±.9726	2.9524±1.0809	3.9048±.8782	3.6190±.6968	
Control	3.1136±.9454	3.1364±1.0910	3.9091±.8844	3.6818±.7400	

A 2x2 mixed ANOVA was also utilized for the data. The between groups factor was the control and experimental groups. The within groups factor was the pretest and posttest. This test was used to determine if there was an interaction between the control (no treatment) and experimental group (treatment) as well as an interaction within each group between pretest (self-esteem and body image) and posttest (self-esteem and body image). There was no significant interaction found for self-esteem ($F[1,84]=.177$) or body image ($F[1,84]=.005$).

A one-way ANOVA was also done on self-esteem and body image by frame. This test was run on the posttest data for both the experimental and control groups. There was a significant interaction between body image and frame size ($F[2,83]=11.271$). A post-hoc test (Tukey) was used to examine where the interaction occurred. Subjects who had a large frame differed from subjects who had either a medium or small frame. The subjects with a large frame had significantly lower scores on the body image scale than those who were medium or small. There was no significant interaction for frame and self-esteem.

Lastly, Pearson correlations were done on height, weight, self-esteem, and body image for the posttest. A significant negative correlation was found between body image and weight ($r=-338$, $p=.01$). The heavier the subject, the lower their score on the body image scale. The Pearson correlation illustrates that large framed, heavier women have lower body image than those do with medium or small frames, according to the self-reported data obtained from subjects.

Secondary Analyses

A 2 x 2 ANOVA on self-esteem by change in body image on the experimental group from pretest to posttest yielded non-significant results $(F[2,41]=.591)$. Subjects that had low, moderate, or high self-esteem did not change significantly on body image from pretest to posttest. Table 4. illustrates the means for the self-esteem groups and pretest and posttest body image scores for the experimental group only.

Table 4. Means for pretest-posttest self-esteem and body image experimental group only

	Self-Esteem	Mean	Std. Deviation
Pretest Body Image	Low	3.0525	.3224
	Moderate	3.3685	.3542
	High	3.3688	.3340
Posttest Body Image	Low	3.0630	.3161
	Moderate	3.4221	.3814
	High	3.4525	.2474

A one-way ANOVA on self-esteem and posttest body image for the experimental group revealed that there was a difference between low, moderate, and high self-esteem and body image $(F[2,43]=6.251*)$. A follow-up post-hoc revealed that subjects with low self-esteem differed from subjects with moderate to high self-esteem on body image. The mean for body image of subjects with low self-esteem was 3.0630 and the means for subjects with moderate and high self-esteem were 3.4221 and 3.4525 respectively. This result indicates that low-self esteem subjects have a lower body image.

Lastly, one-way ANOVAs were run on the subscales of the body image instrument in regards to low, moderate, and high self-esteem. These ANOVAs utilized only the posttest for the experimental group. There were statistically significant results for some of the dimensions. Post-hoc tests revealed where the differences occurred. Table 5. illustrates the subscales and the differences.

Table 5. Subscales for body image and self-esteem for posttest experimental group only

Subscale for Body Image	Self-Esteem	Mean	Std. Deviation	F	Sig.
Appearance Evaluation	Low	3.1837a	.4931	4.702*	.014
	Moderate	3.6471ab	.6607		
	High	3.8132b	.4716		
Appearance Orientation	Low	3.2679	.2679	3.203*	.051
	Moderate	3.4902	.3017		
	High	3.3462	.1120		
Body Areas Satisfaction	Low	3.8651a	.5429	3.294*	.047
	Moderate	4.1830ab	.5732		
	High	4.4017b	.5183		
Overweight Preoccupation	Low	2.8214	1.1453	3.439*	.042
	Moderate	3.5735	.7002		
	High	3.5192	.6728		
Self-Classified Weight	Low	3.2857	.6712	1.606	.213
	Moderate	2.9412	.4638		
	High	3.0385	.4770		

ANOVAs are (2,41) degrees of freedom for all tests. * indicates statistical significance.

There were four subscales that yielded differences between self-esteem groups. The post-hoc tests revealed that low and high self-esteem subjects differed for appearance evaluation and body areas satisfaction. Appearance orientation (.051) and overweight preoccupation (.047) did not yield significant post-hoc tests. However, they approached significance and appeared to be following the same pattern as appearance evaluation and body areas satisfaction. This was due to the small sample size.

Results- Experiment 2

The following are the results of the questionnaire that was given out after the slides were viewed. Each question from the questionnaire is linked to one of the three research questions for this experiment. Similar answers are grouped together in order to form themes. Through a systematic approach, it was hoped that significant themes among the answers would be revealed. A discussion of the themes will follow the answers.

RQ2: What are the effects of the portrayals of women in video games on women in society?

Question 4, (Did the slides make you feel uncomfortable, self-conscious, or have a positive or negative effect on you? Explain) provides insight on some of the effects that female images in video games have on women in society. The responses for question four were grouped into three different themes. The first theme consisted of the subjects who were made to feel uncomfortable about how unrealistic the women in the slides were. The second theme consisted of those who were made to feel uncomfortable and self-conscious about their body. The third theme consisted of those not effected by the slides. In some cases those not effected by the sides did still have some type of negative effect. The height and weight of each subject was also placed with their response in order to identify the person's body type.

Theme 1 Unrealistic responses:

Self-conscious until you realize they aren't real! (5'5", 147lbs.)

Well, kinda uncomfortable, but most of all I thought that the guys would love to be here right now because they like looking at things with small waists and huge boobs. (5'2", 145lbs.)

They made me a little uncomfortable. I felt disturbed looking at women's cleavage. The slides had a negative effect on me. They made me feel like I was trying to find something wrong with their bodies. (5'6", 128lbs.)

At first they were a shock and made me feel uncomfortable because I didn't expect it. It didn't have a negative effect. (5'3", 112lbs.)

The slides made me feel a little uncomfortable, definitely not self-conscious because I love the way I am!! The effect left on me is one that I hope no woman feels like she has to have the perfect physical appearance to be beautiful. (5'5", 105lbs.)

Sometimes I felt uncomfortable- it wasn't a thing you see everyday.
Also, it is weird to think that a lot of guys are attracted to that.
Is it because you don't see that and that's what they really want?
Or is it just the fantasy about it? (5'8", 135lbs.)

The slides make me wonder why girls are always compared
to ones like in the slides and why people don't realize girls
really don't come that small with big boobs. (5'3", 110lbs.)

The slides really didn't make me feel uncomfortable, but they did
have somewhat of an effect on me because it is unreal of how these
computer-generated models portray women. (5'4", 136lbs.)

It doesn't make me feel uncomfortable, I just think that it's stupid
to portray women's bodies in a way that is virtually unattainable
(naturally). (5'7", 125lbs.)

They have a negative effect on me. I thought they looked ridiculous.
The figures were out of proportions and girls wouldn't dress like
that to catch bad guys (or whatever they were doing with the guns).
(5'3", 135lbs.)

They were a little revealing and some did make me feel a little
uncomfortable, because all the girls looked like they were stripping
or posing for Playboy. Overall, it's no different than what's portrayed
on TV and throughout society, so it didn't bother me too much. (5'8", 122lbs.)

Under this theme there were quite a few subjects who felt that the slides were

degrading or otherwise offensive. The responses of this group felt that the video game

images were unrealistic or unattainable in some way. Some of the respondents even

questioned why the slides were the expectations of people in society. They questioned

waist size in proportion with breast size and how unlikely it is to find that body type in

real life. They also acknowledged the notion that men do find these body types attractive.

They wondered about why men are attracted to those types of bodies, even though they

know that they can't possibly exist in real life.

Another interesting point about this first group of responses is that the majority of

them have small, thin bodies. This would indicate that even slim women find the

computer-generated bodies in video games as the unattainable. Therefore, it stands to reason that regardless of body type, women find these images of women as unrealistic and unattainable. It doesn't matter whether you are petite or tall, small or large, heavy or thin; the computer-generated women of video games are the impossible for everyone.

This group also recognized that because of technology women could be made to look very real, but at the same time very unreal. In other words, the images in the slides were recognizable as sexy women, however their bodies were stretched out of proportion. The popular hourglass shape (real) was skewed so that the women in the slides were twice as shapely. The subjects recognized this and responded accordingly.

Lastly, this group demonstrated that they understood how these images could damage women's self-esteem and body image. One respondent indicated that she felt bad for women who thought that they needed a perfect body in order to be beautiful in today's society. They understood the implications of the slides and how they could effect society in negative ways. They felt distraught because they knew that these slides depicted virtually unattainable bodies.

Theme 2 Self-conscious responses:

> Yes- negative, uncomfortable, self-conscious. It is so hard for me to see stuff like that. It makes me feel so bad about myself. Even though in my mind that life isn't about self-image, it is about love, happiness, a career you enjoy, but our society keeps telling us that it is about beauty. (5'2", 112lbs.)

> I wouldn't say I felt uncomfortable or self-conscious, but I probably won't go home now and eat the pizza I was planning on! I guess it made me feel maybe a little insecure about how I look. (5'2", 117lbs.)

> Definitely had the negative/self-conscious thing going. Basically because I don't look like that and can't look like that. (5'4", 115lbs.)

The slides made me feel uncomfortable because enormous breasts filled the screen and just seemed to be extremely protruding. I felt self-conscious because I am not as skinny or sexy. Overall, the slides had a negative effect. (5'6", 125lbs.)

Yes! I wanted to skip dinner and run 2 miles instead. Luckily, I don't let that run my thinking the way it used to. If I were in 8th grade again, I probably would go run. (5'5", 121lbs.)

I feel uncomfortable and self-conscious due to the fact that this is the way women are expected to appear. (5'9", 170lbs.)

They made me feel like I needed longer hair, bigger eyes, more muscle definition in order to be sexy. –negative effect, self-conscious. (5'10", 113lbs.)

Negative, they made me feel incredibly ugly. It's sad to see this. (5'7", 275lbs.)

It made me feel out of shape, less than perfect. (5'8", 145lbs.)

They made me feel self-conscious a little bit. I know I'm not as petite or skinny as they are. (5'5", 180lbs.)

This group of respondents was obviously made to feel bad about their body after viewing the slides. They felt ugly, out of shape, and not sexy. Self-esteem and body image clearly went down after viewing the slides. Two respondents even considered skipping dinner and running instead. Another respondent went beyond body characteristics and wished that their eyes were larger and their hair was longer.

Interestingly, one of the heavier respondents felt that the women in the slides were petite/skinny. This raises the question of whether this group actually differentiated based on body type. Were the heavier subjects affected more negatively than the thinner subjects were? I think that it is clear that all shapes and sizes in this group were affected negatively, however it seemed that the heavier women were very blunt about how ugly and unattractive they felt. Also, it was the thinner women that felt that they should go do something about how they were feeling, such as exercise. The heavier respondents felt

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self-conscious, but did not refer to doing anything about it. This of course could be interpreted a couple of ways.

First, the heavier women do not see that they can attain the physique of the women in the slides. Some of the thinner women do believe that they can achieve the physique of the women in the slides with hard work. They do see the slides as attainable. Secondly, it could mean that the heavier women felt that the slides were of a standard that should not be in place in society. In other words, they believe that the beauty standards that are set forth in society are impossible to achieve. The thinner group may think that the standards in society are appropriate, they are just dissatisfied with their personal physique.

There was also a response made about how these images would effect younger girls. As was stated in the theory section of this paper young girls are extremely vulnerable to the mass media's portrayals of women (Peirce, 1995). This stands to reason that the younger a woman is, the more they will be effected by the portrayals of women such as the slides that were shown for this experiment. More and more people are playing video games that depict women in the manner of the slides that were shown for this experiment (IDSA, 1999). It is for this reason that girls are being affected by video games more and more compared to classic channels of media.

Lastly, one respondent in this group acknowledged the fact that life isn't about beauty and having the perfect body, but rather it is about love, happiness, and a fulfilling career. She did however recognize that the slides still made her feel bad about her body regardless of her values and beliefs. Therefore, the question arises- Are these images questioning people's values and beliefs? The slides did in fact make this respondent reevaluate her values and beliefs about life in general. Other respondents also recognized

that society is now depicting women in the manner that was shown in the slides as the ideal body.

Theme 3 Unaffected responses:

> They did not make me feel uncomfortable, probably because they were computer-generated. I have enough self-confidence to not let it make me self-conscious. (5'4", 120lbs.)

> No, the slides did not do anything to me. I am comfortable in my body. (5'3", 116lbs.)

The responses given for theme three are obviously that there was no effect on these two respondents. What is interesting about these two respondents is that they both have petite and thin body types. They both indicated their confidence and how comfortable they were with themselves and their bodies. They also indicated that the slides were irrelevant in regards to how they viewed themselves. There are two possible explanations for this type of response.

The first is that both of the subjects honestly felt that they did not have to compete or strive to attain the physique that was portrayed in the slides. In other words, they were simply not effected by society's ideal body image. This is the simple explanation for these responses. However, these responses could also mean that these subjects felt that the slides were not real or part of society's standards. They felt that the standards of beauty in society do not include computer-generated women.

Q5, (How do you feel about your body after viewing the slides?) also relates to RQ2 in that it inquires about how the subjects were made to feel about their bodies after viewing the slides. The responses for this question were divided up into two themes: positive (theme 1) and negative (theme 2).

Theme 1 Positive responses:

I know I'm not perfect but who wants to be that would be boring! I like my body. It took me a long time to get any weight on me. I like it. (5'8", 145lbs.)
I am still comfortable with it. (5'5", 180lbs.)

The same I did before I saw them. I'm satisfied with my body. It's not too big or too small. Although everyone has things they don't like about themselves. But we know that most things about our appearance we can't change. And we have to be satisfied with that. (5'4", 120lbs.)

The same as before I saw them. (5'3", 116lbs.)

No different than before- I love my body and the only thing I would wish differently for it is to have a bigger bust, but it is not something that is extremely important and I don't plan on changing it. (5'8", 122lbs.)

I feel just fine about my body. I know I don't look ridiculously thin and unhealthy. (5'3", 135lbs.)

I am fairly satisfied with my own body. Of course, there is always room for improvement, but I don't feel any worse for looking at the slides. I just think that it's obvious that male graphics artists designed them under the influence of pornography. (5'7", 125lbs.)

I like my body more because these slides show a figure that is impossible to get, so I figure there is no point in trying to become what some guys want because there are guys out there who prefer the natural. (5'4", 136lbs.)

Ok, because I'm happy with myself and comfortable with what I was given. (5'3", 110lbs.)

I feel fine about my body. Those girls were not attractive to me. Everything about them was fake. Who would want grapefruit breasts and have people staring at them all the time. I like my natural self. (5'8", 135lbs.)

I love who I am, it is all about feeling good about yourself because other people see that and react to you by the vibe you put off. (5'5", 105lbs.)

Well, I'm never totally satisfied with my body, but the slides don't

change how I feel because those images are not what I think is beautiful. (5'3", 112lbs.)

I'm alright! (5'5", 147lbs.)

The theme found in this group of respondents was that they felt positive about their body after viewing the slides. They indicated that they were unaffected by the slides or they did not wish to look like the women in the slides. Some respondents did indicate that they were not totally satisfied with their body, but the slides did not change how they felt about their bodies. Some respondents' even commented on specific parts of the women's bodies shown in the slides that they felt were undesirable.

First, some of these respondents were unaffected by the slides. They felt that beauty was on the inside, they felt comfortable with what they were given, and they also felt that their bodies weren't perfect but that was unimportant. These subjects looked at aspects about their self that were unrelated to their body. For example, one responded talked about how it wasn't what was on the outside that was important. They were more concerned with the emotional/spiritual rather than the physical. Another respondent discussed how feeling good about herself revealed a positive image to others. Both of these respondents avoided the actual body image issues and were more concerned about how they felt about themselves through other aspects of the self-concept.

Second, some of the respondents felt that the images of women in the slides were not attractive and therefore they would not want to look like them. One respondent remarked that the images were not what they considered to be beautiful. This response is interesting because it does not include any discussion of what society considers beautiful. Another respondent said that the girls in the slides were not attractive and everything

about them was fake. This is indicative of a view that some women do understand that computer-generated characters are unrealistic.

Lastly, some of the respondents felt that the women in the images had certain body parts that were out of proportion. One of the subjects commented on the shape of the breasts of the women in the images. The images depicted large, very round breasts. (See Appendix D) As Angier (1999) noted that women's breasts come in all shapes and sizes. The images that were shown to the subjects depicted unnatural breasts that can only be achieved through plastic surgery. Still, another subject indicated that the women in the images had bodies that were impossible to attain. What is interesting about this is the idea that in today's society it is possible to attain that type of body through plastic surgery. This was not a consideration among these respondents.

Theme 2 Negative responses:

> I feel like an average body. It is nothing special. I could be
> better toned and in shape. (5'6", 128lbs.)

> Blah! (5'9", 170lbs.)

> Well, I would like my body to be thinner, but I don't really
> have a desire to look like those girls because most of them
> were misproportionate. And if those girls were real, most of
> them would have to pay money for those bodies, and I may
> not be satisfied with my body, but I would never have surgery
> on my body just so guys can look at me and like it. It would have
> to be something major like cancer or something. (5'2", 145lbs.)

> I've never been happy with the way I look, but after seeing that
> it makes me feel worse. (5'7", 275lbs.)

> I felt I needed to tone up some but I'm glad I'm not too shapely
> so I don't feel tempted to show it off. If I were younger, I'd
> definitely be disappointed in my figure. (5'5", 121lbs.)

Kind of a "Oh well, not much I can do" feeling. A little resigned.
Not really happy with it, but I know I can't look like that. (5'4", 115lbs.)

I feel like I need to workout more. I feel like I am not sexy. I feel
like a big lump of grossness. (5'6", 125lbs.)

Horrible- I can't explain why really because in my head I know
that isn't what it is about. I should be perfectly happy with my
body, looks, self-image as a whole, but with the problems I solely
have and then the idea of what a woman should look like it makes
me feel worthless. I don't know why we need as whole to put these
restrictions and focus on our bodies. (5'2", 112lbs.)

I feel a little inadequate. (5'10", 113lbs.)

Like my legs are too short and stumpy and my chest
is too small. (5'2", 117lbs.)

These respondents felt negatively about their bodies after viewing the

slides. Some of them thought that they needed to exercise more, and some felt that there

was nothing they could do to attain their desired body type. Those that felt that they

needed to exercise more indicated that they believed that the body type shown in the

slides was attainable. The others felt that they could not possibly look like the images of

women portrayed in the slides.

Another characteristic of this group of respondents was that they used language

such as gross, horrible, and blah. This is important because of the severity of their words.

There were a few respondents who indicated that they felt a little inadequate, however

some of them used derogatory language to express how bad they felt about their bodies.

One respondent even commented on how they already felt bad about their body and the

slides made them feel even worse. Therefore it stands to reason that even those who

already feel poorly about their bodies are made to feel even worse due to these images of

women in video games.

One of the respondents commented about the overemphasis on the body by society. She felt conflicted about society's emphasis on the female body and her own personal beliefs about what is important in life. She mentioned that society puts restrictions on women in regards to their bodies. The images in the slides depict disproportionate women with very large breasts and small waists. In today's society thinness is the ideal, however a large chest is also desirable. Therefore the restrictions that she is speaking about include not only thinness, but also the expansion of chest size. Another subject mentioned the inadequacy of her legs. She felt that her legs were short and stumpy, and the slides depicted long shapely legs. The legs of the women depicted in the slides were very long, yet the overall height of the women appeared to be short (See Appendix D).

Lastly, one respondent noted that the women in the slides had disproportionate bodies. She commented that she felt that she would like to be thinner, however she would never want to get plastic surgery to improve her body. She felt that the women in the slides could only have attained their bodies through plastic surgery. In a postmodern society, for the most part, women would have to undergo plastic surgery to increase their bust size and minimize their waists. Plastic surgery has become more acceptable and many women are electing to have surgeries done to improve their physical appearance. Therefore the new ideal body image in society is changing to the body that has endured surgical alterations.

RQ3: How do women in society perceive female images in video games?

Q1: How do you feel about the slides you have just seen? This question inquired

about the subjects' initial reaction to the images in the slides. There were four themes found in the responses. The subject wrote about one of the following areas: men (theme 1), society (theme 2), description of the slides (theme 3), or their own inadequacies (theme 4).

Theme 1 Men responses:

> I feel like men who designed these women are going to be
> extremely disappointed when they can't <u>find</u> women like
> that in real life. I am not ashamed of my body, granted there
> are a few things I would like to change. (5'5", 180lbs.)

> They are not real people. I wish people weren't attracted to
> them. (5'8", 145lbs.)

> They were showing "the image" of what guys dream about
> as a perfect looking girl. (5'6", 128lbs.)

> They were degrading. I found it very sad that even "computer
> babes" are made just how the males of the world want them.
> Big breasts, a small waist and lots of curves is all that seemed
> to matter. I do know that I am overweight, but if I were skinny
> and small-breasted I would definitely be offended by all the
> emphasis on big breasts. (5'7", 275lbs.)

The subjects under this theme felt that the images in the slides were developed specifically for men. One respondent even commented that she perceived the designers of the women in the slides to be men. These respondents indicated that men would think that the women in the slides were perfect and beautiful. They did not indicate what they thought about the slides, but rather indicated how men would find the slides attractive. One of the respondents even suggested that men dream about the women depicted in the slides.

Secondly, these subjects did acknowledge that the women in the slides were computer-generated and not real. They did not feel comfortable with the idea that men

find unrealistic women as desirable. One respondent felt sad that the women in the slides were considered the ideal body type in the eyes of men. She also commented that even though she felt she was overweight, if she was skinny she would feel the same way. This group of subjects had a diverse range in weight, suggesting that regardless of the shape of the respondent they all felt uncomfortable.

Theme 2 Society responses:

> I think of how unrealistic they are. Poor kids who have to look up to that but in a weird way. I wish I could look like that! (5'5", 147lbs.)

> Most of them were risky and made me feel a little uncomfortable. A lot of the women shown had what the world calls "the perfect body". I feel that women who dress the way that some of the women on the slides dress is inappropriate. Many of the pictures were of women holding guns which seemed abnormal for the way they were dressed.(5'5", 105lbs.)

> I'm thinking these ladies that have been virtually drawn have the "perfect" bodies. By perfect, I mean Hollywood bodies. Their hair, eyebrows, legs, waists, hips, etc have all been drawn to suit what society has claimed to be perfect. (5'4", 136lbs.)

> That they are typical of what is portrayed as ideal in cartoons and real media. (5'7", 125lbs.)

> They were all pictures of what society thinks a woman should look like- small waist, curves, and a big bust. The slides were computer animated and looked like they were from video games or shows and it's sad to have people, especially children, seeing those girls and thinking that's how every woman should look. (5'8", 122lbs.)

> It just confirms the fact that today's society has an unreal expectation for women. (5'9", 170lbs.)

> They are typical of the image that is portrayed for women to look like. (5'2", 145lbs.)

> I feel they are degrading to the female sex. What's sad is that these are real. This stuff is everywhere and it's teaching younger and younger girls to use their sexuality to give

themselves confidence instead of focusing on character,
integrity, and moral standing. (5'5", 121lbs.)

All of the women in the slides and huge breasts, tiny waists,
were thin and tall. Most of the women also had long hair and
big eyes. The women were depicted as dangerous and sexy.
The guns and their apparel almost made me think they were
on the prowl for men. They all appeared enticing and were
society's view of desirable. Their tiny waists, huge breasts,
and fit figures almost made me uncomfortable. Very few
women actually look like that. (5'10", 113lbs.)

Well obviously there was plenty of skin and cleavage showing!
A typical example of how girls nowadays feel they should look,
and of how society tells us we should look. (5'2", 117lbs.)

The subjects in this group felt that society played a large role in their perception

of the women in the slides. The subjects felt that the women in the slides had very

shapely bodies and this made them uncomfortable. They thought that society dictates that

this type of body is desirable, even though very few women actually can acquire such a

figure. One subject even commented about how young girls view these types of images

and it teaches them to use their sexuality in order to gain confidence instead of their

morals and values. In other words society is having a profound impact on younger girls

about their self-image and also about what makes a person successful in life.

Also implied by this group of subjects is the notion that society has unreal

expectations for women. One respondent noted that the women in the slides had

'Hollywood' bodies. The respondents recognized that the images were unrealistic and

that society depicts these types of bodies as ideal. Another respondent simply stated that

the images in the slides were typical of what society sees as ideal. Still another even

commented on how they wished they could look like the women in the slides even

though they recognized that they were unrealistic. The expectations that society place on

women in regards to their body is clearly ivory-towered.

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Interestingly, the responses that were grouped under this theme immediately discussed how society views women, rather than how they viewed women. This indicates that there is a lot of pressure on women today to look like the ideal portrayed in the slides. The lack of description of the slides found in these responses indicates that there are some major problems with the distinction between the individual and society. In other words, the respondents felt that their own views were either secondary or not a part of how they were made to feel about the slides. The respondents first impulse was to comment on society's views of the ideal female body and how much those views affect women.

Theme 3 Description of slides responses:

> The images were fairly descriptive, even going as far as to show the designer name on the outfits. The guns each of them were holding was a little disturbing. It made me question what the slides were made for. They looked like actors out of a James Bond movie. (5'4", 120lbs.)

> I think that most of the women were very beautiful. However, the images are not intended for children. The women were portrayed as very powerful women and they looked very hardcore. At times I felt as if I was watching a porn. (5'3", 116lbs.)

> I feel that the slides that were shown were portraying sexuality and sometimes violence in a way that is unrealistic. The pictures showed that women aren't supposed to value their bodies and the frames of the women were very unreal. Some of the slides looked like a young teens or girls face, but the body definitely wasn't proportionate. (5'3", 112lbs.)

> I feel as if many people only think about big boobs and a small waist when what really matters is what's inside. (5'3", 110lbs.)

> They were disgusting, with way more skin showing than necessary. Those kinds of bodies are only imaginary. I wouldn't want to look like that anyway. (5'3", 135lbs.)

> I feel like they do not accurately portray what real women are like. The slides made women appear to be chiseled and perfect. The

women looked "easy" and not classy at all. I do not like the fact
that somebody thinks that this is classified as "sexy". It's not
real- it's not beautiful. Definitely degrading. (5'8", 135lbs.)

This group of respondents answered the question in a descriptive manner. Some

of the respondents felt that the women in the images were not attractive, while others felt

that the women in the images were attractive. First, the respondents who felt that the

women were unattractive mostly indicated that they were unattractive because they were

not real. One respondent commented on the notion that if something is not real than it is

not beautiful. This is interesting because some of the other respondents in the previous

themes commented on how much value men and society place on these types of bodies.

These unrealistic bodies are the ideal to men and in society in general. Another

respondent commented on how some of the women in the slides appeared to be young

girls in the face, but had bodies of women. This also implies that the women in the slides

were unrealistic, and therefore unattainable.

Some of the respondents in this group did find the women in the slides attractive.

One respondent even commented that she wished she could look like the women in the

slides. Another respondent indicated that the women in the slides appeared to be chiseled

and perfect and then went on to note that they were not beautiful. This would imply that

some of the respondents did feel that the women in the slides were appealing, however

they did not like the idea that society has fashioned them as the ideal body.

Other respondents thought that the images were degrading. They described the

poses, lack of clothing, and guns that the women in the slides were holding. One

respondent even noted that watching the slides was similar to watching a pornographic

film. This respondent felt that the women in the images were depicted in sexual poses and

dressed in provocative clothing. This implies that the images were made specifically for

men. It also implies that society sees women as sexual objects. Overall, the respondents felt that the slides were degrading to 'real' women.

Theme 4 Inadequacies responses:

> Well, diet pills are sounding good about now. The slides made me notice my own physical shortcomings. I feel a little defensive about my own appearance, and a little disgusted with the people who created those characters. (5'4", 115lbs.)

> Immediately I feel envious because I want to have similar physical attributes as the women in the slides. After time and more slides I became slightly disgusted at the fact that the physique of the cartoon ladies is practically impossible. I feel as though a women's body is being exploited. It would be one thing to portray a women's body accurately, but when it is made into an object of that is focused mainly on the obscenely size of the breasts then the pictures become offensive. (5'6", 125lbs.)

> I feel a little bit, no actually a lot intimidated. Not by the guns, by the thin, beautiful, big breasted women. I see women like this on TV as well and I know it is not the "norm" for real women to look like this. Really average people are about a size 8. However, this was hard for me to watch, because I do have an eating disorder- it made me feel bad about myself and body. (5'2", 112lbs.)

The theme of the respondents in this group described how they felt inadequate compared to the women in the slides. They indicated that it brought out their own shortcomings. One respondent even noted that they have an eating disorder and the slides made them feel bad about their body. Another respondent made a comment about taking diet pills after viewing the slides. These types of responses indicate the huge impact these images can have on women. There was animosity for the creators of the women in the slides due to the fact that their bodies are virtually unattainable.

Also worthy of noting, two of the respondents actually wished they could look like the women in the slides. However, they felt that the slides depicted bodies that were unrealistic and this in turn made them feel even more inadequate. One respondent noted

that the images depicted an exploitation of women's bodies. The women in the slides were distorted so that their large chest and small waist looked out of proportion.

Q2: Was there anything about their physical characteristics that made them more or less attractive? This question also relates to the third research question in that it inquires about the subjects' perception of the attractiveness of the women portrayed in the slides. There were three themes found for this question: more attractive (theme 1), less attractive (theme 2), or both attractive and unattractive (theme 3).

Theme 1 More attractive responses:

> Well, if these slides were commercials selling beer it would sell <u>tons</u> of beer. To men these women are ideal. Plus they had handguns, which gives them a masculine look. On the other hand, Most wives probably wouldn't let their husbands watch the commercials. They were all attractive. (5'3", 116lbs.)

> Well, they had huge chests, tiny waists, and long legs, which I think made them more attractive but not at all realistic. (5'2", 117lbs.)

> The thin bodies and larger breasts made them more attractive. (5'9", 170lbs.)

> Society would say that they all had the perfect body and were beautiful. I think a nice body makes a difference on how people feel about their attractiveness, especially when you first meet someone. (5'8", 122lbs.)

> Shapely fit bodies because that is what is "expected" by the general public. People don't want to look at things that are not the "norm," sad to say. (5'5", 147lbs.)

> Yes, they had big boobs, small waists, and revealing (low cut) outfits. They were mostly in an athletic outfit or look. (5'6", 128lbs.)

> The flawless skin, the perfect hair and the toned body, very attractive. (5'8", 145lbs.)

Breasts- they were large and are associated with beauty. Straight
hair, same thing- supermodelish. Thin, lanky bodies- People
associate happiness, love, caringness, and yes even intelligence
from thin bodied people. Our society is based on this kind of "bad"
self body image theme. If you aren't a 0-2 you aren't good enough.
You aren't respected, loved, wanted. Face- they were all very
pretty as well. (5'2", 112lbs.)

The theme found among these respondents was that they all thought the women in

the images were attractive. One of the respondents commented that if these women were

in a beer commercial, it would sell 'tons.' The two major areas that the respondents most

often commented on were breasts and waist size. A respondent commented that the

women in the slides had large breasts and that was one of the reasons they were beautiful.

In general, the respondents felt that the chest size of the women in the images was very

attractive, but unrealistic. Something that was not indicated by this group of respondents

is the shape of the breasts. They commented on the size of the breasts, but did not say

anything about the shape. The women in the slides had unusually round and highly

placed breasts that are usually associated with breast implants. It is a good assumption,

from these responses, that they believed that the breasts depicted in the images were the

ideal.

The waist size of the women in the slides was discussed as well. One respondent

commented on the 'tiny' waists of the women in the slides. The hourglass shape is

distorted in these images so that the waist appears to be virtually nonexistent (See

Appendix D). The respondents felt that this disproportionate waist was attractive and

desirable. They also commented on other areas, such as long legs, shapely bodies, and

thinness.

Another characteristic of these responses is that people in society tend to want to

look at these types of images. One respondent noted that most people do not want to look

at what is not the 'norm.' This respondent was implying that the 'norm' is the women in the slides, and real women are considered the deviation from that 'norm.' Still, another respondent commented that in society people associate happiness, love, and intelligence with the types of bodies that were depicted in the slides. Therefore, this respondent not only sees these types of bodies as physically attractive, but also thinks that society portrays these types of women as possessing happiness, love, and intelligence.

Theme 2 Less attractive responses:

> I think it made them less attractive, because they were flaunting their bodies which leaves nothing to the imagination. When women dress this way it gives you a bad impression, just out of human nature. (5'5", 105lbs.)

> I think the oversized fake boobs are unattractive, because it could mean a person wasn't sincere about themselves to like their body the way it was. (5'3", 110lbs.)

> Their boobs were abnormally large and they were abnormally skinny. It made them a lot less attractive. (5'3", 135lbs.)

> Pretty much everything about the girls made them less attractive! First of all, guns are not attractive at all…What, are women more sexy if they are killing machines? No. Also, boobs the size of grapefruit sitting directly under the chin is less attractive as well. That is definitely not real. Not to mention the lack of clothes- they look trashy, especially with that "come hither" look. Also, the fact that they looked funny with the super hourglass figure. (5'8", 135lbs.)

> Honestly, most of them had thighs (as in each thigh) that were bigger than their waist, which surprised me because I don't think that's attractive. I didn't like the red eyes on the girl from Tomb Raider, and a different hairstyle would've helped out a few of them. But overall, I'd have to say that they were what every girl wants to look like. (5'4", 115lbs.)

> I think the figure of the women was less attractive because of the small waist and large breasts. It just doesn't look right or healthy. The fact some had guns was not attractive and the clothes weren't either. (5'3", 112lbs.)

They were unrealistic to me. The size of their chests just seemed
out of proportion to me. (5'5", 180lbs.)

The theme found among these respondents was that the women in the slides were
unattractive. The reasons that the subjects thought the women were unattractive included
their disproportionate bodies, breast size/shape, and clothing. Even though this group
found the women to be unattractive, one of the respondents still thought that the women
in the images was the ideal.

First, the disproportionate bodies were found to be unattractive among the
subjects. One respondent indicated that the women did not look healthy because of how
small their waist was in proportion to their chest size. Another respondent indicated that
the women in the slides had waists that were smaller than their thigh. These types of
responses indicate that these subjects felt that because these women's bodies were created
out of proportion they weren't attractive.

Secondly, these respondents commented that the women in the slides had very
large, round breasts. One respondent referred to them as 'grapefruit' shaped. Moreover,
another respondent thought that the breasts in the images were 'fake.' This implies that
the images portrayed women with unnatural breasts. Typically, implants will give breasts
the shape that the women in the slides had (See Appendix D). Therefore, the ideal breasts
that the media puts forth are those breasts that have been altered surgically. It is not just a
large chest that is desirables, but rather breasts that are very round and rest high on the
chest.

Lastly, the respondents felt that the women in the images were dressed
inappropriately or were not wearing enough clothing. One respondent indicated that they
looked 'trashy' and there was a lack of clothing. Another respondent felt that they 'left

nothing to the imagination.' This group felt that even though these are the images that

the media is projecting, the women were not attractive to them personally. They did not

discuss what society or men thought about these types of images.

Theme 3 Both attractive and unattractive responses:

> I felt like they were meant to look sexy or desirable with their
> wind blown hair and beautiful eyes. But I felt their enormous
> breasts made them look unproportional, and thus unattractive.
> (5'10", 113lbs.)

> The fact of the breasts being obscenely large and protruding
> under the women's throat (very unrealistic) made the pictures
> less attractive. However, the bodies portrayed as slender and
> physically fit was attractive.(5'6", 125lbs.)

> If I were a guy, I would find them attractive, of course, but in
> a cheap way. The clothes, or lack thereof, made me think less
> of the person. (5'5", 121lbs.)

> They were all very pretty yes, but I don't think that hardly
> wearing any clothes and carrying around a gun makes a
> woman attractive. (5'7", 275lbs.)

> It was obvious that all of them has very large breasts, which I
> could care less about because I know that the only way a skinny
> girl I could have them that big would be to get implants. But I
> think men would say it makes them more attractive. (5'7", 125lbs.)

> They all had big boobs, small waists and really skinny. I think
> most of their faces were all ugly and their bodies were perfect.
> (5'2", 145lbs.)

> I think their hairstyles and make-up along with their muscles
> throughout their bodies made them attractive. Then again
> their tiny waists with their big boobs made them less attractive
> because I don't believe that is ideal naturally...unless your
> Dolly Parton. (5'4", 136lbs.)

> They showed their curves pretty well. However, computer-
> generated people have a square, boxy shape to them especially
> in the face. Most of their clothes were very flattering. (5'4", 120lbs.)

These respondents thought that there were some aspects about the women in the slides that were attractive, and some that were not. Most of them said that the women had thin bodies and that was attractive however, the small waist and large chest was unattractive. Others felt that the women were attractive because of their large chests, but their clothing and faces made them unattractive. One respondent even commented that their faces looked 'boxy,' but they showed their curves well.

Another interesting aspect about this group of respondents was that they did see realistic body parts as well as unrealistic body parts. Some of the respondents thought that the thin, shapely body was attainable, but the large chest and small waist was not. One respondent commented that the breasts portrayed in the slides were not natural unless you were Dolly Parton. This is interesting because the women in the slides do not have natural-looking breasts. The comparison between a real woman and computer-generated woman is being made only in reference to size of chest, not shape.

RQ4: Have video games redefined society's view of the ideal female body?

Q3: What do you think is an ideal female body- physical body characteristics not facial ones? This question relates to the fourth research question because it asks the subjects to describe what they believe is the ideal female body after viewing the slides. There were three themes found among the responses for this question: shapely (theme 1), thin (theme 2), or comfortable (theme 3).

Theme 1 Shapely responses:

> Curves are definitely an essential part of defining a female
> body. Not too much fat, but maybe just a little. We are
> expected to have a 36-24-36, but that is hardly ever the case.
> That would, however, be ideal. (5'4", 120lbs.)

Growing up, I always heard 36-28-36. Meaning the bust line 36", the waist 28", and hips 36". I guess after that I thought that or smaller was best. Magazines don't even feature women that shapely. (5'5", 121lbs.)

Due to primal instincts and purposeful procreation bodies that are youthful, physically fit, and perhaps large breasts create an image that feed those instincts. Therefore my opinion of an ideal female body is slender, slightly muscular and athletic. (5'6", 125lbs.)

The slides with the girl (blonde) in the black dress, near the beginning. That would be ideal. (5'4", 115lbs.)

Honestly, I think a 5'2" – 100lb muscular body type with large breasts, very little body fat, long beautiful straight hair, and a well defined body is the ideal woman body. (5'2", 112lbs.)

5'7" – 5'9" medium frame, average weight (what is that?), C cup breasts, 30" waist, size 8 - 8 1/2 shoe, tone, not ripped, meaty full figured, Chubby is cute! Ha! Ha! Ha! (5'5", 147lbs.)

Thin, large bust, in shape, long legs, curvy, toned. (5'8", 122lbs.)

Tall frame, long skinny but strong legs, 6-pack stomach, large chest, and strong, defined arms. Ideally that's how I'd love to look but I know few (or no) people who have a PERFECT body. (5'2", 117lbs.)

All of these women were ideal: hourglass figure, nice shiny hair, big boobs, nice rear and tiny waist. (5'3", 116lbs.)

The theme found in this group of respondents is that the ideal female body is one that is curvy or shapely. The major component of this theme is that these respondents felt that women should have a larger chest, long legs, and a small waist. The hourglass figure was also seen as desirable. One respondent even commented that one of the women in the slides (See Appendix D, Figure 15) had the ideal body. This supports the idea that women are redefining what they see as beautiful. All of the images shown in the slides are computer-generated and therefore not real.

One respondent mentioned that 'primal instincts' dictate that the ideal female body is youthful and has large breasts. The assumption here is that she was referring to what men believe is desirable. None of the other respondents directly addressed the issue of men, but the body type that they described as ideal did include some aspects that would only be associated with the attraction of men. In other words, even though these subjects discussed what they believed was an ideal body, they were also acknowledging what men find attractive.

Another characteristic of this theme is that many of the respondents commented on the measurements of a woman's body that they thought would be ideal. This illustrates the idea that society projects actual measurements for women. One respondent commented that growing up she learned that 36-28-36 are good measurements for women to have. Another respondent thought 36-24-36 was the ideal measurements for women. Again the hourglass shape is seen as the desirable shape for women to have.

Lastly, the majority of the respondents for this group were on the thinner side. It stands to reason that these women see the opposite of what they are as the ideal. In looking at their measurements it would appear that they are quite thin. These respondents typically thought that the women in the slides were attractive because they were shapely.

Theme 2 Thin responses:

> 5'8", 140lbs., C cup or B, long hair, not anorexic but not obese.
> (5'9", 170lbs.)

> I think having a small waist, muscular, toned, but not too muscular
> legs, is a good ideal body. Being about 5'8" and under 130 lbs. is
> a good size. (5'6", 128lbs.)

> Approximately proportioned. About C cup, medium height, some
> muscle tone. (5'8", 145lbs.)

Thin, but not sick-looking thin- healthy looking breasts that
match the rest of the body- not extra huge. (5'3", 135lbs.)

Average height, thin, fit – but muscles don't have to be visibly
noticeable, tan but not tanning bed every day tan- just healthy
active tan, smooth hair, proportional breasts to rest of body.
(5'10", 113lbs.)

I think a woman that is muscular with natural boobs and somewhat
small waist is ideal. That is not meaning those body builder type
women, just women who has some muscle. (6'4", 136lbs.)

Small to medium frame with a proportionate chest and curves.
(5'2", 145lbs.)

Athletic, thin, medium bust- not ridiculously huge. (5'7", 125lbs.)

Slim, not super skinny, average breasts (it doesn't matter),
muscular, medium frame. (5'7", 275lbs.)

The theme found among this group of subjects was that they believe that a woman

should be thin and muscular. Most of the respondents believed that chest size was

unimportant and should be average size. They also thought that breast should be in

proportion with the rest of the body. One respondent noted that the ideal body should

have average breasts and that size of breasts is relatively unimportant.

A small waist and toned body was also mentioned in these responses. I think that

this group of respondents felt that as long as a woman was thin and in proportion she

would have the ideal body. There was a disregard for what society views as ideal, and

rather only opinions about what these women thought would be ideal for them. Most of

the respondents described bodies that could be attained.

Lastly, most of the respondents, with a few exceptions were on the heavier end

of the sample. Just as stated above in Theme 1, these respondents saw the ideal as the

opposite of their own shape. They thought that a muscular, thin, well-toned body would

be ideal. This implies that regardless of the slides, there are differing views on what is

ideal depending on the viewpoint and body type of the person being asked.

Theme 3 Comfortable responses:

> I just think someone who is comfortable with her body is ideal.
> You can tell by the way she carries herself. (5'5", 180lbs.)

> I think the ideal female body is one that doesn't sell itself with
> it's unnaturalness. I think that the ideal is someone who fits
> themselves naturally. I mean, we were created a certain way
> and lyposuction and fake boobs is not needed to feel comfortable.
> (5'8", 135lbs.)

> One that the female herself is happy with because the media
> has unrealistic ideals for a female body. I try to look healthy
> and stay a little underweight for my height, but only because
> I like to dance and workout. I think muscles are important too.
> (5'3", 122lbs.)

> Ideal female body is for you to feel comfortable and confident
> about yourself no matter what your size might be. (5'3", 110lbs.)

> I don't think that the physical is everything. Beauty is on the
> inside. There is an ideal body that the world creates, but I don't
> have an ideal female body. Every woman is created differently
> and that's what makes each of us so beautiful. (5'5", 105lbs.)

The last theme found was those respondents that felt that a woman who is

comfortable with her body is the ideal. They thought that the type of body was

unimportant as long as the woman had a positive body image and self-esteem. One

respondent even commented that 'beauty is on the inside.' These respondents thought

that the ideal body that society projects is not what is important. Rather they were more

concerned with explaining how a natural body was ideal. One respondent said that

'lyposuction and fake boobs' are not necessary to feel comfortable about their bodies.

These respondents did acknowledge that society has a view of what the ideal body type is, however they did not agree with that standard of beauty. The respondents in this group were all on the thinner side, which is interesting. One of the respondents even commented that they liked to stay underweight for their height and frame. One thing this could imply is that these respondents are comfortable with their bodies and therefore think that every woman should be as well. The problem with this line of thinking is that these subjects do not face the same problems as overweight women do.

Chapter V

Discussion and Conclusions

Experiment 1

These studies was exploratory in nature and aimed at evaluating if college age

women's self esteem and/or body image was effected by female portrayals in video

games. Also, all of the responses in both experiments were self-reported and do not

predict behavior when indicated. In Experiment 1, it was hoped that there would be a

significant interaction between the pretest and posttest of the experimental group. This

experiment was based on the extensive research that has been done on the mass media

and body image. This would be indicative of an effect on video games and body image.

Although there was non-significant interaction between the two tests in the current

experiment, there must be a different method that could be utilized in order to tap into

video games and their effects. The implications of these results could lead to many

subsequent studies. An experiment could be repeated utilizing some changes in the

procedure and subjects. Another implication about the results of this study is the idea

that an entirely new methodology could be imposed to tap into women's self-esteem and

body image in regards to female portrayals in video games.

Implications of Significant Results

As was stated above, the experiment itself did not yield any statistically

significant results. However, there were some significant findings involving the

differences between the larger framed, heavier subjects and the smaller framed, lighter

subjects. It was found that the larger framed subjects in both the experimental and control

groups had lower body image than the smaller framed subjects. Also, the heavier subjects

had lower body image scores than the lighter subjects. This supports what would be

assumed about the subjects: the heavier the subject, the lower the self-esteem and body image. It does not however, reflect how the treatment slides effected the heavier subjects.

Secondly, the experimental group's posttest was used to look at self-esteem and body image. It was found that those subjects that had low self-esteem had a low body image. This is of course because body image is a major part of self-esteem. Those subjects with low self-esteem also scored low on the different dimensions of body image. Again, this is to be expected because of the close relationship between self-esteem and body image. The implications of these findings simply support the idea that low self-esteem and low body image tend to be highly correlated.

Observations

During the first phase of the experiment there were some observations made about the demographic information that was entered by the subjects. The following are only speculations about the subjects involved in this experiment. Each subject was instructed to turn in their surveys after they were finished filling them out. It became apparent that there were some discrepancies about the reported weight, height, and frame of the subjects. As each of the surveys were turned in it was found that some subjects clearly lied about their weight, height, and frame. Using my own weight, height, and frame as a reference point I discovered that many of the slimmer subjects reported that they were taller than they actually were, as well as lighter than they were. The heavier subjects tended to report more accurately than the thinner subjects did as well. Frame size was also an issue for the thinner group. There are many implications that can be discussed about these observations.

First, it is interesting that only the thinner subjects were inaccurate about their height, weight, and frame and not the heavier subjects. This might imply that the thinner

subjects felt a great deal more pressure to be taller and thinner than the heavier subjects did. Some of the thinner subjects who appeared to be average weight would report a weight that was under average. Also, some subjects who were clearly 5'6" tall reported that they were 5'9". Frame was also an issue in that some of the subjects would report their frame inaccurately. Some subjects that were small frame reported that they were medium framed and some subjects that were medium frame reported that they were small framed. Interesting, the large framed subjects all reported that they were large frames. This would also imply that the heavier subjects were more open and honest about their bodies.

There are a few speculations that can be drawn from these initial observations about the results of the experiment. It would seem that if the thinner subjects reported inaccurate demographic information, it would stand to reason that they would report inaccurate self-esteem and body image as well since all of the concepts are closely related. This also implies that the thinner subjects would also be more greatly effected by the treatment slides because they already feel pressure to be thin or maintain thinness. However, since there was a misrepresentation of demographic information related to the subjects' own bodies, the results of this experiment were non-significant. It would also stand to reason that since it appeared that the thinner subjects felt the need to lie about their height, weight, and frame on the survey, they would also not be forthcoming about how the treatment slides affected their self-esteem and body image. Interestingly, the heavier subjects did not appear to falsely report their height, weight, and frame. It could be speculated that they were not as effected by the treatment slides as the thinner subjects. In other words, the heavier subjects already had lower self-esteem and lower body image and therefore the treatment had no effect on them.

The experimenter that showed the slides to the experimental group also had some observations about the subjects. When the slide show began the experimenter noted that the subjects began to gasp and whisper to the person next to them. This would indicate that there was some type of effect on the subjects from watching the treatment slides. The subjects did indeed feel something about what they were seeing, it was just not reported in the results of this experiment. This implies that there should probably be some procedural changes or a new methodology used in order to tap into this sensitive issue.

Future Procedural Changes

The following suggestions could be utilized to correct some possible internal validity problems. The current experiment only had a sample size of 86. One possible reason for the insignificant results could be that those who already had a high self-esteem and body image cancelled out those who did not. In other words, if there was an effect in the experimental group's pretest and posttest for some of the subjects, those who were not effected by the treatment would cancel out those who did experience an effect. Also, if the number of subjects in the sample were to be increased the subjects would be able to be divided up in their respective group in regards to those with high and low self-esteem. If that were the case than differences could be looked between those subjects that have low self-esteem versus those that have high self-esteem in regards to body image.

A second change that could be made for a subsequent study is eliminating the control group. If there are only a limited number of subjects available and/or a very specific target population, than having a control group does not allow for a robust sample size. In other words, the current experiment may have not had enough subjects in order to produce a significant result. If the control group was eliminated than the control group subjects could have received the treatment as well.

Thirdly, the pretest-posttest method indicated some validity effects that occurred in the current experiment. When examining both the experimental and control groups answers for both the pretest and posttest there didn't seem to be any variation. This could be because the subjects remembered taking the pretest and answered in the same manner. There are a few choices that could be made to correct this problem. First, the pretest could be eliminated all together. This would ensure that the subjects would not remember their previous answers. Secondly, the time between the pretest and posttest could be extended so that the subjects do not remember their answers from the pretest. Thirdly, a different scale that measures both self-esteem and body image could be used as a pretest and the current scales could be used as the posttest. This would of course cause internal consistency problems, however the subjects would not recall answers from the pretest. Another possibility is that the self-esteem scale and the body image scale could be reordered from pretest to posttest. Using parallel measures for the pretest and posttest would make the surveys seem different to the subjects.

These types of procedural changes could assist in making the current experiment more robust and also eliminate some of the sources of external validity. However, it is also possible that because of the sensitive issue of body image, a quantitative study might not be the most effective method to tap into this issue. There are also other issues regarding female portrayals in video games that can be examined.

Experiment 2

Discussion and Implications of Results

The second experiment in this study sought to answer three research questions. The first research question, What are the effects of the portrayals of women in video games on women in society, was answered through an analysis of the themes found in the

responses of the subjects. The overall effect of the portrayals of women in video games was that the subjects were made to feel uncomfortable about the images they viewed as well as their own bodies. The subjects, for the most part were not unaffected by the slides and this implies that there is profound evidence that women in general are experiencing negative feelings towards this new type of media.

There was an equal amount of subjects that felt that positive and negative about their bodies after viewing the slides. However, the subjects that felt positive about their bodies after viewing the slides did comment that they thought that the women portrayed in the slides were 'fake' and unrealistic. They also acknowledged that the body type portrayed in the slides were unattainable. The subjects who felt negatively about their bodies after viewing the slides claimed that the images were disturbing. It made them think about how they could change themselves in order to attain such a body. Still others felt that there was nothing they could do to attain that body type. They also discussed how unrealistic the women in the slides were. The overall effect on the women was negative; they felt bad about their own bodies and about how society portrays how women should look.

The implications of these types of results are that through society's projection of these types of images, women are made to feel uncomfortable and inadequate. The effects of these types of images are similar to the effects women feel from viewing real female models. However, I think that the responses indicate that video game images are affecting women in a more negative manner because of the extremely disproportionate body parts illustrated. Models do not have the measurements that the women in video games have because they are flesh and blood. The women found in video games are not flesh and blood and therefore are only a figment of someone's imagination. The extreme

hourglass shape of the women in video games is just a distortion of the human female body.

The second research question inquired about how women perceive the women portrayed in video games. The respondents felt in general, that the images were disturbing. They thought that the images were made specifically for men and society perpetuates these images on a daily basis, making women feel inadequate about their bodies. The respondents also perceived the women's bodies in the slides as unrealistic and virtually impossible to attain. Some also commented that they found the women in the slides to be attractive. Others thought that the women were not attractive because they were not real. The implications of these types of perceptions are indicative of the general feeling that women are being exploited through these images.

Sexy and attractive women are displayed in magazines and television as thin, tall, and chesty. Women learn what is attractive and what is not. The women portrayed in video games are perceived as a new component in the ideal female body. Many of the respondents thought that the women in the slides were 'real' and had physical characteristics that made them more attractive. The physical characteristics of the women in video games are computer-generated, however technology and plastic surgery now allow women to alter or enhance their bodies. Women can attain some of the physical characteristics that women in video games have. Some did indicate that they would not have plastic surgery in order to attain the desired body type. The subjects of this study wished that they could naturally look like the women portrayed in video games.

Other implications of these types of perceptions are that women do find a larger chest, smaller waist, and thin long legs as attractive. This is of course nothing new however, the larger chest is not simply about size; it is about shape. The breast shape of

the women in video games is designed to look similar to women who have had implants. There is a clear distinction between the natural shape of breasts and the synthetic. Therefore the new ideal breast shape is one that is physically altered. Some of the subjects of this experiment thought that the breasts in the images were desirable. They also thought that the waist size was desirable, even though it was unrealistic. This implies that what women perceive as beautiful is changing slightly.

The third research question involved with this experiment inquired about whether new video games have redefined women's views of the ideal female body? Based on the results of this experiment the answer to this question is yes, women are redefining their views of the ideal female body. Many of the respondents felt that the ideal female body was one that was shapely, similar to the women portrayed in the slides. Others felt that being thin was ideal. Still others thought that it was irrelevant what shape a woman has, as long as she is comfortable. Even though there were a few different themes, one thing was apparent; women are indeed changing their views of the ideal female body.

Some of the respondents felt that the women in the slides had ideal bodies even though they thought that a real woman could never attain those physical attributes. Some claimed that the women in the slides were not ideal women because they were unrealistic. The implication of this type of response could mean that if those types of bodies were attainable, would they then find them to be the ideal body type? The respondents did feel that there was a new standard of beauty being perpetuated by society, and that standard is in part based on computer-generated women.

Many of the respondents felt that a thin, small-waisted, chesty body would be the ideal. There was even a specific comment about one of the women in the slides having an ideal body. The implications of these results are that society, as a whole has accepted

these new images and are encouraging their production. The women in these video games are continuing to change. Lara Croft from Tomb Raider continues to get a larger chest and smaller waist as the years pass. This new ideal body could also cause major problems for women in society. Some women may develop eating disorders, get plastic surgery, and/or suffer from depression because of these types of images. As new images show up in the media, so does technology. The standards on what is beautiful change in our postmodern society, as do the methods for attaining those standards.

Observations

There were a number of observations made during Experiment 2. Some of the observations were similar to the ones made in Experiment 1. However, many of the participants in this experiment wanted to talk about how the slides made them feel after they were finished with the qualitative survey. One of the subjects inquired about the purpose of the experiment and what was going to be done about the images that they had just seen. This subject was highly distressed after viewing the slides and commented about how her boyfriend plays these types of games. She said that she felt inadequate about her body because her boyfriend would play these games in front of her. She knew that her boyfriend found these women to be very attractive. After an explanation of the research she commented that she hoped that this experiment would make an impact.

Another observation that was made during Experiment 2 was that all of the subjects appeared to be in shock as the first slide was shown. Some subjects' mouths dropped open and some gasped. As more slides were shown the gasps and shocked looks did not change. After the slide show the respondents seemed very eager to begin writing on their questionnaires. The amount of information that the subjects wrote was extensive

and indicated that they felt very strongly about their responses. Many respondents wrote in all caps and used underlining to emphasize what they were feeling.

An observation that was made about the demographic information was that some of the subjects did appear to falsify their actual height. The subjects that did this tended to be on the shorter side. Also, some of the subjects seemed to lie about their weight as well. On the other hand, there were some subjects who appeared to be very open and honest about their weight. Overall, the women were dishonest because of the sensitive nature of body size and shape. The pressures to have a certain figure also contributed to some of the dishonesty.

Future Studies

The following are other studies that might be performed in order to examine the relationship between body image and female portrayals in video games. This research is really just exploratory in nature and there needs to be more investigation done in this area. One possible idea is to study the video games themselves. A content analysis could be done through the playing of video games and/or just on the images of the characters that were shown as the treatment for this experiment. An examination of the content of video games, positions the characters can move, the outfits that they wear, and how they communicate with other characters could all be examined though playing the video games. Also, the positions that were portrayed in the slides that were used for the current experiment could be analyzed. Most of the slides used in this experiment depict video game characters in provocative positions, as well as camera angles that accentuate certain parts of the body.

Also, some of the sequels to certain video games increase bust size, decrease waist size and so forth. The implications of this indicate that there is a change in society in regards to female body size. Throughout history it can be seen that there are changes in preferences to bust size, waist size, and hip size. The ideal body size has changed from voluptuous to thin and back again. However, if new age video games are indicative of popular culture than there is another change that is occurring. This change is of the postmodern kind because what is considered ideal now is no longer physically possible without plastic surgery. Even more interesting, is that there are actual human models that are depicting video game characters and modifying their bodies in order to obtain the 'new' ideal. In today's society people can now modify their bodies to obtain the previously unattainable. Even more difficult to believe is that those who have not modified their bodies are now not considered to have an ideal body. For example, a woman who naturally has a large chest size is no longer considered sexy under the male gaze. However a woman who has enlarged her bust size through plastic surgery is the new ideal. How this changed and why this is so can be directly related to the video game slides of female characters that were used in the current study.

In another line of inquiry for a subsequent study, the sensitive nature of body image could play a pivotal role in the results of the current study. Instead of questioning subjects through an experiment, subjects could be asked to describe how they are made to feel after video games through interviews. This would allow the subjects freedom to express how they are feeling and not force them into answering specific question such as were used in the scales of the Experiment 1 and the questions in Experiment 2. It would also address the sensitivity issue in that subjects could feel free to express whatever they choose.

One of the benefits of doing a study of this nature would be that the results would be more indicative of how subjects were actually feeling. How people in general feel about their bodies is an extremely sensitive issue and a study that allows the subjects to choose how much they disclose would be extremely beneficial. The subjects would also not be given any treatment or questionnaires such as in the current study in which certain types of questions referring to self-esteem and body image may have created some bias. Instead, subjects would be asked general questions about how they feel about women in video games.

Another study that could be done would involve a focus group in which women played the video games and then discussed what they thought about the games and the women portrayed in them. This type of study would get at much more than just how the women appear, but it would allow them to discuss how the women move and act towards other characters. This type of study could encompass not only the bodies of women in video games, but also the violence associated with these women, their personalities, and how they move. This would allow women the opportunity to see women in video games as they virtually 'live and breathe.'

Concluding Thoughts

Even though Experiment 1 yielded non-significant results, this new area of study is important to both sociology and feminist theory. Experiment 2 did yield significant results in that there was an overwhelming consensus that the images of women in video games are being perpetuated by society and those images do indeed make women feel inadequate and uncomfortable about their own bodies. Sociologists are concerned with explaining why people think and do certain things. One of the influences on people in

society is the mass media and popular culture. Video games are now a large part of our society's popular culture. Future research in this area is necessary in order to begin to understand some of the effects that are occurring in today's world. One of the major outlets of socialization is the mass media, and when new forms of media begin to influence society it is important to uncover what those effects are.

Feminist theory is also concerned with how the mass media affects people, women in particular. Feminist theory is truly important to the study of sociology because in the past women have been excluded as both theorists and as members of society. Any theory that is based in any field is given its due look, but feminist theory is sometimes shuffled to the side. If more scholars give attention to this critical theory than it is possible to expand the horizons of our society.

Video games have changed drastically over time and have penetrated popular culture with characters that become icons. Female characters are now illustrating a new ideology of what is beautiful in our society and the study of these video games needs to be addressed. Even though there is much research that has already been done on the effects of violence in video games on society, there is not much research on the effects of the portrayals of characters on people in society. In a postmodern society in which almost any body modification is possible, there should be a new line of inquiry into the 'new' models that are seen as the ideal.

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APPENDIX

Appendix A

Demographic Information Form- Experiment 1

What are the last four digits of you social security number?_____

Age:_____

Height:_____

Weight:_____

Frame: Small_____ Medium_____ Large_____

Student Status:
___Freshman
___Sophomore
___Junior
___Senior
___Graduate
___Nonstudent

Have you played video games in the past five years?_____

What games have you played within the last five
years?_____

_____

_____

How often do you play video games?
a. once a month
b. once a week
c. twice a week
d. more than twice a week
e. I do not play video games

Appendix B

Solicitation Script- Experiment 1

To be read by the instructor of the 2713 Speech Communication classes:

If any of you would like to participate in an experiment that is being conducted for research purposes at Oklahoma State University I will give you extra credit for this participation. The purpose of this experiment is to examine the role of video games in impacting attitudes. If you volunteer for this research study, you will possibly be asked to participate in two sessions. First you will be asked to fill out the attached questionnaires. This session will last approximately 15 minutes. Secondly, you could be asked to attend a second session that involves viewing slides and answering another questionnaire. This session will take place in one of two lecture halls in the classroom building at Oklahoma State University. This session will take approximately 45 minutes. This experiment requires a total of 1 hour of your time on two separate occasions.

Those who do not wish to participate will be offered another option of attending a presentation on campus. Those students who choose not to participate in the experiment will be offered an extra outside communication report. As you know, in 2713 Intro to Speech you must complete 3 outside communication reports in which you attend a speech outside of the class. An extra communication report will be made available to those students that are not opting to participate in the experiment.

Appendix C

Informed Consent Script- Experiment 1

Oklahoma State University

PLEASE DO NOT PUT YOUR NAME ANYWHERE ON THE SURVEYS. There is no need to identify yourself.

My name is Melissa Seyler and I am performing a study on video games and impacting attitudes. This study involves research that is being conducted through Oklahoma State University.

Description: The purpose of this experiment is to examine the role of video games in impacting attitudes. If you volunteer for this research study, you will possibly be asked to participate in two sessions. First you will be asked to fill out the attached questionnaires. This session will last approximately 15 minutes. Secondly, you could be asked to attend a second session that involves viewing slides and answering another questionnaire. This session will take place in one of two lecture halls in the classroom building at Oklahoma State University. This session will take approximately 45 minutes. This experiment requires a total of 1 hour of your time on two separate occasions.

Results: The results of your participation will be strictly confidential. The results of your participation will be recorded by group only. No names or individual identifying information will be maintained. With the exception of the researchers involved in the study, nobody will be allowed to see or discuss any of your individual responses. Your responses will be combined with many others and reported in group form in a dissertation.

Benefits: This research will assist in the understanding of the effect of video games on society.

Risks: There will be some slides shown to you in the second part of this experiment. You may find these slides offensive or degrading. If you are made to feel uncomfortable at any time you may excuse yourself from the experiment.

Participation: Your participation in this experiment is entirely voluntary. If at any point you decide that you do not want to complete the experiment, please inform the researcher. You have the right to refuse to participate and your right to withdraw from participation at any time during the experiment will be respected with no coercion or prejudice. After the experiment there will be an explanation of the research and you may feel free to ask any questions.

Authorization: Participation in this study will be considered consent to the experiment that I have just described.

Are there any questions?
Any questions or concerns, please contact:
Melissa Seyler, M.A. at 744-6151
Jean Van Delinder, Ph.D. at 744-4613
Rights to research subjects: Sharon Bacher, IRB Executive Secretary, Oklahoma State University, 203 Whitehurst, Stillwater, OK 74078. Phone: 405-744-5700.

Appendix D

Treatment Slides

Figure 1. Lara Croft in green bikini

(cgi.afkamm.co.uk)

Figure 2. Lara Croft blowing a kiss

(cgi.afkamm.co.uk)

Figure 3. Dead or Alive yellow bikini

(www.atpictures.com)

Figure 4. Lara Croft, Tomb Raider (Not yet released)

(catlantis.dreamwater.net)

Figure 5. Parasite Eve holding gun

(www.atpictures.com)

Figure 6. Lara Croft aiming gun

(cgi.afkamm.co.uk)
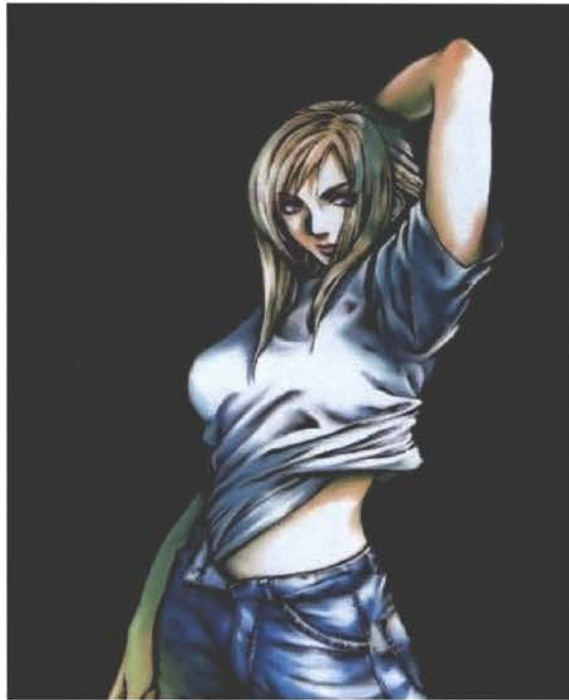
Figure 7. Parasite Eve stretching

(www.atpictures.com)

Figure 8. Lara Croft brown bikini

(cgi.afkamm.co.uk)

Figure 9. Lara Croft upper body shot

(cgi.afkamm.co.uk)

Figure 10. Lara Croft in eveningwear

(cgi.afkamm.co.uk)

Figure 11. Lara Croft lying down with candles

(cgi.afkamm.co.uk)

Figure 12. Lara Croft with black bikini and gun

(cgi.afkamm.co.uk)

Figure 13. Hanging Lara Croft

(cgi.afkamm.co.uk)

Figure 14. Lara Croft profile

(cgi.afkamm.co.uk)

Figure 15. Parasite Eve in eveningwear

(www.atpictures.com)

Figure 16. Parasite Eve upper body shot

(www.atpictures.com)

Figure 17. Dead or Alive black bikini

(www.atpictures.com)

Figure 18. Dead or Alive white bikini

(www.atpictures.com)

Figure 19. Lara Croft back shot

(cgi.afkamm.co.uk)

Figure 20. Dead or Alive red bikini

(www.atpictures.com)

Appendix E

Control Slides

Figure 21. Scene from Metal Gear Solid II- Airplane

(www.gamespot.com)

Figure 22. Scene from Grand Theft Auto III- Crash

(www.gamespot.com)

Figure 23. Scene from Grand Theft Auto III- Building

(www.gamespot.com)

Figure 24. Scene from Grand Theft Auto III- City

(www.gamespot.com)

Figure 25. Scene from Metal Gear Solid II- Ship

(www.gamespot.com)

Figure 26. Scene from Metal Gear Solid II- Sunrise

(www.gamespot.com)

Figure 27. Scene from Star Wars Rogue Leader: Rogue Leader Squadron II- Chase

(www.gamespot.com)
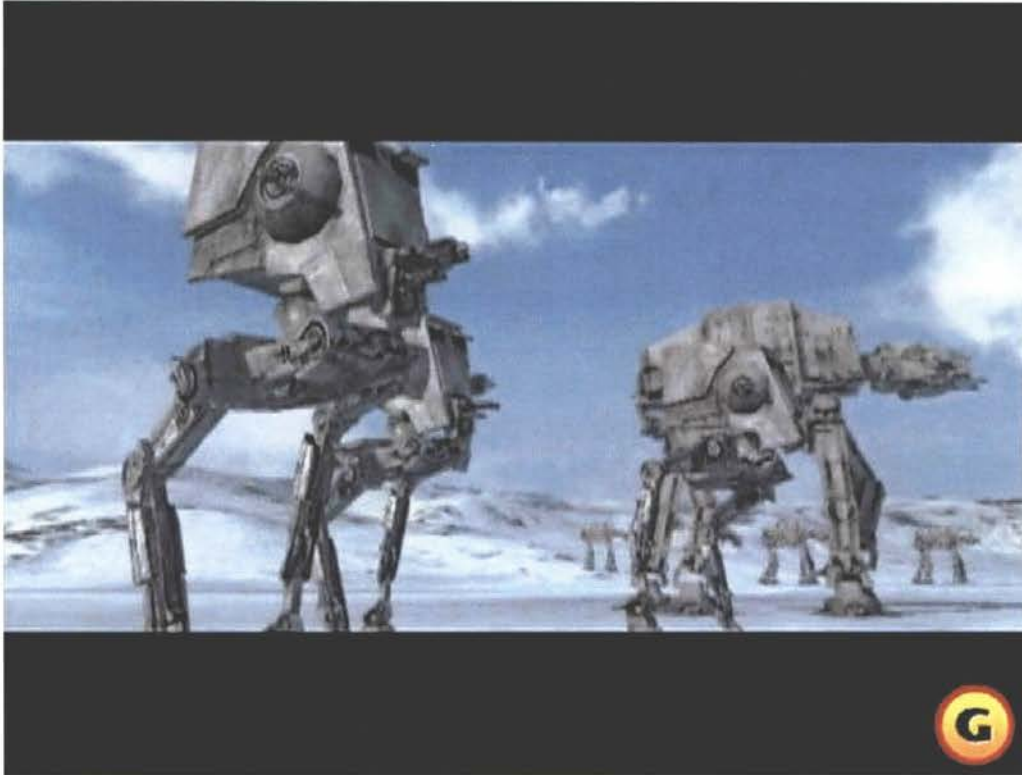
Figure 28. Scene from Star Wars Rogue Leader: Rogue Leader Squadron II- Machines

(www.gamespot.com)
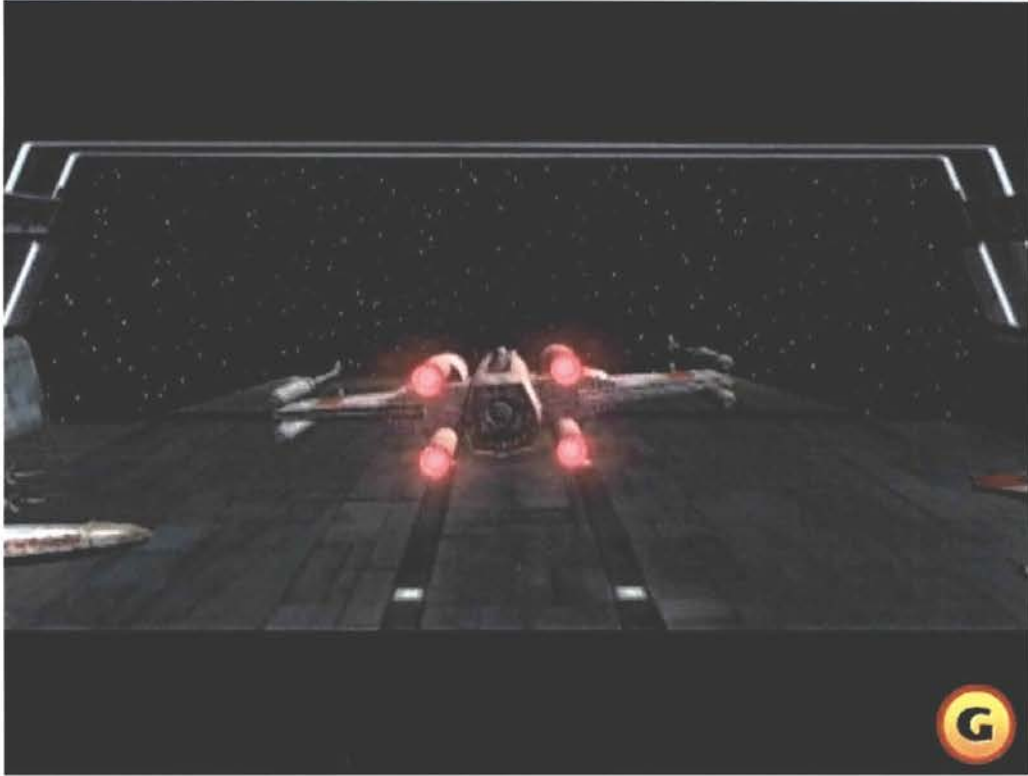
Figure 29. Scene from Star Wars Rogue Leader: Rogue Leader Squadron II- Take-off

(www.gamespot.com)

Figure 30. Scene from Star Wars Rogue Leader: Rogue Leader Squadron II- Space

(www.gamespot.com)

Figure 31. Scene from Star Wars Rogue Leader: Rogue Leader Squadron II- Ships in Space

(www.gamespot.com)
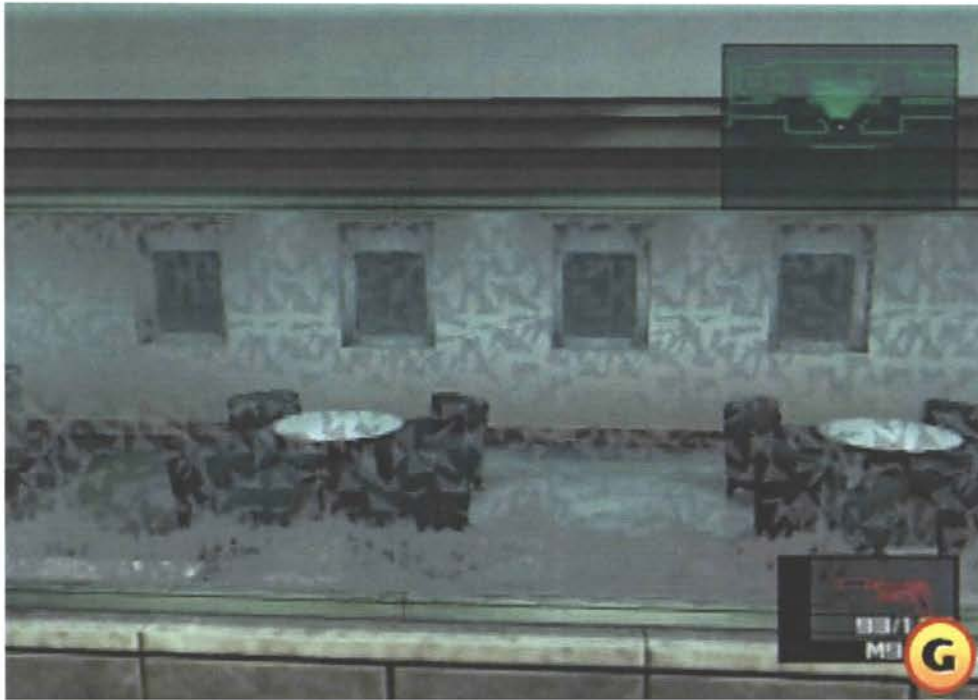
Figure 32. Scene from Metal Gear Solid II- Tables

(www.gamespot.com)

Figure 33. Scene from Star Wars Rogue Leader: Rogue Leader Squadron II- Battle

(www.gamespot.com)

Figure 34. Scene from Metal Gear Solid II- Surveillance

(www.gamespot.com)

Figure 35. Scene from Metal Gear Solid II- Helicopter

(www.gamespot.com)

Figure 36. Scene from Metal Gear Solid II- Machinery

(www.gamespot.com)

Figure 37. Scene from Grand Theft Auto III- Police

(www.gamespot.com)

Figure 38. Scene from Grand Theft Auto III- Car at Night

(www.gamespot.com)

Figure 39. Scene from Grand Theft Auto III- Boat

(www.gamespot.com)

Figure 40. Scene from Grand Theft Auto III- Plane and City

(www.gamespot.com)

Rosenberg Self Esteem Index

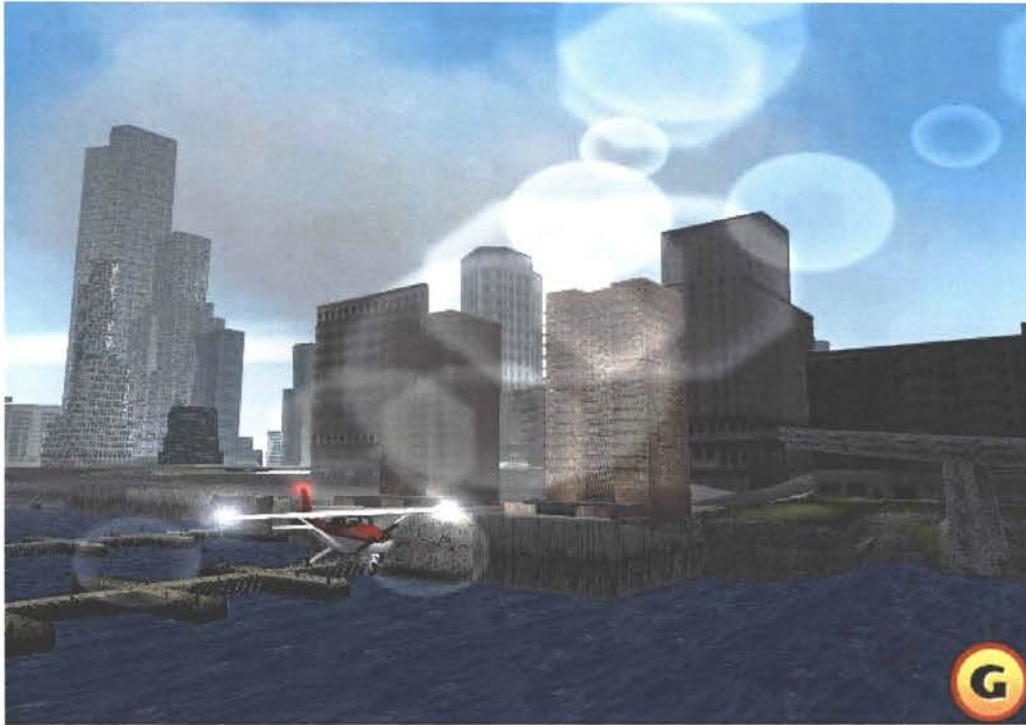**Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle SA. If you agree with the statement, circle A. If you disagree, circle D. If you strongly disagree, circle SD. Remember there are no right or wrong answers so just indicate how you truly feel about yourself.**

1. I feel that I'm a person of worth, at least on an equal plane with others.

    SA   A   D   SD

2. I feel that I have a number of good qualities.

    SA   A   D   SD

3. All in all, I am inclined to feel that I am a failure.

    SA   A   D   SD

4. I am able to do things as well as most other people.

    SA   A   D   SD

5. I feel I do not have much to be proud of.

    SA   A   D   SD

6. I take a positive attitude toward myself.

    SA   A   D   SD

7. On the whole, I am satisfied with myself.

    SA   A   D   SD

8. I wish I could have more respect for myself.

    SA   A   D   SD

9. I certainly feel useless at times.

    SA   A   D   SD

10. At times, I think I am no good at all.

    SA   A   D   SD

Appendix G

MBSRQ-AS Body Image Index

INSTRUCTIONS—PLEASE READ CAREFULLY

The following pages contain a series of statements about how people might think, feel, or behave. You are asked to indicate <u>the extent to which each statement pertains to you personally.</u>

Your answers to the items in the questionnaire are anonymous, so please do not write your name on any of the materials. In order to complete the questionnaire, read each statement carefully and decide how much it pertains to you personally. Using a scale like the one below, indicate your answer by entering it to the left of the number of the statement.

EXAMPLE:

_____ I am usually in a good mood.

In the blank space, enter a **1** if you **<u>definitely disagree</u>** with the statement;
enter a **2** if you **<u>mostly disagree</u>**;
enter a **3** if you **<u>neither agree or disagree</u>**;
enter a **4** if you **<u>mostly agree</u>**;
enter a **5** if you **<u>definitely agree</u>** with the statement.

There are no right or wrong answers. Just give the answer that is most accurate for you. Remember, your responses are confidential, so please be <u>completely honest</u> and answer all items.

1	2	3	4	5
Definitely Disagree	Mostly Disagree	Neither Agree Nor Disagree	Mostly Agree	Definitely Agree

_____ 1. Before going out in public, I always notice how I look.

_____ 2. I am careful to buy clothes that will make me look my best.

_____ 3. My body is sexually appealing.

_____ 4. I constantly worry about being or becoming fat.

_____ 5. I like my looks just the way they are.

_____ 6. I check my appearance in a mirror whenever I can.

_____ 7. Before going out, I usually spend a lot of time getting ready.

_____ 8. I an very conscious of even small changes in my weight.

_____ 9. Most people would consider me good-looking.

_____ 10. It is important that I always look good.

_____ 11. I use very few grooming products.

_____ 12. I like the way I look without my clothes on.

_____ 13. I am self-conscious if my grooming isn't right.

_____ 14. I usually wear whatever is handy without caring how it looks.

_____ 15. I like the way my clothes fit me.

_____ 16. I don't care what people think about my appearance.

_____ 17. I take special care with my hair grooming.

_____ 18. I dislike my physique.

_____ 19. I am physically unattractive.

_____ 20. I never think about my appearance.

_____ 21. I am always trying to improve my physical appearance.

_____ 22. I am on a weight-loss diet.

For the remainder of the items use the response scale given with the item, and enter your answer in the space beside the item.

_____ 23. I have tried to lose weight by fasting or going on crash diets.

    1. Never
    2. Rarely
    3. Sometimes
    4. Often
    5. Very Often

_____ 24. I think I am:

    1. Very Underweight
    2. Somewhat Underweight
    3. Normal Weight
    4. Somewhat Overweight
    5. Very Overweight

_____ 25. From looking at me, most other people would think I am:

    1. Very Underweight
    2. Somewhat Underweight
    3. Normal Weight
    4. Somewhat Overweight
    5. Very Overweight

26-34. Use this 1 to 5 scale to indicate <u>how dissatisfied or satisfied you are</u> with each of the following areas or aspects of your body:

1	2	3	4	5
Very Dissatisfied	Mostly Dissatisfied	Neither Satisfied Nor Dissatisfied	Mostly Satisfied	Very Satisfied

_____ 26. Face (facial features, complexion)

_____ 27. Hair (color, thickness, texture)

_____ 28. Lower torso (buttocks, hips, thighs, legs)

_____ 29. Mid torso (waist, stomach)

_____ 30. Upper torso (chest or breasts, shoulders, arms)

_____ 31. Muscle tone

_____ 32. Weight

_____ 33. Height

_____ 34. Overall appearance

Appendix H

Demographic Information Form- Experiment 2

What are the last four digits of you social security number?_____

Age:_____

Height:_____

Weight:_____

Frame: Small_____ Medium_____ Large_____

Student Status:
___Freshman
___Sophomore
___Junior
___Senior
___Graduate
___Nonstudent

Appendix I

Solicitation Script- Experiment 2

To be read by the instructor of the 2713 Speech Communication classes:

If any of you would like to participate in an experiment that is being conducted for research purposes at Oklahoma State University I will give you extra credit for this participation. The purpose of this experiment is to examine the role of video games in impacting attitudes. You could be asked to attend a session that involves viewing slides and answering a questionnaire. This session will take place in one of the lecture halls in the classroom building at Oklahoma State University. This session will take approximately 45 minutes.

Those who do not wish to participate will be offered another option of attending a presentation on campus. Those students who choose not to participate in the experiment will be offered an extra outside communication report. As you know, in 2713 Intro to Speech you must complete 3 outside communication reports in which you attend a speech outside of the class. An extra communication report will be made available to those students that are not opting to participate in the experiment.

Appendix J

Informed Consent Script- Experiment 2

Oklahoma State University

PLEASE DO NOT PUT YOUR NAME ANYWHERE ON THE SURVEYS. There is no need to identify yourself.

My name is Melissa Seyler and I am performing a study on video games and impacting attitudes. This study involves research that is being conducted through Oklahoma State University.

Description: The purpose of this experiment is to examine the role of video games in impacting attitudes. If you volunteer for this research study, you will be asked to participate in one experimental session. You will be asked to attend a session that involves viewing slides and answering a questionnaire. This session will take place in one of the lecture halls in the classroom building at Oklahoma State University. This session will take approximately 45 minutes.

Results: The results of your participation will be strictly confidential. The results of your participation will be recorded by group only. No names or individual identifying information will be maintained. With the exception of the researchers involved in the study, nobody will be allowed to see or discuss any of your individual responses. Your responses will be combined with many others and reported in group form in a dissertation.

Benefits: This research will assist in the understanding of the effect of video games on society.

Risks: There will be some slides shown to you in this experiment. You may find these slides offensive or degrading. If you are made to feel uncomfortable at any time you may excuse yourself from the experiment.

Participation: Your participation in this experiment is entirely voluntary. If at any point you decide that you do not want to complete the experiment, please inform the researcher. You have the right to refuse to participate and your right to withdraw from participation at any time during the experiment will be respected with no coercion or prejudice. After the experiment there will be an explanation of the research and you may feel free to ask any questions.

Authorization: Participation in this study will be considered consent to the experiment that I have just described.

Are there any questions?
Any questions or concerns, please contact:
Melissa Seyler, M.A. at 744-6151
Jean Van Delinder, Ph.D. at 744-4613
Rights to research subjects: Sharon Bacher, IRB Executive Secretary, Oklahoma State University, 203 Whitehurst, Stillwater, OK 74078. Phone: 405-744-5700.

Please answer the following questions as honestly and in as much detail as possible. Read each question and decide how you personally feel. **All answers are confidential.** There are no right or wrong answers so you should just indicate how you honestly feel. Your participation is appreciated and your feedback is important.

1. How do you feel about the slides you have just seen?

2. Was there anything about their physical characteristics that made them more or less attractive? Why or why not?

3. What do you think is an ideal female body – physical body characteristics not facial ones?

4. Did the slides make you feel uncomfortable, self-conscious, or have a positive or negative effect on you? Explain.

5. How do you feel about your body after viewing the slides?

Appendix L

Oklahoma State University
Institutional Review Board

Protocol Expires: 4/7/03

Date: Monday, April 08, 2002   IRB Application No   AS0252

Proposal Title: FEMALE IMAGES IN VIDEO GAMES AND THE EFFECT OF BODY IMAGE ON
COLLEGE AGE WOMEN

Principal
Investigator(s):

Melissa Seyler   Jean Van Delinder
2001 N. Perkins D-50   035 Classroom
Stillwater, OK 74075   Stillwater, OK 74078

Reviewed and
Processed as: Expedited

Approval Status Recommended by Reviewer(s): Approved

Dear PI :

Your IRB application referenced above has been approved for one calendar year. Please make note of the
expiration date indicated above. It is the judgment of the reviewers that the rights and welfare of individuals
who may be asked to participate in this study will be respected, and that the research will be conducted in a
manner consistent with the IRB requirements as outlined in section 45 CFR 46.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol
   must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year.
   This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are
   unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved projects are subject to monitoring by the IRB. If you have questions about the IRB
procedures or need any assistance from the Board, please contact Sharon Bacher, the Executive Secretary to
the IRB, in 203 Whitehurst (phone: 405-744-5700, sbacher@okstate.edu).

Sincerely,

Carol Olson, Chair
Institutional Review Board

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VITA

Melissa Ellen Seyler 2

Candidate for the Degree of

Doctor of Philosophy

Thesis: FEMALE IMAGES IN VIDEO GAMES AND THE EFFECT OF
BODY IMAGE ON COLLEGE AGE WOMEN

Major Field: Sociology

Biographical:

Personal Data: Born in Reading, Pennsylvania on December 31, 1974, the
daughter of Marlin Seyler and Margaret Keller.

Education: Attended Shippensburg University from August 1992 to May 1996
and received a Bachelor of Arts degree in Speech Communication.
Attended Oklahoma State University from August 1997 to December
1998 and received a Master of Arts degree in Speech Communication.
Completed the requirements for the Doctor of Philosophy degree with a
major in Sociology at Oklahoma State University in December, 2002.

Experience: Speech communication instructor at Oklahoma State University
from August 1997 to May 1999; Research assistant for the sociology
department at Oklahoma State University from August 1999 to July 2000;
Sociology instructor at Oklahoma State University from August 2000 to
May 2001; Speech communication faculty at Oklahoma State University
from August 2001 to present.

Professional Memberships: Lambda Pi Eta, National Communication
Association.