## **Teaching Us to Fear**

# The Violent Video Game Moral Panic and the Politics of Game Research

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In this excerpt from their new book, *Moral Combat: Why the War on Violent Video Games Is Wrong* (BenBella Books, 2017), the authors present an argument in defense of video games while dispelling the myth that such games lead to real-world violence. The authors define and examine moral panics and provide guidelines for identifying and understanding this phenomenon. They focus in particular on how the moral panic around video games has affected scientific research on games. **Key words**: gaming, moral panic, video game research; video games, video game violence;

Back in 2005, at the height of the Second Gulf War, U.S. Senator Hillary Clinton held a press conference to focus national attention on the scourge that was putting so many of our nation's youth at risk: violent video games. Along with senators Joseph Lieberman, Tim Johnson, and Evan Bayh, Clinton introduced the Family Entertainment Protection Act, a law that would have put the teeth of federal enforcement behind the existing Entertainment Software Ratings Board (ESRB) classification of video game content. While the age guidelines associated with these ratings were already enforced by major retailers—who were obviously invested in maintaining their family-friendly images—doing so was technically voluntary. The proposed bill would have changed all that: any retailer who sold an M-rated game (similar to an R-rated movie) to a minor would have faced fines and community service.

"It is almost routine in popular games for players to spray other people with Uzis, to drive over pedestrians, to kill police officers, to attack women, and in some cases even to engage in cannibalism," said Clinton. Referencing the work of several researchers (since discredited), she continued, "According to the most comprehensive statistical analysis yet conducted, violent video games increase aggressive behavior as much as lead exposure decreases children's IQ scores. . . . Everybody

knows lead poisoning is bad for children, well I want everybody to know that exposure to violent video games is also bad for children." Later, Clinton assured listeners that the legislation "is not about government censorship or regulation of content. Quite simply it is about protecting children and empowering parents. We need to treat violent video games the way we treat tobacco, alcohol, and pornography." Clinton wrapped things up by saying, "If you put it just really simply, these violent video games are stealing the innocence of our children." 1

Clinton's bill never made it out of committee, and in 2011 the United States Supreme Court ruled that all such legislation was unconstitutional and that research evidence could not support claims that it was necessary.<sup>2</sup> The court declared that video games are art and that, if they are sometimes violent, this is no different from literature, film, or even fairy tales. But if comparing video games to lead poisoning seems bizarrely overdramatic, Clinton was hardly the only one making such inflammatory statements. Politicians seemed more passionate in their rhetoric about video game violence than they did discussing mental health reform, the war in Iraq, poverty, or any number of issues urgently affecting the lives of young people. Yet, unlike those exposed to lead, millions of children were playing violent video games and growing up just fine. What was going on here? A moral panic set off a flurry of politically motivated and funded psychological research about why violent video games were a menace to society and the future of American youth. This article examines the violent video game moral panic. It begins by defining a moral panic before it identifies and analyzes the elements and characteristics of the violent video game moral panic. It concludes with an exploration of how the violent video game moral panic affected scientific research about video games and how that research supports an unfounded war on violent video games.

What exactly is a moral panic? The term refers to a tendency for societies to develop overblown fears of an innocuous scapegoat or "folk devil," which is then blamed for a real (or often imagined) social problem. Put simply, a moral panic occurs when our fears of an object or activity greatly exceed the actual threat posed to society by that object or activity. Some moral panics focus on kids themselves, typically over some ostensibly scandalous behavior. Many older adults have a general distrust of kids (particularly teens), and every generation seems to think the next has slipped to some new depth of moral depravity shocking in comparison to the idyllic memories of their own long-gone childhood. Media has also been a rich target for moral panics. Very often when a new form of media or technology is released, society goes through a period of overblown

fear in which this media or technology is blamed for any number of social ills, whether real or merely perceived. These panics can be explained in large part by generation gaps in adopting new technology or media. The young are far more proficient at adapting to innovation than are the old. This can create a perception among older adults that they are losing control of the culture they helped shape—which, of course, they inevitably will—to the very youth they fear and view as morally bankrupt.

Even the Bible has been the source of a moral panic fueled by advancing technology. In Catholic Europe prior to the fifteenth century, most people were illiterate, and reading the Bible was reserved for the religious class. Books were largely created by hand, making them scarce to begin with, and Bibles were printed mainly in Latin (or Greek in Orthodox countries)—languages only taught to the educated elite. Ordinary folks learned about their religion through the teachings of their priest (though masses themselves were often in Latin, so one imagines there was a fair amount of confusion). This was an intentional hierarchy—the notion of a direct relationship between a person and his or her God was an idea yet to come in European religion.

In the fifteenth century, the invention of the mechanical printing press changed everything. Books were easier to mass produce and finally available to the masses: demand for Bibles in native languages (English, German, French, etc.) exploded. But the authorities, both religious and secular, were concerned that the common folk were not equipped to read the Bible themselves. They believed commoners might misinterpret the Bible and get lost on the wrong moral path, ultimately fomenting rebellion, heresy, and the end of society as they knew it (granted, the Protestant Reformation was right around the corner, so these were not entirely irrational fears). The authorities introduced severe penalties for producing non-Latin Bibles, and men like William Tyndale who flouted them were charged with heresy and executed. It was a prototypical example of moral panic sparked by fear that new media will result in a loss of control over society.

In the five hundred or so years since then, we have seen countless innovations in media, arts, and technology. Almost any you can name has set off some form of moral panic.<sup>3</sup> Waltzes, when they were introduced, raised concerns that the close contact between dancers would provoke sexual immorality. In the nineteenth century, society elders were concerned about women reading novels.<sup>4</sup> Many thought that women were unable to distinguish reality from fiction (a refrain commonly heard today about youth) and that reading romantic

novels would send them running off with stable boys en masse, neglecting their duties, and leading to the collapse of the family. Immigrant and minority groups were also considered particularly vulnerable to the influence of movies and dime novels. As the Industrial Revolution and educational reforms combined to create the concept of adolescence (before this, you were a child until you were old enough to work, and then you were an adult), young people increasingly became the focus of society's moral concern. Dance halls, short-bobbed hair on women, new forms of music—especially those, like jazz and rock and roll, that originated within the African American community—were all sources of moral panic. The dangerous phonograph, the salacious radio, immoral moving pictures, and the surely corrupting television set: none escaped censure.

Moral panic seems to be a constant in a society where nearly everything is always changing, but the moral panics of the past, from rock and roll suicide and Satanism to comic book inspired juvenile delinquents, all seem to pale in comparison to what has become the most famous moral panic of the late-twentieth and early-twenty-first centuries—violent video games. As early as 1983, C. Everett Koop, the U.S. Surgeon General, suggested that video games (he was mainly talking about *Asteroids*, *Space Invaders*, *Centipede*, and other popular shoot-'em-up games of the time) were a leading cause of family violence. By 1993 the U.S. Congress was threatening the video game industry with regulation or censorship, holding its *Night Trap* hearings and strong-arming the development of the ESRB ratings system. The Entertainment Software Ratings Board is a voluntary, industry-run ratings system that provides content descriptors and age categories for commercially available video games.

However, it was not until the close of the 1990s after a series of school shootings perpetrated by white suburban kids that "blame the game" really took off. Mass homicides were nothing new to the United States, but when they had happened before, news media put little effort into searching for societal causes and instead blamed the individual perpetrators. In 1993 Nathan Dunlap, a nineteen-year-old African American, visited the Chuck E. Cheese restaurant where he had worked as a cook before being fired. He ate a sandwich and played a video game called *Hogan's Alley*. Then he loaded a .25 caliber pistol in the restroom and hid there until the last customers had left for the night. Upon exiting the restroom, Dunlap went on a shooting spree that ended in the death of four employees. In the weeks following, the media and politicians focused on Dunlap's desire for revenge, his hatred and rage. An article quoted the police chief as saying, "This is just a tragic, tragic example of what can happen if something is

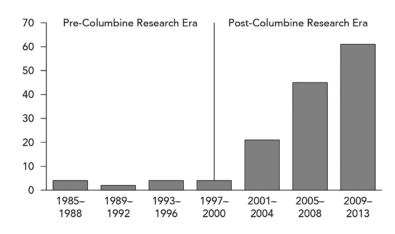


Figure 1. Chart shows the marked increase in the number of research articles on violent video games after the 1999 mass shooting at Columbine School in Littleton, Colorado.

not done about the level of violence existing with these kids today," but nowhere did anyone mention violent movies, television shows, or video games. Violence among minority kids in urban areas did not often garner much attention, and when it did, the violence was blamed on the kids and communities themselves. But horrific acts of violence by white kids, supposedly coming from nice families, violated the prejudice that youth violence was a minority and urban phenomenon. Some scholars, such as James Ivory at Virginia Tech, argue that our racial prejudices about violence lead us to seek external explanations when white kids commit crimes. Therefore, if an African American youth, like Dunlap, commits a horrific act of violence, it is because he is full of rage or hatred, but when a "nice" white kid shoots up a school, he must have been brainwashed or under the corrupting influence of something outside himself—something like video games.

Perhaps the epitome of this was the 1999 Columbine massacre in Littleton, Colorado. On April 20 of that year, two teenagers, Eric Harris and Dylan Klebold, entered their school with the intention of destroying it. Both boys had a history of severe depression and issues with rage and anger. For months they planned the attack on their school, hoping to eclipse the Oklahoma City bombing in scope. The two teens had initially intended to bomb the cafeteria and shoot surviving students as they left the school; however, when the duo's bombs failed

to explode, they were forced to improvise and entered the building shooting. Over the course of about an hour, they roamed the halls shooting at terrified students and staff. They ruthlessly murdered, all in all, twelve innocent students and one heroic teacher, wounding twenty-one others, before both Harris and Klebold committed suicide in the school library.

The Columbine massacre set off a massive quest for answers. Why did two suburban kids commit such a horrific crime? Had they been bullied and were thus enacting revenge? Were they part of a supposedly antisocial goth "trench-coat mafia" music culture? Were they reenacting scenes from the movie *The Matrix*? None of these explanations actually fit. Harris and Klebold were not particularly goth, nor did it seem that they had been bullied any more than most kids, and links with *The Matrix* appeared to originate from the imaginations of observers rather than from the perpetrators themselves.

But Harris and Klebold were indeed fans of the violent video game *Doom*, which involved roaming mazes shooting at zombies and monsters. Primitive by today's standards, *Doom* nonetheless looked like the kind of "murder simulator" some antigame activists had been warning about. With little doubt, the Columbine massacre was a pivotal event in cementing, in the public's mind, the notion that violent video games and school shootings were linked. It also created a cottage industry among scholars: violent video game research. The number of published research articles examining video games increased nearly 300 percent in the wake of Columbine.

As is often the case for high-profile mass shooting events, the Columbine massacre led to hearings before Congress, and as would become predictable, these hearings suggested the blame for this horrific act lay with media violence. Several scholars argued that media violence had an impact on society on par with the impact of smoking on lung cancer. For instance, prominent anti-game activist and social psychologist Craig Anderson testified before the U.S. Senate Commerce Committee shortly after the Columbine massacre, saying "[E]ven though one cannot reasonably claim that a particular act of violence or that a lifetime of violence was caused exclusively by the perpetrator's exposure to violent entertainment media, one can reasonably claim that such exposure was a contributing causal factor. More importantly for this hearing, my research colleagues are correct in claiming that high exposure to media violence is a major contributing cause of the high rate of violence in modern U.S. society." <sup>12</sup>

How much research was there to support such a sweeping claim? Well, effectively none. So why, even without evidence, were politicians and some schol-

ars so quick to blame violent media for the tragedy of Columbine? Because, in short, that is what a frightened and emotional public pays them to do. The authors of this article have children. We remember the days after the 2012 Sandy Hook shooting, in which twenty elementary school children were among the twenty-seven victims killed. Along with the national trauma of such a horrible act of violence, we recall our fear and sense of powerlessness at the thought of sending our kids to school with the possibility of not getting them back. When people experience such strong emotions, such a sense of powerlessness, it is only natural to reassert a feeling of influence over an event, even if that feeling is illusory. With these awful crimes, it becomes important for us to identify a culprit and to look for ways to rid our society of that bogeyman to give us a sense of asserting control. Understandably, this causes us to turn toward authorities and political representatives to do something, anything, to prevent such a tragic event from happening again. For legislators, it helps if this bogeyman is something they can forcefully attack without losing votes. And since older adults control most of the power in our society—they are the ones who read the news, vote, and control the purse strings—their fears are the ones that count.

In an ideal world of rationally minded people, the process of testing a belief would be a logical, scientific one. A person might develop a hypothesis, understanding that it is only a hypothesis and that it may be wrong. Then the person would look for data to confirm or refute the hypothesis, being particularly attuned to the latter. Once all the data were in, the person would evaluate it dispassionately to see whether the hypothesis held up and, of course, would remain open to further data. Were we all robots, we might be able to do this. Instead we are frail, emotional human beings who tend to latch on to cherished beliefs and hold on for dear life, whatever may come. As a substitute for testing these beliefs rigorously, we cherry-pick evidence that supports our predetermined beliefs and ignore evidence that does not. Cherished beliefs lead to pseudoscientific industries (among both scholars and advocates) that produce faux data to fuel these beliefs and stoke the flames of a moral panic.

## **Identifying a Moral Panic**

Science does identify real problems and threats to public health: global warming, say, or the dangers of smoking cigarettes. On one hand, how do you differentiate good science from pseudoscientific muck? On the other, how do you distinguish

appropriate scientific skepticism from antiscience tin-foil-hatism? These are not easy questions. A lot of really bad science shows up even in peer-reviewed journals, so looking for the publication outlet of a scientific study is not quite enough. Below, we offer a few guidelines that may help you identify a moral panic and distinguish it from a true problem.

## Extreme Claims Come before Data

One indication that you may have entered the land of moral panic is when pundits and politicians make shocking claims about some perceived threat to the moral fiber of society. This often takes the form of informing the public that today's youth are engaged in some immoral or harmful activity we would not have dreamed of in our day. Look for language such as "Kids today are doing *X* younger and younger" or "shocking new trend in youth behavior" or "technology *X* is having a profound impact on our kids' behavior." Particularly when a stunning problem related to the behavior of youth seems to emerge from nowhere, this is a sign that a moral panic is gearing up.

With video games, remember, politicians and antimedia activists were complaining about the games' supposed effects on violence long before there was data to support such claims. Video game research did not really get rolling until the late 1980s and, through the 1990s, researchers were pretty honest about acknowledging there was not much evidence to support beliefs that even the most violent games were harmful. This changed only after Columbine, when scholars, heavily invested in criticizing violent television, switched their focus to violent video games. In effect, the focus of scholarship changed to fit the moral panic. Beliefs about the dangers of video games came first, and then dubious social science capitalized on these fears.

Contrast this with research in other fields, such as research into climate change, or the influence of smoking on lung cancer. In these fields, the data built up first, facing initial skepticism among scientists and the public alike. The slow, steady accumulation of evidence eventually changed public opinion. In a moral panic, public opinion comes first, and specific types of research answers are then demanded.

## Public Calls for Research Supporting the Moral Panic

One of the fundamental problems with moral panics, particularly long-lasting ones, is that they damage the scientific process. This happens when politicians or activists call for "studies" that will help them fix the supposed crisis behind

the panic. Watch for language from politicians calling for "research" that will help them understand how to best regulate media—in this case, research not into violence but into how video games contribute to it.

The 2012 Sandy Hook Elementary School shooting provided rich examples. Just days after the tragedy, and with no official word about whether the shooter played violent games at all, Senator Rockefeller made his call for research into violent video games that would help "explore ways Congress can lay additional groundwork on this issue. This report will be a critical resource in this process." Calling explicitly for research that will move forward a particular agenda or policy goal is a recipe for pseudoscience. These rabid calls for one-sided research epitomized the era from the late 1990s to the 2012 Sandy Hook shooting.

The result was a huge pool of junk science that repeated the same basic research mistakes (poor measures of aggression, lack of standardization, lack of careful matching of games to ensure they varied only in violent content, and a failure to control for other variables in correlational studies), even after these errors in research had been pointed out again and again. We were not the only ones to think so. The Supreme Court of the United States pointed out the very same thing in their decision in the 2011 Brown v. Entertainment Merchants Association (EMA) case, which considered whether regulation of violent games was constitutional. Referring to several decades of accumulated research, the court said, "These studies have been rejected by every court to consider them, and with good reason," going on to discuss how little such studies told us about the real world.<sup>15</sup>

#### The Goldilocks Effect

Another thing to look for is questions along the lines of "Why can kids not just enjoy the media I enjoyed when I was young?" There is a great example of this in Fox News' coverage of *Mass Effect. Mass Effect* was a 2008 space action game. Over the course of the thirty-plus hours of game play, players have the opportunity to romance another character, potentially leading to a momentary tasteful sex scene toward the end of the game, in which a computerized woman's buttocks are briefly visible. The whole thing is about as titillating as a scene you might see in a PG-13–rated movie, but nonetheless it set off a firestorm, some pundits claiming the scene was the equivalent of hard-core pornography. A Fox News program featured a panel of "experts" discussing the controversy above the headline "SEX BOX? New Video Game Shows Full Digital Nudity and Sex" (which, in fact, the game did not). One "expert" claimed *Mass Effect* would harm

children's future sexual and social development, despite later admitting she had not bothered to play or even look at the game. Watching this panel, we found clear that the panelists were both unfamiliar and uncomfortable with this media. Said one: "This made me feel old watching this. Whatever happened to Atari and pinball and Pac-Man?" <sup>16</sup>

This attitude is typical of every generation: it is what we call the Goldilocks Effect. Essentially, each generation thinks it got media "just right." The generation before us was too conservative, they were stick in the muds who just did not understand the music and media important to us. But these kids coming along next, well—they are totally out of control! And so the cycle repeats, generation after generation.

## *Save the Children! Mentality*

Saving children is obviously a good thing. We are not suggesting otherwise. But many moral panics adopt a defensive posture in which questioning the panic becomes tantamount to not caring for children. Granted, many moral panics actually target youth and portray them or their culture negatively, but they usually adopt the language of paternalistic protection while doing so. Those who argue against the panic are accused of either not caring about kids or of being in the pocket of a big, bad media industry.

Sadly, we have even seen this type of behavior among academic researchers. Some scholars, invested in promoting antimedia theories, have taken to implying that skeptics are the equivalent of holocaust deniers, that they are industry apologists, or that they are motivated by building careers on contrarianism rather than by a commitment to scientific truth.<sup>17</sup> This type of language is characteristic of any ideological or religious system aggressively defending its beliefs from scrutiny by attacking critics personally. It is a warning sign that people are defending a belief system emotionally, not objectively subjecting it to reality testing as scientists should.

One author of this article had an amusing run-in around this issue. Several months after the 2012 Sandy Hook shooting and in the midst of the ensuing (and ultimately misplaced) moral panic, Christopher Ferguson appeared on CBS's *Face the Nation* to discuss violent video games. The panel of guests also included a former FBI agent, a congressman, an advocate for the mentally ill, and Tim Winter, a representative of the Parents Television Council—the same antimedia advocacy group that blew a gasket over the brief exposure of Janet Jackson's breast during the 2004 Super Bowl halftime show. Everyone on the

panel, with the exception of Winter, largely agreed that video games were not a cause of the Sandy Hook shooting. Winter's argument to the contrary was long on hyperbole but short on data. At the end of the segment, apparently realizing that he couldn not win on the facts, Winter referred to Ferguson, saying: "Sadly, just as the tobacco industry was able to find researchers to support their notion that their products weren't harmful, so, too, has the entertainment industry."

"I'd like to respond to that!" Ferguson can be heard trying to interject, but he is cut off as the show ends.<sup>18</sup> (For the record, neither author of this article has ever received incentives, financial or otherwise, from any media industry.) Failing to provide evidence of harm and then suggesting opponents are lining their pockets at the expense of children's health is the tactic of those without science on their side.

These are just a few of the red flags that might help identify a moral panic. In general, whenever society, through news media, politicians, and advocate groups, seems wound up about a supposed threat to morality—especially one involving media, sexual behavior, or new naughty trends among youth—it is time to be suspicious.

### **Science Wars**

Unfortunately, moral panics can be damaging. They can greatly damage the lives of individuals caught up in them. They routinely disparage youth and promote antiyouth attitudes among older adults, alienating young people in the process. But most crucially, they can distract us from more pressing issues. Some researchers and organizations have used the public's panic over video games to secure funding to conduct questionable studies seemingly designed to further inflame the public's fear. For decades, these behaviors have distracted us from issues that actually do influence aggression and violence, such as poverty, mental illness, and educational disparities.

However, the story of science examining violent video game is at a turning point. Within the world of video game research, a David and Goliath battle is underway. The Goliaths are a well-organized, politically connected, and well-funded group of senior scholars who have been linking violent video games to horrific acts of real-world brutality for over thirty years. These anti–video game giants are being challenged by a group of younger, progame researchers, many of whom grew up surrounded by Atari, Nintendo, and PlayStation systems.

Theirs is an epic struggle for truth as they attempt to challenge the much more powerful anti-video game empire. This is not a battle fought on strange planets by light-saber-wielding Jedis; it is fought in the pages of scientific journals, in the media, and in courtrooms (and regrettably, there are no light sabers). To the outside observer, this might not seem like such a big deal—just nerd-on-nerd fighting—but the stakes of these conflicts are high for everyone. They influence court decisions about what kinds of media can be censored or regulated. People have been sentenced to jail or gone free based on the testimony of video game scholars. And millions of dollars of taxpayer money has been spent fighting these battles, funding biased scientific studies that may do more harm than good.

Most people are surprised to learn the details of how video game research is actually conducted. Some studies have done little more than ask people what types of games they like and how they feel. Questions are not concerned with real acts of violence. Instead, they are focused on whether a respondent might be a bit of a jerk (e.g., "to say nasty things about a person behind his or her back is ok"), feel like being alone (e.g., "I feel unsociable"), or—oddly enough—politically conservative (e.g., "any nation should be ready with a strong military at all times"). Obviously, any conclusions one might draw about aggression—much less actual violent behavior—from such studies would be dubious.

Some researchers have tried to be more systematic, conducting experimental studies. These usually involve asking one group of people to play a "violent" video game while another group plays a "nonviolent" video game. Exactly what qualifies as a violent video game has varied widely among researchers. Grand Theft Auto, Doom, Call of Duty, and Mortal Kombat are obviously violent and have all been used in violent video game research, but so have games that seem much more innocent. For example, anti-video game researchers have said that Missile Command, the arcade space-shooter Zaxxon, the cartoonish game Ty2, (rated E), the exaggerated version of baseball in MLB Slugfest (rated E), the game Herc's Adventures (rated E—in which the main character employs cartoonish attacks such as "pepper breath"), and even Pac-Man are violent video games. Typically, after a short play session of around fifteen minutes, participants in these studies have their aggressive thoughts or behaviors assessed, either via survey or by giving them a chance to perform some "aggressive act." Using this methodology, some researchers have found that individuals who play violent video games are more likely to expose others to loud, irritating noises, report feeling more hostile on a questionnaire, give longer prison sentences to hypothetical criminals, and even give hot sauce to people who do not like spicy food. Other

researchers can't find these effects. And while these various outcomes might be related to unfriendly thoughts and behaviors, it is quite a leap to imply that the desire to expose others to loud noises or hot sauce translates to a propensity to commit homicide or violent assault.<sup>19</sup>

Not only are researchers guilty of overgeneralizing and extrapolating the findings from such studies (does anyone really think that a willingness to say "nasty things" behind a person's back tells us anything about whether someone is likely to become a school shooter?), but they sometimes get sloppy with how they conduct these experiments in the first place. For instance, one popular method researchers have used to measure aggressiveness after playing a violent video game is to give the subject a chance to "blast" someone with an irritating noise. Specifically, after their game-playing time is over, subjects are allowed to select both the duration and the intensity (on a scale of zero to ten) of a whitenoise burst administered to another person.

The problem is that there is no agreed-upon way to score this measurement of aggression. For example, researchers have scored aggression as the sum of the intensity and duration, the product of the intensity and duration, the log transformation duration (ignoring the intensity . . . and if you do not remember from high school math what a log transformation is, do not worry), and even the square root of the duration score multiplied by the intensity score. Confused yet? Altogether, there are at least 140 different ways researchers have scored this measurement! Recently, German scholar Malte Elson was able to demonstrate that, depending on how creative a researcher gets in scoring this measurement, it is easy to make violent video games look like they increase aggression, decrease aggression, or have no effect whatsoever . . . using the same sample. 20

Suppose, for the sake of argument, we look past these methodological problems: How big an effect do these studies show video games have, even on such mundane outcomes as exposing others to irritating noises, feeling unsociable, or giving hot sauce to a person who does not like spicy food? Numerous scholars on both sides of the video game debate have examined all the research done on this topic, working to get a sense of the average effect video games have on slight forms of aggression. So how much do video games seem to affect individuals' minor expressions of aggression? Given the extensive media coverage and the dire concerns expressed by policy makers and others, you might guess that playing violent video games increases aggression by around 40 or 50 percent. Even if you are a bit skeptical, you might imagine that surely video game researchers must have found at least a 10 percent effect. It turns out you

would be wrong—by a lot. On average, research suggests that only 0.4 percent to 3.2 percent of the variation in minor forms of aggression can be explained by violent video games.<sup>21</sup>

Keep in mind that these small effects are based on studies that have almost exclusively relied on self-reports of aggressive behavior or employed proxy measurements of aggression. And usually, it is obvious what participants are supposed to do in these studies—subjects may very well be giving researchers the responses they think they want rather than behaving as they normally would. Even if we take this research at face value and say that playing a violent video game may make some people more likely to afflict others with loud noises or hot sauce, these are actions with minimal repercussions—unlike, say, committing rape or aggravated assault.

As such, it is likely that even the extremely small effect found by some studies linking violent video games to minor forms of aggression far exceeds the effect of violent video games on real-world, aggressive behaviors. In short, these studies might suggest it is a good idea to keep an eye on our friends who play violent video games if they are going to make us a taco with hot sauce, but they give little insight into whether video games pose a public health risk. Then again, given inconsistencies between studies, dubious measures of aggression, the bizarre list of games researchers have called violent, and other methodological issues, maybe even our tacos are safe, and the whole thing is utter rubbish.

The obvious question is this: Given that there is very little scientific data linking violent video games to acts of violence, why are so many people so worried about these games? The simple answer is fear. Parents are scared. According to one survey, more than 60 percent of parents believe a school shooting is likely to happen in their own community.<sup>22</sup> However, there is a major disconnect between this fear and reality. The chance a child will be killed in a school shooting is 0.000001 percent. Although such events are undeniably tragic, they are much rarer than many of the potential dangers our children face every day. It is more likely that a child will die in a plane crash (0.01 percent), from a bee sting (0.001 percent), on death row as a convicted murderer (0.0008 percent), by being struck by lightning (0.0007 percent), from a dog bite (0.0006 percent), or even in a tragic fireworks accident (0.0002 percent).

And while studies may have failed to demonstrate a link between violent video games and actual violence, you would never know it from the way these studies are reported to the public—by the media, and even by the scholars themselves. When society is in the grip of a moral panic, as we are with violent video

games, major stakeholders in society are pressured to both validate and address the fear. These stakeholders include politicians, who court votes by looking serious on moral issues, and news editors, who rely on salacious clickbait headlines to garner sales. After all, which would you be more likely to click on: "Scientists Say Video Games Creating Generation of Sociopaths" or "Video Games Don't Really Influence Us Much, New Study Finds"? In the aftermath of three recent school shootings, nearly five thousand newspaper articles were published that discussed video games in the context of the events.

We would like to think all scientists hold themselves to a higher standard, but, unfortunately, remaining above the fray does not pay well. Scholars can get grant funding, professional prestige, and newspaper coverage for their work by tying their research to the current moral panic, and the more extreme their statements, the more coverage they receive. Social science during a moral panic begins to look and behave less like an actual science and more like a convenient way to benefit from social agendas.

#### NOTES

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nesses who were worried about *Night Trap* had never actually played the game. At various times it was claimed that it was the player in *Night Trap* who was murdering the women and that, once successful, these women were hung on meat hooks and their blood was drained into wine bottles. However, neither of these claims are true. There is absolutely no bloodshed in this game, and the player is not attacking women but attempting to save them. The only things offensive in this game is the acting (the most notable actress was *Diff'rent Strokes* star Dana Plato) and special effects that are more reminiscent of the low-budget vampire films of the 1950s than modern day slasher movies.

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