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Matthew Stoiber 11/28/2014

“It’s Just a Game”: An Empirical and Ethical Analysis of Virtual Actions

by

Matthew Stoiber

Dr. Marta Jimenez
Adviser

Department of Philosophy

Dr. Marta Jimenez

Adviser

Dr. Thomas R. Flynn

Committee Member

Dr. John Snarey

Committee Member

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Dr. Marta Jimenez

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An abstract of
a thesis submitted to the Faculty of Emory College of Arts and Sciences
of Emory University in partial fulfillment
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Bachelor of Arts with Honors

Department of Philosophy

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Abstract

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This thesis examines the significance of virtual actions from empirical and ethical standpoints, and considers the implications of these findings on legal policy. First, four key characteristics of virtual scenes that contribute to the moral significance of virtual spaces are identified: violence, verisimilitude, perspective, and participation. Each of these factors plays a part in determining the degree to which virtual actions affect individuals. Participation is particularly relevant in its allowance for player immersion in the virtual world and role in distinguishing video games and virtual reality systems from other electronic media. Next, empirical studies that link engagement with violent video games to negative effects on players are evaluated and defended from criticism, revealing that violent video games have a subtle, habit-forming effect on players. The trends in research suggest that future virtual media will produce even more substantial results. Within this discussion on empirical research, the Supreme Court's 2011 response to a law banning violent video games is criticized for its dismissal of the differences between video games and other media and failure to recognize the importance of empirical research, especially in light of new virtual reality technology. The thesis concludes with a consideration of virtual actions through the lenses of various ethical theories, finding virtue ethics to be the most adequate approach to evaluating virtual actions. Virtue ethics complements the empirical findings that suggest that violent video games result in gradual damage to players, and adds the idea that such virtual experiences can also harm an individual's practical reason. Together, these empirical and ethical findings call for an imminent legal response.

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Acknowledgements

I want to thank Dr. Marta Jimenez for her support and advisement not only during the thesis writing process but also throughout the past three years in my pursuit of philosophy. If I had not taken her Ancient Greek & Medieval Philosophy class freshman year, then I may not have developed an interest in and pursued philosophy to the same degree. I also want to thank my defense committee members, Dr. Thomas R. Flynn and Dr. John Snarey. It says a lot about a person to agree to be a part of a thesis process despite having many other commitments. Their generosity in this regard is greatly appreciated. Lastly, I want to thank my family for their continuous support in all of my academic and life endeavors.

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Introduction

Gaming has been a hobby of mine since before I can remember—literally. Family pictures show me playing *NHL 98* for Sony's Playstation console at the age of four. This first gaming experience involved playing hockey as players like Patrick Roy, now considered by many to be the greatest goaltender of all time, and Peter Forsberg, who graced the cover of the 1997 game. As the years went by, I continued to play various video games, the most memorable being *Banjo-Kazooie*, *Spyro*, and *Crash Team Racing*, which involved playing as a bear, dragon, and bandicoot, respectively. It was not until 2001 with the release of *Halo: Combat Evolved* that my interest in gaming spiked. *Halo: CE*, one of the first widely popular first-person shooter games, involved fighting an alien race on a mysterious, artificial planet. This game signaled an important shift in my gaming experience, as it involved first-person combat, violence, and gore, factors contributing to its M rating. This rating, short for "Mature," serves as a warning to consumers (mostly parents) about the game's content. The Entertainment Software Rating Board (ESRB) is the body that assigns ratings to video games based on their content, and the ratings range from C, "Early Childhood," to A, "Adults Only." *Halo*'s M rating carries with it the recommendation that only those seventeen and up should play it ("ESRB Ratings Guide" 2014).

It goes without saying that my parents were reluctant to let me play games with M ratings at such a young age, and they restricted my access to such games for a number of years. As *Halo: CE* grew in popularity, though, I was eventually allowed to play it; *Halo: CE* became *the* game to play in middle school, and I played it with my older brother and his friends whenever possible. In subsequent years, a number of popular first-person shooter games emerged, most notably the *Call of Duty* series. In 2009, the game developer Infinity Ward released *Call of Duty: Modern Warfare 2*, a game that largely influenced my decision to write this thesis. A particular

"mission" within the game's single-player mode, or campaign, involves acting as an American spy and attempting to earn the trust of a prominent Russian leader named Vladimir Makarov, who serves as the game's primary antagonist. The mission begins with you (as the American spy), Makarov, and several Russian bodyguards riding an elevator while armed with bulletproof vests and light machine guns. When the elevator doors open, you learn that you are in an airport near a security checkpoint. Shortly after you exit the elevator, Makarov and his bodyguards open fire on the citizens in the security line. As an American spy working to gain Makarov's trust, you are expected to participate in the massacre. After killing the initial group of people, you proceed to march through the airport, shooting everyone who attempts to escape.

Through all my years of gaming, I never felt like I did marching through that airport. I was sixteen at the time, and at that point I had already gotten used to the violence associated with war games. But this airport scene was different. Not only was the scene disturbing, but also it caused me to feel somewhat shameful for participating. I was used to fighting other soldiers in a war setting, but never had I participated in a virtual massacre of innocent people in an airport. After completing the scene, I tried to make sense of my feelings. Since I was playing a fictional game, why did I feel uneasy? Did others have a similar reaction to the massacre? Was I right or wrong in my participation in the massacre, or did my action have no moral value? I remained curious about these questions for the five years that followed until my junior year in college, when I heard about the opportunity to write a thesis. I thought about my experience in the airport and began my investigation. This thesis is my attempt to understand what occurred that day in the airport.

In Chapter 1, my examination begins by breaking down the airport scene and considering the factors relevant to the moral experience. Four factors that characterize the airport scene—violence, verisimilitude, perspective, and participation—are identified, and each is examined in turn. The analysis reveals that these factors change as technology evolves, and that a combination of these factors works to promote the greatest chance of a player having a moral experience. Participation is the defining factor when it comes to distinguishing video games and virtual reality from other forms of media. Chapter 2 considers empirical research involving the effects of violent video games on aggression, real-world violence, and other factors, and addresses several criticisms of these studies. All things considered, these studies suggest that violent video games increase aggression, desensitize players to violence, cause physiological arousal, and more. These effects are subtle yet important, as they can lead to the formation of habits, which could result in people committing more harmful and less caring actions. Also, this chapter evaluates the Supreme Court's decision in *Brown v. Entertainment Merchants Association*, which involves assessing whether violent video games call for an exception to the free exercise protection guaranteed by the First Amendment. Though the Court's decision may be appropriate for the time (2011), the pace of technological advancement and observed trends in empirical studies suggest that the decision may already be criticized. Chapter 3 turns toward ethics, providing an analysis of violent virtual actions, like the airport massacre, through the lens of four prominent ethical theories (deontology, utilitarianism, intuitionism, virtue ethics). Though each of these theories has something to contribute to the discussion of virtual ethics as a whole, virtue ethics as articulated by Aristotle is found to provide the best way to evaluate virtual actions. His notion of habituation proves essential in understanding the way in which participation in violent virtual experiences affects players.

Chapter 1: Modes of Media

The first step in understanding the airport scene is to dissect its peculiarities. In other words, what makes the airport scene different from other gaming experiences? A few key characteristics stand out, which I refer to as violence, verisimilitude, perspective, and participation. Independently, each of these characteristics may not be sufficient to produce moral sentiment in a player, but when two or more are combined, then the possibility for a moral response increases. It is important to keep in mind that these factors combine to form a virtual scene much like ingredients are balanced to produce a perfect cake. If one of these ingredients is out of balance, then the virtual experience may not have moral significance. Too much violence and too little participation, for example, may not inspire a moral reaction in a player. One of the primary goals of this chapter is to discover in what way each of these factors contributes to the balance of a "moral virtual scene." This chapter examines each of the airport scene's characteristics thoroughly and concludes with a discussion on virtual reality. The examination reveals that violence, verisimilitude, and perspective contribute equally to making a virtual scene morally significant, and that each of these factors varies in degree. Participation is the most significant factor in creating a morally significant virtual experience, and it distinguishes video games and virtual reality from other forms of media. All of these factors work to inspire in the player a sense of immersion into the game, which can result in moral feedback. Virtual reality, even more so than video games, exploits these four factors to allow the player to become fully immersed in the virtual realm.

Violence

The most flagrant characteristic of the airport scene is its depiction of violence. Philosophically, the notion of violence is complicated, but for the sake of my discussion, I will

use the ESRB definition of violence, which refers to "scenes involving aggressive conflict" and involves both humans and non-humans ("ESRB Ratings Guide" 2014). Since this discussion revolves around video games, and the ESRB rates all video games games with this definition in mind, I find it useful to use ESRB's definition throughout my analysis. This definition is not overly restrictive, though, and it allows for valuable discussion on how violence differs in degree in various forms of media, and how different factors such as blood and gore, and different acts like capturing and murdering, affect the estimation of violence within a game. Players are compelled to act in such a way that they commit virtual murder. Along with the act of murder, the scene includes blood and cruelty. During the massacre, some victims are injured and attempt to crawl away. Though these victims are defenseless, they are murdered (or "finished off") nonetheless. Thus, this scene does not seem to present mere violence, but *senseless* violence. Violence, like the other characteristics, can be placed on a spectrum. It is not accurate to simply say that a game contains violence, as there are varying degrees of violence in different games. Consider the violence in *Frogger,* Konami's 1981 arcade game that involves crossing roads and rivers as Frogger the frog. If Frogger fails in his objective, he gets run over by a car or drowns in a river. The splattering or drowning of a frog does not intuitively seem violent, or at least it is violent to a minimal degree. Humans witness such "animal tragedies" on a daily basis, as cars hit birds, rodents, deer, etc. regularly. Though animal death is violent to the extent that it depicts the death of a living organism, it is a rather benign form of violence. Even more benign is the age-old game of chess. Built into this board game is the action of "capturing" other pieces, and language of attacking, defending, and conceding is prevalent. The violence in chess is not the same as the violence in *Frogger*, and the violence in these two games is far different than that in games like *Call of Duty*.

What determines precisely how violent a game is depends in large part on what figures and actions the game involves, as well as other details such as the inclusion of blood. Consider how the three aforementioned games, chess, *Frogger*, and *Call of Duty*, differ in these respects. Looking at the figures involved, chess is a board game that uses game pieces; the "casualties" that result in chess involve these pieces. Compare these pieces to *Frogger*, which involves a frog, and *Call of Duty*, which involves soldiers. Though each of these figures experiences "death" in some way, the soldiers make for the most violent deaths because of their human status. Humans appear to possess a human bias, or self-concern, when it comes to evaluating how violent death is. The death of a chess piece is considered an abstract death, and the death of an animal, though less removed from human deaths, is considered similarly abstract. It is not entirely accurate to say that humans find the death of chess figures and/or animals non-violent, but there is a significant difference as to how they evaluate these deaths in comparison to those of humans. The *Call of Duty* series involves the deaths of millions of soldiers, as it depicts the two World Wars and several other wars. Since millions of soldiers die in these games, one will consider them more violent than chess and *Frogger*. Also, in thinking about how the quantity of deaths affects the evaluation of violence, one has to take into account the actions involved in the game.

The actions involved in a game are the biggest factor in determining a game's level of violence. Consider the implications of the difference in actions in chess, *Frogger*, and *Call of Duty*. While each of these games is violent in its inclusion of a sort of death, the actions that bring about this death differ substantially. In chess, the act of capturing an opponent's piece involves merely replacing one's own piece with the captured piece. Numerous captures take place throughout a match, and each is identical to the others. In *Frogger*, the player is allowed three attempts to cross the road or the game ends. Each failed attempt results in the death of

Frogger. These deaths are consequences of the player's mistakes (i.e. not directing Frogger appropriately), and each falls into one of two categories: drowning or automotive death. The actions that bring about death in *Call of Duty* include shooting, stabbing, fragging, ramming, exploding, and other forms of killing in war. These acts of war are far graver than the capturing of chess pieces and drowning of frogs, and they are *prima facie* violent. Indeed, these acts are illegal outside of the context of war. To fully understand the relevance of these actions in evaluating a game's level of violence, it is important to examine these actions more closely.

We see from comparing these three games that violent actions differ to a great degree, but why do the differences in these actions matter? Imagine a game that involves the slaughtering of thousands of livestock. Now imagine a game that involves murdering a family of four in their residence. When assessing how violent these acts are, we consider both the victims and actions involved. Many would find the game involving a family murder to be more violent than the game that involves killing thousands of livestock. This is because humans extend ethical consideration to other humans, in large part due to their cognitive abilities, while they often withhold this consideration from livestock, which does not possess the same cognitive capabilities. Ethically speaking, then, the lives of four humans are often held to be more valuable than thousands of livestock. If we replace livestock with chimpanzees, elephants, and dolphins, animals considered to possess higher cognitive abilities, then perhaps humans would be more ethically sensitive. The evaluation of how violent a game is, therefore, correlates well with how far it crosses ethical bounds.

Aside from differences in victims of violence, different actions are assessed in different ways, which works to distinguish acts like involuntary manslaughter from first-degree murder, for example. Consider the act of shooting someone. If a soldier shoots an enemy soldier, the

scene is undeniably violent and it brings up ethical questions. Was the enemy soldier armed? Was the soldier attempting to surrender? Within this single action, there are a number of different factors to consider before making an ethical judgment. To take an example that falls immediately into ethical trouble, consider the killing of unarmed civilians. Humans object to such killings because they possess a strong ethical sense that murdering innocent people is wrong. Returning to the airport scene in *Call of Duty: Modern Warfare 2*, the senseless killings of Makarov and crew would be considered to be flagrant examples of ethically wrong acts. Clearly, these killings pull strongly on the ethical fibers of human beings. The scene involves killing hundreds of innocent civilians for the sole purpose of testing the American spy's loyalty and implicating the U.S. in the massacre. Due to the fact that the most violent acts tend to inspire the strongest ethical objections, it is not entirely shocking that I reacted how I did to the airport scene. But once again, the violence alone is not enough to prompt an ethical reaction, for to simple observe a murder in low quality graphics, for-example leaves the viewer detached and minimally affected. Violence alone cannot prompt player engagement; it requires other factors to make the violence more relevant and immediate to the player. One of these other characteristics is what I refer to as verisimilitude, or how realistic the virtual world seems.

Verisimilitude

The extent to which the virtual experience maps onto the experience of real life is what I refer to as verisimilitude, which I break into two primary components: plausibility and realism. These two are related to some degree, but they are also distinct when it comes to the virtual world. They are similar in that they both generally measure the extent to which the virtual world reflects the real world. They are different in that they answer different questions: plausibility considers whether or not a situation in the virtual world could happen, while realism asks

whether the particularities in the virtual world reflect those in the real world. When it comes to assessing the ethical value of the airport scene, verisimilitude is key, since the degree of realism within a game aids in the effort to engage the player, and the engagement of a player plays a direct role in determining whether that player experiences moral feedback.

When assessing a game's plausibility, it is necessary to examine specific aspects, as plausibility can fluctuate wildly within a single game and these fluctuations are relevant in determining the degree of plausibility's influence on the moral significance of the virtual scene. For example, a player can plausibly walk around a city and disturb traffic. Within that same game, though, it is not plausible that the player can jump fifteen feet in the air unassisted. As with violence, plausibility tends to vary by degree, and most games involve a blend of plausibility and implausibility. Developers usually vary the balance of plausibility in order to craft the games to their desires. Perhaps the game with the most plausibility at this time is Turn 10 Studios' *Forza Motorsport 5*, which solely involves racing. The developers work to make the game completely plausible and to have the virtual racing experiences map onto real racing experiences as closely as possible. In *Forza*, applying the brakes at an inopportune time can lead to a crash, while other racing games, like *Need for Speed*, are more forgiving and would allow the car to recover. Plausibility is one of *Forza*'s selling points, and many other developers adopt a similar strategy. In shooter games like the *Call of Duty* series, increasing plausibility is the trend. The entire airport scene is an example of this attention to plausibility. The premise of the scene, the idea that gunmen enter an airport to commit a massacre, is plausible given a security breach of some sort. Also, all of the details of the massacre are plausible. The game as a whole is fairly plausible, and the developers, like Turn 10 Studios in *Forza*, attempt to eliminate all instances of implausibility.

Developers are catching on to the fact that verisimilitude has an allure to gamers. Players do not merely want to participate in the American Revolutionary War, for example; in their participation, they desire an experience that accurately represents what it would be like to fight in the Battle of Lexington and Concord. Such virtual accuracy falls in to the realism aspect of verisimilitude. Not only are the player's actions in the war plausible, but also the game is designed in such a way that they seem real. In a virtual world, realism refers to the extent to which the details of the game reflect real life. In other words, it is attention to detail. The most realistic large-scale game available today is Rockstar Games' *Grand Theft Auto V*. This game is an open-world game, meaning it allows players to explore the virtual world freely. This particular game comprises full-scale cities and surrounding landscapes to explore, and everything is designed to scale. Rockstar Games is the gold standard in the video game industry when it comes to making its games realistic. To understand just how realistic it is, consider the following details pointed out by IGN Entertainment: when players enter a body of water, their clothes become wet only up to the point the water touched; when speaking on the phone and driving, players cannot adjust the car's headlights because their hands are occupied; players' in-game phones lose their GPS signals when in tunnels; and power lines sway when it is windy (IGN Entertainment 2013). These details are just a few examples of the realism of *GTA V*.

As a whole, verisimilitude carries a large influence in determining whether a particular virtual scene can prompt any moral feelings. Imagine if the airport scene were experienced in 240p definition (low-quality graphics), the citizens were stick figures, and the guns shot marshmallows. With each additional unrealistic element, the scene seems to lose its shock value. The key to the airport scene's ability to inspire moral uncertainty is the fact that it depicts a realistic airport massacre. Citizens are designed to look real, there is a lot of blood, and the

graphics are fairly sharp. There are also a number of details in the scene that speak to its realism. As the gunmen walk through the metal detectors, the detectors beep. Also, a shot to the foot does not necessarily kill a person; instead, it incapacitates them, causing them to crawl on the ground. If luggage is shot, then its contents will spill out onto the floor. What makes the scene so real, though, is the sense of panic created when the initial shots are fired. There is a constant background of screams and a steady flow of people trying to escape the gunmen. There are even law enforcement officers that attempt to stop the attack. The combination of these details makes the scene appear to be real, and this verisimilitude, when combined with violence, begins to create a virtual scene capable of provoking a meaningful moral response.

Perspective

A third noteworthy aspect of the airport scene is the fact that it is experienced through a first-person lens. The lens through which the game is experienced is what I refer to as perspective. Games differ in whether they allow for third-person, first-person, or both perspectives. The *Call of Duty* series is a staple in what is known as the FPS, or first-person shooter, genre. The first-person is popular in shooter games to allow for ADS, or "aim down sight." The ability to aim down the sights of various guns gives the game a far more realistic feel. It is as if the player actually has to handle the gun, line up the shot, and pull the trigger. This first-person realism differs greatly from the third-person, which takes away the ADS component. The first-person perspective is also more realistic because of the simple fact that humans experience the world through their own eyes. Sight is one of the most cherished senses, and it an essential part of the human experience. Incorporating a first-person perspective into a game, then, replicates the experience of daily life. Perspective contributes to a game's verisimilitude in that it allows for a more realistic virtual experience.

Perspective is also crucial in contributing to whether a virtual scene inspires moral sentiment. If the airport scene were experienced from a third-person perspective, then the player would see a group of gunmen committing the massacre. The player is not completely uninvolved, though, because someone still needs to move the character, aim, and pull the trigger. But something is lost with the third-person perspective. Even though players control the in-game characters to a certain extent, a disconnect remains between the character and the player. The third-person essentially moves the player into a quasi-bystander role. The first-person perspective, in contrast, forces the player to be present in the action. Not only does the player control the in-game character, but also the player *becomes* the in-game character. The player no longer spectates the massacre with minor participation. Instead, the player carries out the massacre in a way that would reflect real life participation in the event. This notion of participation is critical in understanding how, if at all, one can justifiably consider virtual actions morally relevant.

Participation

The importance of participation to the discussion of virtual ethics cannot, I think, be overstated. Participation, which I use to refer to the extent to which players influence the outcome of the virtual experience with which they engage, is the main driving force behind inquiry into this issue, and it will likely continue to be a focal point when discussing ethics in the virtual world for years to come. Participation is significant in that it distinguishes video games (and virtual reality) from other forms of media. When listening to a song, a person takes a passive role. Listeners cannot control what happens in the songs they listen to. Also, the extent to which listeners engage with songs is limited to singing along, nodding their heads, and thinking about the topic of the song. Similar passivity occurs in movies, another form of media.

Moviegoers do not influence the outcomes of movies, and the extent of their interaction is emotional involvement. What separates video games from music and movies is that players make decisions throughout the game that influence the game's outcome. In this way, video games require players to take active roles in the games.

The choices players are able to make in video games depend on the build of the particular game. Game developers create different limits to these choices depending on what type of game they want to create and the technology available to them. Consider, for instance, the limits of participation in the 1972 Atari Inc. arcade game *Pong,* which involves two players playing a game of virtual table tennis. Each player controls a "paddle" and moves it on a vertical plane. The game allows for no further participation and is perhaps one of the simplest forms of participation in video games. Nevertheless, *Pong* allows for participation in a way that music and media do not. The game cannot function without the player, while music and movies can function without a spectator. The participation in *Pong* is very restricted; the trend in recent years, though, is game developers' giving players more freedom within the game. Returning to the *Call of Duty* series, these war games feature a general storyline "prescribed" by its developers. Though players can make decisions as to how they progress the storyline, the end result is usually the same. In the airport scene in *Call of Duty: Modern Warfare 2*, players are forced to walk through the airport. They are not, however, forced to shoot civilians. Players can abstain from shooting and still progress beyond the "mission."

This idea of developer prescription vs. freedom is important in examining virtual choices like the one in the airport scene. When asked if it is "wrong" to murder people in the virtual world, many people do not take the question seriously. They say something like, "it's only a game" or "I know the game is not real, so yes, murder is alright." But what does the fact that

they do not have to murder innocent civilians in games say about the players who chose to do so? In the airport scene, players have sole discretion as to whether or not to pull the trigger. If developers force players to pull the trigger to progress in the game, then players' decision to shoot is not as suspect. Since *Call of Duty*, there have been a number of games that push the envelope in terms of player freedom. Some games, like *The Elder Scrolls* and *Fable* series, design their games around player choice. Throughout these games, players are able to choose benevolent, malicious, or apathetic responses to the obstacles they encounter throughout the storyline. Depending on the decisions made, the rest of the game changes and treats players as the sums of their decisions. The *Fable* series in particular emphasizes in-game moral development, allowing players to become either "good" or "bad" depending on the choices they make; the game even starts players off as children who develop into teens and then adults as the story progresses. As an example of a moral scenario, a player will encounter a thief robbing a family farm and have to choose to help or stop the thief. As one's in-game character develops, the other characters in the game will react to the player in a way that reflects the moral state of the player. In other words, people will run away from or refuse to serve a morally "bad" player, while they will flock around and aid a morally "good" player.

Of course, there are only a limited number of decisions to be made in the game and the developers necessarily fix the number of options in each dilemma. Thus, while players have the ability to choose to act in certain ways, they are not necessarily wholly making the decision themselves. They are forced to make a decision in order to progress in the game, and their options are limited. Games like the *Fable* series usually allow for around three to four different endings depending on the decisions made throughout the game. These endings can either be happy or grim. Some even have the main characters die in the end. More so than *Pong*, games

like *The Elder Scrolls* and *Fable* allow for players to choose to act in certain ways. While *Pong* allows for a "minimal freedom," *The Elder Scrolls* and *Fable* allow for what I shall call "limited freedom." The *Call of Duty* series and the airport scene in particular would fall under the "limited freedom" category. Indeed, developers require some decision to be made in order for the storyline to progress, but in the case of the airport scene no killing is necessary. However, developers require players to walk through the airport, otherwise players fail the mission. Limited freedom thus limits the degree to which a player can be affected by virtual actions. A game that allows for more options requires the player to do more in order to produce a violent result. If violent actions are prescribed, then the player may still be affected, but that player maintains awareness that it was not wholly their own choice to engage in the violent action. Limited freedom in no way exempts a player from being affected by the violent virtual actions, as there is still an element of choice involved. In the case of the airport scene, for example, the player could choose to not play the mission altogether, which would be a way to avoid being affected. As soon as the player decides to participate in the game, even if that game have limited freedom, then that player will be affected in some way by that game.

The "gold standard" for freedom in video games is the "open world" format. The term "open world" refers to games that allow players to freely explore the virtual world. Though players do not have complete freedom (i.e. they are bound by the parameters of the game), the freedom they do have is substantial. A consummate example of an open world game is Linden Research Inc.'s *Second Life*. This computer game's title does a fair job of explaining the game's objective, or lack thereof. The game has no "missions" to complete or story to progress through. The "story" in *Second Life* is what players make it. The freedom in this game cannot be understated, as almost every aspect of the real world is incorporated into the game. One might

even say that *Second Life* permits one to live more freely than one does in the real world. Players can dress how they want, talk with whomever they want, go anywhere they want, create any landscape they want, engage in any activity they want, choose whatever profession they want, etc. *Second Life* allows for all types of players, ranging from those who want to entertain themselves for a couple of hours to those who spend almost as much time in the game as they do in the real world.

Players of *Second Life* are in danger of becoming addicted to the game due to its offering them freedom and gratification that they may not be able to achieve in the real world. In 2013, a couple was arrested for neglecting their two-year-old daughter because they were playing *Second Life* too much (Farberov 2013). This couple was virtually married and had virtual occupations. The girl's mother, Elizabeth Pester, was so addicted to *Second Life* that she scheduled real-life appointments around her virtual occupation. The couple's daughter was sent to the hospital on multiple occasions due to being underweight and malnourished. Apparently, virtual weddings are quite common in the game, too. A blogger trying out the game recalls meeting a different player who met and married a virtual spouse before eloping with that spouse in real-life (Levy 2014). A simple Google search reveals countless other stories of addiction to *Second Life*. Though the virtual freedom in *Second Life* causes some users to neglect their real-world responsibilities, it allows others to use it as an interface for real-world matters. According to Linden Research Inc., around 1,400 companies have used *Second Life* to hold virtual meetings (Tutton 2009). Also, some Muslims are finding a digital, full-scale version of the *hajj* in *Second Life* to be a valuable way to learn about the real-world *hajj*. While some Muslims see the virtual *hajj* as preparation for the real *hajj*, other Muslims find religion and cultural significance in the virtual *hajj* (Deng

2014). Whether or not this adoption of digital experience in place of real-world experience is problematic is a discussion worth having, especially when considering ethics in the virtual world.

Another open world video game is the previously mentioned *Grand Theft Auto V*, which trumps *Second Life* in popularity. In fact, *GTA V* broke seven world records for its popularity (six in sales), including becoming the fastest entertainment product to gross $1 billion in sales (Lynch 2013). Like *Second Life*, *GTA V* affords players an immense amount of freedom; players can invest money in the virtual stock market, play golf, customize cars, purchase real estate, fly planes, and more. *GTA V* is perhaps best known for the amount of mayhem players can cause. At their discretion, players can robs stores, hijack cars, and murder innocent people. Other than senseless murders, one of the more controversial possibilities is paying prostitutes for their services, murdering them, and taking the money back. Though *GTA V* gives players the option of pursuing a storyline, they do not have to pursue any specific objectives. Even if players choose to engage in the storyline, they can pursue their objectives in a countless number of ways. There is also a scene where players participate in torture. In this scene, players choose from an assortment of torture weapons, including gasoline, a monkey wrench, pliers, or a car jump-starter. Other than choosing the torture tool, the participation involved in this scene includes using various controller buttons to carry out the torture actions. For example, a player spins a controller thumb stick in order to simulate the pulling of a tooth. This action reflects another aspect of limited freedom, namely the limits placed on how players interact with the virtual world. How the trends in new technology affect this freedom is discussed later in regard to virtual reality.

Aside from participation in the sense of freedom of choice, players participate via different controller apparatuses. Despite the many differences in video game content, there is tremendous homogeneity in the controllers necessary to play video games. As an arcade game,

Pong requires a simple joystick to play the game. Today, most games are played with either a keyboard and mouse or a controller. Controllers usually comprise four buttons, two thumb sticks, and a couple of "triggers." Unless a game includes a special type of apparatus, as do some arcade games like *Police Trainer* (the controller is a fake gun), it is usually played using a "universal" controller, such as a mouse and keyboard or console controller (e.g. Xbox 360 controller, PS3 controller, etc.). The differences in these controller apparatuses contribute to the differences in participation across games. Imagine if you were tasked with playing *Call of Duty* with the apparatus of *Pong*; this is not possible, of course, as *Call of Duty* involves a more complicated combination of actions, thus requiring more buttons. But for the sake of exploration imagine that you *can* play *Call of Duty* with a single joystick. Would your reaction to the airport scene change since you are not pulling any triggers, which shoots the gun? Imagine you use a fake gun apparatus to play the airport scene. Would your using the fake gun enhance your reaction to the massacre? Would it feel more real? There is reason to believe that using a gun apparatus would make first-person shooters more engaging, and that using simple buttons for the same game would alter one's engagement. I wonder, then, how my response to the airport scene would have changed if I had used a gun apparatus.

Thus far in the video game industry, the differences in apparatuses likely only result in minor changes in player engagement. Even though these differences are small, when they are combined with the other factors that enhance player participation, like perspective, game freedom, and choice, a more significant impact on player engagement results. In addition to controller apparatuses, there are visual and auditory apparatuses for games and other media. These visual and auditory apparatuses include monitors/screens, headsets, and speakers, and they have a similar if not more profound effect on player engagement than controller apparatuses As

an example, the differences in watching a movie on a 240p, 13" monitor with small speakers and watching it in a movie theater with surround sound speakers are apparent. The low-quality, small monitor and small speakers do not engage viewers to the extent that a high-quality, large screen with surround sound speakers does. These apparatuses, or hardware, contribute to the verisimilitude of the media. The goal of all apparatuses is to engage the senses as much as possible. If this goal is achieved, then humans will "be" in the virtual experience. A primitive example of a combination of apparatuses that works to engage all human senses is the 4-D theater. These theaters are located in various amusement parks throughout the world, and they are immensely popular. Not only do these theaters show films, but they use various apparatuses to engage with the real-life audience, such as wind gusts, artificial rain, seat movement, etc. Though these 4-D theaters are impressive in their ability to engage viewers, they lack a participatory component. Viewers participate in their being subject to the various apparatuses in the theater, but they do not have the freedom to choose how the film progresses. Their senses are engaged, but they never achieve complete immersion in the movie.

From a psychological perspective, the ability of 4-D movie viewers to avoid complete immersion could involve the ego defense mechanism of disassociation, which facilitates the "replacement one affective state with another" (Vaillant 1995, 151). Disassociation allows for an internal denial of self such that one is no longer affected by one's environment. While the mechanism of disassociation may not be what is employed by 4-D movie viewers to avoid immersion, it nevertheless provides a way to understand how viewers are able to escape the affective state presented to them in the 4-D experience. While disassociation is possible in all environments of stress, which includes all engagements with media, video games appear to interfere with or lessen the ego's ability to disassociate upon command due to their participatory

components. No matter how advanced movie theaters become, then, they will continue to fail to limit disassociation unless they adopt the participatory components found in video games, most notably the requirement that users actively make choices that determine the outcome of the film or game.

Like 4-D theaters, video games strive to engage all of the player's senses. The key difference between these forms of media is that video games not only engage all of the senses, but also they involve active participation in the game. Video games thus offer a mental engagement that is not achieved in movies, music, or other media. This mental engagement is almost like a transfer of consciousness. Unlike in movies where actors emotionally engage viewers, video games cause players to *become* the actors. Players are emotional involved because they *are* the virtual character. The choices faced by the virtual characters are not parallel to the players' real lives; rather, the virtual choices intersect with the players' real lives. The outcome of a video game, especially an open world game, is completely determined by the player. It is no surprise, then, that questions of ethics in the virtual world offered in video games are bona fide and relevant.

In relation to the airport scene in *Call of Duty*, if I were to simply watch the massacre happen, then I would not have a moral response. The fact that I had a moral reaction is a testament to my engagement in the video game. I achieved a sort of transfer of my consciousness where I became the soldier in the game. The decision to engage in the massacre was not prescribed; it was *my* decision. Each of the characteristics of the airport scene—violence, verisimilitude, perspective, and participation—contributes to my experience in the airport. These characteristics combined in such a way that provoked a moral response. Whether or not this

response and my decision to participate in the massacre are significant is discussed in Chapter Three.

A Look Into the Future: Virtual Reality

The "next big thing" in the video game industry is virtual reality. In arcades across the world today, there are already virtual reality games available to play. Today's virtual reality gaming systems, like Global VR's Vortek V3 system, only scratch the surface of what is to come in this field. The Vortek V3 system requires players to stand, look into a headset, and hold onto two joysticks. The headset provides a virtual interface and allows for player movement. As players using the headset spin around, so too does the virtual world they are engaged with. It should be noted that the impetus to spin comes from the demands of the virtual world, not from real-life. A player decides to move because it allows them to participate in the game in a certain way. Once players engage with the headset, the virtual world becomes their "primary" reality while the real world becomes secondary. The Vortek V3 system's joysticks serve as the controller for the game. This particular system only has one trigger on each joystick, which limits the extent of player interaction. Nevertheless, the immersion experience the headset provides is a recent novelty in technology, and it is the best at what it sets out to do. Consider the objective of 3-D movies and IMAX theaters. The purpose of filming in three dimensions, providing viewers with 3-D glasses, and projecting the movie onto a large screen is to engage the audience as much as possible. As has been noted, though, movies have a natural limitation; they do not allow for viewers to participate and influence the outcome of the stories. In the race to create a completely immersive virtual experience, virtual reality systems are the frontrunners.

The virtual reality experience is one that engages the mind in ways that other media do not. Even other video game experiences like *GTA V* and *Second Life* fail to engage the mind to

the extent that virtual reality does. Virtual reality succeeds because its headsets, which display a hyperreal, virtual space to players, create an illusion of presence. A key part of creating this feeling of presence is incorporating a player's real-life movements into the virtual experience. While movies leave viewers fixed to their seats, virtual reality requires players to move in order to fully experience the virtual world. At this point in virtual reality technology, most player movement involves moving one's head to look around. In contrast, non-virtual reality video games, like *GTA V* and *Second Life*, require movement of thumb sticks in order to move in the virtual world. Thus, virtual reality essentially forces a player's real-life body to become the controller. At the moment, players' bodies can only substitute for certain but not all controller capacities. Currently, nearly all virtual reality systems eliminate the need for directional controls. In other words, players no longer need to move a thumb stick to look around. They do, however, need to use a thumb stick to move around. Looking to the future, virtual reality seeks to replace the controller completely with the human body; the middleman (controller) will be cut out and the player will have a direct connection to the virtual world.

Progress is already being made in this regard. Virtuix's Omni is an example of a virtual reality system that not only eliminates the need for a directional thumb stick on a controller, but also it eliminates the need for a movement thumb stick. Both real and virtual directionality and movement are synced. Virtuix achieves this movement synching by having players stand on a concave, crater-like platform equipped with sensors to pick up direction and force. The platform allows for 360° movement, and players can travel at all speeds, from walking to sprinting. The sides of the platform are sloped in such a way that keeps players in place even when they are running. Despite this breakthrough in virtual movement, Virtuix's Omni is still in its early stages. Like other virtual reality companies, Virtuix will implement new technology as soon as it

becomes available. Suspended gravity apparatuses or similar movement tracking technologies will likely replace Virtuix's platform system in short order. It is difficult to overstate how new virtual reality technology is; BBC News, for example, recently declared, "Virtual reality is at 'year zero'" (BBC Click 2014).

Virtual reality technology is showing enough promise to catch the interest of several large tech companies like Google, Facebook, and Sony. Google recently invested $542 million into Magic Leap, a virtual reality startup, while Facebook purchased Oculus VR, another virtual reality company, for $2 billion in early 2014 (Gelles and De La Merced 2014). The furthest along in the virtual reality race is Oculus VR's Rift, which is being prepped for consumer launch in 2015. The Oculus Rift excels in creating a realistic virtual experience that inspires in users a sense of presence. The technology has been demoed in several capacities, from first person-shooters and horror games to space thrillers and open-world games. Several video game companies have already expressed interest in integrating the Oculus Rift into their games, and some have already done so. Linden Labs, for example, has already made it possible for owners of the beta version of Oculus Rift to use the headset while playing *Second Life*.

Altogether, an analysis of the *Call of Duty: Modern Warfare 2* airport scene, which is playable on now outdated console technology, reveals that violence, verisimilitude, perspective, and participation all play a part in producing moral feedback in a virtual experience. With new virtual reality technology, each of these factors will be affected: depictions of violence will become more repulsing; the verisimilitude of virtual experience will drastically increase; the "middle man" of perspective, or the monitor/screen, will be replaced with headsets, making players feel a greater sense of presence; and lastly, players will more fully participate in the virtual world as the human body replaces aspects of controllers and games shift toward the open-

world format. When considering the advent of virtual reality, then, several important questions arise. If the technologically outdated airport scene is enough to induce moral sentiment, then do virtual reality systems make players more susceptible to these moral experiences? Do these moral experiences even matter? Also, which, if any, virtual acts are morally deplorable? These questions will form the basis of inquiry for the chapters that follow.

Chapter 2: The Empirical Response

For many years there has been an ongoing debate about whether video games affect players in the real world. Specifically, many researchers, most notably Craig Anderson and Brad Bushman, have criticized the prevalence of violence in video games, claiming a causal link between virtual and real-world violence. The debate tends to follow a cyclic pattern, as the question of video game violence usually arises after tragic events where it is discovered that the perpetrators played violent games in their spare time. It does not take long until this attention wears down, and the debate is placed on the backburner of the public's concerns. A recent example of the public tendency to link violent acts to violence in video games is the Sandy Hook Elementary School shooting in Newtown, Connecticut in 2012. The shooter, Adam Lanza, apparently enjoyed playing a variety of violent video games, including the *Call of Duty* series. As a rule, media outlets speculate about the causes of tragic events, and violent video games became a significant scapegoat for Lanza's shooting. Some media outlets, like *The Daily Mail*, even went so far as to definitively state that Lanza used video games to "train himself for his massacre" (Bates and Pow 2013). Present empirical research does not yet support strong causal connections between violent video games and real-world violence, so these media claims tend to be hasty.

This chapter examines both sides of the debate on violent video game research and assesses the quality of the primary criticisms. In light of the empirical research and trends in technology discussed in Chapter 1, the 2011 *Brown v. Entertainment Merchants Association* Supreme Court case involving violent video games and the Free Exercise clause of the First Amendment is examined. Lastly, the patterns in present empirical data are discussed in the context of emerging virtual reality technology. This examination finds that there is a growing

body of research supporting the link between violent video games and real-world negative effects on players, and that the criticisms of these studies are not convincing. Also, although the 2011 Supreme Court decision was sound for its time, the Court's opinion is flawed in its grouping of video games with other media and quick dismissal of the empirical evidence. Empirical studies in recent years and the pace of technological growth, with specific attention toward virtual reality, indicate that new legal issues surrounding violence in virtual spaces and the First Amendment will arise. As a whole, these empirical studies suggest that the effects of violent video games on players are subtle in nature, but they are not to be disregarded; insofar they can result in the formation of harmful habits, they are an issue worth addressing.

Anderson's Meta-Analysis and Other Studies

There are an ample number of studies devoted to examining the effects of violent video games on real-world violence. These studies break down into several categories depending on what exactly they test and the methodology they use. Perhaps the most prominent researcher on this topic is Craig A. Anderson, who has received both support and criticism for his work. In several studies, Anderson finds a significant relationship between violent video games and short-term aggression. After he and other researchers who investigate violent video games receive criticism for their methodologies, Anderson conducts a meta-analysis to address the critics. The benefit of a meta-analysis is that it combines and examines data from numerous studies of a similar topic in order to identify important trends and draw more substantial conclusions ("Meta-analysis" 2008). Anderson's meta-analysis combines data from over forty studies that test "a possible link between exposure to violent video games and one of five types of outcome variables: aggressive behaviour (defined as behaviour intended to harm another person), aggressive cognition, aggressive affect, helping behaviour, and physiological arousal" (Anderson

2004, 115). This analysis forms a strong base of research that supports this link and suggests that violent video game exposure leads to significant changes in these outcome variables.

To aptly respond to critics and provide a nuanced analysis of this issue, Anderson pays special attention to the methodologies of the studies he examines. His analysis consists of grouping the studies depending on the soundness of their methodologies. He identifies nine different methodological pitfalls and checks each study for these pitfalls. . If a study avoids all of these problems, then it is placed in the "best practices" group. If one or more of the nine pitfalls is present, the study is placed in the "not best practices" group. When considering all studies, Anderson finds that "playing violent video games [is] associated with increases in aggressive behaviour, aggressive cognition, aggressive affect, and physiological arousal, and with decreases in helping behaviour" (Anderson 2004, 118). When comparing the results of the "best practices" and "not best practices" groups, Anderson finds that the "best practices" group shows a stronger effect in each of the five tested variables, indicating that as methodology becomes less problematic, the effects of violent video games become more apparent. There is reason to believe that studies with "weak" methodology do not exaggerate the impact of violent video games on the observed variables, and that the only reason the evidence for the negative impact of violent video games is not fully appreciated is because there have not been enough studies conducted with strict methodologies.

Aside from Anderson's meta-analysis, which provides a broad assessment of the state of violent video game research, he has performed numerous other studies with several researchers in order to look into the nuances of the outcome variables in his analysis. Along with Nicholas Carnagey and Brad Bushman, Anderson looks into the physiological arousal variable more extensively in a 2007 study. The purpose of this study is to assess how violent video games

affect physiological desensitization to real violence. The researchers defined desensitization as "a reduction in emotion-related physiological reactivity to real violence," and they used both heart rate and galvanic skin response (rating based on sweat/skin moisture caused in part by the nervous system) to gauge this reactivity (Carnagey, Anderson, and Bushman 2007, 490). In the study, one group of participants played violent video games while another group played non-violent video games. After playing for twenty minutes, both groups watched a ten-minute tape displaying real-world violence, including acts such as shootings, stabbings, and beatings. Those who played non-violent video games showed increases in heart rate and galvanic skin response after viewing the real-world violence tape, while those who played violent video games showed a decrease in heart rate and a lower galvanic skin response after seeing the real-world violence tape (Carnagey, Anderson, and Bushman 2007, 493). These results suggest that violent video games have an effect on one's sensitivity toward real-world violence. It is important to notice that this study tests physiological desensitization toward the violent acts of *other* people. It does not say anything about how violent video game players view their *own* acts. Thus, one can speculate as to how desensitization to others' acts of violence can affect one's response to violence acts. Perhaps the most obvious symptom that will result from this desensitization is a lack of helpful behavior, one of the variables addressed in Anderson's meta-analysis.

This desensitization to the violent acts of *others* will result in less helping behaviors because it leads to the formation of a habit. In psychological terms, a habit is "the development of a persisting nervous modification, a 'tendency' which expresses itself in the various conscious manifestations of habit" (Andrews 1903, 139). No matter how minimal this desensitization to violence from violent video games is, the repetition of playing violent video games can create real physiological differences, which result in a "tendency" to act in certain ways. While a player

who has engaged in countless sessions of violent video game play may not realize that they have formed a habit of desensitization and therefore the tendency to refrain from helping others, the habit will nevertheless manifest itself in the player's real-world actions. Throughout this discussion of empirical studies, it is important to keep in mind the extent to which these studies suggest that players of violent video games form these habits. Considering the popularity of games like *GTA V*, the choice to allow players to continually engage in violent virtual experiences and form habits that could potentially manifest themselves in real-world harmful actions (and apathetic outlooks on violence) is one worthy of attention, especially at a legislative level.

Years after the Carnagey, Anderson, and Bushman study, Tobias Greitemeyer investigates in a 2014 study how violent video games change players' perceptions of their *own* actions. The study consists of two experiments, the first of which asks participants to rate the aggressiveness of certain actions after playing either a violent or non-violent video game. The actions they rate vary in that they include either personal or impersonal pronouns (e.g. I tripped a child; someone tripped a child). The experiment seeks to determine how violent video games impact one's perception on the aggressiveness of their own acts and the acts of others. The results reveal that all participants tended to rate the statements containing personal pronouns, or their own acts, as being less aggressive than the acts of others. However, those who played violent video games rated the personal statements to be significantly less aggressive than the impersonal statements. Also, though all participants rated personal actions as less aggressive than impersonal actions, the violent video game group perceived their own acts to be significantly less aggressive than the non-violent video game group perceived their actions to be (Greitemeyer 2014, 54). The second experiment once again tested participants' perception of the

aggressiveness of their own actions (in hope of achieving the same result as in the first experiment), and it also involved choosing an amount of hot chili sauce to administer to non-gaming participants who were told that they were testing different sauces (to measure aggressive behavior). The second experiment's results show that participants who played violent video games once again perceived their actions to be less aggressive than those playing non-violent video games. Also, those playing violent video games displayed more aggressive behavior (i.e. they administered greater volumes of hot chili sauce) than the non-violent video game group (Greitemeyer 2014, 54-55). The results of these two experiments indicate that violent video games not only cause people to perceive their actions as being less aggressive, but also they cause people to act in a more aggressive way as a result of their muted perception of their own actions.

Ferguson's Criticisms

The studies in Anderson's meta-analysis as well as the two aforementioned studies make up a significant body of research. Considered as a whole, this research points to the potential harm of violent video games. With decades of studies supporting the idea that violent video games have a negative effect on people who play them, it would seem as though legislative action would have been taken already to restrict certain people, like adolescents, from buying and playing violent video games. Aside from the fact that video games are not as pressing of an issue as the economy, immigration, etc., one of the primary reasons such legislation has not appeared is that the empirical evidence is not convincing enough people. One of the most prominent critics of research that casts violent video games as harmful is Chris Ferguson. In an article for *The International Human Press*, Ferguson details several complaints about violent video game research and argues that public resources are better spent elsewhere. His two main

concerns in the article include voicing his discontents with present research and pointing to his own research that suggests that there is no real link between violent video games and societal violence (Ferguson 2014). To support his claim that real-world violence does not result from violent video games, Ferguson compiles data ranging from 1996 to 2011 on youth violence and consumption of violent video games. Since 1996, violent video game consumption has continued to increase while youth violence has decreased over the same period. This inverse correlation is important to consider, but it does not provide a basis to dismiss outright the claims against violent video games.

The problem with Ferguson's findings is that too many uncontrolled variables can affect the data, thus limiting the credibility of any conclusions that are drawn. To recognize that youth violence has decreased since 1996 and for the past decade and a half violent video games have become more popular should not be ignored, but such a macro-level study allows for highly qualified conclusions at best. The decline in youth violence could be due to increased efficacy in social services, earlier diagnoses for psychiatric disorders, more effective law enforcement, etc. The increase in violent video game popularity may be a factor in the youth violence that still occurs, and some of the violent acts that potentially result from these games could have been negated by the aforementioned unconsidered factors. Also, though video games may not be a primary cause of youth violence, the possibility that they play a nontrivial role in these violent acts remains. In taking on such a huge claim that violent video games lead to real-world violence, Ferguson overreaches in his own conclusions. He appears determined to prove that violent video games are benign, but ignores the possibility that they have important consequences that are worthy of public scrutiny.

In addressing the studies in Anderson's meta-analysis and other similar studies, Ferguson voices several discontents; some of Ferguson's criticisms are valid, while others are not as strong. In one of his own studies, Ferguson complains about studies like Anderson's because of their failure to consider factors such as medical history, family environment, psychiatric problems, etc. when studying the effects of violent video games (Ferguson 2011, 377). Ferguson's study examines the greatest predictors of real-life violence and concludes that depression is most closely tied to violent acts in adolescents. Ferguson also does not find any significant indications that one's participation in violent video games is a reliable indicator of violent behavior. Thus, Ferguson points out that many of the studies suggesting that violent video games carry negative effects may be falsely scapegoating video games where there may be other, more relevant factors. This complaint is fair and should be taken into account. As in any study, researchers should aim to isolate the variable they seek to test and control as many potentially influential factors as they can. Despite the merit in Ferguson's criticism, the shear number of studies that support a link between violent video games and negative outcomes calls into question the extent to which not controlling for psychiatric disorders, family environments, etc. would actually affect the data. It may be true that, in some studies, the majority of people who show increases in aggression, for example, after playing violent video games have some sort of underlying depression problems or are affected by another externality. Even if this were true for a handful of studies, it is unlikely that such a pattern would hold true for a majority of the studies in support of a link. More importantly, not all studies fail to control for the variables Ferguson mentions, and as Anderson finds, the stronger the methodology the more significant the evidence that violent video games actually bring about negative consequences (Anderson 2004).

Returning to his article in *The International Human Press*, Ferguson outlines a number of his criticisms. One such criticism is that some studies about violent video games do not match video games on factors other than the presence of violence (Ferguson 2014). As examples, the difficulty, simplicity, graphics, perspective, etc. are all factors other than violence that can potentially influence the data. While Ferguson is correct about this, he appears to be attacking only the weakest methodological studies. Violent video games studies have in recent years become more methodologically precise; games are chosen more precisely, and participants are asked about how they perceive the characteristics of games, thus allowing researchers to control for violence. Of course, it is not possible to control video game characteristics completely, but efforts are being made to do so, as in the aforementioned Greitemeyer study, and the results still look damaging to violent video games. Another of Ferguson's criticisms is his complaint about the way in which aggression is measured in various studies. He finds the aggression models that are used to be quite arbitrary, allowing the researcher to craft a desirable result. This criticism is probably the most salient because aggression can be seen in almost any action. To say that one action more effectively tests for aggression appears to be an arbitrary determination. In this way, it is conceivable that a researcher could choose a particular aggression model that best suits their goals. In the Greitemeyer study, the test of aggression is the volume of hot chili sauce administered (Greitemeyer 2014). Whether administering hot sauce is a proper way to test aggression is a question worth asking. Even if this hot sauce test or similar aggression tests carry weight in the psychology research community, the problem is that these methods still appear primitive and misguided. In order for these studies to gain traction in the political community, more nuanced tests of aggression are needed. Despite the fact that these aggression tests are not

entirely convincing, what cannot be ignored is the multitude of studies with a variety of aggression tests that point to the same conclusion.

Yet another of Ferguson's criticisms is that there is no consensus on the issue of whether violent video games lead to aggression and real-world violence (Ferguson 2014). In the article, he presents a graph that includes data from several studies that measure the proportion of certain groups of people that believe in a certain phenomenon. The graph compares a 99.4% consensus among scientists who believe in climate change to other consensus numbers, most notably whether there is a causal relationship between violent media and aggression and whether media violence is a major factor in real-world violence. Using data from a 2014 study by Brad Bushman, Mario Gollwitzer, and Carlos Cruz, Ferguson's graph shows that 58% of media researchers, parents, and pediatricians agree that there is a causal relationship between violent media and aggression. The graph also shows that 35.3% of the same demographic finds media violence to be a major factor in real-life violence. It is important to dissect these numbers further to understand what to make of them. According to the Bushman, Gollwitzer, and Cruz study, participants, which included media researchers, parents, and pediatricians, were asked their thoughts on a variety of media, including violent video games, movies, comic books, and literature (Bushman, Gollwitzer, and Cruz 2014). Among these types of media, comic books and literature achieved the lowest agreement as to whether they result in aggression and real-world violence. Video games and movies received higher levels of agreement, with video games achieving the highest. The results show that 66%, 67%, and 90% of media researchers, parents, and pediatricians, respectively, agree that violent video games can lead to aggression in children. While Ferguson's 58% number appears quite low, it is important to remember that this number reflects all forms of media. When it comes to violent video games, the consensus rises to around

75%. In terms of whether media violence is a major factor in real-world violence, the majority of parents and pediatricians agreed that it is, but media researchers did not breach 50%.

The lack of consensus on the issue of violent media affecting real-world violence likely reflects a general hesitancy to make overgeneralizations. While all groups agree that violent media, especially violent video games, can cause increased aggression, they are far more cautious in concluding that this aggression leads to real violence. To say that violent media is a major factor in causing real-world violence is difficult to agree with because of the fact that there are countless other factors that contribute to violent acts. If the question were, "does you agree that violent media is a *minor* factor in real-world violence?" the number of people who agree would surely increase. The important number to focus on is the 75% consensus on the idea that violent video games can increase aggression. Though this 75% falls short of the 99.4% of those who agree that climate change is happening, it is not far off. Also, near-100% consensus on climate change is a relatively new number that has grown over the past 30 years. As research on violent video games expands, the 75% number will likely rise. Ferguson's choice to use the 58% number that reflects all violent media should be called into question as well. His argument seems to be establishing the climate change consensus number as the standard that is required in order to give any weight to a claim. This "there is no consensus" argument is unconvincing. What should be examined are trends of studies on violent media and the direction the consensus is headed. Just because less than, say, 90% of people agree on an issue is not grounds to dismiss it.

The 75% consensus on violent video games is also important when comparing the effects of different media. As outlined in the first chapter, media differ in significant ways, and even within each type of media there are notable differences. With the participation factor in mind, it is not surprising that more respondents identified violent video games as leading to aggression

and real-world violence than other media. If there were a study comparing "violent" video games like *Frogger* to games like *GTA V*, it is conceivable and even expected that, given familiarity with both games, respondents would find *GTA V* more problematic. The different reactions to different media are important especially when considering the future of interactive media, virtual reality in particular. If concerns already exist about the effect of violent media on aggression and violence, then the technology of the future is sure to stir up more debate.

On a broad level, Ferguson and other critics of violent media research tend to highlight what can be referred to as the "causality problem." This problem relates to the lack of a consensus on whether violent media is a major factor in real-world violence. While people are willing to accept that there is a connection between violent media and aggression, they do not want to take the leap and claim that violent media *causes* violence. Those who are exceedingly reluctant to affirm even a minor causal connection between violent media and real violence tend to fall into the "causality problem" camp with Ferguson. Given the complexity of factors that influence any single act of violence, one will always be safe in denying that any single factor, like violent media, induces individuals to commit violent acts. The question that arises when confronting critics like Ferguson is "what will it take for you to admit that violent media is a contributor to real-world violence?" Ferguson appears to occupy a place on the spectrum far from *The Daily Mail*. While *The Daily Mail* rather hastily makes causal claims about video games and Adam Lanza, Ferguson requires substantial evidence and more to compel him to make a similar claim. While evidence continues to build in favor of the claim that violent media is causally connected to aggression and plays at least a minor role in real-world violence, people will have to ask themselves when they will begin to become concerned and take action.

Brown v. Entertainment Merchants Association

In 2005, the state of California decided to act against violent video games by proposing a law banning the sale of particularly violent video games to minors. As a result of this law, a number of video games companies banded together and sued the state for its violation of the free exercise clause of the First Amendment. The state lost in the District Court and lost on appeal in the Ninth Circuit Court of Appeal. The state decided to appeal to the U.S. Supreme Court, which upheld the rulings of the previous courts. In the 2011 *Brown v. Entertainment Merchants Association (EMA)* Supreme Court case, the opinion of the court centers on the state's failure to convince the bench that violent video games meet the strict scrutiny standard needed to restrict free speech as granted by the First Amendment (*Brown v. EMA* 2011). In the state's appeal, it points primarily to the research of Craig Anderson to substantiate its claim that the effects of violent video games are such that the state should have an interest in barring the sale of violent video games to minors. The Supreme Court found that the state was not able to meet the strict scrutiny standards in large part because it did not find the empirical evidence convincing.

The Court responds to the studies presented by the state, saying, "They do not prove that violent video games *cause* minors to *act* aggressively (which would at least be a start)" (*Brown v. EMA* 2011). The Court goes on to talk about the methodological flaws in several studies and asserts that mere correlation is not convincing. Here, the Court expresses an opinion reflecting that of Ferguson, as it appeals to the "causality problem." The Court's choice to italicize the words "cause" and "act" point to its focus on causation. Though the majority of media researchers agree that there is a causal relationship between violent video games and aggression (Bushman, Gollwitzer, and Cruz 2014), the Court focuses on "acts," indicating that they want proof that violent video games lead to real violence. In criticizing the lack of causal evidence, the Court implicitly admits that if a causal relationship between violent video games and real

violence were substantiated, then it would more heavily consider whether restricting violent video games could be a method of enforcing a compelling interest of the state. In the legal world, to prove that violent video games are a *minor* factor in real-world violence may not be enough to make exceptions to the First Amendment due to the respect courts have for the First Amendment. If violent video games were shown to be a *major* causal factor in real-world violence, then the Court would face a much more difficult decision. The question it would ask would be whether violent video games fall under any of the already established exceptions to the First Amendment (the most famous being obscenity, child pornography, fighting words, and real threats), or if a new exception category would need to be formed. It should be noted that not all justices agreed with the majority, and Justice Breyer made a particularly compelling and intuitive case in his dissent for the lack of consistency between restricting child pornography and allowing minors to play games containing various violent acts. Specifically, he asks, "what sense does it make to forbid selling to a 13-year-old boy a magazine with an image of a nude woman, while protecting a sale to that 13-year-old of an interactive video game in which he actively, but virtually, binds and gags the woman, then tortures and kills her?" (*Brown v. EMA* 2011).

Also in its Opinion, the Court makes an interesting comparison between video games and other forms of media, saying that even if Craig Anderson's research shows definitively that violent video games produce marked differences in child aggression, the effects "are both small and indistinguishable from effects produced by other media" (*Brown v. EMA* 2011). The Court uses the Bugs Bunny cartoon on TV and video games based around Sonic the Hedgehog as examples of this "other media." The trouble with comparing the Bugs Bunny program to playing *GTA V* is that their content and effects are significantly different. A 2013 study by Jih-Hsuan Lin examines precisely this issue. In the study, Lin tests three groups of participants: violent video

game players, violent video game observers, and violent movie watchers (Lin 2013, 538). The video game players and observers deal with the game *X-men Origins: Wolverine*, while the movie groups watches *X-men Origins: Wolverine* (the game is based off of the movie, hence the identical titles). Two scenes in particular were chosen for the tests based on their similar levels of violence and the presence of the same characters and essential actions. The study aimed to test three variables in particular: aggressive affect, aggressive cognition, and physiological arousal. Aggressive affect was measured using participants' responses (1-7 scale) to various statements dealing with the two selected scenes. Aggressive cognition was measured using a word-filling method, where participants had to complete as many partial words as they could in a given amount of time; an example of a given partial word is fi_ _ t, which can be filled in as fight, first, or filet. Different words were associated with different levels of aggression. Physiological arousal was measured using heart rate and blood pressure.

The results of this experiment show that *playing* a violent video game has a larger effect on all three of the tested variables as compared to violent video game observing and violent movie watching (Lin 2013, 539). For aggressive affect and aggressive cognition, video game players showed a significant increase, while video game observers and movie watchers remained around the same level. For physiological arousal, video game players showed increased systolic and diastolic blood pressure, while video game observers and movie watchers remained around the same level. None of the three groups showed any significant increase in heart rate. Lin's study has strong methodology as it controls for video game factors other than violence and also controls for arbitrary factors like frustration and enjoyment. This study demonstrates that there is significance in the interactive element of video games. This study was published a couple of years after *Brown v. EMA*, and it directly contradicts the Supreme Court's contention that violent

video games produce the same effects on aggression as other media. The differentiation of media, especially interactive media like video games and virtual reality, is only beginning to be researched. If more studies like Lin's are conducted and yield similar results, then the Court may be forced to change the way it sees different forms of media. Perhaps the interactivity of emerging virtual apparatuses will prove to be a problem for real-world violence, in which case the Court will likely change its opinion.

Alito's Concern for the Future

Altogether, the research on violent video games and other media sends a signal that increasingly cannot be ignored. Though there remain quarrels about the minutiae of various studies, there nevertheless emerges a trend showing the negative effects of violent video games. While some, like Ferguson and the U. S. Supreme Court, hold out for definitive proof of causality, the idea that violent video games *cause* violent acts to occur, others see value in the countless studies showing a link between violent video games and aggression, and they recognize the possibility that these games may be at least a minor factor in real-world violence. Considering present research and extrapolating into the future, the promise of hyperreal virtual reality systems will carry the discussion of violent media to new heights. Though he voted with the majority of the Court in *Brown v. EMA*, Justice Alito differed from the Opinion of the Court in several ways. One of the key differences is Alito's recognition that video games are different from other media in an important way and that future technology may only aggravate the problems presented by violent video games. In his concurrence, he says, "If the technological characteristics of the sophisticated games that are likely to be available in the near future are combined with the characteristics of the most violent games already marketed, the result will be games that allow troubled teens to experience in an extraordinarily personal and vivid way what

it would be like to carry out unspeakable acts of violence" (*Brown v. EMA* 2011). He is acutely aware of the pace of technological progress and, probably, the fact that the law is slow to adapt to new technology. He recognizes the trends in the research and sees this case as a potential harbinger of similar cases to come.

As a matter of fact, recent research involving virtual reality has already begun to demonstrate its effect on participants. A study headed by Emory University's Barbara Rothbaum examines the effect of virtual reality treatment sessions in conjunction with D-cycloserine and alprazolam on war veterans with post-traumatic stress disorder (PTSD) (Rothbaum et al. 2014). The study finds that "A six-session virtual reality treatment was associated with reduction in PTSD diagnoses and symptoms in Iraq and Afghanistan veterans, although there was no control condition for the virtual reality exposure." Alprazolam was found to worsen recovery while D-cycloserine enhanced the effects of the virtual reality sessions. Also, all observed improvements in the veterans were maintained a year out from the study, suggesting the long-term benefit of virtual reality therapy. Of course, this study could improve methodologically, as it acknowledges, but it is nevertheless important in its demonstration of the potential effect of virtual reality on the function of the nervous system. If current virtual reality technology can cause concrete changes in brain function, then the violent virtual reality experiences of the future could potentially physiologically desensitize players to violence, make players more prone to commit violent acts, induce sociopathic tendencies, etc. Since research into the effects of virtual reality is new, not much is known about the extent of virtual reality's influence on individuals.

A Turn Toward Ethics

Now that a brief overview has been given of the empirical and legal response to the issues surrounding violent video games, consider how these empirical studies relate to ethics.

The virtual world allows individuals to commit acts that are generally considered immoral (e.g. murder, sexual assault, stealing, torture, and so on). Empirical studies aim to investigate how these virtual actions affect one's real-life behavior; they focus on increased aggression, desensitization to the violence of others and oneself, and real-world violence. The interest is generally one of causation, where researchers want to know the *direct* effects of violent media. Empirical researchers acknowledge that people change as a result of their interaction with media, but they do not always delve into theories behind those changes. When commenting on the observed effect of increased aggression, for example, a researcher would identify the cause of the aggression as the violent media that was being tested. There is a "middle man" that remains to be explored, and different academic disciplines can look into this "middle man" from different angles. By "middle man" I mean the state of participants after they have engaged with the tested media. As an example, neuroscientists may use functional MRI scans to assess the changes in the participants' brain activity after they engage with violent media. Their focus would be less on the gravity of the actions committed than on the location of neural activity and its potential connection with other brain processes. The task of philosophers is to conduct a similar investigation of the "middle man" with a focus on the change in participants' character or ethical condition after they engage with media. The remote cause of the increased aggression, violent acts, etc. can be pinpointed in a change in ethical outlook, perhaps, while the proximate cause remains the violent media.

Recall the Chapter 1 discussion of my moral experience in the *Call of Duty: Modern Warfare 2* airport scene. Because I experienced moral feedback when I took part in the massacre, one can say that the scene impacted my moral character. Beneath this change in character, though, is physiological change. Perhaps a neurophysiologist could identify a change in my brain

after the airport scene, or a psychologist could measure my being desensitized to violence. The real, measurable phenomena that result from these studies can be captured if the right tools are used, and different disciplines allow for different modes of inquiry. The fact that these empirical studies are finding real effects of violent media means that there is something worthy to be explored. I asked at the end of Chapter 1 whether virtual reality could make one more susceptible to moral experiences like the one caused by the airport scene. If it is true that the effects of violent media change depending on the type of media, then the answer is conceivably yes. The previously discussed 2013 Lin study marks a significant difference in the effect of interacting with violent video games as compared to observing violent video games and watching violent movies. The unique factor in the Lin study is immersion. The discussion in Chapter 1 highlighted how this immersion, or sense of presence and virtual autonomy, can be influenced by a number of factors such as verisimilitude, perspective, and participation. If virtual reality is a step up from video games in each of these aspects, then it is likely that virtual reality could indeed make one more susceptible to moral experiences. In the chapter that follows, I proceed with a philosophical inquiry into the moral relevance of virtual actions like the massacre in the airport scene, and ask whether moral experiences in the virtual world actually matter.

Chapter 3: Assessing the Moral Issue

In any ethical inquiry one needs to approach the issue from a number of different perspectives. This chapter considers violent virtual acts from the lenses of various ethical theories, including deontology, utilitarianism, intuitionism, and Aristotelian virtue ethics. While these theories do not offer a complete treatment of the ethical question at hand, they are among the most prominent ethical theories and offer a diverse range of perspectives that will lend valuable insight into how violent virtual acts should be understood. Within this discussion, questions from the previous two chapters will be intertwined, culminating in an overall evaluation of the empirical and ethical state of violent media.

This chapter reveals that deontological, utilitarian, and intuitionist approaches are not effective in assessing the moral relevance of virtual actions. Deontology, or Kant's categorical imperative more particularly, fails to demonstrate that violent virtual actions are harmful when applied at a universal level and that they result in treating others merely as means. While Kant can criticize the act of virtual bragging for its violating the Humanity formulation of his categorical imperative, this criticism does not adequately treat virtual actions themselves; instead, it merely criticizes using the medium of video games as a way to carry out an ad hominem attack. Utilitarianism does not offer a method for measuring the utility gained and lost with each virtual action, and the variety of reactions to virtual experiences makes categorizing the responses as raising or lowering utility difficult. Also, there is no clear way to assess whether an increased potential to commit violent acts after engaging in violent virtual acts is a loss in utility; without this information, there is no proper way to draw conclusions about virtual actions. While the importance of ethical intuitionism is bolstered by its relevance in the discussion of ethics in evolutionary biology, it provides a useful but not sufficient method for assessing virtual

actions, in large part because intuitions are limited in their ability to assess complicated, twenty-first century issues.

Unlike the previous theories, Aristotelian virtue ethics provides a way to assess virtual actions. In particular, Aristotle's emphasis on achieving eudaimonia through a life of action and concern for subtle changes in character gives weight to virtual actions. Also, his notion of habituation not only complements but also adds to the conclusions of the empirical data discussed in Chapter 2. While the empirical data and Aristotle both suggest that engaging in violent virtual actions has a subtle negative effect on the player, Aristotle adds the idea that the player's ability to evaluate different contexts in the real world and make the best decision in each, or practical reason, is also diminished by participating in violent virtual actions.

A Deontological Approach

The most recognized proponent of a deontological, or duty-based, ethics is Immanuel Kant. While other concepts within Kant's broader philosophical project may comment on the status of virtual actions, this examination is concerned only with his categorical imperative in isolation from his broader project. The categorical imperative, which is offered in three formulations, is used because it serves as a useful representation of a deontological approach to ethics. The first of these formulations is referred to as the Universal Law formulation, which says, "So act as if the maxim of your action were to become through your will a universal law of nature" (*Groundwork*, 4: 421). This formulation emphasizes the universality of one's actions, and it requires moral agents to consider the value of the maxims on which their actions are based. Since each action is assessed for its adherence to a particular maxim, this theory calls on an agent's sense of duty. When applied to virtual actions, this formulation runs into a few problems. One particular problem is that it offers no way to justify the condemnation of any actions within

the virtual world. Compare a real-life murder spree of innocent civilians to a virtual murder spree of innocent pedestrians. In the case of real-life murder, Kant has grounds to object because such an act is problematic when universalized. With virtual murder, there are no grounds to condemn such an act because when universalized, no problems result. The act of virtual murder is not based off of a maxim that says that real-life murder is acceptable; rather, the maxim for the virtual action is benign because of its virtual nature. If virtual murder were based off of a maxim praising virtual murder, then no concrete problems arise when applied on a universal scale. Thus, the fact that the action takes place in the virtual realm shields it from condemnation.

Kant would have a basis to criticize virtual acts like virtual murder if there were problems resulting from its being universalized. In this regard, Kant could argue that participating in violent virtual actions has some particular harmful result, and therefore is condemnable. The key for Kant is to prove that the maxim on which the virtual action is based does not nullify its effect on the real world when universalized. One way Kant can gain ground is if it were proven that people who engage in violent acts in the virtual world end up committing acts of violence in the real world, which is suggested as a possibility by the trends in empirical research, then Kant may be able to condemn virtual violence justifiably. Or, real-world violence need not even result; instead, all that is necessary to demonstrate harm is an impact on one's duty to oneself and to others. If a video game player becomes more prone to commit real violent acts through engagement in virtual violence, and this is manifested in the player's daily actions (even if partially), then Kant has grounds to criticize this end result. But there is difficulty in making this claim, as empirical support for players becoming more prone to violence, for example, does not directly consider the virtual acts themselves. In a deontological framework, actions are assessed based on their conformity to certain maxims and not their consequences, so to have grounds for

criticism one has to find a problem with the maxim on which virtual actions are based. It does not matter whether or not a player *goes on to* commit real murders after playing a violent video game. The virtual actions are evaluated in isolation, and their virtual nature appears to allow them to escape criticism.

This challenge to criticize the maxims of virtual actions can be taken up by Kant, and he can criticize the idea of self-harm, for example. Appealing to a maxim against self-harm would restrict any action that qualifies as self-harm, virtual actions included. Acts that could qualify as self-harm include those that treat oneself as merely a means, do not respect the dignity of the individual, or inflict physical, psychological, and emotional harm, as examples. The emphasis does not fall on the consequences of that self-harm but rather the fact that the self-harm exists in the first place. With the empirical proof that suggests that players who participate in virtual violence harm themselves in place, Kant may have grounds to call the actions wrong; he could say that the maxim permitting the violent virtual acts, namely one saying self-harm is acceptable, is problematic. Such a strategy of criticism can be called into question, though, because it still focuses on the consequences (this time to oneself, not others) that result from virtual acts, and does not address the virtual actions themselves. The relevant question is whether it is undesirable for all people to be able to commit violent virtual actions; the Universal formulation does not address this question without an appeal to the consequences of virtual actions. The appeal to self-harm is yet another example of grounding a criticism in the consequences of an action, which does not allow for an assessment of virtual actions in isolation. Also, Kant may not even find self-harm problematic; instead, he may consider it a right of the individual. Thus, even if one were to accept self-harm as a universal choice that can be made by anyone, there may not be a problem with this state of the world.

Another formulation of Kant's categorical imperative known as the Humanity formulation says, "Act so that you use humanity, as much in your own person as in the person of every other, always at the same time as end and never merely as means" (*Groundwork* 4: 429). Though Kant claims that each of the formulations of his categorical imperative says the same thing, this formulation appears different from the first. The second formulation emphasizes refraining from treating others *merely* as means. Most actions involve treating others as means to some degree, but Kant accepts recognizes and accepts this. He objects when people disregard the dignity of the individual and treat others merely as means. Consider what this formulation says about the airport massacre scene. In this virtual massacre, the player kills numerous virtual people, but is this treating others as merely means? The first relevant question is, what is included in the term "others"? When he originally created this formulation, Kant could not have had the virtual world of the twenty-first century in mind; it is the task of today's philosophers to interpret this formulation for its relevance in contemporary ethical issues. In Kant's day, "others" refers to both the individual who acts and all other humans. It is simple to say that the murder of innocent civilians in real-life treats those civilians merely as means, but what can be said about virtual people? Can this Humanity formulation account for the worth of virtual individuals? The virtual civilians in the airport scene are not real people. Indeed, they are designed to look and act like real humans, but at the end of the day they will never escape their virtual status. Since virtual people are not real, it is difficult for the Kantian to argue that they are being treated as means only. One way to attempt to make this claim is to arbitrarily grant each virtual person value as an individual. Once these virtual humans gain this value, then they deserve to be treated not merely as means, which would make virtual murder condemnable.

The problem with assigning value to these virtual people is that it implies that virtual humans are as valuable as real humans. When weighing the value of a real human life against a virtual human life, then, the balance would have to be even, which is a disagreeable proposition. Also, such a claim would not only make all virtual acts that treat virtual people as merely means condemnable, but also it would spread to other forms of media as well, to the extent that the humans in each cannot be easily distinguished. Humans in comic books and movies, as examples, would have to be granted value as individuals. Also, since these virtual humans would be granted value, then they, too, would be charged with the responsibility of not treating others as merely means. Kant imagines with his categorical imperative a two-way street where individuals not only deserve to be treated not merely as means, but also are obligated to treat others not merely as means. Virtual characters that are granted value, therefore, would have to refrain from disrespecting the dignity of other virtual characters. What results from this situation is an absence of all actions that treat others as merely means in media; violent cartoon programs, violent comic books, violent movies, etc. would all become benign. As can be seen, the implications of granting virtual beings value are impractical and problematic. In returning to the question of whether the virtual airport massacre is treating others merely as means, the answer is no, for there is no convincing argument to grant value to virtual humans because of their virtual status.

One potential way to criticize violent virtual actions is found in the multiplayer aspect of video games. There are several services (e.g. Xbox Live, PlayStation Network, etc.) that allow players to play with and against other players. While the airport scene that takes place in a single-player mode involves no real people other than the one player, multiplayer modes allow each player to control a virtual character, thus making it possible for one player to virtually kill

another player. But virtually murdering another player's avatar appears outwardly the same as murdering people in single-player mode. The only difference is that behind the virtual avatar is a real person; this virtual murder is not problematic, though, because a player who murders another player's virtual avatar is not treating that person as a means. Once again, the only affected party in this case is the virtual avatar, which does not obtain the same consideration as the real player. An argument can be made that a player can treat another player as a means if that player intends to harm or demean the other player *through the medium* of the video game. This intention signals a *direct* attack on the real player rather than the virtual avatar, and the virtual act would have to be carried out in such a way that connotes disrespect to the person on the other end of the avatar. This type of attack against a real player uses the video game as a service through which to carry out the attack. It is difficult to identify specific virtual actions that could bring about this offense. One potential example of a virtual action that is used to send a derisive message in online gaming is body shooting. After killing another player in a high-pressure or tense situation, players sometimes shoot the virtual dead bodies of the players they kill. This act sends a message to the players who died that they are bad at the game and got killed in an important situation; it is a form of virtual bragging.

This virtual bragging carries with it the intention of making other players feel badly about themselves. Kant can criticize this bragging on grounds that it treats the other players as merely means; not only are the other players being disrespected, but they are being used to inflate the bragging players' impressions of themselves. The act of virtual bragging differs from other virtual actions like murder because uses to its advantage the connection of the virtual characters to real people. The function of bragging in the virtual world can bring about the same results as real-life bragging. This criticism of a violent virtual act only holds together because bragging can

be used in an ad hominem way and Kant's second formulation of the categorical imperative deals directly with this sort of attack. In single-player mode, body shooting means nothing, and in fact it rarely if ever happens because it requires a live recipient. Virtual bragging merely uses the medium of video games to send a real-life message. Even though this particular virtual act appears to violate the Kant's second formulation, there are still complications with this claim.

If the video game is being used as a medium for bragging that treats another as merely means, then is the video game any different than using a social network, telephone, or any other method of communication to brag? The act being criticized is the bragging and demeaning of the other person rather than the act of shooting bodies. The medium of communication in this case is the video game, and the way to send a message just happens to be an action that can be considered violent. In its capacity as a message, then, this act of shooting bodies can be criticized, but it is not distinguishable from sending a phone or social network message. Kant can thus say that using video games in a way that treats others merely as means is condemnable. The problem, of course, is that this criticism groups video games together with other messaging services, and it fails to remain critical of the violent virtual action itself.

While virtual bragging provides some grounding for a Kantian objection, other violent virtual acts, like murder, armed robbery, grand theft auto, torture, etc., are not easily criticized, as the Humanity formulation does not present a structure for calling these actions wrong, even in the multiplayer setting. The act of virtually robbing another player, for example, does nothing to demean that player. Of course, the player's virtual avatar will lose money, but the action does not target the real player in any way. Even if the person whose virtual character is robbed feels insulted in real life, it does not mean that the player controlling the robber treated the robbed player merely as a means. No one can predict how individuals will react to particular virtual

actions, so the reaction is not what determines whether the individual is being treated merely as a means. Another aspect of multiplayer related to bragging is in-game chat. All online gaming services facilitate either voice or text communication between players. Verbal and textual assaults are condemnable by the Humanity formulation on the grounds that they treat other players merely as means. The fact that players are able to communicate only because they are connected to the same servers does not implicate those servers in any way. Like virtual bragging, communicating through in-game chat in a way that treats others merely as means uses the medium of video games to send a message. Altogether, then, when it comes to violent virtual actions, Kant's Humanity formulation gains traction in its criticism of ad hominem actions that use the virtual realm as a medium to send a message, but it does not present any strong reasons to object to violent virtual action themselves.

The third formulation of Kant's categorical imperative is the Kingdom of Ends formulation, which says, "every rational being must act as if it were through its maxims always a legislative member in a universal realm of ends" (*Groundwork*, 4: 438). This formulation synthesizes the first two formulations, as it advocates for a realm in which all members act according to maxims fit to be universal, and that this way of living treats every individual not merely as means. Since both the Universal and Humanity formulations have been analyzed, and the Kingdom of Ends formulation does not add anything new to these formulations, this third formulation will not be applied to virtual actions. As the whole of these formulations, the categorical imperative offers no reason to reject violent virtual acts with the exception of virtual bragging. Even this act, though, cannot be treated differently than bragging over another communicative medium like a telephone or social network, as the virtual action of shooting bodies is not itself in question. In dealing with virtual acts like the airport massacre, the

categorical imperative does not provide a way to understand the virtual civilians merely as means or the act of virtual murder as problematic if universalized. Also of note is the fact that the distinguishing factors in the airport scene discussed in the first chapter have no significant relevance to Kant. While hyperreal virtual humans may appear more real than stick figures and a first-person perspective may engage players more than a third-person perspective, as examples, these differences do not change the fact that real humans are not being treated merely as means when violent virtual acts occur.

An Appeal to Bentham's Utility

Utilitarianism aims at maximizing the utility, or happiness, of the greatest amount of people. Jeremy Bentham, who is considered the founder of utilitarianism, says that the principle of utility "approves or disapproves of every action whatsoever" based on the extent to which it maximizes utility (Bentham 2000, 14). Though Bentham did not have virtual actions in mind when he said "every action whatsoever," his principle can be applied to these actions nonetheless with weighing of the utility that they produce. In order to assess how violent virtual actions should be understood in terms of utility, we need to first establish how to calculate the utility of virtual actions. Take the airport massacre, for example. The virtual murder of countless people can bring utility to both the player and others. The player's utility can increase due to their enjoyment of the game. Players will differ in respect to what they enjoy in games, but some players will enjoy engaging in violent acts. Since utility is the benchmark for determining what is "approved," then these players cannot be criticized for their engagement in virtual violence. The players are not the only people who gain utility from virtual violence. Game developers, too, increase their utility with each additional sale of their games. Though this utility gain is not directly tied to the virtual actions, it is tied to the players' participation in the game. Game

developers depend on players to be interested in their product, so they work to develop an appealing game. This game can have either a lot or very few violent actions available to the players. Whether players buy games for the violent or non-violent aspects, or both, does not affect the utility of the game developers; either way, the developers increase their utility.

Should it matter that the developers' gain in utility does not directly result from players committing violent acts? In the case of deontology, which focuses on the actions themselves in isolation from consequences, the answer is yes. In a utilitarian framework, consequences are what matter. If the capacity to commit violent virtual actions appeals to players, then games will be sold. Also, when players are committing those violent actions after buying the games, developers will know that such actions are being committed (this can be tracked) and gain utility from knowing that people not only bought but also continue to appreciate their product. Thus, the consequences of violent virtual actions bring utility to the developers, and there is no apparent issue with the fact that the actions do not *directly* cause the utility. As in any utilitarian examination, the web of externalities that results from an action is ever-expanding; for this reason, it is near impossible to calculate the net utility of any single action. When looking at the major factors contributing to utility gain, though, the utility increase of game players and developers stands out.

It is more difficult to identify the losses in utility that result from violent virtual acts, because real people are not directly affected by such actions. Whereas players and developers directly gain utility from virtual actions, the same people, the primary affected parties, do not lose utility in an obvious way. One can say that the players are affected in a more subtle way, as empirical research suggests. The studies examined in the second chapter suggest that violent video game players will demonstrate increased aggression, physiological arousal, desensitization

to violence, and so on. If players indeed demonstrate these qualities, then their utility and the utility of others does not necessarily decrease. An aggressive state may not directly translate into real-world violent acts that affect utility. This state increases the *potential* of these acts to occur, but it is likely not sufficient to result in real, violent actions. However, each person differs in regard to their reaction to virtual violence, so the violent video game factor could push some individuals over the edge, so to speak, causing them to commit real, violent acts. For others, several other aggravating factors may have to be present in order for virtual violence to bring about real-world effects. Those individuals who commit real-world violence as a result of their exposure to violent virtual acts can be said to lower the utility of themselves and others. Not only do these individuals limit the utility of others by bringing violence into the world, but also they limit their own utility due to the undesirable consequences of their actions (e.g. jail, losing custody of children, etc.).

Regarding the individuals who do not commit real, violent acts after committing violent virtual acts, it is difficult to say that their utility decreases. The only obvious place to find utility loss is in the state of aggressiveness into which the players enter when they engage in virtual violence. The very fact that players are more aggressive may be considered a form of utility loss for the players (increased potential for consequences) and others (increased chance of being the victim of a violent act). But potential to act violently alone does not seem to support utility loss. Each time a firearm is purchased, the potential for the gun owner to commit a violence act increases. Also, the potential for all people to be a victim of a violent act increases by virtue of the fact that there is another gun "in circulation." Whether or not to say that the act of purchasing a gun, which is akin to the act of committing a violent virtual act in this comparison, decreases utility is a question worth asking. The increase in the potential for more real-world violence to

occur is not something that should be taken lightly. The factors that differentiate video games discussed in the first chapter help to determine the degree to which this potential increases. Capturing a piece in chess does not increase the potential for real-world violence as much as participating in a virtual massacre in an airport, just as the massacre does not increase the potential as much as a killing spree in an open-world game. To say that there is no difference in net utility between capturing a chess piece and going on a virtual killing spree seems odd. But if no real violence results from these actions, then the utilitarian cannot easily distinguish them. If potential to commit virtual acts is considered a detriment to utility, then these acts *can* be distinguished. Depending on the weight placed on this increased potential, one can reach a different conclusion in the utilitarian framework. Utilitarianism comes down to weighing these changes in utility and making a conclusion as to the acceptability of a certain action. When it comes to virtual actions, there is no easy way to assess the net change in utility that they bring. This inability to measure utility is a broader problem of the utilitarian framework, and there is no simple way to apply the theory to the virtual realm.

From Ethical Intuitionism to Evolutionary Biology

Without delving too far into the many branches of moral epistemology, violent virtual acts will be considered from the perspective of ethical intuitionism, or the general idea that intuitions inform one's understanding of moral truths. The notion of intuition involves several independent ideas, the most relevant of which is sentimentalism. Moral sentimentalism refers to the idea that one's experience of the world, particularly one's emotional and sensuous interaction, allows one to understand moral reality (Kauppinen 2014). Sentimentalism is important to examine because it offers a unique way to understand the moral feedback caused by the virtual airport massacre. After participating in the massacre, I felt emotional feedback. In a

sentimentalist framework, this type of feedback reveals the moral nature of the virtual massacre. The negative emotional feedback paints the virtual massacre as something that is wrong. To evaluate the moral nature of any particular action, the senses are used in similar way; this feedback allows individuals to intuit the moral quality of the action. Whether all individuals will react in similar ways to certain experiences and intuit the moral quality in the same way is an important question. Consider a situation where four individuals commit a virtual robbery. Two of these individuals have strong negative reactions to the robbery, while the other two have no reaction. How is the act of virtual robbery evaluated? A fifth individual's response would not necessarily tip the scales one way or the other, as a majority is not enough to justify the truth of a moral judgment. There is no apparent answer as to the proper way to evaluate the virtual robbery when discrepancies exist among individuals. Ethical intuitionism takes into account these conflicts, though, as intuition often contains flaws and is imperfect. Though differences in intuitions exist, these differences do not nullify the value of intuition in moral judgments. While intuition is typically not considered the end-all in moral evaluation, it is a crucial component in the mind of the intuitionist.

These difficulties in forming a moral judgment based on competing intuitions will continue to pose a problem for intuitionists. The presence of differences among intuitions does not imply that there is no basis for making a conclusion about a specific action. The fact that people have moral intuitions, and that these intuitions often align, presents a case for their value, or at least for the intuitions to be taken seriously. Another trouble that emerges for intuitionists is that their source of authority is questioned. By what authority can an intuitionist say that the shared intuition of a group of individuals is correct? How can one know that something intuited as "good" is actually good? To take this step, the intuitionist requires an assumption that intuition

and the process by which people come to know moral truths are proper ways of accessing knowledge about particular actions, and that the conclusions that result from these intuitions are credible. Intuitionists possess a confidence in intuition that is not shared by other ethicists. This confidence, or perhaps more appropriately epistemological assurance, derives from the intuitionist tendency to find value in what the senses tell individuals about the world they experience. The epistemological debate surrounding what can be gained from sensory experience is too large to address in this thesis, but the important point to understand is that intuitionists require a hard-fought justification for their theory to hold weight in judging actions.

Returning to violent virtual actions, ethical intuitionism provides a relatively straightforward method for deriving moral judgments despite its difficulties. Intuitionism also seems to provide the most direct support for the idea that a player's emotions resulting from violent virtual acts actually matter. Back in 2009, if I were to dismiss my intuitions about the airport massacre scene in favor of a lax, "it's-just-a-game" mentality, then this thesis may not have been written. Thus, intuitionism has a certain appeal in the field of ethics, as people like to think that their intuitions are not just empty, pre-civilization feelings to be discarded. Instead, people tend to find value in their intuitions, which remain relevant to many contemporary ethical issues, like the ones examined in this thesis. One of the more recent epistemological justifications for the value of intuition in moral judgment is found in the field of evolutionary biology. Increasingly, evolutionary biologists have been examining how ethics play into the evolutionary timeline, especially in regard *Homo sapiens* and other primates.

One of these biologists is Emory's Frans De Waal, who studies the moral behavior of chimpanzees, bonobos, and other non-human primates. One of De Waal's studies found evidence of an aversion to inequity among brown capuchin monkeys (Brosnan and De Waal 2003). Since

such an aversion has been observed in a widespread number of human cultures, the results suggest not only that non-human species possess a sense of fairness, but also that human ethics today have their origins in the evolutionary process. An appeal to intuition, then, may be an appeal to a sort of instinct for ethics. Humans seem to possess a natural sense of ethics, and intuition is a manifestation of that innate system. To what extent can these intuitions inform our understanding of modern day ethical issues, like virtual violence? Human ethical intuitions cannot be dismissed as outdated or primitive; rather, these intuitions are often the driving force for legislative action. While humans like to appeal to more sophisticated ethical arguments to govern lawmaking in the twenty-first century, they nevertheless are inspired to take action at least in part from their intuitions. Throughout the years of human existence, ethical intuition has surely changed as evolutionary demands change. Despite the changes in intuition, certain base traits, like aversion to inequity, have remained important and continue to influence society today. The fact that intuition underlies many ethical concerns today and has its origins in the evolutionary timeline points its importance. Even when applied to emerging ethical issues like violent virtual acts, intuition can lend insight into the ethical nature of those acts. Whether intuition is adequate to make a complete ethical judgment, especially about twenty-first century issues, is debatable. While its value is substantiated by its endurance in evolution, it nevertheless has issues when applying it to violent virtual actions. Such a simple system is not able to adequately treat all modern issues. Also, the fact that human intuition differs among individuals, especially when applied to situations like the virtual airport massacre, makes it difficult to draw any solid conclusions as to how such situations should be approached..

Thus far, deontology, utilitarianism, and now intuitionism, have proven inadequate as measures for assessing the ethical nature of violent virtual actions. Deontology, or Kant's

categorical imperative in particular, fails in regard to its inability to identify the deleterious nature of violent virtual acts and therefore make them undesirable on a universal level, and in its failure to identify instances where people are treated as means instead of ends in virtual actions. In the case of virtual bragging, such an action is condemnable in its violation of the Humanity formulation, but the aspect under critique is not the act of shooting bodies per se, but rather it is the act of sending a message via a multiplayer video game. Such an action compares to bragging over other electronic communication media, which fails to isolate the ethical nature of violent virtual acts. Utilitarianism fails in that it does not allow for easy weighing of various changes in utility. Also, whether the mere increase in potential for violence to occur as a result of playing violent video games should be considered a loss in utility is unclear. The fluctuation in players' reactions to violent virtual acts (both positive and negative) also calls into question the legitimacy of saying *as a matter of fact* that net utility rises or falls. Ethical intuitionism, despite its compatibility with a contemporary understanding of evolutionary biology, provides only a convenient and quick but not proper and whole method of analyzing the ethical status of virtual actions. While intuitions have their place in assessing actions, mere intuitions are not adequate in taking into account the nuances of the virtual world.

Virtue Ethics and the Aristotelian Answer

Where other ethical theories have failed, a virtue ethics approach succeeds in providing a framework through which violent virtual actions can be evaluated for their ethical merit. A classic account of character, or virtue, ethics is found in Aristotle's *Nicomachean Ethics*. Aristotle claims that all actions aim toward the same end, which is eudaimonia, or happiness/human flourishing, and that to both live and act well is how one achieves eudaimonia (*NE* 1095a19-20). Eudaimonia is pursued for its own sake (1096a1-2). Central to Aristotle's

ethics is an emphasis on the importance of action to the goal of living a good life. To Aristotle, one cannot be happy if in a state of inaction; rather, to be happy is to be in a state of good action (1098b21-23). Thus, each action committed by an individual is important in assessing whether that individual is happy. While each particular action carries weight in an Aristotelian framework, the sum of an individual's actions is what determines whether the individual achieves eudaimonia (1101a9-14). Aristotle imagines individuals with stable characters making virtuous decisions and thus living a life with eudaimonia. No single decision can completely alter a person's character, but consistently acting in certain ways adds up over time.

It can be said that Aristotle is not as concerned with the subtle effects in an individual's actions as he is the way in which each action influences the whole of one's character. Aristotle's concept of eudaimonia does not refer to transient moments of happiness but to a holistic state of being happy. This state of eudaimonia involves consistently acting in a way that conforms to virtue and avoiding actions that damage one's character. When assessing whether or not an action is acceptable, the Aristotelian looks to its effect on the pursuit of eudaimonia. If an individual's action counteracts the goal of eudaimonia, then the action is harmful to the individual and condemnable. When it comes to assessing violent virtual actions, an Aristotelian approach works to determine the ethical nature of the acts. Consider the airport scene massacre. The act of virtually killing countless civilians distances the player from the goal of eudaimonia. To virtually murder is to inspire in oneself the idea that inkling that murder is acceptable. If a player continues to commit numerous more virtual murders, then that player is reinforcing the idea that murder is acceptable. Each virtual action changes an individual in a subtle way. It may take countless violent virtual actions in order to lead to real-life violence, but the damage that is done with each action is damage to one's character.

Imagine an adolescent who decides to go on a virtual killing spree in the open world of *GTA V*. With each additional kill, that individual departs further from a life of eudaimonia and toward a life where such killings are acceptable. Once a single senseless virtual murder is committed, the next handful become easier. The concern in the Aristotelian framework is on the net change in character with each violent virtual action. While a single action is not enough to change a person's entire character, each action makes a meaningful dent. Violent virtual acts can be considered pernicious to players' characters in that they reinforce standards that idea that unacceptable actions are okay.

The Aristotelian's conclusion that violent virtual actions are pernicious reflects the empirical studies discussed in Chapter 2, particularly those in Anderson's meta-analysis and the 2013 Lin study. These empirical studies suggest that playing violent video games increases aggressive behavior, aggressive affect, physiological arousal, desensitization to violence, etc., which is worthy of concern. While those who critique such studies demand proof of a causal relationship, they do not consider that the effect of violent video games is subtler than they expect. While a short, 10-minute session playing a violent video game will almost certainly not result in subsequent real-world violence, an accumulation of these gaming sessions could prove dangerous.

This accumulation refers to the forming of habits from continually engaging in certain actions. Consider, for example, an individual who continues to play violent video games in short, 30-minute sessions. With each additional session, this player becomes more desensitized to violence until a habit is formed. Eventually, the player will undergo actual physiological changes (as discussed in Chapter 2), which will result in living life with an increased desensitization to violence. There are both conscious and subconscious elements in forming and acting on one's

habits. As a habit becomes more engrained in a player, the player may not even recognize that the habit influences their daily actions. Imagine a student who becomes significantly desensitized to violence as a result of playing violent video games. If this student witnesses a classmate being bullied at school, then the student may not interfere in large part because of the desensitization that has been engrained from violent video games. If this student had not played violent video games and therefore not formed the desensitization to violence, then perhaps the student would have intervened. In the first case, the student may pass the classmate without even making a conscious decision to not interfere, indicating that the desensitization to violence has taken root at a subconscious level. The conscious element in habit formation occurs when the student recognizes that a decision has to be made, and that interfering is a viable option. If the student decides to help the classmate, then the student internally reinforces the idea that helping those who are bullied is good. Perhaps the student could even counteract the desensitization that has been building up by helping the classmate. However, the student has another option involving a conscious decision that could reinforce the bad habit. If the student recognizes that a classmate is in trouble but decides not to intervene because the bullying appears playful or not particularly rough, then the student reinforces the desensitization to violence. In both the subconscious and conscious cases, habits have an effect on what decision the student makes.

Similar to the psychological idea of habit formation supported by the empirical studies, Aristotle speaks about habituation as a way to acquire and practice the virtues (1103a25). These virtues are not naturally given, and the way to acquire these virtues is through consistently acting in virtuous ways. To become just, an individual must consistently act in just ways, and this process of doing is what allows that individual to further realize justice. If this individual continues to act in unjust ways, then he will become distanced from achieving justice. Each

action thus works to form one's adherence to a state of virtue. When applied to virtual actions, Aristotle's notion of habituation still applies. When a player decides to commit virtual murder during each gaming session, then that player will become habituated to such an action. With increasing amounts of these virtual murders, the player will not only become distanced from acting virtuously (i.e. treating human beings kindly and not harming them), but also will become more likely to act in a non-virtuous way. The implications of habituation on violent virtual actions are important in their suggestion that players distance themselves from forming habits of virtue with their increasing engagements in violent virtual acts. The effect of each action on habituation to virtue is subtle, as it is in the empirical studies; in this way, Aristotle's understanding of habituation complements the results of the empirical data. But Aristotle's notion of habituation does more than just explain the formation of virtuous habits.

To Aristotle, simply acting in a virtuous way is not enough; it is also important to refine one's prudence, or practical wisdom, such that an individual can act in the right way in any given situation. Aristotle describes practical wisdom as a way to navigate or deliberate about what is good for oneself in the goal of living well (1140a25-29). Practical wisdom is "bound up with action" and "accompanied with reason" such that it develops with increased experience (1140b5-6). Actions thus serve as a way to both habituate one to virtue and refine one's practical wisdom. This notion of practical wisdom involves one's ability to actively assess different situations and know how to respond in the way conducive to living well. If a player continues to engage in violent virtual actions, then this ability to make the right decisions in particular scenarios is diminished. Practical wisdom is particularly important because of its large role in day-to-day decision-making. When players with large exposure to violent virtual actions begin to lose this ability to decide how to act, then they could potentially commit harmful acts to others or live in a

more violent manner more generally. As with the empirical data and habituation, practical wisdom is affected subtly with each new experience, and when these subtle effects build up, then a larger concern emerges for legislators whose concern rests with public safety.

Unfortunately, media researchers seeking to examine the relationship between violent video games and real-world violence receive a lot of criticism for their studies. These researchers fight an uphill battle as lawmakers and academic colleagues often demand to see immediate, significant effects, while the nature of the damage caused by violent video games is subtle and gradual. Just as empirical studies tend to reflect subtle changes that could eventually compound into larger problems, virtual actions as assessed by Aristotle have a subtle effect on one's character and practical wisdom that could similarly result in unwanted consequences. The type of harm these violent virtual experiences present is not the type that can be easily manifested and measured, but the type that is equally dangerous when considered on a large scale. Imagine a country whose citizens are desensitized to violence, more prone to violence, and absent of practical wisdom. While not all of these individuals would commit major violent acts, they would all approach life in a more aggressive, more apathetic, and less virtuous way. This state of being brought about by violent video games poses a threat to public safety, which could serve as grounds for challenging violent virtual experiences in court in the near future.

A virtue ethics approach to virtual actions has a few notable criticisms. One of these criticisms says that virtue ethics unjustifiably assumes that acting violently in a virtual world actually affects players' habituation toward virtue, practical wisdom, and character more generally. It may be the case, some might argue, that the fictional nature of the virtual world nullifies any effects of the virtual experience. This criticism falls short in its lack of consideration for both the differentiating factors discussed in Chapter 1 and the fact that Aristotle's framework

focuses on the individual as a person who lives through action. While verisimilitude, perspective, and participation do not have significant effects in the other ethical frameworks discussed, these factors are important from an Aristotelian lens. How is it that the Aristotelian can say that a violent virtual action damages a player's character because that specific action moves the player away from eudaimonia? Does the Aristotelian have a case when it comes to intentionally allowing Frogger to be run over by a car, for example? The factors examined in Chapter 1 have a noteworthy effect on whether an action can properly judged to affect a player's character in some way. The closer these factors align the virtual world with the world encountered in everyday life, the more significant the virtual action when it comes to its influence on one's character. If a player is able to recognize that a virtual space reflects real life, then their actions in the virtual world become more significant.

Another way to address this criticism is to consider Aristotle's emphasis on actions. Instead of asking whether or not virtual actions affect players' characters, perhaps the better question is why are these virtual actions exempt from affecting character. If eudaimonia is a state of acting well and one's relation in regard to eudaimonia is determined with the sum of all actions, then why would all of one's actions, including virtual actions, not be considered? Also, when engaging in a virtual experience like a video game or virtual reality, players achieve a transfer of perception that makes their "primary reality" the virtual world. Since these virtual experiences require the same approaches to decisions as are required in real life and since players have a sense of agency within the virtual world, it is unnecessarily hasty to simply dismiss the relevance of these actions. If an individual playing *GTA V* decides to go to a store, purchase a gun, and then perch on top of a building before going on a virtual killing spree, then that individual's actions cannot be considered merely fictional and therefore benign. The player

recognizes the fact that the virtual actions are actions that are accessible in the real world and still chooses to go through with the murder. While the decision to commit virtual murder may be far easier than the decision to commit murder in real life, the process of decision-making is the same in each case, and the player's ultimate choice to commit a violent act should not be disregarded.

Of all of the ethical approaches considered in this chapter, Aristotle's virtue ethics approach provides the best method for evaluating violent virtual actions, including the primary impetus for this thesis, the airport scene massacre. This Aristotelian approach avoids the pitfalls of the other theories and adapts remarkably well to the twenty-first century issue of virtual ethics. The factors influencing the airport scene discussed in the first chapter help to define the extent to which a particular virtual act will impact a player's character, including habituation to virtue and practical wisdom, which is the primary "victim" of engaging in virtual violence. The empirical studies examined in the second chapter share a sensitivity for subtleties with an Aristotelian framework, and they suggest that the harm to violent video game players is often pernicious and quiet, but can nevertheless turn into a much more significant problem (i.e. real-world violence). Aristotle's view on how one's character is impacted slightly with each new action provides a moral parallel to the empirical findings. Aristotle would conclude in a similar way as the empirical studies by emphasizing the necessity for each action to be taken seriously because of its measurable effect. Whereas in empirical studies these effects are demonstrated physiologically, in an Aristotelian analysis these effects are manifested in net differences in an individual's character. Though empirical research and philosophy diverge in their explanatory methods, Aristotle's approach seems to bring these different modes of inquiry closer together. Aristotle contributes uniquely to this discussion of virtual actions with the suggestion that

practical wisdom, or the ability to act a precise way in various situations, is also harmed with engagement in virtual violent actions. The damage done to this practical wisdom as well as to habituation to virtue can result in grave, urgent public safety issues. In the near future, new ethical questions involving virtual interfaces and virtual actions will emerge. Despite its remoteness in time, Aristotle's understanding of virtue ethics creates a means through which these emergent questions can be discussed.

Conclusion

Through an examination of virtual media in the first chapter, empirical studies in the second, and moral approaches to virtual actions in the third, this thesis offers a way to navigate emerging virtual technologies and the important questions they inspire. With virtual reality systems in a primitive yet already impressive state, the factors discussed in Chapter 1—violence, verisimilitude, participation, and perspective—will become increasingly important when addressing questions of the fiction-reality divide and ethics. Though each of these factors changes players' interactions with virtual media in different ways, a combination of all of the factors makes for a significantly more realistic experience. Alongside the emergence of virtual reality systems is the increasing prevalence of games featuring some form of violence. Recently, game developer Destructive Creations has pushed the envelope for the type and amount of violence permissible in a game with *Hatred*. The game is not yet available for purchase, but the gameplay trailer provides an idea as to what the finished game is like. In the trailer, a man describes his hate for the world and disgust with humans while he arms himself with various weapons. At the end of a brief monologue, the man exits his house, says, "My genocide crusade begins here," and proceeds to kill all people in his sight (Destructive Creations 2014). The purpose of this game is simply to let players participate in senseless violence by taking the place of a vengeful, cold-blooded killer. *Hatred* thus takes a step in a new direction when it comes to virtual violence, as it focuses solely on committing virtual violent actions.

Without a doubt, *Hatred* will likely be banned in several countries upon its release due to its violent content. The United States, in contrast, protects video games under the free exercise clause of the First Amendment, so *Hatred* will likely be legally circulated to those interested. While *Hatred*, which is perhaps the most flagrantly violent game created to date, will be

protected under the First Amendment, future games with comparable violent content that take advantage of new technology and exploit the factors discussed in Chapter 1 may not achieve the same protection. There will come a time in the near future where games like *Hatred* become available for use with state-of-the-art, immersive virtual reality systems. Once this happens, media researchers will be anxious to conduct studies to measure the effects of this dangerous combination. Considering the trends observed in the empirical studies discussed in Chapter 2, most notably Anderson's meta-analysis and Lin's study, which deal with games containing at most moderate violence, the results of these future studies will likely inspire a cause for concern. The 2011 *Brown v. EMA* case was one of the first instances where the Supreme Court examined whether violent video games should become an exception to the free exercise clause. Some statements in the Court's opinion, such as its insistence that video games are not meaningfully distinguishable from other media, and that there is no causal connection between violent video games and real-world violence, have already been called into question in recent empirical studies. If video games are worthy of Supreme Court consideration, then the combination of virtual reality and *Hatred*-like violence will surely bring about many more cases involving virtual violence and the First Amendment. To say that these future virtual experiences will be banned in the U.S. may be premature, but the analysis in this thesis suggests that this possibility is not far off.

The legal questions that will be raised are rooted more deeply in ethical questions. Each of the four ethical theories considered in this thesis offers a unique way of approaching the issue of virtual actions, but Aristotle's approach is the most successful in being able to evaluate these virtual acts. From an Aristotelian lens, the emergence of violent virtual reality experiences can prove detrimental in the goal of attaining eudaimonia, the habituation toward virtue, and

refinement of practical wisdom. Though a primitive violent action, like steering Frogger into a car, does not affect one's character drastically, the act still produces a net change. The violent virtual reality experiences of the future, which are far more realistic than *Frogger*, have the potential to affect character in a more drastic way. Despite its being over two millennia old, Aristotle's ethical system remains relevant in discussions of contemporary ethical issues and will continue to remain relevant for new ethical issues, especially those relating to humanity's immersion in a virtual world. As for the airport scene, I am glad to have explored this experience from an empirical and ethical perspective. This thesis represents the necessity and benefit of integrating these modes of inquiry in order to best understand the issue at hand.

Moving forward, legislators must abandon their predilections for being concerned only with immediate, measurable violence. Such an approach is reactive in nature and ignores the potential harm caused by violent virtual experiences. Instead, legislators need to adopt a preventative approach that examines the empirical research and recognizes that subtle yet accumulating effects result from engagement in virtual violence. Empirical research and Aristotle provide a way to understand this gradual damage; physical manifestations of harmful habits as well as a distancing from habits of virtue result. Additionally, practical wisdom is diminished as a result of these violent virtual experiences, which could result in players going about their lives in a less virtuous, more violent way. The trends in violence, verisimilitude, perspective, and participation, and the emersion of new virtual reality technology, make the discussion surrounding virtual actions more prevalent each day. It is time to recognize that the divide between the virtual and real worlds is vanishing with time, and action taken now to prevent potential harm from this integration of worlds can help to mitigate a widespread disaster.

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