The New Media of Violent Video Games: Yet Same Old Media Problems?

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Mass shootings from Jonesboro, Arkansas in 1998 to Aurora, Colorado and Newtown, Connecticut in 2012 have brought the issue of media effects (particularly violent video games) on young people to the forefront once again. Although discussion about the issue of media and their impact extends at least as far back as 1954, when the US Senate held formal hearings on whether media violence leads to juvenile delinquency, and encompasses thousands of research studies, reviews, and commentaries, conclusions remain elusive, particularly to policy makers and the media industry. While the majority of parents in the United States believe that there is a relationship between exposure to violent media and aggression, a substantial minority (48%) disagrees or are not sure.[1] By contrast, a recent survey of psychologists and pediatricians found that the majority agree that violent video games may have harmful effects (B. J. Bushman and C. Carlos, unpublished data, 2013).

The past decade has given us excellent new theoretical models and sophisticated research on the effects (both positive and negative) of new technology on children and adolescents.[2-5] Yet, in spite of these advances, there still exists "gaps" in our—and it appears the public's—knowledge and conclusions about the effects of some of these newer media technologies. Perhaps no area is more central and publicly debated then that of violent video games. This brief commentary will attempt to elucidate some of the problems and concerns in the current public debate but is not intended to be an exhaustive review of the literature.

Video Game Research

From both a theoretical and an empirical perspective the evidence for violent video games impacting aggressive behavior is substantial.[6,7] In terms of demonstrating increased aggressive behavior from exposure, the research on video games is as consistent as that with television violence.[8,9] Although some have disagreed with these studies,[10] the consensus of researchers[8,9] is that effects from playing violent video games have been shown for (*a*) increased aggressive behavior, (*b*) hostile affect, (*c*) physiological arousal, (*d*) aggressive cognitions, and (*e*) reductions in prosocial behavior, possibly from desensitization. These results have been observed both in short term and longitudinal studies as well as cross-culturally.[6] Researchers have noted that there are compelling reasons to expect that violent video games, because of their interactive nature, would have stronger effects on aggression than more traditional forms of media violence such as TV.[11-13] In video games, the process of identification with the aggressor, active participation, repetitive actions, a hostile virtual reality, and reinforcement for aggressive actions are all strong mechanisms for the learning and retention of aggressive behaviors and attitudes.

Yet the connection between these research studies and real-life mass shootings remains elusive. The shooting in Norway by Anders Breivik in 2011 which killed 69 individuals and the details of his obsessive violent video game use once again focused attention on media's contributions. The more recent elementary school murder of 20 children in Newtown massacre this past year strengthened the argument that media violence, particularly violent video games, are a significant contributor to this violence.

Part of the problem may be that the video game research is neither as voluminous nor quite as convincing as the older media violence research. For example, there are very few studies on video games, particularly first-person shooter, and criminal behavior. One small study using functional magnetic resonance imaging to study normal teens and teens with disruptive behavior disorder actually found no difference in the impact of media violence exposure on brain functioning in the 2 groups.[14] However, there are several studies linking frequent playing of violent video games to behavior that *would* be criminal if it were known to the police.[11,12,15,16] Video game research has concentrated primarily on *normal* children and teenagers, not young people with mental

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illness. In theory, the older media violence research should be at least partially transferrable to the newer video game technology. Yet many in the public sphere and media commentators dismiss the research evidence. Comments like the FOX "Network Psychiatrists" Dr Ablow are a good example[17]:

> In the wake of the Sandy Hook massacre, people are finally motivated to look more closely how society fosters aggression. Some blame technology and the media—pointing a finger at violent video games and violent television shows and movies. First, it should be said that there is not sufficient evidence proving video games or movies or television *cause* [italics added] violence.

Even the Vice President of the United States, Joe Biden, in discussing the shootings of elementary school children in the Unites States noted, "There is [*sic*] no hard data as to whether or not these extremely violent video games cause people to engage in behavior that is antisocial, including using guns."[18]

Nowhere, perhaps, did this debate on violent video games come to more of a head then in the US Supreme Court case on violent video games. On November 2, 2010, the Supreme Court of the United States heard oral arguments in the case of *Schwarzenegger v Entertainment Merchants Association*, concerning a California law that restricted the distribution of some violent video games to minors. On June 27, 2011, the Court ruled (7-2) that video game violence is "protected speech" under the First Amendment and that the State of California did not present sufficient evidence of significant harm to warrant an exception to the protection of the First Amendment.

Are Video Games the Same as TV?

Very early in the hearings Supreme Court Justice Kagan asked "Well, do you actually have studies that show that video games are more harmful to minors than movies are?" This was followed soon after by Justice Ginsburg, "What about films? What about comic books? Grimm's fairy tales? Why are video games special?"[19]

In spite of the theory and the empirical research on the effects of violent video games, the answer was at best speculative. Although there is a study in which participants "observe" others play a violent video game,[20] even these researchers acknowledge this is not the same as comparing video games to traditional television or "old media." This is a significant deficit in our research knowledge, and one which has substantial implications, as was often debated in the Supreme Court case. We strongly believe that the research on violent video games is strong, conclusive, and theoretically sound. However, we are very much in need of systematic studies that clearly show whether the effects of newer technology are more pervasive then traditional media, particularly if we say they are. In fact, we could make the same argument for sexual, frightening, and food marketing content. The research in all these areas is strong, yet although we may expect stronger effects for new media, the systematic comparative research still lags behind. In fact, some have argued that when it comes to effects on children and adolescent, "old" media might actually matter more than "new" media.[21]

Even if There Were 100% Convincing Evidence, Would Anyone Believe It?

Perhaps the most serious problem in the violent video game debate, and for all types of media influence, is the simple fact that those in the political and policy making world simply do not accept the scientific findings. This is not new, and has been a point of contention for many years. Take for example the comments of Justice Scalia in the Supreme Court violent video game case[19]:

> The State's evidence is not compelling. California relies primarily on the research of Dr. Craig Anderson and a few other research psychologists whose studies purport to show a connection between exposure to violent video games and harmful effects on children. . . . They do not prove that violent video games cause minors to act aggressively . . . They show at best some correlation between exposure to violent entertainment and minuscule real-world effects, such as children's feeling more aggressive or making louder noises in the few minutes after playing a violent game than after playing a nonviolent game.

In recent years, there have been excellent commentaries on why research in this area has not been accepted by the public.[22] Of course one major reason is the confusion of cause with risks. As Livingstone and Helsper[23(p8)] noted recently:

> It seems that the focus on simple and direct causal effects of the media is no longer appropriate. Instead, research should seek to identify the range of factors that directly, and indirectly through interactions with each other, combine to explain particular social phenomena. For as research of all types shows, each social problem (e.g. aggression, prejudice, obesity, bullying etc.) is associated with a distinct and complex array of putative causes. The task for those concerned with media harm is to identify and contextualize the role of the media within that array in order to permit a balanced judgment of the role played by the media, if any, on a case by case basis.

They are absolutely correct. We have seen in recent years excellent studies that articulate the risk factors associated with aggression and the contribution of media violence.[24] Likewise, there has been substantial research showing real-world aggression, longitudinal and cross-cultural effects, and numerous health and professional organization analysis (eg, American Academy of Pediatrics, International Society for Research on Aggression) of the harmful effects of media violence. Nevertheless, there is still this ongoing and never-ending debate within the media about media violence and aggression, and in particular violent video games. A critical question we can ask is what is it that media scholars can do to perhaps alter this perception.

How Might We Alter the Debate?

The debates about effects and noneffects particularly with regard to media violence are not different for "new" technology. This divide between the scientific and public communities seems as old as the research itself. We seem to have only moved from violent cartoons on 1960s television, to graphic killings in contemporary video games. Nevertheless, we are encouraged by the suggestions of our academic colleagues on how we might "advance" this debate in a more positive direction. Excellent ideas have come from Huesmann et al[22] and Bushman and Anderson.[25] Some of these, including our own, are as follows:

1. Recognizing that we have 2 roles—one as the "conservative" science communicator and the other as the "public educator." We need to be able to present in a nontechnical manner our findings to the public. Within this educator role we can also explain how our scientific findings have influence our own behaviors (eg, monitoring the types of media our own children view).
2. Informing the public about research is in fact "part of our jobs." We are now involved in situations where informing the public and courts of research is critical. Disseminating research beyond our scientific community needs to be a priority. The recent American Psychological Association (APA) Science Leadership Conference on promoting psychological science[26] set a high priority on "marketing" our findings to the public and policy makers and suggested that within academia this should be a factor in faculty evaluations.[25]
3. Educating the public via our professional organizations needs to continue. Policy statements on media effects by groups like the American Academy of Pediatrics, American Psychological Association, and the International Society for Research on Aggression go a long way at informing the press about the potential risk factor of the media in areas of violence, sexuality, and obesity.
4. Continuing to collaborate with the media industry in trying to improve on our current rating systems for TV, film, and video games. At least in the Unites States, the research strongly suggests that parents want a change in the current system and strongly favor a single universal ratings system.[27]
5. Engaging the naysayers in an active and constructive dialogue and also recognizing that they may have conflicts of interest (eg, accepting payment for consultative services from the video game industry itself). We must be scrupulous in pointing these out to the media when controversy arises.
6. Convincing the federal government and private foundations that more research—and funding for that research—is desperately needed.[28] If children and adolescents now spend >7 hours per day with a variety of different media,[29] doesn't it make sense to research what impact those media have on their development and behavior?
7. Creating a new 2017 National Institute of Mental Health comprehensive report on children, adolescents, and the media. Remarkably, the last National Institute of Mental Health report was published in 1982, before the Internet, cell phones, tablets, and social networking sites. A new report could consolidate current knowledge about both "old" and "new" media and jumpstart research funding for much-needed new studies.
8. Developing new interorganizational cooperation between major public health groups (eg, American Academy of Pediatrics, APA, American Medical Association) that would respond to media inquiries immediately and authoritatively, interact more with the entertainment industry, and push the federal government and private foundations to fund more research.
9. Extending our efforts into schools of communication and journalism, to teach up-and-coming journalists how to interpret the vast communications research on children and adolescents.
10. Urging the Federal Communications Commission to reevaluate the Fairness Doctrine. Not every issue has 2 sides; nor does each side deserve equal time. The public is easily misled when the naysayers are given valuable (and undeserved) media time.

These are all reasonable ideas. Hopefully they will move the debate in a different direction. We are encouraged, however, by the final statement of Huesmann et al.[22(p169)]

> While we agree with this approach, we also think that, as with other socially relevant effects in the past that the public and courts had trouble accepting (e.g., that smoking causes cancer, that segregating schools causes poor education for minorities), eventually truth will triumph and dissonance between beliefs and behaviors will be reduced more easily by changing behaviors rather than by denying that effects exist.

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