The Name of the Game: Building Methodologies for the Study of Video Game Theory

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ABSTRACT

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The study of the video game as a medium is characterized by several problems characteristic of new domains of study, as the projects, methods, terminologies and assumptions of other disciplines have been carried into discussions of this form. These epistemological assumptions have both confounded the nature of the video game and led to circular debates on the relevance of particular approaches in video game research. This has led to a relative dearth in academic inquiries that is disproportionate to the importance and growth of this medium in everyday life.

This thesis aims to address this debate and promote theoretically-sound methodologies that adequately describe the traits of the video game. The research first identifies the key fields mobilized within the current literature and then investigates the epistemological roots of each field, thereby identifying the relevant aspects of particular disciplines and the elements that obscure the unique nature of the medium. The research also involves case studies of several different games, which allows for the proposal of methodological approaches that are open to scholars from varying fields and premised upon rigorous theoretical examination of both the form and traditional approaches to media.

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Dedication

To Joanne Percy.

Table of Contents

Chapter 1: Introduction

Video Games as Academic Objects

The video game plays a number of roles in our culture, its meaning mutating in relation to its beholder. It is one of the most adopted forms of that tenuous category called new media[i], and is currently the most profitable sector of entertainment, having outsold even Hollywood since 2001[ii]. While video games represent the "ideal commodity"[iii] (Kline, Dyer-Witheford, and de Peuter 2003, p. 75) of post-Fordism, they are alternately the motivation for a persistent moral panic related to youth and violence[iv]. These electronic games are intriguing topics of study for scholars of law, economics, policy, political economy, cultural studies, sociology, and psychology. On an increasingly frequent basis they form the focus of dozens of trade expositions, magazines, blogs, web sites, and television shows. Video games (which in this thesis encompasses at all times both console and computer games) even have a substantial impact on politics, online commerce, and art. Despite these varying and significant positions, held in North America, Europe, and Asia, video game scholarship continues to suffer from a lack of canonical groundwork[v].

This gap cannot be explained by its novelty; the history of the video game's commercial popularity stretches as far back as 1972, with its roots found in the 1962 ARPANET experiment *Spacewar!*[vi]. Though game resources can be abundantly found, most notably the theoretical online journal *Game Studies*, the recently founded academic journal *Games and Culture*, the proceedings from the academic conferences of the Digital Game Research Association (DiGRA), and a

wide number of free articles and posts offered on the sites and blogs of game scholars, the work to be found is largely divergent and, in numerous instances, contentious at best. The combative nature of the work thus far, pitting the narratologists against the ludologists, stems from a decade-old problem: the "correct" manner by which to study video games. Scholars of video games deal with this problem by either making an argument for one approach as the singular relevant method for the study of video games or by ignoring the question entirely, segregating their research from this 'historical' (i.e. circa 1997) debate entirely. Some scholars prefer to downgrade the problem, typically in the hopes that dismissing it will effectively supersede the need for further bellicose discussion[vii]. Others, such as Celia Pearce, "would prefer not to be classified in either camp, but be allowed to move freely across the spectrum if (sic) ideas that lie between play and narrative without being forced to take a 'position' on either end" (Pearce 2005, p. 1). At this point, it is essential that I state my own position, which is that narratology and ludology, as well as a variety of other disciplines such as film theory, textuality, and new media theory, all offer important insights and disciplinary shortcomings to the study of video games as a form, and that the field can only be enriched by developing a bricolage of theory and methods from all of these fields.

This outlook springs from my experience as a neophyte student of video game theory reading the work of game scholars that do take a "position", and discovering that the foundational work of the medium is riddled with hostile attacks on the disciplinary assumptions brought to bear by scholars of narrative,

new media theory, and textual analysis. In certain cases, scholars not fully versed in the basic concepts that comprise the field take for granted certain disciplinary assumptions. In other cases, scholars reference a dazzling array of texts, theories, and authors, with concepts and statements taken up as fact, without any contestation of moments of flattened complexity or logical lapses. Thus, despite the sustained work of several scholars and the fresh forays of new game researchers, a canon continues to evade its researchers, resulting in circular argument and a number of misunderstood concepts. Indeed, the question of how to study video games is the subject of a number of the articles in the first issue of *Games and Culture* (see for example Boellstorff (2006), Bogost (2006), Raessens (2006), and Crogan (2006)), evidence that, nearly ten years after the publication of Espen Aarseth's pivotal ludological work *Cybertext* (1997), the examination of the earliest disciplinary traversals in video game theory is not only relevant but critical to the domain.

This thesis seeks to explore these debates and gaps by first identifying the major currents of the literature and then exploring more thoroughly and rigorously what constitutes the epistemological baggage of each discipline mobilized in video game theory. Through this analysis, in combination with case studies of video games and genres used to complicate simplistic depictions of the elements of the medium, this thesis argues the validity of a set of heuristic methodologies for use in the study of games. This thesis also aims to clarify the jargon of the field, and whenever the reader finds a bolded word, they can turn to the glossary at the end of this thesis to find a definition of the term.

Ready, Set, Play: The Opponents of the Video Game Theory Battle

There are two approaches set in immediate opposition in this discussion, broadly understood as the narratological and the ludological. The narratological approach, in which stories, plot, representation, and story elements like setting and character are discussed, is considered the traditional method of understanding video games, an approach that is characterized, according to its opponents, by a faulty assumption that narrative structures underlie this medium. While concessions are often made about the commonalities shared by games and narratives, such as characters, settings, and events, they are argued by opponents of the narratological approach to have inherently different mechanics. More specifically, games are not representational as are traditional media such as novels, plays, and films, but operate instead as simulational systems, which means that a wholly different semiotic structure drives this form.

The perspective that approaches games with a conception of their radical difference from forms studied under literary theory, film studies, and narratology is called ludology, a term applied to the study of games in general but understood more frequently to describe the work of a group of scholars (such as Gonzalo Frasca (1999, 2001, 2003:A, 2003:B, 2003:C), Espen Aarseth (1997, 1999), Markku Eskelinen (2001:A, 2001:B, 2003), and Jesper Juul (2001)) that approach video games from a formal angle that proposes to study their structure, especially their rule formations. Ludologists represent the most contentious players in this discussion, with their rhetoric becoming increasingly hostile. For instance, while in 1999 Frasca claimed his intention was to complement narratological studies of video games with a games approach that analyzed

particular traits of games that constituted them as different from narratives, in 2003 he deemed the narratological approach inaccurate and limiting. This hostility is evident in the works of many ludologists, as is the contempt in Markku Eskelinen's (2001:B) oft-quoted observation: "Outside academic theory people are usually excellent at making distinctions between narrative, drama, and games. If I throw a ball at you I don't expect you to drop it and wait until it starts telling stories" (unpaginated article).

While this question in many ways characterizes the scornful approach of ludologists, it is valid as an introduction to the question that has created such a circular discussion. Here I will segue into a brief introduction of some of the main players on each team. On the so-called narratological team we see a diverse range of thinkers such as Janet H. Murray, Brenda Laurel, and J.D Bolter and Richard Grusin. Despite their grouping as such, their work each proposes something different about video games and, because of the differing disciplinary roots of each thinker, understands what ludologists generally call narrative as something unique.

Player 1: The Narrative Approach

Janet Murray is often upheld as representative of the narrative approach to games, though in her work she never makes claims to any singular correct method by which to approach video games. Her book, *Hamlet on the Holodeck: The Future of Narrative in Cyberspace* (1997), proposes that the formulaic structure and content of narrative is what holds adventure games such as those that occur within **multi-user dungeons (MUDs)** together, as "a limited repertoire

of stereotyped activities makes for more easily sustained role-playing" (p. 197). For her, the gameplay experience is centered around a plot and the potentialities of the game world are controlled by the linear storyline. Player choice is made possible by the different branches of the story (as coded within the game), a process resembling the type of reading involved in the children's book *Choose Your Own Adventure*, and with players falling under Vladimir Propp's seven basic character types such as hero, villain, or sought-for person. Indeed, it is through explicit references to Propp's *Morphology of the Folktale* (1968), in which Propp scrutinized over four hundred Russian fairy tales by focusing on the *narrated* (the 'way' of the discourse structure) rather than the *narrating* (the 'what' of the story), that Murray understands the structure of the games she examines. Propp's work allowed him to isolate a limited number of functions that all narratives consist of in order to create meaning and unity, as these functions tend to appear in an order that is constant. Murray uses these functions to analyze games and other new media in order to forecast "the future of narrative in cyberspace".

Brenda Laurel has worked as a researcher, teacher, and writer as well as a designer, producer, and human-computer interaction (HCI) architect. Despite these experiences, she is only referenced by ludologists as the academic who approached video games using Aristotelian poetics. In her 1993 book *Computers as Theatre,* Laurel hypothesizes that video games and other computer applications possess more similarities to drama than to narrative. Her evidence is based on the fundamental Aristotelian characterization of drama wherein action is imitated in real time with an emphasis on causality. Laurel indicates that the

strengths of drama over narrative include especially its enacted nature, in which actions takes precedence over description. The arrangement of incidents in drama is such that emotion is intensified while time is condensed, and they are linked causally to one another rather than episodically and thematically as in narrative. In sum, "drama is typically more intense, tightly constructed, economical, and cathartic than narrative" (Laurel, p. 95) and is thus a better vehicle for the study of video games.

Laurel employs Aristotle's model of the six qualitative elements of drama to highlight the shared characteristics of drama and what she broadly terms "human-computer activity", which includes playing video games. These elements include action, character, thought, language, melody/pattern, and spectacle/enactment, and Laurel bases much of her evidence of the similarities between drama and human-computer activity in these elements. As an example, the element of thought in drama is the "inferred internal processes leading to choice: cognition, emotion, and reason" (p. 50) and is in human-computer activity the same thing, broadened to include both human and computer processes. Still, it is important to note that Laurel's intention is not to claim that video games or other forms of HCI are simply extensions of drama, but to apply the artistic nature of poetics to the design of human-computer interfaces in order to create pleasurable, engaging experiences for the users of these interfaces. Laurel's turn to the theory of literary representations found in *Poetics* does indicate her persuasion, namely that representation is to be found in human-computer activities, but her intention is clearly stated as to enhance the design of these

activities rather than to conceive of a strict formalism of video games as analogous to drama.

J.D. Bolter and Richard Grusin's book *Remediation: Understanding New Media* (2000) comprises the subsection of the narratology debate known as extension theory. This approach is criticized for its simplistic understanding of video games as merely extensions of more traditional forms, without any consideration of the unique characteristics of the medium. The authors broadly work from Marshall McLuhan's (1964) *Understanding Media* and the paradox "the medium is the message". They posit that "all current media function as remediators and that remediation offers us a means of interpreting the work of earlier media as well. Our culture conceives of each medium or constellation of media as it responds to, redeploys, competes with, and reforms other media" (p. 55). This process occurs through the double logic of immediacy and hypermediacy, contradictory logics that the authors state explains how our culture seeks to erase the visible element of media as it concurrently tries to multiply media. In terms of video games, Bolter and Grusin argue that they are explicit remediations of computers, television, and films. Thus, while the main focus of their analysis is by no means the medium of the video game, their main thesis and evidence make an important claim about this form: video games can be studied in the same way as older forms since they are but annexes of traditional media. Implicitly such a claim contends that any apparent characteristics of this medium that are unique from those of the computer, television, or film can be overlooked as incidental.

Other scholars, such as film theorist Bob Rehak (2003), fall under the rubric of extension theory. Rehak argues that video games remediate cinema, as evinced by such factors as the convergence between video game and movie genre thematics, aesthetics, and camera work. Rehak justifies the relationship between cinema and the video game in order to analyze the **avatar** and the pleasures of the video game using psychoanalytic film theory, as informed by Jacques Lacan's description of the mirror stage and the concept of suture. It is important to note that, while Rehak justifies his examination of video games through his disciplinary lens with Bolter and Grusin's theory of remediation, his application of psychoanalytic film theory is only one facet of the video game, the relationship between the player and the avatar. Rehak does not examine the structure or **game mechanics** of the medium, nor does he claim the video game to be a subset of cinema. His recourse to remediation appears to be defensive, as though he foresaw the criticism of video game scholars regarding the use of a film technique for the study of an aspect of video games.

Even a brief introduction to some of the works that broadly constitute the narratological approach to video games indicate several issues to be considered, especially when one considers their differences despite their categorization together. Murray, Laurel, Bolter and Grusin, and Rehak all base their work on diverse theoretical works and thinkers (respectively, Propp's *Morphology of the Folktale*, Aristotle's *Poetics* (1997), McLuhan's *Understanding Media* (1964), and Lacan's "Mirror Stage" (1977)). Furthermore, these differing theoretical constructs indicate that, rather than emerging from a uniform discipline captured

under the heading of narratology, these approaches to video games carry differing epistemological understandings, assumptions, vocabularies, and critiques. These authors are inherently working from within different disciplines (narratology, drama, film theory, media theory). Flattening each approach into one category risks the loss of their finer points and the complexities that each hold. When this thesis revisits each work more thoroughly, we will see that this is exactly what has occurred when ludologists, under the banner of narratology, have dismissed these works and approaches as irrelevant.

Player 2: The Ludology Approach

The other side of this supposed gulf is the ludologist approach. Though this approach is more unified than narratology, there are still a number of differing backgrounds that are relevant to this discussion. Espen Aarseth is considered to be the "Father of Ludology. His book *Cybertext: Perspectives on Ergodic Literature* (1997) is a theoretically-dense critical work on digital literature wherein he argues that the dominant narrative mode of discourse not only does not apply to these forms (including video games) but that it is losing its dominance in the current digital culture. Aarseth proposes a new understanding of the way these forms operate, employing the term "cybertext", by which he refers to the mechanics of the text, as understood by the nature and organization of its medium. The action the user of a cybertext takes is extranoematic (beyond interpretive) and nontrivial (requiring real, significant work), and will result in the generation of a semiotic sequence. Aarseth calls this an **ergodic** phenomenon, which applies to texts such as the *I Ching* and the adventure game *MUD1*, which

are not read beginning to end but in specialized rituals that vary across these and other texts. Cybertexts also differ from traditional texts in that they have a "paraverbal dimension" (p. 3) and produce a variety of meanings. Indeed, the reader of the cybertext is always aware that she is missing elements of the text that her choices are closing off. Rather than the ambiguity of a traditional text, a cybertext presents an absence of possibility, an **aporia**.

In the process of proposing a new understanding of these types of texts, Aarseth challenges several disciplinary realms, including reader-response theory, the concept of interactivity, cybernetic feedback loops through cyborg aesthetics, textuality, and, of course, narratology. He claims that while narratives have two levels (descriptive and narration, as described by Gerard Genette (1980)), a game has one level (ergodic) and a video game has two (ergodic and descriptive). He argues that the act of studying cybertexts as narrative is "of limited potential, since the most interesting feature of these texts are their difference from, and not their (inferior) resemblance to, the hegemonic forms. What above all makes them worthy of study is the fact that they present an alternative mode of discourse; a different type of textual pleasure" (p. 109). Clearly, Aarseth is unequivocal in his criticisms of "limited" approaches to the study of these forms, which feature video games prominently. As we shall see, his drive to isolate the unique elements of cybertexts resulted in numerous epistemological assumptions and misconceptions, errors that have been frequently repeated and disseminated by the ludologists who have taken up his work.

Scholars including Gonzalo Frasca, Markku Eskelinen, Jesper Juul, and Aki Järvinen all fall under the approach called ludology, which is the study of games broadly, and in this context refers to the study of video games. These ludologists often reference pivotal game theorists such as Roger Caillois (1967), Johan Huizinga (1950), and Brian Sutton-Smith (1971), who undertook games and play as their objects of interest. Despite these allusions, current ludology tends to use these scholars not for their theoretical conclusions but as substantiation of the game as a different type of object than literature, cinema, and drama. This leads to academic articles with titles such as "Simulation versus Narrative" (Frasca, 2003:A), "Toward Computer Game Studies" (Eskelinen, 2001:A), "Games Telling Stories?" (Juul, 2001), and Järvinen's PhD dissertation in progress, titled "Games Without Frontiers: Theories and Methods for Game Studies" but is comprised of chapters on mechanics, dynamics, genre, simulation, and rules rather than on a variety of multidisciplinary theories and methods. Indeed, Järvinen's chapter breakdown is representative of the ludological project; ludology is a discipline that approaches games with an eye to the formal properties, their mechanics, and their rule formations. The ludology project is broad within its boundaries; topics of interest include game time, configuration, rhetoric, and any number of formalizations of game elements. Often, articles written by ludologists test the limits of narrative within their frameworks. Frasca noted in "Ludologists love stories, too: notes from a debate that never took place" (2003:B) that the goal of ludologists is not to discard narrative from the study of video games, but simply to attempt new approaches.

Despite this reassurance, ludological works are rife with both antagonistic statements about narrative and misconceptions of the epistemological strengths of its approaches. Furthermore, references to the above-mentioned classic game scholars often flatten or poorly mobilize these works, resulting in the dissemination of warped understandings of Caillois and Huizinga, of ***paidia*** (free play) and ***ludus*** (structured games). As for Frasca's (and others'[viii]) contention that this debate never occurred or was simply a red herring, this thesis will argue that such a debate did indeed transpire and has had a resounding, lasting impact on the field.

Team	Key Players	Key Concepts	Key Works
Narratology	Janet H. Murray Brenda Laurel J. D. Bolter and R. Grusin	-Story -Setting -Characters -Plot -Poetics -Remediation	-Hamlet on the Holodeck -Computers as Theatre -Remediation
Ludology	Espen Aarseth Markku Eskelinen Gonzalo Frasca Jesper Juul	-Cybertext -Ergodicity -Rules -Game time -Mechanics	-Cybertext -"Simulation versus Narrative" -"The Gaming Situation"

Table 1: Illustration of the two poles of the narratology versus ludology debate.

Player 3: Unwilling Soldiers on the Battlefield

Since the publication of Aarseth's key work in 1997, dozens of articles on video games have been published or presented at conferences. By and large, this scholarship does not draw an alliance or even refer to the ludology/narratology debate. Rather, they at times justify their approach, on occasion acknowledge the question without addressing it, or simply avoid taking a definitive stance all together. Yet despite the ability to theorize games without stating one's epistemological stand, I argue that these articles lack power

because they can be described dismissively as 'using a narrative approach'. For example, articles by Mia Consalvo (2003:A, 2003:B, 2003:C, 2006) discuss cheating, gaming capital, war, sexuality, and gender, exploring questions of both the external player and the internal avatar. Despite the fact that Consalvo does not explicitly enter into the narratology/ludology debate, within her work the concept of representation is understood to exist within the video game. Indeed, all explorations of gender, race, sexuality, and class assume representation, as it is the figure expressed that carries meaning. Yet ludology argues that the system underlying the video game is not representational but simulational (Frasca, 2003:A), effectively closing out these discussions while simultaneously making erroneous references (Aarseth, to whom ludologists always refer back to, proposed both simulational and representational engines driving games).

Thus, the work of scholars such as Helen Kennedy (2002), who studies gender and Lara Croft, and David J. Leonard (2006), who questions racial stereotypes within games, lies within a troubled space of contention, despite the fact that these authors do not attempt to defend the representational mode or a narrative approach. Nevertheless, such analysis are heavily outnumbered by articles that explore the external elements of video games, such as their political economy (Kline, Dyer-Witheford, and de Peuter (2003)), their economics (Edward Castronova (2005, 2006)), their legal relevance (Greg Lastowka (2003)), their players (Laurie Taylor (2003), among others), their role in culture (Johannes Fromme (2003), a large number of the contributors to the first issue of *Games and Culture*), and their rhetorical possibilities (Cynthia Haynes (2006)),

along with the formalist examinations of the ludologists. While the external elements of games provide rich and valuable material for investigation, there is clearly a need for more examinations of what occurs within the game itself.

Another crop of scholars are relevant to the formulation of video game theory. These thinkers work on the periphery of the domain, but their conceptions and theorizations of new media forms, including video games, both inform and challenge current video game theory and augment the methodologies this thesis seeks to develop. And yet when they are mobilized in the current theory, it is usually as an attack. For instance, George Landow (1997) complicates commonly held notions of text, hypertext, literary theory, structuralism, and poststructuralism. Questions about ideas around these subjects and their relation to the form of the video game appear to have been asked only once in Aarseth's work, and have largely lain dormant since. This thesis revisits Landow's work, which is essential to video game theory as it adds depth to its current structural project; its understandings of hypertext are firmly grounded in a solid epistemological understanding of textual analysis. Though hypertext studies cannot fully investigate the nature of the video game, the development of the conception of cybertext was a pivotal moment in the constitution of video game theory and its subsequent debates. Thus, a return visit to the epistemological realm of textuality and its more recent mobilization in relation to new forms is warranted.

The Name of the Game: Forging a Discipline

Mark J. P. Wolf and Bernard Perron open their collection of video game theory essays (2003) by cautioning the reader that "the medium itself is a moving target, changing and morphing even as we try to theorize and define it" (p. 2). In many ways, video game theory is similar to Internet studies in that "although a traditional field or disciplinary structure is not yet in place, the current interdisciplinary aggregations may have the makings of institutionalized academic units" (Jones 2005, p. 233). Is it a field of study, a domain within new media studies, a subset of cinema studies, a subset of Internet studies, or a purely computer sciences venture? Clearly Wolf and Perron's conception of the medium's remarkable lack of fixity is apt and resonates today. And despite their celebration of the wide range of influences at work within the current literature, the debates outlined above have tended to result in what Bogost (2006) calls "functional separatism".

Therefore, in many ways this thesis seeks to contribute to a recent adaptation of a classic theme, the development of a new paradigm or discipline. While the ludological project appears to understand video game theory as influencing a "revolution" (in Thomas Kuhn's (1962) sense) of media theory, I am more inclined to agree with Michel Foucault's (1972) reluctance to identify interruption, articulations, and causality in "great continuities of thought" (p. 4). Fortunately for an analysis of this sort, the brief history of video game theory has been too fragmented and narrow to have become unwieldy, though one cannot claim the same for the many disciplines that have been mobilized in this literature. Clearly, this examination is doomed to be sweeping, and perhaps

slightly reductionist in its dealings with epistemological assumptions. Still, as its intention is to complicate and problematize, and to develop heuristic approaches, the reader may excuse any potential absences. While the project undertakes what Foucault (1972) described as the outlining of the "field of presence" (p. 57), emphasizing especially the statements that have been rejected or excluded, its scope and breadth are necessarily at this time limited to the most ordinary and prevalent of "conceptual systems" (Foucault, p. 56).

More specifically, this thesis probes the explicit and implicit claims of the scholars contributing to the discussion through an examination of their epistemological roots. This analysis illuminates where epistemological assumptions, made by all parts on some level, prove unhelpful to the foundation of the field by misunderstanding the medium, flattening its complexities, making leaps of logic, or ignoring its unique characteristics. This thesis then moves from the theoretical realm of epistemology to case studies of several games, investigating epistemological strengths and weaknesses for the study of this form and its genres. Based on these conclusions, the thesis ends by proposing several rigorously developed heuristic methodologies for the study of games, approaches that facilitate the exploration of many interdisciplinary questions without resorting to epistemological myopia. Through this process, the thesis will also address several key terms of contention, such as interactivity, immersion, narrative, simulation, story, and engagement, as it is through the unquestioned or unqualified use of such terms that confusion often arises.

Thesis Outline

This thesis is organized in a sequential manner that facilitates the analysis of larger questions by building upon the questions posed by preceding chapters. As we have seen, this Introduction has described several different thinkers, numerous concepts and assumptions, and some problematic terms. This leads easily into the next chapter of the thesis, Theoretical Backgrounds, in which I flesh out the epistemological foundations of narratology, ludology, new media theory, film theory, semiotics, and textuality. In doing so, I describe their disciplinary assumptions, without drawing any conclusions about their relevance to video game theory. I will describe the key concepts of narratology and semiotics, drawing from the work of Tzvetan Todorov (1965), Gerard Genette (1980), Roland Barthes (1972, 1974, 1996), and Ferdinand de Saussure (1966), the birth of the field of film theory via the work of Christian Metz (2004:A, 2004:B) and Daniel Dayan (2004), the roots of game theory in seminal texts by Johan Huizinga (1950) and Roger Caillois (1967), and game design fundamentals (from the work of Katie Salen and Eric Zimmerman (2004) as well as Chris Crawford (2003)). In this examination, I highlight some of the theoretical concepts from each field that have not been mobilized or investigated in video game theory, such as the limitations of traditional semiotics in film theory.

In the third chapter, Case Studies, I examine the claims made by scholars on the nature of game play, and on evidence presented through the play of specific games and genres, via several case studies, of *Myst* (a story/puzzle game), *Half-Life 2* (a first-person shooter game), *The Sims 2* (a simulation game), *Final Fantasy VII* (a **role-playing game**), *Grand Theft Auto 3* (a **sandbox**

action game), *Need for Speed Underground* (a racing game), and *World of Warcraft* (a massively-multiplayer online game). Starting with brief descriptions of each game and their unique approach to game play, these accounts then lead into a discussion of the elements of game play that are used as evidence by scholars as well as those that remain under- or undescribed. A key element of this analysis will be to pinpoint the rule structures in each game as well as the cinematic traits such as setting, character, plot, and atmosphere in order to understand the relationship of these. The chapter will then conclude by employing genre theory, using the work of academics such as Stephen Neale (1980), to examine the key differences to be found between genre in cinema and genre in games.

In Heuristic Methodologies, the fourth chapter, I proceed from the theories, counter-arguments, and ideas examined in the first three chapters to propose theoretically-sound methods for studying video games that incorporate the weaknesses and strengths of each discipline vis-à-vis the characteristics of video games and the relevant genre theory brought forth in the case studies. The point of this chapter is to synthesize the points made earlier into a multivalent framework for research. Thus, I will develop a bricolage of the theory that I have examined that best suits the study of video games, discarding the epistemological assumptions of each discipline that do not apply to the medium of the video game and proposing a variety of approaches that can suit scholars coming from a range of interdisciplinary backgrounds.

In the final chapter of this thesis, I discuss the future of the field for researchers and theorists, focusing especially on the common problems facing the field, and the potential of the current state of affairs in video game studies. I argue that a sense of collaboration rather than of combat in research is required in the face of continued attacks on video game academics, the role of the medium in youth violence, and consumerist myths of interactivity and immersion.

Overall, I argue in this thesis that the state of video game theory is not sufficient due to theoretical fumbles and that this can be rectified through more rigorous theory, greater attention to the medium's traits, and the construction of methodologies tailored to elements of the video game.

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[i] While many forms of 'new media' have also been widely adopted, video games have seen both a rapid adoption in its second iteration (post-Atari) and an explosive commercial push, resulting in a diverse range of hardware, games, accessory gadgets, complementary products, websites, and publications, all of which have been taken up by consumers with tremendous eagerness. For more on the commercial history of games, see Kline, S., Dyer-Witheford, N., & De Peuter, G. (2003). *Digital Play: The Interaction of Technology, Culture and Marketing.* Montreal: McGill-Queen's Press.

[ii] The exact revenues that should constitute this comparison are debated. Some argue that ancillary revenue (revenue seen by the publishers) should be used in comparison, a calculation that results in a dollar amount that does not exceed box office sales. In this case, I am using the numbers found in an article in the popular technophile source *Wired* Magazine," Games, Movies Tie the Knot" by John Gaudiosi. Available at http://www.wired.com/news/games/0,2101,61358,00.html (accessed January 11, 2006).

[iii]This designation means that video games are conceived as the representative product of an age of automation, globalization, and demassification of consumers

[iv]See Goldstein (2000), Anderson, C. A., & Dill, K. E. (2000), Ballard, M. E. & R. Lineberger (1999), Funk, J. B. (2001), Goldstein, J. (2000), Haninger, K. & K. M. Thompson, Kinder, M. (1996), Koepp, M. J., R. N. Gunn, A. D. Lawrence, V. J. Cunningham, A. Dagher, T. Jones, D. J. Brooks, C. J. Bench, & P. M. Grasby (1998), Nicoll, J. & Kieffer, K. M. (2005), among others.

[v] While it is perhaps too early for video game studies to have a full canon, or body of rules and principles guiding the field, video game scholarship has been around for long enough to imagine that some of the groundwork for this kind of canon would have been

established. On the contrary, the literature to date is characterized by a lack of established rules, principals, terms, concepts, or approaches.

[vi] To play Spacewar! visit http://lcs.www.media.mit.edu/groups/el/projects/spacewar/

[vii] Henry Jenkins, for example, has stated in his blog that "the last thing any of us wants is to reopen the trumped up feud between the self-proclaimed ludologists and the so-called narratologists" (see the post "Response to Bogost (Part 2)", August 14, 2006 at http://www.henryjenkins.org/ for the context of this comment). Jenkins is one the most known and active game scholars to persistently quash discussions of the subject, and yet one of Ian Bogost's criticisms of Jenkins' *Convergence Culture* (2006) was his use of the terms "storytelling" and "narrative", which opened up this debate once again as late as August 2006.

[viii] See, for example, Aarseth, E., & Jenkins, H. (2005). *Aarseth-Jenkins debate on (computer) game studies.* Presented at the HUMlab, IT University of Copenhagen.

Chapter 2: Theoretical Backgrounds

The Problem of Looking at Disciplines

The divisions between disciplines (what Foucault (1972) calls "major types of discourse" (p. 22) such as literature and history) are not essential categories but are constructed by their specific classifications, rules, and institutionalizations. Extricating a clear notion of what constitutes a discipline is an act of deciphering, as the building of a field of research and a grand object of study is a networked progression informed by other fields. Still, a unity of discourse can be identified by isolating the currents of a discipline through an examination of its discursive events rather than through a history of thought.

Thus, this chapter will discuss the broad fields of thought (narratology, semiotics, extension theory, poetics, textuality, film theory, classical game theory, and new media theory) that most often characterize video game studies, though length constraints disallow any comprehensive assessment of the episteme of each discipline. Instead, a descriptive analysis will allow the most basic concepts and motivations of each field to emerge, and will highlight the vocabulary, thinkers, and projects central to each discipline by asking how each field operates in its own project. The answer to this question will widen to also include key concepts, terms, and assumptions for each discipline. This tactic will to reinforce the purpose of this chapter, which is to clarify the different approaches to video games that have up to this point only been discussed in the simplest terms, in order to better understand which methods best serve video games as a form.

Story, Narrative, Discourse: Narratology

Narratology and semiotics are perhaps the most complex disciplines mobilized within video game theory. In his defense of ludology (2003:B), Gonzalo Frasca notes that the label of narratologist has been somewhat misapplied in video game theory discussions. He distinguishes between the narrativist (the scholar who builds theories of interactive media on a narrative or literary theory groundwork) and the narratologist (the scholar who studies narrative in any medium, including literature, film, or video games), and names several narratologists and semioticians, such as A.J. Greimas and Gerald Prince, as well as Todorov, Genette, and Metz. This simple naming of scholars is typical in current ludological texts, where the concept of narrative is assumed to be understood by all readers. Indeed, "narrative" is very rarely qualified; any account of the term or its wider field tends to be simplistically reduced to its "elements" (Frasca 2003:A, p. 222) such as events, character, and setting. Narratology is often reduced to two tenets: 1) Narrative exists everywhere and it helps society make sense of the world, and 2) There are two aspects of narrative: the story (the narrated) and the discourse (the narrating). While both of these arguments are found in narrative theory, (Todorov, 1965 and Barthes, 1996), defining the field by these two statements is reductive at best, as they do not capture by any means the fundamental epistemological characteristics of the field, features that may be able to better inform video game theory.

One of the most basic defenses for a ludological approach is the claim for formalist approaches to understanding games. Yet narratology is itself based on formal and structural approaches that developed from Ferdinand de Saussure's

linguistic project of making a distinction between *parole* and *langue* to discover how language works. What can ludology learn from this structuralist approach? An overview of de Saussure can highlight some essential rudiments of narratology.

De Saussure distinguished *parole*, which constitutes moments of spoken language, from *langue*, which amounts to a system of grammar[i] that underlies all of speech. Semiotics is based on an understanding of language as a system of generative rules, and on the creation and interpretation of meaning through the use of signs. De Saussure theorized a dyadic model of the sign, which is comprised of the signifier and the signified, whose association comprises the whole of the sign. The first is the form the sign takes, while the second is the concept the signifier represents. The relationship of these two elements, which de Saussure envisioned not as material in the tangible sense but purely psychological, is signification, and this relationship is arbitrary rather than referential[ii].

The breakthrough in structuralism came through phonetics, which demonstrated that words and objects only work by relationships of difference. These were examined through the paradigm (the plane of substitution) and the syntagm (the plane of combination), a method of study that works on a double articulation and on the assumption that one can freeze language in order to study it. The paradigm here is the phoneme (signifiers of natural language) and the syntagm is the range of available combinations (i.e. what phonemes constitute words). Grammatically, the equivalent would be words as the paradigm and the

rules of grammar as the syntagm, but this does not work, because words can fit into the syntagm without being meaningful at the level of content[iii]. Thus, grammar must have more levels; it does not function on a double articulation. This discovery directly impacted narratology, in which the structuralist sought to understand how recurring components, themes, and sequences gave way to a set of universals that established a story's makeup. Rather than developing a taxonomy of these elements, narratological analysis sought to understand how they comprised both fictional and non-fictional narratives.

Before we explore a few of the different approaches to narratology, it is important to refer back to Roland Barthes (1972) and his isolation of the single most important constituting element of the structuralist project: "the goal of all structuralist activity, whether reflexive or poetic, is to reconstruct an 'object' in such a way as to manifest thereby the rules of functioning (the 'functions') of this object" (p. 214). The decomposing and recomposing actions of the structuralist are not limited simply to mythic or literary language; the understanding of the structure as a simulacrum of the object rendered intelligible is envisioned by Barthes to apply to many objects. The constructed simulacrum constitutes an act of creation as the object has a functional category that "highlights the strictly human process by which men give meaning to things" (p. 218).

Propp, as we have seen, has figured prominently in game research. Through his analysis of a hundred Russian folk tales, in which he focused on the discourse rather than the story, he isolated seven recurring types of action, eight broad character types, and thirty-one fixed elements that appeared in these tales.

He achieved this by following the linguistic approach of breaking down to the smallest building blocks, narrative units in this case, which he called narratemes. Through these inveterate actions and their relatively constant order, Propp developed a typology of narrative structures and thus evidence of a structural base for narrative.

This approach has influenced other narratological projects, including that of Todorov (1965). Todorov proposed that literary work has two aspects, story and discourse, as well as a variety of other classifications. The two aspects indicate some of the assumptions implicit in Todorov's work: the story involves events and characters, which may be real or not, and the discourse involves the telling by the *author* and the perceiving by the *reader*. The story is not necessarily chronological, and it is "a convention which does not exist at the level of events themselves" (p. 20). Todorov classified a great deal of narrative elements, including base predicate relations between characters and four action rules which dictate the relations that will form between agents (the subject and object of the action) and the predicates. Thus, based on certain characters, motivations, and passive or active transformations, Todorov argued he could predict the outcome of particular relations through his rules. In terms of the narrative as discourse, Todorov identified and focused his analysis on three constitutive processes: narrative time (the relation between the time of the story and the time of the discourse), narrative aspects (the way the narrative is perceived by the narrator), and narrative modes (the type of discourse the author uses to impart the story to the reader).

Genette (1980) worked from some of Todorov's categorizations, highlighting part of the ambiguity of narrative studies, describing the three notions that underlie the term narrative. The first is narrative as either oral or written discourse that describes a series of events, which Genette later clarifies as story. The second meaning is more complex: "the succession of events, real or fictitious, that are the subjects of this discourse, and to their several relations of linking, opposition, repetition, etc... without regard to the medium, linguistic or other" (p. 25)- what is later clarified as narrative. The third meaning refers not to what is recounted but to the act of recounting, or narrating, as Genette calls it later. Clearly, a great degree of confusion emerges from the first two meanings, as story is often considered synonymous with narrative. Yet Genette, as other scholars of the narratological project have done, places the emphasis not on the narrative content but on that which is available to textual analysis, the "signifier, statement, discourse, or narrative text itself" (p. 27).

Oftentimes narrative is dismissed by ludologists because of the differences of the medium of video games from other forms, such as their unique time of 'reading' and their kineasthetic element of play. They argue that narrative approaches ignore the unique elements of the video game, and are better suited to traditional media such as literature and film. This critique again misunderstands the project of narratology. Roland Barthes' observation of the encompassing nature of narrative also highlights an element of narrative that is often neglected: narrative occurs independent of medium, and it is fundamental for the narratologist to examine the story (the narrated) separate from both the

medium and the discourse (the narrating). Works within the project of narratology have largely concluded by finding similarities across narratives, as evinced by Propp's typology. This and its relevance to video game theory will be explored later in this thesis.

Extensions of Ourselves

Direct reference to Marshall McLuhan's (1964) maxim "the medium is the message" can be found in video game texts, a paradoxical phrase that has been widely interpreted to mean that a) the channel is more important than the content or b) the information of a message is of no relevance. For McLuhan the message is "the change of scale or pace or pattern" (p. 20) introduced by an innovation into society and its situation, and the medium is "any extension of ourselves" (p. 19). These definitions provide a wide margin for what constitutes either element. The purpose of positing such a paradox was that "the 'content' of any medium blinds us to the character of the medium" (p. 20). McLuhan's work was focused on structural changes that brought about new ideas and technologies, and the unintended effects of these innovations. These consequences result from the ignoring of a range of factors in our society, from cultural values to historical trends, and together form our "ground", which will surreptitiously influence the impact of any innovation. Thus, the message, which is in McLuhan's definition neither content nor the use of the innovation but the change it introduces, which "always tells us to look beyond the obvious and seek the non-obvious changes or effects that are enabled, enhanced, accelerated or extended by the new thing" (Federman 2004, unpaginated article).

The medium, on the other hand, is an extender (specifically of the human senses), so eyeglasses are an extension of our sight, and spoken language an extension of our thoughts. Furthermore, media are that from which change materializes, and since innovations create change, all of them are arguably media in McLuhan's definition. To use one of his examples as clarification, the electric light was not conceived of as a medium because it is pure information without "content" unless it has been used to spell out words, which do not constitute content but rather another medium. Thus, the electric light represents the meaning of McLuhan's paradox. Though never considered a medium, this form is similar to other well-recognized media in that it removes "time and space factors exactly as do radio, telegraph, telephone and TV, creating involvement in depth" (McLuhan, p. 21).

Tragedy and Representation: Aristotle's *Poetics*

Brenda Laurel's reference to Aristotelian poetics is another influence found in the work of the narratologists. While it would be impossible to explore all of the points of *Poetics*, we can isolate some of its most relevant foundational concepts. While Aristotle's range of forms was limited to those that existed in his time period, he defined all forms of literary production and performance as forms of imitation differing only in three respects: "the medium, the objects, the manner or mode of imitation, being in each case distinct" (p. 1). The different media at this time are proposed to be rhythm, language, and harmony, with genres including nomic poetry[iv] and tragedy, while the objects are, according to Aristotle, always about human concerns, with representations including depictions of

humans as either better that reality, as in reality, and as worse than reality. The different modes are drama and narrative, where drama is the representation of action through the speech and movements of the actors enacted before the eyes of the viewer. Narrative, on the other hand, is action imparted through a storyteller who either speaks in his voice or by taking on the voices of the characters, recounting directly to an audience.

Laurel relies heavily on Aristotle's characterization of tragedy, which is above all a representation of human action. The aim of tragedy is not to impart human personality but to *represent human action*. As was explored in chapter 1, tragedy is comprised of six elements, which can be organized under the headings of media, object, and mode[v], and is made whole by any evidence of a beginning, middle, and end- a simple structure that ensures that all events follow what appears to be a chain reaction of causal events. This indicates the importance of plot to Aristotle, who notes that a plot must have unity[vi].

All of these concepts, theories, terms, and descriptions are but a brief unpacking of what the narrative team in video game theory implicitly mobilizes in their examinations of video games. From even this simple and curtailed discussion it becomes evident that each discipline carries a rich variety of assumptions. Further examination of this multitude of epistemological baggage will be undertaken later, as I will now turn to the disciplines mobilized by the ludology team, and an equally expansive range of thinkers and thoughts.

Textuality: Linking the Text and the Hypertext

First, and closely related to discussions of narrative, are negotiations of textuality. Aarseth, the "father of ludology" entered into the domain with a book that quibbled not with narrative but with problematizing texts characterized by a different type of user interaction than traditional texts (Aarseth 1997). Hypertext is central to video game theory, and yet its roots in traditional textuality are rarely explored. What has hypertext theory learned from its more established predecessor, literary theory? George Landow's *Hypertext* and its second edition deal with this question and the essential assumptions of this project.

Landow's work is based upon and modifies classic definitions of text. Hypertext is described in a relation of difference and sameness to text, which for Barthes (1972) is not materially different from a work, as it is not material at all. While the work is found on printed pages, the text exists only in language, when "caught up in a discourse" (p. 57). The text evades classification of all sorts as it exists "behind" opinion on genre and hierarchy. The work operates as a general sign closed upon a signified, while the text postpones the signified "by a serial movement of dislocations, overlappings, variations...without closure" (p. 59). The meaning of a text depends on the multiplicity of the signifiers that constantly constitute it[vii] as well as on its network of dispersed and untraceable heritage. Finally, the text brings about the eradication or lessening of the distance between the act of reading and the act of writing by connecting "the two together into one and the same signifying practice" (p. 62).

Landow (1997) begins his analysis of hypertext by indicating a convergence of literary theory with the project of hypertext (as indicated by the

digitality of *Of Grammatology*[viii] and the poststructuralism of *Literary Machines*[ix]), and yet is quick to indicate a disbelief in the sameness of literary theory, semiotics, structuralism, and poststructuralism to hypertext. What he does find similar across Jacques Derrida (1977), Roland Barthes (1972, 1974), Theodor Nelson[x], and Andries van Dam[xi] is a trend toward the displacement of the hierarchical conceptual systems of linearity and the turn toward notions of the nodal, forking network system as an electronic response to the traditional printed volume. Hypertext represents an embodiment of the concept of the open text and allows for literary theorists to test their theories of, for example, authorship, in a manner that would be impossible in a written text (Bolter, 1990). Yet the vision of hypertext is constrained by Landow to refer to a structure that contains text connected to other text via electronic links. He explicitly excludes the four other forms of electronic textuality: simple digital text (the unlinked text found in email), text represented graphically (photos on a corporate website that imply good working conditions without text to reinforce this), nonlinear text (computer games, text-based environments such as MUDs and MOOs, and cybertext such as Michael Joyce's[xii] *Afternoon*), and simulations (virtual reality, for example). Landow does not preclude textuality from these forms but understands hypertext to be different from them.

Barthes (1974) and Foucault (1972) both invoked the language of hypertext before the Internet became commonplace, describing nodes, networks, the "absolutely plural text" (Barthes, p. 5). Both also refer to the unique power structure that emerges from such a system, as there is no authoritative entrance

or exit, no determinate method of navigation, no necessary end. These are pivotal traits assumed for hypertext, with an important result- the understanding of an act of creation that "thereby create text that is experienced as nonlinear, or, more properly, as multilinear or multisequential" (p. 3).

Thus, hypertext is not simply about a system of interconnection that makes information retrieval easier and perhaps more intuitive[xiii], but it is also posited to complicate the relationship between reader and writer. In electronic text situations, the reader becomes a producer, eliminating the abyss between owner and consumer, leaving behind what Barthes describes as "reading (as) nothing more than a referendum" (1974, p. 4). Hypertext also opens the same environment that the writer enjoys to the reader, presenting an open, flexible, customizable text and allowing the reader to respond to positions directly. The printed work is declared to have a "fixed, unchangeable linear format (that) makes information retrieval difficult" (Landow, p. 21). It is tactile and physical, while the hypertext is virtual and devoid of the possibility of an original. The hypertext is also positioned as democratic as it removes the environment of the lofty author.

For Landow hypertext is not simply about a neoteric method of arranging text but, through its "quasi-anarchic" (Landow, p. 42) disavowal of hierarchy, linearity, and binaries, is a wholly new method of thought and a powerful alternative to traditional reading. Landow's hypertext is about power and re-imagined relationships, unmistakably more than mere information retrieval.

The last element of Landow's work to examine is his theorization of narrative in hypertext. Narrative is reconfigured, it is argued, through the way it takes a variety of forms on a number of axes, such as reader intervention and "empowerment" (p. 180), non-linguistic text such as sound and moving images, network complexity, and degrees of variation in literary elements such as plot and setting. It also, Landow argues, challenges all linear literature as well as Aristotle's notions of plot, as it does not have a fixed progression, set beginning and end, determined size or extent, or a unity in any Aristotelian sense. Hypertext narrativity embodies Jean-Francois Lyotard's (1984) notion of postmodernity as "incredulity toward metanarratives" (*xxiv*), and this understanding of narrativity negates understandings of reading as linear. The end of the story especially highlights the reader's writing role, as closure of any definitive source cannot be found in hyperfiction. Thus, the reader must end the story for herself. Writing also occurs as the reader traverses the fragmented work, creating sense and causality as she clicks through the story. Landow proposes that the reader of the hypertext is a *bricoleur*, provisionally constructing a plot from the splinters of the hypertext that creates a similar experience to reading an Aristotelian plot. In other words, "as reader we find ourselves *forced* to fabricate a whole story out of separate parts" (p. 196).

Language, Suture, and Double Articulations: Film Theory

The origins of film theory should be examined in video game scholarship, as they present an excellent opportunity for video game scholars to examine the birth of a different discipline. Like video game theory, this field was characterized

by a desire for a structuralist approach, a semiotics of cinema. Of equal importance is its role as a primarily narrative form; as Christian Metz (2004:A) posits "the merging of the cinema and of narrativity was a great fact, which was by no means predestined- nor was it strictly fortuitous. It was a historical and social fact, a fact of civilization..., a fact that in turn conditioned the later evolution of the film as a semiological reality" (p. 69). This means that film in itself is but a method of reproduction without an inherent language and that it was through the emphasis of narration in cinema that the large syntagmatic units of its language, such as montage, were conceived. Because of the predominantly narrative uses of cinema (which is not inherent but rendered stable by tradition), as well as film's diegetic elements, Metz argued for the erection of a "methodological principle" (p. 70).

According to Metz (2004:B), the semiotics of cinema can be understood as a semiotics of either denotation (literal meaning) or connotation (symbolic meaning). Because cinema consists of a whole sequence of photographs, a filmic articulation arises from how the denoted meaning is constructed and codified in the making of a film. To use Metz's example, the stylistic approach of a gangster movie will provide a different picture of the docks than a documentary film on the port worker. Thus, aesthetic or artistic effects constitute another level of signification than the plot, which Metz considers cinematographic language.

A literal translation of linguistic semiotics into film appeared to fail because, as with the grammar of language, these media do not function on a double articulation because they have more than two levels. Metz's (2004:B)

analysis also identified several other elements that distinguished the nature of film from language: the absence of a second articulation in film (because all of its units are significant), film's status as a language rather than a language system (*langue*), and film's lack of articulations in the true linguistic sense.

Metz (2004:B) further delineated five differences between the linguistic word and the filmic shot: the shot is infinite, like a statement rather than a word, shots are created, while words exist in a lexicon, the shot contains and conveys "a quantity of undefined information, contrary to the word" (p. 79), the shot is a unit of discourse, referring to a reality, and the shot may not always be a part of a semantic field, whereas the word will be[xiv].

As we have seen, psychoanalytic film theory has played a role in video game theory as well. Daniel Dayan's essay (2004) notes that this approach originated in response to the assumption of the structuralist activity that its subject is intellect added to the object, and that knowledge is waiting to be found in the object. The resulting search for causality led to Lacanian psychoanalysis and Jacques Lacan's science of the unconscious. A theory of intersubjectivity, Lacanian psychoanalysis broaches the relationship between the self and the other, as defined by their placement in the net that is made of the symbolic order. Lacan substitutes the problematic term of subjectivity with the imaginary, understood literally as the domain of images. Thus, for Lacan the subject is nothing more than a reflection, and he finds that "the conjunction of the language system and the imaginary produces the effect of reality: the referential dimensions of language" (Dayan 2004, p. 122). The continuity and agreement

accorded by the imaginary applies to both the syntagmatic and the paradigmatic aspects of language but is posited as not the same in cinema or in any other semiotic system.

Cinema operates directly upon a dependence on ideology and history and, through its thoroughly narrative uses, is organized around a system of representation. Cinema constantly begs the question of the identity of the spectator and the filmmaker. In order to keep its ideology hidden, the film must deliver to its audience a naturalized function, a coherent message. It does so by presenting itself as subjective cinema, cinema shot from the viewpoints of the characters and occasional objective views as impersonal breaks between the subjective views of the character. While the shot itself causes the viewer to discover the deceptive and arbitrary nature of the camera, the reverse shot[xv] abolishes the missing field presented by the shot by adding the presence of some other visual element. This relationship orders the spectator's experience, as its veils the workings of the cinema's code, which is what creates the film's imaginary, ideological effect. The effect of the reverse shot is called the suture, the opening of the viewer's imaginary relationship with the film.

While there is more to say about the semiology of film and of psychoanalytic film theory, it is these fundamental points that will suffice as a survey of foundations.

Rules, Interactivity, and Play: Game Theory and Design

One of the most significant disciplines that inform video game theory is traditional game theory. Game theory can be traced to two key texts: *Homo*

Ludens by Johan Huizinga (1950) and *Man, Play, and Games* by Roger Caillois (1967). Later work, especially that of Brian Sutton-Smith (1971) and game designers such as Chris Crawford (2003), Eric Zimmerman, and Katie Salen (2004) have enriched these seminal texts, but as a foundation for a field of the study of games, these texts offer just a few theoretical insights for current game scholars. Neither Huizinga nor Caillois discuss game mechanics, and any work that attempts to use this work as a basis of a formal approach to games is a misreading of Huizinga and Caillois.

Game theory is best approached by first exploring traditional conceptions of rules, an element of games that are often discussed in ludology. According to Caillois (1967), games are not necessarily characterized by rules. He states that "games are not rules and make-believe... they are rules *or* make-believe" (p. 9). He argued that "rules themselves create fictions" (p.8), as the crossover from reality to make-believe, the transition from 'as' to 'as if', functions as the rules that guide imaginative play. These rules are free form, and the simple acquiescence of the player to the actions of pretense and mimicry indicates an understanding of the rules. This is in distinction to the player of rule-guided games, wherein the simple acceptance and compliance with the rules of a given game indicate a submission to a world of pretence. However, for Huizinga (1950), rules are important as they bind the play world- they determine what is acceptable in the boundaries of the game. When they are challenged, the play world collapses. It is important to note here that Caillois and Huizinga do not necessarily visualize

games in the same fashion and neither author envisioned or described any sort of rule mechanism in the structure of games.

Disciplines	Key Figures	Key Concepts
Narratology and Semiotics	Tzvetan Todorov Gerard Genette Roland Barthes Vladimir Propp Ferdinand de Saussure	Parole and Langue Story and Discourse Sign/Signified/Signifier Paradigm and Syntagm Author and Reader
Extension Theory	Marshall McLuhan	Channel Content Message Change
Poetics	Aristotle	Media Objects Modes Causality
Textuality	George Landow Roland Barthes Jacques Derrida	Dislocation Networks Plurality Powerful reader
Film Theory	Christian Metz Jacques Lacan	Diegesis Denotation Connotation Subjectivity Suture
Game Theory	Roger Caillois Johan Huizinga K. Salen and E. Zimmerman Brian Sutton-Smith	*Paidia* *Ludus* Rules and Freedom Meaningful play Systems
New Media Theory	Lev Manovich	Simulation Databases Numerical representation

Table 2: The many disciplines that contribute to the diversity of video game scholarship.

Both authors also discussed the concept of play as separate from game. Caillois (1967) determined six formal qualities of play, the first being that play is not obligatory and that it must be free (not entered into by force or coercion) in order to be a pleasurable diversion. Play must have set, defined, circumscribed, and distinct space and time limits. On the other hand, play must have an element

of openness for the player to innovate. It must be uncertain, without its outcome determined in advance. Caillois posited that play cannot create any goods, wealth, or new elements with the exception of an exchange between players that results in a situation identical to that before the game. As we have seen rules are important, and play must be "governed by rules" (p. 9), guidelines that act in suspension of those of reality and which alone regulate. Finally, play must occur in a cognitively different reality, separate from real life: "make-believe" (p. 9).

Huizinga's vision of play is not completely identical to Caillois's, though he did concur in his concept of play as free, voluntary, and done at one's leisure. Unlike Caillois, he makes his definition of 'free' clear: "Freedom must be understood here in the wider sense that leaves untouched the philosophical problem of determinism" (p. 7). Play is not real-life. It is an interlude to seriousness, though it is very serious about the importance of play and of descending into rapture. Play occurs within certain limits of time and space. It has a distinct beginning and end, and it occurs within designated spaces (playgrounds, tennis courts, bowling alleys, stages). These spaces become "temporary worlds" (p. 10). Play has a profound affinity with order. Any deviation from this order ruins the game. Players must commit to the arbitrary perfection of play in order to make it work. Finally, "it promotes the formation of social groupings which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means" (p. 13).

According to Caillois, games can be categorized as *agôn, alea, mimicry,* and *ilinx.* The role of competition is dominant in *agôn, as* there is always a rivalry,

premised on arbitrarily determined equality, in order for the superiority of one player over another to become evident. The role of chance is dominant in *alea,* as winning is always determined by destiny, with passive players negating their will. The role of simulation is dominant in *mimicry,* with the player stepping away from her personality to feign that of another, though without the intent to deceive, participating within a reality of "incessant invention". The role of vertigo is dominant in *ilinx,* wherein pleasure is sought through the disturbance of stability and the pursuit of panic and shock, a desire for disorder and intoxication.

Within these categories, Caillois posited that games can be ranked on a continuum between two poles, ludus and paidia. The first extreme is characterized by a "growing tendency to bind" exuberance "with arbitrary, imperative, and purposely tedious conventions". It requires "effort, patience, skill, or ingenuity". The second extreme is characterized by "an almost indivisible principle, common to diversion, turbulence, free improvisation, and carefree gaiety". It is uninhibited fantasy. (p. 13). All four rubrics of games can range from one of these extremes to the other.

These classical examinations of games are often combined with references to more contemporary game design manuals. Salen and Zimmerman in *Rules of Play: Game Design Fundamentals* (2004) define games as "a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome" (p. 80)[xvi]. They organize their varied methods of examination according to what they call "primary schemas", which are rules, play, and culture. Rules is the category that holds *formal* game design schemas,

centered on the crucial "logical and mathematical structures of the game" (p. 6), while play holds game design schemas that emphasize the interaction of the player with the game and its players and are thus more experiential, social, and representation. Culture, the third schema, relates to context and thus holds game design schemas that examine the larger cultural contexts that games are designed and played in.

Salen and Zimmerman emphasize the concept of meaningful play. This is what emerges in a game where player action within game system leads to a response in the system which further leads to an impact on the larger context of the game. For example, in Super Mario Bros 2, when to defeat the enemy at the end of a world you must jump on the egg it throws, scoop it up, and throw it back at them, this is meaningful. Not only does throwing the egg result in the eventual demise of the beast, but the more difficult slaying is meaningful in light of the its placement at the gate to the next level. Salen and Zimmerman note that meaningful play is the goal of successful game design, and despite this concept's similarity to the idea of interactivity, it is kept distinct. They propose that interactivity should be based on a multivalent model that encompasses four modes of interactivity (cognitive, functional, explicit, and beyond-the-object), thereby limiting the range of interactivity, giving it boundaries. Cognitive interactivity is also known as interpretive participation and refers to the mental and emotional involvement and relationship of the person and the system. Functional interactivity, also termed utilitarian participation, includes the structural and utilitarian relationship between the raw, physical components of the system

(this may include virtual apparatuses). Explicit interactivity is what Salen and Zimmerman call the obvious sense of interactivity such as clicking on links, following rules, and manipulating external inputs like joysticks, as well as "choices, random events, dynamic simulations, and other procedures programmed into the interactive experience" (p. 60). Beyond-the-object-interactivity is also participation with an object's culture, which makes it interactivity outside of the designed system, one example being *Star Trek* watchers developing fan zines extending and modifying the storylines of the original series.

Salen and Zimmerman deal with many other elements of games from a design perspective. For example, they investigate games as several types of systems: formal (closed), experiential (open or closed), or cultural (open). While each type of system is embedded in the other, a system can be defined as closed more than open depending on the relationship between the system and its external context. An open system has a large degree of information exchange and transfer (an example would be the human interaction of a driver with her car). As a cybernetic system, games often operate as negative feedback systems, in which the system acts as a stabilizer and keeps the system at a more steady state, reducing any player advantages or disadvantages.

For these designers, rules are the "formal structures that constitute the game" (p. 121), play is "free movement within a more rigid structure" (p. 311), and a game is "a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome" (p. 572). The authors also weigh

in on the narrative/non-narrative "turf wars" (p. 379) by exploring how games work as narratives without becoming entrenched in the question about whether they are narratives. They find that games can have two types of narrative structures: embedded (such as video clips) and emergent (which are generated on the fly by player interactions). Narratives are constructed through goals in games as well as through conflicts, uncertainty, and space. Games are also characterized by "narrative descriptors" such as manuals, instructions, **cinematics**, audio and video, and interface elements. These merge with the story events generated as the game progresses to create a coherent, meaningful narrative experience. While they understand video games as narrative systems in which "the narrative experience of the player arises out of the functioning of the game as a whole" (p. 419), Salen and Zimmerman also conceive of them as the play of simulations. They posit that all games are simulations that mainly operate metaphorically rather than as literal simulations of reality. Importantly, they also link simulation to narrative by stating that "simulations are a powerful way of thinking about narrative because procedural representation is an approach to storytelling that directly emphasizes the player's experience" (p. 457). While Salen and Zimmerman mobilize all of these understandings of games for the purposes of design, they clearly offer insights into the nature of the video game from the perspective of the creator, as well as into a more concrete understanding of the thus-far very theoretical conceptions of the form.

Elliott M. Avedon and Brian Sutton-Smith (1971), in their volume of game articles *The Study of Games*, open a different portal into game studies. The

emphasis of many of the articles in this collection is on anthropological studies of games, ranging from examinations of tribal games and ethnographies of communities and specific games (see for example Sutton-Smith, B. "The Kissing Games of Adolescents in Ohio"). While historical origins rather than formalization are the focus here, there are important theoretical conceptualizations. For instance, game is defined as "an exercise of voluntary control systems, in which there is a contest between powers, confined by rules in order to produce a disequilibrial outcome" (p. 405), while play is understood to be "an exercise of voluntary control systems" (p. 6). The authors also highlight a key difference between Huizinga's work and that of other game scholars: *Homo Ludens* moved away from the prevailing dualism of work and play, a dualism that set the seriousness and importance of work in contrast to the triviality of play. The authors equate the magnitude of this dualism with other binaries such as rational and irrational and man and animal.

Video Games as New Media Forms

Video games are also understood as new media objects. Lev Manovich's pivotal text, *The Language of New Media* (2001), addresses the principles of a variety of new media forms. Manovich includes video games in this analysis, noting that it is not a taxonomy of forms. These principles include numerical representation, which describes the mathematical nature of new media objects as well as their programmability; modularity, which is the understanding of these objects as collections of discrete samples; and automation, which finds that these objects allow at least partial removal of human intentionality from the creative

process, especially in the case of computer games and their success with artificial intelligence (AI)[xvii]. Other properties include variability, which refers to the potential infinity of these objects as facilitated by their databases, differing interfaces, customizability, branching structures, diverse versions, scalability, and updates, as well as transcoding, which describes how the structure of new media objects follow the conventions of the computer's organization of data. Many of its dimensions "belong to the computer's own cosmogony rather than to human culture" (p. 46). This indicates a cultural reconceptualization based on the epistemology, ontology, and pragmatics of the computer.

Manovich also challenges the popular notion of interactivity as associated with a consumerist ideology of new media, deeming it a myth as well as tautological, as "once an object is represented in a computer, it automatically becomes interactive" (p. 55), since the user will be manipulating it simply by using it. He also argues that all classical art is interactive, from ellipses in fiction, to montage in film, to visual shortcuts in representations. They all place cognitive and physical demands on the user, though Manovich argues that there should be a distinction made in regards to the interactivity of simply pressing a button on a mouse and the interactivity of the cognitive work required by chess. Furthermore, he notes the implications of considering these forms interactive: "we are asked to follow pre-programmed, objectively existing associations. Put differently, in what can be read as an updated version of French philosopher Louis Althusser's concept of "interpellation", we are asked to mistake the structure of somebody's else mind for our own" (p. 61). Despite the idealized image of the user of

branching-tree structures as co-author, these forms are only made of "predefined objects" (p. 128). In the video game, no matter how large the virtual spaces we may inhabit, all of our actions are limited by the code of the game.

Manovich's exploration also touches on the contentious concepts of simulation and narrative in new media forms. He complicates the simple binary by exploring their relationship. For example, on the subject of simulation Manovich differentiates between two different scales in terms of screens- the virtual and the physical. When the scale of representation is the same as the human world, the two spaces become continuous, therefore blending them, which is the aim of the simulation tradition. The boundaries are de-emphasized, the scale is identical, and the result is a logic that does not at all match that of games, which have the evident borders of the screen of representation. Alternately, Manovich sets narrative logic in opposition to database logic. Databases, collections on which users can perform multiple actions such as viewing, searching, and navigating, have their own unique poetics, aesthetics, and ethics. He states that computer games are not explicitly databases, as they "are experienced by their players as narratives" (p. 221), because they are given a well-defined task that they must achieve- thus all of a game's content is justified, unlike in databases. He states that the "narrative shell" of a game masks its algorithm, that which a player must do, and the actions he or she must execute, in order to meet the game's goal. Manovich links the relationship between database and narrative to the paradigm and the syntagm. He states that in traditional literary and cinematic narrative "the database of choices from which

narrative is constructed (the paradigm) is implicit; while the actual narrative (the syntagm) is explicit" (p. 231), but in new media this is reversed. As we shall see later, Manovich delves into video games in greater detail, but as this introduction was meant to introduce new media objects in general, and his complex understanding of video games in particular will be explored later in this thesis.

The Problem That Remains

In *The Order of Things* (1970), Foucault drew attention to the problem of causality, and the difficulty in locating and identifying change in science and in answering questions about the origin of discoveries, concepts, and theories. This discussion has not attempted to trace any sort of epistemological history, nor has it posited a comprehensive examination of any of the disciplines discussed. Rather, scholarship portrayed here all play a significant role in the contemporary theorization of video games, and will have an impact on the methodologies developed in this thesis. While this chapter has not fully extracted the richness of any of these disciplines, it will support later claims to the diversity of these disciplines and their potentialities for video game theory. Furthermore, this chapter has advanced a step in the process of detailing the disciplinary history of the field, which is vital for, as Marilyn Strathern (2004) noted, "the value of a discipline is precisely in its ability to account for its conditions of existence and thus as to how it arrives at its knowledge practices" (p. 5).

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[i] Grammar, in this context, refers not to noun-verb accordance or other elements of this sense of grammar but to a larger grammar, the collection of linguistic rules and structures which shape, support, and define a language.

[ii] Though signs can only be made sense of through non-phenomenological structures, there is still the "illusion of referentiality" to consider, especially through semiotics. Referentiality is in many ways made material through its persistent assumption in everyday life even if objects are not tied to signs in any other way. This linguistic effect can be observed in the work of Jakobson, for example, who identified the "referential function" in language (rendering referentiality a function of language itself rather than a cause of meaning).

[iii] For example, "the green cheese ran beautifully up and down across the lines of time" is correct according to the paradigm and the syntagm, but is not a meaningful sentence but instead a word jumble.

[iv] Nomic poetry is also known as choral lyrics, sung in praise of deities.

[v] Diction and song under media, plot, character, and thought under object, and spectacle under mode.

[vi] Unity could be tested by removing any one element of the plot and to questioning whether this elimination of action changes or distorts the meaning of the entirety.

[vii] Barthes uses the metaphor of weaving, stating that "etymologically, the text is a fabric" (p. 60).

[viii] Derrida, J. (1976.) *Of Grammatology*. Trans. Gayatri Chakravorty Spivak. Baltimore: John Hopkins University Press.
[ix]Nelson, T. H. (1981.) *Literary Machines*. Swarthmore, Pa.: Self-published.

[x] Nelson, the founder of Xanadu Labs and author of *Literary Machines*, coined the term hypertext in the 1960s. He was attempting to create a simple system on networks, though he is critical of today's World Wide Web as it goes against the principles of Xanadu such as broken links, one-way links, and a lack of rights management. See http://xanadu.com.au/ted/.

[xi] Van Dam, co-founder of Association for Computer Machinery's Special Interest Group on Computer Graphics and Interactive Techniques (ACM SIGGRAPH) and second person to ever receive a PhD in Computer Science, built Hypertext Editing System (HES), the first hypertext system. See http://www.cs.brown.edu/people/avd/.
[xii] Joyce is called the first major hypertext fiction writer and is the author of *Twilight: A Symphony* and *Twelve Blue*.

[xiii] Vannevar Bush, in his 1945 article "As We May Think", proposed the memex, a device that would base information retrieval on not indexing but association, a method that allows users to both annotate the information in this system as well as arrange it according to their associative reasoning. See Bush, V. (1945.) "As We May Think." The *Atlantic Monthly*, p. 101-108.

[xiv]Not all semiotic analysis in cinema took the same form as Metz's. Peter Wollen, for example, employed C. S. Peirce's theory of signs to theorize film semiotics, finding the film more iconic and indexical than symbolic (as in signs that depend on convention or arbitrary reasoning for significance, such as found within the English language). Metz

has been used here because of his work on distinguishing film from language because of its unique elements, a project that resonates here.

[xv]According to Jean-Pierre Oudart, the shot and the reverse shot comprise a common cinematographic utterance.

[xvi] They do note a few game "limit-cases", such as puzzles and role-playing games (including simulation games).

[xvii] In computer games, this refers to the code that controls characters ranging from the villains in *Pac-Man* and *Super Mario Bros.* to the NPCs (non-player characters) in synthetic worlds (Castronovo, 2005) such as *World of Warcraft* and *Everquest*.

Chapter 3: Case Studies

Why Case Studies?

This chapter investigates seven pivotal games through case studies. These games consist of seven different genres: the puzzle/adventure game (*Myst*), the first-person shooter (*Half-Life 2*), the simulation game (*The Sims 2*), the racing game (*Need for Speed Underground*), the action game (*Grand Theft Auto 3*), the role-playing game (*Final Fantasy VII*), and the massively multiplayer online game (*World of Warcraft*). A case study consists of a description of each game, a scholarly and popular literature review for each game, and my personal experience playing each game[i]. These case studies will isolate and probe the often-referenced "unique elements" of differing video games and genres. In addition, the variety of games examined will provide some evidence of the essential differences between games that may in turn problematize conceptions of their commonalities as a medium. Case studies will also identify the traits of each genre to refute the idea that games can be examined together as a form rather than separately by genre. Finally, this chapter will deal with scholarship on each game specifically, identifying the quality of genre theorization therein and critically comparing these claims against the gameplay experience of the author. The chapter will then conclude with a discussion of Stephen Neale's *Genre* (1980), its applicability to video game theory, and other formulations and conceptions of genre in video games.

I demonstrated in chapter 2 that some of epistemological baggage carried into video game scholarship is not suited to the medium. This chapter, which

allows for a deeper examination of different games, will add onto this by highlighting some the complexities of video games that disprove the validity of their generalization as a medium. Together, these chapters prove the need for more rigorous and rich theory and analysis in video game scholarship.

The games I examine do not encompass the range of genres identified by others. Lucas and Sherry (2004), for instance, identified 13 genres of video games[ii], and other games, such as the sound creation game *Electroplankton*, the surgery game *Trauma Center*, the music video game *Guitar Hero,* and the dancing game *Dance Dance Revolution,* defy categorization. Nevertheless, in this truncated discussion, analysis will be limited to an idiosyncratic combination of the most popular and most theorized genres. While this leaves some important and under-theorized genres (most notably sports games and platformers) to the wayside, it is important to understand this as a suggestive analysis rather than a comprehensive one.

Game	Developer	Publisher	Year
Myst	Cyan Worlds	Broderbund	1995
Half-Life 2	Valve Software	VU Games	2004
The Sims 2	Maxis	EA Games	2004
Final Fantasy VII	Eidos Interactive	SquareSoft	1998
Grand Theft Auto 3	Rockstar Games	Rockstar North	2002
Need for Speed: Underground	Electronic Arts	Electronic Arts	2003
World of Warcraft	Blizzard Entertainment	Blizzard	2004

Table 3: The games examined in the case studies of this chapter.

Myst- Playing a Story?

Myst is a complex game to analyze because it falls under the rubric of an uncommon genre, the story/puzzle game, and is not a typical video game. Nevertheless, this game has been upheld as the prime example of video games as 'interactive fiction', and is symbolic of the subject matter of the narrative team. According to gamespot.com[iii], the history of PC gaming can be divided into "before *Myst*" and "after *Myst*", and its review highlights some of the unique elements of its gameplay, including its immersive world, its absence of instructions, **NPCs (non-player characters)**, death, and dialogue, as well as the sensation that one feels like they are experiencing *Myst* rather than playing it.

This review also indicates one characteristic element of the *Myst* gameplay experience: "Myst's principal attractions are its environment and the underlying intrafamily drama that *unfolds* as you explore" (unpaginated, my italics). As this portrayal suggests, *Myst's* gameplay is often described as book-like, in terms of unraveling a mystery, clicking through an interactive story, and following a linear path that cuts through an electronic world. Jon Carroll (1994), in his article on *Myst*, argues that despite the abundance of puzzles within the game, the endgame is "all plot, no puzzles".

In academic sources, critical debates on the unique elements of *Myst* abound. Consalvo's analysis (2003:A) cited Steven Poole, who argues that this game does not constitute a narrative because its story remains in the background throughout the gameplay (which consists of exploring the game world and solving puzzles), and is not revealed until the end. Throughout the game, the story is pieced together gradually by the player through the discovery

of clues, which for Poole indicates that the game is not structured by a narrative. In *Remediation,* Bolter and Grusin (2000) unequivocally state that *Myst* and the medium of the video game operate through "the traditions of photography and film" (p. 55). For these two authors, *Myst*[iv] and its gameplay is of lesser importance than its graphics and sound, which highlight its descent from other, older forms. Janet Murray (1997) most often employs *Myst* in her highly contested book when discussing video games, describing it as engrossing in the same sense as visiting a locale, which excludes the idea of an immersive unfolding story. For her, the experience of this game is completely exploratory. Furthermore, Murray finds that the unsatisfactory nature of the "winning" choice at the end of the game proves that there is a "basic opposition between game form and narrative form" (p. 142). Mark J.P. Wolf and Bernard Perron (2003) position *Myst* as oppositional in terms of gameplay to the first-person shooter *Doom*, and they describe the game as entirely non-random, in other words designed without a set of divergent paths opened up by choice. While Aarseth (1997) describes the world of *Myst* as "utterly boring spaces" (p. 110), Bob Rehak (2003) finds it touristic and exploratory, augmented by the lack of avatar and the camera perspective of the game. Finally, game designer Chris Crawford states that "while there's plenty of narrative in the game, none of it is interactive" (p. 260), owing to the divorce between the puzzles and the story of the game. These divergent stances highlight how *Myst* has been conceptualized and mobilized in many ways. While critics of violent video game applaud *Myst* for its slow-paced play and contrast it with first-person shooters to argue for more "non-

violent games", other scholars call for an understanding of the role of violence in relation to their overarching narratives and game logic (Squire, 2002). Above all, what this salmagundi of portrayals of *Myst* indicates is the need for a critical revisiting of the game and a brief description of what is encountered during play. In what follows, I will illustrate my experience in playing the game.

Upon first entering the game world of *Myst*, I find the depiction by Fuller and Jenkins (1995) of the player as explorer apt. Perhaps the most accurate metaphor for one's initial experience is that of an intrepid voyager marooned on a deserted island. Unlike the other games I examine, this game is characterized by choppy movement, as gameplay is enacted solely through mouse clicks. This mechanism makes *Myst* feel unlike any other video game, as it does not allow for a smooth kinaesthetic experience. If you see a book, you can click to get a closer view, to open it, and to return to your initial view. You cannot walk towards the book, swivel around on the spot, and survey the room. This makes the *Myst* world feel static, despite the ambient sounds that unify each frame. Furthermore, it becomes quickly apparent that the puzzle element of the game overwhelms any elements that could be described as either interactive or fiction. As with an Agatha Christie mystery there are no red herrings in this mystery, which means that only elements relevant to the puzzles can be manipulated, which typically involves switching between binaries such as open and closed or on and off. Despite the rudimentary controls and graphics (compared to today's standards), *Myst* is quite successfully permeated with a sense of intrigue and eerie mystery.

Doors shut behind you, unexplained sounds are heard when you manipulate controls, and not a single NPC is to be seen in any of the Ages[v].

In spite of the clues indicating a deeper story underlying your investigations, narrative in *Myst* is not pervasive. While you proceed through the Ages of Myst and uncover more hints of the story, it is truly only at the end that the underlying narrative is fully exposed. Poole's statement that the game is not structured by narrative makes sense upon play, as the story does not play a significant role in setting the scene. While you understand that there must be some fiction underlying the messages you find in your quest, overall your mission seems more like a treasure hunt than a detective story. My experience supports Crawford's assertion that any story in the game is detached from the gameplay.

In *Myst,* the puzzles are difficult due to the lack of instructions in the game, and there is a great deal of reading and intellectual consideration of books and maps within the game required to advance. It is this intellectual stimulation that veils the realization that this game is indeed as linear as Wolf and Perron indicate. It is only by understanding *Myst* as a game of puzzles that this linearity and lack of choice makes sense- a puzzle has a very rigid procedure that allows its player to win. Thus, a completely systematic sort of gameplay makes sense when one considers the genre rather than the overall form of the video game. Despite experiencing the initial feeling of exploring a world, one soon recognizes that the very environment of the *Myst* world is one large puzzle, and that a set of divergent paths opened up by choice would be illogical.

To conclude, the elements that gamespot.com upholds as unique to the video game world, such as the absence of NPCs and dialogue, must be considered in relation to the genre of the puzzle game, which renders these traits commonplace rather than revolutionary. If anything, this case study has proven that the most essential element in many genres of video games is the sensation that you can move through the world, even if only to a limited extent. The mouse clicking of this game situates this game firmly in the realm of puzzle games. The experience of playing *Myst* is so categorically different from other games that descriptions of it simply do not translate across genres. Rather, *Myst* appears to be a larger and more complex version of the common puzzle game. Puzzles are games, certainly, but there is very little sense of a game space or game world. They are by and large flat games without depths that challenge the player to solve their mystery or decipher their code. While *Myst* is laudable for how it takes the puzzle game to another level, incorporating setting, sound, and atmosphere as it does, it would be folly to continue to use it as descriptive of all games across all genres.

Half-Life 2- Playing Through a New World

This first-person shooter (FPS) is the sequel to a game gamespot.com called "the closest thing to a revolutionary step the genre has ever taken" (unpaginated review). Both games are lauded for their creation of a thoroughly believable game reality that moves away from the jolting of **level-ups**, text-based mission briefings, and weapons and **power-ups** scattered handily throughout the game world. Instead, *Half-Life* integrates the required but often rendered arbitrary

elements of the medium into the game's story and universe, making the play flow smoothly, without game necessities disrupting its logic, atmosphere, or story. Rated 'superb', this game and other FPS's have been so far under-theorized. While **game modifications** have had some analysis[vi], and Alexander Galloway's (2006) *Gaming* contains a slim chapter on FPS, first-person shooters as a genre have been largely neglected in research thus far, beyond reductionist findings that their logic is simply "shoot everything" (Consalvo 2003:A, p. 325).

This general understanding of FPS games has led to their emphasis in video game violence literature[vii], and in other studies that aim to understand how these games are played in somewhat more sophisticated ways, such as Schneider et al.'s examination of story in FPS[viii], which highlights the importance of game genre to psychological and physiological analyses. This understanding of FPS has also led to articles on the development of first-person perspective approaches in games across genres and the impact of this on immersion, subjectivity, and identification (see McMahan (2003), Rehak (2003), and Lahti (2003)). Espen Aarseth's (1999) paper on *Doom*, wherein he explores the theoretical concepts of aporia and **epiphany**, may appear to be a notable exception, but this article is brief and makes only a few observations on the nature of *Doom* and FPS. These include the nature of the action as a selection between exploration, destruction, and protection of one's self, with combat of a variety of NPCs the main activity throughout play. He finds that in *Doom* "the sheer intensity of the gameplay is far more striking than the blood effects and the violence, which are repetitive and subrealist" (p. 37). In the following case study, I

will review whether these descriptions of FPS appear to characterize the genre, especially after the revolution in the genre that is *Half-Life 2*.

Half-Life 2 has been classified alongside *Myst* as exceptional to the nature of video games because it resembles the exploration of a storyline rather than typical gameplay. My experience of playing this game, however, finds that it is the exploration of the game space that makes it similar to our last case study. If you enter this game without reading up on any **cheat sites**, you feel utterly adrift. You are on a train about to dock in a sinister, untidy, blockish building where sentries treat you like an animal and an echoing voice eerily conveys the ideological tilt of the world in which you are walking. You have no indication of where you must go or of the world you inhabit except for what you uncover in your explorations, which include beatings from sentries when you attempt to enter a barred door, cryptic messages from other weary-looking citizens, and items that you can pick up. As play continues, however, it becomes evident that while the city is vast and populated by a number of items, your path is set. You may wander down any of the streets you see upon exiting the first building, but they are all dead-ends. Once you are on track, there are always indications of which way you must proceed. Only one door will not be barred, and that is the one you must enter. A character will yell "head for the roof", and that is the only escape from death.

Half-Life 2 is incredibly atmospheric, and this is achieved not simply through the renditions of the barren city but through what you encounter throughout play. When you enter an apartment that is about to be swept by Civil

Protection, the sad chatter of the NPCs around do more to convey the fear and insecurity of the terrifying world they live in than the voice you hear emanating from the loudspeakers. The flying machines that take your picture and blind you as you run across a rooftop, the long-limbed tripods you see walking about through guarded fences, the interrogations you overhear as you pass by doors- all of these elements create a dystopian world in which you feel you must kill or you will be another of the helpless victims that scream around you as 'they' come.

The understanding of shooters as having a 'shoot everything' logic is here completely flawed. There are dozens of NPCs that you are not encouraged to shoot but feel empathy for because of their evident fear and wary apathy. What you must shoot (or ward off with your crowbar) instead are the combines (suited bad guys responsible for maintaining this dystopic society), and if you do not do so they will readily and speedily beat you to death with their weapons. Your actions, though at times violent, are all spurred on by the world you are trying to navigate through. While you mission may be, for example, to get from Dr. Kleiner's lab to Alyx, you will be killed unless you defend yourself. This is clearly no simple murderous logic as stated by Consalvo (2003:A). Instead you have the sensation of seeing through the eyes of the reluctant hero frequently encountered in dystopian novels and films, the hesitant warrior who does not seek out violence but uses it judiciously.

To return to the description of *Half-Life 2* as but a linear story, it is certainly true that every player of this game will come across the same events, including

the faulty transport where you and Alyx are separated and the moment where you must kill the Combines when the couple asks for your help. While this path can be interpreted as only a story you play out, in play it instead feels like a game universe thoughtfully rendered in which your play is more meaningful and atmospheric because of the route you take through it. As with other shooters, you are carrying out a mission in which you enact Aarseth's (1999) three main actions of exploration, destruction, and protection, but these actions are more effectively motivated by the seamless game reality in which you obtain your weapons logically and you move from mission to mission in a plausible way. If anything, *Half-Life 2* is a shining example of the importance of story for motivation.

Finally, the experience of playing this game brings into focus the importance of studies into first person perspective and identification. While everyone in the game addresses you as Dr. Freeman and refers to your previous actions in the prequel (which you may or may not have played), you are seeing the world as though through your own eyes. Gameplay is a fluid mixture of moments of immersion and disjuncture; when you are shot, your blood sprays onto the floor and your health rating decreases, giving you a true sensation of injury without any real pain and yet, when you look down to see where you are you cannot see your legs or feet. When NPCs refer to your character or past actions, you feel like a spectator, and yet when you kill Combine Soldiers to save yourself you feel a deep connection to the "you" on the screen. This hybridity of flowing identification and ruptured identification is a rich subject for analysis, and

underscores the importance of the work of those that have already begun to study this element of video games overall.

To conclude, this case study has indicated that *Half-Life 2* made commonplace a greater sense of meaning for the actions of the player, even if they are still constituted by Aarseth's triad of action. It has proven that the requirements of the video game can be cleanly and smoothly integrated into the action of the game, and that players can expect and demand a complex world wherein not all NPCs are targets and the battle between good and evil is not simply played out between monsters and humans. Finally, *Half-Life 2* has proven that in one of the most popular genres of the form, story can act as an enhancement to play, just as sound and setting often do.

The Sims 2- Playing God

Simulation games such as *The Sims 2* are also often called **god games**, and this loaded label is perhaps indicative of their relative popularity for study. Much has been said[ix] of the variety of creator Will Wright's "software toys" such as *SimCity*, *SimTower*, and *The Sims 1, 2*, and *Online*, as well as *Civilization*, *Age of Empires*, *Tropico*, and *Railroad Tycoon*, an interest that is not surprising considering that these games allow you to control ant farms, zoos, theme parks, hospitals, nations, and even entire civilizations. It is important to note that simulation games as a label also denote games such as flight simulators, which as a type of game has had little theorization, with the exception of Patrick Crogan (2003), who made flight simulators his focus. However, despite the shared brand of simulation, here I would argue for a differentiation between simulation/god

games and flight simulators, as the former operates upon an omniscience that does not characterize the latter[x]. The two types of games also have distinctly different interfaces, rule structures, and inputs.

Furthermore, while simulation is a topic hotly discussed in the domain of video game theory (see for example Frasca 2003:A), it is often discussed in relation to the medium in general rather than to the specific genre of god games. Indeed, it is one of the most pivotal concepts to theorization, as it is often set in contrast to representation and mobilized in the narratology/ludology debate (Frasca 2003:A). Simulation is a concept loaded with a history, a rhetoric, and mutations in terms of what it denotes.

One of the earliest formulations of simulation was by Sherry Turkle (1995), who explores her interest in the boundaries between carbon-based life and life on the screen through simulations by examining mathematically-based ideas such as cellular automata and the Turing Machine. When she turns her attention to Sim games such as SimCity and SimLife, Turkle argues that they educate their users in understanding complex and evolving systems, and that learning to understand simulations is important not for their hidden assumptions but for their ability to imitate the limitations of life. Aarseth's (1997) conceptualization of the simulation engine within "role-playing cybertexts" complements this understanding. He describes simulation as functioning through the interaction between three elements: the input of the user, the idiosyncratic rules of the environment, and the state of the simulated world in that moment. Understanding how simulations operate, and their historical origins as explored by authors such

as Turkle and Murray, is vital, but give the video game theory scholar little insight into how this functionality translates into actual play. Perhaps the only exception to this is Salen and Zimmerman's (2004) discussion of games as the play of simulation and how this concept allows for understandings of meaningful play. Through an analysis of the game *Ace of Aces*, the authors find that simulations in games are not about literal emulations but about metaphors for the reality they simulate. Meaningful play emerges from the player's experimentation with the possibilities of the simulation.

The current research on god games tends to focus on what this genre is, what its gameplay means to its players, and the rhetoric embedded within it. Samuel Gerald Collins (2006) examines the types of urban planning *SimCity* rewards with higher land value, noting its resemblance to the urban sprawl and renewal of American "pathologized urban cores" (p. 1). Gonzalo Frasca (2001) questions whether *The Sims* encourages consumerist logic or parodies it, finding that since gameplay is no fun without material goods, the format of the game does indeed promote consumerism. He notes that the most important element of *The Sims* and other such games is that its ideological implication is that you can simulate human life. Wright argues that the main difference between *The Sims* and other simulation games like *SimCity* is that the player begins to feel like a director on a set, directing his actors and constructing a storyline from the game. Kurt Squire (2002) investigates the tremendous potential simulation games have for edutainment, arguing "games such as *SimCity* depict social bodies as

complex dynamic systems and embody concepts like positive feedback loops that are central to systems thinking" (unpaginated article).

But outside of the ramifications for players of these games, descriptions of simulation games as a genre are sparse. Frasca (2001) states that this game is "not as much about human relationships as it is about life administration" (unpaginated review). In the case of *The Sims*, this means a great deal of house cleaning and budget balancing and zero dialogue and personality differentiation. Mia Consalvo's (2003:B) examination of sexuality in *The Sims* is a notable exception, describing in great detail the experience of playing the game and drawing a range of conclusions from the game possibilities. She also depicts the play of *The Sims* as "more about exploration and creativity than it is about finding some hidden solution" (p. 6). This type of analysis is in the minority and the video game student gets a general sense of how simulation games function, but no clear vision of the unique characteristics of the genre. The most common method by which to get a rich sense of the gameplay of simulation games appears to be through reviews in popular magazines such as gamespot.com, which details the play of *The Sims 2*.

The Sims 2 was selected for study because it has all of the elements of its antecedent as well as improvements, including features like memories, physical appearances that can be customized to a great degree, genetics, aging, and, most importantly, an aspiration/fear system, moving the game from a simple housekeeping experience to one that can be quite entertaining and fulfilling.

The first stages of play of *The Sims 2* do indeed have the feel of the digital dollhouse. The preliminary gameplay revolves around setting up your game space, from building a new neighborhood to constructing your family to creating your start-up home. At this point, not just the Sims but the entire landscape is your puppet, inert and waiting for your cue to begin. Despite the fact that your family members blink, make noises, and even hop and giggle as you put them together, they are blank and passive until you plunk them down in their new home (or even their blank lot) in the neighborhood. But once you have brought your Sims into their neighborhood, the similarities to a dollhouse cease. If you build their house around them, they will urge you with their needs for food, bathroom facilities, and sleep, and with their low environment bars indicating their displeasure at their functional, unpainted walls. Until you put the Sims into play you can take your time in agonizing over the details of the dollhouse; once the Sims are in their neighborhood, the game moves from dollhouse to the stage, where everything must be ready.

Indeed, it is the metaphor of the player as director and Sims as actors that best suits the gameplay experience of *The Sims 2*, with a bit of "life administration" thrown in. While at first play consists of ensuring that the banalities of life's needs are ready to be satisfied on all eight levels (Sims have bars that indicate their satisfaction with hunger, hygiene, environment, social, bladder, fun, comfort, and energy levels), once the adults have jobs, the house has wallpapered walls, and the children something to play with, the player becomes more involved in the wants of the Sims. Without a doubt, your play is

characterized by the desire to satisfy the needs of your Sims, as they will not get promoted or excel in school if their mood is not good. But while your Sims are on the positive side for their needs, you can satisfy their wants and aspirations, as determined by whether they are socially, romantically, relationally, professionally, or intellectually-oriented, determined in the dollhouse stage of the game along with their astrological sign and their hairstyle. You can decide that your caring single mother of one is also a cougar, with ten lovers visiting her love tub (consecutively not concurrently!) after she spends her day climbing the military job ladder. You can make your patriarch frustrated by his dead-end cook job and only delighted by going around town starting fights with other people. You can do as I did, and set up a neighborhood of families and make a game of switching spouses from house to house, ending up with a fantastically tangled family tree. The fact is that while at the core of the game you must keep up with the basics (a trait that is consistent across sim-type games from the hiring of janitors in *Roller Coaster Tycoon* to the construction of jails in *SimCity*), in the Sims the fun is to be had once you have mastered keeping up with these needs and the situations you can get your Sims entangled in.

Here I will summarize some of the unique traits of simulation games. The first is indeed the pleasure (and frustration) taken in discovering how you gain mastery over the simulations that underlie that particular game. There is also the exploration of the boundaries of that simulation, which can be productive or destructive, as when I put the game in fast-forward, turned off the free-will option, and watched as a character slowly went insane, was cured by a flying hypnotist,

and then was visited by a Reaper. Simulation games can be played in a variety of ways, with some play more hands-off and observational and other play consisting of direct intervention to ensure the Sim does exactly as you intend. This choice of approach is also evident in the variety of options the player has to select from in terms of **point-of-view (POV)**. You may watch what goes on in an environment from outside, from above, in a close-up of your selected Sim, from a long-shot, etc.

This game embodies in many ways the theoretical understandings of simulation, demonstrating to its players the complexity and evolving nature of simulated worlds. In terms of the possibilities and restrictions in simulated games, it becomes clear that within Aarseth's division of the simulation engine into an interaction of user input, environmental rules, and the current state of the simulation, it is the second that tends to have the most relevance. The environmental rules, which are the mediation of the rules structure of the game, directly influence what the user may input and how the state of the simulation will change. In the gameplay of the world, it is quite evident when options are not available to you. Your inability to create a psychopath is overshadowed by your requirements to operate within a middle-class suburban neighborhood, a family, and a social system that does not offer welfare but will confiscate your child should she fare too poorly in school. Your range of choices in a game where play is predicated upon mastery of the simulation has a tremendous impact on your play, and the choices and constraints that make up the limits of a simulation are an important research topic.

This case study concludes with the question of narrative and how it would function within such a game. It is immediately clear that no narrative underlies this game, and that *The Sims 2* is about playing with simulations. On the other hand, my play in this game involved the creation of stories from the raw materials of the simulation. Whenever I showed a friend my *Sims* neighborhood, I would describe my Sims not in terms of "I make sure they are all green bars before I have a party" but in the line of "Lulu had a close call at her party, but she snuck one lover into her bed and the other into the love tub". *The Sims 2* would be an ideal video game to uphold as non-narrative, but it is of interest because there is a strong urge in the play of simulations to turn to linear storytelling rather than to systematic descriptions of simulated cause-and-effects.

Final Fantasy VII- Playing Others

Role-playing games (RPGs) were popular before video games, most notably the paper-and-pen type popularized by ***Dungeons and Dragons* (*D&D*).** Several discussions of multi-user dungeons (MUDs) have linked their role-playing to *D&D*, and then to video games, blurring again the distinctions between stories, texts, and games. Not surprisingly then, *Final Fantasy VII* and other RPGs have inspired academic and popular attention to role-playing. This again does not necessarily translate into rigorous conceptualization of the genre. For instance, Mia Consalvo (2006) examined the hybridization of Japanese cultures in *Final Fantasy X*, highlighting the hybrid cultural heritages of the characters and the commodification of culture in this game and the entire series, but this political

economy analysis of global culture focused more on external relationships between corporations and cultures than on the game itself.

In another article, Consalvo (2003:C) contrasts *The Sims* to *Final Fantasy IX* in order to ask how researchers can study sexuality in video games. Her examination of *Final Fantasy IX* remains focused on the romance, without any details of the structure or expectations of the game. What does emerge is that players of RPGs are expected to figuratively wear a mask throughout gameplay.

Eskelinen and Tronstad (2003) find that RPGs are moments of configurative performances, and Burn and Schott (2004), who focus their analysis on the relation between the player and the avatar in *FFVII*, describe RPG characters in terms of narrative theory but without much discussion of the gameplay. They note that the protagonist of the RPG acts as a puppet for the player, a "digital dummy" (p. 9). Clearly, RPG video games open up many questions of identification, leading to some assumptions about this type of game that have yet to be explicitly detailed.

There are a few exceptions to this scarcity of genre-theorization, including that found in Consalvo's (2003:A) discussion of *Zelda*, an early RPG. She describes the RPG as a long-term play investment, with an affinity for story and character akin to *D&D*, as well as an interest in adventuring through new worlds and situations. Manninen (2003) argues that RPG players desire a game space that allows for the suspension of disbelief, leading to highly atmospheric and clichéd fantasy worlds in most game structures, with numerous possibilities for identifying with their avatars, including the modification of their appearance, the

ability to collect and display a variety of objects within the game, and a variety of other markers that allow the player to feel their avatar can become a symbol of achievement.

Smith (2002) examined the dialogue within *FFVII*, noting that it reformulates the conventions of Hollywood dialogue, and that this type of cinematic chat within the game furthers narrative. Smith identifies several traits of the game, for instance that there is an overall goal (saving the planet) broken up by many more intermediate goals (collecting items, winning battles) that provide the impetus for the player to continue their play. He also finds that dialogue is contained within non-interactive video segments that flesh out the story and maintain suspense. Throughout, Smith makes it apparent that motive and meaning, as conveyed through back-story, play a pivotal role in *Final Fantasy VII*. James Newman (2002:B) refers specifically to the role of the cut-scenes in *FFVII* to debunk the myth of the ergodic video game, noting that in later releases of the series the boundaries between these off-line and on-line segments become more blurred. These two specific references, which offer very little information on the gameplay of *Final Fantasy*, and the rest of the research geared towards RPGs, do not come close to adequately detailing the gameplay of this genre.

Another problematic element of current RPG conceptualizations is the persistence of comparisons to other role-playing forms. RPGs are not "collective creations" like MUDs (Murray 1997, p. 86), and do not have game masters, individual authorship, acting, or props involved in their play. Linking RPGs to their

real-life (RL) counterparts is an equally problematic maneuver, as they all operate with differing technologies, rules, expectations, and objectives. Thus, while Hernandez (2006) argues RPGs since *D&D* are driven by the "creation of highly-individualized character (sic) who grow increasingly powerful", this would seem to conflict with the previous description of the 'digital dummy'.

This case study examines *FFVII.* Released in 1998 by Square Enix, its gamespot.com review makes it apparent that story and character play a significant role, to the point that it is hard to differentiate this review from that of a film review. Some interesting insights that emerge from this review include the diversity of POV available to the player at differing moments, and the hybridization of real-time and **turn-based play**[xi]. The review also makes the game sound much more complex than current scholarship would indicate, and it is with the review's description of the game in mind that I begin my case study.

First time play includes a sweeping view of a dim, grim industrial-looking village dominated by a huge nuclear reactor. The game starts with you and your gang (revealed to be part of some movement called Avalanche) hopping off a train and immediately engaging in combat with some NPCs. Dialogue after this short battle reveals that your mission is to destroy the North Mako Reactor, and that your character is something of a rogue. You and your team sweep through the reactor, with you the former soldier working with the politically-minded Barret to defeat the various NPCs that get in your way as you make your way to the bomb.

The differences between this game and others played in this chapter become rapidly apparent. The battles you undertake are separated from the moments in which you run about and converse with your team. This is known as turn-based play. In one moment you are running along a corridor, in the next the music changes, along with perspective and scale, and your adversaries suddenly appear. Data on your health and other statistics also appear, including your time bar, which indicates how long you have to wait until you may attack. The battles resemble a Sumo match more than typical video game fights, with each opponent taking turns without the ability to escape, dodge attacks, or approach the adversary. This turn-based structure highlights the affiliation of the video game RPG with its role-playing ancestors more than any other element of the game, and is a significantly under-examined trait.

After playing *Half-Life 2*, which is an FPS rather than an RPG, I was somewhat surprised at the traits of an RPG. You play a character that has a preset persona, past, and motivations, similar to the experience of playing Gordon Freeman in *Half-Life 2*. One difference in *FFVII* is that you can rename your characters (Cloud and Barret) so that when the other characters talk to you they call you by your real name or by your chosen moniker. On the other hand, while the perspective of *Half-Life 2* is through the eyes of the character, in *FFVII* you watch as your avatar climbs ladders, brandishes his sword, and has discussions with the NPCs. And whereas NPCs in the famed FPS chat with you throughout the game and you never respond in the voice or spirit of Gordon Freeman, in this game you watch as your avatar converses with others (through

comic-style balloons), saying things you may not have imagined uttering. These differences were my first indication that the avatarial identification widely discussed in video game theory is mutable and not uniform across genres and games.

In *FFVII*, as in all the games I have examined, story takes on the most important role in this genre. It is an overarching fiction that motivates gameplay, based mainly on your characters' cryptic statements. Gameplay makes it evident why gamespot.com's review read like a movie review- to actually describe play would sound something like "you run through a door and battle two soldiers, then you set the bomb and have to fight a huge metal scorpion", while to describe the game by the end of it means to better understand the story that propelled you, resulting in something that sounds like a story. Despite the centrality of the story, 'interactive fiction' does not work to describe the experience of playing this game, due to the utter looseness of the story in actual play. The game is held together by battles, the frantic need to evade death, and movement rather than tightly constructed plot points. The game is long and the story comes together throughout it, spaced out by actions like running and fighting.

To return to the label of RPG, the differences between the video game version and its antecedents are plentiful. As I noted, the player of *FFVII* does not author any elements of the role she must play, only manipulates the props provided by the game, and answers to the game developer rather than game master. There is no acting, as your character speaks of his own volition. The most accurate description of the relationship between player and avatar comes

from Consalvo (2003:C) when she describes the experience of wearing Cloud's mask, though it should be noted that this mask is like that from the movie *The Mask*, in which the disguise has a life of its own, and its wearer has the sensation of being along for a ride out of her control. Cloud is certainly no "digital dummy"; rather you are his RL dummy, who simply propels him from place to place and awaits his commentary. Thus, Manninen (2003) most accurately describes video game RPGs as spaces of maximum suspension of disbelief. As with pen-and-paper role-playing, the *FFVII* player must work to identify with the character, accept any arbitrary moments, and enjoy thoroughly the adventure their new persona takes them on. While at first I felt irritated that my two choices of players were a large black man and an aggressive if effeminate white man, I must admit I felt pleasure in Cloud's cocky sword brandishing and growing list of magic and weapon tools, which again reinforces Manninen's argument that players identify with their avatar's achievements. This difference, and the other described above, highlight once again that even the basic elements of RPGs as a genre (such as player/avatar relationship, story as motivator, and fight scenes) differ from other types of games, reinforcing a need for more refined investigations into these and other characteristics of video games.

Game	Genre	Characteristics	Goal	Position with debate
Myst	Story/puzzle game	Players must solve a variety of puzzles in a series of eerie, unpopulated locations.	To save a character by solving difficult puzzles, including the ultimate choice of which brother to trust.	Ludologists dismiss the use of this game as an example of video game play.
Half-Life 2	First-person shooter	You must navigate a dangerous world filled with predators by shooting and avoiding being shot.	To get through a dystopian world in the pursuit of working with underground rebels to overthrow the system.	Ludologists cite this game as an example of a story packaged as a game.
The Sims 2	Simulation/god game	Within a simulated world, you can test all the bounds of your many characters and families.	To develop simulated characters that achieve the highest pinnacles of their aspirations, while satisfying their needs and wants.	Though simulation is a problematized term, this game and other sim games have seen little attention.
Final Fantasy VII	Role-playing game	Players can take on the mask of a character and become an epic warrior in a heroic quest.	To progress through a complicated story and quest in order to save the world.	RPGs, including this one, have seen more debate into identity and embodiment than anything else.
Grand Theft Auto 3	Sandbox action game	Play consists of completing criminal missions within a large, lifelike city.	To successful complete missions in order to work your way up in the criminal hierarchy.	Action games like this have had discussion in the realm of video game violence and rhetoric of game play.
Need for Speed: Underground	Racing game	Opportunity for players to simulate racing and car controls.	To improve your speed and driving technique in order to complete races first.	This game and other racing games so far have seen little academic attention.
World of Warcraft	Massively-multiplayer online game	Large, seamless world; play with and against other players; requires large time commitment in order to progress.	To proceed from level 1 to 60 while fighting enemies, exploring the world, collaborating with other player on quests, acquiring new abilities and more powerful items.	This game and other MMOGs are typically discussed by those interested in economics, policy, law, and player ethnography.

Table 4: The nature and the mobilization of the video games analyzed here in the literature.

Grand Theft Auto 3- Playing Criminality

Grand Theft Auto 3, part of a series of Grand Theft Auto (GTA) installments, is known more than any other game because of its symbolic position as the 'killer training' game. The GTA series is best known for the role it was argued in Devin Moore's murder of three men at a police station more so than for its groundbreaking approach to game space[xii]. More so than any game since the exceptionally gory *Mortal Kombat, GTA 3* and its descendents *Vice City* and *San Andreas* have been implicated as killing simulation devices. While many elements of the game, including how players are cast as mobsters, are rewarded for evading and massacring police officers, and can stomp citizens and prostitutes for money, are known, a description of gameplay is so far still lacking in the literature.

Called a sandbox action game for its revolutionary game space, *GTA 3* is cited in its gamespot.com review not simply for its variety of missions, array of unsavory characters, or physics, but for the detailed, fascinating, and seamless world of Liberty City (based on the design of large urban US cities). Despite this acknowledgment and reputation, the game has rarely been examined for its gameplay or game universe. Rather, the emphasis is largely on the content of the game. For instance, Frasca (2003:A) argues that while the game allows the murder of prostitutes in order for the player to earn money, it is rhetorically different because this is a possibility but not the *goal* of the game. Bernard Perron (2003) posits that the world of *GTA III* is more *paidia* than *ludus* because the player can choose to explore and interact with the environment rather than complete missions. Inflamed by the attention to violent content and not the

racially-charged elements of *Grand Theft Auto: San Andreas*, David J. Leonard (2006) illustrates the one-dimensionality of its characters and argues that "San Andreas does not merely give life to dominant stereotypes but gives legitimizing voice to hegemonic discourses about race" (p. 85). Frasca (2003:C) describes the world of *GTA III* as a vast playground that allows a variety of activities and the freedom to do as you choose. He also highlights the nature of NPCs as walking targets, most especially because you cannot interact with them except to fight with them, as well as the lack of verbal communication and linear route in the game (there is no finale, just a variety of missions you may complete in any order).

While these are interesting points, they again demonstrate a lack of genre theorization. Basically, action games and sandbox games in general have had little direct attention paid to them, with the latter being defined by what they are not, including social and cooperative (see Manninen (2003)). Ryan (2001:B) notes that space plays a key role in an action game's success, as opportunities for action must be frequent, and a developed landscape allows for this. She also notes that while a narrative is not typically the driving force behind an action game, it does typically play a role. Again, these sparse moments of insight and more common instances of absence prompt a case study.

The game starts with rolling credits, thematic music, and a video sequence showing your character escaping from a burning prison transport truck. Your fellow inmate introduces you to Luigi, who will provide you with mostly illegal missions in which you can earn cash. Instructions for actions such as

switching POV, picking up weapons, and saving your game appear on a need-to-know basis, and the game invites you to take up missions, earn extra money by stealing a cab and going into taxi mode, or simply explore the city. As indicated in the review of the literature on *GTA*, what is most notable about this game universe is its seemingly endless spatial bounds. You can do as you please, switching from picking up a prostitute to beating up a passerby to crashing vehicles to running about, though if you fail a mission, get beaten up, or blow up inside a truck you will suffer health and monetary consequences. The immensity of the world is conveyed through a variety of design choices; the complex street grid made asymmetrical by viaducts, warehouses, and expressways; the variety of neighborhoods and the motley crews that wander their streets; the stores and landmarks that remain unique and never repeat; the selection of vehicles, radio stations, and routes to be taken; and the variability of weather teemed with the darkening and lightening of the sky depending on time of day.

Some game elements are less diverse. NPCs tend to repeat their particular clichés and only have a few different appearances. Your ability to interact with them is limited to the superficial needs they satisfy; the gun shop owner will tell you where he left your gun but will not engage in a conversation. This lack of sociability is arguably a successful element of the game- you are a petty criminal (or perhaps not so petty if you continue on your unlawful career path) and conversing with bystanders is outside of your purview. What you can do in the game, the variety of destruction that has come under fire by critics (ranging from beating bystanders to stealing and crashing any car you like to

having gunfights with the police) is precisely what a bad guy would want to do. The ability to earn money from lawful deeds such as driving a taxi or ambulance is not reformation but a chance to earn extra money between missions.

The cinematic elements of the game are notable. One of the POVs you can select while playing is the cinematic view, which externalizes your perspective, making it neither from the eyes of the character or from behind but a rather stylized view from the side, like a film camera. While the game is free-form, and should you choose to find a narrative in your actions it would require your own imaginative work, your missions are given in cut-scenes that you cannot manipulate or maneuver. The way the characters speak, the depravity of your actions, and the very bleakness of the city's ghetto are all reminiscent of the genre conventions familiar from gangster movies as well as from the satiric conventions of comedy and even animated films. The game is clearly a demarcated space, a magic circle where the corruption and the desolation of the urban city is put on steroids and turned into a playground for you to enact the violence and heartlessness that come with the territory to excess. Like Gotham in the film *Batman Begins*, Liberty City is only realistic in its spatial scope, and its craven badness in every form turns the very concept on its head for the sake of fun. Frasca's (2003:A) differentiation between the rhetorics of the goal of murder and the ability to murder is rendered moot by the very fact that the *Grand Theft Auto* universe has abstracted violence and immorality so far from its point of reality that any pacifist can run over pedestrians gleefully.

Every element of the game is such a playful cliché of not just every racial stereotype but pretty much every standard convention one can extract from the action genre. This gross parody is lost in every description of the hyperviolence, homophobia, and heteronormativity of the game, evidence of the need for differentiation between narrativized descriptions of games and the gameplay experience itself.

Need for Speed: Underground- *Playing at Disembodiment*

The racing game, as exemplified by *Need for Speed Underground* (*NFS:U*), has had an underwhelming presence in video game theory thus far. For the most part, racing games, along with fighting and shooter games, are examined in light of the confusion of boundaries between body and technology in modern culture, as in Lahti's (2003) piece "As We Become Machines". Here some elements of racing games are touched upon, including the car as extension of the player and the many ways normal bodily processes such as blinking can get in the way of successful gameplay. James Newman (2002:A) uses racing games as ideal examples of the differences in engagement a player will experience in a game, as they alternate between moments of intense kinesthetic interaction and passive instances of camera panning as well as introductory sequences, different moments he terms on-line and off-line sections. In another article (2002: B), he captures one of the unique elements of the racing game, the ability of the player in most racing games to alternate between preset viewpoints.

These few observations, and a lack of attention to *Need for Speed Underground* and the racing game genre, characterize the domain of video game

theory. This absence is interesting considering the enduring popularity of the form in computer, console, and arcade games. *NFS:U's* gamespot.com review described it as having an accessible rather than realistic style of simulation, and a dissatisfying lack of variation in tracks. Despite these descriptions, even the review offers little insight into what the experience of playing this type of genre is. In order to rectify this, I undertook a case study of this game in order to understand *NFS:U's* gameplay.

Right away Newman's (2002:B) observation on the nature of offline versus online instances in racing games is embodied in the play of *NFS:U*. When you first open the game, an extended cinematic showcases the look of the *Need for Speed* world, the mechanisms of the simulated cars, and the sleek and sexy atmosphere of street racing as evoked by the curvaceous girl who starts the race and the stiletto heel of the driver hitting the gas. Every choice you make, from underground races for the purpose of earning style points to the variety of quick races at your disposal, leads to a cut-scene showcasing your vehicle, your competitors if applicable, and the street on which you will begin your race. When you select your car, it drives in onto the screen but you do not yet control it. These moments, which are indeed as oppositional as Newman argues, move fluidly into one another, and have the exact same look, which blurs the boundaries between extreme engagement and thorough spectatorship.

One element of racing games gleaned from the play of *NFS:U* that may lead to the undertheorization of this genre is their simplicity. Despite the fact that you have a variety of options for racing, including drag racing, drift racing, and

lap racing, the depth of this game is fairly shallow. Though racing takes place on beautiful courses populated by wonderfully rendered shops, apartments, side roads, and traffic, you cannot interact with any of it. If you spend your entire race crashing into other cars, you will never see an angry driver emerge or a fiery explosion. If you attempt to drive off course, you are returned to the correct track unceremoniously and jarringly. The game only rewards (both literally and figuratively) straight play that involves racing according to the rules. Though the underground option, wherein you earn style points which you can use to customize your car, appears to be different, again the play is reduced to racing the best you can.

This shallowness of play possibilities indicates why disembodiment theories (see for example Lahti's (2003) discussion of "technologized bodies" (p. 157)) have been most prevalent in the analysis of racing video games. The only element that appears important is what occurs in the midst of full-on racing- what happens when you are holding your breath as you try to master the controls of a simulated vehicle and the curves of the track. These moments are intense and require dedicated attention, representing the pinnacle of what is known as the kineasthetic experience. This experience is so involved that employing this type of game as representative of the blurring of body and technology does not do justice to it. It also begs so many questions about interface, simulation, perspective, and identifications that have yet to be explored. This indicates the importance of exploring this genre in much greater detail in the future.

World of Warcraft- *Playing Labor*

Massively-multiplayer online games (MMOGs) are games played online in persistent virtual spaces with hundreds of thousands of players collaboratively and individually pursuing the goals of the game. MMOGs have been the site of an incredible volume of games produced, players online, popular coverage, and academic attention. This attention is cross-disciplinary, with academics from law, social sciences, economics, identity theory, and policy backgrounds discussing these online spaces. The current state of research has expanded so as to make it impossible to survey it all here. Instead, I will highlight some of the central issues that have characterized the study of this genre. Edward Castronova is a major figure in MMOG study, and has explored the economics of virtual worlds such as Norrath of *Everquest* in a variety of articles, including his most recent (2005) examination of questions on market, law, and security. Castronova has moved from economically-focused inquires into the markets and other commerce-related elements of these worlds to an understanding of their possibilities as microcosms for social studies research (Castronova (2006)).

Questions about economics, and related concepts such as commodities, value, scarcity, and labor are extremely popular in the literature, as is evident is the work of Malaby (2006), who ties together questions of the capital and the social by exploring cultural capital in MMOGs, and Yee (2006), who describes the similarities between video gameplay, especially of MMOGs, and work. MMOGs also prompt an array of legal questions, which have been explored by Hunter and Lastowka (2003) as well as by Eriksson and Grill (2005). While the former investigates the nature of virtual property within virtual worlds, the latter

examines the nature of ownership and rights within virtual spaces, with an emphasis on avatars. T. L. Taylor (2002) asks questions of ownership from the perspective of a scholar interested in identity, emphasizing that accounts in MMOGs are blank slates without any value that are only enriched by the time and effort of the player, who will acquire garment, weapons, in-game currency, high **levels** and reputation points that will make the account a valuable purchase on auction sites. She contrasts the nature of avatarial development to the realities of the end-user license agreement and selling of virtual goods in auction sites. Pearce (2006) also focuses on the players of MMOGs, examining this game genre to better understand the concept of productive play. In keeping with Castronova, Steinkuelher (2006) considers MMOGs to be prime spaces in which to study cognition and interaction as "they provide a representational trace of both individual and collective activity and how it changes over time, enabling the researcher to unpack the bidirectional influence of self and society" (p. 98). To conclude this abridged survey of MMOG research to date, Kolo and Baur (2004) note that there are three levels on which to study this genre: the "offline" real world; the online world, with its imagery, topology, and dynamics; and the world of data, which contains interface commands and all mediations of the game world. From what has been described here, it is clear that the majority of discussions remain on the uppermost layer of the real world.

In terms of *World of Warcraft (WoW)*, this game was chosen because, as of March 2006, it was the most popularly subscribed MMOG, with 6 million subscribers worldwide to date[xiii]. Despite its popularity but perhaps because of its

novelty, *World of Warcraft* is not often differentiated from its MMOG associates such as *Everquest* and *Second Life*. Surveys of a variety of game resources reveal the tendency to simply group MMOGs together, as though it is a genre to be taken for granted. Yet, despite the profusion of interest in MMOGs, close examinations of their gameplay, even ethnographic research therein, are still lacking. The following case study attempts to trace out some of the key elements of MMOG play, an examination that will be truncated simply because of the immensity of the realm of *WoW*. Its review at gamespot.com lauds the game for bringing out the best elements of both the MMOG and the video game in general. In addition, the review includes a general overview of the experience of playing the MMOG, explaining the process of selecting one's character and the fundamental gameplay experience of fighting creatures and other players, solo or in groups, embarking on quests, and attaining experience levels, new abilities, and special objects. It also explains that the player of *WoW* has the option of playing in a role-playing realm, a player-versus-player realm, or the more typical realm (of player-versus-environment). Here again, the difficulty in discussing this type of game becomes clear simply because of its massive size. Thus, instead of the types of case studies I completed for other genres, here I decided to focus on the process of selecting a player and working my way up through a few levels and the gameplay experience encountered in this course of action.

First-time play of *WoW* includes a cinematic, but this is an extraordinary example of its type. The graphics are gorgeous and lush, and show to perfection each race's individual characteristics. The narration over the animation succinctly

describes the reason for play (yet another example of story as motivation)- war. This war is between two factions, the Horde and the Alliance, and before play you must make three pivotal selections: which side you will take, which race you will play as, and which class you will fall into. Once you have selected your race, sex, and class (I chose to be a female Shaman Troll), you must name your avatar, customize to a limited extent its hair, skin tone, and facial traits, and then pick the type of world in which you will play, followed by which specific world. I decided to play RPPVP (role-playing player versus player) in Maelstrom, and found myself in the desert terrain of the Plain of Trials.

It becomes immediately apparent that play within *World of Warcraft* is an extremely ordered experience. Basic gameplay in *WoW* consists of fighting an array of creatures and eventually other players, exploring the massive world by yourself or in a guild, and moving up through levels of experience. These gameplay features are all ordered through the practice of taking on and successfully completing quests. These quests (which are delivered to you when you talk to an NPC with a yellow exclamation mark floating over their head), mostly involve slaying other creatures, either to attain something that is needed, such as the tails of the toxic scorpids, or to rid your race of an unwanted problem, such as the mischievous demons in the northern part of the plain. Some quests are totally nonviolent, such as picking cactus apples, and tend to be commercial in nature: for example, these apples are used to make a special brew for sale in the Plains. While you could certainly kill these scorpids and demons and pick these fruit outside of a quest and still collect experience points and even some

goods from the creatures you kill, it is on quests that you are going to attain better and more protective garments and to learn the skills you need for the time when you leave your safe territory and venture out into the world. It is also through interactions with these NPCs that I was able to train in new skills and take my choice of arms.

At my level of play I found that many of the quests involved straightforward hunting and attaining. Perhaps at higher levels more strategizing is required, and I did see within the **chat window** players seeking help on their quests. On one hand, playing within a vast online world did reaffirm that the potential of these sites is absolutely huge. *WoW* has a colossal world, hundreds of wonderful NPCs and an equal number of diverse enemies, numerous fascinating locations, and a beautifully organized system of play. On the other hand, it was developed with the kinds of resources educators can only dream of[xiv], and I am afraid using an MMOG as a learning space would be never work just by dint of the incredible expense of developing an excellent one. MMOGs are microcosmic social simulations with great potential for studying individual and collective action within a tightly organized structure with discernible social and political conditions.

Gameplay is highly diverse in *WoW*, with your quests and locations depending on the choices you make when constructing your avatar. You can be an adversarial warrior, a mystical priest, or a cruel warlock, with their attendant strengths and weaknesses, and then you can play without ever interacting with other players or you can become infamous for your number of dishonorable kills.

Different people will approach the quests of this game in a variety of ways, and this provides researchers with multiple areas for research.

Many of the elements of MMOGs that make them rife objects for study have little to do with their in-game realities, such as battles over intellectual property between game producers and consumers[xv]. The economic elements of these games are, however, immediately visible. From your first quest onwards you have the ability to pillage the corpses of your victims, attaining not only the goods that will allow you to win your quest but pieces of the currency and goods you can sell at your local market. While in my relatively short time playing the game I had little difficulty in selling several easily acquired items, I only received the most minute compensation for their sale. Nevertheless, I did find that the most valuable items, in terms of both monetary value as well as experience points, were much more difficult to attain than the tusks of easily-killed boars.

More complex was the question of play as labor. I agree with Taylor's (2002) statement that my account and my avatar were worth nothing until I played them for a period of time, in which I attained level 10 and had improved my starting amounts of skill as well as my stock of food, water, clothing, and arms. Considering that *WoW* currently has sixty levels with ever increasingly difficult quests, the amount of time and effort a player can put into this game are substantive. And yet from my experience, time and effort do not necessarily translate into work. The entire purpose of play is to improve your player and to become more adept at tasks so you may take on even more difficult ones. Without making the Manichean division between play and work, I can assert from

my experience that any conceptualization of what has been termed 'productive play', or the concept that play and labor can be conflated, (see Humphreys 2005) needs a great deal of closer examination. The fact that MMOGs encourage sustained attention and a great amount of time and effort invested does not necessarily make their play 'work', especially when this is not a simple by-product but the entire purpose of this type of play.

The vastness of the MMOG universe and the rich possibilities for play make any discussion here feel condensed at best. Perhaps the most important conclusion I have come to in my analysis of *WoW* is that many of the analyses of the external, out-of-game elements of MMOGs such as their terms of service and debates on work versus play can be enhanced by studies of their gameplay, and would add even more complexity to a debate that is already quite rich.

Genre and Video Game Theory

It would be an understatement to note that examinations of genre have not played a significant role in video game theory to date. It is timely to ask now, what does this gap mean for the domain? What role has genre theory played in the study of other media, such as cinema, and what lessons can be learned in video game scholarship from its application therein? While the case studies investigated elements of some genres that have yet to be explored, it is now judicious to question the value of exploring these traits. In brief, why and how should genre theory be mobilized in video game theory?

According to Paul Willemen's introduction to Stephen Neale's (1980) slim volume on genre, genre theory emerged in response to two linked issues in film

theory. The first problem was the persistent notions of cinema that were firmly connected to questions of 'taste'. This dogma of aesthetics of personal taste, held under the ruse of an orthodox theory of film, resulted in a backlash of theory in the 1950s and 1960s that sought to unbury the cinema from oppressive understandings of "works of art" in what was argued to be a classist establishment. The second and related problem was how to proceed to an understanding that film, like any type of artistic production, is tied to social history. This led to a variety of theoretical approaches, including the structuralist project of understanding a film's "social grounding" (p. 1) and auteurism, in which critics argued the existence of individual genius of the director versus systematic structures underlying films. It was this latter argument that led most directly to discussion of genre, which was understood most frequently in the pejorative sense of formulaic, mass-produced, popular films. Others understood genre as codified and yet capable of being produced by artists who could import their unique touch to the form. As Willemen (1980) summarizes, "genre-structure and author-structure were seen as concepts of a different order existing side by side, with genre providing a framework, a 'tradition' within which and against which individuality could flourish" (p. 2). With the burgeoning interest in semiology in cinema in the 1960s, however, genre theory was relegated to the margins of theory while questions of signification took the fore.

Neale opens his discussion of genre by noting which assumptions and considerations an analysis of genre is built upon. First and foremost, genre theory understands the cinema as a "set of social practices" (p. 5) and is

concerned with the problems of analyzing the cinema as a social institution. Secondly, this examination is founded upon an understanding of the film as a "filmic text" that may be scrutinized for its process of signification, its aesthetics, and its subjective processes, as well as for the larger social forces and effects that impact its institutional practices.

Thus, the question is whether such foundations of theory are applicable to the medium of the video game. Does the video game come from a place that can be described as a social institution? Certainly, to say that the video game industry is an institution sounds slightly ludicrous, but is this indicative of a lack of cohesion backing video games or simply a trace of the former classist and elitist understanding of art that plagued film theory decades ago? Video games definitely emerge from an industry that, while widely understood as commercially lucrative, is also the nexus of critical discussions and debates on the work of individuals, companies, and researchers, as well as on the very nature of the production of video games. Indeed, video games are incredibly influential, and the industry they emerge from is an organizational body founded for a unique purpose, the simplest definition of an institution. Will Wright's mystique indicates that the idea of an auteur in video games is present. Besides having a regulatory body (the Entertainment Software Rating Board), several prestigious video game design schools and programs (such as DigiPen in Washington and Vancouver), and established conferences and publications (the Game Developers Conference, The Game Show, The Escapist, Computer Games Magazine), the industry is characterized by the persistent presence of the medium in everyday

life. No longer a hobbyist subculture, video game consumers are cropping up in the unlikeliest places (consider the inclusion of aging grandparents in ads for Nintendo's DS) and the creators of these games are increasingly being acknowledged for their powerful place in the currents of popular culture and everyday life. The Entertainment Software Association (ESA) states that 69% of heads of households in the US play computer and video games, and that the average age of a US gamer is 33. If we are to recognize that there is an institution of the video game, it is important to acknowledge that it is impacted and shaped by social determinants such as the flows of culture, politics, and commerce, and that furthermore many scholars examine games from this external perspective, understanding them as both influential and influenced.

But what of understanding the video game as a text? As we have seen in Chapter 2, textuality is one of the problematic questions related to video games. While textuality will be discussed further in chapter 4, it is sufficient to say here that without investigating the variety of ways it does so, the video game does convey meaning and thus include processes of signification worthy of study. Video games most certainly have an aesthetic and are created through subjective processes. Furthermore, the industry of video games is similar to that of the cinema in that it is characterized by a chain of signifying processes in constant flux as well as by a plurality rather than a singularity of practices and regulation of these processes[xvi]. Thus far, the underpinnings of the application of genre theory to film do not seem to impede its use in video game theory.

There is an emphasis in genre literature on iconography, a concept that is vaguely defined in film theory and has been used to describe a variety of concepts solely linked by an emphasis on the visual[xvii]. This is not an element of genre theory that would appear to halt its application in video game theory, as Neale (1980) does not understand cinema to be important only as a visual medium. What is more complex is the emphasis on narrative in genre theory. Neale's definition of narrative is novel considering the fairly narrow and conventional methods of understanding narrative described thus far. Like Metz (2004:A), Neale understands the cinema not as narrative-driven but as narrative-prevalent, constituted through sustained application of narrative and thus regulated as such. For Neale, narrative is "always a process of transformation of the balance of elements that constitute its pretext: the interruption of an initial equilibrium and the tracing of the dispersal and refiguration of its components" (p. 20). Thus, genres can be examined for their equilibrium and disequilibrium, their order and disorder, and their repetition and difference. Narrative in genre theory serves to provide coherence and closure, and while this role needs further exploration in relation to video games, it is important to consider the fact that genre provides both "a coherent and systematic body of film texts, and a coherent and systematic set of expectations" (p. 55). Clearly this role of genre carries over into video games, as evinced by the very arrangement of games into categories and the preference of many players of particular games over others. The fan of role-playing games can select a game from the series and expect that it will contain many conventions of the genre as well as some variations. It is

because of these relevant elements of genre theory that we need to bring genre into the discussion in video game theory.

To conclude, while film theory was interested in examining questions of the origins of genre, I argue that video game theory would be well served by turning to questions of how genre has evolved in this medium. It would seem that because so many scholars outside of game studies assume that video games should adopt the genre conventions of film, it is thus timely to analyze the roles, evolution, and novelties of genres and their conventions in video game theory. The case studies described in this chapter clearly illustrate that different games evoke differing gameplay experiences, which plainly complicates the ability of scholars to generalize about the nature of games, and whether they are narrative or simulations. Rigorous investigations into the nature of genre in video games can only enrich our understandings of games, and will also preclude the ability of those that seek to marginalize, reduce, or discard certain games because they do not fit into their theorizations of games as a whole[xviii].

Genre is an important concept that should be embraced, as it is understood by Neale as not socially determined but as active in the social construction of meaning. That being said, it is also important to note how genre should *not* be practiced in video game theory- not by isolating elements of genres as was done in the above case studies but rather by examining "exclusive and particular combinations and articulations of elements" (p. 23). Finally, conclusions about shared genres, such as fantasy and action, should be not be imported from one medium to the other. In summation, while genre theory should

by no means be imported in its entirety into video game theory, and would be well served by critical discussions of its epistemological assumptions, the above case studies indicate that it is an important element still lacking in the video game theory.

This chapter has indicated that video games require much more rigorous examinations of not just the disciplines imported into the theorization of the medium but into the different kinds of genres that make up the form. The case studies here have served their purpose of highlighting the diverse elements of each game, and suggest that, just as in film theory, genre theory can offer the grounds for more specific and yet diverse types of examination.

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[i] It is important to note my status as a game player here, as well as the significance of using personal game play rather than ethnography as evidence in these case studies. I am the type of video game player that many would describe as casual hardcore. Though I do not devote the balance of my free time to video game play or play a wide variety of game that demand a large time commitment such as *Legend of Zelda* or *Command and Conquer*, the video games that I do play, I play steadily, for over 10 hours a week, and with full cognitive engagement. Furthermore, as a student of video games, I have made a commitment to try out games that I would not typically take an interest in, in order to have a richer understanding of the diversity of games available.

As for the use of personal game play as evidence within these case studies, it is important to note that the purpose of these case studies is not to develop a full portrayal of the gameplay experience, but rather to complicate depictions of games and their play experiences as standard. The purpose of showing my reactions to different games is to highlight the differences and similarities between my gameplay experiences and the theoretical depictions of gameplay posited in the current literature. So rather than developing streamlined, taxonomical depictions of gameplay, the purpose here is to complicate these types of representations.

[ii] These are strategy, puzzle, fantasy/role playing, action/adventure, sports, simulation, racing, shooter, fighter, arcade, card/dice, quiz/trivia, and classic board games.

[iii] www.gamespot.com is one of the many entertainment websites that fall under CNET Network's purview. CNET's focus is on convergence, specifically between television and the Internet, and GameSpot is branded as an online spot for complete and unbiased game information. For the 1.5 million game players that visit the site daily, it is a database of information without peer on just-released games, classic games, and previews, cheats, and game chatter. It is also a paid virtual community with special downloads and tournaments on offer to subscribers.

[iv] The other game that proves their point is *Doom*, because of its stylistic equivalency to typical action-adventure films.

[v] The Ages are basically different parts of a *Myst* multiverse. They are linked by the branching structure of the game, but some Ages may actually be parallel universes of others. They are linked within the game by books.

[vi] See, for example, Julian Kücklich's article in issue 5 (September 2005) of *Fibreculture*, "Precarious Playbour: Modders and the Digital Games Industry", David B. Nieborg's Creative Gamers Seminar paper (2005) "Am I Mod or Not? - an Analysis of First Person Shooter Modification Culture" and Cynthia Haynes's (2006) "Armageddon Army: Playing God, God Mode Mods, and the Rhetorical Task of Ludology." *Games and Culture 1 (1).*

[vii] See, for example, Anderson, C. A., & Dill, K. E. (2000). Video Games and Aggressive Thoughts, Feelings and Behaviors in the Laboratory and in Life. *Journal of Personality and Social Psychology, 78(4),* available: http://www.apa.org/journals/psp/psp784772.html, Ballard, M. E. & R. Lineberger. (1999). Video game violence and confederate gender: Effects on reward and punishment given by college males. *Sex Roles, Vol. 41,* and Kinder, M. (1996). Contextualizing Video Game Violence: From Teenage Mutant Ninja Turtles 1 to Mortal Kombat 2. In P.M. Greenfield & R. C. Cocking (Eds.), *Interacting with Video.* Norwood, NJ: Ablex.

[viii] Schneider, E. F., Lang, A., Shin, M., & Bradley, S. D. (2004). "Death with a story: How story impacts emotional, motivational, and physiological responses to first-person shooter video games". *Human Communication Research, 30.*

[ix] See issue April 2006 14.04 of *Wired* magazine, in which Will Wright is guest editor.

[x] Flight simulators, however, do distill in many ways the essence of the simulational aspect of videos.

[xi] Though you make your move in real time, the time it takes for the character to carry it out is delayed. This is basically the opposite of the instant-reaction, button-mashing, trigger-happy play of fighter and shooter games.

[xii] For more on Devin Moore and the legal proceedings against the makers of GTA, see http://www.boston.com/news/nation/articles/2006/03/29/ala_appeal_in_game_blame_killings_nixed/.

[xiii] This number comes from Broache, A. (2006.) "'Warcraft' maker sued for blocking sales of online guide." CNET news, http://news.com.com/Warcraft+maker+sued+for+blocking+sales+of+unofficial+guide/2100-1043_3-6053716.html.

[xiv] In their chapter in the Video Game Theory Reader, Walter Holland, Henry Jenkins, and Kurt Squire demonstrate the potential for game systems in education, arguing that gameplay information exchange may be "perhaps the most pedagogically interesting interactions" (p. 29). See Holland, W., Jenkins, H. & Squire, K. (2003.) "Theory by

Design." In M.J.P. Wolf & B. Perron (Eds.), *The Video Game Theory Reader.* New York: Routledge, p. 25-46.

[xv] Intellectual property debates in MMOGs are a hot topic in game research, as the Terms of Service of these games (which the player must agree to every time they play) make serious demands on the players, including ownership of all in-game content in perpetuity. This has led to many discussions on the nature of ownership, labor, fun, and property. For more on this, see Bartle, R. A. (2004.) "Pitfalls of Virtual Property." Retrieved from www.themis-group.com/uploads/"Pitfalls%20of%20Virtual%20Property.pdf, and Eriksson, A., & Grill, K. (2005.) "Who owns my avatar?- Rights in virtual property." *Proceedings of DiGRA Conference: Changing Views- Worlds in Play.* Retrieved from http://www.infra.kth.se/~kg/Who%20owns%20my%20avatar.pdf

[xvi] Like the cinema, the video game industry does not simply have an overarching process of conceptualization, development, or production. While games do come about in predictable practices, their content is less foreseeable. Furthermore, while there was a whole series of popular, commercial forms of video games, there are many pockets of what can be described as the avant-garde and the political. Finally, as in cinema, the very existence of categories of racing games, simulation games, and action games is indicative of a regulating principle of what constitutes video games.

[xvii] According to Neale (1980), "Ed Buscombe, for instance, uses the term simply as a synonym for 'visual conventions', themselves unspecified in general terms, and Colin McArthur similarly refers to iconography simply as 'patterns of visual imagery'" (p. 11). Edward Buscombe is a classic Western film scholar, and Colin McArthur is Hollywood cinema researcher.

[xviii] For instance, the tendency of ludologists to describe games (such as *Half-Life 2* and RPGs like *Final Fantasy VII*) as lesser when they do contain linear paths for players.

Chapter 4: Heuristic Methodologies

Bricolage and Methodology

In this chapter, the theories and oppositions in the debate that I have presented are examined in light of the case studies of Chapter 3. The purpose of this chapter, and this thesis as a whole, is to develop theoretically rigorous approaches to video game theory that allow scholars of varying disciplines to understand games in a way that is meaningful both in terms of the theory examined in Chapter 2 and of the nature of the medium as brought forth in the case studies. At this point in the thesis, the bricoleur emerges. The main theoretical concepts informing video game theory have been outlined, such as narratology, film theory, new media theory, and game theory, and some of the elements of games that have yet to be examined have been identified, such as the narrativity of simulation play, and now the job of the bricoleur begins.

Bricolage, a concept developed by Lévi-Strauss (1968), works in opposition to totalizing scientific systems. A bricoleur 'tinkers' with a set of fixed materials and combines them to make new and at times surprising arrangements, striving to create structures through events rather than vice versa. In terms of the work of this thesis, it is through bricolage that a multivalent framework will emerge, and help to inform scholars coming from a range of interdisciplinary backgrounds.

The "spare parts" of this bricolage (Bogost 2006, p. 41) will be organized from what I argue to be the crux of this research- my experience of critically playing video games. It was through this experiential analysis that the traits of

games in practice, rather than theory, emerged. Christian Metz (2004:B) found that, as with traditional semiotics, the study of cinematographic language is one that can be undertaken from the perspective of either the creator or the user. My case studies indicated that video games can not only be studied from the point of view of production or the perspective of consumption, but on three elemental but interrelated levels, informed by Kolo and Baur (2004)'s distinction between the "offline" real world, the online world, and the world of data in MMOGs.

This chapter thus identifies and expands on these three levels, and argues that despite their simplicity, they offer greater opportunities for a variety of approaches and disciplinary backgrounds to contribute to video game scholarship.

Outside, Inside, and Below: Three Levels of Study for Video Games

The first level of study is from 'outside' the game, that is, the wider perspective of games in culture and society. Included in this level are studies into the economics of MMOGs and the video game industry, the complexities of intellectual property ownership in the industry, the role of games in education and literacy, the resistance potential of **serious games**, policy debates, and the situated play of the game. These are macro-level approaches that are interested in the influences on and of the medium of the video games in the context of everyday life.

What is 'inside' the game forms the second level of study, and this encompasses the visual, auditory, and kineasthetic elements of the game. These are the parts of the game sensually available for discussion, including the cut

scenes, the physical input of the gamepad, the game avatar, and the soundtrack that underscores each level. This would be at the level that most personal accounts of play and ethnographic accounts remain.

The mechanics of the game, or what is 'below' the game, constitutes the third level of study. Ludology and structuralist approaches fall under this purview, as do discussions of emergence, rule structures, code, cybernetics, and simulation. Questions of what powers games, their mechanics, and their nature as inherently systematic are all question explaining what is below.

What unites these three levels is the player. When game designers attempt to create engaging and compelling game play, they are often working on both the second and third level, as do theorists that attempt to map out the experience of play. When Consalvo (2006) examined the hybrid forms of transnational gaming, she combined an 'outside' analysis with an 'inside' view, combining the economics of the industry with an exploration of the visual characteristics of *Final Fantasy X*. While many analyses of games combine some or all of these dimensions of games, most of the debate emanates from scholars privileging one level over the other. When ludologists argue against narrative approaches, they are not acknowledging the main contention of this chapter, which is that games function on more than one level. A game is not just a system but also a visual artifact with an emphasis on sound that works through material-technological connections between users and machines and that exists in a socio-cultural context. No one level of study is more legitimate, relevant, or worthy than another, and each level can generate rich debate.

Game	Outside analysis	Inside analysis	Below analysis
Myst	Discussion of the nature of video game franchises, perhaps in relation to those of the television and cinema sort.	Analysis of the role of setting and ambient sound in the motivation of the player and the continuation of the story.	Research the elements of the mechanics that differentiate the game from the systems of other puzzle games.
The Sims 2	Investigation into the role of religious metaphors such as 'avatar' and 'god games' in video game literature.	Research into the possibilities and limitations for status quo and novel relationships within the simulation.	Discussion of the distortion of play time and game time.
GTA 3	Analysis of the role played by the game in moral panics on youth violence.	Discussion of the heteronormative, homophobic and hyperviolent story elements of the game.	Investigation into the relation between the large world and coded gameplay possibilities.
WoW	Ethnographic research on the ages, sexes, and social status of players.	Investigation into the aesthetics of the Alliance versus those of the Horde.	Analysis of the formal properties that allow emergent play in MMOGs.

Table 5: Examples of how some games could be analyzed on each level.

We can isolate some of these elements through the epistemological assumptions discussed in Chapter 2, beginning with narratology. Frasca's (2003:B) distinction between a narrativist and a narratologist is important because he highlights the fallacy of transplanting understandings of any theory across mediums. Though video games, film, and television all use visual and auditory elements to convey a storyline, the methods are plainly different to anyone who has seen an episode of the TV show *Seinfield*, screened the film *E.T.*, and played the video game *Black and White.* Cut-and-paste methods cannot truly improve the field. Anyone who wishes to look at the 'story' elements of the video game needs to pay especial attention to the distinctive way each of these functions in this medium. It is the differences, complexities, and esotericism of narrative in video games that must take the fore rather than

discussions of similarity and remediation (Bolter and Grusin 2000) that simply reduce narrative and differing media to their simplest traits.

Theorists would also be better served by distinguishing the narrative project of structuralism, which is a study of 'below', from the examination of so-called story elements such as setting, character, atmosphere and plot. These are two different projects that attempt to answer a unique set of questions, and the mingling of them under the same name has only served to cause confusion and tension. Some of this tension originates from the structural tenet that narrative underlies many forms of media as narrative structures our world. Yet, from my traversals of video game literature, I have yet to find any scholar who makes the argument that narrative is the *ne plus ultra* of video game mechanics. Rather, Murray's (1997) thesis is that, just as it does with knowledge, the computer promises to "reshape the spectrum of narrative expression, not by replacing the novel or the movie but by continuing their timeless bardic work within another framework" (p. 10). Thus, Murray makes no claims as to the semiotics of games but instead posits that a unique structure underlies the video game. Roland Barthes' (1996) observation of the encompassing nature of narrative also highlights an element of narrative that is often neglected: narrative occurs independent of medium, and it is fundamental for the narratologist to examine the story (the narrated) independent of both the medium and the discourse (the narrating). Thus, the kinesthetic experience, the participatory format, and the unique sense of reading time constituted by such elements as the pause button in the video game do not have an impact on an examination of narrative in a

particular text. It is evident that all media cited by Barthes have these unique elements- the comic strip has its place within newspapers of varying ideologies, stained glass windows carry the weight of their religious histories, a play operates within a particular suspension of disbelief and a distorted sense of time and place. Yet all of these different texts contain narratives when one considers them independently of their medium.

What does this mean when one considers semiotics and its focus on the structural system that underlies narrative? If one looks more closely, it offers a vital insight into the limitations of semiotics, namely multiple articulations. Beyond the phoneme and the basic level of language, the paradigm and the syntagma do not work; there are too many levels in narrative, film, and thus video games to get at their structure through a classical semiotic method. This further emphasizes the importance of study at a number of levels, including both the semiotic level and the levels that make up its multiple articulations. Narratologists thus developed their project to be not one of taxonomy but of analysis of recurring elements, components that differed depending on the narratologists in question. What ludologists can take from Barthes, besides his endorsement of the application of the structuralist project to a range of objects, is the reminder that the project essentially involves the disassembling and reassembling of an object in order to better understand its functions, an essentially human activity that constitutes in itself an act of creation, no matter what is being analyzed.

Neither Propp nor Todorov should be mobilized in their exact form within the structural activities of video game theory; the language of narratemes,

readers, and characters do not belong in discussions of rule systems. However, it is important to take a closer look at how video game scholars have been mobilizing these and other thinkers. For example, Murray's project was not structural, and her discussion of Proppian archetypes was on the second level of what is 'inside' the game. Most games contain a storyline, whether they are implicit (as in *Half-Life 2*), or implied by certain plot potentialities (as in *GTA 3*) or gameworld design (as in *The Sims 2*). Acknowledging the existence of a story in many games at the level of 'inside' the game does not imply that the rule system has been overridden. Rather, game scholars must understand that video games represent a very complex media that encompasses many elements of older media and yet operate in wholly new ways. Perhaps the pinnacle of intertextual borrowing, the nature of the video game is that of a layered entity with a great deal to be said at any moment of play.

This observation is also relevant also to the work of the extension scholars. Bolter and Grusin (2000) and Rehak (2003) have stated that, because they contain cinema aesthetics, graphical representations, and sweeping soundscapes, video games remediate other forms of media. Some of these theories of remediation reference McLuhan, who we have seen emphasizes looking at the impact of innovations as well as what foregrounded a particular innovation. Video game theory has been well-served by such analyses, as the idea behind McLuhan's message is to seek the less obvious changes extended by the innovation. However, halting the analysis at the superficial elements of the video game- for example, it has little cut scenes that are like a movie so they

must simply extend the logic of cinema- does not do justice to his project. Neither does it do justice to the field of video game studies, especially when it means overlooking their unique traits as insignificant. Investigations into similarity and likeness are not as productive as examinations of uniqueness and novelty. Video games do incorporate watching (of **cut-scenes**, of an avatar on a screen), reading (of text bubbles and back-stories), and listening (to music, sound cues, and dialogue). But what is far more interesting is how the medium functions via physical interactions between the player and the game machine, providing visual and auditory feedback to users and thus prompting them to continue their kineasthetic inputs. It is vital for the health and vibrancy of the field that work continues in this vein, enriched by the questions and conclusions of ethnography, rather than on a path of reduction, minimization, and assimilation.

Yet distinctions between reductionism and heuristics must be made carefully. While utilizing Aristotle may seem like an act of extension, Laurel described her project as heuristic, and her application of dramatic theory was to propose novel HCI design informed by the essential creativity and audience-orientation of poetics. There are still issues to be taken up in this work, however. Unlike other so-called narrative approaches, Laurel is not looking at the visual or auditory elements of video games. Rather, her analysis is on the level of HCI (comprising not just video games but all interactions between user and machine), which is why Aarseth (1997) found that her analyses "both suffer and benefit" (p. 136) from her use of *Poetics*. Aarseth takes up the problem of her application of enactment and narration in the video game, and yet when one looks closely at

her work, it is clear that Laurel is not attempting to delineate a formalism of video games or HCI based on dramatic theory. Her purview is still on the level of 'inside', because she is describing not the basic mechanics of video game design but the relationship between the coded game and the user facilitated by the interface and inputs of the computer.

Take for instance her examination of the qualitative element of thought, which in drama refers to cognition, emotion, and reason leading to a particular choice. In HCI, this comprises the processes of both the machine and the user. My experiences of playing games show that this is an accurate method of describing some moments of play. For instance, in *Half Life 2*, the world is programmed to offer multiple choices despite the fact that oftentimes there is only one correct option. When the player opts to open one door over another, they may be acting on the signals within the game, the fear they feel from not knowing what lurks behind each door, or the reasonable assumption that opening each door will likely reveal some new game element. When they open a door showing a room full of monsters, as coded by the programmers to occur after a certain choice by the user, the user will then react according to whatever thought this reaction prompted, and so on.

Laurel's application of *Poetics* is not perfect. Aristotle emphasized unity of plot, which only rarely applies to the stories in video games. Unlike the forms analyzed in *Poetics*, video game subplots rarely have a simple structure wherein the story unfolds in a series of causal reactive events. Rather, even the most plotted games, like *Half-Life 2,* give the user some opportunities to have

interactions and gameplay moments irrelevant to the ultimate conclusion of the game[i]. Unlike the tightly constructed plots demanded of novels and plays, video games are characterized by many moments of exploration and 'unnecessary' action that do not match Aristotle's emphasis on unity. Nevertheless, as a heuristic examination on the level of 'inside' the game, Laurel's analysis is not only valid but also novel as a perspective for those looking at the relationship between users and computers in games.

This relationship also plays a role in Landow (1997), who outlined the importance of textuality, and the connection of its traditional form to the virtual variety. But on what level can these ideas inform video game theory? Landow deliberately noted the differences rather than the similarities between poststructuralism and hypertext, and stated that his project was merely to highlight a trend towards decentralization and a networked rather than hierarchical structure of textuality. His differentiation between hypertext and what he terms 'nonlinear text' such as video games is pivotal to note, as the emphasis in hypertext theory is on writers and readers, as well as on anarchic relations between the two and new power dynamics that can result within a multisequential text. Many of the utopian proclamations made by Landow about hypertext highlight the inherently restricted nature of video games. Those who wish to study games from the level of 'behind' would be well-served by Landow's discussion of plurality, nodes, diffused authority, and open-ended texts, simply because commercial video games embody the opposite experience. The mechanics of games by definition prompt a basically linear experience with only

the semblance of choice by dint of potential options. The only correct paths are those preprogrammed in the game design process, a merely superficial plurality that resembles *Choose Your Own Adventure* in that there is basically one true ideal path[ii] and a bunch of others that lead you either to failure or circularly to either success or failure. Furthermore, the concept of the 'author' does not describe the methods by which most commercial games are developed[iii]. There is no subsequent democracy for the 'reader', and this term is so loaded it would be preferable to refer to the user of video games as what they are most explicitly, a player.

Rather than focusing on the rather restricted choices for the player, the chiefly deterministic nature of video game play, and the diminished agency of users in the face of coded game worlds, theorists would be better served by following in the vein of Jenkins' (1995) spatial analysis and investigating the exploratory potential of video games. This is where programming allows for freedom and differing game experiences; while *Half-Life 2* is characterized by a linear path from beginning to end, players have a fairly rich game world in which they can navigate without reaching the next plot point but instead building upon the thematic and atmospheric feeling of the game universe. Perhaps the most fitting description of game play potentialities comes from the game *Everquest's* tag line- "you're in our world now." Players play in a tension between heavily coded possibilities and increasingly rich and diverse game terrains as well as increasing potentials (afforded by game designers) for exploration.

Landow's investigation of narrative in hypertexts offers some interesting insights for scholars of video games on the level of the 'inside'. Just as with hypertexts, video games challenge traditional literature and commonly held understandings of plot by leaving behind a strict fixity and extent of plot. Nevertheless, video games do not necessarily mirror the open-ended nature of hypertexts. While some games can be played forever (such as *GTA 3*), others have a clear ending (such as *Myst*) or ambiguous ending (for example, in *The Sims 2* you can continue to play but the desire to play more is decreased as you have already attained maximum achievement). Conclusions and endings that players must construct for themselves have not been examined so far in the current scholarly literature, and, as Landow indicates for hypertexts, this is an interesting element of the medium. How much players must fabricate for themselves on the level of 'inside' the game is a fascinating question open to researchers at this time.

Outside of the lessons scholars can learn from the development of a new discipline, film theory and psychoanalysis are also useful to those interested in the 'inside' of the video game. While ludologists who scorn narrative may wish to consider Metz's (2004: A) argument that narrative was not an essential element of film but an evolved trait, those who are interested in avatars, identity and performativity may find the concept of suture interesting. Just as in cinema, the 'inside' level of the video game is built upon an ideology and history, and is characterized by the cinematic tension of subjectivity, made even more intense by role-playing, participation, and the frequent references to the player within the

game. If researchers isolate their analyses from cinema semiotics, Lacanian investigations can provide an added richness to the complex questions begged by the unique participatory nature of video games combined with a visual medium and many cinematic elements.

As noted in Chapter 2, the foundational texts of game theory do not offer an abundance of resources for current video game scholars. Perhaps the most important level that can benefit from reading these works is that of 'outside' the game, especially dealing with the relationship between virtual spaces and 'real life', including research into MMOGs, pervasive gaming, mobile gaming, and role-playing games such as *D&D* and live action role-playing games (LARPs). For these researchers, the line between play and a game, and the role of rule structures and the magic circle in this distinction, can lead to rich discussions of ethics, art, affect, and boundaries in game design and play. Restrictions on what constitutes play, for example that it should not be productive, may complicate discussions of economics in MMOGs. For those who examine the 'inside' of games, not too many insights are offered by classical game theorists, but for those who examine the 'below', this is the most pivotal of all disciples, especially design literature.

Salen and Zimmerman (2004) highlighted several vital components of the ludological project. The concept of meaningful play, for instance, ties into the structures that underlie games, especially when taken into consideration with the authors' four classifications of interactivity. Besides offering a new starting point for analyses, these different modes also bridge part of the gap between

ludologists and those who study the 'inside' of the game, as they prompt examinations into not just the machine but the relationship of the player with its systematic operations. Salen and Zimmerman also link the 'below' with the 'outside' in their discussions of the connection between systems and culture, which can hopefully broaden the formal approach to include an understanding of the open potential of video games.

Games on Three Levels: Gaps, Genres, and Game Specificity

Currently, the majority of scholarly video game studies articles and presentations (including this thesis) are prefaced by a legitimation of the form, and a defense of the importance of the medium to some imagined audience skeptical of its relevance. I would argue that this act of justification, which was indeed required in the infancy of the field, needs to be replaced in its adolescence by clearer statements on what level each analysis is operating. The field has a way to go until it can be like other mediums in their middle age (such as literature and film studies), wherein the methods and approach of an analysis can be summed up in one word. Clarification as to whether an approach involving narrative, HCI, film studies, or textuality is describing the 'behind', 'inside', or 'outside' of a game can only encourage both greater reflexivity on the part of the author and better understanding of the starting point of an argument on the part of the reader and critic.

Video game theory would also be well-served by mobilizations of a more diverse range of explorations into other fields and the integration of new scholars. These scholars include Lev Manovich and Marie-Laure Ryan. Manovich's 2001

work *The Language of New Media* describes the principles, aesthetics, and logics of new media forms, and in this broader project also critically examines several of our problematic terms, such as interactivity and simulation. His work details a different type of underlying mechanism, one that is shared by video games and other new media forms and is neither a representational nor simulational system but a database logic. His analysis of video games highlights several important traits of video games, such as their analogous nature to a spatial journey, their dual ergodicity (they oscillate between moments of action and moments of spectatorship), and the importance of the interface between the user and their screen presence. Despite the fact that this work does not often figure as a pivotal text in video game theory, it is rich in content and can complicate and enhance the current literature. It should be applied in examinations of the relationship between the 'below' and the 'inside' levels in video games.

Manovich's new media principles articulate some elements of video games that demand further exploration. What is the relationship between database logic and the formal properties of video games? How does game formalism account for the inclusion of unpredictable artificial intelligence within the programming? What role does the computer cosmogony play in the relationship of the player to increasingly realistic computer worlds?

His indication of the ultimate fallacy of the common-held utopian vision of interactivity also links questions of Louis Althusser's (1971) interpellation to video game structures, indicating another dearth in the research. What role can

philosophers and theories frequently mobilized within communications theory play in the examination of this medium? Baudrillard would seem like a logical theorist to explore when simulation plays such a vital role in the literature, and yet this thinker like many others has yet to be explored within the context of this form.

Ryan (1999, 2001:A, 2001:B) has also been grappling with the role of narrative in digital time for some time; her work deals with narrative and virtual reality, textuality and possible worlds. Like Manovich, her subject is broader than the video game but it includes the medium. Furthermore, her work broaches several of the terms that have complicated the vocabulary of the domain (note that in her 2001 book *Narrative as Virtual Reality*, her subtitle is *Immersion and Interactivity in Literature and Electronic Media*). Through her sophisticated theoretical tracings of three-dimensionality, the game text, ergodic design, and participatory interactivity, Ryan (2001:A) adds complexity to the polarities of the narratology/ludology debate. Though her theorizations weave through older media such as painting and literature, she does not turn to the simplified processes of remediation but rather theorizes a historical progression- an evolution of media and aesthetics that requires an enriched vocabulary for its theorization. Such a complex understanding of the nature of neoteric forms and their content, aesthetics, logics, and surrounding rhetorics is a valuable tool that has not yet been imported into video game theory, likely because it serves to complicate its thus far straightforward conceptions of textuality and narrative.

Those interested in the 'inside' level of the video game would be well-served by her work.

All three levels of study would be equally enhanced by examinations into both the generic conventions of the medium and the specificities of individual games. Some genres are strongly characterized by particular traits, for instance FPS and the first-person perspective, and studies into the generic similarities between FPS games may lead to greater insight into questions particular to this genre. Furthermore, comparison across genres that are characterized by similar elements in differing ways, such as RPGs and racing games and the role of disembodiment and identification, can perhaps problematize simplified understandings of these qualities. The concept of gameworld could also be complicated by making generic distinctions, because, as we have seen, the terrain of a puzzle game, even one as rich as *Myst*, is not in any way similar to the geography of Liberty City in *GTA 3* or the city streets of *NFS:U*. Cross-generic comparisons can only lead to richer descriptions of the possibilities of the medium rather than sweeping overgeneralizations.

There are many games that also transgress the boundaries between genres or that resist classification. *Guitar Hero 2*, for instance, is an atypical game that prompts a variety of questions on all three levels. This game, in which the player learns to master rock songs, has many unique traits, such as its guitar controller, and it begs renewed exploration into the relationship between participation, kinesthesia, and input devices. On the level of 'outside', the acquisition of the game's original creators by the mega-corporations Activision

and MTV bring up new questions into convergence and the political economy of the video game industry. And while this game is a particularly strong example of differences between each form in the medium, there are dozens of others, such as *Trauma Center*, *Electroplankton*, and *Dance Dance Revolution*, that can offer insight into questions specific to video games.

Game-specific analyses, considered within the genre of the game, can also prove enlightening. *Myst*, for instance, when taken to be a puzzle game, becomes an incredibly intricate puzzle that takes the genre to a new level. When considered alongside the fast-paced action and intense interaction of other games, however, it appears to be a totally flat and dull game. It is also a game that cannot be taken as representative of the entire medium, because the genres within video games are quite obviously different not only in terms of content but also on the level of game play and experience. For instance, the intensity of the physical commitment required by racing games like *NFS:U* is quite dissimilar to the play of *The Sims 2*, which is characterized by the oscillation between three different time speeds and pauses for shopping and house building. The role of NPCs in MMOGs like *WoW* could not be more different from the functional role of those in *GTA3* and *FFVII*. On the other hand, tailored studies into particular traits across genres can perhaps isolate the key elements that make up the medium, perhaps in terms of the avatar, the HCI, or the use of music. The point is that these can hardly be identified without first acknowledging the multiple differences between genres and the commonalities within them.

The emergence of genre theory in video game theory is thus not marked so much by a dogma of aesthetics but by the practical need for a more thorough analysis of what typifies the medium and makes it a rich form with multiple questions and research problems. Whether the rapid entrenchment of genre in video game was influenced by the codification of generic conventions in other media is up for debate, but as we have seen this intertextual and layered medium is characterized by a variety of genres. This is a domain of study rich in potential and currently wide-open for further scholarship.

To conclude, this chapter has highlighted two key concepts for the study of video games. The first is that video games have three broad but connected levels for study that require researchers to distinguish between mechanics, content, and culture and then to find how their questions unite these separate planes. The second is that the medium is comprised of a variety of forms that require distinction and tailored analysis. Conflict is bound to arise over what genres can be identified, which games are most representative or appropriate for study, and the exact way video game attributes differ. Nevertheless, any conflict that advances scholarship rather than stalemating it in intractable debates over the only way to study video games is a welcome change. The two methods are not comprehensive and totalizing approaches but rather entry points into richer debate and theoretically-rigorous analysis, two things even the most extreme 'narratologist' or 'ludologist' game scholars would agree is needed in the field.

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[i] This is an element of gameplay that has only increased with improved technology. While in Super Mario Bros 1 players could only play through a level in a linear fashion, Super Mario Bros 3 allowed players to run backwards through the game and fly to the upper limits of the sky, whether or not there was an essential game moment there or not.

[ii] For example, In The Sims 2 you can have a single parent, a homosexual couple, a boomerang family, an extended family, a nuclear family, etc. And yet, the satisfaction of needs and wants as well as the building up of skills in order to achieve promotions will reward the player with more money, more opportunities, and more aspiration points, i.e. the most winning course is set in programming, despite the opportunity to do other things.

[iii] There are games out there made by individuals or very small teams, often made with a political or social commentary as motivation. See for instance Gonzalo Frasca's games at http://ludology.org/staticpages/index.php?page=20041216022502102. However, most games are created by dozens of people, often working in different places and moments, just like films but without the equivalent of a director with a vision.

Chapter 5: Conclusions

Seeking a Conclusion

Janet H. Murray concluded her optimistically titled DiGRA 2005 presentation "The Last Word on Ludology v Narratology in Game Studies", by stating, "no one group can define what is appropriate for the study of games. Game studies, like an organized pursuit of knowledge, is not a zero-sum team contest, but a multi-dimensional, open-ended puzzle that we all are engaged in cooperatively solving" (p. 3). As the tapestry-like methodologies in chapter 4 indicated, a collaborative mindset would serve the discussion, theorization, and study of the unique elements of video game theory far better than the divisive, competitive approaches we have seen so far.

This thesis was premised on both the argument that video game theory is divided by an intractable debate, and on the position that this stagnating quarrel and subsequent drought in research could be remedied to a large extent by the development of methodologies based in both sound theory and on close examinations of video games themselves. This process began by sketching a broad outline of video game theory and then a still wider picture of the many disciplines that have been mobilized in the current theorization. Combined with a closer look at some specific games, these examinations highlighted the fallacy of cutting and pasting any epistemological assumption into video game theory, and of mobilizing fields without better understanding their foundation, terms, and concepts. As argued in Chapter 1, this did indeed lead to moments of flattened complexity (disregarding narratology in pursuit of a structuralist approach and

thereby ignoring the insights offered by those like Barthes on the project of structuralism), leaps of logic (using McLuhan to argue sameness rather than change), and the overlooking of the medium's unique elements (especially certain genres, such as racing games, action games, and puzzle games). Yet, the lessons to be learned from many of these examinations, especially in film theory, also emerged in this analysis. Video games have been compelling objects of study largely for their resemblance to other media, which is due to their liberal intertextual borrowing. Rather than viewing video game research as a revolution, it would be more productive to discern both the similarities and difference of both this medium and this field from others.

More than even the quotes from contentious academics, the literature review on games and genres in Chapter 3 highlighted the gaps in the research a decade into a period of sustained academic interest. This is the resounding impact the narratology versus ludology debate had on the field, even if it became apparent that the narratology field was one constructed only in ludological literature, and it is only now that the scholarship appears to be attempting to climb out of the chasm in between these two stances. Furthermore, despite their truncated nature, the investigations and case studies in this thesis were able to indicate many of the fruitful avenues for study available to video game scholars, and heuristic methodologies that could be used to initiate this research. One of these is the pursuit of better understandings of the role of genre in video games, from their roles to their novelty and sameness in relation to other media forms. Chapter 3 illustrated that the generic differences within the medium are plain, and

have even evoked vary degrees of academic interest. The recognition of traits that mutate or even disappear across genres can help draw out the complexity of the medium and prevent the discarding of games that do not fit under totalizing descriptions of the medium.

The employment of the concept bricolage was done in response to flattening, superficial, and totalizing analyses, and was mean to encourage instead complex, rigorous, and textured research that does not turn to "ologies" but to a variety of appropriate tools to develop the best approaches to its questions. This is especially suitable to the study of a medium that encompasses not only visuals and sound, or code and rule structures, or powerful impacts on and by real-world people, cultures, economics, policy, and law, but all three levels. No one type of research, not ethnography, not political economy, not textuality, not formalism, not narratology, can get at the true essence of games, because they have no one core but many planes. Many questions remain to be answered, of which only a few have been underscored here. On every level, questions about how players play and what makes the game a game remain. Aesthetics, emergence, logics, rhetorics, mechanics are all inherently questions about gameplay and what makes it work for players. In the end, this is what unites all researchers of video games.

Furthermore, uniting the field of video game research and resolving the epistemological misunderstandings implied in the narratology versus ludology debate is necessary not simply for rigorous, rich research but for the battle against game scholars' common enemies. The first of these foes is general anti-

intellectualism, tinted with a liberal helping of the sense that practice is superior to theory. This is exemplified by the article "Immersion Unexplained" in Issue 57 of *The Escapist*. Subtitled "Why do we lose ourselves in games? Don't ask a humanities professor", this article charges academics with discovering how immersion works but dismisses the work done thus far by video game theorists, noting that only a few seem interested in "improving immersive game design" (Varney 2006, p.21) and the rest are fixated instead on semantic quibbles. Varney, who is a game designer, sums up the long and complex narratology versus ludology discussion as "airy palaver" (p. 22) and "buffleheaded pedantry" (p. 22). He charges academics to "get a job" (p. 22), preferably in game development. Though he does isolate a domain of video game theory that has been very difficult to theorize, immersion, and actually provides a fairly concise version of the major thoughts and publications on the debate, the author is fixated on what amounts to the dismissal of academia and its work. This is simply representative of the derision felt by some game designers and industry heavyweights toward academics, and the sentiment that academics merely talk about games without ever playing them.

As Andrew Stern wrote in his response to Varney's article in the Grand Text Auto blog (http://grandtextauto.gatech.edu/2006/08/09/ill-fitting-smarty-pants/), the pursuit of knowledge is not by definition necessarily applicable to the building of anything, including immersive video games. And though the comments went on to debate the merits and pitfalls of Varney's article and Stern's response, the point that emerges is that while debate within this field is

lively and even at times contentious, at the very least it has produced and continues to inspire a variety of papers, positions, and conferences on the subject and others. Anti-intellectualism, on the other hand, only serves to flatten the importance of academic research and position those who engage in it, especially students, as self-important buffoons with inflated egos and purely self-interested agendas. It also does not adequately capture the nature of the field as one characterized by a confluence of academics from not just interdisciplinary humanities but also education, computer science, fine arts, mathematics, and science and technology studies (STS) as well as researcher/designers who merge both interests in a multitude of exciting and novel ways.

The second enemy of video game theory is a conglomeration of myths that have accompanied the explosion of video game popularity, including the myth of immersion and the myth of interactivity. Vincent Mosco (2004) defines myth not simply in terms of truth or falsity but as living or dead, and agreed with Levi-Strauss's (1978) conceptualization of myth as stories that allow people to cope with irresolvable contradictions in social life. While his book reviews myths revolving around the Internet and connectivity generally, Dyer-Witheford et. al.'s book (2003) specified myths particular to video games, including the myths of immersion and interactivity. The authors, for example, noted that "the disappearance of the interface with computers is among the chief goals of gaming" (p. 19), and described the fixation of game makers on seamless inputs, total immersion, and complete interactivity. Video game myths are, not surprisingly, often perpetuated by people in the industry. Corporate vice

president of the Interactive Entertainment Business division of Microsoft, Peter Moore, made a now-famous declaration in an E3 presentation[i]:

> "Next generation games will combine unprecedented audio and visual experiences to create worlds that are beyond real and they'll deliver storylines and gameplay so compelling that it will feel like living a lucid dream. The result is a state where you achieve the perfect mind-body equilibrium as you forget your physical surroundings and you become completely immersed in the game itself; this controller becomes an extension of your body, it becomes the gateway to the Zen of gaming."

Such heady declarations are not uncommon, and plenty of this utopian game rhetoric can be found in popular game and tech magazines, including *The Escapist* and *Wired*, with varying degrees of fervor and zeal. Interactivity, immersion, and seamless interfaces are partly so mythic because for some, like the myth of connectivity, it is a sort of Holy Grail. As a designer said in private communications with Dyer-Witheford et. al (2003), "one of the goals of a good game design is that the user becomes completely immersed into the experience so that they are not thinking that they are interacting with a computer... the design is so seamless, that they get into the character, and they completely lose sight of their surroundings and everything" (p.19).

But these issues are not only about the pursuit of better technologies. Discussions of immersion always seem to lead back to the nebulous idea of play and how to build ever more entertaining and engrossing games. These giddy proclamations tend to refer at some point to "the magic of gaming" (Dyer-

Witheford et. al. 2003, p. 20), which indicates that there is a gap between the wisdom of experience and what actually makes a game work. This represents an extremely rich area of research for game theorists. James Gee (2006) has noted that there is another dimension to interactivity, as it is not generated by the programming of the game, because "every player of Castlevania who does everything you can do in the game will in the end have done all the same things...what allow us to feel and recognize a different trajectory in a game like Castlevania are the story elements" (p. 60). While for Gee the sensation of interactivity in a game is due to the story, other scholars, designers, and players see the power and pleasure of gaming in other elements, for example within meaningful play. While the fun of the (good) video game is undisputed, what generates this is less understood, and thus myths abound.

Despite these hurdles, and of course the ever-present media debates correlating video games and violence, the future of video game studies is brilliant. In the year that this thesis has been researched and written, venues for game studies have expanded and gained both more attention and credibility. Books have been published, new faces and ideas have appeared, and affiliations have been forged. Games and the virtual communities they sustain have been in the media for more than just the familiar crusades against popular culture. Of course, there is much scholarly analysis to be done, and the debates surrounding the narratology/ludology debate are still as relevant as ever, despite dozens of expressions of distaste for it. Nevertheless, the visibility of this medium, combined with its increasing acceptance and an invigorated field of study that is

steadily growing and improving, all contribute to the sense that game studies has not only begun to build a bridge over the chasm between disciplines but are doing so with the bright eyes, wide smiles, and the triumphant, if somewhat exhausted, expression of the player who has reached a new level in a very challenging game.

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[i] See the Microsoft transcript of the Electronic Entertainment Expo (E3) 2005 at http://www.microsoft.com/presspass/exec/rbach/05-16-05E3.mspx

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Glossary

Aporia: Coined by Espen Aarseth (1997) in relation to video games to denote the obstacles one overcomes in the process of gameplay.

Avatar: The term used to describe the virtual representation of a person in a digital environment. It is derived from the concept of the avatar as an earthly manifestation of a Hindu deity in human or animal form.

Chat window: A graphical box in a virtual environment that allows textual discussion between participants, for instance between players of MMOGs.

Cheat site: A website devoted to providing game players with specific and comprehensive tips on how to complete the goals of a game, from finding a game item to beating a level to defeating a monster.

Cinematic: An animation at the beginning or throughout video games that serve to introduce or further the narrative of the game.

Cut-scene: Another word for cinematic, especially applicable to animations in the middle of the game that advance the plot.

Dungeons and Dragons (D&D): A pen-and-paper fantasy role-playing game (RPG) developed and published by Gary Gygax and David Arneson in 1974.

Epiphany: Coined by Espen Aarseth (1997) in relation to video games to denote the solutions one identifies in order to overcome aporias, or obstacles, in the process of gameplay.

Ergodic: A term used by Espen Aarseth (1997) to describe nontrivial work of a cybertext use, who "effectuated of a semiotic sequence" through a physical movement that cannot be explained by concepts of reading.

Game mechanics: The set of rules that guide the gameplay and outcomes of the game.

Game modifications (mods): Sanctioned or illegal modifications made to the source code or game engine of commercial games by players. One of the best known game mods is Counter-Strike, which was made from the Half-Life engine and eventually became as famous as the original game.

God games: A game that allows its player to create and control virtual creatures and spaces, from an omniscient position.

Level: A stage in a game, normally ordered in progressing difficulty.

Level-ups: A moment in which the player succeeds in completing one level and progresses to the next.

Ludus: According to Caillois (1967), games fall on a continuum between *ludus* and *paidia*, depending on how rule-structured they are. *Ludus* describes the end of the spectrum that is more goal-oriented and confined, and chess is often exemplified as a pure *ludus* game.

Multi-User Dungeon (MUD): A text-based multi-player computer game that can comprise of role-playing games, fighting quests, and social chat.

Non-player character (NPC): Also known as bots (from robots), NPCs are characters in games that not controlled by other players but by game code. In MMOGs, players need to interact with NPCs in marketplaces and in battles.

Paidia: According to Caillois (1967), games fall on a continuum between *ludus* and *paidia*, depending on how rule-structured they are. *Paidia* describes 'pure play', or games that can have morphing rules and flexible structures, such as children's games.

Point-of-View (POV): The perspective through which a player of a game sees the action. This can often be switched between first-person (through the eyes of the character) to from-behind to from-above.

Power-ups: An item in a video game that imbues the player with a special ability, typically for a limited amount of time.

Role-playing game (RPG): A game in which a player plays as another persona. The emphasis in these games is usually upon staying in character and collaborating with other players.

Sandbox action game: A game in which space and room for movement are of special importance, and which exhibit a groundbreaking approach to game space.

Serious games: A category of game in which the objective is not primarily to entertain but to simulate real-world issues, events, and practices, in order to inform users at the same time as providing a diverting experience.

Turn-based play: Gameplay that is characterized by players taking turns in fighting, with enemies having a chance to strike back in between turns.