Computers in Human Behavior 26 (2010) 1019–1023

Contents lists available at ScienceDirect

Computers in Human Behavior

journal homepage: www.elsevier.com/locate/comphumbeh

Will the experience of playing a violent role in a video game influence people's judgments of violent crimes?

Kwan Min Lee [a,b,*], Wei Peng [c,1], Julian Klein [a]

[a] Annenberg School for Communication and Journalism, University of Southern California, Los Angeles, CA 90089, USA
[b] Department of Interaction Science, Sungkyunkwan University, Seoul, South Korea
[c] College of Communication Arts and Sciences, Michigan State University, 430 Communication Arts and Science, USA

ARTICLE INFO

Article history:
Available online 28 March 2010

Keywords:
Video game
Role playing
Computer game
Violence
Attitude towards crime
Police crime

ABSTRACT

The present study investigates the impact of the experience of role playing a violent character in a video game on attitudes towards violent crimes and criminals. People who played the violent game were found to be more acceptable of crimes and criminals compared to people who did not play the violent game. More importantly, interaction effects were found such that people were more acceptable of crimes and criminals outside the game if the criminals were matched with the role they played in the game and the criminal actions were similar to the activities they perpetrated during the game. The results indicate that people's virtual experience through role-playing games can influence their attitudes and judgments of similar real-life crimes, especially if the crimes are similar to what they conducted while playing games. Theoretical and practical implications are discussed.

1. Introduction

In the movie, *Runaway Jury*, a lawyer for a defendant accused of committing a violent shooting tried to have a hardcore video game player selected as a member of the jury. The lawyer believed that an obsessive player of violent video games would judge a gunner less negatively than most people because the player had a similar, though virtual (see Lee, 2004, for an explication of virtuality), experience of committing endless shooting rampages in video games. That is an assumption in a Hollywood blockbuster. But is it possible that people's particular roles and behaviors in video games do influence their judgments on similar roles and behaviors in real life? More specifically, can people's punitive judgments on criminals and crimes be influenced by their virtual experience of being a criminal and committing crimes?

These questions have tremendous social implications, given that 68% of American households play computer or video games as of 2008 (Entertainment Software Association [ESA], 2009), and that role-playing games with movie-like narratives are becoming the dominant genre of the video game industry (Lee, Park, & Jin, 2006). The present study provides an empirical test to the above questions. More specifically, it tests the *general* effects of playing violent video games on people's judgments of violent crimes and criminals. In addition, it focuses on the effects of *matching* between (a) the role and behaviors people adopt while they are playing violent video games, and (b) the role and behaviors to which they cast punitive judgments after the games.

2. Literature review

2.1. Media violence, desensitization, and acceptance of crime

Mass media play an important role in shaping people's attitudes towards and judgments of crimes and criminals. Public opinion of crimes and criminals is to some extent determined by how they are portrayed in mass media (Dowler, 2003). Research also indicates that the majority of public knowledge about crimes, especially in metropolitan areas, is largely derived from mass media (Roberts & Doob, 1986; Surette, 1990). Frequent viewing of criminal violence on TV can result in desensitization and tolerance towards crimes. For example, Oliver and Armstrong (1995) found that frequent viewing and greater enjoyment of reality-based crime shows are related to less negative attitudes towards crimes and criminals. Mullin and Linz (1995) also found that repeated exposure to sexually violent films results in desensitization and callousness towards domestic abuse victims.

Little empirical evidence is available to link exposure to violent video games and desensitization, impairment of moral evaluation

* Corresponding author. Address: Annenberg School for Communication and Journalism, University of Southern California, Los Angeles, CA 90089, USA. Tel.: +1 213 743 2317; fax: +1 866 920 2912.
E-mail addresses: kwanmin.lee@usc.edu, kwanminlee@gmail.com (K.M. Lee), pengwei@msu.edu (W. Peng).
[1] Tel.: +1 517 432 8235; fax: +1 517 355 1292.

0747-5632/$ - see front matter © 2010 Elsevier Ltd. All rights reserved.
doi:10.1016/j.chb.2010.03.002

of violence, and acceptance of crimes and criminals. However, compared with violent movies or television programs, which are non-interactive in nature, violent video games might lead to more intense desensitization and tolerance towards violent crimes and criminals, because players of violent video games actively (though virtually) participate in violent crimes (Huesmann, 2007). In order to succeed in a violent video game, players must perform violent behaviors again and again until they finish the game. Repeated violent behaviors in games, which are presented as justifiable and without negative consequences, will result in a continuous cycle of desens itization (Funk, Buchman, Jenks, & Bechtoldt, 2003). When desensitization occurs, the process of moral evaluation is disrupted because the individual stops to perceive or respond to cues that are necessary to initiate the moral evaluation process (Funk, Bechtoldt, Pasold, & Baumgardner, 2004). As a result, people who frequently play violent games might show blunted empathy towards victims of crimes and more tolerance towards real-life violence. For example, in a survey of 150 elementary school students, Funk et al. (2004) found that exposure to video game violence is associated with lower empathy towards victims of violence. It has been shown that players of violent video games tend to show less physiological arousal to violence in the real world after exposure to video game violence in the virtual world than players of non-violent games do (Carnagey, Anderson, & Bushman, 2007).

The General Aggression Model (GAM, Anderson & Bushman, 2002) is extended to provide the theoretical reasons for expecting violent media, including violent video games to desensitize individuals to violence in short-term and long-term context (Carnagey et al., 2007). According to the GAM, people's initial response to violent media is fear and anxiety. However, when violent stimuli are repeatedly presented in a positive emotional context (e.g., exciting background music and sound effect, rewards for violent actions in the game), the initial distressing reactions are reduced. The psychological indicators of such extinction of distressing reactions include decreased heart rate and galvanic skin response (Bartholow, Bushman, & Sestir, 2006). Once desensitization has occurred, people may have decreased attention to violent events, decreased sympathy for violence victims, decreased negative attitudes towards violence, and increased belief that violence is normative. Therefore, based on the previous empirical findings and the GAM, we predict that playing violent games will result in desensitization and more tolerance towards violent crimes and criminals.

H1. In general, people who have played a violent video game will (a) judge a real-life violent criminal less negatively, (b) judge a real-life violent crime to be less unjustified, and (c) mete out a less severe sentence to a real-life violent criminal than people who have not played the video game.

2.2. The effects of role-playing and role-taking in video games

All video games, whether old or new, have some element of role-taking and role-playing (Smith, 2006). Even a prototypical video game such as Space Invaders (1978) can be regarded as a role-playing game, because its players implicitly take on the role of a pilot protecting the earth. Contemporary video games, however, are qualitatively different from the earlier ones in that the players explicitly take on game roles that are carefully established by movie-like internal narratives (e.g., Max Payne, Myst), well-designed game characters (e.g., Super Mario, Tomb Raider), and/or characters from external narratives such as popular movies or dramas (e.g., Star Wars, Matrix, Spider-Man, Harry Potter).

Role-taking refers to a cognitive process by which an individual temporarily imagines or pretends that he or she is another person so as to gain insight into the other person's thoughts, attitudes, intentions, and behaviors in a given situation (Kelley, Osborne, & Hendrick, 1975). The conventional conceptualization of role-playing emphasizes it from a sociological point of view: people fulfill a social function of a particular role and perform behaviors that are associated with and expected from being in such a role (Goffman, 1959).

Role-playing in a video game requires people to pretend that they are someone else and try to "take actions" to fulfill the social expectations of this other person in a make-believe situation. They try to think from the perspective of this other person and behave in accordance with the role expectations for the particular position or status of this other person. This kind of role-playing in a mediated environment heavily involves role-taking, since people need to pretend that they are someone else and need to think and feel from the perspective of others. While playing a video game, people are pretending and imagining as if they were someone else (i.e., avatar) and act accordingly to fit with the social and cultural expectations within the game.

Due to role-taking and role-playing, people develop identification with characters that they perceive to be similar to themselves, or characters that they like or want to empathize with. Such identification can cause cognitive rehearsal of beliefs and values that are embodied by the characters (e.g., "Violence is an easy way to resolve conflicts", "Men are superior to women") and lead to reinforcement of or inclination towards the characters' beliefs and values (Slater, 2002). In addition, a number of empirical studies have demonstrated that, by identifying with the characters, viewers will value the characters' behaviors and even adopt their behaviors (Singhal, Cody, Rogers, & Sabido, 2004). Therefore, when people play a violent video game, they will not only be influenced by the violent content in the game, they will also be influenced by the particular role that they play in the game. We expect that:

H2. There will be interaction effects, such that the differences of the judgments of the two types of violent criminals (police officer criminals vs. generic criminals) would be greater among people who have played a video game with a violent police officer as the main character than among people who have not played the video game. That is, people who have played a video game with a violent police officer as the main character will (a) judge a police officer who committed a real-life violent crime less negatively, (b) judge a real-life violent crime by a police officer to be less unjustified, and (c) mete out a less severe sentence to a police officer criminal than a generic criminal, whereas people who have not played the video game will not show similar significant differences.

3. Methods

3.1. Overview

In the present study, participants in the experiment group were asked to play a video game, *True Crime*, in which the main character—a police officer—used excessive violence to catch law-breakers and, sometimes, even did harm to the innocent for fun. After playing the game, the participants were asked to read four comparable real-life crime cases, which were committed by either police officers or generic criminals. After reading each case, the participants were asked to judge how unjustified each of the crimes was, how bad each of the criminals was, and how severe a sentence each of the perpetrators deserved. Participants in the control group, however, were asked to read and judge all four cases without playing the video game. To sum up, the present study employs a 2×2 mixed experimental design with game playing as a between-subjects factor (playing vs. no playing) and the role of the perpetrator