



VIOLENCE

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Humans have always had violent games, from individual competitions such as wrestling or boxing to spectacles such as gladiatorial combat or rugby; these might variably be seen as appealing to instinct, as expressions of frustration in civilization, or as necessary and playful steps in social learning. Human culture has also long included representations of violence in the arts, whether on the theater stage or the painter's canvas, in literature or in cinema. So what is it that puts video games in particular into the crosshairs of criticism? Is it merely that conflict is never boring—and games are at a basic level about avoiding boredom? Or is it the medium specificity that sets gaming apart? Certainly interactive immersion poses a different set of issues than representations of violence on stage or on a TV screen. Arguably, it is easy to see why there is a good deal of violence in video games: exciting interaction beats boredom, and adolescents in particular, who feel little control over their lives or power in society, may gravitate to transgressive thrills of fighting, shooting, and war. Here it is less a question of game genre than of what kind of violence the in-game actions afford the player. While few people would object to the quaint two-player interactions of jumping, crouching, feinting, and punching in games such as *Karate Champ* (Technos, 1984), *Street Fighter* (Capcom, 1987), or *Tekken* (Namco, 1994), some critics question the morals of more recent fighting games such as the *Mortal Kombat* series (Midway, 1992–2009) that allow the victorious avatar to murder their defeated opponents with special moves. Similarly, critics of other game genres tend to object not to the portrayal of horror, war, or gun fights in general, but specifically to graphic features such as the slow-motion impact animations of *Sniper Elite* (Rebellion/MC2, 2005) that appear to glorify violence. The salient question is therefore whether there might be harmful (side-) effects of violent gaming. In retrospect, the public debate about the difference between the film *Death Race 2000* (Roger Corman, 1975) and the arcade game based on it, *Death Race* (Exidy, 1976) may seem quaint, but it is worth noting that while the film's deliberate excess was controversial because its dystopian social satire questioned culturally-sanctioned and institutionalized modes of cinematic violence (military, police, frontier justice), the game reduces the plot to a car race to mow down pedestrians, and so, despite its crude stick figure graphics, it was perceived as more provocative than the film (Kocurek, 2012). As negative as the media coverage of the game was, it clearly drove sales of the game, and this has remained true of infamous games since then.

Undoubtedly, games have become more realistic and immersive over time. The commercial success of another violent car game, the *Grand Theft Auto* franchise (Rockstar Games, 1997–onwards), also came with a lot of worry among critics, politicians, and the press about the alleged effect of its violent content, to a degree that never accompanied



the famous *Godfather* movies or the small-screen prowess of the *Sopranos*—the 2009 *Guinness Book of World Records* named *Grand Theft Auto* the most controversial video game series in history. Some of the affordances of gaming seem to corroborate that the crux of the matter is medium-specificity, such as the subjective angles and interactions typical of horror, fighting, and shooting games, often with a spatial construction that makes the aim of one's control device on screen and the vanishing point coincide.

Take a look at the first-person shooter (FPS), which would eventually give rise to some of the most realistic depictions of violence and to some of the most immersive three-dimensional engagement with screen violence. Games such as *Maze War* (Steve Colley, 1974), *Spasim* (Jim Bowery, 1974), and *3D Monster Maze* (J. K. Greye Software, 1981) gave rise to a wave of later 3D FPS games. Long before the 3D representation of computer space fully took off, *Catacomb 3D* gave id Software its start in the FPS genre in 1991, and they used the same technology in *Wolfenstein 3D* (1992) with more color and a richer range of motions. The following year, 1993, saw the publication of *DOOM* (by the same publisher), still one of the most often mentioned titles when people discuss violence in games, along with *Duke Nukem 3D* (Apogee, 1996). What these canonical games have in common is that typically their screens show a weapon controlled by the player and aimed at the vanishing point in the center of the screen. This merging of the field of vision with point and shoot controls (at the expense of peripheral vision and spatial detail) marks the FPS game and encourages the interpolation of the player. What you see on the screen is what you would see if you were aiming a weapon at something. Sometimes, instead of your weapon, you see crosshairs. This coupling of eye and weapon that reduces your virtual body to one function—aim and shoot—gives rise to some of the popular accusations against gaming. The vanishing point of the linear perspective of mobile virtual space coincides with the crosshairs at the center of your field of vision, but what you get in the typical FPS is not true spatial vision, but the view of an image that represents space.

Simulating a physiologically-correct spatial perspective is much more difficult for game engines than just calculating a space. In most games, your view dims and fades only if your avatar dies, while real spatial vision would incorporate dim and fuzzy areas all the time. Flight simulators and racing games are precursors of these three fixtures of the FPS perspective: three dimensions, the coupling of vanishing point and aim, and the constructing spatial vision from the image as geometric abstraction. But it is only with the characteristics of action games that the controversy about simulating violent action takes shape. Nonetheless, it is too simple when Jenkins (2006) construes the debate as an opposition between an effects model of thoughtless conditioning and a critical thought model pivoting on meaning and interpretation. Just as the history of the subjective shot in cinema cannot be reduced to making all audience members voyeurs, gaming cannot be reduced to a mere training mechanism. When one considers how to rate the violence of *Quake III Arena* (id Software, 1999), it is important to note that it is set in a futuristic cartoon-world with completely unrealistic weapons; aggression is there for its own sake—for thrills—and not morally legitimated; opponents don't die but respawn—yet the subjective point of view makes the game an intense experience.

There are, of course, other violent games that do not rely on the FPS perspective, and FPS games that have not come under fire for violent content. Interestingly, few of the initiatives that try to allege a link between game content and violent behavior have pointed to horror games, just as the horror film genre is more rarely vilified in such debates than other violent film genres. This may have something to do with how and

why people consume such highly popular game franchises such as the *Resident Evil* (Capcom, 1996–2012), *Silent Hill* (Konami 1999–2012), or *Left 4 Dead* (Valve, 2008) series. Indeed, the genre of horror games, going back to other hits such as *Castlevania* (Konami, 1986), again demonstrates a pivotal difference between shooting at aliens or attacking innocent bystanders, between blowing up tanks or taking a chainsaw to a victim.

Theories of Violence

When asking what violence means in games, why it is there, and how it functions, it is best to go beyond the identification of subjective FPS immersion with controversial content, and survey some conceptual underpinnings of the debate. Violence is defined as the intentional use of force, threatened or actual, against a person so as to result in physical or psychological harm. One of the main functions of law is to regulate violence; law enforcement is the principal form of regulation in civil society, whereby police and military are empowered to use some amount of violence. This is rooted in the assertion of individual rights that are defended as inviolable, versus unlawful violence that abridges the rights of others. The freedom to act in defense of one's rights is regulated by jurisdiction and the rule of law (McGregor, 1998).

Thus, some violence is legitimated as a check on violence, while violent acts not carried out by military or police forces are usually categorized as crimes. According to social theory after Hobbes, the force of law is a reaction to the citizens' fear of violence, making civil society a pact that trades individual freedom to use force for collective institutionalized force. With Kant, philosophers therefore distinguish between four constitutional combinations: law and freedom without force (anarchy), law and force without freedom (despotism), force without freedom and law (barbarism), and force with freedom and law (republic). War is a prolonged violent conflict between states; advances in technology have resulted in the rise of large-scale warfare. In terms of sales figures and hours spent, fighting, shooting, and war games tend to rank among the most popular genres both on consoles and on computers.

War games have a long tradition, and were not seen as inappropriate for children all the way through the end of the nineteenth century. Indeed, table-top and floor war games such as *Game of Napoleon* (Parker Brothers, 1883), *Mimic War* (Edgar Clark, 1898), and *Roosevelt at San Juan* (Chaffee & Selchow, 1899), were recommended for children's intellectual development, as they were seen not only to foster historical comprehension but also to exercise strategic and tactical thinking skills (Wells, 1913). It is only more recently, as childhood grew longer and media policy had to cope with larger markets, that representations of violence in games have become a contentious issue (Gentile & Anderson, 2003). Some observers emphasize catharsis—violent games are a means to get aggression out of one's system. This is an ancient theory, applied by the Greeks to belief systems, medicine, music, and philosophy; Aristotle held that the benefit is that it purges the soul of excessive passions. Sorel (1999) also suggests that violence has a cathartic function, an archaic and heroic character that he also sees in class struggle. In this view, violence defines the identity of the proletariat and the stabilization of class-consciousness; to Sorel, the proletarian myth of the violent general strike evokes unlimited action potential. Sorel wrote that bourgeois morals of education promoting peaceful collaboration, while criminalizing violence, do not achieve its aims—on the contrary, Sorel argued that the propagation of harmonizing conflict resolution in fact increases occurrences of violence. Political theory aims to integrate the state monopoly on legiti-

mate physical violence and the idea of peaceful civil society. In turn, other observers of violent games believe that the function of violence is inhibition—players learn in the simulation why such behavior is socially unacceptable; a variation on this argument is that in perpetuating a violent world-view, some games exert a “fear factor” deterrent and discourage violent behavior. However, observers have speculated about desensitizing habituation, or the belief that players get used to seeing (cartoonish or more explicit) violence and think little of it. Some critics remonstrate along similar lines that games, however violent, are mere simulations, and their fictional or hypothetical settings could not be taken for real by players. However, other critics object that naive imitation or mimetic desire might take hold nonetheless, and players might imitate in their own life the kind of behavior experienced in games. Finally, there are critics who simply assert that games can have no effect whatsoever on players’ moral and ethical outlook, because as clearly circumscribed artifacts they are not directly related to reality. The question remains: what makes violent games fun, and for whom? The issue here is less with cartoon violence versus photorealism, arguably; the crucial argument seems to be whether games can be both deterrent and training, both formative and mere entertainment.

Empirical Study

The conceptual dimensions of play touch on a wide range of discourses, including, but not limited to, metaphysics, ontology, epistemology, anthropology, and aesthetics; obviously each of these registers will position violence differently. The long tradition of defining play as child-like, entertaining, and free is countered by arguments about serious play as training, as formative and rule-bound; under such auspices, violent play can be understood as harmless pretense or as preparation for systematic infliction of real harm. Theories of violence distinguish between physical violence that impacts a victim’s body, psychological violence aimed at a victim’s mental constitution, and structural violence that harms people by preventing them from meeting a basic need, or by corrupting them in ways that leads to detrimental habits (Galtung, 1969). Research has established strong correlations between violence and social factors, including, but not limited to, poverty, substance abuse, and a lack of stable nurturing relationships between parents and children. Empirical studies in media effects research have examined in various ways whether legitimate links can be made between the consumption of entertainment that represents forms of violence and subsequent aggressive or violent behavior (Anderson et al., 2003). Game studies must be informed by such academic studies, not just by anecdotal associations or theoretical constructions, in discussing whether the purported effect of playing a violent game is reducing or increasing the player’s own potential for violence. Even if many players might believe that games are an inversion or transformation of our social reality, a counterfactual distraction rather than a depiction of normative or formative behavior, the fact remains that some games can raise your heart rate and affect your mood (Ballard & Wiest, 1996). Durkin and Aisbett (1999) studied 1,310 Australians in a comprehensive survey on gaming; only 3 percent mentioned violence. Trimmel (1996) found that among 1,304 German teenagers, about half talked of frustration and disappointment as factors in relation to regular play. Barnett et al. (1997) analyzed responses from 229 American teenagers between 15 and 19, and found some correlations between low self-esteem and playing with computers; however, there was no correlation between playing hours and aggression, although children who played more video games were seen by their peers as less helpful or friendly.

Wright, Boria, and Breidenbach (2002) analyzed in-game communications in *Counter-Strike* (Valve Corporation, 1999) and actually found them to be fostering friendship and community. Anderson and Bushman (2002) explored a “general affective aggression model” in a study with 78 male and 149 female students. Prolonged play of a non-violent game and a violent game for short periods showed that exposure to graphically-violent interactive content increased the gamers’ current affective states, including aggression. The effect was clearly moderated by any pre-existing aggressive traits. In other words, long-term play of violent games shows a positive correlation with pre-existing aggression; it leads people who already exhibit aggressive tendencies to manifest that in their behavior (Funk et al., 2002). This should not be misconstrued as a causal relation—it merely points out who is more likely to play the more violent games. Anderson et al. (2003) had 32 students (18 female, 14 male) play two violent games and two non-violent games, and during as well as after gaming, their blood pressure and heart rate were measured, in addition to the administering of a questionnaire. Compared to playing non-violent games, the short-term play of violent games led to higher blood pressure and pulse, higher aggression, and worse moods—affecting most those test subjects who already exhibited a predisposition toward aggression. Frindte and Oberwexer (2003) tested 20 German males between the age of 20 and 25, all experienced gamers, for 10 minutes each; they played *Colin McRae Rally 2* (Codemasters, 2001) and *Unreal Tournament 2003* (Epic Games and Digital Extremes, 2002). Non-violent play raised their pulse, but less so than violent gameplay; short-term play did not make them feel more aggressive afterwards. Anderson and Bushman (2001) saw a correlation, but not a causal connection, between exposure to violence games and a temporary increase in aggression, but Sherry (2001) as well as Ferguson and Kilburn (2009) found that video game representations of violence are not directly related to aggressive behavior in real life. In fact, more recent studies have sought to establish a connection between gaming and civic virtues (Ferguson & Garza, 2011). A large meta-analysis of 130 studies with over 130,000 subjects from around the globe (Ferguson & Kilburn, 2010) found abundant misestimation and overinterpretation of violent video game effects in Eastern as well as Western nations. These studies, in short, establish that aggression is not directly caused or incited by playing violent games, although there is, unsurprisingly, a real correlation between a violent or aggressive predisposition and choices in gaming. When aggression is not pre-existent, playing violent games can raise your pulse and blood pressure, but without raising your levels of real-life aggression. As a consequence, the game industry has rating systems that try to indicate levels of appropriate exposure.

Regulation and Legislation

Different countries have approached this issue in different ways. The main avenues for indication of appropriate exposure are legislation and self-regulation. Non-profit self-regulatory bodies such as the ESRB in the US, the USK in Germany, the IFCO in Ireland, the BBFC in Britain, or the European PEGI rating system independently assign ratings to games as they are published, as a way of informing buyers about the content of these entertainment software packages. Legislation faces the same questions. Several countries have seen laws and regulations proposed that are based not on rigorous study of gaming and its purported effects but on anecdotal connections. It is true that Adam Lanza, the shooter at Sandy Hook Elementary in Connecticut on December 14, 2012, had played *Call of Duty* (Infinity Ward, 2003). It is true that Dylan Klebold and Eric

Harris, the shooters on April 20, 1999 at Columbine High School in Littleton, Colorado, played a lot of *DOOM* and *Quake*. It is also true that in 2002, a 19-year-old German *Counter-Strike* fan shot several classmates, and his case led to a new law in Germany classifying games, similar to the US rating system for movies, though German law already prohibited the depiction of cruel or inhuman acts of violence against humans in a way that glorifies or renders harmless such acts (Ferguson, 2008). NRA spokesman Wayne LaPierre recently alleged that the USA suffer “a callous, corrupt and corrupting shadow industry that sells and sows violence against its own people through vicious, violent video games with names like *Bulletstorm*, *Grand Theft Auto*, *Mortal Kombat*, and *Splatterhouse*” (Sullivan, 2012). Nonetheless, a recent ten-country comparison of video game spending per capita and gun-related homicides suggests there is no plausible correlation between video games and gun murders (Fisher, 2012). Indeed, as one expert wrote:

Millions of young people play video games full of fistfights, blazing guns, and body slams. Bodies litter the floor in many of our most popular films. Yet only a minuscule fraction of the consumers become violent. Hence, if there is an effect, children are not all equally susceptible to it.

(Newman et al., 2005, p. 70)

And one might add that a highly popular game, *Just Dance 4* (Ubisoft, 2012), which on its main console platform easily outsells *Splatterhouse* (Namco, 1988), *Bulletstorm* (People Can Fly and Epic Games, 2011), and *Mortal Kombat* combined, has not led to spontaneous dance-offs in the streets of America.

In the United Arab Emirates, a National Media Council controls cultural values in entertainment, banning a long list of games due to violent content. Not all states and territories of Australia have agreed on a national classification system for games; while for a decade the highest rating was MA 15+, some politicians have been pushing for an 18+ rating bracket for games. This is to avoid making age-15 games available to Australians that are not available to minors in Britain or the USA. In 2011, South Australian Attorney General Robert Clark argued some types of games should not be commercially available at all; the list includes *Dark Sector* (Digital Extremes and Noviy Disc, 2008), *Left 4 Dead 2* (Valve Corporation and Turtle Rock Studios, 2009), and *Aliens vs Predator* (Rebellion Developments, 2010). Brazil’s justice ministry in 1999 banned *Duke Nukem* (Apogee Software, 1991), *Mortal Kombat*, *DOOM*, *Blood* (3D Realms and Monolith Productions, 1997), and *Postal* (Running With Scissors, 1997), *Requiem: Avenging Angel* (Cyclone Studios, 1999), threatening stores with fines. In 2007, a federal judge in Brazil added *Counter-Strike* and *EverQuest* (Sony Online Entertainment, 1999) to the index of games that “incite violence,” and the national consumer protection agency Procon started enforcing this as of 2008. Of course, not all such bans (or calls for bans) pivot on violence in general—in many cases, a country’s specific sensibility plays a role. Mexico, for instance, objects to the portrayal of its citizens in game such as *Tom Clancy’s Ghost Recon Advanced Warfighter 2* (Ubisoft Paris and Red Storm Entertainment, 2007) and *Call of Juarez: The Cartel* (Techland, 2011), since they each portray violence in the border town of Juarez. California enacted a law in 2005 (AB1179) that banned the sale of certain violent games to minors; the Entertainment Software Association and the Video Software Dealers Association (now known as the Entertainment Merchants Association) went to court against the bill to block enforcement. Decisions in District Court and Appeals Court considered the constitutionality of the law, and ruled in favor

of the industry; Governor Schwarzenegger and his successor, Governor Brown, sought to repeal these rulings before the US Supreme Court. In January 2009, a California bill proposed the Video Game Health Labeling Act (HR231), which would label certain titles with the “WARNING: Excessive exposure to violent video games and other violent media has been linked to aggressive behavior.” However, on June 27, 2011, the US Supreme Court ruled that video games are protected speech under the First Amendment and could not be censored. The California law was struck as unconstitutional, based on the First as well as the Fourteenth Amendments. Other entertainment industry representatives, including the Motion Picture Association, welcomed the ruling (see Norris, 2011; Rousse, 2011; Pollard-Sacks et al., 2011; and Post, 2012).

A Question of Empathy

Arguably, the debate most productively pivots on a solid understanding of the role of empathy in human interaction. We have the capacity to feel for other humans, but there is no empathy between players of a game and the non-human figures of that game; we do not develop tender feelings for an opponent’s pawn in chess, or for characters in *GTA: San Andreas* (Rockstar North, 2004). Fear of sanctions is no adequate replacement for empathy; empathy arises from care and the emotions expressed, received, and reciprocated between parents and children. A lack of empathy therefore arises from lack of shared emotions. It is plausible, then, to stipulate that the psychologically disturbed shooters at Columbine, for instance, may have lacked empathy for their classmates, both due to their outsider role and due to their family situations. It may have little or nothing to do with the content of *DOOM* and *Quake*. In the FPS mode of play, your in-game actions are determined by efficiency and control in the human-machine interaction; but in our lived social experience, solidarity and respect and empathy play crucial roles in how we interact with other people. The issue is one of frame competence: a player might, in extreme cases of immersion or addiction, lose the ability to distinguish real from virtual worlds. When you see a chainsaw, do you think of gardening or *DOOM*, of tree care or of a horror film? In this respect, there is no difference between *Pac-Man* (Namco, 1980) or *Tetris* (Pajitnov, 1984) and *DOOM* or *Halo 3* (Bungie, 2007): in gaming, there is usually little or no empathy even for other players’ avatars. If there is a real danger in exposure to violent games, it lies in excessive play at the expense of other social relations, rather than what is experienced in games. Dynamic transfer from violent games to one’s own social reality is only likely where other relationships that practice empathy give way to gaming in isolation. Children who grow up with healthy relationships to family and friends are unlikely to become psychopaths just because of exposure to violent game content.

References

- Anderson, C., & Bushman, B. (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., & Bushman, B. (2002). “Violent video games and hostile expectations: a test of the general aggression model.” *Personality and Social Psychology Bulletin* 28(12), 1679–1686.
- Anderson, C., Berkowitz, L., Donnerstein, E., Rowell Huesmann, L., Johnson, J. D., Linz, D., Malamuth, N. M., & Wartella, E. (2003). “The influence of media violence on youth.” *Psychological Science in the Public Interest* 4(3), 81–110.

- Ballard, M., & Wiest, J. R. (1996). "Mortal Kombat: The effects of violent videogame play on males' hostility and cardiovascular responding." *Journal of Applied Social Psychology* 26, 717–730.
- Barnett, M., Vitaglione, G. D., Harper, K. K. G., Quackenbush, S. W., Steadman, L. A., & Valdez, B. S. (1997). "Late adolescents' experiences with and attitudes toward videogames." *Journal of Applied Social Psychology* 27(15), 1316–1334.
- Durkin, K., & Aisbett, K. (1999). *Computer Games and Australians Today*. Sydney: Office of Film and Literature Classification.
- Ferguson, C. (2008). "The school shooting/violent video game link: Causal relationship or moral panic?" *Journal of Investigative Psychology and Offender Profiling* 5, 25–37.
- Ferguson, C., & Garza, A. (2011). "Call of (civic) duty: Action games and civic behavior in a large sample of youth." *Computers in Human Behavior* 27(2), 770–775.
- Ferguson, C., & Kilburn, J. (2009). "The public health risks of media violence: A meta-analytic review." *Journal of Pediatrics* 154, 759–763.
- Ferguson, C., & Kilburn, J. (2010). "Much ado about nothing: The misestimation and overinterpretation of violent video game effects in Eastern and Western nations: comment on Anderson et al. (2010)." *Psychological Bulletin* 136(2), 174–178.
- Fisher, M. (2012). "Ten-country comparison suggests there's little or no link between video games and gun murders." *The Washington Post* (December 17, 2012). Retrieved August 23, 2013, from www.washingtonpost.com/blogs/worldviews/wp/2012/12/17/ten-country-comparison-suggests-theres-little-or-no-link-between-video-games-and-gun-murders/.
- Frindte, W., & Obwexer, I. (2003). "Ego-Shooter—Effekte der Nutzung von gewalthaltigen Computerspielen und eine Pilotstudie." *Medienpsychologie* 3. Retrieved August 23, 2013, from www2.uni-jena.de/svw/compsy/texte/FrindteObwexer.pdf.
- Funk, J., Hagan, J., Schimming, J., Bullock, W. A., Buchman, D. D., & Myers, M. (2002). "Aggression and psychopathology in adolescents with a preference for violent electronic games." *Aggressive Behavior* 28(2), 134–144.
- Galtung, J. (1969). "Violence, peace, and peace research." *Journal of Peace Research* 6(3), 167–191.
- Gentile, D., & Anderson, C. (2003). "Violent video games: The newest media violence hazard." In D. Gentile (Ed.), *Media Violence and Children* (pp. 87–105). Westport, CT: Praeger Publishing.
- Jenkins, H. (2006). "The war between effects and meanings: Rethinking the video game violence debate." *Fans, Bloggers, and Gamers* (pp. 208–221). New York: New York University Press.
- Kocurek, C. (2012). "The agony and the exidy: A history of video game violence and the legacy of *Death Race*." *Game Studies* 12(1). Retrieved August 23, 2013, from www.gamestudies.org/1201/articles/carly_kocurek.
- Newman, K., Fox, C., Roth, W., Mehta, J., & Harding, D. (2005). *Rampage: The Social Roots of School Shootings*. New York: Basic Books.
- Norris, R. (2011). "It's all fun and games until someone gets hurt: Brown v. Entertainment Merchants Association and the problem of interactivity." *North Carolina Journal of Law & Technology* 13, 81–116.
- Pollard-Sacks, D., Bushman, B. J., & Anderson, C. A. (2011). "Do violent video games harm children? Comparing the scientific amicus curiae 'experts' in Brown v. Entertainment Merchants Association." *Northwestern University Law Review Colloquy* 106(1).
- Post, D. (2012). "Sex, lies, and videogames: Brown v. Entertainment Merchants Association." *Temple University Legal Studies Research Paper No. 2012-03*.
- Rousse, T. (2011). "Electronic games and the first amendment: Free speech protection for new media in the 21st century." *Northwestern Interdisciplinary Law Review* 4(1), 173–233.
- Sorel, G. (1999). *Reflections on Violence*. Cambridge: Cambridge University Press.
- Sherry, J. (2001). "The effects of violent video games on aggression: A meta-analysis." *Human Communication Research* 27, 409–431.
- Sullivan, S. (2012). "Put 'armed police officers' in every school, NRA leader Wayne LaPierre says." *The Washington Post* (December 21, 2012). Retrieved August 23, 2013, from www.washingtonpost.com/blogs/post-politics/wp/2012/12/21/nras-wayne-lapierre-put-armed-police-officers-in-every-school/.
- Trimmel, M. (1996). "Bedingungen des Computerspiels und psychologische Auswirkungen bei Jugendlichen." *Informatik Forum* 10(4), 215–234.
- Wells, H. G. (1913). *Little Wars: A Game for Boys from Twelve Years of Age to One Hundred and Fifty and for that More Intelligent Sort of Girl Who Likes Boys' Games and Books*. London: Frank Palmer.
- Wright, T., Boria, E., & Breidenbach, P. (2002). "Creative player actions in FPS online video games." *Game Studies* 2(2). Retrieved August 23, 2013, from www.gamestudies.org/0202/wright.