

CUTTING EDGE OR BLEEDING EDGE: SHOULD VIDEO GAMES BE REGULATED?

by

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ABSTRACT

Video games are currently regulated in North America through an independent organization, the Entertainment Software Rating Board. The United States Supreme Court is currently considering whether to uphold a section of California's Civil Code that bans the sale of violent video games to minors. California's legislature created this regulation on the grounds that it protected minors from the harm and moral wrongs that playing violent video games allegedly cause. However, the Entertainment Merchants' Association has strongly contested this law by contesting that violent video games cannot be proven to be harmful.

From a harm perspective, regulations can be imposed to reduce harm to oneself (e.g. prescription of helmets), or harm to others (e.g. proscription of guns). Regulations can also be imposed to prevent actions that are considered moral wrongs, regardless of the harm they do (e.g. Section 163 of Canadian Criminal Code outlines "Offences tending to corrupt morals"). Therefore, this thesis asks the question, "Is there sufficient evidence that playing video games (a) causes harm or (b) constitutes a form of moral wrong to the gamer and/or the public at large that would justify a Supreme Court decision to uphold California's Civil Code banning violent game sales to minors?"

This thesis is divided into three chapters. Chapter 2 reviews the evidence for and against video games causing harm by examining experimental video game effects literature. Chapter 3 is an analysis of individual games that assesses whether playing them is a form of moral wrong to the player. The results of the first two chapters will provide the evidentiary basis for whether California's law regulating games should be upheld. These two chapters showed inconclusive results in deciding whether video games are harmful and morally wrong to play. Chapter 4 explores improvements that could be made to the Entertainment Software Rating Board's system if the current legislative measures are not upheld. Chapter 5 is general conclusions, discussion, and future directions for this stream of video game research.

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LIST OF ABBREVIATIONS

2-D	Two-Dimensional
3-D	Three-Dimensional
EMA	Entertainment Merchants Association
ESA	Entertainment Software Association
ESRB	Entertainment Software Rating Board

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1 Introduction

The goal of this thesis is to give a balanced assessment to the question of whether government-based video game regulation in North America is justified based on the evidence that playing violent video games (a) causes harm or (b) constitutes a form of moral wrong to individuals or to the public at large. To reach this goal, I will use an approach that will focus on two sets of literature: experimental video game effects research and video game ethics research.

For the purposes of this thesis, the term “video game” will refer to game console (e.g. Xbox 360, PlayStation, Wii) and computer (e.g. PC, Mac) based software that is used primarily for personal entertainment and has player input and graphical output. To further specify what constitutes a game, play theorist Jesper Juul's definition will be used:

"A game is a rule-based system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels emotionally attached to the outcome, and the consequences of the activity are negotiable." (Juul, 2005)

This definition synthesizes past definitions of what a game is, as defined by other noted game/play theorists (e.g. Johan Huizinga, Roger Caillois, Bernard Suits). It is sufficiently broad to encompass the current products on the video game market with which this thesis is concerned. While open-ended simulations are a borderline case since they do not have definite outcomes that are assigned different values (Juul, 2005), excluding them from a discussion of game regulation would mean excluding extremely popular titles such as Electronic Arts' The Sims. Although the exclusion of The Sims and similar titles could be justified given the definition of game being used here, it would unnecessarily limit a

discussion of products that are predominantly used and viewed as games, rather than as simulations. The inclusion of simulations is further justified by their being regulated by the same process by which other video games are regulated.

Regulation of an individual's behaviour, according to John Stuart Mill, should only be present when there is evidence that engaging (or not engaging) in it causes harm to others (Mill, 1859). While this definition would be acceptable in a more libertarian North America, it is not representative of how the current system of regulation functions. While regulations have been created to reduce harm to oneself (e.g. mandatory wearing of motorcycle helmets in most states and provinces), they have also been implemented to prevent harm to others (e.g. proscription of firearm ownership), or to prevent actions that are considered moral wrongs, regardless of the harm they do (e.g. Section 163 of Canadian Criminal Code outlines "Offences tending to corrupt morals", while Chapter 71 of the U.S. Criminal Code, "Obscenity" is similar). While other more complex reasons may be responsible for the introduction of regulations, using the categories of harm and moral wrongs will be the basis for this thesis in its discussion of whether video games should be regulated works.

Video and computer games-- along with other forms of media such as books, music, and movies-- are currently considered to be protected works in the United States under First Amendment rights (ESA, Public Policy, 2010). The First Amendment reads:

"Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances." (Bill of Rights Transcript)

The protected status of video games as works falling under free speech has been upheld in 12 court rulings in the United States in the last 8 years (Entertainment Software Association, 2010), which have prevented state-based regulation of violent video game sales (ESA, Legal Issues, 2010).

In Canada, a similar form of protection is given under the Charter of Rights and Freedoms:

“2. Everyone has the following fundamental freedoms:

(a) freedom of conscience and religion;

(b) freedom of thought, belief, opinion and expression, including freedom of the press and other media of communication;

(c) freedom of peaceful assembly; and

(d) freedom of association.”

(Canadian Charter of Rights and Freedoms, 1982)

However, at the time of writing this thesis, no Canadian court cases could be found that challenged the status of video games.

Video game regulation currently exists in the form of a self-regulating organization, the Entertainment Software Rating Board (ESRB). In 1994, the American video-and-computer game trade association, the Entertainment Software Association (ESA, <http://www.thesa.com>) (called the Interactive Digital Software Association until 2003 (Wikipedia, Entertainment Software Association, 2010)) formed the ESRB (ESRB, FAQ's, 2010). The ESRB is a self-regulating body that assigns age-appropriateness ratings to "virtually all games that are sold at retail in the U.S. and Canada" (ESRB, FAQ's, 2010). Age appropriateness ratings were created to "provide consumers, especially parents, with concise, impartial guidance about the age-appropriateness and content of computer and video games so that they can make informed purchase decisions

about the games they deem suitable for their children and families" (ESRB, Game Ratings, 2010). In itself, assigning ratings to games does not strictly serve as a form of regulation (although it could be argued that ratings act as a form of social regulation, if their presence has an impact on consumers' purchasing decisions). However, "Many retailers, including most major chains, have policies to only stock or sell games that carry an ESRB rating, and most console manufacturers will only permit games that have been rated by ESRB to be published for their platforms" (ESRB, FAQ's, 2010). Since the sale of "Mature" rated games are voluntarily limited by retailers to people aged 17 and up, and there is an 80% compliance with this voluntary measure (Federal Trade Commission, 2009), the presence of an ESRB rating acts as a regulatory measure. Because of the limitation on the sale of Mature and Adults-Only rated games, the ESRB effectively limits new games from being part of the mainstream games market unless they are rated. Although some popular exceptions to this rule exist (e.g. Minecraft, <http://www.minecraft.net/>), these games do not approach the sales seen by games such as Call of Duty: Modern Warfare 2 (over \$1 billion in sales, Activision Blizzard, Inc., 2010). In addition, the publisher of any game displaying an ESRB rating is legally bound to follow a series of advertising guidelines (ESRB, Principles, 2010), or face corrective actions, fines, and other sanctions (ESRB, FAQ's, 2010). However, this view of the ESRB as a regulator may be forced to change in years to come, as digital game sales grow. This movement away from face-to-face purchasing makes the regulatory role of the ESRB far more difficult, as any person with a credit card is able to purchase any rating of game, provided it is sold online.

An alternative, government-based form of video game regulation has been introduced that is being reviewed in the US Supreme Court. California recently introduced Civil Code sections 1746-1746.5, which reads, in part:

“A person may not sell or rent a video game that has been labeled as a violent video game to a minor.” (1746.1 (a))

“Each violent video game that is imported into or distributed in California for retail sale shall be labeled with a solid white "18" outlined in black.” (1746.2)

“Any person who violates any provision of this title shall be liable in an amount of up to one thousand dollars (\$1,000)” (1746.3)

If this section of the Civil Code is upheld by the Supreme Court, video games would no longer automatically be classified as First Amendment-protected works. It would change the current regulatory measures for games put in place by the ESRB and retailers, and give California the power to regulate the acceptable content of any violent video game sold in the state to a minor. In essence, it would place video game violence on par with obscenity, since the freedom of speech rights do not extend to protect obscene works (Justice Scalia, *Schwarzenegger v. Entertainment Merchants Association*, p. 15:21, 2010). Obscenity in the context of this case refers to works as defined by a three-part description in *Miller v. California* (1973):

"(a) whether "the average person, applying contemporary community standards" would find that the work, taken as a whole, appeals to the prurient interest, *Roth*, supra, at 489, (b) whether the work depicts or describes, in a patently offensive way, sexual conduct specifically defined by the applicable state law, and (c) whether the work, taken as a whole, lacks serious literary, artistic, political, or scientific value.” (*Miller v. California*, 1973)

This three-part description is used in a very similar way to construct the definition of a violent video game in section 1746 of the California Civil Code:

"Violent video game" means a video game in which the range of options available to a player includes killing, maiming, dismembering, or sexually assaulting an image of a human being, if those acts are depicted in the game in a manner that does either of the following:

(A) Comes within all of the following descriptions:

(i) A reasonable person, considering the game as a whole, would find appeals to a deviant or morbid interest of minors.

(ii) It is patently offensive to prevailing standards in the community as to what is suitable for minors.

(iii) It causes the game, as a whole, to lack serious literary, artistic, political, or scientific value for minors.

(B) Enables the player to virtually inflict serious injury upon images of human beings or characters with substantially human characteristics in a manner which is especially heinous, cruel, or depraved in that it involves torture or serious physical abuse to the victim." (Section 1746, California Civil Code)

However, the evidentiary basis behind California's Civil Code regulating video game sales to minors is nebulous. California's Petitioner's Brief to the Supreme Court stated that their prohibition on offensively violent video game sales to minors was made in order "to protect minors' physical and psychological welfare, as well as their ethical and moral development."

(Schwarzenegger v. Entertainment Merchants Association, Petition Brief, 2010). Strong proponents and opponents of regulation exist, each draws on existing literature to make the point

that playing video games is or is not harmful or morally wrong. In order to show that the California-introduced regulation to games should continue to exist, playing violent video games must be shown to be harmful or morally wrong to play.

Chapter 2 of this thesis will be a review of experimental video game research that will examine the evidence for harm stemming from violent gameplay through gameplay causing aggression, hostility, desensitization and other negative behaviours in the player. Chapter 3 will be an experience-based critique of individual games to assess whether they might constitute a form of harm or moral wrong to the player. Chapters 2 and 3 will provide an evidentiary basis of whether California's regulation of games is justified. The fourth chapter will suggest the form of regulation that is most appropriate for video games given the results of Chapters 2 and 3, and offer suggestions for additional regulations based on video game ethics literature.

2 Analyzing the gameplay methodology of video game research

2.1 Synopsis

The gameplay methodology of experimental video game effects research will be examined in order to determine whether playing video games can be said to be harmful. 58 papers were examined for the following information:

1. Environment in which gameplay occurred.
2. Duration of subject-game interaction(s).
3. Games used as the tools for experiments, and justification for these choices.
4. Recognition of game design differences between games used.

It was concluded that concerns with some of these pieces of information prevented any of the papers reviewed from providing evidence that video games either caused harm or were safe to play. Suggestions were made for future work to address these concerns. An example of a methodologically acceptable video game study would be one that (1) is conducted in a familiar environment to subjects, (2) has subjects play for the duration of play to which they are accustomed, (3) has well-justified choices for the games played, and (4) focuses on minimizing design differences between the games used.

2.2 Introduction

This chapter will examine experimental evidence for video games causing harm. It will provide an evidentiary basis to answer half of the question of whether some video games are harmful or morally wrong to play. The method used will be a literature review of experimental video game research occurring until the end of 2009. Experimental research is being chosen over survey-based, correlational, and meta-analytic studies for two reasons: (a) experimental studies are the most direct way to assess the existence and strength of a causal link between video games

and their effects, and (b) by narrowing the literature reviewed to experimental studies, the volume of papers to be reviewed is cut to a reasonable number for a chapter of a Masters thesis that is able to provide evidence of whether playing video games is harmful.

There is already a heavily cited meta-analytic literature review that examines the effects of playing violent video games, and concludes that they increase aggressive behaviour (Anderson and Bushman, 2001). However, experimental video game effects work has been criticized for publication bias; when this bias was removed in a meta-analysis, the effect sizes of playing a violent video game became non-significant (Ferguson, 2007). The Supreme Court has taken the view that,

“Dr. Ferguson and Dr. Anderson are in a disagreement ... [but] both groups come to the conclusion that there is some tendency [of violent video games] to increase violence. And the American Psychiatric -- Psychological Association, the American Pediatric Association, sign on to a long list ... I think it is [on] the Anderson side that this [gameplay] does hurt children” (Justice Breyer, 28:13, Oral Argument, *Schwarzenegger v. EMA*, 2010).

In the same statement Justice Breyer concludes that there is enough evidence for California’s legislature to make the conclusion that violent video games cause harm.

However, there is still an important part of violent video game effects studies that has not been examined: the methodology used to establish the evidence. It is unsurprising that their gameplay methodology has not yet been scrutinized: neither Supreme Court Justices nor most researchers have a background that includes both knowledge of (or extensive experience playing) violent video games and training in behavioural psychology. In the case of this thesis, the author

has extensive experience with behavioural psychology and video games. In order to support the argument that playing violent video games causes harm, it should be confirmed that the methodology involving the use of video games in experimental literature is appropriate. This serves two possible ends: if the methodology is appropriate, the findings here will support California's law banning violent video game sales to minors on the basis that playing them causes harm. If the methodology is not appropriate, these findings will present a measure of reasonable doubt that should be taken under consideration and addressed with current research findings or future studies before upholding California's Civil Code measure. Suggestions on how future work could be done with better gameplay methodology will be discussed.

The pieces of gameplay methodology that will be examined in order to determine whether the negative effects of games seen are due to gameplay and not other factors are:

1. Environment: Location in which gameplay occurred, since environment has been shown to modify stimulus-response interactions (Beck, 2004).
2. Duration: Length of subject-game interaction(s), since the time spent playing a game should be representative of real world player-game interactions (see Rideout, Foehr and Roberts, 2010, for a survey including average gameplay duration)
3. Selection: The games used as the tools for the experiments, and how these choices were justified, in order to determine whether the games used were representative of violent video games.
4. Game Design: Recognition of game design differences between games used, to examine whether the games were similar except for each game's level of violence.

These were selected based on very basic, game-centered questions that have not been answered in reviews of video game research to date: which games were used, why were they used, where

were they used, and how were they used? Together, these four pieces of information will provide a means of examining gameplay methodology that will provide insight into whether violent video games could be reasonably supported as being harmful products.

2.3 Method

Two databases were searched through the EBSCOHost website: Academic Search Complete and PsycINFO. Academic Search Complete was used because of its status as a large, comprehensive multidisciplinary database. PsycINFO was used because it is one of the largest sources of papers related to behavioural and cognitive psychology. Both databases were searched within Subject (SU) by the search phrase,

(violent or violence or aggressive or aggression or behaviour or behavior or hostile or hostility or effect or effects) and ((video game) or (computer game) or (e-game) or (digital game) or (electronic game)).

Academic Search Complete returned 451 articles. After filtering for articles published 2009 or before and limiting results to peer reviewed work, 203 items remained. Using the same procedure, PsycINFO initially returned 537 articles. After filtering for articles published 2009 or before and limiting results to peer reviewed work, 356 items remained.

The remaining items from both databases were then examined and included in the study if they met all of the following criteria:

- (a) Study had to include a video game based experiment (thereby including studies with multiple parts of which one or more were not experiments).
- (b) Study had some (if not all) subjects play a video game (which excludes studies that were not experimental in nature).

- (c) Study contained at least one experiment examining gameplay effects (to ensure the focus of the study was appropriate for this review).
- (d) Study tested subjects for negative effects of gameplay (aggression, hostility, etc.) (positive effects are not of interest in the Supreme Court case).
- (e) Focus of item was on video game literature more than media effects literature (to exclude studies focusing more on the effects of other types of media)

After combining the results from both databases and removing duplicates, 63 papers remained. 5 were not available from online databases, and were omitted from this review.

The remaining 58 papers were then searched for the four pieces of information discussed:

1. Environment in which gameplay occurred.
2. Duration of subject-game interaction(s).
3. Games used as the tools for experiments, and justification for these choices.
4. Recognition of game design differences between games used.

Each of the four pieces of information gathered will be discussed separately, following general results.

2.4 General results

General findings for each of the 4 pieces of information will be presented briefly, and more specific results presented as part of the discussion.

1. Environment used for gameplay (/58 studies)

Note: a study by Funk, Buchman, Jenks and Bechtoldt (2003) was carried out at both a lab and a classroom (depending on subjects' age), making the total of locations 59 rather than 58.

Laboratory/room: 37

Classroom/childcare center: 5

fMRI (functional Magnetic Resonance Imaging) scanner: 2

Subjects' houses: 1

Gaming club: 1

Not discussed (laboratory assumed by convention): 13

2. Duration of subject-game interaction(s)

Exclusions: Williams and Skoric (2005) had participants who played an average of 56 hours over a month at home (equivalent to 1.85 hours/day), but were not included in the averages here since subjects' play time was not controlled. Panee and Ballard (2002) was omitted because gameplay duration was ambiguous. Two additional studies (Arriaga, Esteves, Varneiro and Monteiro, 2006; Chambers and Ascione, 1987) were not included in averages because they did not discuss gameplay duration.

Minimum gameplay: 3 minutes (Persky and Blascovich, 2007)

Maximum gameplay: 45 minutes uninterrupted (Ferguson, Rueda, Cruz, Ferguson, Fritz and Smith, 2008), or 60 minutes total play divided into 5 12-minute segments (Weber, Ritterfeld & Mathiak, 2006).

Mean gameplay: 18.1 minutes total play (including warmup time, and multiple short rounds)

Mode of gameplay durations: 20 minutes (excluding warmup time, 17 studies)

3. Games used as the tools for experiments and justification for these choices

Note: studies stating only that "the game was violent" without further elaboration were not considered to have selection criteria, since all experimental studies on the effects of violent gameplay would, of necessity, be using a violent game, and since thousands of violent games exist, there is nothing to distinguish the game selected from any other violent game.

Most used violent games (all versions/releases included):

Doom: 7 studies

Mortal Kombat: 12 studies

Unreal Tournament: 7 studies

Provided game selection criteria: 20

Provided criteria for only some of the games used: 3

Criteria not provided/gave description of game(s): 35

4. Account of game design differences between games used

Provided description of differences in game design: 18

Description not provided: 20

Not applicable (one game used): 20

2.5 Discussion

2.5.1 Environment used for testing gameplay

A common phenomenon discovered by addiction researchers is that the use of drugs in a novel environment produces an effect that is different than the use of drugs in a familiar environment (Beck, 2004). The tolerances that the body develops are lowered so that administering a drug in a familiar environment will elicit different physiological responses than doing so in a novel environment. It has been suggested that this phenomenon occurs because the novel environment has a lack of situational (or contextual) cues. These situational cues result in the user's body being unable to anticipate and prepare for the presence of the drug, which then decreases the effect seen by the drug (Poulos, 1981). With some drugs, the opposite is true: instead of desensitization, repeated exposure to a drug in a familiar environment results in sensitization to it, and a corresponding exacerbation of physiological effects with repeated exposures (Badiani and Robinson, 2004). The phenomenon of a novel environment increasing a

physiological response to a drug is thought to have resulted in a number of deaths-- most notably bassist John Entwistle of the Who-- due to an overdose occurring at a level of use that may have been tolerated if the environment had been familiar. For all experimental papers presenting video games as a form of behavioural modifier, the possibility that subjects show this phenomenon has not been ruled out. Theoretically, subjects' behavioural baseline in a novel environment may be similar to their baseline of behaviour in a familiar environment. However, the magnitude and duration of a participant's response to a game could be exacerbated during and after gameplay in the novel environment, just as a response to drugs is exacerbated in a novel environment. No studies could be found examining human drug administration in novel vs. familiar environments, which is unsurprising given the ethical limitations on conducting such a study.

Baldaro et al. (2004) and Williams and Skoric (2005) were the only studies of those reviewed to conduct the experiment with adults in a familiar location in which subjects were accustomed to playing. In both these studies, no changes in aggressiveness were found.

There were also five studies carried out on children at their schools and childcare centers, which could be called somewhat familiar locations since the study had new people present that the children were not accustomed to seeing, but occurred in a similar location and classroom environment to the one to which they were accustomed. Results from these studies provided mixed support for the negative effects of gameplay: three of the studies concluded that violent gameplay had no effect on aggressive behaviour or mood (Fleming and Rickwood, 2001; Funk, Buchman, Jenks and Bechtoldt, 2003; Polman, de Castro and van Aken, 2008). One study concluded that children displayed more aggression after violent gameplay on the basis of qualitatively coded free play (Schutte, Malouff, Post-Gorden and Rodasta, 1988). Another had

mixed results: helping behaviour did not decrease after violent gameplay, although donating behaviour did decrease (Chambers and Ascione, 1987).

In the 50 laboratory and unstated (but assumed laboratory) settings-- which could be considered unfamiliar locations to subjects since the environment, people, and location are novel-- 36 concluded that gameplay had a negative effect, 8 suggested violent gameplay had an effect on only some of the negative effects measured for, and 6 showed no effect of violent gameplay.

Two studies used an fMRI machine as their setting. These cases were assumed to be a very unfamiliar environment that would have been noisy and almost certainly unfamiliar to subjects. Both concluded violent gameplay had negative effects (Mathiak and Weber, 2006; Weber, Ritterfeld and Mathiak, 2006).

Grouping the studies by environmental familiarity indicates that as familiarity decreases, video game effects are seen in more studies. It should be noted that this grouping does not provide strong evidence of the existence of an environmental effect on post-gameplay behaviour, since two of the four groups contain only two studies, and the games used at schools with children were not as violent as those used in gameplay using older subjects. However, it does indicate that the conditions of playing in environments that are familiar (e.g. home), somewhat familiar (e.g. adjacent classroom), unfamiliar (e.g. laboratory) and very unfamiliar (e.g. fMRI machine) should be examined further.

For example, a study to determine the effect of environment on post-gameplay behaviour could be designed in which a group of subjects play a violent or nonviolent game in each of the four types of environment, and then complete exactly the same measures of aggressiveness and hostility. This would serve to determine whether degree of environmental novelty results in

exacerbated behavioural change (the result of a behavioural "game overdose"). If no difference between conditions is present, this finding would support current findings from laboratory-based experiments of the effect of gameplay on behaviour. However, the current body of work in this literature review does not examine environmental context as a factor in purported gameplay effects, leading to the conclusion that current results should be looked at with the caution that the factor of environmental context has not been ruled out or considered.

2.5.2 Duration of subject-game interaction

Gameplay was engaged in for an average of 18.1 minutes (including warm-up time and multiple short rounds), across the 54 included studies. The most commonly used gameplay duration was 20 minutes. Three areas will be discussed when examining gameplay duration: how quickly subjects were cut off from play, whether the flow states ("flow state" will be defined in this section) generated from this duration of play would be equivalent between violent and nonviolent games, and whether the durations of gameplay used were representative of the majority of gameplay situations that occur in real-world gaming.

Studies that have put a time limit on gameplay have the advantage of having all subjects play for exactly equal times, and removing the potential confound of having different playtimes for each subject. However, this benefit takes the risk of cutting players off in the middle of their level, action, round, or race. Suddenly turning a game off in mid-play (or requiring the participant to put down their controller) requires the player to perform at least three cognitive actions: disengage from using the particular set of rules and goals they have been working with during gameplay, recognize that the goal they were working towards is suddenly unavailable, and realize that any effort expended towards reaching the goal of the game has become wasted. As suggested by Juul (2005), two of the key characteristics of a video game are that players

become emotionally bound to the game's outcome, and exert effort to influence that outcome. A sudden removal of the possibility of reaching that outcome could have an emotional effect not related to the effects of gameplay. Specifically, it has been suggested that subjects may become frustrated after being stopped in the middle of gameplay (Ballard, Hamby, Panee and Nivens, 2006). This is usually not a factor in real-world play situations since players have the options of (a) reaching the goal of the game before the game is turned off, or (b) saving their game so that they can return to it later and finish reaching the goal of the game. Designing a study in which half of the participants are allowed to save their game and finish it after filling out aggression measures, while the other half are told to turn the game off without saving, then fill out the same measures, would test for this effect. In the current studies, a save option was not discussed.

Wingrove and Bond (1998) used a different methodology to examine gameplay: subjects played for 20 character "lives" rather than a set duration. This allowance for play to continue until a natural resting point in a mission is reached (e.g. a checkpoint or the loss of the character's life) removed the possibility that any effects seen are due to a sudden stoppage of play that is not built into the game. However, it should be noted that using this measure introduces a confound to the study: not all subjects' playtimes would be equal, and more skilled players would be able to continue playing for longer than unskilled players.

A third method used by Weber, Ritterfeld and Mathiak (2006) addresses both the cutoff and equal-duration play concerns: The game used had the length of each round of play set before the round began. Given that the game used was Tactical Ops: Assault on Terror, this would have been displayed to the player as a countdown timer. The integration of a countdown timer into the rules of the game and the graphic user interface (GUI) lessens the possibility that subjects see the stoppage of play as an unexpected event since it is integrated into the rules and interface of the

game, and is displayed throughout the round. All subjects are then regulated in the amount of gameplay while already forming an expectation of when it will end. A replication of this study with the additional condition that one group is shown a round timer while the other group is not would provide more information into whether sudden play cutoffs influence results.

It should be mentioned that using this method limits the games available to ones that allow round timers to be set. While this does remove some games that cannot use timers, or do not have the capability in their source codes to time play, it does leave a significant number of popular violent and nonviolent titles that would be appropriate for use: Team Fortress 2 (Valve, 2007; violent) and AudioSurf (Invisible Handlebar, 2008; non-violent) to name two. I have not mentioned using an external timer here since this measure does not integrate round timing into the rules of the game, making it part of a separate system of rules external to the game.

Gameplay for 18.1 minutes (the average of total time given to subjects to play, including training time) may not give subjects enough time to grasp the rules of a game, iteratively learn basic gameplay and control structure, and gain a sense of mastery over gameplay, as would be the case in real life. A curvilinear relationship of gameplay duration and aggressiveness was demonstrated by Krcmar and Lachlan (2009), where subjects in a 30 minute gameplay session showed less physical and verbal aggression than subjects who had been given shorter durations of gameplay (10, 15, and 20 minutes). Controlling for subject arousal removed this curvilinear relationship. If playing games generates negative effects in the same way that drugs generate behavioural effects, it would be expected that more play would result in more of an effect, in the same way that a dose-response curve is seen with drugs.

This initial increase in arousal and subsequent decrease could be explained by Flow theory, put in the context of games by Kiili (2005). She suggests that if a player's skills are

significantly lower than the game challenge presented, then player anxiety (a component of arousal) occurs, while if player skill is significantly greater than game challenge, player boredom (a component of depression) occurs. Matching a game challenge to player skill is necessary to create a flow state. In a flow state, players are highly engaged by the game (Kiili, 2005). The skill level required for the creation of a flow state is higher in its dexterity and reaction time requirements for high-action games (e.g. a first-person shooter such as Unreal Tournament) than it is for low-action games (e.g. a puzzle-solver such as Myst). Consequently, the amount of challenge that high-action games require to induce a state of player anxiety would be less than their low-action counterparts. Based on this model, initially creating a high-anxiety state followed by an increase in skill would result in a subsequent decrease of anxiety (and thus arousal). This theory offers an explanation of the initial increase in arousal and its subsequent decrease with increased play time. Since only 3 studies reviewed have subjects playing for 30 minutes or more at a time, while 7 have subjects playing for 30 minutes or more in total (including warmup time and multiple short rounds of play), this bears further investigation to ensure that negative effects seen in shorter duration gameplay studies are not due to subjects' initial arousal or anxiety from playing the game. Although papers that measure arousal during gameplay exist (e.g. Ravaja, Saari, Turpeinen, Puttonen and Keltikangas-Järvinen, 2008), a specific study examining specific aspects of subject arousal before, during and after gameplay would provide a strong basis for making an algorithm designed to control for arousal in the results of current literature. In this way, arousal could be controlled for in existing literature with a minimal amount of further research needed, and the results of existing literature confirmed or questioned on this basis. As it stands, only one study accounts for the effect of time on gameplay, and suggests that the effects seen may decrease as play time increases. Since no replication of

these results exists, and the two studies using longer play times than 30 minutes suggest no negative effects are present, other studies on gameplay may have results dependent on gameplay duration rather than gameplay effects.

Future studies should also consider increasing the duration of gameplay if they are attempting to accurately model player behaviour. The time spent playing video games has increased in children aged 8-18 from only 26 minutes/day in 1999, to 73 minutes in 2009 (Rideout, Foehr and Roberts, 2010). With this increase in gameplay duration in the real world, it would be unnatural to have subjects play for only short periods of time in future work. If short periods of gameplay are asked of subjects, it may introduce an unintended confound that would not be readily apparent to researchers who are not (a) gamers themselves, or (b) aware of gameplay statistics.

2.5.3 Games used as the tools for the experiment, and justification for these choices.

It was interesting to note that 45% (26/58) of the studies reviewed used one of three game series: Unreal Tournament (UT; 7 studies), Doom (6 studies), and Mortal Kombat (MK; 12 studies). While these games have remained popular since their release, and are unquestionably violent in all three cases, it could be argued that at least one of these (and the effects subjects show from playing it) is unrepresentative of the emerging violent video game market which consists of hundreds of games. For example, the three top-selling multiplatform games in 2010 were Call of Duty: Black Ops, Halo: Reach, and Red Dead Redemption (Mazel, 2011). While Doom and UT are both First-Person Shooters, as the case with Call of Duty: Black Ops and Halo: Reach, Red Dead Redemption is a cowboy-themed Third Person Shooter: clearly different than the arena fighting-based Mortal Kombat. In addition, their effects may not be the same as other games that have not been tested, and therefore the body of research using them does not

capture the spectrum of effects that available violent games may cause. However, these three games do represent many of the characteristics of currently popular violent games: military characters (Doom), first-person shooter-style (UT, Doom), narrative (Doom), round-based play (UT, MK), and good-versus-evil (Doom, MK), and could therefore be justified as generally violent game-representative.

20 studies provided a selection criteria for all the games they used, 3 provided a criteria for some of the games used, while 35 did not provide a criteria, or gave a simple description of the game(s) used. The studies that did justify their choice of game used a number of general categories (not all categories were used for each study): the interface on which the game was playable (e.g. head-mounted device), the game's popularity (e.g. top seller), how the game compared to other games (e.g. representative of games in its genre), how players thought of the game (e.g. frustrating, arousing), specific gameplay options (e.g. different levels of blood), and game characteristics (e.g. linear play, simple controls). The presence of these categories indicates importance was placed on game choice, and that basic game design principles were understood, since thought was given to within-game characteristics, games related to other games, games related to the player, and how commercially influential the game was. However, this methodology was used for a minority of studies.

Not describing why a game was chosen indicates a lack of understanding of why the game was used. It also results in a missed opportunity to describe details of gameplay (e.g. whether the level used was re-used with the same participant). Although the study may show results that indicate a game had a negative effect, the study's credibility and ability to allow conclusions about the game used and about its results to be generalized to other games is damaged by not demonstrating an understanding of the nature of the behavioural modifier (the

game). Just as any paper examining the causal link between a drug and its effect describes the drug being tested and shows an understanding of its properties, studies on video games should describe the game and indicate the reasons it was chosen among the pool of thousands of games available.

Moving toward a standardized game selection criteria that would allow informed, defensible game choices could be accomplished by combining date of game release, sales data (reported by the company producing the game), total played hours, and Metascore (a composite scoring system that combines all internet-based ratings given to the game). This standardization would result in sound selection criteria for future work based on game recency, sales, playability, and critical reception.

It is far more likely than not that individuals have a video game console: 87% of subjects in a large survey reported having at least one video game console in their homes (with 2.3 video game consoles on average) (Rideout, Foehr and Roberts, 2010). Beside satisfying game selection criticisms, using games that are generally on par with other games in their in-game physics, complexity of game world, and playability would ensure game characteristics did not act as a confound.

2.5.4 Account of game design differences between games used

Of the 38 studies using more than one game, 18 provided a description of differences between the games used, while 20 did not describe design differences beyond describing the games used. Of the 18 describing design differences, 8 used pilot studies or focus groups to show how the games were appropriate to use comparatively. Matching games on their perceived characteristics or on the player experience they create- and specifically on psychological dimensions such as frustration or arousal- is an excellent method to use to match games since

player experiences are being matched, rather than just the game characteristics. In 7 of the cases, the games selected matched well from a game design perspective, and this match is supported by pilot study results showing the games were comparable on a variety of dimensions. However, a second step added to this method resulted in one questionable game comparison. Bartholow, Sestir and Davis (2005) suggested that Unreal Tournament (GT Interactive, 1999) was similar to Myst (Broderbund, 1993) since both were played from 3-D, first-person perspectives and other 3-D first-person games had been shown to be equivalent to Myst on a number of physiological dimensions (specifically Wolfenstein 3D by Apogee, 1992, and Marathon by Bungie, 1994). However, these data were taken from a previous pilot study (Anderson and Dill, 2000), and the violent games were exchanged for Unreal Tournament without re-running the pilot study to confirm that Myst matched Unreal Tournament on the same physiological dimensions. From a game design perspective Unreal Tournament would be called a “technology-driven” game since it showcases the capabilities of a physics engine (Rollings & Adams, 2003), in this case the Unreal Engine; Myst would be considered an “art-driven” game since it showcases the game artists’ work (Rollings & Adams, 2003). Myst does not involve on-screen movement, but rather a “click-through” style of gameplay, much in the style of a puzzle contained in a storybook. To further separate UT and earlier games, Wolfenstein 3D and Marathon do not showcase physics engines, do not use real-time generated 3D graphics, do not generate an immersive gameplay environment, and are not focused on a multiplayer game dynamic. The authors should have re-run the pilot study to ensure that the change in game did not change the pilot study’s findings. However, this improper use of a pilot study did not occur elsewhere, and the use of studies matching games on their perceived characteristics strengthened the findings of the other 7 studies. These 8 papers using pilot studies showed mixed results: while 3 supported gameplay

having negative effects (Arriaga, Esteves, Carneiro and Monteiro, 2008; Barlett and Rodeheffer, 2009; Konijin, Bijvank and Bushman, 2007), 3 had mixed effects findings (Ballard, Hamby, Panee and Nivens, 2006; Bartholow, Sestir and Davis, 2005; Cooper and Mackie, 1986) and 2 did not support gameplay having negative effects (Polman, de Castro and van Aken, 2008; Winkel, Novak and Hopson, 1987). With these mixed findings, it is difficult to make a strong case from these 8 studies for gameplay causing effects or not causing effects.

In the studies reviewed, the five most used genres of nonviolent games included 14 instances of sports-based games (e.g. PGA Tournament Golf (Bartholow and Anderson, 2002)), 11 instances of arcade-style games (e.g. Dance Dance Revolution Max 2 (Williams, 2009)), 6 instances of Tetris-style games (e.g. Tetrisc (Scott, 1995)), 6 instances of driving games (e.g. Project Gotham Racing (Giumetti and Markey, 2007), and 5 uses of 3D platform-style games (e.g. Crash Bandicoot 2 (Polman, de Castro and van Aken, 2008)). Although Tetris-style games could be included under arcade-style games, their high use is interesting to note separately. While 3-D platform games with violence-free levels have been developed recently (e.g. Mirror's Edge, Electronic Arts, 2008, or Portal, Valve Corporation, 2007), it is difficult to find two video games that match well in gameplay characteristics with one lacking violence that also subjectively match with players (hence the usefulness of pilot studies). This calls into question whether effects seen from playing a violent game are due to the effects of gameplay, or to other design differences between the two game conditions. Therefore, accounting for how two games are similar and different is important for justifying the comparison of their effects on players.

To preserve play characteristics between violent and non-violent gameplay conditions using only one game, the weapons in a violent game could be removed for the duration of play for the non-violent game group, and the subjects given an alternative goal such as winning King

of the Hill (with an area that players have to reach modified to change position every 30 seconds, to keep the pace of play fast). A similar scenario using a modified version of Unreal Tournament for high and low violence conditions has already been demonstrated (Staude-Müller, Bliesener and Luthman, 2008), making it a viable, previously used method. Coding this characteristic into a game is relatively simple, and would be inexpensive to accomplish with an experienced programmer or game modder (a term to describe a person making large modifications to games in order to create new maps or modes of play). Although this would be more difficult in a game where the source code is unreleased, there are violent games that exist that have a large modding community that has figured out how to (legally) make changes to the game. If the researchers prefer to use only stock (unmodified) games, a means of eliminating as many differences between the violent and nonviolent game as possible should be established through consultation with a game designer or gaming community with knowledge of hundreds of games (e.g. MeFight Club, a gaming community with ~1200 members).

2.5.5 Further discussion

None of the studies reviewed have found a way to accurately, precisely and systematically quantify players' past experience and skill with violent video games. A far more accurate picture of real-world gameplay that future studies could undertake is to gather data from participants who play through Steam (the largest game downloading service and social networking application for gamers in the world; <http://store.steampowered.com/>). These participants would be able to provide exact game demographics, since Steam collects and retains running totals of gameplay data on a per-game basis for all users for two weeks, as well as a running calculation of the total time spent playing each game, and for some games goes so far as to show that player's proficiency at playing the game. This methodology would limit studies to

participants who use Steam, thus limiting the generalizability of the study to groups of gamers using Steam on a computer (thus excluding those on Xbox, Playstation, Wii and other consoles). Since the data generated is not from a random sample, it could be argued that any results generated are not as valid as a randomly sampled group who are enrolled into Steam, then have their statistics collected during a study. However, the use of download services is widespread and growing (e.g. Steam now boasts over 30 million active users, Valve, 2010). This large and expanding user base could be sampled from randomly and a strong case made for the validity of findings from this sample since a significant proportion of gamers participate in it—and are required to participate in it in order to access the multiplayer aspect of some games.

2.6 Conclusion

There are a number of strengths of experimental research that support its conclusions that video games have negative effects on player aggression, hostility, player desensitization, or other effects that could cause them to be considered harmful to play. Most importantly, this research offers a strong psychological background and uses multiple, validated methods of examining changes in behaviour. In addition, the use of pilot studies was generally well applied to determine how two games matched based on player experiences. However, this work is left open to criticism. Most importantly, existing research has yet to show that environmental effects and short playtimes are not responsible for gameplay effects seen. In addition, there is a need to demonstrate selection criteria for the games used, and consistently show that the violent and nonviolent games played were equivalent from game design and player experience perspectives. Without this information, it would be premature to conclude that on the strength of available evidence, violent video games can be shown to cause harm. However, it would also be premature to conclude that they are harmless to play. Therefore, additional research, or research supporting

the use of the environments, durations of play, game selections, and game differences seen should be done.

In order to accomplish the goal of producing research that is more comprehensive in its approach to video game research, a multidisciplinary team composed of a computer scientist specializing in games, a behavioural psychologist, and a game modder would be well prepared to approach this field. Alternatively, researchers should gain experience playing a number of video games and visiting a local video game retailer or online gaming community to obtain a clear picture of the state of the industry before carrying out research on it. Unlike research into addiction, the materials studied are legal and do not, through overconsumption, lead to death.

A Supreme Court ruling that California is correct in establishing a law banning violent video game sales to minors based on the harm that gameplay causes may also impose a false precedent given that current research has only begun the process of being rigorously critiqued by groups outside behavioural psychology. While it is not in the best interest of the public that a law be withheld from being established until there is consensus on the harmful effects of a product, it is also not in their best interest to set down laws that could quickly be shown to be based on shaky evidence, and are still the source of a heated debate within the research community. On the other hand, sensitivity about protecting minors could result in less definitive evidence required by the Supreme Court for acceptance of legislation that is aimed at protecting them. It may be decided that the ESRB is not considered sufficient in the interim period while more definitive research is being done. This is especially plausible since the ESRB has yet to find a way to regulate online game sales: minors can use a parent's credit card to purchase games that they would not be sold in stores. If this becomes the case, legislation should be formed to ban violent game sales to minors, but with a mandate that a yearly review should be conducted by an

independent review board set up to determine whether the legislation concurs with new video game effects research. Without this mandated review, legislation introduced at this point in time could be viewed as an overly protective state intervention in parent-child relationships. At the same time, more funding should be devoted to consolidating the research community's stance on the potentially harmful effects of video games, in order to hasten the support for-- or striking down of-- this legislation.

Therefore, in order for the Supreme Court to justify upholding California's current law banning violent video game sales to minors, the focus must shift from games being harmful, to games being morally wrong to play.

3 Moral Kombat: an experiential critique of the moral properties of seven games

3.1 Synopsis

This chapter examined seven video games for moral wrongs using an experiential critique centered on the following questions:

1. Are the instances of killing in the game virtuous?
2. Does the game encourage respect of its characters and treatment as ends in themselves?
3. Does the violence in game decrease the value of playing it?

In addition, the biocentric and anthropocentric perspectives were considered. While games contained some elements that could be called morally wrong, calling any of the games reviewed fully morally wrong to play would be an overstatement: none of them were considered to be wrong on all four of the dimensions examined.

3.2 Introduction

The previous chapter concluded that current video game research could not fully support or refute the claim that playing games is harmful to minors. . However, it was suggested that it would be imprudent to wait on research findings regarding the harm video games may do since this information could take years to be funded, published and critiqued. Since California's regulation of violent video game sales is based on both harm caused and the moral wrong that games are thought to constitute, violent video games could still be shown to be morally wrong to play as a means of justifying upholding the current law in place. Demonstrating the moral wrongness of some games will result in a weakening of their status as First Amendment protected works and would support regulatory measures being introduced that make some games equivalent to obscene works. If they cannot be shown to be wrong to play, then their status as

First Amendment protected works will be strengthened. Currently, California's law causes some video games to lose their protected status since they are considered obscene based on whether they can be defined as immoral objects. Since the status of video games as First Amendment protected works has been upheld in courts repeatedly, a ruling by the Supreme Court in California's favour would cause the status of games to become fallible to challenges from other parties. In order to determine whether games should remain protected on the grounds that they are not immoral objects, this chapter will be an experience-based critique of whether seven popular video games are morally wrong to play.

Using experience-based critiques of gameplay has not been a common method for video game ethicists. Rather, this method usually falls under the purview of a game reviewer writing for a consumer audience. For example, "good" in the world of game reviews refers to a game's entertainment value, rather than good in an ethical sense. Some approaches have been similar to an experiential critique: Warner and Raiter (2005) focused on comparing grieving behaviour (a term for in-game actions designed to elicit negative responses from other players) in Toontown (Disney, 2003) and World of Warcraft (Blizzard, 2004), while Craft (2007) examined the ethics of virtual infiltration and asset seizure in Eve Online. However, neither of these cases required playing the games as the basis for a critique. A substantial amount of time (over 1200 hours in total) has been devoted to playing the seven games in this critique in order to ensure that a deep understanding of their gameplay has been obtained. By re-playing some of these games multiple times, it is less likely that any gameplay is overlooked that could contribute to offering an ethics-based critique of these games.

In the field of video game ethics research, three theories have been used for discussion more than others: utilitarianism, Kantian duty ethics, and Aristotelian virtue ethics (see

McCormick, 2001, Waddington, 2007, Schulzke, 2010). Of the ethical theories covered in video game ethics papers, these also seem to be best able to provide good insights into whether playing violent video games is wrong. However, the use of these theories in their traditional formulation cannot line up well with California's definition of what constitutes a violent video game that is wrong to play. To re-state the current Civil Code, Section 1746, a violent video game (one that involves harming the image of a human) should be considered morally wrong to play and prevented from being sold to minors if, :

““Violent video game" means a video game in which the range of options available to a player includes killing, maiming, dismembering, or sexually assaulting an image of a human being, if those acts are depicted in the game in a manner that does either of the following:

(A) Comes within all of the following descriptions:

(i) A reasonable person, considering the game as a whole, would find appeals to a deviant or morbid interest of minors.

(ii) It is patently offensive to prevailing standards in the community as to what is suitable for minors.

(iii) It causes the game, as a whole, to lack serious literary, artistic, political, or scientific value for minors.

(B) Enables the player to virtually inflict serious injury upon images of human beings or characters with substantially human characteristics in a manner which is especially heinous, cruel, or depraved in that it involves torture or serious physical abuse to the victim.” (Section 1746, California Civil Code)

This definition essentially asks whether the game promotes virtuous actions, respects other characters in-game, and retains a form of value after taking the violence it contains into consideration. However, the Code's definition is limited in that it does not distinguish between respecting characters with humans playing behind them and respecting in-game characters. It does not look at more than a narrow formulation of Utilitarianism when exploring the game's value: while its scope of discussion is limited to the player, it does not extend to whether the game's violence reduces its value to society. The Supreme Court has already taken the view that virtual works can be considered obscene based on similar criteria established in *Miller v. California* (1973). Therefore, it would be less useful to the case at hand to discuss the moral status of violent video games from traditional Utilitarian or Kantian stances than it would be to work within the existing definition and examine violent video games for moral wrongs on this basis.

Discussion of these games could therefore center on three questions:

1. Are the instances of killing in the game virtuous?
2. Does the game encourage respect of its characters and treatment as ends in themselves?
3. Does the violence in the game decrease the value of playing it?

However, the third question is difficult to discuss with respect to games, since the value of a game to players is formed from both traditional concepts of artistic/literary value (e.g. distinct visual style, deep narrative) and the rule system unique to the game. What is not realized in California's definition is that graphical violence and a game's rule system are rarely connected in a meaningful way beyond the violence acting as a cue to indicate a game event. An example to demonstrate this disconnect is *Team Fortress 2*'s "Party Mode," where killing an enemy causes them to burst into a shower of balloons and streamers, rather than blood: the rule that a kill has

occurred after a certain amount of damage has been dealt is still valid, but the cue itself is far less violent. In order for a game to lack value it would have to have both a morally reprehensible rule system (e.g. points are given for harming innocents, or a winning condition is only reachable by killing children), and high levels of graphic violence combined with few novel graphics or original storyline elements. While games like this exist, they are few and far-between (*Ethnic Cleansing* (Resistance Records, 2002) will be discussed shortly). A combination of market forces may be responsible for this: first, ratings boards (responsible for assigning age-appropriateness ratings for games) can give an “Adults Only” or equivalent rating, preventing them from being sold in any store with a policy against carrying games rated at this level. Second, the price of a major retail release is commonly \$60 per copy (although this may decrease if the volume of indie games increases). Games can rarely be returned at their full price, which adds an additional risk for consumers. Third, numerous game critics (e.g. *PC Gamer Magazine*) receive these games poorly, and are quick to point out works that represent the industry poorly. Therefore, it is unlikely that the mainstream games reviewed here could be said to lack value once their graphics and rule system have been considered. If there are glaring examples of game elements that could cause the game as a whole to lack value (or have questionable value), they will be discussed. As a derivative of the game’s value on paper, the satisfaction players are likely to experience from playing the game will not be discussed here. It is unlikely that a game could be called a moral wrong based on whether players enjoyed it or not, and wrangling over its popular status as adored or abhorred is best left to online forums.

This critique will go beyond examining games based on the Civil Code in one important way: consideration will be made of whether to each game is purely anthropocentric (places value on human life alone) or contains biocentric values (places value on nonhuman-life). As it is

written, the Code does not move beyond violence directed toward humans or humanoids. This seems very narrow given that moral wrongs can occur outside of human-human interactions, and these wrongs can be written into gameplay. In games, the degree to which game environments are mutable varies from present but static (e.g. Modern Warfare 2 has trees that cannot be destroyed) to almost completely destructible (e.g. the settings in Battlefield: Bad Company 2 are almost completely destructible), to virtually non-existent (e.g. Team Fortress 2 has most maps consisting of very sparse terrain). These environments create an additional potential for moral wrong occurring within the game world since it requires the player to, for example, blow up an oil derrick (and have the resultant environmental fallout) in order to stop a terrorist group. By completing these goals in order to move forward in the game, the low value that the game places on the environment might be seen as an acceptable means of reaching an objective, but unacceptable from a biocentric stance.

Before beginning this critique, the question of whether virtual acts of murder could constitute wrongs will be discussed further. California's view on this matter is clear: violent in-game acts can constitute moral wrongs, and some games should be prevented from being sold to minors for this reason. However, as Luck (2009) notes, "...within computer games virtual murder scarcely raises an eyebrow... A virtual murder, some might argue, is no more unethical than taking a pawn in a game of chess." While shooting virtual characters controlled by a computer could be viewed as not being a violation of ethical principles since it does not involve real violence directed at real humans, doing so would violate a strong intuition that games such as Ethnic Cleansing (Resistance Records, 2002) are morally wrong to play. This is a first-person shooter game, sponsored by the National Alliance, in which the protagonist runs around killing Black people and Jews while shouting racial epithets (based on a video of gameplay footage, not

actual gameplay). While it would be theoretically possible to accept the view, that chess and singleplayer first-person shooters are morally equivalent, it has not been accepted when defining obscene works in the past (e.g. *Miller v. California*, 1973); these works (which include virtual pedophilia) can be labelled as such regardless of whether the images they contain are real or digitally produced. Luck (2009) concludes that games and obscene acts can be morally equivalent on the basis of five types of harm they may do, but adds that, “For those gamers who have strong intuitions that virtual paedophilia should be prohibited, be aware that, although we have focused on computer games, this dilemma could be adapted to other types of virtual worlds, such as films, paintings and books.”

The degree that characters with a real human controller behind them should be respected and have real-world ethical frameworks applied to them is still unclear (Consalvo, 2005). While the individuals behind characters in a game generally remain unaffected by virtual events, there have been numerous examples of events in games affecting the real world. For example, Dibbell (1993) showed that a hacker breaking into players’ online game accounts and taking control of their avatars resulted in those individuals feeling personally attacked and virtual community outrage towards the hacker. Another example is a growing industry in China is "gold farming," where gamers pay Chinese youth to play the first boring levels of games such as *World of Warcraft* (Barboza, 2005). If hackers were to crack the account passwords of these "gold farmers," this could lead to a loss of real world profits and livelihood for the victims. In fact, this type of event has already occurred: Craft (2007) describes virtual events in the game *EVE Online* that involved the infiltration and betrayal of a coalition of players by a secret coalition of players that lead to the loss of friendships, thousands of dollars worth of virtual assets, and thousands of

hours of effort on the part of the characters in-game. In these cases, disrespect shown towards the in-game character clearly affects the player behind the character.

To limit the scope of discussion in this chapter, I do not intend to discuss the ethics of play (e.g. whether the lack of real-world productivity while playing a game is a wrong, and if so, whether this wrong is a property inherent to all games). Games are made, first and foremost, as a form of entertainment. While this has not prevented them from being used for other purposes (e.g. Foldit (<http://fold.it/portal/>) asks players to fold proteins better than current computational means of doing so, as a means of harnessing the human brain for scientific work; Urgent Evoke (<http://www.urgentevoke.com/>) uses online social networks to orchestrate social change movements), they will be considered to be entertainment works where significant value is placed on their ability to (a) tell a story and (b) promote enjoyable gameplay. I will also not be looking at games as they exist on paper. Instead, I plan on examining the ethical properties of the unique world each game contains that has been experienced through gameplay. This distinction becomes more readily apparent when an analogy to music is used. Symphonies are not understood if they are described by another person, or if only a small portion is listened to before judging the work as a whole. The same is true for games: reading their description and playing them for 5-10 minutes is not enough time to understand them fully: experiencing the game's narrative and ethics system over the course of playing and mastering a game is necessary to evaluate it accurately.

Since games will be looked at after being played, some degree of bias will be present in this article that is related to my experiences as a player. This will be most evident in a discussion of the multiplayer games, since a large portion of my experience is based around playing with members of the MeFight gaming community (www.mefightclub.com). Compared to playing in a

public server with complete strangers, this experience is different since all players game together on a nightly basis, and many members are friends in real life. However, there is a spectrum of how much interaction there is with this group compared with players from the general public: at least one game (Modern Warfare 2) was played entirely without club members and one (Left 4 Dead 2) almost exclusively with them. The decision to use bias and experience to critique a game, compared against objectivity and inexperience playing it, is based on the position that a game needs to be played in order for it to be fully understood (Sicart, 2005). This position is clearly one that stems from— and appeals to— gamers, since a large amount of importance in gaming culture is placed on not appearing inexperienced at playing a game (colloquially, gamers use the derogatory term “noob” for a person who plays poorly, which refers to the player’s apparent lack of expertise with the game being played).

The seven games to be critiqued were selected to represent a variety of play styles, have a mix of singleplayer, multiplayer, and single-and-multiplayer gameplay, include a range of violence, and have demonstrated popularity within the gaming community. The seven games are:

- Call of Duty: Modern Warfare 2 (Activision, 2009)
- Left 4 Dead 2 (Valve Corporation, 2009)
- Team Fortress 2 (Valve Corporation, 2007)
- Half-Life 2 (Valve Corporation, 2004)
- BioShock (2K Games, 2007)
- Portal (Valve Corporation, 2007)
- Braid (Number None, 2009)

A number of definitions will also be useful to keep in mind:

"Singleplayer/multiplayer" refers to the number of individuals meant to play in one game at once (e.g. the card game Solitaire is singleplayer. A game of soccer is multiplayer)

"First person" and "third person" refer to the camera perspective used by the game: "first person" indicates that the player is looking through the eyes of the character at what the character sees.

"Player" is a reference to the person playing the game, while "player's character" is a reference to the virtual avatar in the game that is being controlled by a real player (as opposed to being controlled by the computer)

"Spawning/respawning" refers to a character coming into being during the course of a game. In chess, when a pawn reaches the opposing side of the board and becomes another piece, it could be said to die and a new piece respawns in its place.

"Twitch shooter" is a term referring to first-person shooter games in which the primary goal is to be faster and more accurate at shooting the enemy than the enemy is at shooting the player.

Although writing a game's title as an acronym is standard practice for video game ethics literature, video game reviews, and conversations related to video games, the use of game acronyms in this chapter will be avoided as much as possible to avoid confusion.

3.3 Critique of seven games

Before reading the assessment of each game, watching the YouTube video links provided is recommended. This will provide an introduction to the game and a sample of gameplay that will serve as the closest proxy to actually buying and playing the game. Further in-game footage can be found by looking up the name of the game on YouTube followed by the word "gameplay." Current age-appropriateness ratings and rationale for those ratings will also be provided (from the ESRB website, <http://www.esrb.org/ratings/>).

3.3.1 Modern Warfare 2

<http://www.youtube.com/watch?v=6ZUmTdeaoiQ>

Rated Mature: Blood, Drug Reference, Intense Violence, Language

The Call of Duty series of games had its first release in 2003, with Modern Warfare 2 released as its sixth instalment in 2009. In the multiplayer component of the game, the maps that teams play on range from bombed towns in the Middle East to Russian submarine bases, on which opposing teams of terrorists and special forces fight against each other in infantry combat (with occasional air support). The singleplayer campaign enables players to work through a set narrative, in which Russia attempts to invade the United States because of a failed infiltration of US Special Forces into the Russian mafia. This game requires linear solutions to most of the challenges it presents to the player. An interesting notion in this game that rarely seen in military-themed games is that in the early singleplayer campaign, players are not allowed to fire at enemies unless fired upon first, and cannot shoot civilians without being forced to restart the level. This rule is reversed in the most controversial level of the game, "No Russian," in which the player takes the role of a US Army private disguised as a Russian mobster. To complete his mission and remain undercover, the player must make his character help other mobsters shoot civilians in an airport. At the end of the level the player's character is shot to death by a mobster who had known the character's true identity during the whole mission. According to Jesper Juul's *Half-Real* (2005), this constitutes a rare occurrence in games: a level constructed as a tragedy. Players are offered the chance to skip this level at the beginning of the game, and it has been banned in some countries (including Russia) due to government objections over the content it contains.

Some of the singleplayer objectives in Modern Warfare 2 promote ethical actions, such as the restraint players are required to show at the beginning of the game by not killing until forced to defend themselves. However, most gameplay in both singleplayer and multiplayer modes have killing enemies as the only manner of winning. Although a boat race and a snowmobile chase are part of the singleplayer campaign, both of these are done armed and with armed pursuers. In multiplayer games, a player's proficiency at "twitch-shooting" is tested (aiming and firing a virtual gun faster than the opponent player), which encourages players to strive to become the most clever and efficient killers possible. Examining this from a virtue ethics perspective would suggest that by not just training killing, but killing inventively, playing Modern Warfare 2 is a moral wrong (McCormick, 2001). According to Sicart (2009), players are moral agents capable of reflection on their actions while in a game. Perhaps while playing in the game's world, players are only capable of being-- and likely to be-- reflective when the pace of the game is slow enough to allow pauses for thought between moments of action. In the previously discussed "No Russian" level, unethical actions are required of the player, but it is the only level in this game that players can reflect on fully as moral agents due to the forced slow pace. During No Russian, the player is forced to walk through most of the level with few opponents, as opposed to the more typical high-tension sprinting and bullet-dodging game mechanism. Even though the player and other characters are still committing disturbing acts, the pacing and pauses in gameplay allow actions to become reflective, not just reflexive.

There are a series of achievements in Modern Warfare 2's multiplayer mode that unlock new titles that a player can show next to their nametag (e.g. killing 100 enemies with one-shot-kills with a sniper rifle earns the title "Ghillie in the mist"). Titles are almost exclusively based on violence, and turn acts of violence into statistics that players work towards. Respawn after

being killed can also be done multiple times during the course of a game, with little delay between death and respawn. While being killed is seen as an event to be avoided, there are no repercussions shown for dying in the overall scheme of a round, other than contributing to the other team's score. Therefore, the multiplayer aspect of this game fails to respect game characters as ends, treating them instead as means to winning new titles, accolades, and game levels.

Modern Warfare 2's singleplayer campaign features a betrayal of the player by their commanding officer as part of the narrative; the officer's treatment of the player's character is only as the means to political ends. While narratologists-- who argue that games should be understood as narratives-- might argue that a cathartic moment of tragedy is created in this instance, ludologists-- who focus on games as systems of rules-- would suggest that the player feels cheated by a supposed compatriot since the orders they were following had a different purpose than originally thought. This is especially interesting because it shows the disconnect in ethical stances if a game is addressed primarily as a narrative, with value placed on the story, compared to it being addressed as a rule-bounded space, with value placed on how the player acts within those rules. If Sicart's view of the reflective player is again taken here, it is most likely that the events in singleplayer mode could train the player's sense of duty to other humans through producing a feeling of betrayal of that duty resulting from the officer's actions. However, this single instance of narrative does not balance out the general disregard for human life that Modern Warfare 2 promotes through its design.

In Modern Warfare 2, the environment presented is not destroyed by the player or during cutscenes. Houses, trees, and other environmental objects are not affected when under fire. During the course of the game, the International Space Station is destroyed to give the United States an advantage against Russia, and numerous helicopters, harrier aircraft, and other vehicles

are destroyed. Cars can also be blown up. This may be cause for concern from a sensitive biocentric stance about whether the environmental hazards resulting from warfare are justified, but the game does not generally contain environmental destruction as a regular part of its gameplay or cutscenes. Another potential biocentric point of concern is the killing of dogs that occurs. The player is attacked by German shepherds during the game, and required to kill an animal in self defence in order not to get killed himself. Extreme biocentrists could make the argument that this is not necessary for the storyline or cohesiveness of the game world, and could be considered an arbitrary element of the game that could be removed without detriment.

3.3.2 Left 4 Dead 2

<http://www.youtube.com/watch?v=sByyd5M2vYk>

Rated Mature: Blood and Gore, Intense Violence, Language.

Left 4 Dead 2 will have a more in-depth critique of the moral properties of its gameplay than with other games reviewed in this chapter. Because of the author's large amount of experience with the game, it is likely most if not all of the possible scenarios offered by the game have been encountered.

Left 4 Dead 2 is set in New Orleans, after an infectious, rabies-like pandemic has caused most of the world's residents to turn into aggressive zombies called the "Infected". Four survivors who are immune to the infection have to find a way to get out of the city, without being killed by the Infected in the process. No detailed back-story is provided on how the survivors met, only that they need to find a helicopter with an uninfected pilot to fly them away before the military bombs the city. Players each take the role of a survivor. Interestingly, the survivors' looks, movements and voices are modeled on actors, which is unusual for a game. There are

different types of Infected that have different mutations, which gives them different abilities, and they must be fought differently as a result. For example, the "jockey" class jumps on the back of a survivor and holds on until the survivor falls down, or the jockey is shot. The game is designed as a "playable horror movie" with four acts, each consisting of four to five scenes (for added player engagement in its "film" idea, the amount of film grain displayed can be changed).

Two important elements of this game are the high importance placed on teamwork and a "don't shoot everything that moves" philosophy that is built into the enemy infected: game developer commentaries stated that players must work with all other members of their team to defeat the most powerful types of Infected, and be selective about which enemies they kill (two types of Infected use a mechanism that disadvantages the survivors when those Infected are attacked) (Left 4 Dead 2 Developer Commentary, available in-game). It should be noted that no animals or children are harmed-- or even present-- in the game: all in-game characters are adults. This removes a potential ethical issue of harming innocents (although it could be argued that, once infected, adults, children and animals would be equally innocent due to a lack of awareness about the consequences of their actions, regardless of the harmful results). Also built in is a "low violence" mode, which removes corpses and blood spatter from the game.

It has been argued that engaging repeatedly in a behaviour in a game causes changes to moral character (McCormick, 2001). If the actions taken in a game are related to heroism and teamwork, it would be plausible to say that the game requires ethical action of players to reach a winning condition. It follows that if engaging in violence is considered bad for moral character, engaging in heroic acts and teamwork would be considered beneficial. Whether killing Infected is good or bad is still debatable: while on one hand unnecessary killing is wrong, the software code regulating Infected behaviour in Left 4 Dead 2 makes them inherently aggressive.

Therefore, all killing could be said to be in self-defence since all Infected, given the chance, will attack. This could be argued to be a moral right to keep the player's character alive. In addition, shooting characters on the same team deals them damage (thus disadvantaging the team) and players quickly learn to avoid shooting each other.

The aspect of this game that would call to question its ethical dimensions is the play required to win "versus" and "scavenge" match modes, in which two teams of four players compete in each of 3-5 scenes to finish an act. In each scene, one team plays as the survivors, and the other plays as the Infected, then the teams switch roles and play the scene again. However, since Infected are easily killed and respawn about 20 seconds later, a dynamic of multiple spawnings occurs during a round, much the same as Modern Warfare 2 (albeit with a much longer respawn delay). Attempts to kill survivors have no clear rationale aside from the creation of competition between teams. Therefore, while it allows more players to be included in the game (and more strategies to evolve), this aspect of Left 4 Dead 2 is ethically questionable. It is, however, the only way in the game that two teams of real people compete in this game, rather than have a real team facing an artificial opponent.

After playing Left 4 Dead 2's versus mode for hundreds of hours with a group that has grown to 123 individuals (with 8 people playing a game at once), some mastery over the mechanics of the game has been achieved by all players. The ethical problem with this mastery lies in the closeness of scores that occur, and promotes different tactics than would be seen from new players. Since some games end with a difference between teams of 1 point out of a possible 3000 or more, any extra distance that the survivors manage to run towards the end of the level is considered important. Therefore, it sometimes becomes an advantage to leave a teammate to die, while the others run ahead. This would be of concern in that it promotes disrespect to the game

characters, since it results in unethical action (leaving a player's character behind when it is possible to rescue them) being taken to reach a winning condition. Also, a recent change to the game has been the introduction of a score penalty when reviving a dead teammate (using a defibrillator). As has been experienced in the game, this penalty has resulted in a team's loss turning into a win, when the opposing team decided to revive a dead teammate and were penalized at the end of the round for it. This clearly does not promote the value of a human survivor's life, but rather puts a conditional price on it: if the player can make up more than 25 points during the level, they are worth reviving. If not, they should be left for dead (providing the assumption is true that all players have accepted that the goal of the game is to win).

However, multiplayer gameplay in Left 4 Dead 2 promotes the treatment of playable human characters as ends in themselves. Characters are given one life during the course of a game (much the same as humans in real life), and if killed must wait until revived by another player through the use of a defibrillator (if at all; defibrillators are difficult to find, and dead teammates sometimes have to be left behind). Teams in which one player in their group of four has died will rarely finish a scene, making it in all players' interests to keep one another alive. While it could be argued that keeping a player alive is a selfish act done to improve one player's chances of finishing a scene (and their individual score, measured by the distance left to the finish line), the scoring system in Left 4 Dead 2 only counts a team's total score at the end of each scene towards which team wins or loses. This has resulted in a play dynamic in which heroism to rescue other characters is commonplace, while selfishness and abandonment of other team members is almost non-existent. The players who decide to run far ahead of teammates usually die quickly, without the other three characters to rescue them. While I recognize that not

all heroism is noble, the narrative set up here-- of promoting human survival-- would suggest that saving one's team is a nobly heroic act in the moral world of Left 4 Dead 2.

Left 4 Dead 2 does not allow the player to interact with their environment beyond picking up guns, ammunition, homemade explosives, and health kits, which limits the biocentric concerns raised by this game. In addition, no animals are present as Infected. However, in one instance a fuel tanker truck is destroyed to create a passage for the gamer to access the next section of map. Gas cans, propane tanks, Molotov cocktails and other combustibles can also be detonated without apparent harm to the environment. In some levels, planes fly overhead and bomb areas of the city in an effort to wipe out the Infected. It is a stretch to say that these occurrences present the idea to the gamer that pollution is acceptable if their character is able to escape the hordes of Infected more easily.

Overall, the goal of each game of Left 4 Dead 2 is to get through it with all survivors intact, as quickly as possible, with as little damage taken by the survivors as possible. Ties between team scores are broken each level by looking at the total damage taken, and giving the team with the least taken a 25 point bonus. In order to accomplish these objectives, the most effective solution is running the shortest route to the end of the level as hastily as possible, while looking out for teammates, as well as stopping and detouring to search for weapons only when necessary. This seems to strike a balance between the ethical theories reviewed above. It promotes valuing the survivor's lives, while striving for an ending in which the survivors live, which is brought about most effectively through morally upright acts. Even though exceptions to this rule unquestionably exist, in the scheme of each game they are very limited.

3.3.3 Team Fortress 2

<http://www.youtube.com/watch?v=NaF638MBSAE&feature=related>

Rated Mature: Blood and Gore, Intense Violence.

The Team Fortress universe is set in a world in which mining sites are fought over by two competing mining corporations: RED (Reliable Excavation and Demolition) and BLU (Builders League United). It is one of the few commercially successful games that only has a multiplayer mode: an internet connection and competition with other, real individuals are required to play it. Graphics are distinctly caricatured and cartoonish, and the goal is to out-kill the enemy (alternatively, it can be to capture checkpoints, but this involves killing any enemies defending them while defending enemies attempt to kill attackers). What separates Team Fortress 2 from other first-person shooters, and which will be the focus here, is the cheerful nature that the game gives to killing, especially since all killing involves characters that are being played by real individuals and not computer-generated entities. Unlike the much-maligned game *Manhunt* (Rockstar Games, 2003), in which the nature of killing is gruesome but sombre, Team Fortress 2 cartoonizes the violence, adds comical sounds and humorous taunts from the killer, and allows killed characters to respawn after a variable delay. In addition, the fast pacing of the game and lack of consequences for dying in most game modes encourages players to be aggressive in their playing style (compared to a game like *Counter-Strike: Source* (Valve, 2004), which promotes a defensive style of play since a player is usually only given one life per round). The one-life-one-round style of play can be found in one mode of gameplay, "Arena," but this is not as commonly played as other game modes.

Because there is no storyline that is presented while playing (apart from the back-story of competing mining corporations), the potential to develop the player's moral character with moral dilemmas, tragic events, or other experiences are very limited. Team Fortress 2 is limited to a "twitch-shooter" in scope, with a degree of tactical thinking and teamwork. Character deaths--

such as the death of a friend's character-- carry little or no meaning, because they will simply respawn back at the team's base within seconds, and be back in the fight. In addition, it is interesting to note that no friendly fire is present (shooting at a teammate does not cause them to lose health). Sicart (2009) suggests that actions in video games with no consequences are morally questionable, and this could be seen to be the case for non-damaging friendly fire.

Team Fortress 2 has three predominant types of gameplay: arena, capture-the-flag, and point control. The rules of arena are simple: kill all enemies, or capture a central point. Capture-the-flag is the virtual version of the real-life capture the flag game. Point control places a number of locations on the map that the two teams fight over to capture and control. However, all three game styles promote using characters as means to an end, rather than promoting keeping the characters alive. This makes the values underlying the game appear to stem from a consequentialist perspective, and promote the idea that the entities fighting are unimportant compared to the objective present. This is reinforced by the ability of players to change into another type of character (of which there are nine, as shown in the video), which is accomplished by being killed and respawning as the new type, or simply pressing the comma key to commit suicide on the battlefield and respawn as a different character type.

A biocentric view of the Team Fortress 2 universe would suggest that there are few points against it. While the two teams are ostensibly competing for mining rights to an area, their environmental impact is limited to bullet holes. There are no explosions (outside of combat), pollutants released, or animals harmed, and the environments played in have sparse plant life, being mining sites.

The nature of the violence that is part of gameplay in Team Fortress 2 could be argued to make the game lack value to the player in any sense but its entertainment value. Death

is treated humorously, with characters able to taunt those they have killed, die comically, be accompanied by unnecessary amounts of gore, presented in a funny way (e.g. being blown up results in labelled pieces of anatomy such as “Your Liver” lying on the ground), and carry imaginative and cartoonish weapons. If the violence were more subdued or treated more seriously, the game would lack a fundamental element that attracts many players but would not be as susceptible to having its value to the player called into question on the grounds that it treats violence and death lightly and humorously.

3.3.4 Half-Life 2

<http://www.youtube.com/watch?v=UKA7JkV51Jw>

Rated Mature: Blood and Gore, Intense Violence

Gordon Freeman is the silent protagonist of the Half-Life series: a PhD in physics from MIT working to close a dimensional rift in space through which aggressive alien races pour in their bid to take over Earth. This game is the first fully single-player one to be examined here, and is important to critique due to its large influence on and presence in the gamer community. For example, Gordon Freeman was voted "All Time Greatest Video Game Hero" in 2009 by Gamespot readers, beating decades-old favourites such as Nintendo's Mario (Gamespot, 2009).

Half-Life 2 is made in an "us-versus-them" style, where the player fights alongside members of a human resistance against hostile aliens. The aliens are shown in the first level to be cruel to humans, with no interest in negotiation or peaceful contact. In order to complete the game, the player must kill both humanoid and bug-like aliens. Also, the player's character is unable to shoot humans. To make sure this is understood by the player, the player's weapon automatically lowers when pointed at another human. Therefore, the only aggressive actions

taken in this game are taken in defence of preserving humanity. However, since no creatures are killed that would not kill the protagonist or other humans (given the chance), those creatures cannot be turned back into normal humans by any known means, and the back-story for the game puts the player in the mindset that finishing quickly is more important than pursuing nonlethal means of stopping opponents, it would be difficult to see how repeated actions players are required to perform are unethical in the context of the game.

During Half-Life 2, players are not able to interact a great deal with their environment. While saw blades can be stuck into trees, the tree itself will not be destroyed or harmed, since it is a static object. One point against this game is that in its finale, the player sets off a huge explosion that obliterates the environment surrounding it. Because no alternatives to this winning condition are suggested by the storyline, it may send a message to players that mass destruction is the best solution in a time of crisis. However, it does not seem fair to say this about the game without also mentioning that the world is constructed so that the player is aware of the time pressure they are under to complete missions and stop the ever-increasing alien threat.

The same cannot be said, however, of a player's empathic faculty, due to the graphic and often inventive means of killing encouraged by the game's design. Traps dropping cars on zombies (some humans have been turned into zombies by the alien invaders), using a gravity gun able to pick up and shoot circular saw blades and other projectiles through opponents, and beating opponents to death with a crowbar are examples. While these methods are certainly useful to the player's success in the game, they make sport of killing. In much the same way that Waddington (2007) suggests that the cruelty for sport in some video games makes them morally untenable, it would have been more acceptable for the game designers to build a way of dispatching aliens, zombies and other opponents with a minimal amount of violence. As

Waddington argues, cruel acts could be considered by Kantians to be violations of duty by the player, to the player, since the acts are contrary in principle to the player's existence as a moral being. While this is certainly possible with some weapons (such as a jerry-rigged crossbow that fires red-hot pieces of steel rebar for one-hit kills of opponents), in general the ammunitions for these weapons are limited, forcing the player to use more violent alternatives to an end than are needed (e.g. dropping a car on the enemy). However, without the traps and gravity gun mechanism, the game would decrease in its value to players as a piece of narrative: both of these elements are integral to the story being told: the traps are part of a mad priest's defence system against zombified humans, while using a modified gravity gun is integral to the last levels of the game.

3.3.5 Portal

<http://www.youtube.com/watch?v=TluRVBhmf8w>

Rated Teen: Blood, Mild Violence

Portal is a game designed as a parallel story to the Half-Life series of games. It is unique when compared to most other first-person shooters, since the "gun" used is not violent: it creates portals in walls, through which the player can put objects and their game character, as well as carry cubes or robots around the levels. The player never has to kill another human, and the storyline is set as a series of "tests" for the character that turns into a mission of escaping a sentient robot (designed along the lines of HAL 9000 in Arthur C. Clarke's 2001: A Space Odyssey). Gameplay consists of a singleplayer series of 3-D puzzles that require creativity and ingenuity to complete successfully.

The most important part of Portal in examining its impact on moral development through virtue ethics is at the end of the game, in which a battle with the sentient robot ensues. To beat the game, the player must direct rockets fired by the robot back on itself by using the portal gun while under a short time limit (the robot is trying to kill the player with poison gas, which takes effect after 5 minutes; the gas does not take effect if the player succeeds). Portal has a unique dynamic of causing the player to employ only defensive tactics while moving forward in the game: no aggressive actions are possible. Also, because the player can never deal damage to objects directly, many of the objections to other "shooter" type games that have been discussed already do not apply here. Therefore, no behaviours are repeatedly engaged in here that are seen as unethical.

Based on clues throughout Portal, a previous "test subject" has come before the player, although they failed in their goal of finishing the tests due to the sentient robot killing them. From the actions taken by the Artificial Intelligence (AI), named GLaDOS, against this previous character, we can assume that it does not treat humans as ends in themselves, simply as a means to its objectives. In fact, it is revealed during the game that this AI did not have a "Morality" component installed. Therefore, the player is placed in a position defending the life of their character, while escaping an opponent with self-serving values. Since no other human entities are harmed in the game, and having the character die means losing against the AI, the character becomes treated an end in herself: only by keeping her alive is the player able to finish the game. It is never explained why the character has to destroy the modules of the AI once they are dislodged during the course of the level, only that doing so is necessary to move on to the next module. While it could be argued that this part of the game is then disrespectful of a machine that is human-like in its intelligence and thus deserves treatment as an end in itself, it would be

difficult to do so considering the machine has been attempting to kill the main character for half the game. Portal is structured in such a way that keeping the human character alive by figuring out puzzles is the ultimate objective.

Portal is set entirely inside an underground facility in which the only living thing is the player. Therefore, in this closed environment, it is difficult to see how the game should be thought of from anything but an anthropocentric view. While destruction of the final "boss" occurs, minimal damage to the surface world is seen.

Juul (2005) discusses the "aesthetics of mind," in which the design behind a game's puzzles and challenges constitutes a form of beauty. In Portal, instead of having a goal of maximizing one's kills-to-deaths ratio or accuracy with a gun, a series of advanced challenges are presented that require the player to complete levels with as few portals, or as few footsteps, as possible to demonstrate their mastery of the game mechanics. This requires the player to completely understand the puzzle presented, since all of the challenges are possible, but extremely difficult.

3.3.6 BioShock

<http://www.youtube.com/watch?v=Ymg2HzHF9-4>

Rated Mature: Blood and Gore, Drug Reference, Intense Violence, Sexual Themes, Strong Language

The fictional universe of BioShock is set underwater, in a submersed city called Rapture that is based on a dystopian character based on Ayn Rand's philosophy. At the entrance to the city the quotation, "Is a man not entitled to the sweat of his own brow" is seen, and the founder of the city explains Rapture's philosophy; in a nutshell, "greed is good". One of BioShock's

draws was its "ethical dilemma" scenario, in which harming or healing a child (referred to as a "Little Sister") was supposed to result in dramatically easier (if harmed) or more difficult (if healed) game. This scenario is presented many times during the course of the game, and depending on the player's actions, changes the game's ending to one of three cinematics. While this choice is supported as a true moral decision by some ethicists (Schulzke, 2010), others have harshly criticized this decision for being a meaningless resource allocation problem since harming or healing eventually has a similar outcome for the character (Sicart, 2009).

Whether the actions taken in the BioShock universe are ethical is questionable: as a game, it responds to moral choices, but does not allow the player to make ethical choices outside the harming/healing a child scenario. In addition, it requires players to kill in order to progress. Another point of ethical concern occurs immediately prior to the harm/heal scenario, in which the player must kill the protector of the child (referred to as a "Big Daddy"). These protectors are purely defensive: they only attack those who attack them. The player is not offered the possibility of leaving both the Little Sister and Big Daddy alone and moving peacefully by. Since 21 of these scenarios exist throughout the game, a strong argument could be made for the unethical nature of these actions.

The characters encountered by the player's character throughout the game are all used for a purpose, without respect for their existence as an end in itself. In turn, the storyline reveals that the character is being used by another character within the game. Enemies, machines, and robots in the game can all be looted (sometimes repeatedly) for their possessions. Therefore, while in accordance with the Gordon Gekko "greed is good" philosophy that underlies the game, it clearly presents a concern for the treatment of characters as ends. Even though BioShock's design is clearly a criticism of Rand, the player's actions embody "greed is good" throughout the game.

The player could very well realize this, but are forced to take all they can find, since increasingly difficult challenges will be faced that could prevent them from finishing the game indefinitely.

This game does not allow for a great deal of environmental interaction, and as such, will not be considered from a biocentric view. The gardens contained by the game are static objects, and not affected by fire or chemicals.

The violence in BioShock is the most concerning of all the games critiqued. While the weapons used are often inventive (e.g. a crossbow that fires bolts with electrified wire attached), the greatest concern comes from the DNA modifying serums that the player can inject to produce superhuman abilities (e.g. the ability to spawn and control swarms of bees). These injections are noted in the storyline to have cost the other residents of the city of Rapture their sanity, yet must be used in the course of finishing the game. The abilities produced, while certainly a novel characteristic in a FPS-styled game, are not necessary to the story, result in horrific violence compared to other forms of killing available, and do not add significantly to the game's value to the player.

3.3.7 Braid

<http://www.youtube.com/watch?v=uqtSKkyJgFM>

Rated Everyone 10+: Language, Mild Cartoon Violence

This standalone title is recognized as a video game industry masterpiece, due to its unique, hand-painted graphics, fantasy storyline of finding a Princess that is based on an allegory for the Manhattan Project, and a new element of gameplay: the character never dies since the player controls time. This feature allowed the game designer to create a universe in which highly complex puzzles could be made for players, with no risk of having to start each level over due to

character deaths. The story is set in early 1940's Manhattan, in which the protagonist, Tim, is allegedly trying to find a kidnapped Princess. However, the story told within the game reveals that Tim's mission is an allegory for him trying to invent the atomic bomb. If the player completes secret missions hidden within the game, they are eventually able to find the "Princess," who explodes into white flashes as soon as she is touched by Tim.

Braid provides the player with the opportunity to do whatever they want without enduring consequences, such as throwing their character into fire. The mechanism for this is simple: pressing a button allows the player to turn back time. This is similar to games such as Modern Warfare 2, in that the Braid mechanism could be re-conceptualized as a zero-spawn time. Both games teach the player through experience that some actions are acceptable in-game, while others will get the character killed. However, Braid's level of realism and overall violence is far lower than that of Modern Warfare, thereby reducing concern that playing it forces unethical actions to reach a winning condition.

In Braid, the protagonist is used as a device for solving puzzles, rather than a human in his own right. Since the game is played in the third person, the player can clearly see what they have chosen to do to their character. If death occurs, it can be reversed; if a mistake is made, the mistake can be undone. However, this ability to undo mistakes results in the treatment of the character as a means to an end: since nothing can hurt Tim permanently, there is no motivation to-- and no sense in-- giving his life value within the rules of the game. The treatment of the protagonist as a virtual lab rat is morally problematic because it assures the player that regardless of how many times Tim is killed, he can be made whole again with just the press of a button- as if it had never happened to him in the first place.

Braid does not contain weapons, and the character does not bleed or change appearance apart from grimacing and falling off the screen when the player's character temporarily "dies." The manner of death (falling into a fiery spiked pit, being hit with fireballs, eaten by carnivorous plants, etc.) is in line with the story world, which is always inimical to the player, and usually a reference to past video game "greats". For example, the game is based on the same 2-D platformer style as Super Mario Bros. (Nintendo, 1985), and the carnivorous plants are adapted from that game as well. Therefore criticizing these methods of dying as removing value from the game would be inappropriate, given the historical value they add.

Braid does not allow harm to come to the plants in its environment. However, the player routinely kills the fauna present in the game. Usually, harming one of the types of animal present is required to reach a platform or goal that is required for the game to continue. This might present the idea to the player that using animals as means to an end-- including killing those animals-- is an acceptable act in pursuit of a goal.

3.4 Conclusions

The purpose of this chapter was to critique the worlds of seven video games in order to show whether or not their content was morally wrong. Each game contained a distinctive world, and should not be lumped together under one category as "violent video games". The methodology used here was similar to that recommended by Justice Scalia in the Nov. 2 oral arguments: "You might call it [an advisory office to review video games] the California office of censorship. It would judge each of these videos one by one. That would be very nice." To summarize the three ethical perspectives from which the seven games were assessed, the following table provides a shortened look at an overall descriptor (good, mixed, poor) of each game's assessment under

each ethical theory. It is especially interesting to note that these games could not be classified as "Poor" when examining whether the game's violent content causes a loss of value.

Table 1 Summary of ethical assessments for seven games

	Virtue ethics	Treatment of characters as ends	Value of playing the game	Bio/anthropocentrism
Modern Warfare 2	Mixed- generally too fast-paced for reflection	Poor- Treats character as means	Good	Mixed- Unnecessary killing of dogs
Left 4 Dead 2	Good- trains teamwork, defence of others.	Good- Character is treated as end	Good- force used is appropriate, no innocents	Mixed- can burn/detonate combustibles
Team Fortress 2	Poor- twitch shooter, humorous killing	Poor- Character lives designed to be short and used as means	Mixed- humorous violence, but only against antagonistic opponents	Good- virtually no interaction with environment
Half-Life 2	Mixed- inventive killing bad, but reason behind killing good	Poor- inventive ends-based killing caused by game design.	Good- violence justified through narrative	Poor- final goal requires massive environmental destruction
Portal	Good- no direct aggressive acts are possible	Good- character's life is objective of game	Good- low violence, none against humans	Good- no environment interaction; game is sealed, underground
BioShock	Mixed- game responds to player ethics, but does not train them.	Mixed- game based on Gekko's "greed is good", but is critique of this as well	Good	Good- virtually no interaction with environment
Braid	Mixed- kill without consequence, but low violence of repeated acts	Poor- character is device for puzzle solving	Good- low violence	Mixed- harms fauna of world to achieve goals

Each game has moral strengths and weaknesses that become apparent after playing it, based on the questions by which it was assessed. It would be impossible to say whether playing any of these constitute a moral wrong at this point, because none of the games could be said to be universally wrong (or universally right) to play based on the Miller 3-pronged Obscenity criteria used by California . Therefore, taking an agent-based perspective on looking at the moral worlds contained by video games has given inconclusive results that bear further investigation using other ethical frameworks not considered here. For example, a broad view of utilitarianism should be applied to these games, as well as an assessment of the degree to which the actions shown in the game would be accepted based on current social norms.

Game designers are responsible for the world with which players interact. For this group of industry professionals, integrating formal ethics systems in their products has been a recent trend that could become far more developed in the future. In *Fallout 3* (Bethesda Softworks, 2008), for example, Karma is used as a moral compass. However, by failing to consider underlying and more subtle integrations of ethics that are unintentional, designers have failed to capture a dimension of games that has only recently begun to be explored. In addition, they leave the game open to criticism from media and stakeholder groups, and in this case California has reacted by creating a new section of Civil Code. The most advanced application of ethics to a game so far is seen in developer Quantic Dream's newest release, *Heavy Rain*. While no formal system of ethics is present, the game focuses on play structured around making choices based on increasingly difficult ethical dilemmas- then dealing with the consequences of each choice made. Unlike *BioShock*, these choices change the narrative behind the game drastically. If this type of game becomes popular, the study of how ethics are integrated in video games will become a necessary focus for the industry. It would present the risk of having a game with intentionally

bad ethical choices being built into it as the only way to win, creating a game that could both harm the industry, and be ethically wrong for consumers to buy.

3.5 Games cited

BioShock (2K Games, 2007)

Braid (Number None Inc., 2009)

Fallout 3 (Bethesda Softworks, 2008)

Half-Life 2 (Valve Corporation, 2004)

Left 4 Dead 2 (Valve Corporation, 2009)

Manhunt (Rockstar Games, 2003)

Modern Warfare 2 (Activision, 2009)

Portal (Valve Corporation, 2007)

Team Fortress 2 (Valve Corporation, 2007)

4 Ethics-based changes to ESRB ratings criteria

4.1 Synopsis

Chapters 2 and 3 provided inconclusive evidence that games were harmful or morally wrong to play. This chapter advocates keeping the status quo of the ESRB, while modifying its ratings system based on video game ethics literature. These modifications are as follows:

1. A rating that depicts the degree of reality a game contains
2. A dynamic rating system for assessing online game content
3. The average number of violent acts per unit time spent playing a game
4. Whether the game trains our capacity to be empathetic through gameplay.

4.2 Introduction

In chapters 2 and 3, the evidentiary basis for regulating games based on their harm or moral wrong was examined through a literature review of experimental video game effects research and an experiential critique of seven games. Both chapters failed to find compelling evidence supporting a Supreme Court decision to uphold California's Civil Code banning violent video game sales to minors. However, these chapters also showed a lack of compelling evidence that video games should be completely unregulated products: some evidence of them causing harm and being moral wrongs was found. Therefore, while there is little support generated for California's Civil Code being upheld, it is clear that some measure of regulation should be present. Currently, the existence of the ESRB acts as a deterrent to prevent game designers from creating obscene games (since the commercial release of these games would be prevented). There are two advantages to having the ESRB's system remain the status quo until compelling evidence or agreement is reached on the harm or moral wrong that playing video games does.

First, the large amount of experience that the ESRB has rating games impartially ensures that the games released are assessed fairly with well-established rating criteria. Secondly, the amount of integration the ESRB has with retailers, game developers and game advertisers ensures that new games being released have age-appropriateness ratings taken into account. However, there are clearly concerns with the effectiveness of this ratings board. Therefore, while it remains in place, the next step is changing or adding to its system of ratings. This chapter will suggest improvements that can be made to the North American ratings process based on the work of video game ethicists.

Before a new video game is released in Canada or the United States, the Entertainment Software Rating Board (ESRB: <http://www.esrb.org/>) assigns it an age-appropriateness rating based on the types of potentially offensive content it contains. In addition to the ESRB, other software ratings boards use similar age-based rating systems. Germany's Unterhaltungssoftware Selbstkontrolle (<http://www.usk.de/>) is a rating board owned by a non-profit limited company whose shareholders consist of game industry associations, while the Australian Classification Board (<http://www.classification.gov.au/>) is a body formed by the Australian government, and Europe's Pan European Game Information (<http://www.pegi.info/>) is a broadly used rating system owned by the Interactive Software Foundation of Europe. Unlike North America, when Germany's rating board refuses a game a rating, the game is sent to the Bundesprüfstelle für jugendgefährdende Medien, or "Federal Department for Media Harmful to Young Persons" that can ban the sale, advertising, and public display of all forms of media, as authorized by the Jugendschutzgesetz, or "Youth Protection Law" (BPjM, 2010). The criteria by which these boards assess game content is very similar: "violence, language, sexuality, gambling, and alcohol, tobacco and drug reference or use" (ESRB: <http://www.esrb.org/ratings/faq.jsp#15>) are

common red flags that raise the age-appropriateness rating of a game. Though these criteria were designed to be sufficiently stringent and comprehensive to prevent games appropriate for a mature audience from being played by younger individuals, an international debate surrounding mature content control was sparked by responses to the November 2009 release of two extremely popular video games: Valve Corporation's "Left 4 Dead 2" and Infinity Ward's "Call of Duty: Modern Warfare 2". Both games were ESRB-rated as Mature (suitable for ages 17+); Modern Warfare 2 for "blood, drug references, intense violence, language" (<http://www.esrb.org/ratings/synopsis.jsp?Certificate=27566>) and Left 4 Dead 2 for "blood and gore, intense violence, language" (<http://www.esrb.org/ratings/synopsis.jsp?Certificate=27786>). Although similar ratings were assigned to these games elsewhere, their developers were required by some governments (most notably those of Germany, Australia, and Japan) to scrub these games of some content in order to allow their sale (e.g. the corpses and blood spatter in Left 4 Dead 2 have been removed in its German release).

The response of Germany and Australia presents an interesting ethical space for exploration that could result in improvements to the ESRB ratings process and result in better protection for the public. Even though the expanding social nature of video games (Warner and Raiter, 2005) results in games being released in more than one ratings board jurisdiction, I will limit discussion here to changes that could be made to the ESRB's ratings process.

4.3 The degree of reality of games

A debate in video game ethics has surrounded the degree to which actions performed during gameplay should be considered real. One approach to this problem argues that the degree of realism in games is cause for concern. This stems from the idea presented in Plato's *Republic* that real virtue is devalued when there is no distinction between real and simulated virtue

(Waddington, 2007). In explanation, when the actions of a virtuous person and a person having the appearance of being virtuous are indistinguishable, the virtue underlying the virtuous person's actions is not valuable since the actions of both people have the same consequence. This is similar to the scenario presented in the fairytale Peter and the Wolf: the repeated-- yet false-- assertion that a real threat (a wolf in the town) is present, devalues (decreases the townspeople's response to) the assertion when it is true. Therefore, it becomes arbitrary to the townspeople whether a wolf is present- they react the same way. Waddington suggests that a partial analogue of this is seen in video game violence: when a player kills a non-player character (NPC), this act can be distinguished from a real murder based on the unrealistic appearance of the game. In addition, the consequences and intuitions surrounding the two acts are different. However, he argues that this may not hold true once technology develops sufficiently to make games almost indistinguishable from real life, and as a result of this decreased differentiation between real and simulated transgression, the idea of wrongness behind a real transgression would be devalued in much the same way as Plato's example of virtue and crime. Even though current video games (the example of the much-maligned game *Manhunt* is used) currently appear unrealistic, Waddington believes there is cause for concern since players who perceive their virtual lives as real may already be devaluing wrongness. This approach seems to be coming from two different directions: one based in sociology, the other in psychology. Sociologically (using the example of murder), it is pointing out that the jump from virtual to real killing is a cultural one, in which a mental barrier formed against killing based on social expectations and norms must be broken down. Accomplishing this is done by disinhibiting those expectations by making virtual murder acceptable and changing the intuitions regarding killing. Psychologically, it is suggested that the removal of differences between the virtual and real world without the addition of consequences

for virtual killing would make real-world killing acceptable. Since most people playing video games have not committed murder, the game would act as their only mental reference point for how it feels to commit murder and experience the consequences of doing so. Therefore, this transgression could become more acceptable in the mind of the player.

A point that has been raised by some players is that any act made possible by a game is part of the game world (i.e. not real), and has no real-world consequences (Warner and Raiter, 2005). Consalvo (2005) takes a similar view of the degree to which game-based actions should be considered real, suggests that games could be considered a space apart from the real world in their rule sets and ethics; the individual's exploration of choices within them-- even if they purposely make the wrong ones-- are a means of acquiring perspective on the consequences of those actions, without having real consequences. She refers to this as the "magic circle" approach to exploring the relationship between games and reality, and relies on the supposition that an intangible boundary exists and is recognized between the reality in which a person lives, and the gamespace in which they play. This theory has not been convincingly refuted or supported by current research, and an offshoot concerning whether the player can be treated as a fully functioning moral agent will be further explored under a following section "Virtue ethics and moral agency."

The existence of video games as a space apart (in their ethics and rules) from the real world is contested by the application of Austin's speech act theory to the behaviour of video game players (Powers, 2003). Speech acts are actions accomplished through words (Ciscognani, 1998). Powers suggests that in virtual communities that are text-based, what is written on-screen is what is done in that virtual reality, thereby causing words to be actions. According to speech act theory, what an individual intends to do (and how they achieve these intentions) is part of the

real world, regardless of whether their actions are carried out in a real or virtual setting. To demonstrate how this could constitute a real wrong in a virtual world, Powers uses the example of a young bushman learning and extending his tribe's oral history inappropriately. The oral history of a tribe can be thought of as a virtual space that is owned by all the members of the tribe, but is only taught to some individuals, and is re-told using the new storyteller's unique style and extensions of the history. Since not all members of a tribe know the oral history by heart, they have to rely on storytellers to remember and have expertise with it. If the young bushman's tribe disagrees with his extension and feels it is insulting, yet the bushman refuses to change it, he could be thought to have caused "...intentional harm to a shared virtual world of a well-defined community" (Powers, 2003). Powers compares this example to an online analogue: the famous case of "cyber rape" (Dibbell, 1993), in which players in the online community LambdaMOO (a text-based game) were forced to behave inappropriately by a piece of code written by a malicious player. Powers' argument using speech act theory has been extended into graphic-based games in arguing that acts of virtual betrayal-- as seen in the game EVE Online-- are morally wrong since all communications with other players are directed to both the person and the character with which they are playing, constitute acts in the same way that text-based phrases constitute acts, and thus should be considered as real (Craft, 2007). Craft also suggests that in the case of EVE online, virtual theft fulfills all the characteristics of real theft since items are given both utility and value in the game, and took time and money to acquire. This is an interesting idea towards arguments of games being based in reality: that because many games have real people behind the characters being played, and since real money is being spent either to play the game or to gain access to certain items in the game, Consalvo's magic circle between play and life is breached.

These arguments suggest a moral boundary that could be addressed by ratings boards: poor behaviour towards other players or computer controlled characters that is enabled by the set of actions coded into the game is wrong, since these actions should be taken as real (even when they have no real consequences). To elaborate, a number of papers have called for game designers to take responsibility for examining the potential consequences of the actions built into their games (Dodig-Crnkovic and Larsson, 2005; Brey, 1999). This boundary will become increasingly important as games continue to become more realistic. However, it has already been accounted for somewhat by existing ESRB guidelines regarding violence: the "cartoon," "fantasy," and "animated" violence labels do not contribute to a higher age-appropriateness rating as much as other violence labels (e.g. "intense violence") (ESRB: http://www.esrb.org/ratings/ratings_guide.jsp). A finer-grained scale of game realism that looks at other types of content may assist in better classification of games, and the reasons behind its inclusion would have to be made clear. It would also have to be simple enough to understand at a glance if it were to be included on game packaging, suggesting a unified scale of game reality would be the most appropriate tool that could be created. If this pose difficulties, using an itemized list for determining game realism during the initial ratings process may prove just as useful. It should be mentioned that the use of this type of scale has the possibility of renewing the efforts of game developers to focus their efforts on creating ever more realistic games, as a means of one-upmanship in order to draw consumers. There is already a large push in the game development community for making more realistic game physics and graphics. This would seemingly defeat the purpose of putting a realism scale into the ESRB ratings system, and would necessitate monitoring the effects of this move carefully.

Interestingly, a new-- and already favourably reviewed-- game called Heavy Rain (Quantic Dream, 2010) has been released that makes this suggestion very relevant: in it, characters that die stay dead throughout the duration of the game, and their deaths affect the attitudes and behaviours of the other characters through the entirety of its storyline. As suggested via its website, this increased continuity and lack of character respawning (i.e. coming back to life) may make the game have more emotional impact than other first-person shooters. If emotional impact is now being touted over other aspects such as violence or teamplay, perhaps a concern relevant to ethicists should be whether training strong emotional responses to virtual events would be cause for concern, if it causes devaluation of real-life events with an emotional impact.

4.4 Consequentialism and anti-consequentialism: utilitarian and Kantian perspectives

When asking how video games might affect players, three types of act they may contain are suggested: dangerous acts (which carry an increased risk of harm to the individual), harmful acts (which inflict damage to an individual directly), and risk increasing acts (those that increase the likelihood of committing one of the other two types of act) (McCormick, 2001). Research in the effects of violent video games has not convincingly shown them to be dangerous or harmful. However, gameplay may constitute a risk-increasing act. If this case is true, it is suggested that rule utilitarians would have to be critical of violent video games proportional to the likelihood of increased risk of harm that came from playing them that outweighed the increased likelihood of benefitting from play (Ibid.). For video games to be considered harmful, McCormick argues that there (1) needs to be an actual increase of risk, and (2) that the risk needs to outweigh the benefits of playing. However, disagreement over whether there needs to be a proven increase in risk has resulted in a suggested change to this argument's wording, based on an approach that

seems to draw from the precautionary principle. Simply put, this principle can be stated: "...if one is embarking on something new, one should think very carefully about whether it is safe or not, and should not go ahead until reasonably convinced it is. It is just common sense" (Saunders, 2000). With this in mind, for video games to be considered harmful there (1) needs to be significant potential for an increase of risk, and (2) there needs to be the significant possibility that the risks of playing would outweigh its benefits (Waddington, 2007). In addition, it is suggested that by accepting this modified argument, a utilitarian would demonstrate imprudence, but not necessarily a moral wrong, to do something that is potentially wrong. This argument, although it results in a weaker overall conclusion than McCormick's (i.e. playing some games is wrong, given evidence of an increase in risk as a result of playing), has the benefit of not requiring immediate evidence to make judgment calls about whether to play a video game.

Kantian duty ethics theories have also been applied to (violent) video games in an effort to answer two questions: do acts of cruelty during gameplay increase the likelihood of violations of one's moral duty to others, and if so, at what point do the effects of gameplay justify the moral condemnation of that activity (McCormick, 2001)? It is suggested that offering support to either question would not be possible. To support the first would require that many morally acceptable activities be banned since we would have to become highly sensitive to any (even slight) problems they cause (e.g. sports such as football) (Ibid.). To support the second question, empirical evidence is required and yet a convincing study demonstrating the harm or benefit of video games has still not been published (Ibid.). Waddington (2007) agrees with McCormick's arguments regarding a Kantian assessment of video games, and suggests that even if video games violate one's moral duty, morally acceptable activities do not need to be made untenable. The distinction that some cruelty is acceptable in necessary professions while the cruelty for

sport in violent video games is not acceptable is a stronger argument for supporting morally acceptable activities than McCormick has suggested. To demonstrate this in a real-world setting, Waddington uses Kant's example of surgeons (because they used to carry out experiments on animals that would have been deemed cruel). In addition, if an activity is not employed for a good purpose, and would not easily be included in a "good society," then Waddington questions whether it should be considered wrong.

A Kantian seems to be able to accept games only if they could be proven to not be employed for a bad purpose, while Utilitarians would suggest that perceiving risk in a game makes playing it an imprudent act. Most importantly for emerging games is whether the experience they provide is perceived as a risk-increasing activity. This is especially relevant to forming new ratings board recommendations for online games, which will have to include internet-based gameplay under their purview due to the rapid expansion of games made for this sector. Currently, the ESRB does not rate a game's age-appropriateness for its online content component, instead stating that, "Online Interactions Not Rated by the ESRB." (ESRB: http://www.esrb.org/ratings/ratings_guide.jsp). No reason is provided for this lack of rating assignment. In order to create a system that is proficient at rating online interactions, a rolling update process would be beneficial, in which a game's rating is changed as new content is added to the game, or discovered to be present coming from the game's online community. This could be addressed through a quarterly review that would require companies to report new content releases and game community content contributions. Although it would demand additional responsibility from gaming companies in deciding how player-based game content should be managed, this dynamic ratings system would provide a flexible, adaptive manner of working

around static ratings guidelines that fail to incorporate changes based on unforeseen game use or content.

4.5 Virtue ethics and moral agency

The use of utilitarian or deontological arguments has been questioned, since utilitarian arguments are thought to require nonexistent empirical validation and Kantian arguments would have trouble differentiating moral wrongness in video games from other types of morally acceptable activities (McCormick, 2001). Instead, it is suggested that an Aristotelian virtue ethics-based argument be used, since the participation in wrongful acts by a video game user may lead to a distance being created between an individual and a state of *eudaimonia* (fulfilled happiness) brought about by a developed moral character. A developed character may be brought about by training through repeated participation in virtuous acts, while the repetition of wrongful acts (as found in some video games) causes a poor character to develop (Ibid.). Also, it would be very difficult to argue that players are completely devoid of enjoying simulated killing in games, given the trend of increasing the graphicness of violence seen in video games, which is in turn based on game sales (Luck, 2009).

Counter to this argument is that training the association between being rewarded and performing evil acts (e.g. killing) while that act's consequences are limited to within the rules of the game, is an approach that fails to consider the player as a moral agent (Sicart, 2008).

Aristotle's idea of having both an existence "in potential" and "in action" have formed the groundwork for this consideration of agency, so that the moral nature of a game can only be realized once the game is played (called game *in actio*), not simply from its rule set (called game *in potentia*) (Sicart, 2005). *Phronesis* (a capacity to evaluate actions taken in order to reach ends) is also discussed, and suggested as being one of the characteristics of video game players while

in-game; this supports the consideration of players as moral agents. Sicart demonstrates how players act as moral beings through examining World of Warcraft play, and that the values these players demonstrate are only visible during their experience of playing the game, not simply based on its code. However, he has recently argued that games obscure the consequences of their actions, creating a situation known as the "banality of evil" in which acts of cruelty are committed without remorse since no feedback for the consequences of those actions is given to the individual, and those acts are framed by the game as "necessary actions" for completion of a goal (Sicart, 2009).

It seems there is support for a potential moral boundary that could become a rating category: the players' repetition of wrongful actions in a game that they experience and repeat. While ratings boards have taken this problem into account by distinguishing between levels of acts such as violence or sex, and allowing a game's rating to reflect the frequency and intensity of wrongful acts, one factor that is not yet accounted for is the quantity of wrongful acts that occur per unit time. This statistic could be useful for providing consumers with quantitative data to complement the current qualitative ratings guide, and could be shown compared to the average of all other games of the same qualitative (e.g. "Mature") rating at the time of its release. For example, if a game is currently listed as "Teen- contains violence," perhaps a quantitative addition could appear as "Teen- contains violence- average of 200 acts per hour." This number could easily be estimated based on pre-release game testing, and would provide a far more tangible, objective statistic to consumers. There is a significant obstacle to this rating statistic: creating this scale would create the issue of how acts of violence are individuated (e.g. Fallout 3 (Bethesda Softworks, 2008) gives players the option to nuke the city of Megaton; should this count as one act of violence or thousands?). This could be addressed by ignoring this act for the

scale and adding a new qualitative content label, e.g. "Mass Loss of Life", within the existing rating schema. The overall goal of this type of statistic would be to allow consumers an accurate picture of the violence level of the game before purchasing it. More research on whether this potential scale is of real benefit to purchasing decisions should be carried out before a sound judgment can be made on its adoption or dismissal. However, it should be mentioned that there is a potential downside to employing a scale that rates violence in a game: game developers may begin to compete for the highest levels of violence in a game, as a means of drawing consumers to their product. Since the purpose of using a rating system is to inform and protect consumers, the possible deleterious effect on the direction that games would be taken should be considered, and this type of rating approached with caution.

4.6 Effects of games on human empathy and relationships

A brief definition of empathy that is useful for assessing video games is imagining what it is like to suffer from an act, but retaining the realization that one is not experiencing that situation in real life (Coeckelbergh, 2007). Using this definition to morally evaluate games, two models of violent video game interaction are examined: an external model (real-virtual interactions), and an internal model (within-game interactions). In the external model, empathy between player and gameplay is considered, and it is suggested that a number of problems exist with an approach stating that some game content is "bad," and should be prevented from "contaminating" a real environment. For example, games like Grand Theft Auto are based on real-world violence, which brings to attention the structural similarities between real events and virtual ones. In the internal model, which is primarily concerned with the degree to which players identify with the acts of their played characters, the problem is not thought to be with enacting violence, but doing so repeatedly. Combining these models, in order to see violent

video games as morally problematic, it has to (1) have violence that is (2) structurally similar to the real world and (3) inhibits the training of empathy (Ibid.).

Another view of empathy stems from Hume, based in his moral sentimentalism. According to this view, moral knowledge is derived from sentiment, not reason (Wonderly, 2008). How one feels about an action towards another moral entity defines whether that action is a virtue (if moral approbation is felt) or a vice (if moral disapprobation is felt). There are three ways in which Hume connects empathy and moral judgments: empathy plays a large role in making a moral judgment, depends on there being a degree of similarity between empathizer and empathizee, and is a nearly universal human trait. Wonderly uses three studies suggesting that playing violent video games cause decreases in empathy (and by extension, less moral judgments to be made): a brain mapping investigation that found decreases in function of an area of the brain associated with empathy processing (Mathiak and Weber, 2006), a study showing a relationship between increases in violent gameplay and decreases in empathy (Funk, 2004), and a study that suggests video game violence exposure increases aggressive behaviour (Bartholow, Sestir, and Davis, 2005). Therefore, evidence exists that violent gameplay damages a player's ability to show empathy and harms brain areas that are involved in moral judgment; this link is the direct connection between games and moral harm for which Wonderly argues.

An extension of Hume's second argument (that empathy depends on there being a degree of similarity between empathizer and empathizee) is that anonymity (and by extension a lack of accountability and an ease of dishonesty) may be another reason for being morally disturbed about online human relationships (Resnik, 1996). If morality is learned, and maintained through closeness with other humans, by not having a natural opportunity to relate to other players and discover similarities (apart from playing the same game), then distancing ourselves from others

through technology is bad for our moral compass. This psychological distancing makes it easier to be cruel, and harder to feel empathy (*Ibid.*).

Video games containing violence that are structurally similar to violence found in the real world, do not show similarities between the player's character and other game characters, and inhibit the training of empathy through their use, should therefore be considered morally problematic. Ratings boards take this partially into account through their use of higher age-appropriateness ratings as the frequency of violent acts increases. However, a more complete criterion may be to augment this assessment of games with a question such as one asked by Coeckelbergh (2007): "Does the game train our capacity to respond to other people's suffering empathically and compassionately?" This might be added to by asking additionally whether the game detracts from this capacity. In order to do this, the ratings criteria might be modified to include such items as whether players are required to help each-other in order to complete the goals of the game, and whether helping oneself has been designed to be more or less beneficial than helping others. These would not need to show up on the box, but could be included in the reviewers' criteria when they are assessing a new game, and be included as part of the overall rating given to it. This is beneficial for consumers, because it results in a more inclusive rating process that approaches games from more angles with the intent of making their view of the game more accurate before playing it.

4.7 Conclusions

The development of a number of new ESRB ratings based on the ethics of video games was suggested:

1. A rating that depicts the degree of reality a game contains
2. A dynamic rating system for assessing online game content
3. The average number of violent acts per unit time spent playing a game
4. Whether the game trains our capacity to be empathetic through gameplay.

The first recommendation will become increasingly relevant in the face of new technology emerging this year that aims to increase the reality of a game: 3-D screens, gameplay that aims to make a large emotional impact, and advanced motion-based controllers that simulate real actions (e.g. Microsoft's Kinect technology, advanced Wii and Sony remotes). It will become increasingly important for the ESRB to delineate games that are clearly spaces apart from the real world, and games that seek to mimic it.

A dynamic system may seem labour-intensive at first glance, but may face less resistance from companies if presented as a way to reassure consumers of the age-appropriateness of the content they (or their children) are about to experience. Indirectly, since increasing the age-rating of a game would probably be viewed as a negative occurrence (especially in games such as Disney's Toontown), it may promote the invention of better filters for removing cheaters (cheating further discussed in Kimppa and Bissett, 2005), offensive players, and malicious pieces of code.

The third recommendation would be the most direct way of giving consumers an immediate, quantified, clear value for how violent each game is, on average. What this would not take into account is the total number of violent acts played during the course of a player's involvement with a game, since different games are played for different amounts of time by different players.

Training our capacity to be empathetic is perhaps the most difficult of these recommendations in its execution. Either a quantitative approach, in which "empathy training acts" were agreed on and assessed on a per-game basis, or a qualitative approach, which would use a game rater's overall impression of its empathy-training properties, would need to be used.

A future direction that these recommendations should be taken is engaging video game stakeholder groups in a discussion process of what they feel constitutes moral wrongs in video games and how these should be dealt with. By adding a social dimension to the theory-based discussion here, a modified or supplemented list of recommendations could be drafted that will approach this issue from a theory-informed and stakeholder-centric perspective. In order to engage as many stakeholders as possible, I would recommend the use of web-based survey tools that are easy to access, go beyond traditional surveying methods and allow new respondents to see and vote on previously suggested recommendations while also allowing them the opportunity to add their own. By allowing respondents the opportunity to review and reflect on other recommendations that members of their stakeholder group contributed, it is hoped that a clear set of favoured recommendations would emerge. Peter Danielson's N-Reasons platform (<http://www.yourviews.ubc.ca>; also see Danielson, 2007, and Danielson, Mesoudi and Stanev, 2008 for more information) would be an ideal tool for use in this capacity. It would be useful to adapt this tool into a webpage-embeddable widget that could be distributed to online video game groups such as game magazines (e.g. PC Gamer), game review websites (e.g. Gamespot) and game communities (e.g. MeFight Club). This would allow members of these communities to not only offer their input, but to use the code to embed this tool in other websites. In this way, its online distribution and presence could be maximized while maintaining a central page for

discussion and debate. Potentially, software such as Google Moderator could be adapted for this purpose.

5 Discussion and conclusion

5.1 Discussion

Increased interest in video games has developed over the past decade, and will continue to grow with their increased presence. With this upswing has come the impetus to see whether gaming causes behavioural changes-- and much of the research reviewed in the first chapter seems to suggest it does (albeit with a number of concerns that need to be addressed). While this body of work has been of great use in driving behavioural psychology forward and promoting the idea that real behaviour can be influenced by virtual actions, there is a pressing need to do this work with more of an interdisciplinary emphasis. It was advocated that an interdisciplinary team containing a computer scientist, a behavioural psychologist and a gamer would be well-suited to work on this type of research. Replicating current studies with changes to their methodology based on the recommendations made by other members of the interdisciplinary team, then seeing whether the results still held when a broader base of considerations is taken into experimental design would allow a conclusion such as, "video games cause aggression" to be better supported.

This multidisciplinary approach emphasizes the difference in conclusions drawn when looking at video games from different perspectives. After playing for thousands of hours and with more than a hundred games, personal experiences when playing through a new game become exercises in the pursuit of novelty. New strategies, character-character interactions, and physical elements stand out based on their differences from older games. Since game design incorporating ethics is becoming a considered strategy in designing a new game, it is important to make the argument now that games deserve assessment of their individual moral worlds before they are lumped together. To do otherwise, when this has become a concrete step in the

design process, would be an oversight when critiquing the moral worlds of games. Of course, if groups of games are found to have nearly identical moral properties, then drawing comparisons between their moral worlds would be appropriate. It could also lead to very different groupings of games than the current system based on gameplay characteristics (e.g. First-Person Shooters)

The final chapter of this thesis built a series of recommendations for the ESRB to use in assessing inappropriate game content. This went beyond simple considerations of violence, sexuality, or substance abuse, and instead suggested changing a game's rating, for example, when gameplay changes when a game is put online. This is especially important with the increase in console integration with the internet. Being able to interact with others virtually is no longer restricted to a computer, but is rather available, live, through a combination of headset and TV. This opens up the possibility that one static rating is inadvisable in a world with rapidly increasing and changing virtual interactions.

5.2 Conclusion

This thesis was approached from the perspective of a gamer, much in the style of computer game ethicist Miguel Sicart's work. This approach offered a significant advantage, even though it sacrificed objectivity to some degree: by playing numerous games for well over 1000 hours over the course of a year, a deep understanding was gained of the gameplay that emerged, the gaming culture that surrounds games, and the position of a gamer when examining the question of whether video games are harmful or morally wrong to play.

The central purpose of this thesis was to examine whether playing video games is harmful or a moral wrong. This was done in two ways. First, experimental video game effects research was examined for whether it could provide a satisfactory portion of the answer to this

question. Second, an experience-based critique of the moral properties of seven games was done to examine whether they could be said to contain moral wrongs. Since both approaches resulted in inconclusive evidence, the status quo of having the ESRB rate games was supported. To address how this organization could improve its ratings system, video game ethics papers were used to draft four new means of rating games. While it was disappointing not to be able to definitively answer the central question of this thesis, it did serve to show that more complexity is present in this line of inquiry than has been covered by current research.

5.3 Future directions

In a future direction for this work, it would be useful to develop a map of how the video game industry and surrounding academic fields are connected. This is not directly related to the field of ethics, but would serve as a means of integrating video game ethics research into a unified discussion of video games, and bringing other lines of inquiry into a larger discussion. By forming a complete map of the industry, especially the nature and strength of the links between its parts, an important step would be made towards characterizing the structure of this recent-- yet surprisingly dominant-- entertainment medium. It would provide both the means of fitting past work into an inclusive framework that took into account both academic and industry output, while realizing and promoting the idea that video games were central to the discussion at hand. As discussed, one of the suggestions for future work was to make sure researchers understood and had experienced the games being played. Perhaps if the importance of making a strong connection between industry and academic work were stressed, researchers would be more willing to experiment with industry releases before using them in research.

A second direction for this work is to increase the study of using video games in non-traditional settings: physical therapy clinics and hospitals, to name two. The advent of

Microsoft's Kinect technology, which only requires gestures to play a game, has great potential for use for people needing to re-train muscles, or extend their range of motion. That being said, having an element of ethics present in game design and therapy planning would offset a number of pitfalls. First, concerns could exist that the games being used have unwanted behavioural or moral consequences besides their therapeutic content (especially when being used for children's therapy). Since games are usually built to be profitable, and since first-person shooters seem to be successful and engaging with game audiences, it makes sense that new games might be based in this genre. In addition, gestures could be easily integrated into gameplay. These games may run the risk of inducing a moral panic because of past game controversies (e.g. the Left 4 Dead 2 controversy discussed earlier), and ethicists could influence their design and messages that each game contains, thereby reducing this risk by eliminating or changing factors that have been controversial. Second, it could be argued that the use of non-human technology to solve human problems runs the risk of devaluing the jobs of therapists. By having an ethicist who is sensitive to these issues work with both game designers and rehabilitation professionals, this pitfall of moving to a therapy that is centered on technology could be avoided.

The increasing presence of video games in stores, homes, and research-- and the controversies surrounding them-- indicate that they are worth studying. Only the tip of the iceberg of this field has been looked at so far, and there are many avenues for work that have yet to be explored. As video games begin to gain public recognition as both recreation and tool, and lose status as a child's plaything, and as the audience playing them increases in age, the need to study them more thoroughly will increase. With the large world market they have created, in addition to the tournaments, clubs, guilds and forums that focus on them, work must continue

both by industry and academics to ensure that video games are not treated as simple objects, but are realized as an intricate form of entertainment that is becoming dominant in the marketplace.

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