



## Effects of Violent & Nonviolent games - A Lesson for Marketers?

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### Abstract

The study focus on the ethics and regulation that need to be considered while designing any game, for the goodwill of society. This study examines aggressive behavior in late adolescents when they are exposed to violent and non - violent smartphone games and its impact on them. We found that the results are different from the research papers who claim that violent game content does increase aggressive tendencies in an individual. The difference in the results highlights that there is a need for ethical codes and regulations for advertising the smartphone game besides which category they belong, and help to provide awareness about the effects of these games.

**Keywords:** Violent video games, Media effects, Video game ethics, Video game policy, Smartphone game ethics, Smartphone Content effects

### 1. Introduction

In the past few years, video games have evolved from being played physically to being played virtually. However, with this development, violence in games also developed. This raises the issue of ethics in video games. Marketers use this in advertising as one of the mainstream selling points for video games. With games having more realistic exposure towards violence, leading game developers are focusing on the ethics and regulation that need to be considered while designing any game.

This paper highlights the impact of the role of ethics and social regulation in smartphone games. This discussion about ethics and regulation argues about the game design which led developers into the public spotlight and raised additional questions about why a game designer, while designing a game, should take extreme care of the potential damage of the game to the society. And this discussion is not bound within a single online or offline game. It's a discussion that pertains to all the games, as their content is constantly changing every year.

To understand this discussion, we need to first understand what - a game is, and what is the common thing among all the games. "A game is a rule-based system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort to influence the outcome, the player feels attached to the outcome, and the consequences of the activity are optional and negotiable" (Juul: 2004, p. 30). And this is where ethics and regulation plays an important role in game design.

To address this problem, we intend to find aggressive behavior in late adolescents when they are exposed to violent and non - violent smartphone video games and their impact on them.

### 2. Literature Review

Socializing has become an essential factor for the continuation of the human race and video games become one of the most active media of socializing. In the past few decades, socializing over games have shifted from physical contact to virtual connection. Not only that, the age group of people involved in games

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has almost become unimportant in today's context. From people playing games on streets and parks to playing games on the computer, to console and now on to mobile games - these changes in platforms of playing games have seen a continuous sinusoidal movement between playing games in a group or a community to play it solo or individually, with the current trend moving towards a communal style of gameplay or as it is called in today's context "online format of gaming". A lot of research has been done in understanding the effect of violent games in terms of how a player reacts to the game and how his/her behavior is impacted by playing such games.

After the late 1970s, one of the energizing diversion exercises of youths has been playing computer games (i.e., intelligent games took a shot at PCs or computer games reassures; Cesarone, 1998). Be that as it may, because of the adjustment in the conduct of juvenile young men, the impacts of computer games as of late have gone under logical, open, and political examination. For instance, *PlayerUnknown's Battlegrounds* (PUBG), is an online multiplayer shooting game that's been popular in countries around the world, including India — but in the following week of March, management in multiple Gujarati cities, including Ahmedabad, had banned it, saying it was too addictive and violent. Parents of different children are opposing this game because the education of youngsters and youth are being influenced and it influences the conduct, habits, discourse, and improvement of the adolescent and kids. In Norway on July 22, 2011, Anders Behring Breivik set off an exploding gadget killing 8 preceding shooting another 69 individuals; in court, Breivik later affirmed that he structured the arrangement for his assault by playing the Modern Warfare 2 computer game and at one time he ceaselessly played "Universe of Warcraft" as long as 16 hours every day (CNN Wire Staff, 2012). Adam Lanza, who shot and murdered 26 individuals at Sandy Hook Elementary School in 2012, was accounted for in the media as an eager gamer who played fighting games (Kleinfield, Rivera, and Kovaleski, 2013). For at least 30 years, the researcher has been interested in the influence of media violence on the aggressive behavior of children and adults (e.g., Anderson, 1977; Bushman & Huesmann, 2001). Although links between violent video game play and aggression have been found (Anderson & Bushman, 2001; Dill & Dill, 1998; Griffiths, 1999), the majority of research, especially the research in the following paper, related to exposure to violent video games, also exposure to violent media and television, found that people, especially children, youth adults, and college-age students were at more of a risk of temporarily increasing their aggressive behavior, aggressive cognition, and decreases prosocial behavior (Anderson, 2001). Concern regarding video games has been widely expressed. One of the significant concerns is the exposure to violent content, introduction to more viciousness yielded a greater threatening vibe, e.g., contentions with educators, physical battles, and poor school performance (Gentile et al., 2004). This lead to the change in behavior of adolescents, the effects of video games recently questioned the ethics and guideline game designer need to be adopted. Violent computer game introduction was seen as a causal hazard factor for forceful perception, forceful conduct, forceful effect, diminished prosocial conduct, and sympathy (Anderson et al., 2010). The majority of research, especially the research in the following paper, related to exposure to violent video games, also exposure to violent media and television, found that people, especially children, youth adults, and college-age students were at more of a risk of temporarily increasing their aggressive behavior, aggressive cognition, and decreases prosocial behavior (Anderson, 2001). The prior Literature highlights the different kinds of behavior change among individuals, shows there is a need for proper ethics and guideline which address the harmful effects of these games. This research focused more on aggressive behavior in late adolescence when they are exposed to violent and non - violent smartphone video games and its impact on them. The following hypotheses were tested

**H1:** Late adolescents who are exposed to games with violent content are likely to generate more aggressive behavior than those exposed to games that do not contain violent content.

**H2:** Anger Rumination is likely to change after adolescents are exposed to games with violent content.

**H3:** Anger Rumination is likely to change after adolescents are exposed to games with non - violent content.

### 3. Research Methodology

#### 3.1 Participants

Participants were 120 Postgraduate students (69 men and 51 women) enrolled in MBA courses. For the study, we chose Candy Crush & Subway Surfer as a Non - violent games and Call of Duty & Pubg as violent games. Participants were asked to choose either of the violent and non - violent games. Participation was voluntary. The participants did not receive any reward for their voluntary participation.

#### 3.2 Measure

The Buss Perry Aggression Questionnaire (AQ) measures “trait aggressiveness and 4 distinct sub-traits: physical and verbal aggression, anger and hostility” (Buss & Perry, 1992). The 29 items AQ is measured on a 5 point Likert scale (1 = Extremely Uncharacteristic, 5 = Extremely Characteristic). The Anger Rumination Scale (Sukhodolsky et al., 2001), is a “19-item self-report questionnaire that has been found to reliably factorize among four components of anger rumination: Angry Afterthoughts, Thoughts of Revenge, Angry Memories, & Understanding of Causes”. The 19 items ARS is measured on a 5 point Likert scale (1 = Extremely Uncharacteristic, 5 = Extremely Characteristic).

#### 3.3 Procedure

Participants were tested individually. They were informed that they only have to fill the form and play the smartphone game they have chosen and this would help us for our future studies. In the wake of giving their assent, participants were requested to play either a violent or a nonviolent smartphone game for 20 minutes. We used two violent smartphone games (Call of Duty & Pubg) and two nonviolent smartphone games (Subway Surfer & Candy Crush). Once participants completed the games and they were asked to fill the Buss Perry Questionnaire and along with it they were also asked to fill the Anger Rumination questionnaire again. Participants show what the principal character will do or say, think, and feel when they face the real situation. None of the participants reported a suspicion that the study was about the effects of smartphone game violence on violent content in research.

#### 3.4 Data Analysis & Results

Data that is collected from male and female respondents were used to analyze each type of video game(i.e. Non - violent & Violent), we did the t-test to understand aggressive behavior in late adolescents when they are exposed to violent and non - violent smartphone video games and their impact on them. A two-sample t-test assuming unequal variance was conducted for *H1*. Finds out there is a significant difference between two traits of AQ i.e. Physical ( $t(118) = 3.9737, p=0.001$ ) and Verbal Aggression ( $t(117) = 2.7158, p=0.007$ ), and there is no significant difference between Anger ( $t(118) = 0.5421, p=0.588$ ) and Hostility ( $t(117) = 1.477, p=0.142$ ) when late adolescents were exposed to the game. It is found that in *H2* there is a significant difference in the intent of participants between the two traits of the ARS Scale i.e. Angry Afterthoughts ( $t(59) = 1.294, p=0.2003$ ) & Thought of Revenge ( $t(59) = 1.1750, p=0.2447$ ) after they were exposed to Non - Violent Content. And in *H3*, It is found that there is a significant difference in the intent of participants in Understanding of Causes ( $t(59) = 1.7644, p=0.0828$ ) traits of the ARS Scale after they are exposed to Violent Content. Maybe the most evident issue is that presentation to vicious media can't just significant risk factor (DeLisi, 2005). This highlights the need for ethics and regulation in game design for different kinds of games.

### 4. Conclusion

The result of this study supported our first hypothesis. However, an interesting result of increasingly aggressive behavior found more in Non - violent games compared to the violent game while studying the aggression through ARS. It may be because of the transient desensitization impacts which could lessen and help survivors of violence exposure in a few different ways (Bushman and Anderson, 2009; Carnagey, Anderson, and Bushman, 2007). The study also discloses that there is a need for ethical codes and guidelines to be adopted for advertising the violent video game, which should also provide awareness about the harmful effects of these games. However, as the study only focuses on India some limitation needs to be considered in terms of cultural difference. This study does not capture the cultural difference among the participants. There is a possibility due to the cultural difference the effect of rumination scale may vary from one person to another. In future research, one can explore the aggressive relationship between early and late adolescence using different ruminations that affect behavior patterns.

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