

Violence in Video Games

The most common stereotype of video games claims that video games are extremely violent. While this stereotype is untrue, it is not difficult to see where this stereotype comes from. Many triple-A games incorporate violence into their gameplay. But do violent video games have a negative impact on players? Some parents and lawmakers would like to believe so, but what do scientific studies indicate? Should people be worried about the impact of violent video games, or the controversy overblown? In this paper, we will examine the history of violent video games, and then look at scientific studies to determine the impact of violent video games on players.

One of the first games to cause controversy due to violence was named *Death Race*. Published in 1976 by Exidy, the driving game encouraged players to run over stick figures called “gremlins” [1]. While the game’s initial release was not controversial, controversy began when Associated Press reporter Wendy Walker saw children playing the arcade game. Soon after the article’s publication, many other outlets began to spread the news of *Death Race*. Interestingly, the controversy surrounding *Death Race* wound up increasing the number of *Death Race* arcade cabinets manufactured, from 200 to 3000. By today’s standards, the violence portrayed in *Death Race* seems almost insignificant. Yet, during its’ heyday, *Death Race* caused quite an uproar.

In 1981, *Castle Wolfenstein* was released. This first person shooter game features Nazi imagery and allows the player to kill game characters. Soon after, many other first person shooter games were released. The controversy came to a head with the release of *Mortal Kombat* in 1992 and *Doom* in 1993. The release of these games resulted in multiple investigations by Congress into the effects of violent video games on children [2].

In response to the controversy, the Entertainment Software Association (ESA) created the Entertainment Software Ratings Bureau (ESRB) in 1994 [3]. The ESRB is responsible for rating all video

games released on major console platforms. Platform holders require all games released on their platforms to be rated by the ESRB. Additionally, video game retailers require that any game sold on their store shelves be rated by the ESRB. This virtually mandates that all mainstream video games receive an ESRB rating. The creation of the ESRB was intended to ease the concerns of policymakers – and more importantly – keep the video games industry unregulated. However, the controversy surrounding violent video games would still continue.

On March 21st, 2000, the United States Senate Committee on Commerce, Science, and Transportation held a hearing titled *The Impact of Interactive Violence on Children* [4]. While all of the major video game publishers of the time were invited to attend the hearing, none did. Instead, the hearing attempted to link violent video games to negative school performance, increased arguments with teachers, and increased physical fights. Additionally, the hearing brought in the families of victims of school shootings and attempted to place some of the blame for the tragedies on violent video games. During the hearing, legislation banning the sale of mature (M-rated) games to minors was suggested. While no legislation was enacted on the federal level, the state of California would enact legislation that resulted in a Supreme Court Case.

On October 7th, 2005, California Governor Arnold Schwarzenegger signed into law Assembly Bill 1179, which restricted the sale and rental of violent video games to minors. Additionally, game manufacturers and distributors were required to label games with a sticker displaying “18” on the front of a violent game’s packaging. This sticker was required even though the ESRB already required violent games to display an M rating on the front of the box [5].

Unsurprisingly, the video games industry was opposed to this legislation. The ESA, along with the Video Software Dealers Association (now known as the Entertainment Merchants Association), filed a complaint in the US District Court in the Northern District Court of California on October 17th, 2005. On

December 21st, 2005, US District Judge Ronald Whyte granted the VSDA and ESA an injunction to block the enforcement of the California law. On August 6th, 2007, Judge Whyte granted a permanent injunction on the law, claiming that video games are no different from other forms of media, and that no generally accepted study showed a link between violent video games and violent behavior [5].

The State of California filed an appeal of the permanent injunction in the 9th Circuit Court of Appeals on September 5th, 2007. The Media Coalition filed an amicus brief in support of the VSDA and ESA on February 13th, 2008. The amicus brief argued that the California legislation created a dangerous precedent that could lead to restrictions on the sale of other forms of violent media, such as books or movies, to minors. The brief also stated that the '18' sticker labeling requirement was a form of compelled speech, and thus unconstitutional. The 9th Circuit Court of Appeals upheld the injunction and ruled that the law was unconstitutional, leading the government of California to file a petition for certiorari with the Supreme Court on May 20th, 2009 [5].

The Supreme Court granted California's petition for certiorari on April 26th, 2010. In the following months, many groups, including the American Booksellers Foundation for Free Expression, Association of American Publishers, and the Recording Industry Association of America signed an amicus brief in support of the VSDA and ESA. The Supreme Court heard oral argument for the case on November 2nd, 2010 [5].

The Supreme Court ruled 7-2 that the California law was unconstitutional on June 27th, 2011. Justice Antonin Scalia penned the majority opinion for the court. Justice Samuel Alito wrote a concurring opinion, and was joined by Chief Justice John Roberts. Justice Clarence Thomas wrote a dissenting opinion, with Justice Stephen Breyer writing a separate dissenting opinion [5]. After nearly 6 years of legal battles, video games were officially recognized as speech protected under the First Amendment, meaning that the government could not restrict the distribution of video games to minors, no matter

how violent the game. Since the Supreme Court's ruling, controversy around violent video games has been relatively small, with controversy and discussion shifting to the portrayal of women and minorities in games.

During the Supreme Court case involving the California law, the defendants argued that there was no credible study linking violent video games to violent behavior. But is this actually the case? Looking at scientific studies, the results are mixed.

A meta-analytic study conducted in 2014 by Tobias Greitemeyer and Dirk O. Mügge found a link between video game content and behavior outcome. The study compiled data from 98 independent studies with 36,965 participants [6]. Results showed that those participants who played prosocial games showed more prosocial behavior and less aggression, while those who played violent games saw lower levels of prosocial behavior and elevated levels of aggression. Another meta-analytic study conducted by Craig Anderson in 2003 found the link between violent video games and aggressive behavior to be "larger than the effect of condom use on decreased HIV risk, the effect of exposure to passive smoke at work and lung cancer, and the effect of calcium intake on bone mass" [7].

Another study looked at the relationship between hostility in males and the play of violent video games. In the study, 30 male undergraduate students played one of three games, billiards, *Mortal Kombat*, or *Mortal Kombat 2* [8]. *Mortal Kombat 2* was the most violent out of the three games. The study found that those test subjects who played the *Mortal Kombat* games had greater cardiovascular reactivity and scored higher on measures of hostility. Additionally, those who played *Mortal Kombat 2*, the most violent game played, had the greatest cardiovascular reactivity and the highest scores on hostility measures. This would indicate that the level of violence in a video game could greatly impact the behavior of a player.

While the *Mortal Kombat* study has only examined the impact of violent video games in the short term, a November 2012 study looked at the impact of violent video games over a three-day period [9]. The study found that those who played violent video games over the three-day period saw an increase in hostility and aggression levels, while those who played non-violent games did not. Interestingly, the data did not show any significant difference between the aggression levels of male and female participants. In the analysis of the results, the researchers quote a Calvin and Hobbes comic to explain their analysis of the results. The comic reads as follows: “Violence in the media. Does it glamorize violence? Sure. Does it desensitize us to violence? Of course. Does it help us tolerate violence? You bet. Does it stunt our empathy for our fellow beings? Heck yes. Does it *CAUSE* violence? ...Well, that's hard to prove. The trick is to ask the right question”. It is clear that the researchers involved in this study believe that video games cause aggressive and violent behavior. Their beliefs are backed up by ample data. While it is important to examine such data, it is also important to examine dissenting evidence as well. And many studies exist that show the positive impact violent video games have on players.

A study conducted in November 2010 studied the relationship between the play of violent video games and civic engagement [10]. It should be noted that most studies use the term ‘action game’ to describe any game containing violence or action. The results of the study found that “exposure to action games predicted more prosocial behavior online” [10]. Prosocial behavior is defined as behavior meant to help people. To the average gamer, it is unsurprising that the play of video games, even violent ones, would lead to prosocial behavior. As an example, all violent, online multiplayer games require teamwork, which is an example of prosocial behavior. Additionally, the study found that “action-game-playing-youth whose parents were involved in game play and supervision were most civically involved, compared to youth who did not play action games, or whose parents were less involved” [10].

More evidence exists to reinforce the idea that violent action games can be beneficial. In June 2010, a study titled *Video Games and Spatial Cognition*, investigated the impact of action video game play on brain function. The study finds that playing action games increases a person's "contrast sensitivity, spatial resolution, the attentional visual field, enumeration, multiple object tracking, and visuomotor coordination and speed" [11]. Additionally, complex tasks such as mental rotation are improved by the play of video games. Finally, the study found that action games were the best genre to increase the brain's cognitive function.

Based on experiments and studies, we can see that violent video games can have both positive and negative impacts on players. However, it is important to examine the impact that violent video games have on the real world. If violent video games do lead to increased levels of aggression like studies indicate, then this behavior should be present in society today.

A report published by the Brennan Center for Justice [12] analyses the crime rates in the United States and its' major cities from 1991 to 2016. In general, crime rates in the United States have fallen greatly over the past 25 years. Looking specifically at violent crime, the violent crime rate in 1991 stood at 716 violent crimes per 100,000. In 2016, the rate was 366 violent crimes per 100,000. Over the past 25 years, technological advancements have enabled video game developers to create violent, photorealistic games. The gore present in these games is immensely more detailed than the gore in games like the original *Death Race*, *Castle Wolfenstein*, *Mortal Kombat*, and *Doom*. If the studies linking violent video games to increased violence and aggression are to be believed, then the violent crime rate in the United States should be skyrocketing. Statistics show this to be false. Where then, is this aggressive behavior manifesting?

One possible manifestation of this aggressive behavior comes in the form of online harassment. Online harassment has become increasingly prevalent, and online multiplayer games are well known for

fostering a toxic environment full of harassment. Obviously, this type of behavior is unacceptable.

However, it is untrue to claim that violent video games themselves are the cause of such harassment.

Online video games merely allow this behavior to manifest, but the root cause of the harassment comes from a flawed societal structure that allows online harassment to permeate. However, this does not absolve video game creators of any responsibility for harassment that occurs in their games. Game designers have a responsibility to their players to ensure that their games are non-hostile and free of online abuse.

Additionally, game designers can combat aggressive behavior by developing less violent video games. Shifting development away from violent video games to more prosocial games would cause a cultural shift in the gaming community and would discourage aggressive behaviors from manifesting. Additionally, this change would allow the games industry to expand and reach new players. Game designers generally make games that they would like to play themselves, so by developing games that deemphasize violence, the games industry can bring in new game designers, and more importantly, new customers, who may have been previously uninterested in video games. While there is much work still to be done, the games industry has improved its' portrayal of women and minorities in video games. There is no reason why this can't be done with regard to violence in video games.

After examining multiple studies on violent video games, it is clear that evidence exists on both sides for and against the prevalence of violent video games in society. Some studies show a link between violent video games and aggressive behavior, other studies find that such games can increase prosocial behavior and fine motor skills. Real world analysis suggests that negative behavior observed in a laboratory setting manifests itself in the form of online harassment in multiplayer games. However, this behavior is not specifically the fault of violent video games, but is the fault of greater societal problems. So while politicians and parents would like to place blame on violent video games for causing aggressive behavior, placing blame solely on violent games is ineffective and unproductive.

Sources

- [1] Smith, Keith. "The Golden Age Arcade Historian." *The Ultimate (So Far) History of Exidy - Part 2*, 24 May 2013, allincolorforaquarter.blogspot.com/2013/05/the-ultimate-so-far-history-of-exidy_24.html.
- [2] Andrews, Edmund L. "Industry Set to Issue Video Game Ratings As Complaints Rise." *The New York Times*, The New York Times, 8 Dec. 1993, www.nytimes.com/1993/12/09/business/industry-set-to-issue-video-game-ratings-as-complaints-rise.html?scp=18&sq=mortal%2Bkombat&st=cse.
- [3] *About ESRB*. ESRB, www.esrb.org/about/.
- [4] United States, Congress, Government Publishing Office. "THE IMPACT OF INTERACTIVE VIOLENCE ON CHILDREN." *THE IMPACT OF INTERACTIVE VIOLENCE ON CHILDREN*. www.gpo.gov/fdsys/pkg/CHRG-106shrg78656/pdf/CHRG-106shrg78656.pdf.
- [5] "Brown v. Entertainment Merchants Association." *Media Coalition*, mediacoalition.org/brown-v-ema/.
- [6] Greitemeyer, Tobias, and Dirk O Mügge. "Video Games Do Affect Social Outcomes." *Personality and Social Psychology Bulletin*, journals.sagepub.com/doi/abs/10.1177/0146167213520459.
- [7] Anderson, Craig. "An Update on the Effects of Playing Violent Video Games." *Journal of Adolescence*, Academic Press, 24 Dec. 2003, www.sciencedirect.com/science/article/pii/S0140197103000976.
- [8] Ballard, Mary E., and J. Rose Wiest. "Mortal Kombat (Tm): The Effects of Violent Videogame Play on Males' Hostility and Cardiovascular Responding." *Journal of Applied Social Psychology*, Blackwell Publishing Ltd, 31 July 2006, onlinelibrary.wiley.com/doi/10.1111/j.1559-1816.1996.tb02740.x/full.
- [9] Hasan, Youssef, et al. "The More You Play, the More Aggressive You Become: A Long-Term Experimental Study of Cumulative Violent Video Game Effects on Hostile Expectations and Aggressive

Behavior." *Journal of Experimental Social Psychology*, Academic Press, 22 Nov. 2012,
www.sciencedirect.com/science/article/pii/S0022103112002259.

[10] Ferguson, Christopher J, and Adolfo Garza. "Call of (Civic) Duty: Action Games and Civic Behavior in a Large Sample of Youth." *Computers in Human Behavior*, Pergamon, 23 Nov. 2010,
www.sciencedirect.com/science/article/pii/S0747563210003249.

[11] Spence, Ian, and Jing Feng. "Video Games and Spatial Cognition." *Review of General Psychology*, vol. 14, no. 2, 2010, pp. 92–104., doi:10.1037/a0019491.

[12] Friedman, Matthew, et al. *Crime Trends: 1990-2016*. Brennan Center for Justice, 18 Apr. 2017,
www.brennancenter.org/publication/crime-trends1990-2016.