VIDEO GAMES AND MISOGYNY: UNDERSTANDING THE RELATIONSHIP

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INTRODUCTION

Video games have been entertaining players since the 1970s, when games such as *Spacewar!*, a game where the player shot lasers at invading aliens, or the ever popular *Pong*, where players served a pong ball back and forth to each other, were released. These simplistic, two-dimensionally based games were endlessly entertaining and were also a start of something bigger. There is no denying that video games are pervasive in today's popular culture: 88% of males and 75% of females report that they play video games on the computer (Bryce and Rutter 2002:243-44)

Our society frequently hears about the perils of video game playing as well. Many studies have focused on the negative effects video game playing can have on children and adults, particularly video games that include violent content. Numerous studies have found that playing violent video games increases levels of aggression (Willoughby, Adachi and Good 2012; Möller and Krahé 2009; Nowak, Krcmar and Farrar 2008) and levels of stress (Hasan, Bègue and Bushman 2013). Other studies have focused on the positive effects video games can have, such as encouragement of prosocial behavior (Greitemeyer and Osswald 2010), cognitive skill building, such as higher spatial resolution, mental rotational abilities, and attention allocation improvement (Granic, Lobel and Engels 2013), and positive mood increase (Fleming and Rickwood 2001).

More recently there have been concerns about the representation of women in video games. With video games having transformed from the rudimentary graphics of *Pong* to the realistic representation of humans that sound, act, and look like real humans, these avatars likely have an effect on social attitudes. Women in video games have come a long way, from the first representation of Princess Peach in 1981, simply known as "Lady," (McLaughlin 2010), to more

realistic characters today, such as *Tomb Raider*'s Lara Croft; however, these representations tend to be inherently sexist and misogynistic. As the target population for these video games are heterosexual males (Bryce and Rutter 2002), this researcher wonders if depictions of females, often thinner and bustier than the average woman as well as frequently scantily clad (Downs and Smith 2010), have an effect on the players of these games. With video games becoming ever more popular, and with their graphic depiction becoming more and more realistic, it is important to know if and what the effect may be on players. Therefore, the current study inquires whether frequent video game playing contributes to more misogynistic attitudes, particularly among heterosexual males.

MISOGYNY IN VIDEO GAMES

To find evidence and support for the present study's hypothesis, a review of the current literature was conducted. Initially, literatures that revealed the misogynistic nature of video games through various forms of content analysis were investigated. For example, in a study of hypersexuality in video games, the researchers found that out of 60 games reviewed for three separate consoles, 88% of main characters were male, compared to 12% female (Downs and Smith 2010:727). Even in regards to characters in the games, despite main character status or otherwise, it was found that 86% of characters were male, compared to 14% female (Downs and Smith 2010:727). A study of video game magazines and video game cover art revealed a similar trend: only one female appeared for every 5.3 males present in a video game (Miller and Summers 2007:737). In addition, Miller and Summers' (2000) study found that only 26.5% of the females video game characters were available as playable characters (Miller and Summers 2007:738), and males were twice as likely (90.2%) to appear on a video game cover compared to females (42.7%) (Burgess, Stermer and Burgess 2007:423). Another study showed that in online

reviews of video games, only 42% of reviews mentioned female characters at all, and 12% of those reviews focused on the female character's sex appeal (Ivory 2006:109,110).

Even when females do appear in video games, there are many stipulations attached: They are more likely to appear in revealing clothing, compared to male characters, and they are more likely to appear as fully nude characters (Downs and Smith 2010:727, Miller and Summers 2007:739). In addition, female video game characters were found to use less weapons (particularly guns), and they were depicted more frequently as "helpless," when compared to their male counterparts (Miller and Summers 2007:739). Overall, females were represented in video games as being mostly less essential or active than male counterparts, shown as just body parts rather than a full body, and acted more as "decoration," than male characters (Burgess et al. 2007:424,425,426).

The existing literatures, however, are not without their limitations. Because the literatures investigated here are content analysis pieces, one must keep in mind that content analysis "privileges theory more than effect," (Downs and Smith 2010:731) and does not provide a tested body of evidence to support a hypothesis about what effects these representations have. Therefore, content analysis cannot predict behavior of individuals but rather form a basis for future empirical works, such as the present study. In terms of the video game market, the video games reviewed in the existing literatures may already be outdated; however, because the present study will seek to investigate the effect on attitudes due to accrued exposure to video games, such video games as the ones mentioned in these pieces of literature may come to mind for surveyed participants in the present study.

It is no surprise that some women object to these degrading depictions of women in video games. Prior research suggests that women are aware of the video game imageries and ideas

about women, and how these images and ideas affect players. In particular, women reported that they believe the hypersexualized images of men and women in video games had a very strong influence on men and a somewhat strong influence on other women (Cruea and Park 2012:55). These beliefs have been confirmed by the existing literatures. In one study, women who played a video game with a sexualized female character reported lower feelings of self-efficacy than did the women who did not play a game with a sexualized female character (Behm-Morawitz and Mastro 2009:817). Even more disheartening, women in the same study who played a game with a sexualized female character reported "less favorable attitudes towards women with regards to women's physical capabilities," than did women not playing a video game with a sexualized female character (Behm-Morawitz and Mastro 2009:818). These literatures lend support to the present study's hypothesis that video games damage the image of women; in this case, the video games lead women to have feelings of self-doubt.

Not only are women's self-perception negatively affected by video game imagery, but so, too, are men's perceptions of women. In Cruea and Park's 2012 study, men who viewed a slide show of images of sexualized females from video games such as *Grand Theft Auto* and *BMX XXX* scored higher on a scale of sexual harassment tolerance meaning they were more forgiving of sexual harassment perpetrated by another male against a female (Dill, Brown and Collins 2008:1405,1406). Researchers also have found that after playing a sexually charged video game for 25 minutes, undergraduate men were quicker to identify sexual words (e.g. "penis," "sex,") than neutral words and non-words and words that are negative descriptions of females (e.g. "bitch," "whore,") than neutral words about females and non-words in a Lexical Decision Task, compared to men who did not play a sexually charged video game (Yao, Mahood and Linz 2009:83). The same study also found that men who played a sexually charged video

game for 25 minutes were more likely to score higher on a "Likelihood to Sexually Harass" scale than were men who did not play a sexually charged video game (Yao et al. 2009:83). A limitation, however, is that the aforementioned study only sought to investigate short-term cognitive effects of playing a sexually charged video game, so accrued effects of exposure are not explored. The study by Yao et al. (2009) does provide a basis for the present study's hypothesis, however, showing that if only 25 minutes of video game playing results in a short-term cognitive difference, that accrued exposure will likely maintain an equal or stronger effect on an individual.

Stermer and Burkley (2012) investigated the effects of accrued video game exposure. They found that frequent players of video games with high sexual content reported higher levels of benevolent (but not hostile) sexism, meaning that men reported attitudes and beliefs reflecting the idea that women are childlike, precious, and are objects to be protected by men (Stermer and Burkley 2012:5-6). This finding lends support to the idea that misogynistic attitudes will be more evident among frequent video game players, especially heterosexual males.

The present study departs from the literatures reviewed due to the methodology applied. Rather than relying on content analysis of video game images, my study uses survey data in order to gauge the relationship between misogynistic attitudes and a variety of variables (for instance, frequency of video game playing frequency of violent video game playing). The use of quantitative data and quantitative data analysis allows for a more complete analysis and and stronger causal inferences than qualititative research methods.

METHODS

Sampling: A survey was administered to both male and female undergraduate students attending Salem State University. This study used convenience sampling, as the author is a student at the university. With the permission of the instructor, students in three classes were surveyed. This includes one undergraduate upper-level sociology class (approx. 6 students), one undergraduate upper-level psychology class, (approx. 25 students) and an undergraduate introductory business class (approx. 25 students).Because the sampling method is not random, findings from this study are not generalizable to a larger population

No ethical issues were encountered in the administration of the survey, as the respondents were instructed to skip any questions that they did not feel comfortable answering in order to avoid any potential harm. The identities of the respondents were maintained as their real names were not recorded on any document, including the survey. This study received institutional review board approval.

Variables: BACKGROUND VARIABLES: The survey contained 35 questions and took no more than 10 minutes to complete. Seven questions focused on background demographics variables (for instance, sex, race, age, and social class).

Concepts: Concepts used in the analysis include: violent video game playing (the independent variable) and misogynistic attitudes (the dependent variable).

Violent Video Game Playing. An index was created to measure the frequency of violent video game playing. Five indicators were used for this index, including: “How often do you play video games in which your character commits criminal acts?”, “How often do you play video games in which your character kills another character or player?”, “How often do you play video games in which your character physically assaults a female character?”, “How often do you play video games in which your character sexually assaults a female character?”, and “How often do

you play video games in which your character swears or uses profane language?" Each question used a 4-point scale from 0 (never) to 3 (frequently); higher values signify more frequent play. A Chronbach's alpha of .918 indicated high reliability, suggesting that the five indicators, taken together, reliably measure the concept VIOLENT VIDEO GAME PLAYING. The scores for the five indicators were summed up, to create the index.

Misogynistic Attitudes: Eleven indicators were used to measure misogynistic attitudes. Some of the indicators were adapted from Gilmartin-Zena's 1988 study "Gender Differences In Students' Attitudes Toward Rape." Survey questions used to capture attitudes that embody hatred and antipathy for women beyond a basic level of sexism include: "Men are superior to women," "Women cannot be trusted," and "Women should be seen and not heard." Using a six-point Likert scale, the respondents indicated their level of agreement or disagreement to the statements. The scores for the 11 indicators were summed up to create an index. A reliability assessment of the 11 indicators used to measure Misogynistic Attitudes yielded a Chronbach's alpha of .869, indicating reliability.

Summary Statistics: In total, 94 undergraduate students were surveyed. Male respondents made up 54.3% of the sample and females comprised 45.7%. The mean age of respondents was 19.71, with a standard deviation of 2.61. The sample was 3.2% African-American, 4.3% Asian, 4.3% Bi- or Multiracial, 68.1% Caucasian, 17% Hispanic, and 3.2% Other. In terms of sexual orientation, the sample was 92.3% heterosexual, 4.4% bisexual, and 3.3% homosexual. In terms of social class, 8.6% of the respondents reported being working class, 17.2% identified as lower middle class, 59.1% identified as middle class, 14% identified as upper middle class, and 1.1% identified as upper class.

RESULTS

Correlations, analysis of variance, and regression analysis were performed using SPSS.

Correlations

		MISOGYNY	VIOLENTVIDEO
MISOGYNY	Pearson Correlation	1	.331**
	Sig. (2-tailed)		.001
	N	93	92
VIOLENTVIDEO	Pearson Correlation	.331**	1
	Sig. (2-tailed)	.001	
	N	92	93

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation between the two indexes, VIOLENT VIDEO GAME PLAYING and MISOGYNISTIC ATTITUDES, was examined. A Pearson's correlation coefficient of .331 indicates a moderate-positive relationship between violent video game playing and misogyny. Essentially, more frequent violent video game playing is associated with higher misogyny levels. This relationship is statistically significant at the .001 level.

Report

MISOGYNY

Frequency of Video Game Playing	Mean	N	Std. Deviation
Never	14.7857	14	3.62000
Rarely	16.5938	32	8.69505
Sometimes	19.2222	27	7.88540
Frequently	17.6842	19	7.45395
Total	17.3152	92	7.65884

An analysis of variance did not reveal any discernible patterns. Interestingly enough, the highest levels of misogyny are found among "sometimes" players of video games, as opposed to every other category of players, including those who indicated that they play video games frequently. Those who never play video games appear to report the lowest levels of misogyny. This finding is perhaps not surprising, given that frequency of video game playing includes all video game genres, both violent and non-violent ones. The relationship between frequency of video game playing and misogyny is not statistically significant (sig value = .321).

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
MISOGYNY * Frequency of Video Game Playing	Between Groups (Combined)	207.011	3	69.004	1.183	.321
	Within Groups	5130.848	88	58.305		
	Total	5337.859	91			

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.405[a]	.164	.102	7.38700

a. Predictors: (Constant), Hours of Video Games Played per week, hetero, VIOLENTVIDEO, male, Frequency of Video Game Playing, Hours of Video Games Played per day

A regression analysis was run, with MISOGYNY as the dependent variable and male, heterosexual, frequency of video game playing, hours of video game playing per day, hours of video game played per week, and frequency of violent video game playing as the independent variables. An R-Square value of .102 means that 10.2% of the variation in misogyny is explained by all six independent variables taken together.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	858.193	6	143.032	2.621	.023[b]
	Residual	4365.416	80	54.568		
	Total	5223.609	86			

a. Dependent Variable: MISOGYNY

b. Predictors: (Constant), Hours of Video Games Played per week, hetero, VIOLENTVIDEO, male, Frequency of Video Game Playing, Hours of Video Games Played per day

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.634	3.127		4.041	.000
	male	2.440	2.041	.157	1.196	.235
	hetero	2.023	2.990	.071	.677	.501
	VIOLENTVIDEO	.495	.261	.292	1.901	.061
	Frequency of Video Game Playing	-1.009	1.374	-.126	-.734	.465
	Hours of Video Games Played per day	1.793	1.211	.348	1.481	.143
	Hours of Video Games Played per week	-.271	.194	-.318	-1.397	.166

a. Dependent Variable: MISOGYNY

While the regression as a whole was found to be significant at the .05 level (sig value = .023), being straight or male did not significantly affect MISOGYNY. Only the relationship between violent video game playing and misogyny yielded a statistically significant relationship (sig value = .049). Every unit increase in violent video game playing produces a .502-unit increase in misogyny level. All other relationships were not significant.

DISCUSSION

As the hypothesis was that frequent video game playing would lead to higher levels of misogyny, particularly among heterosexual males, some interesting results were found. First, the Pearson's correlation test did reveal that more frequent violent video game playing corresponded to higher levels of misogyny. Although the hypothesis of this study did not necessarily address which genre of video games would correspond to the highest levels of misogyny, this finding corresponds with previous research, such as Yao et al. (2008), which showed that playing a video game with "neutral" content (no violence, no sexual material, etc…) did not result in a change in men's cognition. A regression analysis yielded only one (barely) significant relationship between violent video game playing and misogyny. No statistical relationships were found between being male and misogyny, or being heterosexual and misogyny.

Although the hypothesis of this study was not fully confirmed, there are a few issues left to be addressed in regards to the research. This study had many limitations. The first is that the sample size was incredibly small, and the sample was not at all randomly selected. The reliance on convenience sampling means that findings from this study cannot be generalized to a larger population. In addition, the survey participants were selected from a single college campus, Salem State University, further limiting generalizability.

In spite of the limitations of the study, this study leaves many opportunities to advance upon research in this topic. The topic continues to be an important one in studying gender relationships and the impact of popular culture and mass media. Video games may have important effects on men's perceptions of women and, accordingly, men's treatment of women, and with the trend of video games becoming increasingly more violent, the trend may also lead to more violence towards women.

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