

Girls, Video Games, and the Traditional Stereotype of Female Characters

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## **Overview**

The overall objective of Nintendo's traditional video game *Super Mario Brothers* is to rescue a princess from her evil captor. This helpless princess is the game's only female character. The female protagonist in *Rockett's New School* (Purple Moon) spends the duration of video game engaged in social activities such talking to friends about friendship, boys and clothes. Though the identifying character is female, she remains an unthreatening schoolgirl and provides little more substance than the princess. "...there are abundant reasons to judge the video games of today as reaffirming sexist ideologies and circulating misogynist images" (Cassell, 1999, 3).

The effect of mass media on the beliefs and attitudes of children has garnered substantial research attention; this trend continues as new technology develops. New media are increasingly becoming the focus of such studies. This paper investigates children's home video games and traditional gender stereotypes of women. There has been little research conducted on effects of gender stereotypes in video games on young girls' perception of self and sex roles of women. The purpose of this paper is to provide information to suggest the need for further research into the domain of video games, gender, and girls. Existing research and theory is reviewed including how gender roles develop, how general mass media effects gender identity and beliefs, and how contemporary video games influence children. The current state of children's video games is discussed and specific areas of recommended study are suggested.

## **Specifics**

This research is focused on interactive home video games designed for children from seven to thirteen and stereotypical portrayals of female characters.

### Age and Video Games

Cognitive theorists target age six/seven as the time when children develop a constant view of their gender. With this set gender role, children then begin to formulate gender stereotypes and identity (Kohlberg, 1966). The video games of interest are not those that attempt to convey specific gender roles, but rather those that may do so inadvertently. Most analysis of gender and video games to date has been concerned with violent and aggressive images toward women within game content. These overtly misogynistic elements are often found in games targeted to

16-35 year-old males. This research focuses on the subtler stereotypes within video games aimed at younger children who are in the process of forming sexual identifications.

### Interactive Media

The interactive element of computers, especially video games, has sparked the interest of many researchers, and is perhaps a main reason for the present concern of the effects of computers on children. Some researchers hypothesize that interactive media fosters a different interpretation of information than more passive interaction, such as the television (Dominick, 1984; Kinder, 1996; Sigel, 1996). Studies assessing children's reaction to video game violence found that the displayed and conveyed information was processed as more credible and realistic (Dominick, 1984). Though television viewing can be interactive if a child watches critically and shapes her own learning, video games provide the player with the illusion of direct control. Thus, rather than passively allowing the program to provide stimulation, the video game player is presented with problems or situations and takes action. Therefore, through video games children are receiving not just vicarious reinforcement but a sense of direct reinforcement. They are rewarded or punished for such manipulations as tugging on a joystick or pushing a button; the displayed information is affected by their direct action.

### Stereotype

Though the specific attributes, roles, appearances, and interests of individual females are vast, many people hold beliefs that assign a limited number of possible characterizations to women. Stereotypical beliefs are assumptions based on an oversimplification or uncritical judgement. The stereotype of interest to this paper is the traditional image of women, females as they have been portrayed, viewed, and received in patriarchal societies. Women are stereotypically characterized as helpless, good, non-threatening, deferential, weak, emotional, nurturing, beautiful, and so forth.

### **The Importance of the Study of Girls and Video Games**

Recently, studies involving girls and video games have received increased attention. This may be a result of current effort to involve girls with technology. Video games are one way to encourage girls to participate within the technological domain. Some argue that video games possess the potential to familiarize children with computers, and thus may encourage the pursuit of a career in technology (Greenfield, 1983; Linn & Lepper, 1987; Cocking & Greenfield, 1996;

Cassel, 1999). If girls develop stereotypical constructions of ideal femininity they are pressured to conform to what the culture seems to want them to be, instead of formulating what they want for themselves.

### Increasing Girls' Interest and Ability in Technology

Significant positive correlation has been found between children's use of video games and their general use of computers (Linn & Lepper, 1982). Some reviews state that video games not only increase computer use, but also are related to an increased confidence in technical ability which then leads to an interest in careers in technology (Greenfield 1984; Cassel 1999). This seems to suggest that encouraging girls to play video games may increase their comfort with technology and their confidence of personal skill with computers, which could influence later career choices.

One obstacle is that video games are commonly perceived as a boys medium.

Summarizing studies of children's play activities Pierce concluded that "girls are given toys related to the home, and boys are more frequently given toys that encourage exploration, manipulation, invention, and construction and that provide feedback" (Pierce, 1990, 494). The computer has become yet another such plaything. From kindergarten through high school, both boys and girls have been found to perceive video games as more appropriate for boys (Linn & Lepper, 1982; Wilder, 1985, de Castell & Bryson, 1996). Accordingly, boys from kindergarten to high school self report enjoying computers more than girls do (Wilder, 1985). Children's attitudes regarding gender and computers mirror children's actual usage of computers. From fourth to sixth grade boys are four times as likely to be heavy users, and in high school boys are three times as likely. Technologically related careers also follow this trend; in 1996 16% of college graduates majoring in computer science were women (Cassel 1999).

Though more boys use computers and report feeling comfortable with them, it does not correlate with computer performance. There has been shown to be no difference in the performance of males and females from general computer use to advanced computer science (Cassel 1999). This seems to suggest that external factors discourage girls from using computers. Girls' computer use is affected by how they perceive both the computer and themselves. If they believe themselves academically competent, they are more likely to use computers. If they believe that boys perform better with computers than girls, they are less likely to use computers (Linn & Lepper, 1982). Current video games for children reaffirm dominant conceptions of

gender roles through aspects such as their frequent dependence upon rescue, and the absence of strong female protagonists, thus reinforcing the common notion that computers are for boys.

### **Development of Sex-Role Perceptions**

Discussion of girls' perception of stereotypical females must begin with what is known of the formation children's sex role attitudes. Both cognitive and social-learning theories argue that external societal elements affect the patterning of children's sexual concept of self, and beliefs about their gender. This paper asserts the strong possibility that video games are a contributory societal element in the stereotypical portrayal of women.

#### Cognitive

Cognitive theorists believe the development of sex-role attitudes is shaped by the interpretations and interactions a child has with others (Kohlberg, 1966). These interpretations themselves are affected by outside influences in the child's life such as parents, school, and community. "...the basic patterning of sexual attitudes is instinctual and "natural" in its origins, but...the expressions of these patterns are eventually channeled, distorted, or influenced by cultural forces" (Kohlberg, 1966, 85). Though the child is ultimately believed to process information about sex-roles, his/her abilities to process and interpret are affected by previous knowledge and experience. Societal gender stereotypes that Kohlberg discusses in 1966 are mirrored in contemporary children's video games: power-prestige, aggression and exposure to danger are attributes of the male gender, and nurture and childcare are attributes of the female gender. Exposure to societal stereotypes affects a child's processing and interpretation of gender identity and sex-roles.

### Social-Learning

Children have been shown to acquire sex-typed behavior through observational learning of both live and “symbolic” models (i.e. films, television, and books) (Mischel, 1966). A child’s identification and perception of gender is affected by the manner in which these external symbols and displays are conveyed. This is not to say that the child passively receives information, but rather that the interpretation of material is affected by external stimuli (Mischel, 1966). The social-learning theory suggests that not only do external societal views affect the child, but identifies the potential of created symbols to generate similar effects. This information underlines the need for the study of the effects of video games on gender identification and development.

### **Mass Media and the Construction of Girls’ Sex Role Attitudes**

As discussed, children between the years of seven and thirteen have a new and growing interest in their gender identity and external forces influence attitudes and beliefs. In addition to traditional external sources of information such as family and school, popular culture has been found to play a contributory role in societal influences.

Mass media have been shown to influence girls’ perceptions of women and, therefore, self. Studies illustrate that girls learn and adopt stereotypical roles from images and traits in mass media, thus it is believed to perpetuate cultural definitions of attractiveness and success (Lazier-Smith, 1989; Dietz, 1998; Durham, 1998). “Young girls learn skills, roles, and attitudes that encourage dependency, lack of exploration, and thus result in a deficit in self expression and a sense of mastery” (Dietz, 1998, 430). There remains debate over whether the stereotypes affect the ideas of the culture, or whether they simply reflect the culture’s existing ideas. Media may reflect the current consensus, but the repeated portrayal of such consensus to the masses probably reinforces the views and discourages alternative possibilities. Analytical research focussing on the effects of stereotypical images of women has focussed on television and teen magazines.

### Television

Though there has been much research into the effects of television’s stereotypical portrayals of gender on young children, most of the research was done in the 1970’s when the women’s movement was prevalent in American society. Of the existing research, results show television

content to present a stereotypical image of the sexes, and that children are affected by this portrayal (Frueh & McGhee, 1975; Liebert & Sprafkin, 1988).

Content analysis of television reveals consistent patterns of woman characters as underrepresented, secondary to male characters, possessing stereotypical characteristics of the female gender (Brown, 1982; Liebert & Sprafkin, 1988).

Frueh and McGee (1975) conducted a correlational study to assess whether children who watch more television possess more traditional sex role and gender beliefs. Children in kindergarten through sixth grade were asked questions regarding the appropriateness of children's toys for boys and girls. They found that children who frequently watched television identified with the stereotyped roles associated with their own gender more than the children who watched infrequently.

An experimental study by Miller and Reeves (1976) found that children who have established their individual permanence of gender identify with same-sex characters on television and can identify their sex role behaviors.

Another experimental study by Tan (1979) found that adolescent girls who watched television commercials for beauty products were more likely to rate beauty as an important female characteristic than were girls not exposed to such viewing. Of a group of twenty-three girls, half were shown commercials for beauty aids, while half were shown random commercials. They were then asked to rank female characteristics in order of importance both to men and in society. The girls who saw the television advertisement for beauty products consistently ranked "beauty" higher than those who watched the control ads.

Overall, traditional gender roles are expected and rewarded on television. Though many of the studies are twenty years old, television has been proven to have the potential to cultivate the attitudes of children.

### Teen Magazines

It has similarly been shown that the content of girls' magazines portrays traditional stereotypical images of women, and that these portrayals affect the beliefs of the girl readers. A content analysis of *Seventeen* magazine issues in 1985 done by Pierce (1990) found that articles related to the construction of gender are stereotypical, conveying only traditional images of females. Girls have been shown to respond to such messages by ultimately agreeing with it, accepting the ideology of the message and the subjectivity that it produces (Durham, 1998). "Teen magazines

sustain and support the social power dynamics that keep girls sexually subordinated and constrained. These mediated texts have no potential for contesting or changing gendered social relations and, indeed, actually contribute to the patriarchal control of girls' sexual lives" (Durham, 1998, 386).

### **Present state of gender and video games**

Content analysis focusing on female characters in computer video games parallel results of similar analysis of television and magazine content: they generally reflect inherently sexist images of women. There are two primary genres of video games presently available to girls. One is the traditional video game that has evolved from video game originals such as *Pac Man* and *Gattaca*; the other is a new genre designed especially for girls labeled Girls' Games. Both genres stereotype female characters.

#### Traditional Video Games

Popular contemporary games that fall into this category include *Sonic the Hedgehog*, *Donkey Kong*, *Super Mario Brothers*, and *King's Quest*. There are frequently no apparent female characters and all attention is focused on male characters. If females are present, they typically require rescue, assist the male protagonist along his quest, or are simply the reward upon the completion of a mission. In 1989 *King's Quest IV* became the first video game to offer the user the option of a female protagonist. Though there are currently more games with such an option, even female protagonists are portrayed stereotypically. Whereas the male hero in *King's Quest* yells and beats his chest as he dies, the female hero whimpers and collapses to the ground.

The bulk of the traditional games devoid of stereotypical portrayals of women are often games without concrete characters, such as abstract pattern games including *Tetris* and *baku-baku*; puzzle games including *Myst*, and exploration games including *Nights into Dreams* (Cassell, 1999). Some recent games claim to offer a tough, powerful and independent woman as the protagonist, such as *Tomb Raider's* Lara Crofts; however, Lara possesses the anatomical shape of the stereotypically perfect woman: an exaggerated Barbie-doll.

#### Girls' Games Movement

The Girls' Games movement seeks to interest girls in technology and computers through the validation of girls' interests, tastes, and activities. The goal is to provide girls with an alternative to the traditional technological environment perceived as a boy's domain. A number of

companies, including Her Interactive, Purple Moon, and GirlGames, have recently started to publish video games with this altruistic mission. Though no formal content analysis has been done of this game genre, the portrayal of females in these games do not seem to challenge traditional beliefs, but rather seem to adhere to additional female stereotypes. *Let's Talk About Me!* (GirlGames) has levels related to fashion, body types, food calories, friends and love. These categories mirror those of traditionally stereotypical teen girl magazines.

Some argue that the Girls' Games movement will work against attempts to transform or rethink gender assumptions within the American culture (Cassel, 1999). The genre may even reinforce the notion that boys use traditional video games because they like competition and violence, whereas girls need *special* games because they like social narratives and don't want violence or technological gadgets. Gender bias in technology is often seen by researchers as a result, rather than a cause, of gender segregation in computer-related activities (Gaily, 1996). To create the girl games, the companies interview girls to find out what their target audience wants from a video game. The answers they receive may simply be a reflection of how girls believe they should behave, as opposed to who they actually are and what they actually want. "How will retooling technologies in conformity with the conceptions and desires of girls ever reverse girls' apparent lack of interest in things technological, given what girls themselves appear to believe and to value – specifically, as market research indicates, clothes, make-up, boys, and shopping" (de Castell & Bryson, 1999, 238).

### **Existing Research on Gender and Video Games**

"While research has discovered that other media are important agents of socialization for children, little research has been done with regard to the effects of playing video games for children" (Dietz, 1998, 431).

Most research in the domain of gender and interactive technology has focussed on documenting gender differences in relation to computer interest, use, and performance (discussed in the section about the importance of girls in technology). Some content analysis has been done assessing female roles, studies have been conducted to assess reasons for such portrayals, and a handful of studies have been done analyzing children's perceptions of gender in correlation with stereotypes in video games. Overall, the research shows that women are stereotypically portrayed

within the majority of video games for children and that this portrayal may influence girl's perceptions of sex roles and identity.

### Content Analysis

Content analysis of popular children's video games has been conducted to document existing female characters. Findings are overwhelmingly conclusive that female portrayal in video games mirrors traditional female stereotypes in society.

Dietz (1998) reviewed the content of 105 popular children's video games, specifically assessing portrayals of female characters. She found the most common portrayal of females (41%) to be their absence. The second most common portrayal was the female victim (21%, including *Teenage Mutant Ninja Turtles*, and *Super Mario Brothers*); the third most common was the beautiful object (including *Paper Boy*, and sports video games with cheerleaders); the fourth most common portrayal was the evil female (including *Mighty Morphin Power Rangers*, and *Tiny Toon*). Provenzo conducted a similar study in 1991 when he analyzed forty-seven top Nintendo games and found that 90% had no female characters, and that overall there were 155 male characters to the 9 females.

### Video Game Design

Research has attempted to ascertain possible reasons for the abundance of stereotyped roles in video games.

A study by Huff and Cooper (1987) found that most games are designed by men, around boy culture (interaction through aggression and competition) preserving and intensifying the separation of boy culture from girl culture. They interviewed forty-three children's software designers and found that most designed "learning tools" for girls and "games" for boys. The designers further revealed that when they designed for a "student" or a "child," their designs were identical to their designs expressly for boys.

Girls' Games have been accused of designing for one type of girl. Whereas traditional video games target many genres of interest (e.g. action, adventure, role play, fighting), girl games only change according to the target age. The industry claims that anything else would be a risk, as it would fragment an already marginal audience. Brenda Laurel, CEO of Purple Moon and Interval researcher, states: "My position is that if you want to make a difference in a major way, you have to do it at the level of popular culture" (Cassell, 1999). This single view of the girl

audience leads to a single portrayal of girls in the software, which is a stereotypical portrayal of a vast group of people.

### Protagonist Identification

“In the case of both Barbie Fashion Designer and violent space fantasies, we can see girls... conforming to the idealized roles and scenarios that society – particularly through mass media – has placed before them.” (Subrahmanyam & Greenfield, 1999).

Girls often identify with video game protagonists (Gaily, 1996; Kafai, 1996). Kafai (1996) conducted research on constructionist learning theory, documenting fourth-graders creating video games to teach math skills to younger students. When designing game characters the girls overwhelmingly created a “generic you.” Children’s view of their own gender identity begins with a general conception themselves and is affected by and modeled on the child’s conception of a particular person (Kohlberg, 1966). The absence of female characters in video games may discourage girls and perhaps contributes to their belief that video games and computers are for boys. If a female character is present within a video game, few provide positive role-model characteristics for girls.

### Effects of Video Game Content on Girls

The little research that has been conducted about the effects of video games on the sex-role beliefs and the identity of girls is not conclusive. Kinder’s speculations has led her to argue that video game stereotypes provide images which influence children’s attitudes and beliefs about women (1991). Gailey (1996) found that girls playing video games invent their own images of self and women, regardless of what is presented.

Gaily conducted interviews and observations with a sample group of children from ages six to twelve involved with video games. Through these interviews she observed that children do not blindly take the absolutes of the video game imagery, but rather shape it to reflect their own beliefs and attitudes about gender. “Whether game playing is considered as having positive or problematic effects, almost all studies of children playing video games have presented these players as absorbing or rejecting but not as interpreting and thereby altering values embedded in the games and play process” (Gaily, 1996, 16).

### Conclusion

Existing research suggests that the content of video game content is full of traditionally stereotypical images of females, that the majority of video games are designed specifically for

boys or one type of girl, and that young girls identify with video game protagonists. The few studies done on the effects of video game gender content are conflicting.

Severely lacking are studies to determine specifically how these games affect the perceptions of girls' attitudes regarding women and identity, and on possible ramifications of such beliefs.

### **Summary and Suggestions for Further Study**

Clearly, the characterization of women in children's video games reinforces traditional stereotypes of women, both through traditional games and girl games. In light of the fact that television in particular and mass media in general have been shown to affect a child's view of sex roles, and given the nature of girls between the ages of seven and adolescence, additional research should be conducted in the area of girls' perceptions of traditional female stereotypes in video games. How do girls react to video game portrayals of female characters? Correlational studies should be conducted between stereotypical beliefs and high frequency video game users. Informational and experimental studies should be conducted exposing girls to specific games and assessing reactions. Content analysis of the new genre of Girls' Games should be conducted, and these games should be included in the experimental and correlational studies.

The perceptions that children develop during these formative years can have potential ramifications in later life. "...the roles internalized by the child, including gender, become for the child, and later for the adult, a basis for other roles and for action." (Dietz, 1998, 416).

Ramifications of girls' perceptions of video game stereotypes may parallel that found in research done with television and magazine, such as promoting body image problems, or may prove to affect girls' career choices, discouraging them from pursuing advanced careers in technological occupations.

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