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Author

Velasquez, Raymond

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IS THERE A CORRELATION BETWEEN VIDEO GAME USAGE AND VIOLENT

OR AGGRESSIVE TENDENCIES?

By

Raymond Velasquez

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Approved by: Dr. Cardullo

Approved by: Juliette Levy

ABSTRACT

The purpose of my project is to prove that there is little to no correlation between video games and violence. I will closely research the literature that has covered video game usage on the educational, psychological, and emotional effects that consumption of such media may produce. Additionally, I will be presenting the history of media scapegoating, as well as common misconceptions regarding the consumption of video games, and how they are commonly tied to violent acts, such as shootings. My research will be presenting counterarguments against the political, social, and legal arguments made against video games that have been made in attempts to ban, censor, or limit accessibility out of fear that they have real-life violent consequences.

ACKNOWLEDGEMENTS

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I would also like to acknowledge the UCR University Honor's staff, including Dr. Cardullo, Mayra Jones (My Honors adviser), and Kristine Parada, for they have also made this journey and completion of my project possible by answering all of my questions in a timely and effective manner. I always could count on a timely response to my questions, and assurance that any issues or concerns I may have will be figured out, and they all have.

INTRODUCTION

Video games have their place in the mainstream as a legitimate form of entertainment and art. With recent releases that can rival major blockbusters in terms of visuals, storytelling, and acting, the medium has come a long way from its humble 8-bit origins. However, the industry is not without controversy. Beginning in the 90s, video games have been the latest lightning rod of the blame for violence in young people and acts such as shootings. Yet, psychologists, legal professionals, and other researchers have found that links between violence and video games may not be as strong as once believed.

With each form of new media that appears, controversy and moral panic are predictable outcomes from the general public. Dating back to the 1950s, social scientists have studied the effects that media may have on the population, especially in regard to violence and other dangerous effects that such entertainment may cause. Federally funded research, censorship, and other efforts to look into the effects of certain media became commonplace during the middle of the 20th century. For example, a notable example is Fredric Wertham's 1954 book, *Seduction of the Innocent,* which laid the foundation for the anti-comic book movement in the 1950s. The book served as a cautionary tale for parents which urged against the consumption of comic books for their children, out of fear that they would inspire and encourage similar scenes of crime and violence featured on the page. Wertham made various claims and criticisms against comic book characters that he deemed dangerous for young readers, such as Wonder Woman, whom he believed was a lesbian due to her strength and independence. He also believed Batman and Robin were gay and thus, mentally ill, and that Superman represented ideas of Fascism due to the "hate and destruction" he brings[1]. Wertham's research and writings would garner legal interest, and he used the connections he made with Senators and other legal professionals

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[1]   Wertham, Fredric (1954). *Seduction of the Innocent*. Rinehart & Company. pp. 192, 234–235.

to further his anti-comic agenda. During a hearing before the Senate Subcommittee on Juvenile Delinquency, Wertham testified about the supposed dangers of comic books, going so far as to say that even Hitler was nowhere near as dangerous as the comic book industry, claiming that he was a "beginner" in comparison.[2] Though these televised hearings caused 15 comic book publications to shut down, Wertham's findings and claims did not hold enough evidence for the Subcommittee to find a direct link between comic books and violence.

Additionally, future studies would find that Wertham's book and research were not as objective or scientific as he presented.[3] A 2012 study conducted by Dr. Carol L. Tilley for the University of Illinois Graduate School of Library and Information Science found that Wertham purposely fabricated, misrepresented, and made omissions purposely to achieve his desired results. For example, in order to prove that comic books caused children to become delinquent, Wertham was found to have pulled his participants from the Lafargue Mental Health Clinic, which is a children's clinic located at St. Philip's Episcopal Church, which is composed mainly of children with behavioral and mental issues. Also, according to Dr. Tilley, Wertham changed the ages, made-up details of patients, misattributed quotes, and fabricated stories told by the patients in order to strengthen his claim. One such example of omissions would be the purposeful exclusion of the severe family issues many of these children would face. Instead, Wertham replaced the effects of family trauma with the effects of comic book reading.[4] These types of

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[2]   Menand, Louis. "The Horror." The New Yorker, December 25, 1969. https://www.newyorker.com/magazine/2008/03/31/the-horror

[3]   Heer, Jeet (April 4, 2008). "The Caped Crusader: Frederic Wertham and the Campaign Against Comic Books". *Slate*.

[4]   Itzkoff, Dave. "Scholar Finds Flaws in Work by Archenemy of Comics." The New York Times. The New York Times, February 19, 2013.

claims, fear-mongering, and methods of vilification would also affect other industries, such as television, films, music, and eventually, video games. What is important to note is that despite the effects that the research that Wertham presented, none of the supposed negative effects of comic book reading could be proven. As with video games, future researchers would attempt to repeat what Wertham tried to, yet fail nonetheless.

The issues surrounding the consumption of video games, specifically violent video games, and their connection to real-world violence and aggression have been a heavily debated political topic since the 1990s. Beginning with the Columbine Massacre, video games have been a new scapegoat to blame for acts of violence across the country, and the reasons are typically politically or morally driven. However, through psychological, sociological, as well as even legal research and evidence, the results have shown the contrary, that there is no solid evidence behind the alarming effects of video games. During the mid to late 2000s, well into the 2010s, there had been an increase in gun-related acts of violence across the country, a majority done by younger individuals and students. According to data on the Naval Postgraduate Schools' Center for Homeland Defense and Security (CHDS), school shootings have been increasing every year since 1970, with a total of 1924 school shootings having occurred since[5]. 637 students have been killed, with 2018 being the deadliest year, with 51 students killed. Ironically, the year with the most school shootings in history has been 2021, with 249 incidents, despite the year being in the middle of the Coronavirus pandemic. A common trend that occurs after a majority of these acts of violence is the media, as well as politicians, being quick to direct blame at video games, as the cause of these incidents. Such media sensationalization of the issue leads to moral panic and action being taken, sometimes even legal.

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[5]   Cunningham, Scott and Engelstätter, Benjamin and Ward, Michael Robert, Understanding the Effects of Violent Video Games on Violent Crime (April 7, 2011).

As with the case of the Sandy Hook Shooting, the President of the NRA, Wayne Lapierre, as well as other conservative public figures, such as Judge Joseph Liebermann, and Judge Frank Wolf, have stated that video games were to blame for the shootings.[6] Additionally, such proponents have also suggested violent video games teach children how to murder and that they become "hypnotized" by the games. As a result of politicians and other public officials favoring the blaming of video games on gun violence, legal action has been taken in the *Brown v. Entertainment Merchant's Association* case. During the 2011 case, the U.S. Supreme Court challenged a 2005 law that prohibited the sale of mature rated video games to minors, which was signed into law by Governor Schwarzenegger, who also believed that there is a connection between video game violence and real-life violence. However, the Court nullified the law and was victorious 7-2, citing the protection of video games under the First Amendment.[7] Similar to Frederic Wertham's attempts to vilify comic books in court in 1957, this legal attempt to vilify video games proved unsuccessful as well. Judge Antonin Scalia ruled that the state of California failed to produce any concrete evidence that supported its claims of the effects of video games and violence. Judge Scalia further supported his decision by stating that children's entertainment has always included violence in it, including books, such as

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[6]   Disis, Jill. "The Long History of Blaming Video Games for Mass Violence." CNNMoney. Cable News Network. Accessed April 15, 2022. https://money.cnn.com/2018/03/08/media/video-game-industry-white-house/index.html.

[7]   Hudson , David L. Brown v. Entertainment Merchants Association, 2018. https://www.mtsu.edu/first-amendment/article/1382/brown-v-entertainment-merchants-association.

Grimm's Fairy Tales, so it would be no different for video games to depict graphic scenes.[8]

In the wake of other shootings, such as the Parkland and the El Paso shootings, President Trump and many other right-leaning politicians typically are quick to place the blame on video games. Matt Bevin, Kentucky Governor posted on Facebook that a "culture of death" is "shredding" the nation's cultural fabric and that music, TV shows, and video games are to blame. President Trump posted a compilation on Twitter that showed graphic scenes from various violent video games, citing that violence is being glorified in our society[9], and called for the stopping or reduction of youth's access to violent video games[10]. Conservative politicians typically blaming video games when a shooting occurs is likely the result of political lobbying.[11] For example, the National Rifle Association and allied politicians are far more likely to place the blame on video games than other politicians, due to their alliances.[12] Video games do not have any political allies, or do not participate in lobbying, which opens them up as an easy target for blame.

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[8]   Hudson , David L. Brown v. Entertainment Merchants Association, 2018. https://www.mtsu.edu/first-amendment/article/1382/brown-v-entertainment-merchants-association.

[9]   CNN. (2018, February 22). *Trump blames video games, movies for violence* [Video file]. Retrieved from https://www.youtube.com/watch?v=3RKZn2Sf7bo

[10]   Jane C. Timm, "Fact Check: Trump Suggests Video Games to Blame for Mass Shootings," NBCNews.com (NBCUniversal News Group, August 5, 2019), https://www.nbcnews.com/politics/donald-trump/fact-check-trump-suggests-video-games-blame-mass-shootings-n1039411.

[11]   Bevin, Matt. "I'm Proudly Endorsed by the @NRA and Will Defend Kentuckians' Right to Self-Defense. #2A #Kygov Pic.twitter.com/Manxhtlndh." *Twitter*, Twitter, 3 Nov. 2015, https://twitter.com/mattbevin/status/661649078401368065?lang=en.

[12]   Hudson, Laura. "Kentucky Governor Says Video Games Are to Blame for School Shootings." *The Verge*, The Verge, 16 Feb. 2018, https://www.theverge.com/2018/2/16/17020768/video-games-violence-shootings-kentucky-governor-matt-bevin.

[13] Despite politicians and other public officials' suggestions that there is a direct link between video games and shootings, investigations of shooters' interests and patterns among various perpetrators have revealed evidence contrary to such assumptions and claims. For example, during a search of the Sandy Hook shooter, Adam Lanza's, home, police did indeed find "thousands of dollars" worth of video games, according to the investigation. However, the report did find that Lanza favored non-violent, such as *Dance Dance Revolution*.[14] [15] This is one major commonality between other shooters that are often overlooked or blatantly left out of the argument by some, perhaps intentionally, which is that non-violent video games are just as popular as violent video games, even among school shooters. Villanova University psychologist and expert on the issue, Patrick Markey, has stated with absolute certainty that no link exists between shooters and video game usage. Markey states that relative to the overall population, only about 20% of school shooters play video games, which is a much smaller number compared to the 70% of overall high school students.[16] This was corroborated by the U.S. Secret Service and the U.S. Department of Education, which studied the habits of 41 school shooters in 2000. Their research found that only 5 out of the 41 shooters were interested in video games, but

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[13]   Author, "No, There's Still No Link between Video Games and Violence." Los Angeles Times. Los Angeles Times. Accessed April 25, 2022. https://www.latimes.com/world-nation/story/2019-08-06/video-games-violence-studiess.

[14]   Stoller, Gary. "The Mystery of Adam Lanza, The Sandy Hook School Gunman." USA Today. Gannett Satellite Information Network, November 26, 2013. https://www.usatoday.com/story/news/nation/2013/11/25/newtown-shooting-investigation/3696425/.

[15]   Bogost, Ian. "Video-Game Violence Is Now a Partisan Issue." The Atlantic. Atlantic Media Company, August 5, 2019. https://www.theatlantic.com/technology/archive/2019/08/video-game-violence-became-partisan-issue/595456/.

[16]   Markey, Patrick M., and Christopher J. Ferguson. *Moral Combat: Why the War on Violent Video Games Is Wrong*. Dallas, TX: BenBella Books, Inc., 2017.

twice that number were more interested in violent books or movies. The group's largest interest, however, was their own writings, which were poetry and journals.[17] [18] Though no in depth research exists to suggest that books or movies cause real-life violence, it is important to note that video games are among the lower popular entertainment medium for school shooters. [19]

Furthermore, while school shootings are a uniquely American issue that has plagued the nation, consumption of video games, violent and non, is just as popular (and even more so) in other countries such as Korea and Japan, where their rates of violent crimes and mass shootings are an insignificance fraction of what they are in the U.S. According to the United Nations Office on Drugs and Crime, the U.S. has 13 times more violent crimes, 26 times more murders, and 148 times more gun-related crimes than Japan (The U.S. is ranked 1).[20] Sources have cited gun control for this discrepancy, but not a lack of video game access. According to data from the Statista Digital Market Outlook, the U.S. is second in place for the largest video game market, whereas Japan is third, and South Korea is fourth.[21] Furthermore, South Korea also boasts very small crime numbers

[17]   Stoller, Gary. "The Mystery of Adam Lanza, The Sandy Hook School Gunman." USA Today. Gannett Satellite Information Network, November 26, 2013. https://www.usatoday.com/story/news/nation/2013/11/25/newtown-shooting-investigation/3696425/.

[18]   "The Final Report and Findings of the Safe School ... - Ed," July 2004. https://www2.ed.gov/admins/lead/safety/preventingattacksreport.pdf.

[19]   Tan, A. S., & Scruggs, K. J. (1980). Does exposure to comic book violence lead to aggression in children? *Journalism Quarterly*, *57*(4), 579–583. https://doi.org/10.1177/107769908005700404

[20]   "Japan vs United States Crime Stats Compared." NationMaster.com. NationMaster. Accessed April 18, 2022. https://www.nationmaster.com/country-info/compare/Japan/United-States/Crime.

[21]   Buchholz, Katharina, and Felix Richter. "Infographic: The World's Top 10 Gaming Markets." Statista Infographics, August 20, 2021. https://www.statista.com/chart/25593/biggest-video-game-markets/.

relative to the U.S. According to the same statistics available from the UN, the U.S. has 62% more violent crimes, 10 more murders, and 81 times more gun related crimes than South Korea.[22] These three nations feature the most dedicated and largest gaming populations in the world, yet the two Asian countries are far less violent, especially with guns than the U.S. While violent crimes have dropped significantly in the U.S., shootings and gun violence remains an issue. These alarming statistics can be blamed on a myriad of reasons, such as gun control debates and other issues that are extremely politically divisive, including race.

Such common and quick assumptions of the link between shooters and violent video games have led some scholars and researchers to suggest that there may be social and even racially motivated undertones behind these links. The American Psychological Association, which have already dismissed and refuted the links between video games and violence, has also studied the potentially racially charged motivations behind such notions. Lead researcher Patrick Markey, Ph.D., professor at Villanova University's Psychology Department, stated in 2019 that white suburban males who commit violent acts, such as shootings, are almost always erroneously connected to video game usage, almost as an excuse for their behavior.[23] However, when an African American commits a violent crime, they are not given the benefit of the excuse of video games, placing the blame solely on the perpetrator. To study this phenomenon, Professor Markey experimented on 169, college students, who were instructed to read a mock newspaper about an 18-year-old shooter who was a fan of video games. The participants were then instructed to determine

[22]   "South Korea vs United States Crime Stats Compared." NationMaster.com. NationMaster. Accessed April 18, 2022. https://www.nationmaster.com/country-info/compare/South-Korea/United-States/Crime.

[23]   American Psychological Association. (2019, September 16). *Violent video games blamed more often for school shootings by White perpetrators* [Press release]. https://www.apa.org/news/press/releases/2019/09/video-games-school-shootings

what is most likely to blame for why the teen committed the shooting. A significant

majority of the participants, especially those who did not play video games, blamed the

white shooter's actions on video games, whereas the African American shooter did not get

that excuse.[24] These findings were consistent with those found in news headlines and

articles. Alongside the experiment, the researchers also gathered and analyzed 204,796

news articles dating back to 1978 (one year after the release of the first home video game

console, the Atari 2600) regarding mass shootings. The findings concluded that video

games were mentioned in 6.8 percent of white perpetrators, whereas 0.5 percent of

African American perpetrators had video games in the articles written about them. Placing

the blame of video games on violence committed by white individuals is reflective of a

larger social issue and has its roots in historic assumptions about African Americans. By

blaming video games, the burden of the sole responsibility is removed from those who

committed the crime and thus, they are granted the privilege of the benefit of the doubt.

Instead, external forces which caused them to commit their crimes are the center of focus,

not the person or other larger issues at hand. However, when African Americans are not

granted this benefit of the doubt, the assumption is that they are inherently capable of such

crimes, and do not need external forces to act violent, such as video games.

Though politicians and other motivated individuals have gone to great lengths to

place the blame of violent actions on video games, scholars have debated the issue as well.

One of the better known meta-theories which has attempted to explain and uncover the

issue is the "General Aggression Model" (Or "GAM). Written by Johnie J. Allen, Craig A.

Anderson, and Brad J. Bushman for Iowa State University's *International Encyclopedia of*

Media Effects. The authors use this model to explain the main causes of violent tendencies

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[24]   Markey, P. M., Ivory, J. D., Slotter, E. B., Oliver, M. B., & Maglalang, O. (2020).
He does not look like video games made him do it: Racial stereotypes and school
shootings. *Psychology of Popular Media, 9*(4),
493–498. https://doi.org/10.1037/ppm0000255

and aggression. According to the GAM, there are several phases in determining an individual's disposition on whether or not they will be aggressive or violent.[25] The first phase, "Inputs" is the internal factors that may be considered to be a contributing factor to violence, which are "unstable high self-esteem; narcissism; self-image; long-term goals; self-efficacy beliefs for violent and nonviolent behavior; normative beliefs about aggression, retaliation, and so on; attitudes toward violence; hostile attribution, expectation, and perception biases; aggression scripts; dehumanization of others; cultural stereotypes; moral justifications for violence; and displacement of responsibility". The second phase of the GAM, phase 2, focuses on the external forces that may play a role in shaping somebody's violent dispositions. The external, or "Situational input variables" is where video games would be located. In addition to violent video games, other potential factors are social stress, provocation, frustration, pain and discomfort, bad moods, weapons, violent scenes, violent media, noise, temperature, threatening or fearful stimuli, exercise, alcohol, and other drugs, as well as the mere presence of guns.[26]

Though the GAM has been used as a foundation for the connection of internal and external factors of aggression and violent tendencies, the theory was established in 2001. Subsequently, the research and some of its findings are now quite outdated and have been replaced by more accurate, up-to-date evidence that support findings contrary to the GAM. Recent research has focused on not the video game content itself, but more so the competitive nature of video games is more to blame for any type of violent or aggressive feelings after being exposed to the content, which has been observed during various

[25] Allen, J.J., Anderson, C.A., & Bushman, B.J. (2017). The General Aggression Model. *Current Opinion in Psychology, 19*. Retrieved from https://www.researchgate.net/publication/316119742_The_General_Aggressi…

[26] Anderson, C.A. & Dill, K.E. (2000). Video games and aggressive thoughts, feelings, and behavior in the laboratory and in life. *Journal of Personality and Social Psychology, 78*(4). Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.583.6828&rep=r…

studies on the issue. One instance of anecdotal evidence exists to corroborate the research, such as the case of the 2018 Jacksonville Landing Shooting. During this incident, a man named David Katz killed 3 other players and injured 11 others during a video game tournament. However, the tournament was for the video game Madden NFL 19. Madden is a rated T football game, not one with violence, gore, or weapons. What caused Katz's outbreak was his frustration at the game, having lost in rounds prior, which resulted in him losing his chance to reach the finals. After his defeat, he took out the handgun that he brought and shot other players and attendants of the tournament and then turned the gun onto himself.

According to a study published in *Psychology of Violence,* led by Brock University PhD student Paul Adachi, people are more than likely to become more frustrated and aggressive after competition.[27] The study in question has been done before, known as the "Hot Sauce Paradigm", which is a common and validated method of research to determine an individual's levels of aggression and whether an external factor has made the participant more aggressive or hostile.[28] The study consists of a group of participants creating dishes being served to individuals who have expressed a desire for less spicy foods. The levels of spice that has been added to the dish by the participant is the determining factor on whether they are more aggressive or not. Adachi performed this study because it has been the main method of research by those who have suggested that there is a correlation between video game use and violence. However, instead of comparing slow and rated E games to highly fast paced, violent, and energetic games,

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[27] Adachi, Paul J., and Teena Willoughby. "The Effect of Video Game Competition and Violence on Aggressive Behavior: Which Characteristic Has the Greatest Influence?" *Psychology of Violence* 1, no. 4 (2011): 259–74. https://doi.org/10.1037/a0024908.

[28] Lieberman, S. A hot new way to measure aggression: Hot sauce allocation., Joel D. Lieberman and Sheldon Solomon and Jeff Greenberg and Holly Mcgregor .Aggressive Behavior. 1999. Volume 25. 331-348

Adachi compared one noncompetitive children's game (Marble Blast Ultra), one

competitive children's game (*Fuel)* and a highly violent, noncompetitive game (Left 4

Dead) to another violent game with a competitive element (Mortal Kombat vs. DC

Universie). The results showed that between the two competitive games, despite one being

rated M and one being rated E, Mortal Kombat vs. DC Universe did not result in more

aggressive participants. In fact, the racing game, *Fuel* resulted in slightly more aggression,

despite not having any sort of violence and being rated for 7 year olds.[29] Additionally,

there was no difference in aggression between the two noncompetitive games, despite one

being based around killing zombies with extreme levels of gore and violence, and the

other being about getting a marble from the start to the end of the map. What the research

discovered, that others failed to test, was the element of competition. Other researchers

based their studies upon highly competitive and violent games, such as Call of Duty, to

nonviolent and noncompetitive games, such as LittleBigPlanet, which alienates any other

crucial factor, like competition. [30] [31]

While competition itself does have potential to increase aggression in people, it is

not one that would solely produce acts of violence itself, other factors are required. Such

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[29]   Adachi, Paul J., and Teena Willoughby. "The Effect of Video Game Competition and Violence on Aggressive Behavior: Which Characteristic Has the Greatest Influence?" *Psychology of Violence* 1, no. 4 (2011): 270. https://doi.org/10.1037/a0024908.

[30]   Hollingdale, Jack, and Tobias Greitemeyer. "The Effect of Online Violent Video Games on Levels of Aggression." *PLoS ONE* 9, no. 11 (2014). https://doi.org/10.1371/journal.pone.0111790.

[31]   Anderson, Craig A., Nicholas L. Carnagey, Mindy Flanagan, Arlin J. Benjamin, Janie Eubanks, and Jeffery C. Valentine. "Violent Video Games: Specific Effects of Violent Content on Aggressive Thoughts and Behavior." *Advances in Experimental Social Psychology*, 2004, 199–249. https://doi.org/10.1016/s0065-2601(04)36004-1.

as the case with the Madden shooting, David Katz was at a predisposition to be easily

triggered and set off because of various other factors, including family history, which is a

significant determiner in somebody's predisposition to violence or aggression, more-so

than video games. Police investigations revealed that when Katz was 12, his parents

underwent a tumultuous divorce, and he was placed under the care of another guardian.

As a result of these negative upbringings, which may have been the cause of his

emotional psychological issues, he was at a much higher chance of committing such an

act. Additionally, the American Psychological Association cites research that suggests

that youth who already have aggressive personalities and may seek out violent media,

including video games. However, playing the games themselves will not create violent

personalities that were not there already.[32] There are various predictors of whether or not

a child will be predisposed to potentially be aggressive or even violent in life. According

to a survey conducted by Alfred University's Division of School Psychology, 87 percent

of the 2,017 respondents, grades 7-12, believed that school school shootings occur due to

bullying. Other major issues that the participants agreed with were mental issues, gun

access, and being victims of abuse at home. Research has corroborated these results,

showing that mental illness and a poor home or school life are major contributors to

somebody's levels of aggression or violence. According to counseling.org, several

studies have indicated that the leading causes for school shootings are indeed bullying,

which includes acts of revenge, and non-compliance of psychiatric drugs and the

subsequent effects of withdraw.[33]

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[32]   Breuer, J., Vogelgesang, J., Quandt, T., & Festl, R. (2015). Violent video games
and physical aggression: Evidence for a selection effect among
adolescents. *Psychology Of Popular Media Culture*, *4*(4), 305-328.
doi:10.1037/ppm0000035
[33]   Paolini, A. (n.d.). *School shootings and Student Mental Health: Role of the school
counselor in ...* www.counseling.org. Retrieved April 21, 2022, from

Further, other factors that have contributed motivation and inspiration for people committing atrocities is fame and notoriety. For example, Parkland shooter Nikolas Cruz, filmed several videos prior to the shooting claiming that he will be the next school shooter, and that it will make him famous.[34] He also posted comments on YouTube videos stating that he wanted to be a "professional school shooter" and glorified the events of the University of Texas shooting.[35] [36] Cruz is confirmed to have had a history of mental illness, behavioral issues, deaths in his family, which resulted in him moving from place to place, antisocial behavioral patterns, and aspirations for fame, which are all elements that other shooters have in common in one way or another. Furthermore, other shooters had similar aspirations and glorified previous shootings in the past. The American Psychological Association has stated that most shooters desire fame, due to the media coverage that occurs after a shooting, which features the gunman's name, face, and story. Following the Columbine Shooting, which had more media coverage than the death of Princess Diana, 400 similar incidents occurred afterwards, inspired by the media coverage of Columbine. Similar trends have followed other shootings, such as the Virginia Tech shooting, who many shooters afterwards have cited as being their inspiration for their deeds, as well as the Parkland Shooting, which inspired 638 copycat threats.To combat such copycat acts of brutality, news outlets and journalists, such as Anderson Cooper, have made it a point to cover mass shootings in a way that discusses the victims and not the perpetrators, as to not begin a new cycle of notoriety and fame. Such efforts have

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[34]   Olmeda, Rafael (May 30, 2018). "Parkland shooter Nikolas Cruz brags on cellphone videos, 'I'm going to be the next school shooter'". *Sun-Sentinel*. Archived from the original on May 30, 2018. Retrieved May 31, 2018.
[35]   McLaughlin, Eliott C.; Park, Madison (February 14, 2018). "Social media paints picture of racist 'professional school shooter'". CNN. Archived from the original on February 16, 2018.
[36]   Chen, Joyce (February 15, 2018). "What We Know About the Alleged Florida School Shooter". *Rolling Stone*. Archived from the original on February 22, 2018. Retrieved February 22, 2018.

culminated in a movement known as "No Notoriety", which CNN, NBC, the Capital

Gazette, and others have followed and practiced. While the long-term effects of this

movement have yet to be determined, by removing the potential subsequent "notoriety"

that a shooter would receive, this method could be effective in preventing shooters

motivated by fame, which has been more of a direct cause than video games.[37] [38]

 In addition to recent research diverting blame away from video games being any

cause of violence or shootings, there have been a vast number of studies conducted that

have spoken to the emotional, psychological, and even the physiological benefits of video

game usage. Such studies contradict the previous arguments that suggest otherwise.

According to several scholarly studies, video games have proven to be quite beneficial in

various ways, including improved hand-eye coordination, reaction times, self-esteem, and

various other benefits. According to a study conducted by Dr. Mark Griffiths, Professor of

Gambling Studies in the Psychology Division for Nottingham Trent University, video

games can also be used as an effective research tool and be a stimulating psychological,

social, and even effective educational tool with many benefits. For instance, video games

have been used by researchers to train several children with severe speech limitations,

mental disabilities, impulsive conditions, and attention difficulties.[39] Additionally, video

games have been used to record brain-wave biofeedback to examine the effects of gaming

[37] Dolan, Eric. "Study Finds Fame-Seeking Mass Shooters Tend to Receive More Media Attention." PsyPost, September 10, 2019. https://www.psypost.org/2019/09/study-finds-fame-seeking-mass-shooters-tend-to-receive-more-media-attention-54431.

[38] Silva, Jason R., and Emily Ann Greene-Colozzi. "Fame-Seeking Mass Shooters in America: Severity, Characteristics, and Media Coverage." *Aggression and Violent Behavior* 48 (2019): 24–35. https://doi.org/10.1016/j.avb.2019.07.005.

[39] Griffiths , M. (2002). *The educational benefits of Videogames - Sheu*. sheu.org.uk. Retrieved April 22, 2022, from https://sheu.org.uk/sheux/EH/eh203mg.pdf

on children with attention-deficit disorders.[40] One such study, conducted by NASA researcher, Alan Pope, PhD., tested 22 boys and girls with PlayStation games to research attentiveness versus using traditional biofeedback training. After the study, the children's parents reported overall improvements in attendance, with zero dropouts and an improvement in motivation among the children who were tested with video games.

Additionally, despite violent video games being more abundant than ever before, as well as being the most realistic and graphic in its 40+ year long history, violent crimes have gone down significantly since the 1980s, when video games became mainstream. According to a study conducted by economic and criminal justice researchers for the Brennan Center for Justice at NYU, crime rates have plummeted since the 1990s. The authors of the report admit that there is not one single explanation for the decline, but a variety of potential factors. Examples include an aging and decreasing population, employment rates, and expanded policing[41]. However, additional researchers have found a direct correlation between the overall steady decline of violent crimes and video game sales. A Baylor University and the University of Texas at Arlington study have found that there are several reasons why video games may lead to a less dangerous population. First, if somebody is spending their time playing video games, they are not voluntarily committing crimes outside.[42] With the number of people that play such video games, by the millions, that is the same amount of people not actively committing a violent crime,

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[40]   Pope, A. & Palsson, O. In Wright, K. (2001). Winning brain waves : Can custom-made video games help kids with attention deficit disorder? Discover, 22. Located at http://www.discover.com/mar_01/featworks.html

[41]   Roeder, D., Eisen, L. and Browning, J., 2015. *What Caused the Crime Decline?*. [online] Brennan Center for Justice. Available at: <https://www.brennancenter.org/our-work/research-reports/what-caused-crime-decline> [Accessed 6 March 2022].

[42]   Ward, Michael Robert, Video Games and Crime (2011). Contemporary Economic Policy, Volume 29, Issue 2, pages 261–273, April 2011, Available at SSRN: https://ssrn.com/abstract=1021452 or http://dx.doi.org/10.2139/ssrn.1021452

according to the study. This is further supported by the significant amount of overlap that exists between the statistics of demographics of those who commit crimes and those who play video games. Young men between the ages of 14 and 24 make up 40 percent of all arrests in the U.S., and men between the ages of 18 and 35 make up the largest group of people who play video games, which is 124,850,000 out of 227,000,000 million people. [43] Due to video games becoming such a popular hobby among the largest group to commit crimes, they have now found themselves occupied inside the house, instead of outside, where they are more likely to commit a crime. The researchers at the University of Texas have also found that people who may have aggressive instincts may be able to find relief by playing video games, reducing their real-life aggressive tendencies or impulses.[44]

In summary, despite the efforts dating back to the 1950s to condemn new media, such as comic books and eventually, video games, such efforts have been unsuccessful. Through psychological and sociological studies, legal battles, as well as crime statistics, and further investigations, the direct link between video games and real-life violence and aggression is unfounded and overstated. Any potential correlation between the two is always complicated by external elements, such as mental illness, family, or other contributing factors. Blaming video games for violence and aggression not only undermines the various benefits that come with the medium, but also takes attention away from more direct and indisputable causes, such as gun violence, family issues, and mental illness.

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[43]   Spangler, Todd. "Number of U.S. Video Gamers Hits 227 Million, and Most Say They've Played More during COVID: Esa Study." Variety. Variety, July 13, 2021. https://variety.com/2021/gaming/news/number-video-game-players-2021-esa-study-covid-1235016079/.

[44]   Ward, Michael Robert, Video Games and Crime (2011). Contemporary Economic Policy, Volume 29, Issue 2, pages 261–273, April 2011, Available at SSRN: https://ssrn.com/abstract=1021452 or http://dx.doi.org/10.2139/ssrn.1021452

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