#### **ORIGINAL PAPER**



# Violent video games: content, attitudes, and norms

Alexander Andersson<sup>1</sup> • Per-Erik Milam<sup>1</sup>

Published online: 16 October 2023 © The Author(s) 2023

#### **Abstract**

Violent video games (VVGs) are a source of serious and continuing controversy. They are not unique in this respect, though. Other entertainment products have been criticized on moral grounds, from pornography to heavy metal, horror films, and Harry Potter books. Some of these controversies have fizzled out over time and have come to be viewed as cases of moral panic. Others, including moral objections to VVGs, have persisted. The aim of this paper is to determine which, if any, of the concerns raised about VVGs are legitimate. We argue that common moral objections to VVGs are unsuccessful, but that a plausible critique can be developed that captures the insights of these objections while avoiding their pitfalls. Our view suggests that the moral badness of a game depends on how well its internal logic expresses or encourages the players' objectionable attitudes. This allows us to recognize that some games are morally worse than others—and that it can be morally wrong to design and play some VVGs—but that the moral badness of these games is not necessarily dependent on how violent they are.

**Keywords** Video games · Violence · Attitudes

### Introduction

Violent video games (VVGs) are a source of serious and continuing controversy. They are not unique in this respect, though. Other entertainment products have been criticized on moral grounds, from pornography to heavy metal, horror films, and Harry Potter books. Some of these controversies have fizzled out over time and have come to be viewed as cases of moral panic. Others, including moral objections to VVGs, have persisted. The aim of this paper is to determine which, if any, of the concerns raised about VVGs are legitimate.

Moral objections to VVGs have three main components, which can be understood as answers to the following three questions:

- 1. Moral Question: Why are VVGs morally bad or wrong?
- 2. Comparison Question: Why are they worse than other forms of violent entertainment?
- ☑ Alexander Andersson alexander.andersson@gu.se
  Per-Erik Milam per-erik.milam@gu.se
- <sup>1</sup> University of Gothenburg, Gothenburg, Sweden

### 3. Regulation Question: What should be done about them?

For example, one might argue that VVGs desensitize players to violence thereby making them more likely to act violently themselves, that VVGs do this more effectively than violent films or books, and that VVGs should therefore be prohibited or strongly regulated.

In this paper, we evaluate the most common answers to the moral and comparison questions, but set aside the regulation question. Not only does regulation raise a number of other ethical considerations—including free speech, paternalism, and policy design and enforcement—it also requires that we first understand the comparative badness of VVGs.

The paper is structured as follows. Section "Background and preliminaries" gives a brief overview of the controversies surrounding VVGs and explains how we will structure and focus our evaluation. Section "The causation argument" considers the claim that it is wrong to design and play VVGs in virtue of their bad consequences and concludes that the empirical evidence that playing VVGs

<sup>&</sup>lt;sup>1</sup> The most zealous campaigns against VVGs have been in the United States. We will not try to explain why that is the case, but we note that the industry's implementation of a rating system following US Congressional hearings about video game violence 1993 may have forestalled similar controversies elsewhere as similar ratings systems were applied outside the US.



**52** Page 2 of 12 A. Andersson, P.-E. Milam

causes bad outcomes is inconclusive, and that even if we grant that they have bad effects, VVGs are not distinctively bad in this respect. Section "The violence argument" considers the claim that VVGs are bad in virtue of features like realism that are independent of their consequences, but we conclude that existing accounts of these features fail to adequately explain why some VVGs should be considered morally objectionable. Having rejected these accounts of the comparative badness of VVGs, Sect. "The internal logic of violent video games" offers an alternative explanation.

# **Background and preliminaries**

There is a history of blaming VVGs for violent acts such as school shootings, mass shootings, and murder in the United States.<sup>2</sup> Games such as *Mortal Kombat, Doom*, and *Manhunt* have all caused controversy in the past. They depict gory, brutal, and gratuitous violence as entertainment. For the uninitiated it may be inexplicable why anyone would enjoy what is happening on screen. Hence, the popular sentiment seems to be that there *must* be something morally bad about these games.

Since VVGs have been picked out as especially bad, we want to investigate whether it is justified to single them out for criticism. We will argue that most, but not all, common criticisms of VVGs are unjustified. Moreover, any justified criticism will also apply to other forms of entertainment. Thus, for any particular VVG, we must conclude either that it is morally permissible to design and play it or that it is morally wrong to create and consume other relevantly similar entertainment products. Which conclusion is warranted will depend on the details of the case.

However, there are multiple ongoing debates about the comparative badness of VVGs, so, before making any substantive claims, let us first explain how we will structure and focus our investigation.

Targets. While concerns about VVGs appear to be about the video games themselves, games are not natural evils like an earthquake or a volcanic eruption. They are designed and played—not to mentioned commissioned and distributed—by moral agents. We therefore focus on the two most plausible targets of these criticisms: players and developers. Insofar as a game is criticized on moral grounds, we take this to be a criticism either of those who created its content or those who created the particular instances of violence by playing the game. Some may object that critics should direct their objections and blame at the companies that commission the games and the governments that fail to regulate

them properly. Maybe so. But such criticisms presuppose that there is something objectionable about the games themselves or about playing them.

*Topics.* Even limiting our attention to developers and players leaves many issues to consider. Multiplayer online gaming has given rise to concerns about toxic environments and interactions, which may be influenced by the violent content of many of these games. This is a serious problem and one where reforms are possible and can make a real difference to the well-being and experience of gamers, but we will not address it here. Nor will we consider the moral status of violent assault on another player's avatar—e.g. robbing them for items, killing them out of spite, or 'griefing' them. These kinds of behaviors also deserve attention, but they introduce potentially confounding variables into an analysis because they involve moral agents who can be harmed through the treatment of their avatars. We therefore limit our focus to single-player VVGs<sup>3</sup>—i.e., video games that include violence or violent themes—including those singled out in debates about the ethics of VVGs, like Doom, Grand Theft Auto V, Last of Us II.

It should also be noted that while we use the term "VVG" to denote a specific category of games, what we are essentially interested in is moral agency in games in general. However, since most discussions relating to this topic focuses on violence and VVGs, that is where our main focus will be as well. Having restricted our task in these ways, let us now consider why it might be morally wrong to develop or play VVGs.

# The causation argument

Probably the most common objection to VVGs is that they have (or risk) bad effects. According to the Causation Argument, video game violence is morally bad because it causes players to be more aggressive and violent, which is bad both for the players themselves and for those who are therefore more likely to be victims of their aggression and violence (e.g. classmates, family members, coworkers). This claim—that VVGs influence players' behavior outside of the game—is sometimes called the 'contamination thesis' (Goerger, 2017: p. 97). Peter Singer puts the point succinctly: "The risks are great and outweigh whatever benefits violent video games may have. The evidence may not be conclusive, but it is too strong to be ignored any longer" (Singer, 2007).

Because this moral argument relies on empirical premises, it is important to spell out what would constitute a



<sup>&</sup>lt;sup>2</sup> For an overview of the history of VVGs and their alleged relation to acts of violence see Campbell (2018).

<sup>&</sup>lt;sup>3</sup> Our arguments also apply to multiplayer games that can be played in single player mode, such as *Mortal Kombat* or *Unreal Tournament*.

strong empirical case against VVGs. We identify four criteria:

- i. The violent content of VVGs must cause the bad effects.
- The bad effects must be worse than other tolerable forms of violent entertainment.
- The bad effects must counterbalance whatever good effects these games have.
- iv. There must be sufficient consensus among researchers about (i), (ii), and (iii).<sup>4</sup>

Let us be clear about these requirements. One need not show that VVGs are entirely, or even overall, bad in order to condemn them on moral grounds. Societies rightly criticize and regulate many products that are overall bad even while acknowledging that they are good in some respects (e.g. cigarettes). Societies sometimes even criticize products that are good overall on the grounds that they should be better (e.g. unsafe cars or energy inefficient appliances). Insofar as the Causation Argument is concerned with the effects of VVGs, our suggestion is simply that we think like consequentialists when assessing them. We should be concerned with all the effects and with everyone who is affected; we should be concerned with the magnitudes of the effects, their likelihood, and our confidence in the empirical evidence of their risks and consequences; and we should assess these effects relative to all available alternatives.

We can start with the empirical case against VVGs. The large empirical literature suggests four ways that players might be affected. First, players may become more aggressive after playing VVGs (Anderson et al., 2010; Lin, 2013; Kepes et al., 2017; Farrar et al., 2017; Shao & Wang, 2019). Measures of aggression range from self-reports of engaging in aggressive behavior to indictors like "how long a participant blows an air horn at an opponent after playing a violent game" (Goerger, 2017: p. 98). Second, VVGs may desensitize players to violence (Deselms & Altman, 2003; Funk et al., 2004; Carnagey et al., 2007; Bushman & Anderson, 2009; Engelhardt et al., 2011). Desensitization is also measured in different ways, including how long it takes for participants to help others in (simulated) need or how lenient a sentence they give an imagined criminal. Third, it has been suggested that VVGs train players how to kill (Grossman & DeGaetano, 1999; Leonard, 2007; Bushman, 2018). For instance, Bushman showed that players firing a real gun at a human-shaped mannequin were more likely to aim at the mannequin's head after having played a violent first-person shooter (FPS) game.<sup>5</sup> Fourth, Wonderly and others suggest that playing VVGs, especially given their increasingly realistic depictions of violence, may diminish one's capacity for empathy (Wonderly, 2008; Funk et al., 2004; Bartholow et al., 2005). If any of these four causal hypotheses is correct, then condition (i) would seem to be satisfied.

However, there is significant disagreement about these findings and their significance. First, none of the existing research claims that playing VVGs has directly caused anyone to commit actual acts of violence in the real world. This is not surprising, but it is a notable point of contrast with other products and behaviors that we might wish to regulate or ban (e.g. dangerous toys or incitements to violence). Second, there is disagreement about how to interpret the results of the studies cited above. Some have questioned the practical significance of increased aggressive behavior measured in a lab environment (Ferguson and Kilburn 2010; Goerger, 2017; Hall et al., 2011). Others have argued that the field suffers from a publication bias that favors finding an effect of VVGs on aggression (Ferguson, 2007; Ferguson & Kilburn, 2009; Hilgard et al., 2017). Third, and perhaps most interesting, some have argued that it is the form of a game, rather than its content, that causes aggression. One study suggests that playing games that thwart a player's fundamental need for competence led to increased aggression (Przybylski et al., 2014). Another showed that competition rather than violence causes aggression (Dowsett & Jackson, 2019). These studies suggest that features other than violence are of equal or greater concern. Thus, while there is provocative evidence about the bad effects of playing VVGs, there is insufficient scientific consensus.<sup>7</sup>

Suppose that empirical studies had decisively demonstrated that VVGs cause increased aggression and violence. Do we have reason to believe that the bad effects of VVGs are worse than the bad effects of other violent entertainment that we presently tolerate? Some research suggests that VVGs cause more aggressive behavior than watching violent movies or violent gameplay because they are interactive (Lin, 2013). However, Lin points out

<sup>&</sup>lt;sup>7</sup> There is room for improving the experimental design of VVGs, including eliminating confounds by studying the same games and controlling for variables like difficulty, competitiveness, and level of violence. Moreover, studies that find evidence that VVGs cause increased aggression should measure and compare the magnitude of that effect to other phenomena known to increase aggression-e.g., being insulted.



<sup>&</sup>lt;sup>4</sup> What level of consensus is sufficient will depend on the magnitude of the risk/harm.

<sup>&</sup>lt;sup>5</sup> None of the studies critical of VVGs claim that they directly cause real world violence, though commentators sometimes make or imply such claims. Young emphasizes that "any attempt to posit a direct causal link between video game content and violent (real-world) behaviour should be regarded as overly simplistic, largely uncorroborated, and ultimately contentious" (2015: p. 315).

<sup>&</sup>lt;sup>6</sup> See Anderson et al. (2010) for a reply to this objection.

that, "very little prior research has directly addressed the issue of media interactivity with regard to violent effects" (2013: p. 535). Thus, while there is some support for condition (ii), there is far too little evidence to reasonably conclude that VVGs have worse effects than other violent entertainment (e.g. movies, television, books, or board games).

Even if the evidence supporting the Causation Argument satisfied conditions (i) and (ii), we could not yet condemn VVGs. We must also consider the benefits of playing these games. Studies suggest that some non-violent games enhance prosocial behavior among gamers (Sestir & Bartholow, 2010), that cooperative games decrease aggression (Gentile et al., 2009; Schmierbach, 2010), and that video games strengthen our ability to engage in ethical decision making (Madigan, 2016). We should be as critical of these studies as we are of those that condemn VVGs, but our point is simply that potential harms should be weighed against potential benefits. One compelling point in favor of VVGs is their incredible popularity. While it is difficult to find concrete and specific information, the following data give a rough picture of gamers' revealed preferences: as of 2019 more than 2.5 billion people play video games, the average gamer plays more than 6 h per week, roughly half of that play is on consoles and computers (the rest is on tablets or phones), 9% of games are rated M for Mature (the category that contains most controversial VVGs), but those games are among the most popular in terms of sales. For example, Grand Theft Auto V is the third highest selling video game, and the highest grossing entertainment product, of all time (Narula, 2019; Limelight, 2020). Another compelling point is the suggestion that VVGs, like all games, are experiments in agency. For designers they are an art form whose medium is the agency of the player. And for players they are an opportunity to experiment with the alternative forms of agency created by designers (Nguyen, 2019: p. 423).

The strength of the Causation Argument depends on various empirical claims. We have shown that none of the relevant claims has been established to a sufficient level of confidence. Furthermore, even if they had been, an outcome-focused argument must assess VVGs in the same light as other risky phenomena and it is not obvious why we should view VVGs as overall worse than many products and activities we accept (or tolerate). Nonetheless, if VVGs are harmful to the players, even relatively weak empirical evidence might be sufficient to ground a moral imperative to develop and play non-violent games rather than VVGs.



# The violence argument

Perhaps it is not the effects of VVGs that make them morally objectionable but rather some feature of the games themselves. A second kind of argument, call it the Violence Argument, pursues this line of thought, arguing that VVGs are bad because they represent violence for the purpose of entertainment and that it is therefore (at least *pro tanto*) wrong to develop and play such games.<sup>8</sup>

Of course, many types of media represent violence, whether for educational purposes (e.g. non-fiction and journalism) or for entertainment (e.g. poetry, novels, comics, film, and television). Thus, if we are justified in appreciating or tolerating violence in these genres, then the Violence Argument must show that the ways VVGs represent violence are distinctively bad. The most common suggestions are that they are distinctively bad because they are much more realistic, interactive, and immersive.

#### Realism

The depiction of violence in video games has become more realistic as technology has improved. While *Mortal Kombat* and *Doom's* 16-bit violence provoked American parents in the 1990s, they could scarcely have imagined the high-fidelity violence of games such as *The Last of Us II*. Nothing is left to the imagination as headshots leave a spray of blood and brains, heads are smashed to pieces with baseball bats, all while the victims plead for mercy or shriek in agony. These kinds of advances led Waddington to worry that, as video game violence becomes more realistic, it will be increasingly difficult to differentiate real from simulated transgressions (2007: p. 127).

However, in order to support the Violence Argument, it must be the case that VVGs represent violence in a way that is more realistic than other media and that more realistic representations of violence are morally worse than less realistic representations.

On the first point, video game violence does not seem more realistic than violence in other media. Consider two related forms of realism: content realism and context realism. A representation is *content realistic* to the degree that it depicts what would happen in real life. For example, a

While some argue that realistic, interactive, and immersive violence are bad in themselves, others claim that it is these features of contemporary VVGs that cause violence or aggression in players. However, the latter is just a version of the Causation Argument, so we focus on those who take violence to be significant independently of its consequences.

<sup>&</sup>lt;sup>9</sup> Some might consider 'perspectival fidelity' to be a form of realism, but we consider this variable more relevant to a game's immersiveness than to its realism (Ramirez, 2019).

game might accurately depict how bones break or what happens when a bullet strikes a torso. In this respect, VVGs can be surprisingly realistic, but less so than many films (e.g., Saving Private Ryan) and much less so than many real videos that people watch for amusement (e.g., the watermelon catapult). Moreover, their content realism is mostly limited to the visual modality. A written representation of violence might have similar content realism, but no visual component (outside of imagination). A representation is *context* realistic to the degree that it represents a situation that could plausibly occur. This is somewhat relative. A war setting is surely more realistic than, say, battling demons on another planet, but is World War II a realistic context for a millennial gamer? Here too, most VVGs seem less realistic than other media, which often depict disturbing forms of violence for dramatic purposes (e.g., intimate partner violence or police brutality).

On the second point, representing violence may sometimes be worse if it is more realistic—even ignoring any harmful effects on the player like stress or nightmares. Some realistic contexts seem obviously morally worse than others. Public reactions to games seem to match this intuition, as when many objected to The Slaying of Sandy Hook, whose setting was the location of a tragic school shooting. However, this worry does not necessarily transfer to those VVGs that are common targets of criticism, like the Grand Theft Auto series.

The game (GTA) not only depicts drug and gang related violence, but it presents that violence in a largely consequence free environment. Further, this crime is 'real' in the sense that similar crimes and criminal enterprises currently control broad swaths of metropolitan areas like Los Angeles ... Players are, essentially, being entertained by the misery of others and are thus disrespecting the object of value (Goerger, 2017: p. 102).

While there is plenty to criticize about GTA, Georger's comments are mistaken. First, he seriously misrepresents (or misunderstands) the degree to which GTA accurately depicts the level of crime in metropolitan areas like Los Angeles. There are no "broad swaths" of American cities that are controlled by criminal enterprises. Second, while such games do make light of real violence, these representations are neither more realistic nor more violent than many films and television series. Thus, even if we accept that representing violence can be morally bad, it is not the case that most VVGs, including common targets of criticism, are worse in this respect than other tolerated forms of media.

#### Interaction

Another salient feature of VVGs is that they are interactive in a way that some other media are not. While a movie audience may hope that Woody Harrelson decides to stop at a supermarket and kill some zombies in order to get a Twinkie, a player of Redneck Rampage can make that happen. The player's experience is interactive insofar as their actions, "make a significant difference to what happens in the environment" (Chalmers, 2017: p. 312). Some therefore press a version of the Violence Argument according to which being a passive consumer of violent films or books is less bad than "performing" violent acts in a video game (Tillson, 2018). 10

Our view is that violent interaction itself, ignoring the realism and immersive experience of the interaction, is not morally bad. Moreover, even if it were, it would not be worse than other forms of entertainment. A writer interacts with her fictional characters with a similar degree of agency as a gamer does with the non-playable characters (NPCs) she encounters. The writer's interaction is unrealistically onesided, but she can nonetheless choose to kill them off and to do so in a brutal fashion [e.g., (redacted to avoid spoilers)]. This does not seem bad at all. Or consider games of makebelieve. Kids playing war with toy guns is just as interactive as video gaming. In order for there to be a war, the kids must perform some actions, just as a player must control her avatar in order for there to be in-game violence. Traditional roleplaying games and board games—whose content can be just as violent as VVGs-requires a similar degree of interaction. In order to claim that VVGs are worse than other violent entertainment, one would have to show that video game interactions are different in kind from the forms of make-believe involved in writing fiction, roleplaying, and other violent entertainment. If anything, the fact that enemies are programmed and that experience is mediated by controllers and other devices would seem to make video games less interactive than your average game of Cops and Robbers or *Dungeons and Dragons*. We therefore conclude that VVGs are not worse than other violent entertainment in virtue of being interactive.

#### **Immersion**

Finally, VVGs might seem morally bad, and worse than other media, because players can more easily become immersed in the violence of the game. This is bad because, regardless of whether a game is visually realistic, it is bad to experience that violence as real. If part of the value of games is that they allow us to inhabit a 'temporary practical agency' (Nguyen, 2019: p. 438) within which we can "occupy alter-ego points of view and practice new strategies by accessing possible spaces of action and affective

 $<sup>^{10}</sup>$  Notice that, if video game violence is bad because it is interactive, designers are, at worst, guilty of facilitating violent interactions. The player is the primary wrongdoer. This asymmetry is reversed for those who worry about realism. Designers create realistic violence (e.g. fatalities in Mortal Kombat), while players simply activate it.



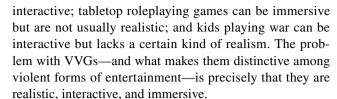
responses" (Schellenberg, 2013: p. 509), then the value of such experiments presumably depends on the design of those practical agencies and the contexts in which players inhabit them, including whether they are suffused with violence that is experienced by the player as real.

Immersion occurs when a player experiences the game as if it is real or as if she herself were experiencing the events of the game in the shoes of her character. One dimension of immersion is 'presence,' or "the sense of being present at that perspective" (Chalmers, 2017: p. 312). The immersiveness of a game depends, in part, on its realism. Content and context realism can make immersion more likely, but perspectival fidelity is also important (Ramirez, 2019). A representation has perspectival fidelity to the degree that the structure of the experience is realistic. For example, a video game has lower perspectival fidelity if the player uses a controller rather than a VR set up, if the representation includes non-diegetic sound (e.g., music) or a heads-up display (e.g., location, health, remaining ammo), and if the point of view is third- rather than first-person. Importantly, VVGs are unlikely to have greater perspectival fidelity than other media, except insofar as they are more likely to have a first-person perspective. 11 However, even in this respect the experience they provide has lower fidelity than, say, children playing war, teens playing paintball, or adults performing historical recreations of famous battles.

A more general problem with the argument that VVGs are bad because players are more likely to have an immersive experience of violence is that it is simply not clear whether being immersed in a VVG is worse than being immersed in another violent or disturbing source of entertainment. For example, films and novels are generally praised when they effectively draw in a viewer. Such praise may reflect their aesthetic value, which is compatible with being morally bad, but the same could be said about VVGs. <sup>12</sup>

# An objection

At this point, defenders of the Violence Argument might object that, by addressing these factors in isolation, we have made a strawman of their position. Movies can be realistic but not interactive; novels can be immersive but not



If the problem is the combination, then VVGs might be distinctively morally bad even if possessing just one of these features is tolerable. Just as a gun is composed of innocuous pieces which, once assembled, constitute a dangerous weapon, so the combination of realism, interactivity, and immersiveness may render video game violence morally objectionable.

However, the problem with this line of argument can be seen by reflecting further on the analogy. The problem with an assembled gun is not that all of its components are in one place. The problem is that a functioning handgun affords certain actions that its unassembled pieces do not. <sup>13</sup> This is not true of VVGs—or, at least, the evidence for this claim remains inconclusive. In order for the combination of realism, interactivity, and immersion to render video game violence distinctively bad, opponents of VVGs must show either that developing such games makes them dangerous (the Causation Argument) or that this combination is *itself* distinctively bad (the Violence Argument).

This latter point seems to be what Ali (2023) alludes to in relation to virtual reality experiences: "VR pushes the virtual closer to the nonvirtual, making, e.g., VR experiences as valuable (in reproductions), or closer in value (as simulations), to their nonvirtual counterparts" (Ali, 2023: p. 241). It seems plausible that realism, interactivity, and immersion can enhance one's experience of some piece of entertainment—as actors in films and plays can attest. However, Ali's (2023, 2015) account falls short when it comes to explaining what makes a VVG morally objectionable. According to his view, badness varies with realism. This may be true for reproductions and simulations, which, by definition, vary with realism. Yet, it is not obviously true for video games, where the badness appears to be dependent on other factors. Ali (2015) highlights one aspect that appears to be the decisive factor for why this is the case. VR simulations, unlike VVGs, lack context and story. 14 Thus, in order to make the case that virtual violence can be morally bad even in games where the violence is situated within a



<sup>11</sup> Even this claim ignores the actors who do actually simulate the violence that the audience sees. They have a first-person point of view on the violence in a play or film. Of course, they know that they are not actually hurting their costars, but VVG gamers know this, too.

<sup>&</sup>lt;sup>12</sup> It is also worth noting that for many, the concern about immersion is a concern about the player's experience and the effects of having such an experience (Waddington, 2007: p. 127). However, this is ultimately a causation question and one that can be answered either by asking gamers about their immersive experiences or by measuring the effects of those experiences.

<sup>&</sup>lt;sup>13</sup> This is why gun control advocates often emphasize that the presence of a gun allows an altercation that might have resulted in a painful fist fight to instead result in a fatal shooting.

<sup>&</sup>lt;sup>14</sup> As is evident from the following passage: "[S] imulation games do not provide their own narrative, they simply allow the gamer's context to define the in-game context. So, when a gamer enacts murder or pedophilia in these games, the act is one of virtual murder or virtual pedophilia *because* the gamer defines it in this way." (Ali, 2015: p. 273).

narrative and performed in pursuit of a goal (i.e., VVGs), we must look for explanations elsewhere. In the next section, we consider alternative critiques of video games and offer an account of our own.

# The internal logic of violent video games

We have argued that the level of concern about the outcomes of developing and playing VVGs and about the fact that VVGs are realistic, interactive, and immersive is unjustified. However, there may nonetheless be something morally objectionable about developing or playing VVGs. In this final section, we try to capture the kernel of truth at the heart of the widespread and persistent objections to video game violence by identifying what we take to be a reasonable concern. Our account steers a middle course between moral panic and facile defenses of VVGs by embracing the similarities and continuities between violent and nonviolent video games, as well as between video games and other forms of entertainment. In doing so, we build on other recent arguments that have illuminated legitimate ethical concerns about video games, while suggesting that these arguments indict video game violence in ways that they fail to recognize.

We suggest that the most plausible moral objection to VVGs is that some of them generate or perpetuate morally objectionable norms of appropriate violence—i.e., norms of when violence is an appropriate response to a situation. This objection suggests that violence is indeed problematic, but also that it is one dimension of a more general moral concern.

One way to assess VVGs is to imagine uncontroversially immoral games and isolate their objectionable features. It would be reasonable to condemn both the developers and the players of racist or misogynistic games in which the aim is to, say, exterminate Jews or sexually assault women. For many, such concerns depend neither on the kind of effects identified by the Causation Argument nor on their realism, interactivity, or immersion (Patridge, 2011). A natural explanation of what precisely makes such games objectionable is that it is wrong to be or act in racist or misogynistic ways and the developers and players of such games are (usually) acting in these ways simply by developing or playing the game. For example, we might say that a misogynistic game either subordinates women or depicts their subordination, and that players participate in that subordination—or at least demonstrates a failure of sensitivity to and sympathy for women (Patridge, 2011: p. 310)—by playing the games, even if the women depicted are not real.

If one accepts this kind of explanation, one might further argue that non-racist and non-misogynistic VVGs could have content that is similar in morally relevant ways. <sup>15</sup> If

a misogynistic game can subordinate women, then a game where the player aims to kill enemies can subordinate whichever group is depicted as the enemy. Just as misogynistic games depict female characters as fitting targets of assault or abuse, violent games depict certain characters as fitting targets of physical violence. And if sexual violence is bad, in part, because it is violence, then removing the sexual dimension cannot render the game morally innocuous—though it would certainly make it less bad. Call this the *Analogy Argument*.

This argument has a certain plausibility, but does not succeed as stated. To see why, consider two ways in which the defender of VVGs might reply. First, they could reply that what is morally objectionable is not the content of a game, but how one plays it. One who revels in killing innocent bystanders is acting wrongly in a way that a person who plays the same game in order to complete it as quickly and bloodlessly as possible is not. Call this the *Sadism Reply*. On this way of thinking, it is the mental state of the player, not the content of the game that explains its badness.

The inadequacy of the Sadism Reply is fairly obvious. Sadism—understood as taking pleasure in the wrongful treatment of others (i.e., in moral evil)—is not the only attitude we find morally objectionable. Schadenfreude-understood as taking pleasure in the non-moral suffering of others (i.e., natural evil)—is another, and there are more, from racism and sexism to simple indifference to others' well-being. If sadism in VVGs is problematic, then so are these others attitudes. Moreover, non-violent games can be played in sadistic ways—e.g., choosing, in *The Sims*, to drown your neighbors in your swimming pool—and are therefore open to the same critiques, which seems implausible. Finally, it is unclear how we can condemn a player's sadistic pleasure in doing virtual violence when we cannot condemn virtual violence itself. The wrongness of taking sadistic pleasure in another's suffering arguably presumes the wrongness of causing that suffering, but the Sadism Reply attempts to deny the latter while shifting criticism to the former.

Second, the defender of VVGs could point out that misogyny is morally objectionable because its targets—women—are an oppressed group in society. Call this the *Power Reply*. On this way of thinking, an otherwise identical gender-reversed game, where women victimize men, would not be objectionable in the same way. And, they might say, what we find in most VVGs is precisely that, violence that is admittedly gratuitous but nonetheless morally acceptable—or at least tolerable—because it is not gendered. (Similar points could be made about other dimensions of oppression.)

<sup>&</sup>lt;sup>15</sup> Some criticisms of games like Super Columbine Massacre, The Slaying of Sandy Hook, or Active Shooter/Standoff seem to make precisely this point.



Patridge argues that the content of some video games has "incorrigible social meaning" that targets women and marginalized groups (2011: p. 308). For example, the meaning of a black character eating watermelon is explained by particular social realities (e.g., the persistence of demeaning racial stereotypes) and is incorrigible in the sense that it is difficult to interpret in any other way because of those realities (i.e., there is no plausible interpretation of that image that does not reference those stereotypes). However, Patridge suggests that violent content often either lacks social meaning or has social meaning that is reasonably interpretable in a way that does not implicate some reprehensible feature of our shared moral reality, like racism, misogyny, or homophobia (2011: p. 310).

Even if Patridge is right that most video game violence itself is unlikely to have the incorrigible social meaning of games like Custer's Revenge, it does not follow that it does not implicate reprehensible features of our shared moral reality. Whether it does is an open question. Content with incorrigible social meaning implicates our shared moral reality by forcing us to recognize that some words, images, or ideas are inextricably linked to hateful and prejudicial ideologies. If video game violence can itself implicate other reprehensible features, what might those features be and how would they be implicated? Our answer is that power norms—i.e. norms of domination and subordination—are just one type of objectionable norm that can be built into the 'logic' of a game. <sup>16</sup> Another type is norms of appropriate violence, which, while often bound up with power norms, are separable. We would rightly criticize a society whose logic of appropriate physical violence included, say, occasions when one is frustrated with a coworker—and this is true independently of the coworkers' respective social status. But if this is right, then why is a game whose logic of appropriate violence includes anyone who gets in the way of your mission not objectionable on similar grounds? Thus, while both replies warrant revisions and qualifications of the Analogy Argument, we can begin to see how a revised version of the argument might be successful.

Call this revision of the Analogy Argument the *Internal Logic Argument* (ILA). The 'logic' of a video game is the structure, incentives, and constraints that guide player behavior. It is a matter of what the player can do and what they are encouraged to do in the game. In other words, it is the set of ideas (mission/quest, combat, survival) and practices (enacting those ideas via the means provided and avoiding obstacles to doing so) that allow the player to have

<sup>&</sup>lt;sup>16</sup> This is not at all to imply that the sets of norms that sustain hateful and prejudicial attitudes and behavior toward members of oppressed groups are not especially important or deserving of particular attention and opposition.



a successful playthrough—e.g., to progress in the game, to be enjoyable, and be an opportunity to engage in the 'art of agency' (Nguyen, 2019). 17 Understood in this way, the logic of a game includes what Nguyen calls its "value clarity," in that it stipulates a clear structure and conditions for success (2020: 20). However, whereas Nguyen is most concerned about players *applying* the simplified logic of a video game to contexts where values are more opaque and complex, we are concerned with the *content* of a game's internal logic. Our suggestion is that the logic of a game can express, encourage, and legitimate objectionable attitudes and norms of appropriate violence.

As noted above, games such as *Custer's Revenge* can express attitudes of hatred and prejudice by targeting specific groups in its gameplay. When it comes to VVGs, *Postal 2*, whose tongue-in-cheek comments are prompted when excessive and degrading violence is exerted on innocent bystanders, expresses a lax attitude towards violent behavior. The logic of the game, manifested in minor rewards, treats civilians as fair game when the player's character is on his way to pick up milk from the store.

A game's logic and gameplay mechanics can also encourage problematic player behavior. The internal logic of some games is straightforward and explicit. A game may have an obvious theme that directly guides gameplay (e.g., Duck Hunt or Super Columbine Massacre), or it may incentivize particular ways of playing by awarding points, experience, and trophies for particular results. But a game's explicit themes, rewards, and punishments do not exhaust its logic. Just like real life, games are full of subtle incentives and nudges that shape how one behaves. Examples include whether a particular NPC can be killed, how players' treatment of NPCs affects their success, and how the design of a level or quest privileges particular strategies for completing it. 18 A game embodies norms of appropriate violence based on how violence is afforded by the structure of the game (whether enemies can be avoided, how they can be dealt with, what kinds of items one can acquire and how frequently, etc.). Christopher Bartel gives a relevant example from Grand Theft Auto IV, in which the player is forced to shoot their way out of a bank robbery scenario by attacking the police (2015: p. 290). It is not possible to try to evade the police or succeed in the scenario in any other way.

Hence, the logic is in most cases intentional, meaning that certain player behavior is incentivized and rewarded in the game. But it could also be unintentional, such as when players find and exploit bugs that incentivize them to play in a way the developer did not intend nor expect.

<sup>&</sup>lt;sup>18</sup> Game designers have long recognized this and some have chosen, seemingly for moral reasons as well as aesthetic ones, to make the logic of a game virtuous. Richard Garriott has said this about his design choices for *Ultima IV: Quest of the Avatar*.

Miguel Sicart has argued that developers set the ethical boundaries of a game through the formal structure of the game (e.g., game rules) and the actions afforded to the player (e.g., game mechanics). As a result, games are "always ethically relevant systems, since they constrain the agency of an ethical being" (Sicart, 2009: p. 6). We extend this idea, holding that if a game can constrain players' behavior, then it can also *funnel* their behavior in particular directions—though the influence the game exerts may not reflect any intention on the part of the designer. For example, in Grand Theft Auto: Vice City the player can have sex with a prostitute in order to temporarily increase their maximum health. This is not a necessary feature, since the success of a playthrough in Vice City is not dependent on the player's ability to buy sex. However, it represents a decision by the game designers which codes this act as 'good' by increasing the player's max health.

If a game can express and encourage certain morally problematic attitudes and behaviors, it can also legitimate those attitudes and behaviors. Just as "games threaten us with a fantasy of moral clarity" (Nguyen, 2020: p. 21), some ways of playing VVGs and the attitudes expressed by doing so may extend beyond the game. In one of the main missions of GTA V, titled "By the book", the player is forced to torture an NPC in order to progress in the main story. The player can only achieve a "gold rank" on the mission if they waterboard, electrocute, and pull out the teeth of the NPC without killing him. Not only does the logic of this specific mission express and encourage certain attitudes towards torture. It may also legitimate the practice by presenting it as a viable means to an end or a "necessary evil".

One might share our concern about how the internal logic of video games may legitimate certain attitudes and norms, but deny that violent content is a serious problem. Nguyen agrees that games can exert a subtle and malign influence on our values, but claims to be "more worried about games breeding Wall Street profiteers than...about their breeding serial killers" (2020: p. 190). 19 He gives two reasons for this. First, he finds plausible Young's suggestion that fictional game events tend not to be exported to players' real lives. This would presumably include a game's norms of appropriate violence. Second, he is more concerned that some games—especially those that result from gamifying activities like exercise, academic performance, etc.—will seduce players with a misleading but attractive "value clarity" (2020: Chap. 9). In brief, Nguyen argues that part of the attraction of games is their clear and simple values complete the quest, get the high score, kill your enemies but that, unlike fictional game events, this simplicity can infiltrate players' real world thinking in a problematic way. In particular, it can cause them (a) to view the real world through the lens of simplified values, (b) to be drawn to simplified values over the more complex values that are needed to navigate our messy moral lives, and (c) to "lose facility and readiness with ... subtler value concepts" (2020: p. 214). On this view, it's unlikely that we'll come to value violence of the sort we experience in games, and more likely that we'll embrace simplified and gamified versions of our ordinary values, whether moral or non-moral.

However, we think Nguyen, like Patridge, fails to recognize how his reasoning might ground a legitimate worry about video game violence. The ILA suggests that violent content might be problematic precisely in the ways he thinks values might be undermined. Admittedly, lots of video game violence is unlikely to influence our values or norms simply because it is easily set aside when one stops playing. There is little chance that my in-game goal of winning a martial arts tournament while brutalizing and humiliating my opponents will influence my actual behavior or even instrumentalize my attitudes toward martial arts competition. However, the ILA is concerned precisely about in-game norms that appear innocuous and are accepted without reflection. There is no reason to think that violence norms are not subject to the same seductions of clarity as other values. Moreover, even if some violence norms are unlikely to be applied in the real world, an internal logic that expresses or legitimates those norms is still morally objectionable (e.g., Postal 2 or "By the Book" in GTAV).

Let us address some potential worries about the ILA. First, one might reply that the logic of a VVG need only fit its content. If one is playing a war game and one's avatar is a soldier, it makes sense that most of the NPCs one encounters are fitting targets of violence. This would undermine the criticisms of games such as Sniper Elite or Wolfenstein. Moreover, protecting oneself from enemy combatants is plausibly a matter of self-defense, which can permit lethal violence. This would render games like Doom or Fallout 4 unobjectionable. Similar points could be made about other genres of VVGs. Thus, it may be that the violence norms of many VVGs are roughly consistent with common sense morality. The ILA can accommodate this intuition, while still allowing that some VVGs are morally objectionable and, in those cases, explaining why.

Second, one might think that, while developers ought to design games whose logics meet some moral criteria, those criteria do not include eliminating or even minimizing violence. Some would claim, for example, that developers aren't required to create a morally optimific logic that encourages players to, say, maximize the total well-being of other characters. Indeed, many would insist that the logic of a VVG can permissibly be much worse than the actual logic of our society, just as action films implicitly permit much more



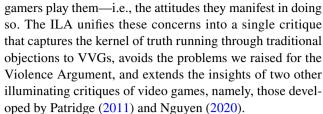
<sup>&</sup>lt;sup>19</sup> Nguyen's topic is games in general, but his claims are meant to apply as much to video games as other types.

**52** Page 10 of 12 A. Andersson, P.-E. Milam

destruction of public and private property for the sake of catching criminals than is permitted by actual societies (see, e.g., *Bad Boys* or any movie in the Marvel Comics Universe).<sup>20</sup> This isn't obviously right, though, and we would suggest that a game's logic of appropriate violence should not be excessively cruel or indifferent to human suffering and that, sometimes, it should even improve on the logic of appropriate violence prevalent in our actual society.<sup>21</sup>

One might object that the ILA does not pick out VVGs as distinctively bad or worse than other innocuous or tolerable video games or other media. This, however, is only partially true. It's true that the ILA does not distinguish between games that have similar logics. As such, it would not necessarily be better to play Chex Quest than Doom, since zorching flemoids and shooting demons is motivated by a concern for one's own survival in both cases. This also helps explain why games like Postal 2 and GTA are more appropriate targets of criticism than, say, Last of Us II (Goerger, 2017: p. 101). While Last of Us II is much more graphic and gorier in its violent depictions, that violence is fitting in a way that the violence of *Postal 2* is not.<sup>22</sup> Nor would it be worse to play violent video games than to watch action movies in which innocent bystanders are viewed as acceptable collateral damage. The ILA identifies a property found in some VVGs (and some movies, board games, etc.) and explains why it is inappropriate.

For all of these reasons, we think the ILA provides a plausible framework for critiquing VVGs. What emerges from the above discussion is a substantive and unified account of video game ethics. It explains how violent games can be open to similar criticisms as racist and misogynistic games. At the same time, it acknowledges that one might worry, not just about the violent content of such games, but about how



The core of our critique consists of four claims. First, a game's content can be morally objectionable and violence is one, but not the only, kind of objectionable content. This is the lesson we learned from assessing real and imagined games with racist or misogynistic content and extending the reasoning underlying critiques of such games to a critique of violence. Second, the attitudes that a gamer expresses or enacts in playing a game can be morally objectionable. Sadism is one, but not the only, such attitude. Just as misogyny is not limited to the explicit, endorsed hatred of women as a group (Manne, 2017), sadism does not exhaust the objectionable attitudes one can have toward violence and the suffering of others. However, condemning such attitudes toward violence presupposes an objection to the violence itself. Third, while objectionable attitudes can arise on their own, games can express or encourage morally objectionable attitudes and gameplay in the same way that they shape other aspects of play. This does not mean that all players of VVGs will manifest the attitudes and behaviors encouraged by a game's norms of appropriate violence, but it is a reasonable worry in light of the influence that the logic of a game exerts.<sup>23</sup> This is the lesson of the ILA. The most obvious examples of this are games in which the plot of the game requires actions that express or encourage objectionable attitudes (e.g. Custer's Revenge or Battle Raper). However, other games may encourage or shape players' attitudes in more subtle ways-e.g. by normalizing violence, exploitation, and racism. Fourth, if these three points are correct, then our critique is not limited to VVGs, or even to video games. Gamers can manifest their sadistic, misogynistic, racist, and other attitudes in non-violent video games (e.g., The Sims or Civilization), board games (e.g., Puerto Rico or Andean Abyss) and tabletop RPGs (e.g. Dungeons and Dragons), or any other kind of game. Moreover, any entertainment medium can, through its internal logic, express or encourage such attitudes. This means that our critique can embrace its generalizability in a way that was unavailable to the Violence Argument. On our account, the source of concern is neither violence per se nor its potential realism, interactivity, or immersiveness, but rather the logic of the game. Non-violent games and games that are minimally realistic, interactive, and immersive can have objectionable



<sup>&</sup>lt;sup>20</sup> At the same time, some criticisms of the criminal justice 'logic' of action films seems both reasonable and overdue. Hollywood's cavalier depiction of police brutality is receiving more scrutiny as protests against actual police violence received widespread attention and support. Depictions of rape in film have received similar critiques, with critics arguing that these scenes are often gratuitous or voyeuristic (Wilson, 2017).

Notice that the ILA does not merely imply that the most gratuitous violence is the most objectionable. The gratuitousness of a violent act may diverge from how strongly the act supports an objectionable norm. For example, a film in which casual physical violence is normalized can seem much more insidious than a gory slasher flick. A parallel point on objectionable comedy will help further elucidate this idea. Comedy should not indulge in facile jokes about sexual violence in prisons any more than it should indulge in facile jokes about rape generally. Many prison rape jokes legitimate the idea—seemingly widely held—that prisoners deserve whatever might happen to them in prison.

<sup>&</sup>lt;sup>22</sup> Last of Us II also depicts its violence in very ambiguous ways. It is not obviously portrayed as morally justified, just as humanly intelligible.

<sup>&</sup>lt;sup>23</sup> Jennifer Saul makes a similar point about the attitudes of those who watch pornography (2006: p. 58).

internal logics—e.g., by legitimating or glorifying imperialism, exploitation, or indifference toward the suffering of others. Moreover, the ILA explains why a game might warrant moral praise. For example, we might praise a game which logic expresses acceptance of a wrongly vilified group, encourages reflection on the complexity of a moral dilemma, or simply requires that one work through a problem real people might face.<sup>24</sup>

Together these claims constitute a unified but limited critique of VVGs that avoids the implausible implications of some existing objections (e.g., that VVGs are distinctively bad) while explaining, substantiating, and extending the plausible claims of other critics. Our view suggests that how bad a game is depends on the attitudes, behaviors, and norms that its internal logic expresses, encourages, and legitimates. A game developer can be criticized for the internal logic of their game and a gamer can be criticized both for the attitude they bring to a game and for their acceptance, whether implicit or explicit, of a game's internal logic. This account also plausibly implies that some games are morally worse than others and that their badness does not necessarily correlate with how violent they are or how realistic that violence is.

Before concluding, let us emphasize that its internal logic is one, but not the only, aspect of a game open to evaluation and criticism. Games are also, and perhaps foremost, aesthetic objects that can be beautiful, compelling, funny, disgusting, overwhelming, or just boring. The internal logic is that part of a game that tells the player how to progress and succeed within the game world. Indeed, this is what makes this kind of art object a *game* rather than a passive aesthetic experience (perhaps the "walking simulator" genre falls somewhere in between these categories). But it does not determine, by itself, a game's value.

### **Conclusion**

We have argued that common moral objections to VVGs are unsuccessful, but that a plausible critique can be developed that captures the insights of these objections while avoiding their pitfalls. The upshot of our account is that it can be morally wrong to design and play some VVGs, but that violence per se—no matter how realistic or immersive—is less likely to be problematic than the internal logic of a game and the attitudes it expresses and encourages.

In making our argument, we have not said which are the worst offenders, how bad they are, or what kind of response to their moral failings is warranted. These are tasks for another paper, but also for gamers, activists, regulators, and policy makers who want to know which games to play, which to educate the public about, and which to restrict access to. Some philosophers have developed frameworks that may provide guidance in answering these questions (Liberman, 2019), but there is much more to be said.

Funding Open access funding provided by University of Gothenburg.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <a href="http://creativecommons.org/licenses/by/4.0/">http://creativecommons.org/licenses/by/4.0/</a>.

# References

- Ali, R. (2015). A new solution to the gamer's dilemma. *Ethics and Information Technology*, 17, 267–274.
- Ali, R. (2023). The values of the virtual. *Journal of Applied Philoso-phy*, 40(2), 231–245.
- Anderson, C. A., et al. (2010). Violent video game effects on aggression, empathy, and prosocial behavior in eastern and western cultures: A meta-analytic review. *Psychological Bulletin*, *136*(2), 151–173.
- Bartel, C. (2015). Free will and moral responsibility in video games. *Ethics and Information Technology*, 17, 285–293.
- Bartholow, B., Sestir, M. A., & Davis, E. B. (2005). Correlates and consequences of exposure to video game violence: Hostile personality, empathy, and aggressive behavior. *Personality and Social Psychology Bulletin*, 31(11), 1573–1586.
- Bushman, B. J. (2018). Boom, headshot! Violent first-person shooter (FPS) video games that reward headshots train individuals to aim for the head when shooting a realistic firearm. Aggressive Behavior, 45(1), 33–41.
- Bushman, B. J., & Anderson, C. A. (2009). Comfortably numb: Desensitizing effects of violent media on helping others. *Psychological Science*, 20(3), 273–277.
- Campbell, C. (2018). A brief history of blaming video games for mass murder. *Polygon*. Retrieved March 10, 2018, from https://www. polygon.com/2018/3/10/17101232/a-brief-history-of-video-game-violence-blame.
- Carnagey, N. L., Anderson, C. A., & Bushman, B. J. (2007). The effect of video game violence on physiological desensitization to real-life violence. *Journal of Experimental Psychology*, 43(3), 489–496.
- Chalmers, D. (2017). The virtual and the real. *Disputatio*, 9(46), 309–352.
- Deselms, J. L., & Altman, J. D. (2003). Immediate and prolonged effects of videogame violence. *Journal of Applied Social Psychology*, 33(8), 1553–1563.



<sup>&</sup>lt;sup>24</sup> A good example of this is *This War of Mine* where the player controls a group of civilians that are trapped in a war-torn country. The player is constantly prompted to make choices between the survival of the group and helping other civilians in need, forcing the player to reflect on the effects and ethics of war.

**52** Page 12 of 12 A. Andersson, P.-E. Milam

- Dowsett, A., & Jackson, M. (2019). The effect of violence and competition within video games on aggression. *Computers in Human Behavior*, 99, 22–27.
- Engelhardt, C. R., et al. (2011). This is your brain on violent video games: Neural desensitization to violence predicts increased aggression following video game exposure. *Journal of Experimental Psychology*, 47(5), 1033–1036.
- Farrar, K. M., et al. (2017). Ready, aim, fire! Violent video game play and gun controller use: Effects on behavioral aggression and social norms concerning violence. *Communication Studies*, 68(4), 369–384.
- Ferguson, C. J. (2007). The good, the bad and the ugly: A meta-analytic review of positive and negative effects of violent video games. *Psychiatric Quarterly*, 78(4), 309–316.
- Ferguson, C. J., & Kilburn, J. (2009). The public health risks of media violence: A meta-analytic review. The Journal of Pediatrics, 154(5), 759–763.
- Ferguson, C. J., & Kilburn, J. (2010). Much ado about nothing: The misestimation and overinterpretation of violent video game effects in eastern and western nations: Comments on Anderson et al. (2010). *Psychological Bulletin*, *136*(2), 174–178.
- Funk, J. B., et al. (2004). Violence exposure in real-life, video games, television, movies, and the internet: Is there desensitization? *Journal of Adolescence*, 27(1), 23–39.
- Gentile, D. A., et al. (2009). The effects of prosocial video games on prosocial behaviors: International evidence from correlational, longitudinal, and experimental studies. *Personality and Social Psychology Bulletin*, 35(6), 752–763.
- Goerger, M. (2017). Value, violence, and the ethics of gaming. *Ethics and Information Technology*, 19(2), 95–105.
- Grossman, D., & DeGaetano, G. (1999). Stop teaching our kids to kill: A call to action against TV, movie & video game violence. Crown.
- Hall, R. C., Day, T., & Hall, R. C. W. (2011). A plea for caution: Violent video games, the supreme court and the role of science. *Mayo Clinic Proceedings*, 86(4), 315–321.
- Hilgard, J., Engelhardt, C. R., & Rouder, J. N. (2017). Overstated evidence for short-term effects of violent games on affect and behavior: A reanalysis of Anderson et al. (2010). *Psychological Bulletin*, 143(7), 757–774.
- Kepes, S., Bushman, B. J., & Anderson, C. A. (2017). Violent video game effects remain a societal concern: Reply to Hilgard, Engelhardt and Rouder. *Psychological Bulletin*, 143(7), 775–782.
- Leonard, D. (2007). Unsettling the military entertainment complex: Video games and pedagogy of peace. SIMILE: Studies in Media & Information Literacy Education, 4(4), 1–8.
- Liberman, A. (2019). But I voted for him for other reasons! moral responsibility and the doctrine of double endorsement. *Oxford Studies in Normative Ethics*, 9, 138.
- Limelight (2020). The state of online gaming–2020. *Limelight Networks* Technical report. https://www.limelight.com/resources/white-paper/state-of-online-gaming-2020/.
- Lin, J. H. (2013). Do video games exert stronger effects on aggression than film? The role of media interactivity and identification on the association of violent content and aggressive outcomes. *Computers in Human Behavior*, 29, 535–543.
- Madigan, J. (2016). Getting gamers: The psychology of video games and their impact on the people who play them. Rowman & Littlefield.

- Manne, K. (2017). Down Girl: The logic of Misogyny. Oxford UP.Narula, H. (2019). A billion new players are set to transform the video game industry. Wired. Retrieved December 29, 2019, from https://www.wired.co.uk/article/worldwide-gamers-billion-players.
- Nguyen, C. T. (2019). Games and the art of agency. *Philosophical Review*, 128(4), 423–462.
- Nguyen, C. T. (2020). Games: Agency as Art. Oxford UP.
- Patridge, S. L. (2011). The incorrigible social meaning of video game imagery. *Ethics and Information Technology*, *13*(4), 303–312.
- Przybylski, A. K., et al. (2014). Competence impeding electronic games and players' aggressive feelings, thoughts, and behaviors. *Journal of Personality and Social Psychology*, 106(3), 441–457.
- Ramirez, E. J. (2019). Ecological and ethical issues in virtual reality research: A call for increased scrutiny. *Philosophical Psychology*, 32(2), 211–233.
- Saul, J. (2006). On treating things as people: Objectification, pornography, and the history of the vibrator. *Hypatia*, 21(2), 45–61.
- Schellenberg, S. (2013). Belief and desire in imagination and immersion. *Journal of Philosophy*, 110(9), 497–517.
- Schmierbach, M. (2010). Killing spree: Exploring the connection between competitive game play and aggressive cognition. Communication Research, 37(2), 256–274.
- Sestir, M. A., & Bartholow, B. D. (2010). Violent and nonviolent video games produce opposing effects on aggressive and prosocial outcomes. *Journal of Experimental Psychology*, 46(6), 934–942.
- Shao, R., & Wang, Y. (2019). The relation of violent video game to adolescent aggression: An examination of moderated mediation effect. Frontiers in Psychology, 10, 384.
- Sicart, M. (2009). Beyond choices: A typology of ethical computer game designs. *International Journal of Gaming and Computer-Mediated Simulation*, 1(3), 1–13.
- Singer, P. (2007). Video crime peril vs. virtual pedophilia. *Japan Times*. Retrieved July 22, 2007, from https://www.japantimes.co.jp/opinion/2007/07/22/commentary/world-commentary/video-crime-peril-vs-virtual-pedophilia/.
- Tillson, J. (2018). Is it distinctively wrong to simulate doing wrong? Ethics and Information Technology, 20(3), 205–217.
- Waddington, D. I. (2007). Locating the wrongness in ultra-violent video games. *Ethics and Information Technology*, *9*(2), 121–128.
- Wilson, L. (2017). The Long, Problematic History of Rape Scenes in Film. *The Playlist*. Retrieved October 26, 2017, from https:// theplaylist.net/problematic-history-rape-scenes-film-20171026/.
- Wonderly, M. (2008). A Humean approach to assessing the moral significance of ultra-violent video games. *Ethics and Information Technology*, *10*(1), 1–10.
- Young, G. (2015). Violent video games and morality: A meta-ethical approach. *Ethics and Information Technology*, 17(4), 311–321.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

