



Do Video Games Make Children Violent?

The Effects of Violent Video Games
on Children and Adolescents

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Back in 1972, Atari released *Pong*, a two dimensional arcade game where the objective was to bounce a ball back and forth between two paddles. The game was an instant success, selling over 8,000 units in two years. *Pong* made four times more money than any other coin-operated game at the time, such as pinball machines (Kent). This brought about the arcade age, where people remained in arcades for hours, paying 25 cents a game to play until they lost. It quickly became a huge industry, giving rise to companies such as Atari, Sega, and Nintendo.

In the early 1980s, companies started making their arcade games in small, cheap consoles that you could play at home. Suddenly people didn't have to leave the couch, could play as many times as they wanted, and only had to pay once. These consoles quickly spread to almost every living room. Many companies made games for these consoles, and people bought many games for one machine. There were games for every genre of entertainment, and the list kept growing rapidly. Puzzle, Adventure, Action, Fighting, and Shooting games all became huge hits.

As the console's processors became more powerful, the games became more immersive. The puzzles became harder, the worlds got bigger, and the violence became more real. The higher graphics allowed game developers to make anything they saw in their mind possible, like how people and the environment reacted. Today, game consoles are so advanced that the people appear almost real. With these realistic games, an issue has risen in the last 15-20 years: violence.

Parents and educators became concerned with the effects of these violent games on their children. Do they make kids act violent? Do they make them antisocial? Many people believed that violent games did in fact cause children to be more aggressive and violent, because children would replicate the behavior. In the late '90s and early '00s, shootings at high schools and colleges--such as the Columbine Shooting, where two students killed 13 people and wounded 23 at their high school--gave fuel for the fire against video games. These gunmen, along with many people at that time, played *Doom*, a game based on shooting and killing enemies to get to the final destination. The game was extremely bloody, and was one of the earliest first-person games. It was also very popular, along with other similar games. This growing prevalence of first-person shooters, as they are called, and the realistic quality of the graphics, made experts worry that children may blur the lines between the game and reality.

This concern even led politicians to take action. Eight states tried to regulate sales of violent video games to minors (Day 315). A prime example is how California was sued by the Entertainment Merchants Association (EMA), who claimed the law was unconstitutional. Like in all other states, regulating sales of violent video games was ruled as a violation of the first amendment (Media Coalition).

Researchers ran many tests of aggressiveness, and all the results have varied whether violent games effect children or not. Most studies say that children are more aggressive after playing violent games. Typically, they have young subjects play for half an hour, then test their aggression levels (Whitaker 1037), but the kind of long term aggression that is dangerous can not be measured in a test. Gaming can be frustrating sometimes, and players are just annoyed after

playing for a while. There are actually little or no long term effects on aggressiveness from playing violent games. Therefore, a child who plays violent games regularly would not likely test aggressively if they hadn't been playing a violent game beforehand.

If these games are not as detrimental to a child's personality as they seem, then maybe they can be used for something good, like education. Just playing video games is shown to increase visuospatial cognition (Ferguson, "The Good, The Bad and the Ugly..." 311), or the ability to analyze and react to our surroundings. Puzzle and adventure games hone kids' problem solving skills, and shooting and strategy games build critical thinking skills. In addition to these effects, games can be designed to teach kids things, such as how to stay healthy and care for their bodies. If a kid cares for a realistic character, they subliminally learn how to care for themselves as well by learning from the game (Lieberman 104). Overall, the positive benefits outweigh the possible negative consequences.

To understand how games effect children, you must first know what kinds of video games are available. The main styles of games are role-playing, platforms, fighting, and first-person shooters. They each have potential for both violent and educational effects.

Role-playing games, or RPGs, are where players complete quests and find items to level up their character. Once you complete the objectives, the game is finished. Early RPGs, like *Legend of Zelda* and *Final Fantasy* were in 2D, and there was only a small area to explore. Today, the worlds are in three dimensions and seem to stretch on forever. Platform games are 2D level based games, where the player races to complete a level in time. Fighting games are the

same 2D style, but instead you fight your way, one opponent at a time, to a final boss. Fighting games have more “replay value” than RPGs because they are a different fight every time.

The most popular kind of games today are first-person shooters, called FPSs. The name itself is self explanatory; gamers play from the view of the character as they shoot and kill enemies to advance. These games are commonly played on maps (large 3D playing fields modeled after towns or military bases), where the score is determined by how many people you kill and how many times your character dies. They are the most popular because they can be played continuously, and the experience changes every time. The combination of popularity and replay value generates huge franchises similar to horror movies, with many sequels and spin offs.

Adults then ask questions regarding to the intensity of the violence. All these games have the potential for violence, but some are generally more violent than others. The least violent are level-based platformers, like *Super Mario*. Players don't have to fight enemies, rather just avoid or defeat them. Defeating them involves jumping on them or punching them, but in a way that there is little combat. There is no blood, and the point of the game is usually to save someone. RPGs are a little more violent. There are two styles of RPG aimed to different markets; in the less violent, characters usually wield mediaeval weapons, like swords and bows. Enemies die with a few strikes and no blood. The more violent is also more modern, where characters may have powers or tools to combat enemies. These games usually have blood, but not in large amounts. Fighting games also can go two ways; they all are based on hand-to-hand combat, but some are bloody and some are not. The most popular fighting game series, *Mortal Kombat*, is very gory, but other fighting games, like *Marvel vs. Capcom*, are only moderately so. The most

violent games are FPSs, like *Call of Duty* and *Halo*, because the entire point of these games is to kill people. There is usually lots of blood and the violence is very realistic. There are multitudes of weapons and ways to kill enemies, and the maps are based on real places.

The realistic violence in most games worries many parents. 97% of teens ages 12-17 play video games (Lenhart), and 89% of video games include violent content (Whitaker 1034), so exposure is inevitable. Kids are gradually playing more, and the most violent games are the most popular. So does all this violence make them aggressive? Craig Anderson, an advocate of the negative effects of gaming, defines aggression as “behavior intended to harm another individual who is motivated to avoid that harm...even if the attempt fails.” This is different from violence, which he says “refers to extreme forms of aggression, such as physical assault and murder.” Aggression refers to both short-term (right after playing) and long-term.

Short-term aggressiveness is how people act directly or soon after playing a video game. In a study of how violent games effect emotions and thoughts, Jodi Whitaker found that “after playing a violent game, [kids] list more aggressive thoughts” They also were more anxious and hostile, and “interpreted...different situations in a more aggressive way.” This is a type of anti-social behavior, or behavior that lacks consideration for others, and often damages the other party. If a child is acting harshly, that may point to aggression. Some people say even nonviolent games can increase aggressiveness because of the frustration that may be involved in many games (Anderson 356).

The more worrisome issue is long-term effects. While playing, children’s heart rate can increase, which “later can affect how the player interprets a mild specific emotion...to an unrelated event” (Whitaker 1039). If a child gets angry while playing a violent game, those

feelings become linked to violent actions. If those feelings are felt while dealing with a peer, it may result in an aggressive reaction. It is believed that children may then mimic the dangerous behavior they saw in the game, blurring the lines between reality and gaming. Over time, children become desensitized (used to) the violent acts, and may think that it's not as bad to hurt someone. For example, bullying wouldn't seem hurtful to the offender.

But are all these possibilities really fed by playing violent games? Chris Ferguson, who has analyzed many reports with the above findings and found them incorrect or inaccurate, makes a point that if almost all children are playing violent games, how can an "almost universal behavior predict a rare behavior [like school shootings]" ("The Good, the Bad, and the Ugly..." 310)? Either there has to be other factors contributing to violent or aggressive behavior, or the studies by some researchers must be wrong. Kathryn Seifert, a forensic psychologist, points out that "Looking at violent behavior is not a simplistic thing. There is no one thing that is going to cause a child to become violent" (Zipp).

There are many ways that researchers test for aggression. One common way that most kids are tested for aggressiveness is the "noise blast" test (Whitaker 1037), where the subject sets the loudness for an opponent (a computer), then races to push a button first. The loser is blasted with a noise previously set by the winner. Aggressiveness is measured by the volume and duration of the blast chosen by the subject (Kutner). Ferguson pointed out that in a widely cited study, the version of the noise blast test they used was "unstandardized." They also did not test for confidence, and if they had, it would show that there is actually no link to violent games and aggression because the subjects were not sure about the levels they set ("The Good, the Bad, and the Ugly..." 310). He questioned their findings by running a standard noise blast, and confirmed

his own theory. Another test given by other mental health researchers was where “people are asked to fill in the missing letters of words (such as kn__e: if the respondent fills in the missing letters as knife rather than knave, they are considered more aggressive)” (Ferguson, “Violent Video Games...” 12). Kids of the age questioned are not likely to know the word “knave,” whereas “knife” is a common household word.

In another study testing if the amount of blood effects aggression by Chris Barlett, they measured aggression based on gameplay. If players used a more powerful weapon to cause more damage, they were considered more aggressive. This reasoning is incorrect because using a more powerful weapon is only practical when the point of the game is to damage your opponent. They’re not using it because they want to hurt the person: they’re using it because they want to win. This is an example of how little some researchers know about the games they are researching. If they want to know about the games, they should play them themselves.

This evidence of the flaws in most research shows that some so called “experts” on violent games may be uninformed, careless, and possibly biased. When tests are conducted properly and the researchers are familiar with the games and kids, there is really no solid proof that violent video games are linked to aggressive behavior. There seems to be an aversion to any new form of media from the older generations. The same debate arose in the ‘50s when comic books became extremely popular (Day 316). Some comics showed graphic or violent scenes, and adults worried how that would impact their children. Now those same children are worrying about the effects of video games on their kids. If back then the same issue arose, you can see from experience that the relative effects are minimal to non-existent. As Lawrence Kutner and

Cheryl Olson write in their book *Grand Theft Childhood*, "the bottom-line results of our research can be summed up in a single word: relax."

So if there are no long term negative sides to playing violent games, could there be positive effects? As a general rule, playing any video game keeps your brain active. Like crossword puzzles, gaming makes you think and draw on many cognitive skills. In one of Chris Ferguson's studies, his results "supported the conclusion that violent video game exposure is associated with increased visuospatial cognition" ("The Good, the Bad, and the Ugly..." 314). When someone plays an FPS, they are constantly scanning their surroundings while fighting. Gamers create a mental image of what the playing field looks like, where enemies hide, and where they are the safest. In the court case where California tried to regulate sales of violent games, it was stated that "studies have pointed to the positive attributes of violent video game playing, such as improved visual-spatial coordination, increased peripheral attention, and increased reactive decision-making capabilities" (Day 318). These games are often so accurate at replicating war that even American soldiers play shooting games to keep their skills sharp and reaction time up (Robson).

Even if games are violent, many of them have story lines that are not aggressive at all. The character will have a goal or reason behind killing. One popular type of game is a post-apocalyptic zombie survival scenario. The character usually needs to survive or protect someone until the game's objectives are complete. Most FPS games are military based, where the character is fighting against an enemy army.

In addition to violent games, there are many other kinds of games with positive effects. Many RPG games display prosocial behavior, or behavior intended to help others (Gentile).

Almost every quest is helping someone, and players are rewarded with items or power-ups. For example, in the popular *Legend of Zelda* series, you start out as a normal person who is chosen to save the princess. The character proves his kindness and bravery throughout the game by helping people who lead him to the final boss. In the end, he defeats the evil king of thieves, saves the princess, and is regarded as a hero. Positive feelings and actions like that can be reciprocated in real life. As Douglas Gentile said in his study of prosocial video games,

If given an opportunity to help or harm another person after playing a game, the likelihood of which behavior the player chooses is influenced by what scripts have been primed by the game and what game behaviors have been reinforced. Therefore, if the game requires prosocial behaviors to succeed, then prosocial behaviors should be increased immediately following the game.

Then why is prosocial behavior repeated when aggressive behavior isn't? Kids are usually taught and know from a young age that violent behavior is not acceptable, and helping others is the right thing to do. This early sense of morality helps kids filter what is allowable to do in real life, and what is only in a video game. Chris Ferguson pointed out in one of his studies that "In the 19th century, it was thought that women were unable to distinguish between fiction and reality, a mantra now commonly applied to children" ("Violent Video Games..." 12) Kids know that the violence is not real, and that actually running around shooting people is wrong and illegal.

In addition to prosocial behavior, video games can be used to educate kids. Gaming is a good way to teach children because even kids who don't want to learn will be willing to play a video game (Lieberman 103). The kids just want to play the game and have fun. Debra Lieberman wrote a chapter on Educational video games for a book on technology and health, and

she used the example of “Health Hero” games and how they help kids create good habits (105). Players need to care for a character in an RPG format, while helping cure some sort of ailment. Kids learn what is healthy, what is not, and how that effects them.

Another part of how gaming impacts kids is the social aspect. Kids play together in person, talk about their playing, and are proud of their accomplishments. With the recent growth of online gaming, kids can even play together on separate consoles in their own respective homes. Most violent games are heavily based on multiplayer gaming, where two people work together to survive. These levels can be played online, together in person, or even a combination of the two. Kids, mainly boys, will play games for hours together, and really become friends through the games. In their research, Kutner and Olson found that “boys who don’t play video games at all are the most likely to engage in bullying and other antisocial behaviors.” That can be because they do not have the same common ground to talk to other kids.

The best use for violent games is to make it an outlet for any aggression already in the child. Gaming is a socially acceptable, non-destructive release of aggression for many kids (Day 315). Like sports for some, non-athletic children can take their anger out at the games. This release of aggression decreases levels elsewhere, where it may only be detrimental. In a game, aggression may only help the player advance faster. With overall aggression levels lowered, children can stay calm and focus on the task at hand, whatever that may be.

Even with all the research, governments still worry about violent video games. In 2005, California tried to limit the sales of violent video games to people over 18. The EMA (Entertainment Merchants Association) sued, saying that regulating the sales of video games is unconstitutional (Media Coalition). The law did not specify what kind of violence, and used

vague terms like "offensive to the community." The judge granted a preliminary injunction, because the law likely violated the First Amendment. In 2007, the court ruled that

The law violated the First Amendment and that, while the government has a compelling interest in protecting minors, defendants did not offer proof that video games are any different from other media, nor does any generally accepted study exist to support the idea that the interactive nature of video games leads to violent behavior.

The case raised two questions: does freedom of speech prevent a state from restricting the sale of violent video games, and if so, is the state required to demonstrate a direct link between violent video games and psychological harm to minors? Game developers have the right to make games how they want. There is a rating system in place to gauge violence. That helps people know the general content of a game before they buy them, and regulation is not needed. To even regulate something so popular, the government needs solid proof. There would be an uproar if a law was passed with no evidence to back it. Many researchers would have to have the same results, and all use standard and correct tests. Only then, if proven, would there be any backing for regulating violent games.

If violent games were proven to be detrimental to children's mental health, and the government started to regulate the gaming industry, our economy would be greatly affected. Even if there's not regulation, only wide-spread paranoia, the effect would be massive. Video games, especially violent ones, are a huge industry. Companies provide jobs for making, designing, and testing games, and spend on materials like plastic and metals. The gaming industry revenue has even recently surpassed the music and movie industries (Gentile 2).

Overall, gaming has a more positive impact on children's behavior than a negative one. The negative effects are only paranoia in adults, fueled by an aversion to violent exposure in harmless games. Claims that simulated violence translates to real aggressiveness are based on faulty research and misinformed psychologists. When tested correctly, children show no signs of long term aggressiveness. In fact, gaming can be beneficial to a child's mental health and social skills. Kids caring for a character or helping others give examples of what to do in person. Even as they age, gaming will keep their brains active. The only possible downside is the time some games take up, but that can be easily managed.

Our children are our future, and that is why we should be careful. Knowing what is safe and what isn't is essential. While graphic fighting and FPS violence has no damage to mental health, there is a rating system on all video games. Games rated "E for Everyone" contain no violent content, "T for Teen" games have either mild violence or language, and "M for Mature" games contain graphic and bloody violence. Parents should pay attention to the ratings on games they buy for their child and ensure the games are age appropriate. But for most games, playing them will not effect how children act in their day-to-day lives.

Bibliography

- Anderson, Craig A., and Brad J. Bushman "Effects of Violent Video Games on Aggressive Behavior, Aggressive Cognition, Aggressive Affect, Physiological Arousal, and Prosocial Behavior: A Meta-Analytic Review of the Scientific Literature." American Psychological Society, Sept. 2001.
- Barlett, Christopher P., Richard J. Harris, and Callie Bruey. "The Effect of the Amount of Blood in a Violent Video Game on Aggression, Hostility, and Arousal." *The Journal of Experimental Social Psychology* 44 (2008) 539–546, Oct. 2007. <<http://videogames.procon.org/sourcefiles/Effectofblood.pdf>>.
- Day, LLM, MSSA, Terri, and Richard C.W. Hall, MD. "A Plea for Caution: Violent Video Games, the Supreme Court, and the Role of Science." Mayo Foundation for Medical Education and Research, Apr. 2011
- Ferguson, Christopher J. "The Good, The Bad and the Ugly: A Meta-analytic Review of Positive and Negative Effects of Violent Video Games" www.tamtu.edu. Texas A&M International University, 4 October 2007. <<http://www.tamtu.edu/~cferguson/videometa2.pdf>>.
- Ferguson, Christopher J. "Violent Video Games: How Hysteria and Pseudoscience Created a Phantom Public Health Crisis" www.tamtu.edu. Texas A&M International University, Summer 2008. <<http://www.tamtu.edu/~cferguson/paradigm.pdf>>.
- Gentile, Douglas A., and Craig A. Anderson. "The Effects of Prosocial Video Games on Prosocial Behaviors: International Evidence from Correlational, Longitudinal, and Experimental Studies." *Pers Soc Psychol Bull*, June 2009. Web. <<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2678173/pdf/nihms-104172.pdf>>.
- Kent, Steve. *The Ultimate History of Video Games*. Random House Digital, Inc., 2001. <<http://books.google.com/books?id=PTrcTeAqeaEC>>.
- Kutner, Lawrence, and Cheryl Olson. *Grand Theft Childhood: The Surprising Truth about Violent Video Games and What Parents Can Do*. Google Books. Simon and Schuster, 15 Apr. 2008. <http://books.google.com/books?id=WWNKwIY96rEC&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false>.

Lenhart, Amanda, Joseph Kahne, and Ellen Middaugh. "Teens, Video Games, and Civics." www.pewinternet.org. Pew Internet & American Life Project, 16 Sept. 2008.

Lieberman, Debra A. "Interactive Video Games for Health Promotion: Effects on Knowledge, Self-Efficacy, Social Support, and Health." *Health Promotion and Interactive Technology: Theoretical Applications and Future Directions*. By Richard L. Street and Timothy R. Manning. Psychology publishing, 1997. 103-05. *books.google.com*. <<http://books.google.com/books?id=XSX5jrO442sC&pg=PA103&dq#v=onepage&q&f=false>>.

Media Coalition. "Brown v. EMA (previously Schwarzenegger v. EMA)." *MediaCoalition.org*. <<http://www.mediacoalition.org/VSDA-v.-Schwarzenegger->>.

Robson, Seth. "Not playing around: Army to invest \$50M in combat training games." *Stars and Stripes*, 23 November, 2008 <<http://www.stripes.com/news/not-playing-around-army-to-invest-50m-in-combat-training-games-1.85595#.T0UfcyL7G1Y.mailto>>

Squire, Kurt. "Video Games in Education." Massachusetts Institute of Technology, 2003

Whitaker, Jodi L., and Brad J. Bushman. "A Review of the Effects of Violent Video Games on Children and Adolescents" Washington & Lee University School of Law, 2009. <<http://scholarlycommons.law.wlu.edu/wlulr/vol66/iss3/5/>>

Zipp, Yvonne. "Violent Video Games - the Myths and the Facts." *The Christian Science Monitor*, June 2008.