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CHAPTER 3

A FUTILE GAME: ON THE PREVALENCE AND CAUSES OF MISGUIDED SPECULATION ABOUT THE ROLE OF VIOLENT VIDEO GAMES IN MASS SCHOOL SHOOTINGS

Christopher J. Ferguson and James D. Ivory

ABSTRACT

Purpose – Video game violence has historically been offered by policy-makers and some scholars as one contributing factor to mass homicides, particularly with shooters who are young, male, and white. However, the evidence for or against such beliefs has not been closely examined.

Approach – The current chapter examines the research exploring violent video game playing and its links with violent and aggressive behavior. Further, research regarding mass school shooters is also examined. The chapter also engages in a sociological analysis of structural factors within both the general society and scientific community by which media is often identified as a potential cause of social problems.

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Findings – Current evidence cannot support proposed links between video game violence and aggressive or violent behavior, whether mild or mass homicides. Efforts to blame mass homicides on video games appear to be due to unfamiliarity with games among older adults, prejudicial views of young offenders, and a well-identified cycle of moral panic surrounding media as a scapegoat for social ills. Poor peer-reviewing within the scientific community allowed scholars to participate in this moral panic.

Social implications – Time focused on video games as a cause of mass school shootings is time wasted. Discussions of mental health issues and mental health care are likely to bear more fruit in relation to mass school shootings.

Keywords: Video games; violence; mass homicide; school violence; mass media

All violent crime is tragic, and mass school shootings touch a nerve in the public consciousness perhaps more than any other. Mass school shootings violate school campuses, environments that are typically considered idyllic and insular havens. They also strike down victims who are youthful achievers in the early stages of promising careers, along with educators who have dedicated lifetimes of service to the ideals of learning and scholarship. Lastly, their perpetrators are often also youthful members of the schools' communities, students whose decisions to murder their peers sadden, enrage, worry, and puzzle us.

Given that mass school shootings are relatively rare anomalies, it is difficult to identify consistent causal factors that predict an individual's decision to carry out such a heinous crime (Muschert, 2007b). A 2002 report from the United States Secret Service and United States Department of Education (2002; henceforth called the Secret Service report) noted that the histories and motivations of mass school shooting perpetrators were so widely varied that a common set of demographic factors and traits was elusive. Among the factors the report did identify as common to mass school shooting perpetrators were a history of perceived mistreatment by others, a history of difficulty dealing with losses or failures, prior behavior that caused concern among others, and others having been aware of perpetrators' intent.

Another potential factor frequently mentioned in speculation surrounding mass school shootings is perpetrators' use of violent video games. This speculation is not supported by current evidence. The Secret Service report (2002) found that interest in violent video games was relatively infrequent among perpetrators of mass school shootings, with shooters arguably less likely to be interested in violent games than their peers in the general population (Ferguson, 2008). Nonetheless, violent video games continue to receive attention as a putative cause of mass school shootings. For example, television personality "Dr. Phil" McGraw and activist lawyer Jack Thompson confidently claimed within hours of the mass shooting at Virginia Tech in 2007 that the shooting's perpetrator was influenced by violent video games, although the perpetrator was later found to have little interest in violent video games (Virginia Tech Review Panel, 2007).

The tendency to overly focus on video games is problematic not only because it is inaccurate, but because this type of unsubstantiated accusation can draw attention and resources away from efforts to address the real causes of mass school shootings.

AN OVERVIEW OF RECENT MASS SCHOOL SHOOTINGS

Mass homicides occurring on school campuses are not new to the late twentieth or early twenty-first century; many such events occurred in previous years. One of the most famous and deadly events was the 1966 shooting at the University of Texas in Austin wherein Charles Whitman shot and killed 16 people (including an unborn child) and wounded 32. Whether such mass homicides became more prevalent in the 1990s and early 2000s is a matter of some speculation. From the Secret Service report (2002), it appears that the raw numbers of mass school homicides did indeed increase in the 1990s. These data, however, must be considered with several caveats:

1. Shifts in prevalence of crimes, including mass school homicides, often reflect tracking and definitional issues. The issue of mass school homicides appears to have been rarely discussed as a separate phenomenon distinct from other similar homicides prior to the 1990s. It is easier to categorize new crimes under a new heading than it is to go back through history and re-categorize old crimes, so some crimes that would now be considered mass school homicides may be "lost to history."

2. Similarly, the criteria that define a “school shooting” appear to be somewhat fluid. If we simply consider shootings that occur on school campuses, whether middle schools, high schools, or universities, school shootings have experienced a precipitous decline to 40-year lows over the previous two decades ([National Center for Education Statistics, 2010](#)). Mass homicides are often considered a distinct if overlapping category compared to the broader category of all shootings that take place in schools, although the boundaries of the mass “school shooting” category are poorly defined. Thus clearly not all shootings, homicides or other violent acts occurring on school campuses are described as “school shootings,” but just which crimes are classified as such and which are not may depend on unreliable criteria. For instance, we speculate that the “school shooting” category tends to be used to describe events occurring in high socioeconomic status (SES) suburban schools and college campuses. Conversely, we suspect that the “school shooting” classification tends to disproportionately ignore events occurring at urban schools with high prevalence of students from low-SES backgrounds where crime might be “expected” due to difficult social environments surrounding these schools or stereotypical expectations applied to these schools’ populations.
3. Finally, any increase in the prevalence of mass homicides might be explained given that the population of the United States rose steadily during the 1900s from approximately 76 million in 1900 to approximately 312 million today ([U.S. Census Bureau, 2011](#)). Thus, the total incidence of school shootings, even if recorded reliably over time, could increase by approximately 411% during the past century without the crimes actually increasing in proportional prevalence among the population. Given the increasing national population, such an increase in mass homicides of any kind could reflect nothing more than a commensurate increase in the raw occurrence of criminal behavior to match population growth.

These caveats notwithstanding, the numbers provided in the Secret Service report (2002) do suggest a rise in school shootings in the 1990s which leveled off or fell slightly in the 2000s ([Ferguson, Coulson, & Barnett, 2011](#)). This rise in the frequency of mass school homicides during the 1990s mirrored or slightly trailed patterns in youth violence statistics in general, the incidence of which peaked in 1993. Youth violence statistics then began a precipitous decline, returning to 1960s’ levels by the time of this writing.

ADOLESCENT/YOUNG ADULT VERSUS OLDER ADULT PERPETRATORS

When mass homicides occur, politicians, scholars, and the general public sift about for clear explanations. It is understandable that people would look for an answer as to what could cause such awful events. For some, finding such an answer would provide an illusion of control over the events and the notion they might be prevented in the future. These speculative explanations, however, tend to focus on idiosyncratic elements of individual crimes rather than commonalities between them. The commonalities between perpetrators of mass homicide, both occurring at schools and elsewhere, are already reasonably well-known (Ferguson et al., 2011) and typically include a combination of mental health problems, feelings of persecution by society, and antisocial personality traits.

We further observe that the explanations for mass homicides are age-dependent. Although video games and other media violence are regularly mentioned as contributors to mass homicides among young male perpetrators, the issue of video games is seldom mentioned at all when perpetrators are older males or females. That is to say, commentators seldom note that video games were *not* involved when the perpetrator is outside of the stereotypical video “gamer” demographic. For instance, regarding the 2010 shooting at the University of Alabama in Huntsville, in which a 45-year-old biology professor killed three people and wounded three others, much commentary focused on the tenure process. Little mention at all was made of video games in this case. Arguably, the psychological profile of that perpetrator and other older adults who have committed mass school homicides may be similar in some ways to that of young people who have committed similar crimes, but the use of video games is not one of the commonalities shared between the Alabama case and mass school homicides committed by younger, male perpetrators.

When a Virginia Tech student killed 32 people at his university, then himself, the crime led to quick statements by pundits such as television personality “Dr. Phil” McGraw and then-lawyer Jack Thompson that video game violence was likely a cause of the tragic event. As mentioned above, however, an official investigation of the crime (Virginia Tech Review Panel, 2007) later revealed that the perpetrator was not a player of violent games. The refutation of those prominent claims, although, has not stopped further speculation involving the role of video games in other mass shootings. A shooting and bombing in Norway during 2011 killed

approximately 77 individuals in downtown Oslo and at a summer camp. In a 1,500 page manifesto prior to the attacks, the perpetrator attributed his violence to a campaign against Muslim infiltration of the West. He briefly mentioned two video games in his manifesto (in approximately 1.5 pages out of the 1500 pages total), suggesting the use of *World of Warcraft* as a cover story for time not spent with friends or family while he was planning the crime and speculating that *Call of Duty* might help hand-eye coordination. He did not suggest he was motivated to commit the assaults due to video games. Although the response to these passages in the perpetrator's writings was arguably more muted than speculation regarding video games following the shooting at Columbine High School 12 years earlier, the brief mention of two games in the manifesto still led to violent games being removed from store shelves in Norway. Given that the manifesto gave much more attention to topics such as the Byzantine and Ottoman Empires, a case could be made that he drew more inspiration for his crimes from historical events and accounts than from video games. Of course, no calls to remove history books from store shelves were made.

RESEARCH ON VIOLENT VIDEO GAMES AND AGGRESSION

Although research on the effects of violent video games has been conducted since at least the 1980s, most scholars agreed for some time that the evidence regarding such effects remained inconsistent (see [Griffiths, 1999](#)). In the wake of the mass shooting at Columbine High School, although, the predominant language of the scientific community changed rapidly. Research on the effects of video games in the 2000s became more closely entwined with television violence research which had undergone decades of intense debates (see [Grimes, Anderson, & Bergen, 2008](#) for an overview). The result was a number of extreme statements of causality certainly made by groups such as the [American Psychological Association \(2005\)](#) and [American Academy of Pediatrics \(2009\)](#). These position statements often ignored disconfirmatory evidence and made claims suggesting the magnitude of harm caused by video game violence was similar in magnitude as smoking and lung cancer, claims that were later fact-checked by other scholars and found to be false and misleading ([Australian Government, 2010](#); [Block & Crain, 2007](#); [Ferguson, 2009](#)).

More recently, other scholars have pointed out that the research on video game violence and aggression had not become any more conclusive and

remained limited due to significant methodological issues. Those methodological issues include a reliance on poorly validated, unreliable, and often unstandardized measures of aggression (Ferguson, 2007), poor controls and matching in experimental studies of video games that introduced numerous and systematic confounds (Adachi & Willoughby, 2010), failure to adequately control for other important causal factors such as family violence or mental health problems (Kutner & Olson, 2008), an overreliance on college samples, particularly in studies with high potential for demand characteristics (Kutner & Olson, 2008), and problems with publication bias (Ferguson, 2007).

A very small number of studies have since addressed some of these prominent limitations in most research on the effects of violent video games on aggression. Almost invariably, they find little evidence of harmful video game violence effects (e.g., Adachi & Willoughby, 2011; Ferguson, 2011; Przybylski, Rigby, & Ryan, 2010). Curiously, some researchers attempt to downplay their own results indicating limited effects of violent games. For instance, Ybarra, Diener-West, Markow, Leaf, Hamburger, and Boxer (2008) suggest that their research supports a correlational link between video game violence and youth violence, yet when they controlled for other important confounding variables (as evidenced in the second figure of their article) video game violence was actually correlated with reduced youth violence (although this inverse correlation was not statistically significant).

Given the inconsistencies in results from individual studies exploring the effects of violent video games on aggression, several groups have turned to meta-analyses in order to attempt to determine whether video game violence causes aggression. Unfortunately, meta-analyses have been no more consistent in their conclusions than other studies. One group (Anderson et al., 2010) concluded that video game violence can have an appreciable effect on aggression. However, two other groups of meta-analyses have come to the opposite conclusion (Ferguson & Kilburn, 2009; Sherry, 2007). All the meta-analyses find results that are generally weak, in the range of $r = .04$ to $r = .15$, but the three groups have differed in their interpretation of these effects. Furthermore, Ferguson and Kilburn (2010) and Sherry (2007) have been independently critical of Anderson and colleagues' work and conclusions. These criticisms note a failure to distinguish the use of poor aggression measures from better validated measures, false comparisons with effects seen in medical studies, and a failure to include studies that contradicted the a priori hypotheses of the Anderson group.

Despite using somewhat different methodologies, the Sherry (2007) and Ferguson and Kilburn (2010) meta-analyses have largely replicated each

other, bringing us to the following general conclusions about video game violence effects:

1. Even taken at face value, video game violence studies have provided no evidence to support the belief that video games produce more negative effects than other forms of media such as television. The notion that the interactive elements of violent video games might produce more harmful effects was a common claim during the *Brown v. EMA* (2011) Supreme Court case, but it has no basis in empirical evidence.
2. Studies which use more precise methods employ better validated aggression measures, and control for other important variables are least likely to find evidence for effects of violent video games on aggression.
3. Video game violence studies suffer from publication bias. That is to say, studies purporting to find negative effects of violent video games are more likely to be published than null studies, a dynamic which artificially inflates effect-size estimates in meta-analyses.
4. Effects of violent video games in studies involving children curiously appear to be weaker than in studies involving college students. This may be due to “demand characteristics” in studies of college students in which college students are able to guess the study hypotheses and provide data that they believe will fit with those hypotheses.
5. In experimental studies of the effects of violent video games on aggression, longer exposure times are associated with smaller effects, the opposite of what would be expected if violent video games produced meaningfully harmful effects.
6. Similarly, prospective and longitudinal studies which track the effects of violent video games over time produce the weakest results. This suggests that the evidence for long-term influences of violent video games is minimal.

RESEARCH ON VIOLENT VIDEO GAMES AND VIOLENT CRIME

While the extent to which empirical evidence supports a link between use of violent video games and some measures of aggression may be a topic of some dispute, there is no reasonable cause to extrapolate from that conflicted body of research that there is a relationship between violent video game use and serious violent crime. The ongoing debate over the effects of violence in video games on aggression evidences the difficulties involved in

making clear conclusions about societal effects of media violence, but even the most liberal interpretation of the evidence of effects of video game violence on aggression in users provides little support for concern that video game violence is a serious risk factor in violent crime.

There are many risk factors for serious violent crime, and some of them have been very clearly identified. Although it might be convenient if video game violence, or media violence in general, were a legitimate cause of the most serious forms of violent crime, what we know from empirical evidence tells us that serious violent crime is a product of more complicated societal causes than a flickering screen.

There are examples of violent criminals who have claimed inspiration from violent video games and other media. Among the most widely repeated quotes from the perpetrators of the tragic mass shooting at Columbine High School in Littleton, Colorado in 1999 was the allusion to the popular video game *Doom* in their prediction, recorded on video just more than a month before the shooting, that their crime would be “just like [expletive] *Doom*” (Gibbs & Roche, 1999). As noted above, the perpetrator of the 2011 shooting and bombing in Oslo referenced video games in his manifesto, although he made no claims that he was influenced by them to commit his crimes. Infamous criminals known for misdeeds other than mass shootings have also been noted to incorporate popular media offerings into their malevolent lifestyles, such as in the many cases of real-life organized crime figures imitating the vocabulary and behavior of characters in the classic film *The Godfather* (Chakraborty, 2009; Smith, 2004; Spelling, 1997). In instances such as these, however, media do not serve as causes for perpetrators’ criminal behavior; rather, they simply demonstrate perpetrators’ familiarity with – and in some cases, interest in – famous media depictions of violence and crime.

Several studies have explored the possibility that violent video game use may influence violent crime and serious violent behavior (e.g., Ferguson, 2011; Kutner & Olson, 2008; Ybarra et al., 2008). These studies have failed to implicate violent video game use as a unique substantial contributor to serious violence. As noted above, a study by Ybarra et al. (2008) found that video game violence exposure had a weak inverse relationship, if any at all, with youth violence once other factors were controlled. Kutner and Olson (2008) also found little evidence to link violent video game exposure with delinquency or bullying behaviors. A more recent prospective study of Hispanic youth (Ferguson, 2011) found that neither violent television nor video games were linked with later violent behavior, non-violent criminality, or bullying. By contrast, a mixture of depressive

symptoms and antisocial traits were found to be the best predictor of youth violence. Although the results from [Ferguson's \(2011\)](#) prospective study can't be generalized to mass school shootings because less serious violent acts were the outcome measures under study, they do conform surprisingly well with the results of the [Secret Service report \(2002\)](#) on school shootings. Thus, the evidence suggests that, whatever levels of violence we consider, explanations for that violence which focus on mental health and personality are supported by much more conclusive results than do those explanations which focus on media influences.

POSSIBLE REASONS FOR INCORRECT BELIEFS ABOUT A LINK BETWEEN VIOLENT VIDEO GAMES AND MASS SCHOOL SHOOTINGS

Given the near absence of evidence for violent video games as a cause of violent crime, why does speculation persist about violent video games playing a substantial causal role in mass school shootings? It may be that we have a desire to lay the blame for disturbing events on simple external causes, possibly to gain a sense of control and understanding in the face of events that can challenge our very perceptions of humanity and society. Beyond that, although, some research suggests that very common psychological phenomena related to misestimation, misattribution, and stereotyping may explain the tendency for many to look at violent video games as a cause for serious violent crime.

Inaccurate Perceptions of Media Effects on Others

One such phenomenon is the "third-person effect," or people's tendency to estimate that others are more susceptible to the negative effects of media than themselves ([Davison, 1983](#); [Perloff, 1999](#)). This phenomenon has been observed with a variety of media and in a variety of contexts ([Paul, Salwen, & Dupagne, 2000](#)). Further, the magnitude of the third-person effect, or the extent to which people believe that media have more negative effects on others than on themselves, is linked to their support for censorship ([Rojas, Shah, & Faber, 1996](#)).

The third-person effect has been observed in studies of perceptions of violent video games ([Scharrer & Leone, 2006, 2008](#)). Additionally, research

has found that people's perceptions of the negative effects of violent video games on others are correlated with their support for censorship of violent video games, and that both perceptions of violent video games' negative effects on others and support for censorship of them are greater among people who are less familiar with video games (Ivory & Kalyanaraman, 2009). Lastly, people's perceptions of violent video games' negative effects and their support for censorship of violent video games have been found to be greater when video games are considered generally rather than when the effects of a specific video game are considered; in other words, games are perceived more unfavorably when considered in vague terms than when the potential effects of a specific game are estimated (Ivory & Kalyanaraman, 2009). In short, people tend to consider violent video games to be particularly harmful for others compared to ourselves, and this perception is linked to support for censorship – particularly when we consider violent video games very generally.

Stereotyping of Violent Crime Perpetrators

To further understand why violent video games are so often mentioned as a potential cause for mass shootings despite limited evidence supporting such a link, we must also consider when games are implicated – and when they are not. Historically, violent crime rates in the United States have been disproportionately high among people from racial and ethnic minorities in low-income urban areas due to a number of economic, social, and cultural disparities (LaFree, Baumer, & O'Brien, 2010). Despite the relative frequency of violent crime in economically disadvantaged urban areas and by economically disadvantaged minority youth, although, violent video games and other media seem to receive little speculative attention as a causal factor compared to the relatively rare commission of violent crime in more economically privileged areas by primarily white middle-class youth. This discrepancy seems to persist even although white youth use video games and other media proportionally less than their peers from racial and ethnic minorities (Rideout, Lauricella, & Wartella, 2011).

The tendency for people to look to violent video games as a cause for high-profile crimes committed by middle-class white youth despite the proportionally greater prevalence of video game use among non-white youth may be a result of some people's stereotypical associations between racial minorities and violent crime. It is well known, for example, that racial minorities are often stereotypically associated with violent crime in

people's minds (Devine, 1989; Eberhardt, Goff, Purdie, & Davies, 2004), in the content of much media (Chiricos & Eschholz, 2002; Oliver, 1994, 2003), and in media users' interpretation of media messages (Dixon, 2008; Oliver, 1999; Oliver & Fonash, 2002; Oliver, Jackson, Moses, & Dangerfield, 2004). This type of stereotyping may lead to a tendency for people to accept violent crime with little explanation when it is perpetrated by those stereotypically associated with it, but seek explanations (such as violent video games) for the crimes when they conflict with our stereotypical perceptions or where violent criminals come from and look like.

Do we search for external causes of violent crime, such as violent video games and other media, with more zeal when the perpetrators come from some backgrounds rather than others? At least one exploratory empirical study does provide further support for the idea (Ivory, Oliver, & Maglalang, 2009). In that study, research participants – the vast majority of whom were white – were given a mock news article describing a mass school shooting carried out by a youthful perpetrator. The fictional shooting was purported to have been carried out by a youth who enjoyed violent video games, although the story did not describe whether the games may have played a role in the crime. Participants in the study all received the same version of the story, with one key difference: the perpetrator's image was randomly varied to be either that of a white or black perpetrator. When asked a series of questions about the story, participants whose story featured the image of a white perpetrator were more likely to rate the perpetrator's use of video games as a possible factor in the crime compared to participants whose story featured the image of a black perpetrator.

The findings of that study (Ivory et al., 2009), which indicate a greater willingness for people to consider violent video games as a causal factor in a hypothetical mass shooting carried out by a white perpetrator than in an identical hypothetical scenario involving a black perpetrator, are doubly striking given previous survey research indicating that white respondents tended to consider black people to be more susceptible to negative effects of media than white people (Scharrer, 2002). In other words, white people may consider black people to be generally more susceptible to negative media effects, but are also more likely to consider media, such as video games, as a cause when crimes are committed by white people.

Societal reactions to mediatised violence (i.e., fictional depictions of violence in the media) do not occur in a vacuum, but occur within a social, cultural, and historical context. Some cultures, such as that of the Roman Empire or Medieval Europe, enjoyed public violence as sport with relatively little complaint or apology. By contrast, other cultures (including the

United States through most of the mid-twentieth century) have placed considerable restrictions on mediatized violence, whether legal or culturally enforced, usually reflecting comparatively rigid moral standards, although often explained in public health terms (with or without supporting evidence of a public health problem). With that in mind we turn now to the ways in which societal reaction to mediatized violence can promote false beliefs about the harmfulness of such media.

Moral Panic Theory

From the evidence presented above we can see that the statements made about video game violence, not only by politicians and activists but even some scholars, do not fit the available data which increasingly point away from a link between video game violence and mass homicides or lesser youth violence. As noted earlier, the era in which video games have become popular saw a massive reduction in youth violence, not a rise. We are cautious to note that such data are not sufficient to support the notion that video games have caused this decrease in youth violence. However, these data do serve to refute some scholars' dramatic claims that as much as 30% of violent crimes can be linked to media and video game violence (Strasburger, 2007), or that the magnitude of effects is similar to the well-documented and strong effects of smoking on lung cancer. The notion that human societies may construct panics over certain phenomena and exaggerate their impact as a way of expressing moral outrage toward certain "folk devils" is a well-understood and researched phenomenon (Cohen, 1972; Ferguson, 2010; Gauntlett, 1995). Moral panics are commonly understood as the manufacture of exaggerated fears toward a "folk devil" against which there is moral repugnance (Ben-Yahuda, 2009). Notably, moral panics have a tendency, although not necessarily an exclusive tendency, to focus on issues involving youth and crime. Examples within recent years include panics over juvenile superpredators (Muschert, 2007a), the rise of violent juvenile females (Office of Justice Programs, 2008), reverse-recorded "Satanic" lyrics in music, satanic ritual abuse (Bottoms & Davis, 1997), etc. It has been widely discussed that concerns about media violence may form a kind of moral panic, indeed that cyclical patterns following the advent of new media and technologies from waltzes to dime novels, to movies, to jazz and rock and roll, to comic books, to television, to Dungeons and Dragons, to Harry Potter (Ferguson, 2010; Gauntlett, 1995; Kutner & Olson, 2008).

Video games with violent content may be considered a form of mediatized violence. By this term we intend that video games form a media outlet in which individuals may experience, explore and consider violent behavior which occurs naturally within our species. Interestingly, the extent to which mediatized violence has become available in societies has coincided with a general tendency toward reduced violence in the human species (Pinker, 2011). This is, again, not to say that this correlational relationship can be interpreted as causal, but this does suggest that opportunities for individuals to consider the violent nature of humanity through media does not cause social ill.

Nonetheless, historically, some elements of society often react negatively toward mediatized violence, often on moral grounds. Mediatized violence considers topics, often presented graphically, beyond the pale of polite society. The moral repugnance experienced by some members of society may become expressed as an ostensible public health issue. That is to say, expressing a concern for public health, even if the true (whether conscious or unconscious concern) concern is in regards to moral standards, likely has a broader appeal to the general public than do calls to maintain moral rigidity. Thus, the standard bearers of moral enforcement often portray themselves as the true experts on public health, uniquely aware of looming disaster to the mental wellness of youth.

A model of moral panic theory as applied to media panics was first proposed by Gauntlett (1995) and later modified slightly by Ferguson (2010). In most such cases it is the elite or powerful of society itself that “spins” the moral panic wheel, with preexisting moral beliefs setting the stage for the rest of the process. This may take the form of expressed disgust, offense, or devaluation (“Why would anyone want to play that?”). There may be times in which science, or perhaps an individual scientific study is the spark for a moral panic (perhaps such as in the case of vaccines and autism), however in most cases the societal concerns tend to predate the science, or at least a move toward increased extremism in science. This can be observed in the statements of politicians such as C. Everett Koop and Senator Lieberman. Well before many studies of video games had been conducted, Dr. Koop, acting then as U.S. Surgeon General, claimed that video games were a leading cause of family violence (Cooper & Mackie, 1986) and, as noted, Senator Lieberman had been referring to video games as “digital poison” during the 1990s. These concerns quickly spread to sensationalist news reporting (such as news organizations “warning” parents about offensive-looking games children actually have little access to) and calls for research to support the burgeoning panic. Research that would suggest

there is not much to worry about, on the other hand, is likely to be ignored.

It is this point on research that is most important for our discussion. According to moral panic theory, society begins to essentially select research that fits with the preexisting beliefs. Science is made to act as a rationale for translating moral repugnance to moral regulation (Critcher, 2009). Essentially we might think of the opinions of scientists on an issue such as video game violence as occupying a kind of bell curve. Of course we might understand that scientists who have preexisting concerns about an issue such as video game violence may already self-select into the field particular where they form strong ties with advocacy groups (Grisso & Steinberg, 2008), creating an unintended bias within the scientific community where the scientists in a field don't necessarily represent a plurality of opinions. For instance, during the *Brown v. EMA* case, it emerged that several of the most vocal scholars critical if violent video games had received research funding from advocacy/lobbying groups dedicated to anti-game messages such as the National Institute of Media and Family and Center for Successful Parenting. Yet the social group itself may amplify this process: media outlets choosing to publicize only research which promotes the panic (Thompson, 2008), and government and advocacy granting agencies choosing to select which research to fund.

Thus, although politicians and news media have large roles to play, the scholarly community cannot be absolved of its role in the promulgation of media based moral panics. Just as some scholars once claimed that comic books were a source of both juvenile delinquency and homosexuality (see Kutner & Olson, 2008, for discussion), it is not at all surprising to find some scholars suggesting that video game violence was "linked" to mass school shootings (e.g., Anderson, 2004). Fortunately, in the last few years scholars have eschewed such extreme casual allusions.

Moral panics appear to disproportionately affect youth, who are often portrayed as simultaneously weak and in need of protection, and particularly prone to moral turpitude (usually it is implied the most recent generation of youth is less moral than previous generations). This leads to a tendency, even within the scientific community, to present youth as uniquely corrupted, even where the data does not support this (MacLeod, 2011; Males, 2010). Although beyond the scope of the present chapter, this presents the possibility that it is *youth* who are, in fact, the folk devils of media-based moral panics, with the media itself merely substituting as a stand-in to deflect arguments of typically intergenerational conflict as a public health issue.

Typically, media-based moral panics die down once members of society begins to understand that the prognostications of societal harm have not come true. We are appearing to approach this point at present given the data on youth violence, as well as the best empirical studies. Independent review of the research by the U.S. courts, including the U.S. Supreme Court, has rejected claims linking video game violence with aggression, as has a recent review of the research by the Australian government which found such claims inconclusive and flawed at best ([Australian Government, Attorney General's Department, 2010](#)). In recent years, some scholars have expressed the concern that the scientific community risks losing credibility by quixotically pursuing claims of "harm" due to video games or other media that are not well-suited to the data available (e.g., [Hall, Day, & Hall, 2010](#)). Scholars who have invested heavily in the view that violent video games cause serious harm are unlikely to change their claims; they might rather be expected to "double down" on claims of harm in light of recent "defeats" in the U.S. Supreme Court and in Australia (which as of this writing appears poised to institute an R18+ rating for video games, ending what had been a de facto ban on some violent games). However, current fears over video game violence may one day appear as absurd as claims of "harm" due to comic books (or rock and roll, or jazz music, or dime novels, or Greek plays) now do. The science will self-correct in the end as it has in the past.

CONCLUSION

Mass shootings in schools and other public places are among the most tragic and repugnant of violent crimes. There are many avenues we should pursue to prevent these awful crimes, including trying to better understand the causal factors that influence perpetrators' decisions to commit these awful acts. Although many of these causes may never be known, some risk factors have already been identified. We hope that this knowledge will guide researchers, school employees and administrators, mental health professionals, and law enforcement personnel as they work to minimize the number of these terrible events that take place worldwide.

Continuing to levy false accusations that violent video games and other media are a serious cause of such awful violence, although, is worse than misguided. These false distractions draw attention and resources away from the real causes of these awful crimes. Mediatized violence, by contrast, has never been demonstrated to cause harm to society or individual

members thereof. Given that the resources available for crime prevention and public safety come from a limited pool, every moment or dollar wasted on public indictments of violent video games and other mediatized violence as a source of mass crimes is one that cannot be spent on the services that can remedy real societal problems that cause mass shootings. For example, the state of California invested considerable funds toward defending a law banning the sale of violent games to minors in the *Brown v. EMA* case at a time when a severe economic downturn was forcing California to slash funding for education, social services and mental health services for youth. Although we are aware of the Byzantine processes involved in government funding, we do submit that the millions spent on *Brown v. EMA* could have been more wisely allocated.

We are not speaking here as apologists for violent video games, nor do we personally believe (based on our own moral beliefs, not science) that a young child should be playing games that allow them to simulate heinous acts and see gory simulations of traumatic injury and death. To say that this type of entertainment fare is a legitimate cause of the mass shooting tragedies that irrevocably ravage our schools and communities, although, is not only to speak inaccurately but to generate a distraction from the real social causes of these events. There are plenty of reasons for parents and children – as well as adult players – to carefully consider the time they spend with video games and the content they are using, but one of those reasons is not that they are proven to substantially and independently influence violent crime. If violent video games are one day found to be a truly substantial independent cause of mass school shootings and other serious violent crimes, then we will be as quick as anyone to acknowledge the risks they may pose. Until then, those who are legitimately interested in limiting the most tragic of violent crimes would do well to spend less energy on video games and more on the real societal remedies that are at our disposal.

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