ABSTRACT

The Impact of Moral Decision-Making on Video Game Enjoyment, Appreciation and Engagement

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This study seeks to explore the multidimensional nature of audience responses to video games. Specifically, appreciation as an audience response serves as an often overlooked but complimentary reaction to enjoyment. Appreciation describes viewer reactions to serious, meaningful and, in the case of video games, morally challenging media content. This study examines the impact of moral decision making on player enjoyment, appreciation and engagement. In the study, 165 participants played three different game conditions (non-violent and non-morally challenging, violent and nonmorally challenging, violent and morally challenging) in order to gather data on factors relating to both enjoyment and appreciation. Results showed a significantly higher level of participant appreciation in morally challenging games than in non-morally challenging games. The study also found differences in enjoyment and engagement between conditions, although the results seem to indicate a number of factors behind appreciation as an audience response during video game play.

The Impact of Moral Decision-Making on Video Game Enjoyment, Appreciation and Engagement

by

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CHAPTER ONE

Introduction

Manhunt-Moral Quandaries in Video Games

In 2003, Rockstar North released *Manhunt*, a game that produced an enormous amount of controversy and backlash amongst the national media and gamers alike. Throughout the game, players are thrust deeper and deeper into a grim, dark environment of death and chaos. Forced to kill for the sake of television cameras and a demented film director, the player executes henchman and police officers in an increasingly brutal and gory manner, often using objects like plastic bags, crowbars and axes to finish off a victim (Newman, 2007). The game was so graphic and murderous that it was banned in a number of countries and linked to a number of copycat slayings, including a murder in England where a 14-year-old was clubbed with a hammer and stabbed multiple times (Dykes, 2004). The game was so violent that even the Rockstar Games team that designed the game reported being uncomfortable with the final product; a former employee described making the game as an "icky" experience, saying "it was all about the violence, and it was realistic violence" (Cundy, 2007).

Games such as *Manhunt* exist for the simple reason that they are commercially successful. There seems to be a commercial market for these types of games; *Manhunt* received positive critical reviews, and more than 1.25 million copies of the game were sold for the Playstation 2 video game system (VGChartz, 2015). In fact, the big picture regarding video games is even more astounding. The presence of video games in life of the everyday media consumer continues to grow; in 2015 consumers spent \$22.41 billion

on video games, an increase of more than \$12 billion from 2009 (Entertainment Software Rating Board, 2009; Entertainment Software Association, 2015). According to the same 2015 study, gamers who are playing more games now than they were three years ago are also watching less television and seeing fewer movies; in other words, as individuals change their media consumption and play more video games, they are consuming less of other forms of media (Entertainment Software Association, 2015). This may point to an increase in the impact that video games have on consumers. Video game sales may also provide insight into the types of games people are playing; in 2014, role-playing games made up 9.5% of video game sales and 20.2% of computer game sales (Entertainment Software Association, 2015). Gaming is even beginning to gain ground on the sports entertainment industry, with more than 71 million worldwide viewers of competitive gaming in 2014 (Lofgren, 2015). With such increases in the success and prevalence of video games, the importance of researching and understanding their impact becomes more and more crucial.

In *Manhunt*, there seems to be no moral code or virtue, and the ethical environment created by the game design seems to encourage senseless murder and violence. So what is the motivation behind the players who play ethically challenging games? Do the factors of ethics and morality contribute to or deter from the enjoyment of the game? Would a game that utilizes moral choice in its design generate more enjoyment from players? Or would players feel a different type of enjoyment, such as Oliver and Raney's (2010) eudaimonic feeling of appreciation? What about games with ethically based gameplay that require players to make tough moral decisions? Why are games with a seemingly thin or blurred moral line so popular with gamers? In this study, 165

participants played three different video game conditions: non-violent and non-morally challenging, violent and non-morally challenging, and violent and morally challenging, in an attempt to address the question of how morally challenging video games impact player appreciation, enjoyment and engagement during gameplay.

CHAPTER TWO

Review of Literature

A Brief History of Ethical Gameplay

Video games have been a dominant force on our culture ever since Steve Russell designed Spacewars in 1962 (Kent, 2001). Games such as Home Pong (1972) and consoles like the Magnavox Odyssey (1972) soon brought gaming from the arcade into the home. Video games skyrocketed to become one of the most successful industries in history; Atari, founded in 1972 by Nolan Bushnell and Ted Dabney, became a multibillion dollar company by 1982 (Kent, 2001). But with the meteoric rise of video games came controversy, specifically with violent content in video games. 1976's Death Race (developed by Exidy Games) had players run over small human-like figures as they raced down a dark road in a car. While the developers of the game claimed that the figures were actually skeletons and not people, the graphic's capabilities did not allow for a clear and obvious distinction. A number of arcades refused to carry the game, and *Death Race* caught the attention of national media. Ultimately, however, the controversy may have worked in favor of *Death Race*; Exidy Games founder Pete Kauffman said "it seemed like the more controversy...the more our sales increased" (Kent, 2001, p. 92). Death Race proved to be so successful, in fact, that its sequel, Death Race II, was released only a year later in 1977.

Controversy and explicit content certainly did not leave the video game industry after *Death Race*. *Custer's Revenge*, released in 1982, depicted a naked character (Colonel George Custer) dodging arrows as he made his way to a bound Native American

woman on the edge of the screen. The goal of the game was to reach the woman and engage in sexual intercourse with her (the game is dubious in its description of the act and whether or not it is consensual). *Mortal Kombat* (1992), a side-scrolling fighting game, depicted graphic violence and execution-style death scenes. The game was so violent that it almost single-handedly helped create the Entertainment Software Rating Board, a rating system for video games (WatchMojo, 2013). After continued controversy over the inclusion of blood and gore in the game, developers altered the blood-effects from the game itself, completely removing the blood from the Super Nintendo Entertainment System (SNES) version of the game and isolating it to unlock-able content on the Sega Genesis version. Interestingly enough, the Sega Genesis version of the game outsold the SNES version, largely due to the hidden blood-effects that were still accessible in the game.

As graphics and technology have improved, video games have only seen an increase in ethically questionable content, player freedom and the inclusion of complex moral systems. Graphical improvements allowed for different perspectives to be afforded to the player. So called "god games", for example, gave the player an omnipresent, overhead view of the action (Nitsche, 2008). Recent video games that revolve around ethical and moral questions include *Fallout: New Vegas* (Obsidian Entertainment, 2010), *Spec Ops: The Line* (2K Games, 2012), and *The Walking Dead* (Telltale Games, 2012). Video games such as these introduce morality scales that judge a character based on his or her actions, graphic looks at the harsh realities of war, and agonizingly difficult moral quandaries into the world of the game. *Fallout: New Vegas*, for example, tracks a character's "karma levels" based on the good and bad decisions the character makes

throughout the game. The game environment builds the ethical environment and decides what actions are classified as good and evil, even when the results of the characters actions may be equivocal. This example of "ethical gameplay" typifies what a player may find in a morally challenging video game: the decision to do right or wrong. As video games transition into a new generation of systems and display options, the ability of the player to engage in ethical decision-making becomes even more acute. Games like *Fallout 4* and *The Witcher 3: Wild Hunt* allow players to develop their own story lines through their in-game dialogue choices and actions taken towards non-player characters (NPCs). This creates a unique story and conclusion tuned specifically to the individual player. New options in display technology, such as virtual reality headsets and augmented reality glasses, allow for a greater level of immersion, "telepresence" and engagement in the world of the game for the player (Boas, 2013).

Before delving into a discussion on ethical gameplay, it is necessary to discuss the concept of morality and moral judgment. Piaget (1997), in his book *The Moral Judgment of the Child*, claims that "all morality consists in a system of rules, and the essence of morality is to be sought for in the respect which the individual acquires these rules" (p. 13). When considering morality, it is important to understand not just the rules governing a player's actions, but also where those rules originated from and what motivates an individual to operate within those rules. In a game environment, these rules may come from a multitude of sources, be it from limitations in dialogue responses and actions involving other characters in the game to the fact that some options are simply not coded into the game's programming. These limitations may offer a player very little flexibility

with regards to breaking the game rules. Ethically driven games, on the other hand, allow the player much more freedom to choose what he or she believes is the right choice.

In his book *Beyond Choices: The Design of Ethical Gameplay*, Miguel Sicart (2013) defines "ethical gameplay" as "experiences in a game that force players out of conventional modes of interaction and decision making and toward the achievement of goals" (p. 25). Essentially, ethical gameplay causes players to consider their actions from a moral perspective (that is defined by the game world) and react appropriately. Ethical gameplay also allows players to engage in moral decision-making in a setting that does not pose a threat to their moral integrity. Sicart (2013) also describes three essential components involved with the experience of ethical gameplay: the game world, the game rules and the game mechanics (p. 26). The game world involves the virtual environment and characters with whom the player interacts. Similar to Piaget's (1997) writings on game rules and the systems that guide a player's decisions, the rules of video game play include the boundaries in the game and define what the player can and cannot do. The game mechanics establish *how* the player interacts with the game and its moral framework.

Sicart (2013) then describes how games can be designed to use player agency, or the player's ability to act and control a character within a game, to produce an ethically inspired design. In *The Walking Dead*, for example, players are forced to make the choice to save the life of one character over another multiple times throughout the game. The ability to act is still available to players, but it is intentionally limited enough in a way to create "difficult" choices in the context of the game's environment. In order for this to be accomplished, players must accept the ethical rules and moral guidelines that

are established by the game, a phenomenon known as player complicity (Sicart, 2013). The game environment creates its own rules that must be followed, and ultimately accepted, by the player. That being said, are the choices that are made by the player ever wrong in a moral sense, despite the fact that they were made in a virtual world? Dunn (2012) discusses the argument behind the Asymmetry Thesis, which states that player actions made in a virtual world are never wrong in a moral sense. Dunn (2012) argues that, in the modern world of multi-user virtual worlds, it is impossible to say that no action can be declared wrong. Dunn (2012) adds that while certain actions would be reprehensible in the real world, they may not be morally wrong in the virtual world; yet this does not excuse all behavior in an interconnected, multi-user virtual system.

Nitsche (2008) follows up on the concept of ethical game design by looking at games as a discourse, essentially a dialogue between the game and the player, with the player providing "utterances" in the form of actions within the game. This creates dialectic between narrative and discourse; players may be able to influence the game, but only within the constraints of the game's narrative boundaries. In other words, "the player might control the actions but their presentation is defined by the game system" (Nitsche, 2008, p. 55). This is significant simply because the freedom experienced by the player may simply be an illusion; a player may feel that he or she has control of the game's narrative direction, but ultimately the player's actions are limited by the game system, however extensive that system may be.

Theories for Exploring Hedonic Motivations of Video Game Play

In most academic circles, motivation behind media consumption has been limited to the scope of "enjoyment" and hedonic pleasures (Oliver and Bartsch, 2011). In short,

it was assumed that people consume certain types of media because it makes them happy or fulfills a basic need or desire. Enjoyment can be seen as an important part of human motivation (providing reason for action), desire ("desiring something for its own sake") and beauty (Warner, 1980, p. 507). The uses-and-gratifications theory advances that there are a number of motivations behind media consumption, and that behavior is largely "goal directed and purposive" (Rubin, 2008, p. 167). Namely, the perspective proposes that people choose what kind of media they participate in based on their wants and needs. While this perspective acknowledges that there are multiple reasons for consuming media, a common consensus among media researchers is that enjoyment is the primary outcome and motivator of media consumption. Vorderer et al. (2004) built a conceptual model that is "centered around enjoyment as the core of entertainment" (p. 388). The concept of enjoyment as a media motive can also be described using the term "hedonic", or pleasure seeking (Oliver & Bartsch, 2010). Sherry et al. (2006) applies the uses-andgratifications theory to video game play with the six dimensions of video game use, which include "arousal, challenge, competition, diversion, fantasy, and social interaction" (p. 217). These six dimensions are then measured to define the motivation behind playing certain types of video games.

A number of similar theories seek to expand on the perspective of entertainment for hedonic enjoyment and pleasure. One of the strongest and most popular theories that support the hedonic view of entertainment motivation is found in mood management theory (Zillmann, 1988). In this theory, Zillmann (1988) argues that viewers watch certain forms of media in order to normalize or maintain their arousal levels. This theory proposes that consuming messages may lead to an altering of the viewer mood state and

vice-versa; a viewer's mood state may in fact influence which messages they consume. This is significant because it may show exactly what motivates a viewer to watch certain forms of media. Zillmann's research showed that viewers may experience a number of different effects on their moods due to media, including "excitatory potential", where a message modifies the intensity of moods, and "absorption potential", where a viewer's mood is directly altered in accordance to the type of media he or she is watching (Zillmann, 1988). Zillmann's research showed that viewers who were exposed to stressful situations were more likely to turn to soothing, relaxing content in order to alleviate their mood, which seems to indicate that maintaining emotional balance and seeking enjoyment may be significant factors in media consumption decisions. Vorderer and Bryant (2006), however, point out that video games seem to go against the perspective of mood management theory. Because video games are much more of an intensive experience for the player, they "require the user to participate in the action instead of providing a distraction" (Vorderer and Bryant, 2006, p. 4). Vorderer and Bryant (2006) also argued that due to the participatory nature of video games, users might alter their choice of media based on their arousal level. In support of this notion, transportation theory factors enjoyment with player immersion into the narrative world of the game through world building and player involvement (Green et al., 2004). A natural extension to these theories is found in the excitation transfer theory, which states that a viewer's decision making after consuming media may be affected by the type and content of media watched (Zillmann, 1988). In other words, not only does the viewer's mood impact the type of media the viewer consumes, but also the media itself may affect both mood and decision making after it is consumed.

Similarly, Zuckerman's theory of sensation seeking proposes that some viewers seek an "optimal level of stimulation" through high arousal or "thrill-seeking" activities (Zuckerman, 1971, p. 45). A similar perspective to mood management theory, sensation seeking emphasizes maintaining high levels of arousal as opposed to an "optimal" or neutral level of arousal. Because of the high level of arousal and involvement experienced when playing video games, Zuckerman's sensation seeking theory may be an appropriate perspective to apply when exploring the motivations behind video game play.

Self-determination theory (Ryan & Deci, 2000) also seeks to explain motivation but takes a position further from the uses-and-gratifications perspective by saying that one of the greatest sources of motivation is "intrinsic motivation, the inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities, to explore, and to learn" (p. 70). This theory expands on the idea of "media as enjoyment" by accepting that something more than just pleasure seeking may drive media motivations.

Zillmann's disposition theory also explores the enjoyment factors that are experienced during media use (Bryant & Zillmann, 1986). Instead of examining motivations for media choices, disposition theory claims that most viewers enjoy watching media that reward good characters and punish evil characters. When good characters are harmed or fail to accomplish a goal-or if a bad character succeeds or triumphs over the good character-viewers will experience less enjoyment. Optimal enjoyment is achieved when good characters succeed and evil characters fail. While this does not explain the decision-making of viewers but instead what they enjoy about media, it coincides with the viewpoint that most viewers are motivated by hedonic concerns (Bryant & Miron, 2002).

Eudaimonic Motivations

It is clear from these examples that the majority of media motivation theories emphasize hedonic enjoyment as the reason for consuming media. But a number of phenomena seem to contradict this belief; namely, the enjoyment of sad, dramatic or tragic entertainment. Contrary to Zillmann's disposition theory, some entertainment media do not have the hero succeed and the villain fail. If viewers wish to maintain a positive, controlled mood, why would they consume media that only create negative emotions, such as tragedies or dramas? This paradox of sad entertainment seems to contradict established, empirically supported viewpoints on media consumption (Oliver & Raney, 2011). A number of theories attempt to explain this inconsistency in media selection, including catharsis, or the release of emotion through media use (Gentile, 2013), and coping assistance and sympathy (Nabi et. al., 2006). Another theory known as downward social comparison, allows viewers to feel better about their own positions when compared to more difficult situations seen in media entertainment (Mares, 1990). Viewers may even seek sad or dramatic media to maintain a negative mood for alternative reasons (Parrot, 1993). Tamborini et al. (2010) examine a number of different components of enjoyment, ranging from competence, autonomy, and social play context, but still factors these variables as falling under the category of media enjoyment.

All of these motivations for watching "sad" media entertainment are outlined by Oliver and Raney (2011) in their examination of pleasurable and meaningful entertainment. But instead of adapting a theory to help further explain hedonic concerns for media selection motivation, Oliver and Raney (2011) proposed adding a perspective for approaching the consumption of less enjoyable entertainment media: "eudaimonic"

motivations. This form of motivation accounts for media that address serious. meaningful or ethical subject matter, and focus on viewers who are "seeking meaningful portrayals of the human condition" (Oliver & Raney, 2011, p. 987). From this perspective, both "appreciation" as well as enjoyment have a role in fulfilling viewer needs while consuming media, especially when the message is one of "meaningfulness, moral considerations, and contemplations of life's purposes" (Oliver & Bartsch, 2011, p. 31). Specifically, appreciation of media entertainment also may occur when questions of morality or ethical dilemmas are experienced. Going back to Sicart's argument of a safe moral environment, difficult ethical choices may be experienced within a form of media with little risk to the viewer. Studies have shown that participants will report a greater sense of appreciation for a film based on its genre, and that viewers of more serious films reported a greater sense of a moving, thought-provoking experience than with "fun", lessserious films (e.g. Oliver and Bartsch, 2011). One interesting finding from the study shows that appreciation and enjoyment are not polar opposites, and that viewers may experience both when watching certain films. While this form of dual-motivations has been seen in other philosophies (e.g. Aristotle wrote of hedonic and eudaimonic happiness), Oliver and Raney were some of the first researchers to apply eudaimonic concerns to media motivations. This model of dual motivators has been applied to similar research situations: in a study conducted by Wirth et al. (2012), for example, researchers found that hedonic entertainment measures were impacted by changing the ending of a movie from "sad" to "happy", but eudaimonic entertainment was largely unaffected. In short, there seems to be some significance to both hedonic and eudaimonic factors during media consumption.

Eudaimonic Motivators in Video Games

Despite the arguments of the duality of appreciation and enjoyment, little can be said about eudaimonic motivators if video games are seen as too different of a medium from other, more conventional forms of media. Video games, for example, result in higher levels of involvement, require a degree of user mastery, and can provide unique experiences to different players (Lieberman, 2006; Vorderer & Ritterfeld, 2009; Sicart, 2013). Despite these differences, video games may prove to produce both appreciation and enjoyment in the same, if not larger, amounts as other forms of media. Sicart (2013) quotes game designer Paolo Pedercini when he argues that video games can be judged on the same level as film, literature and television because they are all forms of "representational media" and reflect real cultural truths. Pedercini notes that the opposite also can be true in that video games have a "role in shaping our perception of reality" (Sicart, 2013, p.24). Appreciation is also an established response to a number of different forms of media, ranging from art, music, theater and literature, showing that appreciation as an audience response can be applied to new and different forms of media consumption (Oliver & Bartsch, 2011).

But even when accepting video games as a valid form of media, few studies have explored user enjoyment and appreciation in ethically challenging video games. A number of games have been examined and analyzed for their ethical and moral content (e.g. Slocombe, 2008; Hourigan, 2008). Other studies also have looked at the effect of moral engagement on the enjoyment of video games; in one example, a study looked at whether or not moral deviancy in video games resulted in higher player guilt and lower enjoyment, and found that guilt did indeed increase with moral deviancy while enjoyment

remained relatively the same (Weaver & Lewis, 2012). Another study applied Bandura's moral disengagement theory to violent video game play, stating that players will often use a number of disengagement strategies (including moral justification, displacement of responsibility, and dehumanization) in order to maintain high levels of enjoyment while playing violent video games (Bandura, 2002; Klimmt et. al., 2008). Other studies have examined video game enjoyment in the context of player presence in video games (see Shafer et al., 2014), engagement and enjoyment as associated with energy exposure (Lyons et. al., 2014), the effect of losing on enjoyment and post-exposure mood (Shafer, 2012), video games as "thought experiments" (Schulzke, 2013) and the effect of suspense on video game enjoyment (Klimmt et. al., 2009; Shafer, 2014). Few video game studies, however, apply the dual assessment of viewer appreciation (eudaimonic) and enjoyment (hedonic) entertainment to video game play. Vorderer and Ritterfeld (2009), in their examination of pre-exposure and post-exposure video game research, acknowledge that both enjoyment and appreciation are necessary in order to avoid an oversimplification of entertainment experience. Vorderer and Ritterfeld (2009) see entertainment motivation as a two-step process involving both enjoyment and motivation. Enjoyment is achieved through pleasure experienced by playing video games and comprehension, or understanding, of a game experience, while appreciation is achieved through "autonomy, competence, and relatedness" (Vorderer & Ritterfeld, 2009, p. 459).

Engagement and Video Games

One final element to consider deals with the level of engagement achieved by the user during video game play. In their study looking at levels of video game engagement, Brockmyer et al. (2009) define engagement as the resulting experience from four

different factors experienced while playing video games: absorption, flow, presence and immersion (2009). Psychological absorption is described as "total" attention that fully engages one's representational (i.e. perceptual, enactive, imaginative, and ideational) resources" (Tellegen & Atkinson, 1974, p. 268). Flow, derived from Csikszentmihalyi's flow theory, describes enjoyment experienced by mastering skills and achieving goals (Brockmyer et al., 2009; Moneta & Csikszentmihalyi, 1996). Presence, typically used to describe the sense of being in a particular space and time, is used in video games as the "illusion of nonmediation" (Mania and Chalmers, 2001, p. 249). Essentially, players will experience the feeling of existing within the game world, without the mediation effect of the video game medium. Finally, immersion is used to describe the "objective" nature of technology, or the sensory information provided by the game that allows players to engage with the game while still maintaining awareness of their physical surroundings (Baños et al., 2004; Brockmyer et al., 2009).

Research Objectives

Due to the relatively new introduction of the dual analysis of enjoyment and appreciation to the field of media studies, very little scholarship has been conducted that applies this new motivation framework to video game play. This study will attempt to measure enjoyment and appreciation experienced with morally challenging game play as opposed to "fun" or "light" video games. Morality in media has already been correlated to both enjoyment and emotional reactions to media (Raney, 2011), but what about appreciation? Due to the number of established reports from Oliver and Bartsch (2010) in regards to enjoyment and appreciation experienced with "morally challenging" and "non-

morally challenging" films, a number of hypotheses can be made in regards to video games:

- H1a: Players of morally challenging games will report greater eudaimonic appreciation than players of non-morally challenging games.
- H1b: Players of non-morally challenging games will report greater hedonic enjoyment than players of morally challenging games.
- H2: Players of morally challenging video games will report lower levels of enjoyment than players of non-morally challenging video games.
- H3a: Player reports of a moving and thought provoking experience will be greater with morally challenging video games, while reports of a fun experience will be higher with non-morally challenging games.
- H3b: Player reports of suspense will be higher with morally challenging video game play than non-morally challenging video game play.
- H4: Levels of engagement will be higher with morally driven games than non-morally driven games.

CHAPTER THREE

Methods

The study was constructed as a between subjects multivariate design, where the three types of video games constituted the independent variable conditions and appreciation and enjoyment served as the dependent variables. The study involved 165 student participants from a medium sized, southwestern university. Students who participated in the study received extra credit within relevant courses whose professors agreed to give extra credit.

Stimulus Material

This study utilized three different video games to test various levels of ethical game play: *Portal*, the non-violent, non-morally challenging condition, *Half Life 2*, the violent, non-morally challenging condition, and *Fallout 3*, the violent, morally challenging condition. *Portal* provides players with non-violent, puzzle-based gameplay in the style of a first-person shooter. *Portal* offers no ethical dilemmas or decisions to the participant. *Half Life 2*, a first person shooter game, exposed players to violent gameplay without the inclusion of ethical or moral choice. While players engage in violent actions, the violence is directed at nonhuman, computer controlled aliens. Shooting enemies within the game results in no moral consequences, and the player experiences a degree of moral justification because enemies attack the player on sight. Finally, *Fallout 3* exposed participants of the study to violent gameplay with a strong element of moral choice and ethical engagement. While the game is an open-world "role playing game" (meaning that

players are given the freedom to act within a non-linear game experience), the participant had an assigned "quest", or goal, at the beginning of his or her play experience. In this quest, the fate of a town in a post-apocalyptic setting is placed in the hands of the ingame hero. The player interacts with two factions within the game during the quest: the citizens of the post-apocalyptic town of "Megaton" and the enterprising-but-ruthless businessman Allistair Tenpenny. Participants were given a number of choices regarding how to complete the quest; first, the player could detonate a nuclear weapon lying in the middle of the town to satisfy Tenpenny's request of wiping out Megaton. The player could also disarm the bomb and save the residents of the town. If the player detonates the bomb, he or she receives a large monetary sum of in-game currency as well as a lavish residence for their character. If the player choses to disarm the bomb, he or she receives a much smaller monetary reward and a much more humble dwelling. All three of these games were played on the Xbox 360 video game console within a laboratory setting. Each game was played from the first person perspective and involved the use of guns or gun-like items. The inclusion of three games with a consistent player perspective is important when considering the vast amount of perspectives available in video games (ranging from isometric, overhead view, first-person, etc.) and the potential impact of these different viewpoints on player experience (Nitsche, 2008).

Measures

The first scale that was utilized by this study measured enjoyment and appreciation gained from video game play. This scale was developed by Oliver and Bartsch (2011) and was originally used to measure audience appreciation and enjoyment experienced when watching films. The questions were modified to measure the effects of

video game play instead of watching a film. One response, for example, was changed from "it was fun for me to watch this movie" to "it was fun for me to play this game"). The scale is composed of 12 questions that measure four different elements: fun, moving/thought provoking, lasting impression and suspense. The scale also includes three additional items used to measure perceived artistic value of the game. A second scale from Brockmyer et al. (2009) was used to measure engagement experienced with video game-play. The scale is composed of 19 items designed to measure video game involvement. The scale was originally developed from both classical and Rasch analysis. Four primary elements of engagement are measured with this scale: absorption, flow, presence and immersion. Absorption, measured by questions including "I felt spaced out while playing the game", describes the experience of being totally engaged "in the present experience". Flow questions (such as "I can't tell if I am getting tired while playing") describe "the feelings of enjoyment occur when a balance between skill and challenge is achieved in the process of performing an intrinsically rewarding activity" (Brockmyer et al., 2009, p. 625). Presence, or more specifically spatial presence, is described by Brockmyer (2009) as being "integrated into a mediated environment", while immersion is defined as the "game's capacity to induce the feeling of actually being a part of...the game environment" (p. 625).

A third scale developed by Popova (2010) was also used to measure perceived realism. This 30-item scale measured six different dimensions of reality experienced within a video game: "Magic Window", Typicality, Identity, Utility, Perceptual Fidelity and Virtual Experience. Responses were collected using a seven-point Likert scale.

Because the original study examined audience responses to television shows, the

questions had to be altered slightly in order to measure perceived realism in video games. A fourth scale was also utilized during the pre-test (pre-play) portion of the survey. The Moral Foundations Scale (Graham et al., 2012) is a 32-item scale that measured how participants judge right and wrong, ultimately providing a morality score for each participant. The scale measured 5 foundational elements of morality: Harm/Care, Fairness/Reciprocity, In-group/Loyalty, Authority/Respect, and Purity/Sanctity. This scale allowed for a baseline morality to be established for all each participant, as well as to establish a connection between the participant's decision in the ethical gameplay condition and his or her personal moral foundations. Finally, four manipulation test questions were included in the post-game survey in order confirm that the participant's perceived play experience matched his or her game variable group. Participants were asked to indicate their perceived level of violence, blood and gore content, ethical game play and avatar freedom using a seven-point Likert scale.

Procedure

In order to sign up for the study, participants scheduled a one-hour time slot to play one of three video game options as well as fill out a pre- and post-test questionnaire regarding their enjoyment and appreciation of their video game experience. Participants were randomly assigned to their video game condition after sign-up.

Upon arriving at the testing center, participants were seated at one of three game stations and instructed to read and sign an informed consent statement that informed them of their rights as a participant of the study as well as detailed the purpose of the study. Participants were then be required to fill out a pre-test that included demographic information, previous video game experience, and video game preferences.

The participants were issued an instructional sheet detailing the controls of the particular game they had been assigned to play. The participants were then instructed to play one of three different video games, according to their random assignment. The first video game option, *Portal*, offered a mild, nonviolent play experience. The second video game option, Half Life 2, offered a violent play experience that did not include any moral factors or ethical decision-making. The third video game option, Fallout 3, provided both a violent as well as ethically involved play experience. Players assigned to play *Portal* played the game from the beginning of the game, beginning with a tutorial level, and then proceeded to play through the levels of the game until twenty minutes had elapsed. Players playing *Half Life 2* began to play the game halfway through the third level of the game ("Route Kanal"), at the point when the player's character first acquires a firearm and begins fighting with in-game enemies. Finally, in *Fallout 3*, participants were not required to play within a linear level design, but were instead given free reign to play the game however they desired. They began the game, however, with a non-playable character within the game approaching them with a mission to complete in order to give the participant a goal to complete from the beginning of his or her play experience. Participants played their assigned game for 20 minutes. Finally, participants filled out a post-test that included scales to measure appreciation, enjoyment and engagement. The post-test also included questions regarding the participant's ethical engagement, or lack of ethical engagement, with the video game. Finally, in order to receive extra credit for participating in the study, participants entered their name and course information after completing the survey.

Data was analyzed using a one-way between subjects ANOVA of the factors of enjoyment, appreciation and engagement. Engagement was also analyzed as to its effects on enjoyment and appreciation. Game type (non-ethical and non-violent, non-ethical and violent, and ethical and violent) was used to determine the effect on enjoyment, appreciation and engagement. A regression analysis was also used to determine which game type would impact the dependent variables most. Using SPSS, an analysis of variance also was run on all three dependent variables for statistical significance.

CHAPTER FOUR

Results

Respondent Profile

Participants of this study averaged 20.4 years of age. 59.4% were male (n = 98) while 40.6% were female (n = 67). In terms of ethnicity, 75.2% of the participants were white, 12.7% were Hispanic or Latino, 10.9% were African American, 6.1% were Asian or Pacific Islander, and 1.8% were American Indian or Alaskan Native. 41.8% of participants were enrolled as college seniors, 24.2% as juniors, 23.6% as freshmen, 9.1% as sophomores and 1.2% as graduate students or were not enrolled in college. Of the participants, 32.7% (n = 54) responded that they do not play video games (zero hours of gameplay per week), 29.7% (n = 49) reported that they play one to four hours of video games every week, 14.0% (n = 23) reported playing five to eight hours of video games per week, and 23.6% (n = 39) reported spending nine or more hours per week playing video games. The most popular genre of video games among participants was actionadventure (52.1%, n = 86), with shooters (49.1%), role-playing games (40.6%) and sports games (36.4%) following as the most popular genres. Mobile games were played by 27.9% of participants.

Study Results

Condition Checks

In order to first confirm that the conditions differed in their representations of non-violent or violent, non-morally challenging or morally challenging, all participants were asked four condition-check questions. A one-way between subjects ANOVA was conducted to compare violence, blood and gore content, moral decision-making and player freedom between each of the three different games played. There was a significant difference in the violence condition checks between Fallout 3 and Portal as well as Half Life 2 and Portal (see Table 1). Post hoc tests confirmed a significant difference in the reported violence levels between Fallout, Half Life 2, and Portal. Blood and gore content was scored similarly to violence, with both Fallout 3 and Half Life 2 players reporting significantly higher blood and gore levels than players of *Portal*. These results indicate that both Fallout 3 and Half Life 2 were reported by the participants to have high levels of violence, while *Portal* was largely reported to be nonviolent. In terms of moral decision-making and player freedom, participants reported that Fallout 3 had the highest levels of both factors. This also signifies that the three conditions fit their pre-designated assignments: Fallout 3 as a violent, morally challenging condition, Half Life 2 as a violent, non-morally challenging condition, and *Portal* as a non-violent, non-morally challenging condition.

Table 1

Condition Check Questions

Factors	F- test Results	Condition	Means & SDs
Violence		Fallout 3	M = 3.98, $SD = 1.72$
	$F_{(2, 160)} = 96.84, p = 0.00, \eta^2 = 0.55$	Half Life 2	M = 4.51, $SD = 1.35$
		Portal	M = 1.25, $SD = 0.62$
Blood and Gore		Fallout 3	M = 3.50, $SD = 1.69$
	$F_{(2, 160)} = 67.47, p = 0.00, \eta^2 = 0.46$	Half Life 2	M = 3.55, $SD = 1.35$
		Portal	M = 1.07, $SD = 0.42$
Moral		Fallout 3	M = 4.51, $SD = 2.01$
Decision		Half Life 2	M = 1.56, $SD = 1.27$
Making		Portal	M = 2.32, $SD = 1.58$
Player Freedom	$F_{(2, 160)} = 24.36, p = 0.00, \eta^2 = 0.23$	Fallout 3	M = 5.87, $SD = 1.23$
		Half Life 2	M = 3.89, $SD = 1.75$
		Portal	M = 3.78, $SD = 2.18$

Appreciation

Next, a one-way between subjects ANOVA was conducted to compare the effects of video game play on appreciation between morally challenging and non-morally challenging conditions. H1 predicted that morally challenging and non-morally challenging would determine feelings of enjoyment and appreciation with video game play, with serious, ethically challenging games producing greater levels of appreciation than games with no moral components. This hypothesis proved to be partially supported. There was a significant effect of game played on eudaimonic appreciation (using measures for moving/thought-provoking, lasting impression and aesthetic value) between the violent, morally challenging game *Fallout 3* and the violent, non-morally challenging

game *Half Life 2* (see Table 2). A significant effect for eudaimonic appreciation also was found between *Portal*, the non-violent, non-morally challenging game and *Half Life 2*. Post hoc comparisons using the Bonferroni test indicated that the mean score for both *Fallout 3* and *Portal* was significantly different from *Half Life 2*. In short, players of both *Fallout 3* and *Portal* scored higher on the appreciation scale than players of *Half Life 2*.

With regards to the individual factors of appreciation, there was a significant difference between game types (specifically between *Portal* and *Half Life 2*) on the factor of lasting impression. Post hoc comparisons using the Bonferroni test indicated a higher mean score of lasting impression with *Portal* than with *Half Life 2*. *Fallout 3* also showed a higher mean score, but was not significantly different from the other two conditions according to the test. As predicted by H3a, there was borderline significance between the *Fallout 3* and *Half Life 2* conditions with the factor of moving/thought provoking experience. Bonferroni tests displayed a higher mean score of both the *Fallout 3* and *Portal* conditions than the *Half Life 2* condition. Finally, the factor of artistic value showed differences of borderline significance between *Fallout 3* and *Half Life 2* as well as *Portal* and *Half Life 2*. Again, Bonferroni tests displayed significantly higher mean scores for both *Fallout 3* and *Portal* over *Half Life 2*.

Table 2

Appreciation: Levels of Moving/Thought Provoking,
Lasting Impression and Artistic Value

Factors	F- test Results	Condition	Means & SDs
Appreciation	$F_{(2, 160)} = 4.96, p = .01,$ $\eta^2 = 0.06$	Fallout 3	M = 2.71, $SD = 1.42$
		Half Life 2	M = 1.94, $SD = 1.30$
		Portal	M = 2.83, $SD = 1.53$
Moving/Thought Provoking	$F_{(2, 160)} = 3.39, p = 0.04,$ $\eta^2 = 0.04$	Fallout 3	M = 2.56, $SD = 1.37$
		Half Life 2	M = 1.94, $SD = 1.30$
		Portal	M = 2.54, $SD = 1.53$
Lasting $F_{(2)}$ Impression	$F_{(2, 160)} = 5.46, p = 0.01,$	Fallout 3	M = 2.46, $SD = 1.85$
		Half Life 2	M = 1.75, SD = 1.57
	$\eta^2 = 0.06$	Portal	M = 2.84, $SD = 1.80$
Artistic Value	$F_{(2, 160)} = 3.30, p = 0.04, \eta^2 = 0.04$	Fallout 3	M = 3.12, $SD = 1.63$
		Half Life 2	M = 2.43, $SD = 1.27$
		Portal	M = 3.10, SD = 1.75

Enjoyment

The second hypothesis (H2) predicted that players of morally challenging video games would report lower levels of enjoyment than players of non-morally challenging video games. This hypothesis was not supported at a significant level, as all three conditions showed relatively similar mean scores. To test this, another ANOVA was conducted to compare hedonistic player response. In terms of hedonic enjoyment (measured through tests of fun and suspense), there was no significant effect of game played on the combined fun and suspense score between any of the three game conditions; this did not support the hypothesis that *Half Life 2* and *Portal* would see higher levels of enjoyment than *Fallout 3* (See Table 3). Post hoc comparisons showed

slight variations in mean score for the three conditions: Half Life 2 had the highest hedonic enjoyment mean score, Fallout 3 reported the second highest, and Portal had the lowest. H3a and H3b predicted that player reports of fun would be higher with the nonmorally challenging condition, while reports of suspense would be higher with the morally challenging condition. H3a was not supported as all three conditions showed similar mean scores for fun. H3b was also not supported as levels of player reported suspense was higher in the violent, non-morally challenging condition than in the violent, morally challenging condition. When looking at the individual measures of hedonic enjoyment, there was borderline significance of game played on the factor of suspense between Fallout 3 and Half Life 2 as well as between Portal and Half Life 2. Post hoc comparisons using the Bonferroni test indicated that the mean score for Fallout 3 was slightly lower than Half Life 2, while the mean score for Portal was significantly different from *Half Life 2*. For the hedonic factor of fun, there was no significant effect of game played between any of the three conditions. Means comparisons showed that each condition had similar scores based on the fun factor. This did not support the hypothesis that non-morally challenging games would see higher levels of fun and lower levels of suspense than morally challenging games.

Engagement

Finally, H4 predicted that levels of engagement would be higher among participants who played morally driven games versus those who played non-morally driven games. This hypothesis was not supported as all three conditions had similar reported scores for player engagement. Another ANOVA test was used to compare engagement scores for the three conditions.

Table 3

Levels of Enjoyment, Fun and Suspense

Factor	F- test Results	Condition	Means & SDs	
	$F_{(2,160)} = 2.41, p = 0.09, \eta^2 = 0.03$	Fallout 3	M = 2.94, $SD = 1.40$	
Enjoyment		Half Life 2	M = 3.32, $SD = 1.31$	
		Portal	M = 2.76, $SD = 1.34$	
	$F_{(2, 160)} = 0.19, p = 1.00 \eta^2 = 0.0$	Fallout 3	M = 3.95, $SD = 1.59$	
Fun		Half Life 2	M = 4.04, $SD = 1.45$	
		Portal	M = 4.15, $SD = 1.90$	
	$F_{(2, 160)} = 9.90, p = 0.00, \eta^2 = 0.11$	Fallout 3	M = 1.93, $SD = 1.52$	
Suspense		Half Life 2	M = 2.60, $SD = 1.58$	
		Portal	M = 1.38, $SD = 1.15$	

There was no significance found of game played on the factor of engagement between any of the three conditions (see Table 4). There was, however, a difference in mean between genders in terms of engagement. *Half Life 2* had the highest mean for engagement for both genders (M = 2.26 for females, M = 2.79 for males) while *Fallout 3* had the lowest mean for engagement with both genders (M = 2.01 for females, M = 2.76 for males).

Table 4

Levels of Player Engagement

F- test Results	Condition	Means & SDs
	Fallout 3	M = 2.50, $SD = 1.02$
$F_{(2, 160)} = 0.12, p = .89, \eta^2 = 0.0$	Half Life 2	M = 2.56, $SD = 1.06$
	Portal	M = 2.46, $SD = 1.13$
		Fallout 3 $F_{(2, 160)} = 0.12, p = .89, \eta^2 = 0.0 $ Half Life 2

In the violent, morally challenging condition of *Fallout 3*, participants were given a number of options with regards to how to complete their session. Before starting their play session, participants were asked to complete the quest "The Power of the Atom". Of the 55 participants who played *Fallout 3*, 38 reported that they completed the quest, 10 reported that they started, but did not fully complete the quest, three said they played a different quest, while four were not aware that they could attempt to complete a quest. When completing or attempting to complete the quest, 39 participants reported that they disarmed the bomb for Lucas Simms in order to save the town of Megaton, two participants completed the quest by detonating the bomb for Mister Burke, 11 participants reported that they did not complete the quest, and three participants selected "other".

CHAPTER FIVE

Discussion

This study has attempted to analyze the impact of morally driven gameplay on player appreciation, enjoyment and engagement. In order to establish an understanding of different types of reactions to media, a number of theories regarding hedonic and eudaimonic motivations were explored, including Zillmann's mood management theory, Zuckerman's theory of sensation seeking and Tamborini's intrinsic needs theory. But few theories addressed the apparent existence of another type of media interaction: the enjoyment, or appreciation, of meaningful, poignant, or tragic media. This theory, originally explored by Oliver and Bartsch, proposed a complementary form of media gratification to pure hedonic enjoyment. Oliver and Bartsch (2011) focused on viewer's eudaimonic gratification and recognized appreciation, instead of just enjoyment, as a possible audience response to viewable media. The existence of eudaimonic responses to video games was established through its presence in other forms of media (music, art, etc.) and through the establishment of video games as a comparable form of media to films, which have been studied in prior appreciation studies. In order to test the impact of moral decision making on appreciation and enjoyment levels, the manipulations were established through four condition-check questions; participants reported differences in violence, blood and gore, moral decision-making and player freedom between the three game conditions.

Morally Challenging Games as Predictors of Appreciation

H1a predicted that morally challenging game experiences would result in a higher reported player appreciation level than non-morally challenging games. Results from the study showed that there was a significant difference in eudaimonic appreciation between the violent, ethically challenging *Fallout 3* and the violent, non-ethically challenging *Half Life 2. Portal*, the non-violent, non-ethically challenging condition, was also significantly different from *Half Life 2*. In other words, both *Fallout 3* and *Portal* scored higher in player appreciation than *Half Life 2*. This finding only partially supported the H1a hypothesis, as the *Portal* condition was not expected to report higher levels of appreciation than *Fallout 3*.

Why did *Portal*, the non-violent, non-morally challenging game score just as high as the violent, morally challenging game? One important factor behind the results found with players of *Fallout 3* is that, as an action-adventure RPG, generally offers players extensive player creation choices, hours of gameplay and the development of non-player character (NPC) relationships with the player character. The play experience of the participants in the study was limited to a 20-minute play session, and while participants were exposed to moral decision making in the gameplay, they were not given time to customize, build or guide their character before beginning the quest. Players of RPGs anticipate the ability to develop their own "personal fiction", where players are able to create their own history for the player and develop a unique niche for their created character (Despain, 2009, p. 16). Trepte and Reinecke (2010) seem to support this theory through a study that examined the relationship between player identification with the avatar and enjoyment levels. Not only did Trepte and Reinecke (2010) find that

identification with the avatar led to higher levels of enjoyment, but that greater similarity between the player and the avatar in terms of personality led to higher levels of identification with the avatar and game world. Essentially, players who create their own avatar, plot and game world tend to show higher levels of enjoyment. This lack of development among participants in this study may account for a lower than expected result in terms of eudaimonic appreciation in participants who played *Fallout 3*. This conclusion is also supported by a study conducted by Wirth et al. (2013), where players of role playing games reported that the more frequently the game was played, the higher the enjoyment level.

Portal, the game with the highest level of eudaimonic appreciation, may have offered participants the highest level of character development and world building, as players began their play session from the beginning of the game's story mode. Portal also scored high in terms of aesthetic value (M=3.10, SD=1.75), which may indicate a strong influence of perceived artistic value on player appreciation. Oliver and Bartsch (2010) argue that "appreciation seems to suggest that the work is perceived to reflect talent or insight on the part of the creator" (p. 58). Consumer reviews of the game Portal point out its unique game concept, distinctive storytelling and the "level of polish and thought that went into the presentation" (Adams, 2007, p. 2). Portal also scored far higher than the other two conditions in the factor of lasting impression. In the game, the player is tasked with traversing a series of test rooms in a sterile, laboratory-like environment. Portal portrays a novel, satirical environment that mocks the mechanical nature of scientific testing, where the suffering of an individual (the player's character) for the betterment of mankind, despite the fact that the game world seems to be devoid of any other humans.

This tongue-in-cheek, originative game may result in a higher perceived lasting impression among players due to its unique attributes. In short, it would not be a far stretch to say that the perceived artistic value and the lasting impression of a game may influence, or even dictate, a player's appreciation for the game.

Morally Challenging Games and Indicators of Enjoyment

H2 predicted that players of morally challenging games would report lower levels of enjoyment than players of non-morally challenging games. This hypothesis was not supported at a significant level. While *Half Life 2* had the highest hedonic enjoyment score, *Fallout 3* had the second highest score, contradicting the prediction that a game with morally driven content would show significantly lower levels of player enjoyment. This seems to be consistent with findings in a study conducted by Shafer (2012), where players dealt with morally reprehensible decisions in video games with the use of moral disengagement strategies. Shafer (2012) notes "using moral disengagement in moral choice games does not impact enjoyment, but rather impacts the route to enjoyment" (p. 1). This may suggest that players of the violent, morally challenging condition were able to use disengagement strategies to maintain a high enjoyment level. *Portal*, which had the lowest levels of violence and blood, had the lowest levels of enjoyment. This seems to suggest that participants received the same amount of hedonic pleasure gratification regardless of moral consequence within the game.

While research has been conducted on enjoyment and appreciation for other forms of viewable media such as movies and television, there is very little research to predict levels of enjoyment in morally driven video games. In one study that compared appreciation and enjoyment reactions in "meaningful" and "fun" games, enjoyment was

high for both game types, with appreciation being the main difference between the two conditions (Oliver et al., 2015). These results also may suggest that there is a relation between violence levels in the game condition and player enjoyment. Violence in video games has already been connected to higher aggression levels and lower self-control (Gabbiadini et al., 2014); could it also predict higher levels of hedonic enjoyment? A study conducted by Weaver (2011) seems to say no: results showed that media violence increased selective exposure but actually *decreased* enjoyment.

Moving/Thought Provoking, Fun and Suspense

H3a and H3b were dedicated to individual factors that contributed to both the appreciation and engagement scale. H3a predicted that player reports of a moving and thought provoking experience would be greater with morally challenging video games, while reports of a fun experience would be higher with non-morally challenging games. This was partially proven by a small correlation between reports of a higher moving or thought provoking experience with Fallout 3 than Half Life 2. Surprisingly, Portal also scored high on the moving experience scale; this may be because *Portal* provides a puzzle-driven gameplay experience. High scores on questions pertaining to the moving experience scale, such as "the game was thought provoking", may have related more to the game's puzzle solving gameplay rather than a deep, morally driven narrative. In fact, *Portal* had a much higher mean score (M = 3.76) for the question "the game was thought provoking" than either Fallout 3 (M=3.13) or Half Life 2 (M=2.51). H3a also predicted participants would report a higher level of fun with non-morally challenging games. This hypothesis was not supported by the results; all three conditions reported fairly similar levels of fun, with *Portal* only slightly leading the three conditions.

H3b predicted that suspense, a factor included in the enjoyment scale, would actually be seen more in the Fallout 3 condition. This hypothesis was not supported, as in fact the opposite was true: the non-morally driven condition of Half Life 2 reported the highest levels of participant suspense. This may have been due to a number of factors, including pace, avatar peril and blood and gore content. Half Life 2 seemed to be played at a much faster pace than the dialogue-heavy *Fallout* condition or the single character game Portal. Half Life 2 gameplay encouraged quick reactions, involved high numbers of enemy NPCs, and provided a linear path toward an end goal, all of which encouraged faster gameplay and, possibly, higher levels of suspense in the player. Suspense, however, can be a conceptually different phenomenon in video games than in other forms of media. Grodal (2000) describes suspense as "concern for the future destiny of the protagonist" (p. 206) Because Half Life 2 confronted players with the most direct threats to the life of the protagonist (aggressive enemies shooting at the player), this condition may have had the most elements of a suspenseful play experienced as described by Grodal (2000), including uncertainty of success over multiple attempts, spatial awareness of the game world and the participant's own competency at the game.

Engagement as a Predictor of Morally Driven Gameplay

Finally, H4 predicted that reported levels of player engagement would be higher with the morally challenging condition than the non-morally challenging condition. There was no significant correlation found to support this hypothesis, as in fact *Half Life 2* reported the highest levels of player engagement out of the three conditions. *Fallout 3* reported the second highest levels of engagement, and *Portal* reported the least amount of player engagement. There was, however, a significant difference in engagement means

when the participant population was split by gender, with males scoring higher than females in all three conditions in engagement. Once again, the leading factor behind these results may come from the pace of gameplay. In both *Fallout 3* and *Portal*, the player largely determines pace of play, as the game environment is mostly responsive to the player's actions. *Portal* allows the player to learn through trial and error, with no enemies to fight or significant danger to the player character. *Fallout 3*, as described earlier, is largely dialogue based with NPCs who react to the player's actions. *Half Life 2*, however, often forces the player to react to the actions of the NPCs. Players react to the game world rather than vice versa, which may result in higher levels of engagement. To summarize, the results did not support the hypothesis that engagement levels would be highest with the morally engaging condition, but it did seem to show some correlation between engagement levels and gender.

One important result from the study that was not included in the original hypotheses involved perceived realism. Perceived realism as reported by the participants was significantly higher with *Fallout 3* than with the other two conditions. A larger degree of perceived realism could indicate that an in-game situation where the player was required to complete a morally driven quest was more realistic, and possibly more difficult, for the player. One result that seems to support this theory is that *Fallout 3* showed a significantly higher score for moral decision-making content than either *Portal* or *Half Life 2*. It is interesting to note that in some studies examining video game play, participants seem to be driven to create their own moral code during play. Hamlen (2013), in a study examining children's choices and cognition in video game play, found that young children would create their own "code of conduct and ethics within video

game play" (p.1). This could indicate that players may be more ethically engaged when developing their own moral rational behind their actions in the world of the game.

The theory of successive stages of moral judgment (Rest, Turiel and Kohlberg, 1969) may provide insight with regards to the open-ended participant responses from the Fallout 3 condition. Rest et al. (1969) outlines six stages of moral development: (1) "obedience and punishment orientation", (2) "naively egoistic orientation", (3) "good boy orientation", (4) "authority and social order maintaining orientation", (5) "contractual legalistic orientation" and (6) "conscience or principle orientation" (p. 225-226). Each stage is described "by its particular mode of organizing the social and moral order" and may help with understanding the motivations behind a number of the participants' actions in the morally challenging condition (Rest et al., 1969, p. 225). The "authority and social order" stage, for example, may help explain why some players decided to help Sherriff Simms, the authority figure over the town of Megaton, instead of Mr. Burke, a relative newcomer to the town. Player motivation through moral judgment is further reinforced by Goslin's (1969) six stages of motives for engaging in moral action. Goslin (1969) provides six motivations that largely coincide with Rest et al.'s (1969) moral development stages: (1) "avoidance of punishment", (2) "desire for reward or benefit", (3) "anticipation of disapproval of others", (4) "anticipation of dishonor", (5) "concern about maintaining respect of equals and of the community", and (6) "concern about selfcondemnation for violating ones own principles" (p. 381-382). Open response from the Fallout 3 conditions suggest motivations from almost every stage outlined by Goslin (1969). Desire for reward (stage two) was one of the strongest responses, as shown by a number of participants who completed the quest a certain way in order to acquire more

resources, acquire a residence for their character or to maintain access to traders in the town:

Participant #32: "I opted to disarm the bomb the bomb as my first choice in case the town might be useful in the future."

Participant #80: "I wanted a house, which I knew power of the atom quest gave me. Also I wanted the extra money."

Participant #154: "It was faster, and it let me kill Mr. Burke and get his cool gun and glasses."

Anticipation of disapproval of others (stage three) also seemed to be an important factor in player decision-making:

Participant #30: "I always feel bad when blowing the town up. Because when I do, the father in the game is really disappointed in you and I feel bad then [sic]."

Concern about maintaining the respect of the community (stage five) and concern for violating one's own principles (stage six) also served as motivation behind participant decisions:

Participant #47: "Because in a post war society people should be rebuilding society and helping [each other]."

Participant #153: "I didn't want to kill the whole town. I like to make decisions in the game based on how I think I would do it in real life, so I chose to not detonate it."

Still other participants disarmed the bomb for both moral and practical reasons:

Participant #48: "Because I did not want to kill a bunch of innocent civilians of that town. Also if you destroy the town then you would lose the ability to trade with people there and maybe even lose future quests."

Participant #92: "Simms was the more polite of the two. Plus, I could use the 100 caps for disarming the bomb to get the info I needed from Moriarty so I didn't see the point of detonating the bomb for him."

Participant #158: "For playing the 20 minutes that I did and talking with people in the game, it sounds like they might know something about the player's father. Also, why would I kill them? They haven't done anything bad to me."

This seems to suggest that, while differences between the motivation stages can be rather clear-cut, the majority of participants made certain decision due to a number of factors from a wide range of stages on Goslin's (1969) moral motivation scale.

Limitations

One important finding from this study was that, outside of the condition check questions, few research questions that were investigated showed a large effect size. This could simply have been for a number of factors related to the study, including previous participant exposure to the game conditions or previous participant experience with morally challenging games in general. While most of the effect sizes seemed to be small, according to Cohen (1988), effect sizes derived from ANOVA analyses in behavioral science studies report as small at the 0.01 level, medium at the 0.059 level, and large at the 0.138 level. With this in mind, reported effect sizes from this study report closer to the medium strength level, suggesting that this study contributes to the understanding of how players perceive moral decision-making in video games.

One key factor in both enjoyment and appreciation that could have been added to the study was player competency. With 32.7% of the participants reporting that they did not play video games, it would have been insightful to compare perceived competency with both enjoyment and appreciation. Some studies looking at video game enjoyment and appreciation observed that player competency could have a significant impact on enjoyment (Oliver et al., 2015). Similarly, gathering data on other morally focused elements with regards to gameplay, such as Bandura's moral disengagement theory or player moral activation/disengagement, would have added to the understanding gained regarding the moral engagement of the participant. While it could be confirmed that

players experienced moral engagement through the condition checks, the relationship between the player and the moral decision made within the game was not explored to its full potential.

It is also important to consider the video game narratives of the conditions and their impact on the results of the study. In particular, participants began play in both the Fallout 3 and Half Life 2 conditions partway through the games' narratives, whereas participants who played Portal began at the beginning of the game. This could have resulted in a lack of story development, character maturity and player engagement. With Fallout 3 specifically, participants had to be given detailed instructions regarding the backstory of their character and plot of the game in order for a specific quest to be played. An appropriate balance had to be found in order to both give direction to the participants while allowing them to develop their play organically. Half Life 2 faced similar criticism, with the game dropping players into a mission that met the condition of "violent but non-morally challenging" but provided little context as far as story development. In retrospect, finding games with simpler, pick-up-and-play gameplay and storyline to use as conditions may have added to the overall consistency of the study results.

Finally, in order to expand the applicability of the study, it would be wise to add game conditions from different genres to future studies. While games from the role-playing game, first-person shooter and puzzle genres were used, it would have been interesting to use games from more popular categories, in particular with strategy, action/adventure and mobile games. Mobile games have been shown to impact user enjoyment and engagement by providing an alternative sensory experience from a

desktop experience; this difference could impact levels of player appreciation as well (See-To et al., 2012). The impact of moral decision making on appreciation and enjoyment in multiplayer gameplay or social games would also make for an interesting study; is there a significant difference between enjoyment or appreciation when the player is fighting human-controlled opponents in instead of computer-controlled ones? There seems to be a relationship between player enjoyment and multiplayer game type: a study conducted by Schmierbach et al. (2012) showed higher levels of enjoyment in multiplayer games with "a combination of competitive play and a friendly partner" (p. 356).

Future Research

Future research in the area of video game appreciation and enjoyment can go in a number of directions. Topically, research involving the future of video game narratives and their impact will become vital as new display and graphic technologies continue to change how players interact and engage with entertainment media. Virtual reality, for example, may have a big impact on player engagement and should be examined in future studies. Would improving aesthetics and realism of virtual reality games enhance the engagement and appreciation experiences of players on these new technologies? New forms of media platforms, such as augmented reality or social gaming, may also impact video game narratives. It would also be important to re-examine the tools used to collect data in order to ensure enough detail is gathered on appreciation. While lasting impression, moving/thought provoking and artistic value are important factors included with appreciation, other inputs, such as narrative engagement or emotional impact may also have an effect on appreciation. Finally, examining different genres and types of

games, including popular massively multiplayer online (MMO) games, social games and mobile games would be valuable for enjoyment and appreciation research.

Future research opportunities are not just limited to new topical areas. The partial qualitative data collected for this study highlights the value of different methodological approaches to video game research. It may also prove useful to blend a collection of research methods, including quantitative and qualitative data collection or the use of focus groups, in order to gather more data on the relationship between the player and the video game.

CHAPTER SIX

Conclusion

The purpose of this study was to explore the effects of moral decision making on the appreciation and enjoyment of video games. By examining the effects of moral decision making, it is possible to analyze how players react to different game types, identify trends in player gratification levels, and ultimately study the interaction between media and consumer. The results from this study were significant because they showed that game type, be it morally challenging or not, violent or non-violent, can impact levels of player enjoyment, appreciation and engagement. But the split between these factors is much more complicated than simply the genre of game. It also involves factors inherent to the game, such as player freedom and the management and utilization of violence, to the factors perceived by the player, such as perceived artistic value, player competency, perceived realism and the lasting impression of the game. This study has shown that, with the increasing popularity of moral choice and ethically driven game play in video games, these factors will have a larger impact on player enjoyment, appreciation and engagement. The study of these types of games is important because of their implications on moral decision-making in real life; do ethical decisions that players make in real life reflect those made in the virtual world? Do ethical choices made in the virtual world impact choices made in the real world? These kinds of questions are important when trying to understand not just how people interact with entertainment media, but how entertainment media impacts those who consume it.

APPENDIX

APPENDIX

Modified Appreciation and Enjoyment Scale from Oliver and Bartsch, 2010 Note: Answers are on a 7-point scale from strongly disagree (1) to strongly agree (7)

Fun

- 1. It was fun for me to play this game.
- 2. I had a good time playing this game.
- 3. The game was entertaining. *Meaningful/thought-provoking*
- 4. I found this game to be very meaningful.
- 5. I was moved by this game.
- 6. The game was thought provoking. *Lasting impression*
- 7. This game will stick with me for a long time.
- 8. I know I will never forget this game.
- 9. The game left me with a lasting impression. *Suspsense*
- 10. I was at the edge of my seat while playing this game.
- 11. This was a heart-pounding kind of game.
- 12. The game was suspenseful.

Artistic Value

- 13. I found this game artistically valuable.
- 14. I found this game aesthetically strong.
- 15. This game is an artistic masterpiece.

Game Engagement Questionnaire from Brockmyer et al., 2009

Note: Answers are on a 7-point scale from strongly disagree (1) to strongly agree (7)

- 1. I lost track of time while playing the game.
- 2. Things seemed to happen automatically while playing the game.
- 3. I feel different after playing the game.
- 4. I felt scared while playing the game.
- 5. The game felt real to me.
- 6. If someone had talked to me while playing the game, I would not have paid attention to them.
- 7. I was getting wound up while playing the game.
- 8. Time seemed to stand still while playing the game.
- 9. I feel spaced out after playing the game.
- 10. I would not have answered had someone asked me a question while I was playing the game.
- 11. I could not tell if I was getting tired while I played the game.
- 12. Playing the game seemed to be automatic.

- 13. My thoughts were racing while I was playing the game.
- 14. I lost track of where I was when I was playing the game.
- 15. I found that I was playing the game without thinking.
- 16. Playing the game made me feel calm.
- 17. I could have played the game longer than I wanted to.
- 18. I was really getting into playing the game.
- 19. I felt like I just could not stop playing the game.

Moral Foundations Scale from Graham et al., 2012

Part 1. When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:

[0] = not at all relevant (This consideration has nothing to do with my judgments of
right and wrong)
[1] = not very relevant
[2] = slightly relevant
[3] = somewhat relevant
[4] = very relevant
[5] = extremely relevant (This is one of the most important factors when I
judge right and wrong)
1. Whathan an not someone suffered amotionally
1. Whether or not someone suffered emotionally
2. Whether or not some people were treated differently than others
3. Whether or not someone's action showed love for his or her country
4. Whether or not someone showed a lack of respect for authority
5. Whether or not someone violated standards of purity and decency
6. Whether or not someone was good at math
7. Whether or not someone cared for someone weak or vulnerable
8. Whether or not someone acted unfairly
9. Whether or not someone did something to betray his or her group
10. Whether or not someone conformed to the traditions of society
11. Whether or not someone did something disgusting
12. Whether or not someone was cruel
13. Whether or not someone was denied his or her rights
14. Whether or not someone showed a lack of loyalty
15. Whether or not an action caused chaos or disorder
16. Whether or not someone acted in a way that God would approve of

Part 2. Please read the following sentences and indicate your agreement or disagreement:											
[0]	Ciii.	[1]	[2]	[3]	[4]	[5]					
Strong	r1x7	Moderately	Slightly	Slightly	Moderately	Strongly					
disagr		disagree	disagree	agree	•	agree					
uisagi		uisagiee	uisagiee	agice	agree	agice					
	17. Compassion for those who are suffering is the most crucial virtue.										
18. When the government makes laws, the number one principle should be											
ensuring that everyone is treated fairly.											
	19. I am proud of my country's history. 20. Respect for authority is something all children need to learn.										
	-	ole should not do	_			narmed					
	_	better to do good	=		ven ii no one is i	iurinea.					
		_			a defenseless an	imal.					
23. One of the worst things a person could do is hurt a defenseless animal. 24. Justice is the most important requirement for a society.											
25. People should be loyal to their family members, even when they have done											
something wrong.											
26. Men and women each have different roles to play in society.											
27. I would call some acts wrong on the grounds that they are unnatural.											
		n never be right		_							
29. I think it's morally wrong that rich children inherit a lot of money while poor											
		en inherit nothing more important t		over then to ex	ypross onosolf						
		vere a soldier and	-	•	•	arders I					
· ·		obey anyway be	_	=	numg officer 3 0	racis, i					
		stity is an import		•							
32.	Ciius	is an import	ant and varaac	To virtuo.							
37				e from Popova	*	(-)					
Note: A	nswe	rs are on a 7-poi	nt scale from s	trongly disagr	ee (1) to strongly	y agree (7)					
Magic Win											
	1.	This videogam			_						
	2.	Characters in the	_	1 1							
	3.	Characters in the	_								
	4.	_			ppened in real lif	e.					
	5.	Events shown i									
	6.	Events in this v	ideogame wei	re fictional. (re	everse)						
Typicality											
	1. Characters in this videogame looked not typical. (reverse)										
	2. I did not notice anything strange in the way these characters behaved.										
	3. The people in this videogame acted just how I would expect them.										
	4. There was something unusual about events in this videogame. (reverse).										

- 5. The way events developed in this videogame was quite typical.
- 6. The way things happened in this videogame matched my expectations.

Utility

- 1. I learned some new information from this videogame.
- 2. Playing this game was useful.
- 3. This videogame contained some information I could use in my life.
- 4. There was some information that could help me in real life.

Perceptual Fidelity

- 1. The lighting seemed wrong (reverse).
- 2. The sounds in the videogame were true to life.
- 3. Everything in this videogame moved exactly how it would in real life.
- 4. The colors were true to life.
- 5. The texture of the surfaces looked right.

Virtual Experience

- 1. I was able to customize my game experience.
- 2. I was in control of the game's narrative/storyline.
- 3. I had many choices of accessories/equipment.
- 4. I was able to choose which objectives to accomplish.
- 5. The game changed based on my actions within it.

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