



# Media Violence Effects on Children, Adolescents and Young Adults

By CRAIG A. ANDERSON, MA, PhD

I killed my first Klingon in 1979. It took place in the computer center at Stanford University, where I was playing a new video game based on the Star Trek television series. I was an “early adopter” of the new technology of video games, and continued to be so for many years, first as a fan of this entertainment medium, and later as a researcher interested in the question of what environmental factors influence aggressive and violent behavior.

Of course, like most young men and women of that era, I had grown up witnessing thousands of killings and other acts of aggression in a wide array of television shows and films. Today’s youth are even more inundated with media violence than past generations, mostly from entertainment sources but also from news and educational media. And even though the public remains largely unaware of the conclusiveness of more than six decades of research on the effects of exposure to screen media violence, the scientists most directly involved in this research know quite a bit about these effects.

The briefest summary of hundreds of scientific studies can be boiled down to two main points. First, exposure to media violence is a causal risk factor for physical aggression, both immediately after the exposure and months, even years, later. Second, in the absence of other known risk factors for violence, high exposure to media violence will not turn a normal well-adjusted child or adolescent into a mass killer.

## SOME DEFINITIONS

One reason for much of the confusion and debate among even highly educated citizens, health care professionals and even a few scientists is that when media violence researchers use certain terms and concepts, they have somewhat different meanings than when the general public uses the same words.

By “aggression,” researchers mean “behavior that is intended to harm

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another person who does not wish to be harmed.” Thus, hitting, kicking, pinching, stabbing and shooting are types of physical aggression.

Playing soccer or basketball or even football with energy and confidence are not usually considered acts of aggression, even though that is what most coaches mean when they exhort their charges to “play aggressively.” Somehow, the phrase “play assertively” doesn’t have the same ring to it.

By “violent behavior,” most modern aggression and violence scholars mean “aggressive behavior (as defined above) that has a reasonable chance of causing harm serious enough to require medical attention.” Note that the behavior does not have to actually cause the harm to be classified as violent; shooting at a person but missing still qualifies as a violent behavior.

By “media violence” we mean scenes and story lines in which at least one character behaves aggressively towards at least one other character, using the above definition of “aggression,” not the definition of “violence.” Thus, television shows, movies, and video games in which characters fight (Power Rangers, for example), or say mean things about each other (often

called relational aggression), or kill bad guys, all are instances of media violence, even if there is no blood, no gore, no screaming in pain. By this definition, most modern video games rated by the video game industry as appropriate for children — up to 90 percent, by some estimates — are violent video games.

### AGGRESSION AND VIOLENCE

Short-term and long-term effects of violent media use on aggressive behavior have been demonstrated by numerous studies across age, culture, gender, even personality types. Overall, the research literature suggests that media violence effects are not large, but they accumulate over time to produce significant changes in behavior that can significantly influence both individuals and society.

For example, one of the longest duration studies of the same individuals found that children exposed to lots of violent television shows at age 8 later became more violent adults at age 30, even after statistically controlling for how aggressive they were at age 8.

Similar long-term effects (up to three years, so far) on aggressive and violent behavior have been found for frequent exposure to violent video games. One six-month longitudinal study found that frequent violent video game play at the beginning of a school year was associated with a 25 percent increase in the likelihood of being in a physical fight during that year, even after controlling for whether or not the child had been in a fight the previous year.

Short-term experimental studies, in which children are randomly assigned to either a violent or nonviolent media exposure condition for a brief period, conclusively demonstrate that the media violence effects are causal. In one such study, for example, children who played a child-oriented violent video game (i.e., no blood, gore, screaming ...) later attempted to deliver 47 percent more high-intensity punishments to another child than did children who had been randomly assigned to play a nonviolent video game. Even cartoonish media violence increases aggression.

In recent years, there have been several intervention studies designed to test whether reducing exposure to screen violence over several months

or longer can reduce inappropriate aggressive behavior. These randomized control experiments have found that, yes, children and adolescents randomly assigned to the media intervention conditions show a decrease in aggression relative to those in the control conditions.

### HOW MEDIA VIOLENCE INCREASES AGGRESSION

How does exposure to media violence lead to increased aggressive behavior? Media violence scholars have identified several basic psychological processes involved. They differ somewhat for short-term versus long-term effects, but they all involve various types of learning.

Short-term effects are those that occur immediately after exposure. The main ways that media violence exposure increases aggression in the short term are:

- Direct imitation of the observed behavior
- Observational learning of attitudes, beliefs and expected benefits of aggression
- Increased excitation
- Priming of aggression-related ways of thinking and feeling

In essence, for at least a brief period after viewing or playing violent media, the exposed person thinks in more aggressive ways, feels more aggressive, perceives that others are hostile towards him or her and sees aggressive solutions as being more acceptable and beneficial.

The short-term effects typically dissipate quickly. However, with repeated exposure to violent media, the child or adolescent “learns” these short-term lessons in a more permanent way, just as practicing multiplication tables or playing

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chess improves performance on those skills. That is, the person comes to hold more positive beliefs about aggressive solutions to conflict, develops what is sometimes called a “hostile attribution bias” (a tendency to view ambiguous negative events in a hostile way) and becomes more con-



fidant that an aggressive action on their part will work.

There also is growing evidence that repeated exposure to blood, gore and other aspects of extremely violent media can lead to emotional desensitization to the pain and suffering of others. In turn, such desensitization can lead to increased aggression by removing one of the built-in brakes that normally inhibits aggression and violence. Furthermore, this desensitization effect reduces

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the likelihood of pro-social, empathetic, helping behavior when viewing a victim of violence.

Interestingly, these same basic learning and priming effects account for the fact that exposure to nonviolent, pro-social media can lead to increased pro-social behavior.

#### SCREEN TIME EFFECTS

For a number of years, the American Academy of Pediatrics has recommended very strict limits on children's exposure to any types of screen media, including TVs and computers, primarily because of concern about attention deficits. For example, they recommend that children under the age of 2 years have no exposure to electronic screens, even nonviolent media. Recent research with children, adolescents and young adults suggests that both nonviolent and violent media contribute to real-world attention problems, such as attention deficit disorder and attention deficit hyperactivity disorder. Furthermore, these attention problems are strongly linked to aggressive behavior, especially impulsive types of aggression.

Another emerging problem with video game usage goes by various addiction-related labels, such as video game addiction, internet addiction and internet/gaming disorder. Research across multiple countries and various measures of problematic game use suggests that about 8 percent of "gamers" have serious problems with their gam-

ing habit. That is, their gaming activities interfere with significant aspects of their lives, such as interpersonal relationships, school or work activities. This newer research literature suggests that for some individuals, video game problems look much like gambling addiction.

#### MAGNITUDE OF HARM

News media often report exaggerated claims about "the" cause of the most recent violent tragedy, whether it is a school shooting or another mass killing. Sometimes the cause that is hyped by these stories is violent video games; other times it is mental illness, or gun control, or lack of gun control.

Behavioral scientists (and reasonably thoughtful people in general) know that human behavior is complex, and it is affected by many variables. Violence researchers in particular know that such extreme events as homicide cannot be boiled down to a single cause. Instead, behavioral scientists (including violence scholars) rely on what is known as risk and resilience models, or risk and protective factors.

All consequential behavior is influenced by dozens (maybe hundreds) of risk and protective factors. In the violence domain, there are dozens of known risk and protective factors. Growing up in a violent household or seeing lots of violence in one's neighborhood are two such risk factors. Growing up in a nonviolent household and having warm, caring parents who are highly involved with child rearing are protective factors. From this perspective, exposure to media violence is one known risk factor for later inappropriate aggression and violence. It is not the most important risk factor; joining a violent gang is a good candidate for that title. But it also isn't the least important risk factor.

Indeed, some studies suggest that media violence exposure carries about the same risk potential as having abusive parents or antisocial parents. One major difference from other known risk factors for later aggression and violence is that parents and caregivers can relatively easily and inexpensively reduce a child's exposure to media violence.

#### WHY BELIEVE THIS ARTICLE?

It is easy to find very vocal critics of the main-

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stream summary that I have presented in this article. A simple web search will generate links to any number of them. Many of the critics are supported by the media industries in one way or another, many are heavy users of violent media and so feel threatened by violence research (much like cigarette smokers once felt threatened by cancer research), some are threatened by anything they see as impinging on free-speech rights, and many are simply ignorant about the science. But, a few appear to have relevant scientific credentials. So, a reasonable question for a parent or health care professional to ask is why believe that exposure to media violence creates harmful effects, rather than maintain the much more comfortable position that there are no harmful effects.

The simple answer is this: Every major professional scientific body that has conducted reviews of the scientific literature has come to the same conclusion. This group includes the American Academy of Pediatrics, the American Medical Association, the American Psychiatric Association, the U.S. Surgeon General and the International Society for Research on Aggression, among others. I have posted these and other, similar reports online.<sup>1</sup>

In 1972, former U.S. Surgeon General Jesse Steinfeld, MD, testified before the U.S. Senate on his assessment of the research on TV violence and behavior: "It is clear to me that the causal relationship between televised violence and antisocial behavior is sufficient to warrant appropriate and immediate remedial action," he said. "There comes a time when the data are sufficient to justify action. That time has come."<sup>2</sup>

In response to one or two vocal critics of the mainstream research community and perhaps to pressure from other groups, the American Psychological Association created a new media violence assessment panel in 2013 to assess the asso-

ciation's 2005 statement and update it. They took a very unusual step to avoid any appearance of bias by excluding all major mainstream media violence scholars from the panel. Instead, the panel was composed of reputable psychological science scholars with expertise in developmental, social and related psychology domains, along with leading meta-analysis statistical experts. Their report, released in 2015, confirmed what the mainstream media violence research community has been saying for years: There are real and harmful effects of violent media.

Violent media are neither the harmless fun that the media industries and their apologists would like you to believe, nor are they the cause of the downfall of society that some alarmists proclaim. Nonetheless, electronic media in the 21st century dominate many children's and adolescents' waking hours, taking more time than any other activity, even time in school and interactions with parents. Thus, electronic media have become important socializing agents, agents that have a measurable impact.

Many of the effects of nonviolent electronic media are positive, but the vast majority of violent media effects are negative. Parents and other caregivers can mitigate the harmful effects of violent media in several ways, such as by increasing positive or "protective" factors in the child's environment, and by reducing exposure to violent media. This is not an easy task, but it can be done with little or no expense. The benefits of doing so are healthier, happier, more successful children, adolescents and young adults.

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### NOTES

1. <http://public.psych.iastate.edu/caa/Statementson-MediaViolence.html>.

2. Jesse Feldman, statement in hearings before Subcommittee on Communications of Committee on Commerce, United States Senate, Serial #92-52 (Washington, D.C.: U.S. Government Printing Office, 1972) 25-27.

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