

What to do (or Not do) About Teen Access to Violent Video Games: How Research Should

(or Should Not) Affect our Principles

PS336 Psychology, Society & Human Values

Group C Presentation – Verbal Script

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What to do About Teen Access to Violent Video Games: War of the Buttons?

1. Welcome & introduction

Welcome to our presentation everyone, and thank you for joining us today to take part in, what we hope is for you, an incisive and fresh perspective on some contemporary issues surrounding the regulation and distribution of violent video games (herein referred to as ‘VVGs’) in today’s society, as well as their implications for freedom of expression of speech. Invoking several platitudes from influential and outspoken politicians and scientists, applying philosophical theories and positions, and expounding empirical scholarship undertaken in the area, we hope to enlighten the debate (and your understanding on the issues ancillary to it) on whether VVGs should be subject to more stringent forms of censors, and in light of these discussions, contemplate whether this conclusion is laudable given the current climate of research outcomes. The main thrust of the issue, then, ladies and gentleman, involves mapping our ability to tease out whether VVGs are a valid medium of creative self- and political expression, and why it should or should not enjoy the same legislative aegis of protection, much the same as movies, books, or music. We hope this presents as a stimulating and thought-provoking exercise for the observer, and one that provides you with a more coherent picture of the controversies attendant on video game regulation.

2. Overview & summary of target Issue

Does reading of the adventures of *Harry Potter* cause witchcraft, and entail battles with supernatural entities? Does listening to rock music lead to alcoholism, depravity, and drug addiction? Beyond that thought experiment, reflect on the notion of whether has society ever contemplated its existence untrammelled by classic oeuvres such as Dante’s *Inferno*, in all its gruesome glory; has it done nothing but act as a bystander and espouse an exalted sense of gratitude at its ability to enhance our *amour propre*? The long-standing debate between political institutions and the video game industry over censorship is hardly unfamiliar. In fact,

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it is conceivable that it may resonate with the relatively recent anti-pornography debate whereby the incidence of rape was assumed to be attributed to the rise in pornography mediated by a sexualization of women through this medium of sexual expression. Video games are ubiquitous in our perpetually evolving technological society. Moreso, the addendum of 'violent' to 'video games' has been incipient, and today the term 'violent video games' has acquired almost a syntagmatic status. A nascent and intense upsurge in public discourse as relates to the potentially hazardous effects of VVGs has been furthermore pronounced and highly publicized in the media. Consequently, VVGs have undergone intensive scrutiny and interrogation in attempts to elucidate possible effects deleterious to the psychological adjustment of players (for example, sexual violence and violence against women in VVGs), and more broadly, its corollary with real-life violence (such as desensitization to violence by players or Game Transfer Phenomenon). Research on VVGs similarly prompts a number of questions relating to the integrity of research studies, their merits and demerits, as well as their legitimacy in helping inform our legislative response to the issue. At the same time, the armamentarium of empirical knowledge on the subject offers a window for reflection on the utility of VVGs in teens' lives, not solely harmful effects, as well as stimulating tractable questions for future investigations. This presentation on VVGs is topical and broad in its scope, and does not presume an all-encompassing analysis or conclusive gestures with regard to strictures on VVGs, such as is unlikely to eventuate in the proximal future. We are far from influencing the dialogue in one direction by any just-noticeable difference, and this intuitively gives us justification for our efforts.

That the increase in VVG usage has long been a matter of concern for parents, medical and psychiatric associations, civil, women and childrens' rights' advocacy groups, law enforcement and policy makers, is well-recognized. Yet, this momentum is not errant; the impetus may well be justified - the strength of the effect of video game violence on

aggression has been demonstrated by some researchers to be similar in magnitude to the effect of condom use on HIV infection (Anderson & Bushman, 2001; Weller, 1993). Since their advent in the 1970s, the pace of growth in technology, with implications for graphics and content of video games, has burgeoned, along with debate on the level of acceptable explicit violence (Anderson & Dill, 2000; Wonderly, 1998). The 1990s brought such unprecedented violent and graphic killing games as *Mortal Kombat*, *Street Fighter*, and *Wolfenstein 3D*. Before we approach a more serious analysis of the debate, and as we will invariably be making reference to legislative nomenclature, a need emerges to give an umbrella definition of VVGs, at the outset. According to the 2010 California Code, Title 1.2a, VVGs may be understood as "...video game[s] in which the range of options available to a player includes killing, maiming, dismembering, or sexually assaulting an image of a human being..." (Brown v. EMA). Contrary to popular perception, the mean age of the average consumer of media violence is not in the range of an adolescent male. Rather, the age of the average VVG consumer is 33 years old (Entertainment Media Association, 2007). Furthermore, it is relevant that video games have trumped television in temporal consumption stakes, that is, teens now devote more time to playing video games each day than they do to old-fashioned television-viewing (Huston, Wright, Marquis, & Green, 1999). Fischer, Kastenmuller, and Greietmeyer (2010) concede that, in commercial terms, the most profitable and popular games are necessarily those containing violence. This is intuitive, as will be alluded to later in parsing the motivations for playing VVGs. Most VVGs take the form of first-person shooter, sport-simulator, or car-racing games. Importantly, the common denominator of all these video games is that regardless of the task, violence is always the solution. As most of the consternation surrounding VVGs has been in the potential for virtual violence to translate into real-life aggression, Anderson and Bushman (2001) provide clarity on this point: "all violence is aggression, but not all aggression is violence" (pp.354). One of

the claims for the invalidity/lack of utility regarding research on VVGs derives from its variable and tenuous definition of aggression and violence as outcomes measures. This will be of substantive import later when we discuss the suspect nature of the research conducted on the topic and thus why many attempts at legislation have floundered.

A comprehensive account of the regulation parameters of VVGs cannot reasonably preclude the legal warfare between the video game industry and governments. The US Supreme Court's (2011) most recent ruling against a state law restricting the sale of same to minors is most salient. The verdict? Video games qualify for First Amendment protection. The US Ninth Circuit Appeals court stated specifically, "Like protected books, plays, and movies, they communicate ideas through familiar literary devices and features distinctive to the medium. And 'the basic principles of freedom of speech . . . do not vary' with a new and different communication medium" (Brown v. EMA). A similar ruling was also made by the Australian government, both nations noting that the current research on video game violence and aggression is non-compelling, inconsistent and fundamentally flawed (Ferguson, 2012). The governments specifically deemed that "psychological studies purporting to show a connection between exposure to violent video games and harmful effects on children do not prove that such exposure causes minors to act aggressively. Any demonstrated effects are both small and indistinguishable from effects produced by other media" (Brown v. EMA).

3. Media Coverage of Violent Video Games

The movement of additional regulation for VVGs does not come as a surprise, and the media eccentricity around the debate is central to the uptake of its messages by the public consciousness. More broadly, the influence of technology in the media has typically served to generate more heat than light. Topping the list on more reactionary media frames, Susan Greenfield, professor of synaptic pharmacology at Oxford University (and ex-president of the Royal Institution) has been outspoken on the issue, boldly concluding that we are under threat

from modern technology (once commenting on its capacity to “[blow] the mind...”). While many fellow scientists would not subscribe to her other more vocal and controversial views (greenfieldisms – such as the apparent link between internet usage and autism etiology), it is nonetheless easy to apply similar caution in our interpretations of her extravagant claims. On the other side of the coin, proponents of the advantages that modern technological devices confer have been equally influential: the public’s posthumous hagiography of Steve Jobs, an almost Promethean figure in terms of communication advancement, has helped invigorate society’s demand for ever-improving technology. Several eminent politicians and high-profile scientists have been caustic in specifically addressing the topic of VVGs. A fervent anti-video game activist in the public eye, Jack Thompson has likened video games to “mental masturbation”. Republican presidential candidate, Mitt Romney, makes a disquieting remark on the toxicity of violence and pornography in the pot pourri of our varied forms of entertainment mediums: *"Pornography and violence poison our music and movies and TV, and video games. The Virginia Tech shooter, like the Columbine shooters before him, had drunk from this cesspool"* (Olsen, Kutner, & Beresin, 2007). Likewise, Hilary Clinton touched upon violence against women and parental concerns about one popular VVG, *Grand Theft Auto*, which has recently been postulated by the media as one cause in the looting that took place during the London riots: *"Grand Theft Auto, which has so many demeaning messages about women, and so encourages violent imagination and activities, and it scares parents"* (Olsen et al., 2007). The media’s unabashed demonizing of VVG has been prolific, in particular, among highly sensationalist news broadcasters such as Fox News, and lurid headliners in regular culprits, such as the *Daily Mail* (see video on one gamer’s reaction to Fox’s alleged biased and unscientific reporting). Biased reporting is rampant (cf. Alsem, Brakman, Hoogduin, & Kuper, 2008) and a further derisive example can be seen in the London Evening Standard, where they changed the news title in the evening version due to

retorts from the clamorous research community and games media - such is the protean dynamics of media.

It would be unerringly limited in our dialectic to speak of the potential of VVGs without speaking of its connection to multiple school shootings over the past decade. An emotive issue, Paducah (KY), Jonesboro (AS), and Littleton (CO) school shootings have all been highly publicized: links between the perpetrators and their habitual VVG tendencies has been at the heart of the debate (Harding, Fox & Mehta, 2002). In the Columbine high school massacre, it surfaced after the event that Harris, of the two shooters, had created a personalized version of the video game *Doom* (Anderson & Bushman, 2001; Twemlow, 2008). In the Virginia Tech incident, Seoung-Hui Cho's college roommates somewhat paradoxically reported that he never joined them in playing video games (as cited in Olsen, Kutner, & Beresin, 2007). Crucially, while the violence depicted in VVGs has been espoused as the key underlying mechanism through which real-life aggression and violence emanates, little attention has been given to other likely influential factors – such as the bullying these students suffered and existing personal or family violence experiences – in trying to delineate, perhaps futilely, the cause and effect relationship between VVG and real-life violence.

Myths and fallacies associating VVGs with violence provide a very crude and oversimplistic heuristic for the public, and promote judgments that are not situated in empirically-sound evidence or fact. A clear resonance with common arguments that were advanced in the fifties in response to the negative impact of comic books are thus not so anachronistic, and can now be compared to the present debate on VVGs (Hall, 2011). Public perception and acceptance of the direct mediation of aggression by VVGs from media pundits are jarring, given that these putative causative links are not borne out by the data. We can perhaps appeal to Moral Panic Theory for a descriptive explanation: society creates “folk devils” or

scapegoats to reason away epidemics prevailing over a society, in the hope of assuaging their moral fears (Hall, 2011).

Finally, in garnering the contemporary conceptualization of VVGs and the host of moral, legal and ethical issues inextricably cognate to it, with a view to elaborating recommendations as to the moratorium on their sale to minors, it is instructive to briefly clarify *a priori* the current voluntary censorship and rating system. However, the essence of the current rating classification framework boils to this: censorship is the sole responsibility of parents. In response to public outcry over explicit violent graphics in *Mortal Kombat*, the Entertainment Software Rating Board (ESRB), similar in ethos to the Motion Picture Association of America (MPAA) film rating system, was established to provide age symbols and content descriptors to help inform parental judgment. Three types of ratings exist – ‘E’ (suitable for everyone), ‘T’ (suitable for teenagers) and ‘M’ (suitable for mature observer). Mature ratings necessarily purvey the most restriction, and in the US, are qualified with restricting sales to adolescents over 17 years due to excessive use of violent material.

4. Identification of Specific Proposition

In light of our brief exposition on this contentious issue, it is now timely to orient ourselves toward one specific proposition: *The government should have control over free [violent] expression as it applies to violent video games.* The crux of the matter, then, is necessarily, a legal and moral one – as is naturally entailed when dealing in matters of basic civil rights. Implicit in this proposition, and in such a context, it seems acceptable to employ taut arguments in the domain of philosophy and law. On the one hand, arguments in opposition to this proposition will stem from the video game industry and all those who consume this media and their contestation that imposing a ban on the sale of VVGs goes a long way toward restricting their right to creative expression (video game developers) and users’ constitutional liberty of free expression (while, of course, having implications for the

industry's profit margin). At the same time, if habitual gamers do closely align their self-perception and identity with their ability and prowess at playing video games, is it justifiable to admonish governmental and legislation against this tool for self-expression and identity? On the other hand, if VVGs do pose a threat to public health, in the form of undue aggression and violence, is it morally responsible to support governmental control? Relatedly, is it indeed morally and politically justified to restrict access to VVGs to minors should they cause irrevocable and/or durable effects to their psychological well-being? Is it justified when it diminishes the power parents have in deciding what is wrong and right for their children? In this regard, empirical psychological research is pivotal in deciding how we approach this proposition, and will facilitate in reaching a more well-rounded understanding of the consequences of playing VVGs, and thus, whether amendments to policy, if any, are warranted, and should be based on political or scientific grounds.

5. Principled arguments in favour of proposition

The bastion of arguments that champion this proposition is largely legal in nature, with the overriding objection of protecting society's best interests. Senator Leland Yee has plainly and consistently been a firm advocate for the inception of a restriction of access to minors, citing that by not doing so, we are prioritizing the ideals of 'Corporate America' over the interests of our children. Consistent with this argument, it is assumed that the psychological perturbations and potentially hazardous effects of VVG are sufficiently compelling to arrest parental and state attention. To this end, an apologist of the proposition may subscribe to the view, as proselytized by Greenfield and Thompson above, that we have a moral obligation to protect our youth from potentially personal and public harmful qualia. It is clear that this approach admits of a largely anti-libertarianism stance, and calls upon a socialist vantage point to invoke the perceived appropriate political philosophy.

6. Principled arguments against proposition

It is not hard to extrapolate the opposing arguments derived from a dissenting viewpoint. These arguments revolve around the central claim that restriction on the sale of VVGs threatens the facial constitutional right to freedom of expression in the gaming industry. Video gamer developers hold that the government would be restricting their legitimate capacity for creativity in designing and manufacturing the types of games they desire by being financially punishing it. Equally, they prophesy that such a regulation would consequently lead to an incipient deterioration of the video game industry, if it could not sustain itself financially and creatively. Original theories of expression such as John Stuart Mill's on fallibility and truth, Justice Wendel Holmes 'clear and present danger' doctrine, and Ronald Dworkin's ideas on moral culpability and political community may guide our decision-making process. Additionally, libertarianism principles are relevant here. Concerns also surface regarding the lack of equality across different mediums in implementing such restrictions; indeed, film and music videos have equally 'pernicious' violent content that are admissible without any strictures. A final consideration of the arguments against the proposition lies in the acknowledgement of beneficial effects and marginal utility that VVG may bestow teens and how it may be unjust to deny gamers a right to play and recreate, where video games may be interpreted, in one sense, as a form of sublimation.

7. Empirical verification in support of proposition

While the debate on teen access to VVGs is overwhelmingly an academic one, its implications are far-reaching, from policy-making to industry (Gentile, Saleem & Anderson, 2007). Research findings commensurate with support for the proposition comes in the form of studies that have reliably demonstrated an overall negative harmful effect of VVGs. Ahead of our dissection of some relevant research studies, we can first outline that the outcomes most studied, and thus most reviewed, are as follows: cognition, affect, aggressive behaviour,

physiological changes, and prosocial (or helping) behaviour. Anderson and Bushman (2001) meta-analyzed 35 studies and found significantly negative effects of VVGs all-round: exposure to VVGs was associated with exaggerated levels of aggression, that held across age, experimental design, and gender. Further, exposure was inversely associated with helping behaviour. Crucially, exposure was positively implicated in the main underlying mechanism of long-term aggressive personality development - aggressive cognition, and positively correlated with aggressive affect and physiological arousal. These results, specifically for effects at the cognitive and behavioural level, were replicated by Anderson (2004), Anderson et al. (2003), and Gentile and Stone, 2005. Kirsh (1998) demonstrated that exposure to VVG enhanced hostile attribution bias - how predisposed 'aggressive children' allocate negative intent to the (ambiguous) actions of their peers – and similar results have been documented elsewhere (Crick & Dodge, 1994). In a similar vein, studies investigating affect (e.g. Kirsh, Olczack, & Mounts, 2005) have shown that those pre-screened and rated to have lower levels of hostility underwent an increase in violent affect post-exposure. In another interesting study, Fischer, Kubitzki, Guter and Frey (2007) showed that participants who played violent racing games were more likely to access affect and emotions associated with risk-taking. Anderson and Bushman (2001) were able to provide empirical verification for the conjecture that VVG promote aggressive behaviours through exposure by creating an accessible template for an aggressive affective state. The degree of resultant prosocial behaviour as a function of exposure to VVGs was investigated in a study by Sheese and Graziano (2005) who demonstrated that it limits such collaborative behaviour while increasing the probability of defection. On a physiological level, exposure to VVGs was accompanied by an increase in heart rate and dopaminergic transmission, which signifies a role for processes underlying reinforcement, learning of behaviour, attention, and sensory-motor integration (Smith, McEvoy, & Gevins, 1999). Finally, we would do well not to neglect the role of competition

in gaming when interpreting physiological studies. Since violent video games tend to be more competitive than nonviolent ones, the research on such physiological reactions and aggressive behavior with violent video game play is often limited and inconclusive. Simply put, competition inherent in VVGs alone similarly must influence all of these physiological variables. Therefore, physiological arousal may be a mechanism through which video game competitiveness influences aggressive behavior. Research in this direction continues to be necessary.

8. Empirical Evidence in Opposition to Proposition

Mounting research evidence is now available that dispels the view that the all consequences of exposure to VVG are negative, and this in turn, gives credence to those that oppose the central proposition: video games are a creative artform for individuals, a tool for self-expression, in some cases, intricately wound up with the individual's self-perception and esteem, and offer important advantages to the cognitively developing teen. Olsen and colleagues (2007), in a partially qualitative study, examined the motivations to play VVGs of children and teens. Responses were generally positive: players use video games to exercise their desire to experience 'rebellion, curiosity about the forbidden, and testing the limits of acceptable behavior in a safe environment' (cited from online viewing of article), confirmed in another similar study by Goldstein (1999). Video games have become synonymous with socialization, and we should not knowingly overlook the power they may yield in teens' interpersonal development. Some researchers have suggested therapeutic gains for those with attention disorders such as ADHD as a way of making friends, and also to elevate mood in people suffering depression though there are undoubtedly qualifications to these effects (Olsen et al., 2007). As well as that, Gentile and Gentile (2008) have indicated that video games have the potential for pedagogical instruction and learning due to their repetitious elements and reward-based system for problem-solving and strategy-formation. Many

theoreticians have thus hinted at the enormous niche for educational video games, and those necessitating prosocial and empathetic virtual behaviours, to harness transferable positive behaviours and to observe their real-life behavioural correlates. Similarly, visual cognitive abilities have been shown to be superior in habitual video game players (Green & Bavelier, 2003: 2006). Therefore, it is becoming unassailably apparent that we cannot afford to overlook the positive aspects of playing video games. To do so would be to neglect the notion that video games are an important modern-day socializer for teens, assisting in their creative and social development, and their marginal utility in practicing a form of expression.

9. Strengths and weaknesses of research

Relative strengths and limitations, conceptual and methodological, of the corpus of research on video gaming demand attention. At the same time, attention should be drawn to the fact that any new research domain invariably has strengths and weakness, and we should not disparage ourselves by alluding to trivial or illegitimate criticisms. Meta-analyses are a common type of research study employed in VVG research and imply certain weaknesses and advantages. In particular, and as Anderson and Bushman (2001) have asserted themselves, there is a type of 'catch 22' with these studies. While there is an obvious advantage of including all relevant studies of a topic (even those which are not methodologically sound) and so circumventing potential subjective biases by the researcher on what studies to omit/include, there is a trade-off in gaming research. Although the research literature database is steadily mushrooming, it is as yet limited, and thus inclusion of all studies (those with warts and all) may unduly influence the results in a positive or negative direction. As was the case for many of the empirical reports cited in this presentation, most samples are experimental studies that use university-age students, involving a manipulation in the form of exposure to a brief episode of violent video game play. More recent studies that use kids and teens in game research represent only a fraction of the entire research on

VVGs. Correlational studies are likewise numerous, but lack methodological rigour by using small, non-representative samples, and assessing play time over game content (Olsen et al., 2007). Longitudinal studies are necessary to ascertain measures of aggression across multiple time points and for the purposes of ecological validity; these are the types of studies that are missing in the field. The nebulous and often interchangeable terms (such as “aggression” and “violence”) compound the problem of being able to generalize from statistical significance of studies to real-world substantive significance. In fact, one of main reasons cited for the resistance of regulation laws to be accepted is the lack of a clear definition of what constitutes “violent enough” or “too much violence” for minors to view; this has been resonant in the salvo of lawsuits (Best, 2011). Along the same lines, game difficulty, competitiveness and pace of action should be accounted for and both non-violent and violent games should contain comparable elements of each one. Dissociating the effects of competitiveness from aggression seems to be a complex affair and one that is likely to be an attributable (and underappreciated) factor for resulting aggressive behaviour as opposed to violent content (e.g. Adachi & Willoughby, 2011). Studies from the 1980s and 1990s are deemed outdated as a result of the rapid pace of technological advancement and visualization software. Publication bias represents another cog in research vagary machine (for excellent reviews see Fanelli, 2010; Ferguson, 2007). Moreover, many studies present untenable and unrealistic simulations of real-life violence. Finally, a vast majority of studies offer support for the priming of aggressive concepts, and thus nullify the impetus to hypothesize a potential for priming of positive concepts also. It is further unanimous that researchers must recognize the role of other variables in predicting aggression-related outcomes, such as depression, pre-existing antisocial personality traits, exposure to family violence and peer influences (Ferguson, 2011). The role of individual differences in moderating the relationship between violence in VVG and outcomes has thus far been underappreciated in the research literature

(Gentile, Lynch, Linder, & Walsh, 2004). On the other hand, some strengths of the current research climate reside in the methodological muscle of meta-analyses and their calculation of effect sizes (contemporary research litmus test of size of an observed effect). At such an early stage in VVG research, it is perhaps premature to boast of research soundness and instead provide concrete and fruitful suggestions to fortify future research efforts. Virtual high-five for research strengths, we may abstain...

10. Final recommendations

So far, we have learned about the nontrivial and equivocal nature of the link between violence in VVGs and its cognitive and behavioural expression in the gamer. Research findings in the domain, while promising, are non-compelling at this stage in their attempt to incite clear and causative associations between the two. This has been the instinctual premise upon which the courts have cited as their reasons for not imposing a restriction to access for minors. This consideration may be valid on the basis of our navigation of the research as well as clear, principled arguments. The research has not succeeded in illuminating the purported influential link between the 'violent' in violent video games and future negative dispositions or effects at the level of the individual or society. While the sale of VVGs is on the rise, violent crime rates in the US have plummeted 12% in the last year (Ferguson, 2012). Of course, we do not suppose a direct mediation of the two variables in this analysis, and could think of a plenitude of 'crud factors' (Meehl, 1990). So too should the general public, the media and their ilk, before they attribute a significant proportion of society's ills to video gaming.

11. Concluding remarks

Concluding, how should we now treat the proposition that the governmental should assume control over teen access to VVG given that they do appear a legitimate and facially constitutional birthright, having revealed both highly promising positive consequences and

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arguably qualified/benign ‘negative’ effects? If the negative do in fact outweigh the good, should we indeed fear violent actions and thoughts? Has the evolutionary advantage of violence been made redundant? Moreover, should we leave censorship up to the parents’ of teen gamers, and their own whims, standards and resolves? Or should we support the hitherto legislative debacle in their unrelenting efforts to stamp out underage expression of violence? Is there an alternative to restrictive access that might proceed with less resistance and still be ‘at least as effective’? The goal of the current presentation – to better inform our collective understanding on the intricacies surrounding the current gaming debate – may be partially realized. However, based on the extant research, our resolve is clear: legal, scientific and value pluralism is the best inferential statistic to inform how we should approach restriction to VVGs. The present awareness of the importance of further research and debate prevails.

Thank you.

References

- Adachi, P. C., & Willoughby, T. (2011). The effect of video game competition and violence on aggressive behavior: Which characteristic has the greatest influence?. *Psychology Of Violence*, 1(4), 259-274.
- Alsem, K.J., Brakman, S., Hoogduin, L. & Kuper, G. (2008). The impact of newspapers on consumer confidence: Does spin bias exist? *Applied Economics*, 40, 531-539.
- Anderson, C. A. (2004). An update on the effects of violent video games. *Journal of Adolescence*, 27, 113–122.
- Anderson, C. A., Berkowitz, L., Donnerstein, E., Huesmann, R.L., Johnson, J., Linz, D., Malamuth, N., & Wartella, E. (2003). The influence of media violence on youth. *Psychological Science in the Public Interest*, 4, 81–110.
- Anderson, C. A., & Bushman, B. J. (2001). Effects of violent video games on aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, and prosocial behavior: A meta-analytic review of the scientific literature. *Psychological Science*, 12, 353-359.
- Anderson, C. A., & Dill, K. E. (2000). Video Games and Aggressive Thoughts, Feelings, and Behavior in the Laboratory and in Life. *Journal of Personality and Social Psychology*, 78, 772-790.
- Best, R. (2011). Freedom of speech and the video game censorship debate. *Politics and International Studies*, 5, 1-35.
- Brown v. EMA. 564 U.S. 08–1448 (2011). Internet sourced. Retrieved: 2 March 2012.
<http://www.supremecourt.gov/opinions/10pdf/08-1448.pdf>
- Crick, N.R., & Dodge, K.A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin*, 115, 74–101.

Entertainment Software Association (2007). Facts and research: Games and violence.

Washington, DC: Entertainment Software Association. Available:

http://www.theesa.com/facts/games_youth_violence.php, Accessed March 5, 2012.

Fanelli, D. (2010). Do Pressures to Publish Increase Scientists' Bias? An Empirical Support from US States Data. *PLoS ONE*, 5: e10271. doi:10.1371/journal.pone.0010271

Ferguson, C. J. (2007). Evidence for publication bias in video game violence effects literature: A meta-analytic review. *Aggression and Violent Behaviour*, 12, 470-482.

Ferguson, C. J. (2010). Blazing angels or resident evil? Can violent video games be a force for good? *Review of General Psychology*, 14, 68-81.

Ferguson, C. J. (2011). Video Games and Youth Violence: A Prospective Analysis in Adolescents. *Journal Of Youth & Adolescence*, 40(4), 377-391.

Ferguson, C. J., San Miguel, C., Garza, A., & Jerabeck, J. M. (2012). A longitudinal test of video game violence influences on dating and aggression: A 3-year longitudinal study of adolescents. *Journal Of Psychiatric Research*, 46(2), 141-146.

Fischer, P., Kastenmuller, A., & Greitemeyer, T. (2010). Media violence and the self: The impact of personalized gaming characters in aggressive video games on aggressive behavior. *Journal of Experimental Social Psychology*, 46, 192-195.

Gentile, D. A., & Gentile, J. R. (2008). Violent video games as exemplary teachers: A conceptual analysis. *Journal of Youth and Adolescence*, 37, 127-141.

Gentile, D. A., Lynch, P. J., Linder, J. R., & Walsh, D. A. (2004). The effects of violent video game habits on adolescent hostility, aggressive behaviours and school performance. *Journal of Adolescence*, 27, 5-22.

Gentile, D.A., Saleem, M., & Anderson, C.A. (2007). Public Policy and the Effects of Media Violence on Children. *Social Issues and Policy Review*, 1, 15-61.

- Gentile, D. A., & Stone, W. (2005). Violent video game effects on children and adolescents: A review of the literature. *Minerva Pediatrica*, 57, 337–358.
- Gladwell, M. (2001). *The Tipping Point: How Little Things Can Make A Big Difference*. Great Britain: Little Brown Company.
- Goldstein, J. (1999). The attraction of violent entertainment. *Media Psychology*, 3, 271-282.
- Green, C. S., & Bavelier, D. (2003). Action video game modifies visual selective attention. *Nature*, 423, 534-537.
- Green, C. S. & Bavelier, D. (2006). Effect of action video games on the spatial distribution of visuospatial attention. *Journal of Experimental Psychophysics: Human Performance and Perception*, 32, 1465-1478.
- Hall, R.W., & Day, T. (2011). A Plea for Caution: Violent Video Games, the Supreme Court, and the Role of Science. *Mayo Clinic Proceedings*, 86(4), 315-321.
- Harding, D.J., Fox, C., & Mehta, J.D. (2002). Studying Rare Events Through Qualitative Case Studies: Lessons From a Study of Rampage School Shootings. *Sociological Methods & Research*, 31, 174-217.
- Huston, A. C., Wright, J. C., Marquis, J., & Green, S. B. (1999). How young children spend their time: Television and other activities. *Developmental Psychology*, 35, 912–925.
- Kirsh, S. J. (1998). Seeing the world through Kombat-colored glasses: Violent video games and the development of a short-term hostile attribution bias. *Childhood*, 5 177-182.
- Kirsh, S. J., Olczak, P. V., & Mounts, J. R. W. (2005). Violent video games induce an affect processing bias. *Media Psychology*, 7, 239-250.
- Meehl, P. E. (1990). Why summaries of research on psychological theories are often uninterpretable. *Psychological Reports*, 66, 195-244.

Olsen, C. K., Kutner, L., & Beresin, E. V. (2007). Children and video games: How much do we know? *Psychiatric Times*, 24, 41-45.

Sheese, B. E., & Graziano, W. G. (2005). Deciding to defect: The effect of video-game violence on cooperative behavior. *Psychological Science*, 16, 354-359.

Smith, M. E., McEvoy, L. K., & Gevins, A. (1999). Neurophysiological indices of strategy development and skill acquisition. *Cognitive Brain Research*, 7, 389-404.

Twemlow, S.W. (2008). Assessing Adolescents Who Threaten Homicide in Schools: A Recent Update. *Clinical Social Work Journal*, 36, 127-129.

Weller, S. C. (1993). A meta-analysis of condom effectiveness in reducing sexually transmitted HIV. *Social Science and Medicine*, 36, 1635-1644.

Wonderly, M. (2008). A Humean approach to assessing the moral significance of ultra-violent video games. *Ethics and Information Technology*, 10, 1-10.