ON PERSPECTIVES AND ERGODICS:

VIDEO GAMES AS LITERATURE

A Thesis Submitted to the College of

Graduate Studies and Research

In Partial Fulfilment of the Requirements

For the Degree of Master of Arts

In the Department of English

University of Saskatchewan

Saskatoon

By

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ABSTRACT

Video games are currently stigmatized in general culture as a lesser form of entertainment, and much of the current scholarly debate on them is unable to identify those games that also function as works of literature and to perform appropriate critical analysis. This thesis aims to rectify the above through two separate engagements. The first engagement demonstrates that the current scholarly debate over avatars can be redirected into a more productive debate on perspectives: the way in which a player is situated within a game and how this alters how the game story is told. The second engagement is with Espen Aarseth's concept of ergodic literature, and thus demonstrate how this unique property of video games allows for the traversal of a video game's narrative. These two issues when considered together provide a method for determining whether a video game is attempting to also be literature.

ACKNOWLEDGEMENTS

I would like to extend my foremost thanks to Dr. Allison Muri. Merely agreeing to be my supervisor for a thesis of this nature would have been enough, but Dr. Muri also provided aid invaluable in helping me avoid many potential scholarly pitfalls. Without that aid, this thesis would not be of its current calibre. I would also like to extend my thanks to Drs. Ron Cooley and Lisa Vargo for their assistance as graduate chair during my time in the graduate program, and to Dr. Raymond Stephanson for his assistance as graduate chair prior to my entry into the graduate program. The combined assistance of these three individuals allowed for the initiation and completion of this thesis in a timely manner.

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INTRODUCTION

For many of the readers of this thesis there are a variety of questions likely to come to mind. Can video games really be called literature? Can we study them using literary techniques? Can such analyses yield useful results? The problem in trying to answer these sorts of questions is that we must first answer a much more basic one: what constitutes a video game? The answer is anything that we can play on a computer, console, hand-held device, and so on. Of course, if a video game refers to every single game ever made for such devices, then we have a rather large library of works to attempt to analyse, and only a narrow range of critical and analytical tools with which to derive meaning. In contending with this problem, I must ask: is it of any use to analyse every single video game in existence with a narrow range of tools? No, probably not.

With this in mind, it is then easier to answer the first of my questions. Can video games really be called literature? Though there are exceptions, for a number of games, the answer is no. Can we study the exceptions using literary techniques? For some of them, the answer is yes. Can such an analysis yield useful results? Again, yes, depending on the game. However, this thesis has two much more specific goals. The first goal is to clarify existing paradigms and criticism surrounding what are generally referred to as avatars so as to provide a definition that takes into account the narrative function and qualities of the avatar itself, and to avoid a definition that is there merely to feed further theoretical models. The second goal is to prove that the critical tools currently used to explain the game aspect of video games also help to explain how to understand the story, narrative and themes of a video game where appropriate. With this explanation, we can then access a wealth of previously untapped narrative material. Therefore, in accomplishing these goals, we come to understand that how one plays through a game is itself the means by which a video game has the potential to be called literature. With this understanding, we can then interpret these games as such where appropriate.

It is important to recognize that some video games are literature, yet it is also difficult to define what literature is. As Terry Eagleton writes, "it would not be easy to isolate, from all that

has been various called 'literature', some constant set of inherent features" (*Literary Theory* 8).[1] We cannot look for a set of universal constants, for it is highly unlikely we will find any; as Eagleton writes, "the so-called 'literary canon'… has to be recognized as a *construct*, fashioned by particular people for particular reasons at a certain time. There is no such thing as a literary work or tradition which is valuable *in itself*" (10). Nevertheless, we still use the word "literature" to refer to certain works because it demarcates the types of works we wish to study from those that are not literature. There are a number of video games that possess and utilize features and techniques common to traditional literature; they draw on the same tropes, tell many of the same stories, and are concerned with expressing similar issues. Acknowledging this commonality is important for an adequate interpretation of such video games, for to do otherwise is to ignore or misread their content.

The difficulties that arise when attempting to interpret a video game are actually the same as when attempting to interpret a work of literature. As with literature, critics and scholars must develop techniques that can be used to interpret the given works. But such techniques cannot spring from nowhere. Instead, we must develop such techniques through first developing crude ones and then refining them to allow for more precise analysis. For this purpose then, we must use techniques that are appropriate to the analysis of video games. Certainly it is quite possible to apply narratological theory to games, as some have done and continue to do, or to even justify interpretation of games by reaching as far back as Aristotle's *Poetics*. However, these approaches, even where they may have some merit, are all limited due to a fundamental problem: they do not preconceive the fact that the work they are analysing must be played.

Espen Aarseth solved this problem in his groundbreaking work *Cybertext: Perspectives on Ergodic Literature* (1997). As he states in his introduction,

> The concept of cybertext focuses on the mechanical organization of the text, by positing the intricacies of the medium as an integral part of the literary exchange. However, it also centers attention on the consumer, or user, of the text, as a more integrated figure than even reader-response theorists would claim. The performance of their reader takes place all in his head, while the user of cybertext also performs in an extranoematic sense. During the cybertextual process, the user

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[1] Eagleton then writes, "in fact it would be as impossible as trying to identify the single distinguishing feature which all games have in common" (*Literary Theory* 8). See below why current video game scholars would take exception to this statement.

will have effectuated a semiotic sequence, and this selective movement is a work

of physical construction that the various concepts of "reading" do not account for.

This phenomenon I call *ergodic*, using a term appropriated from physics that

derives from the Greek words *ergon* and *hodos*, meaning "work" and "path." (1)

It should be noted that Aarseth speaks not of video games specifically, for he includes works

such as the *I Ching* (ca. 1000 B.C.) in his definition as well. However, it is clear when reading

through *Cybertext* that video games were his primary interest, and video games are where all of

his current scholarly efforts are located. In defining what ergodics is, Aarseth provides a major

foundation for the interpretation of video games.

From ergodics, Aarseth then derives a means by which one can distinguish ergodic works

from nonergodic ones. As Aarseth continues, "in ergodic literature, nontrivial effort is required

to allow the reader to traverse the text" (1),[2] as compared to nonergodic literature, "where the

effort to traverse the text is trivial, with no extranoematic responsibilities placed on the reader

except (for example) eye movement and the periodic or arbitrary turning of pages" (1-2). This

distinction is important because it explains the difference between ergodic and nonergodic works

in straightforward, yet concise, terms, as opposed to weighing down the terminology with

unwieldy theoretical models. This straightforward understanding then paves the way for

explanations of how the properties of a specifically ergodic work can be, or are, utilized within a

game. The term ergodic answers the conceptual problem of the difference between something

such as a video game and something such as a traditional work of literature; one must actively

reconfigure the game in order to access it, which changes the entire basis by which one

subsequently interprets and criticizes it. With this understanding of ergodic literature in mind,

Aarseth's explanation of nontrivial effort then allows us to understand and analyse the specific

actions and processes one undertakes when playing a video game. In understanding both of these

elements, we can then refine them into more precise techniques for analysis of video games.

The above is clear enough, and seems a sensible way to proceed in order to attempt to see

some video games as literature. Aarseth's concept of ergodic literature provides us with a means

to see why something such as a video game should be approached differently from a traditional

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[2] Aarseth speaks here of effort as an input. The output one yields is obviously dependent on the competence of the player, the quality and depth of the work in question, and so forth. The yielded output is no better or worse than that of non-ergodic works; the reason for the distinction between ergodic and non-ergodic works is that the output is achieved through a different means.

work of literature. Unfortunately, this approach has not yet been put into practice because of an academic rivalry that stems almost entirely from an inability to determine in an effective manner what games should be analysed, and with what tools. Steven E. Jones in *The Meaning of Video Games: Gaming and Textual Strategies* provides a succinct overview of this matter of academic rivalry. As he states,

> Around 2001, a wholly dedicated academic area arose, much of it indebted to the work of Espen Aarseth… This school, with which were associated Gonzala [*sic*] Frasca, Markku Eskelinen, Jesper Juul, among others… became known as "ludology," [3] from the Latin word for game, in order to focus on its attention to play, rules, and constraints, when it comes to understanding games. (3-4)

He continues, "ludologists deliberately placed video games in the larger family of games in general, cultural practices descended from go or chess rather than *Gilgamesh* or Chaucer" (4). By contrast, the other side of the debate, later known as narratology[4] and consisting of scholars such as Janet Murray[5] and Henry Jenkins, "treated games as one among a whole range of cultural forms of media expression" (*The Meaning of Video Games* 4).[6] From this arose the two main sides to the debate in video games. One argued that games were their own privileged form, while the other suggested the techniques that were available to interpret other forms of media also applied to them.

The debate between ludology and narratology has unfortunately not allowed for the development of better analytical tools because both camps have sought a means to isolate all video games in existence under their respective umbrellas. These positions become untenable once one performs even a cursory analysis of different types of video games. Consider *Tetris*, for example. For those who have managed to avoid ever having played *Tetris*, here is a very brief overview. The goal of the game is to take blocks of various shapes and shift them around as they fall from the top of the screen so as to form complete rows along the bottom, which will then be

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[3] Gonzalo Frasca's article "Ludology meets Naratology: Similitude and differences between (video)games and narrative" was the founding work for ludology.

[4] See also Ken Perlin, "Can There Be a Form between a Game and a Story?" and Michael Mateas, "A Preliminary Poetics for Interactive Drama and Games" for an application of narratological concepts, sometimes referred to as "cyberdrama."

[5] See *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*, the founding work of narratology.

[6] There have been attempts, mostly on the part of ludologists, to find parallels between how we play traditional games and video games, such as Jesper Juul's *Half Real: Video Games between Real Rules and Fictional Worlds*. It is common to link back to J. Huizinga's *Homo Ludens: A Study of the Play-Element in Culture* and Roger Callois' *Man, Play, and Games* for commonalities.

eliminated when an entire row is complete. Otherwise, the blocks will end up forming incomplete rows that gradually accumulate along the screen vertically. The pace with which the blocks fall increases over time, eventually causing the player to be unable to shift the blocks around fast enough to stop them from piling up to the top of the screen, thus ending the game. The evaluation of how well the player has played is a combination of how many rows of blocks have been eliminated and how long the player has lasted.

Based on this description, *Tetris* is clearly a video game and not a work of literature. Now, let us consider *Sid Meier's Alpha Centauri*, in which the player takes on the role of one of seven faction leaders that have left Earth on the United Nations starship *Unity* and have crash-landed on a planet orbiting the star Alpha Centauri. The player must then guide his or her civilization to victory over the other six faction leaders. Each of the seven faction leaders represents an ideology, and this ideology is expressed both in the construction and development of one's society and from the quotations the leaders provide for every technology that is researched. As an example, consider the following quotation provided by Chairman Shen-ji Yang, leader of The Hive, when the player has researched the technology Polymorphic Software:

> Technological advance is an inherently iterative process. One does not simply take sand from the beach and produce a Dataprobe. We use crude tools to fashion better tools, and then our better tools to fashion more precise tools, and so on. Each minor refinement is a step in the process, and all of the steps must be taken.
>
> -- Chairman Shen-ji Yang
> "Looking God in the Eye"

Clearly Yang is speaking philosophically about the problem of technological advancement. However, this statement is but one facet of Yang's ideology: the enlightenment of self. This statement suggests that one must develop sufficient wisdom in order to foresee this eventual future, and also have sufficient wisdom to be comfortable with the futility of trying to want technological advancement to occur by any other means. This quotation from *Sid Meier's Alpha Centauri* refers to the fact that, after having crash-landed, all the civilizations are restricted to basic technologies. The options available to the player to wage war, terraform the planet, and construct a civilization are limited by these technological restrictions, and only through playing the game can one access the better options. As the player plays through the game and researches

more advanced technologies, he or she is treated to quotations from Yang and the other faction leaders that illuminate more and more of each of the leaders' ideologies.

If we now compare *Tetris* and *Sid Meier's Alpha Centauri*, we see that they are very different games, and therefore the experience of playing each is very different. *Tetris* is a game with no greater purpose than to try and be a game. *Sid Meier's Alpha Centauri* is a game that also brings in ideologies and conflict between them in order to drive a story that serves as a guiding principle to the game. Therefore, bringing both of these games under one critical umbrella ignores the vast potential of interpretation for each. Just because they are games does not mean that they were created for the same purpose, nor does it mean that they employ the same techniques to draw in the player. They are completely different games, and the tools one uses to analyse them *must* eventually diverge in order for such analysis to be meaningful.

What, then, makes these games different? The answer is narrative. Gerald Prince in *A Dictionary of Narratology* defines narrative as "the recounting (as product and process, object and act, structure and structuration) of one or more real or fictitious EVENTS communicated by one, two, or several (more or less overt) NARRATORS to one, two, or several (more or less overt) NARRATEES" (58).[7] With this definition of narrative in mind, it is obvious that *Tetris* does not have one. The blocks falling from the top of the screen do not represent an event and no narrator relates that activity to the narratee, the player. There have been attempts to see otherwise, most notably Janet Murray's argument in *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. She argues, "a game is a kind of abstract storytelling" (142) and "games can also be read as texts that offer interpretations of experience" (143). In this line of thinking, she considers *Tetris*

> a perfect enactment of the overtasked lives of Americans in the 1990s–of the constant bombardment of tasks that demand our attention and that we must somehow fit into our overcrowded schedules and clear off our desks in order to make room for the next onslaught. (144)

This interpretation is problematic because not only is there no textual evidence to support it, but there is actually nothing in *Tetris* to textually analyse. By contrast, all four of the games I analyze, as examples of games that can be studied as literature, utilize a written storyline,

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[7] This is but one definition. Scholars working with video games will frequently refer to Gérard Genette's *Narrative Discourse: An Essay in Method* and Seymour Chatman's *Story and Discourse: Narrative Structure in Fiction and Film*, among others, when wanting to bring traditional narratology into their reading of video games.

partially developed through human-readable text and partially through machine-readable code; they additionally all utilize to varying extents traditional literary techniques to communicate a specific meaning to the player. Recall Yang's quotation about the iterative process of technological advancement, and how this is an expression of his mindset, his desire to see humanity use reason and willpower alone to understand the universe. For a further example of his mindset, consider this quotation from Yang when the player has researched Bio-Engineering:

> Why do you insist that the human genetic code is "sacred" or "taboo"? It is a chemical process and nothing more. For that matter **we** are chemical processes and nothing more. If you deny yourself a useful tool simply because it reminds you uncomfortably of your own mortality, you have uselessly and pointlessly crippled yourself.
>
> -- Chairman Sheng-ji Yang
> "Looking God in the Eye"

These quotations serve to characterize each of the faction leaders. Yang's philosophy is of personal self-improvement through spiritual and physical enlightenment. Though extreme, it parallels those of the other faction leaders, who all equally represent some sort of ideal. When playing as one of the various faction leaders, the player will be forced to see the world through the lens of the particular ideology espoused by the leader. Since nothing like this occurs in *Tetris*, clearly it and *Sid Meier's Alpha Centauri* cannot be interpreted together in the same way. The narratologist can do little of use with *Tetris*, as Janet Murray demonstrates, and the ludologist can do little with quotations such as the above from Yang except ignore them, which defeats the purpose of interpreting such a game.

In order to successfully interpret games like *Sid Meier's Alpha Centauri*, we must see them in a new way. We must consider what happens when Aarseth's concept of ergodic literature is applied to a game with a narrative. What happens when one plays through *Sid Meier's Alpha Centauri* and is confronted by the above quotation from Yang? Even further, what happens when one plays through from Yang's point of view, and is thus expected, even required, to see the world as Yang sees it? How does this experience, this ergodic experience, change the way we understand Yang? Or, to put it another way, how can the game *use* this ergodic capability to access its narrative, and thus provide a literary experience?

To answer the above, I will divide my analysis of video games into three chapters. In the first chapter, I will enter the current debate on the issue of avatars in video games. As it stands currently in academic and non-academic discussion related to video games, an avatar is the player's virtual embodiment within the game. This chapter will reveal that there is much confusion over what constitutes an avatar, and that there is insufficient explanation as to *why* there are differences between types of avatars and what the purpose might be in games having these differences. To clarify why these differences are in place, I will propose that video games currently use four perspectives, which I will refer to as the avatar, the assumed persona, the player character and the overseer. Each perspective will have its own sub-chapter devoted to explaining how the perspective works in *Bioshock*, *Deus Ex*, *Planescape: Torment* and *Sid Meier's Alpha Centauri* (hereafter *SMAC*) respectively. The reason for doing this is to explain the options each perspective offers to the game developers. For a suitable analogy, consider point of view in storytelling. We have four such views: first-person major, first-person minor, third-person omniscient and third-person limited. Each of these four points of view offers different options to the storyteller as to how he or she will tell the story, and thus how the reader will experience the work's narrative. My concept of perspectives functions in a similar way: each offers different options for both the game developer and the player. In first demonstrating that these four perspectives can function as a mechanism for storytelling, it is then easier to understand how and why perspectives are the correct means by which a player can enter a game world and access its ergodic properties.

As mentioned previously, Aarseth's concept of ergodic literature and his explanation of nontrivial effort are both central to how the player explores the narrative of a video game, and thus the second chapter will be an analysis of *how* the exploration of the game is used to access the game's narrative, utilizing the aforementioned games to varying extents. This analysis will then explain why such games are literary through demonstrating that this exploration allows for the use of traditional literary techniques in an ergodic manner. This analysis will first require an entry into the ludology/narratology debate, and in so doing offer an alternate and more effective approach to interpreting games that utilize narratives. Afterwards, this analysis will examine briefly matters important to gameplay such as why one chooses dialogue options from a list, why one may not have any list of choices, and so on. These details are intrinsic to the game's effective delivery of narrative because they require the player to input nontrivial effort in

different ways to achieve results specific to the story and themes the game addresses. Therefore, a clarification of these matters is not only a "back to basics" approach, but also a necessary endeavour. In understanding how the ergodic properties of a game allow the player to access the game's narrative, we come to understand how these games then *use* this relationship in order to further their story and the themes they wish to address.

The preceding analysis of perspectives and ergodics separately will explain the existence of these two concepts within video games and demonstrate how they function individually, though they operate in parallel during actual play. With an understanding of how each concept operates separately, it is easier to then see how the constituent parts operate together. Therefore, the third chapter is an analysis of perspectives and ergodics operating together within the four aforementioned games. This analysis will reveal how each type of perspective both limits and enhances the player's ability to access the game's narrative by changing the relationship between the game and the nontrivial effort that the player must input. This relationship thus contributes in a meaningful way to the manner in which the story within a given video game can be told.

While it should become evident that these games share many of the same qualities as traditional literature, I am in no way advocating that these games are examples of Great Literature. These games are, however, good examples of the use of literary techniques in an ergodic manner through each given perspective. Therefore, this thesis will link common literary techniques between traditional literature and those video games that utilize them. At the same time, this thesis will demonstrate that any reading of these games must take into account that the work is ergodic and employs perspectives. Keeping all this in mind will allow scholars to perform readings of these games that more accurately reflect the intricacies of the medium.

CHAPTER 1
ON PERSPECTIVES

1.1 The Necessity of a New Approach

The overall purpose of this thesis is to prove that some video games can be regarded as literature. This is allowed for through the interplay between ergodics and narrative while being shaped by the perspective employed. This matter is complex; there is no scholarship that performs such a reading of video games, and much of the scholarly discussion over avatars is rather disjointed. The reason for this is that there is insufficient explanation as to *why* there are differences between types of avatars and what the purpose might be in games having these differences. To clarify why these differences are in place, I propose that there are four perspectives currently utilized in video games, which I will refer to as the avatar, the assumed persona, the player character and the overseer. Each perspective has its own sub-chapter devoted to explaining how the perspective works within *Bioshock*, *Deus Ex*, *Planescape: Torment* and *SMAC* respectively; each sub-chapter is also accompanied by a brief summary of the game itself in order to help situate the subsequent analysis. The reason for the above approach is to explain the storytelling options each perspective offers to the game developers.

The use of the word "perspective" to categorize what people regard as avatars is to provide a break from previous theoretical debates, and to see them as serving a new purpose, that being to provide storytelling options to the game developer. The four perspectives are not based on a schematic, or on a set of qualities that all games have, for such a discussion is well beyond the scope of this thesis. In addition, a schematic-based method will become obsolete once new theoretical and technological storytelling techniques are developed that sit outside such a model. The four perspectives proposed here are based on how games situate the player as an agent within the unfolding narrative. Due to time constraints and a limited use of some traditional narrative theories (see Chapters 2 and 3), this analysis ignores multiplayer games generally and also ignores the multiplayer components of the games I have selected. In general, I have found

that most such games are not concerned with narrative, with telling a story, and as such most are better examined strictly with the tools of ludology. But for those games that deal with narrative, that can be regarded as literature, I promote this theory of perspectives as a simpler and more direct way of understanding how it is the player enters the game world and interacts with it, and thereby accesses the game's narrative.

The above system is more effective because it defines perspectives according to how they can function as a mechanism for storytelling. Each of the perspectives has a purpose, and offers specific advantages for the delivery of narrative when employed in a video game. With an understanding of how each perspective functions, it then becomes possible to see how and why one might use one perspective over another. Each perspective is accompanied by an in-depth analysis of its implementation in one specific game in order to explain how it functions and what are its major qualities. Once we understand that these four perspectives can function as a mechanism for storytelling, it is then easier to understand how and why perspectives are the correct means by which a player can enter a game world and access its ergodic properties.

Now let us see the current state of academic criticism on the avatar, and why the above approach is necessary. Perhaps the most promisingly titled work to explain avatars and their use as a storytelling device is Marie-Laure Ryan's *Avatars of Story*. Ryan sees the avatar as bound up within interactivity, which she defines as "an umbrella category that covers a wide variety of relations between a user and a text" (107), and in doing so, she "propose[s] to distinguish four strategic forms of interactivity based on two binary pairs: internal/external and exploratory/ontological" (107). Ryan considers the internal/external pair to refer to whether the user identifies with a presence within the game, or if the user's presence is situated outside the game world (108), and the exploratory/ontological pair describes whether the user can make an "impact on the destiny of the virtual world" (108). The four forms that result from this pair seem promising. However, the basic problem with this schematic is that it hinges on interactivity. Ryan quotes Chris Crawford, who states in his article "Assumptions Underlying the Erasmatron Storytelling System" that interactivity "mandates choice for the user. Every interactive application must give its user a reasonable amount of choice. No choice, no interactivity. This is not a rule of thumb, it is an absolute, uncompromising principle" (191). Of course, this is true only if interactivity itself is important. Interactivity can very much be *used* by the game in order

to explore narrative, but it is by no means essential,[7] and there are certainly very effective ways of allowing the player the opportunity for such exploration that would become less effective were they more interactive.

There is also confusion as to what an avatar even is. For example, Julian Kücklich states in "Perspectives of Computer Game Philology" that in order to understand the concept of narrative we must understand that

> different games feature different kinds of avatars, from the god-like figures in games like *Civilization* and *Age of Empires*, represented only through the mouse pointer, to parties in several characters in roleplaying games, and to 'internal focalizers' in first-person shooters such as *Quake*.

This seems straightforward enough; after all, we must indeed understand how we occupy a given space within the game, and Kücklich's linking the avatar to Umberto Eco's concept of the model reader from his work *The Role of the Reader* is certainly apt. The problem with this conception of avatar is that it is based on a localization of the person's awareness within an entity, whether that is the mouse pointer, a group of characters, or an individual character. In doing so, it conflates multiple types of avatars together and regards objects as avatars that really are not. *Sid Meier's Civilization* and *Age of Empires*, two games Kücklich references, utilize an isometric point of view, defined in *Understanding Video Games* as "a method for presenting three-dimensional objects in a two-dimensional form. Technically speaking, the angles between the projection of the three axes are all 120 º and there is no vanishing point" (Nielsen, Smith, Tosca 111). The isometric view of *Civilization* or *Age of Empires* does not automatically mean that those games present a "god-like" avatar, and the mouse pointer certainly does not represent it.[8] Neither of these games uses the isometric view as anything more than the most effective way of deploying a user interface for a strategy game, whether turn-based or real-time.

In fact, a representation of a physical entity is not even required. Consider *Zork*, for example, where the game world is constructed entirely through description, and all actions are handled through typed instructions. A physical representation of "you" is entirely unnecessary, even when one is told, "you are in the dark" or "you have been eaten by a grue." The description-based construction of "you" conveys all the information necessary to play *Zork*. In

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[7] See Chapter 2 for details.
[8] Both of these games use the avatar perspective. See 1.1 The Avatar.

addition, when *Zork* was first released in 1979, a graphical representation of the player's character was impossible because the hardware of the time had insufficient memory to render all the items described during a game session.

Understanding that a graphically represented character, one with which the game can interact directly, is not a requirement for avatars then allows for a profound shift in how a perspective functions. At the same time, one's graphically represented character in the game world has no impact on the functionality of the perspective in question. Because of this, the point of view (POV) used in a game also subsequently becomes irrelevant: a first-person POV, one which looks from a character's eyes, is no more relevant to a perspective than a third-person POV, which views the character externally, or isometric POV. These typically become a preference on the part of the developer as to how the player views his or her character, as opposed to automatically changing the way the game developers tell a story and a player experience's it.[9] Games that use the same perspective can therefore have radically different ways of allowing the player to occupy space in the game world, and they can do this without changing the way their narrative is delivered to the player. This understanding then drastically simplifies the discussion of avatars down to a much smaller list of intrinsic qualities that are useful for delivering narrative.

Yet the matter of how one tells, is told, or involves oneself in the story is still very confusing. Anticipating this confusion, Andrew Burn in *Computer Games: Text, Narrative and Play* provides an interview in which Rachel, a seventeen year-old player, describes Cloud from Squaresoft's *Final Fantasy VII*:

> It's just basically you play this character who's in this like really cool like
> cityscape and you have to, er, and he finds out… and, er, he escapes because he
> finds out that, um, he's, because he starts having these flashbacks, and he escapes
> from this city because he's being pursued I think, and, um, he has to defeat this
> big corporation and try and – oh yeah, Sephiroth, he's this big military
> commander, and you have to go and try to stop him, 'cos he's trying to raise up all

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[9] For example, *The Elder Scrolls IV: Oblivion* is exactly the same game whether played from a first-person or third-person POV because the way the player experience's the game's narrative does not depend on POV. Having said that, a certain POV can aid a game in the delivery of narrative. For example, the majority of *Max Payne*'s cutscenes are delivered stylized as a film noir comic book, most of which show Payne himself. *Max Payne*'s in-game third-person POV thus provides continuity when the game transitions to a cutscene.

the beasts, and you do this by collecting material, which you can use for magic

and stuff, and use your own weapons, and – (quoted in *Computer Games* 72)

In commenting on this response, Burn notes, "as well as being a protagonist in this conventional sense, Cloud is the player's embodiment in the game, the avatar" (72). To be more specific, Rachel implicitly sees Cloud as occupying two separate conceptual positions simultaneously. Cloud is a character with an identity separate from the player. Yet, in Rachel's description of the things "you" can and must do, as Cloud, to stop Sephiroth, Cloud is clearly also an identity the player inhabits. However, Cloud invites the player to make this conflation because he is a character within a video game.

These excerpts give us a fair overview of the lack of consensus and purpose behind the avatar in academic circles. As stated previously, if viewed as a mechanism for storytelling, the qualities behind the perspective in question, as well as why it might have been used over one of the others, become clear. The following sub-chapters therefore present a brief close reading of the appropriate game, and touch tangentially on a few related games that utilize the same perspective. The differences between each perspective should become obvious once one considers the context of the story being told.

1.2 The Avatar

It's time to either run the table, or go home empty. [Andrew] Ryan's got the

genetic key to Rapture. We get that from him, and we get out of this hellhole. We

don't, then you and I are ghosts. Now would you kindly head to Ryan's office and

kill the son of a bitch? It's time to finish this.

The above quotation comes from 2K Games' *Bioshock*, and is spoken by Atlas, who purports to be a friend to Jack, the character who acts as the player's avatar. *Bioshock* takes place during the mid-1960s, with the player flying over the Atlantic when the airliner on which he is a passenger suddenly goes down into the ocean. The player swims from the wreckage to a nearby lighthouse and enters a submersible sphere, which leads the player to Rapture, an underwater city founded by Andrew Ryan on the principles of individualism and free-market capitalism as seen in Ayn Rand's *Atlas Shrugged*. The player takes a radio from the sphere and begins communicating with Atlas, a friendly voice who offers advice on how to survive in Rapture, now

that all its inhabitants have become "spliced up" due to having taken too much ADAM, and are thus psychotic and attempting to kill Jack. As stated by Dr. Suchong, one of the main researchers behind ADAM, in a tape recording entitled "Plasmids are the Paint," "ADAM is a canvas of genetic modification… but plasmids are the paint." ADAM derives from a sea slug parasite that gradually overwrites the individual's DNA with its own. In so doing, it allows plasmids to be integrated into the individual. These plasmids are fuelled by EVE, a modified supply of ADAM. Jack's EVE supply is consumed as plasmids are utilized, and the player must continually recover more hypodermic needles of EVE to restore this lost supply. Taped recordings, such as the one above by Suchong, are scattered throughout Rapture, and collecting and playing them gradually tells the backstory of how a mobster named Frank Fontaine came to Rapture and developed plasmids to corner Ryan's economic monopoly over all aspects of life and society in Rapture. Ryan eventually abandons his capitalist and non-interventionist ideals in order to destroy Fontaine, and thus also brings about Rapture's downfall through an ensuing civil war. Atlas guides the player through the collapsing underwater city, continually making such requests using the phrase "would you kindly."

The game continues with this exploration, the player seeing ghostly figures that show Andrew Ryan being courted by the exotic dancer Jasmine Jolene, who becomes pregnant with Ryan's child. When the player finally confronts Andrew Ryan, Ryan reveals that the child is in fact Jack, that Jack's memories are implanted, and that Jack has been conditioned to take any orders upon hearing the phrase "would you kindly." Rather than be defeated by Atlas, Ryan chooses to die on his own terms and commands that Jack kill him. After Ryan's death, Atlas then reveals he is really Frank Fontaine and attempts to have Jack killed. Afterwards, the player receives help from Dr. Bridgette Tenenbaum, one of Fontaine's other chief scientists, who removes Jack's mental conditioning, and helps him to eventually kill Fontaine.

Note that in the epigraph to this sub-chapter, which occurs just after the player arrives at Hephaestus, Jack provides no response to this order to kill Ryan. In addition, there is no mechanism for the player to provide a response on Jack's behalf. In fact, there is not even a way to refuse the task, short of quitting the game. In other words, Jack can offer no opinion of his own, ever. The reason the player would want Ryan dead is because Ryan has been trying to kill the player, as Jack, ever since Jack arrived at Rapture. A reduction of the player's narrative

options is key to the proper functioning of the avatar perspective because it makes the experience of gameplay the most immediate of the four perspectives.

Before discussing the avatar perspective proper, note first in the preceding paragraph the division between the player's involvement in the game's narrative and Jack's. For example, the player may want Ryan dead, but the reason for this is the threat on Jack's life, not the player's. The most significant difference between a protagonist in non-ergodic literature and one in a video game is the relationship between the player and protagonist. In non-ergodic literature, there is a clear division between the person reading/listening/watching the work and the protagonist;[10] what the reader thinks about the events occurring in the narrative is distinct from what the character thinks. By contrast, the division between the player and the character used for the given perspective is far less clear. The motivations for performing a certain series of actions usually belong to the player. However, the effects from the resulting actions, such as being shot, rewarded, etc., occur to the character in-game. All video games invite a conflation to some extent between the player and the character(s) he or she plays, as mentioned earlier in the interview with Rachel discussing Cloud in *Final Fantasy VII*. This conflation occurs because it is impossible for a player to become in totality the character in question, or to be a completely separate entity from the character. Some of the literary qualities of a video game are accessible when the player is conflating him- or herself with the character in question, and some are accessible only when the game divides the player from the character. Interpretation of a video game as literature, no matter the content in question, must thus recognize where and when the player is intended to conflate and divide his or her identity with the given character.

There are various definitions of what constitutes an avatar, but the most useful is Toby Gard's in "Building Character." As he states, "the Avatar is a cipher, an empty vessel waiting to be filled and given purpose by the player." Given the above quotation of instructions from Atlas to Jack, Gard's definition is accurate. I wish to suggest, however, that Gard's definition is not entirely correct because the avatar does *not* allow the player to give it purpose. When Atlas tells Jack, and therefore you, to kill Andrew Ryan, it is notable that there is no mechanism by which

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[10] We could argue that breaking the fourth wall constitutes an exception to this rule. Though I would agree, I would argue this technique only functions as such because there is by default such a wall in place, therefore the breaking of it draws attention to itself.

one can provide an emotional or intellectual response to this that the game will acknowledge.[11] At most, one's response to given situations can be only ones that the player experiences personally; the game does not and cannot receive such information in any form when it utilizes the avatar perspective. In other words, Jack cannot be given purpose because he cannot have a personality. If Jack has a personality, if he is shy, aggressive, charismatic, wimpy, brave, dextrous, then he is distracting from the ergodic actions the player is taking. The avatar's chief purpose is to engage the player ergodically as much as possible. Fleshing out the character that acts as the player's avatar distracts from such engagement because the game developers must then communicate that character's motivation for taking the actions required of the player by the game. This is not always necessary for good storytelling; stories that involve the avatar perspective allow the player's thoughts and feelings towards the unfolding narrative to be of greater concern to the player than having to additionally regulate how such reactions mesh with those of the character acting as the player's avatar. Therefore, for the player the avatar is only a conduit to the game's narrative; it offers no other functional capability. I would thus modify Gard's definition and suggest that the avatar is a blank slate waiting to be filled by the player, yet at the same time it is characterized by an inability on the player's part to give it either purpose or personality; it must remain a blank slate. The avatar being a blank slate subsequently allows the player to most immediately immerse him- or herself within the game.

These characteristics are how Espen Aarseth in "Genre Trouble: Narrativisim and the Art of Simulation" is able to note that the dimensions of the body of Lara Croft of *Tomb Raider* are "irrelevant to me as a player, because a different-looking body would not make me play differently. When I play, I don't even see her body, but see through it and past it" (48). For the avatar perspective, the on-screen representation is irrelevant to the gameplay. Therefore, Lara Croft's body is irrelevant to both gameplay and story because the game does not use it beyond being a selling point from a marketing perspective. If Croft herself were to make reference to her own appearance, then she would fit in the assumed persona (see Chapter 1.3). However, her appearance is not used, at least in the first *Tomb Raider* game, for storytelling purposes. As such, Aarseth is correct to state that Croft's appearance does not matter.[12] The problem with this

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[11] One *can*, however, engage in a series of ergodic actions. See Chapters 2 and 3 for details on how this sort of engagement with the work affects the way narrative is delivered.

[12] It is certainly possible to see Lara Croft as an avatar that serves a purpose beyond being useful either for storytelling, or for ergodic purposes. Most scholarly work on Lara Croft does not focus on these matters, and so is

reasoning is that Aarseth chooses to link his reading of Lara Croft to an explanation that sees a game as not textual, and therefore sees academics as "attempt[ing] to reform games into a more acceptable form of art, literature or film; i.e., as narratives" (48-9). Here Aarseth conflates the properties of the avatar, specifically the lack of provision for a personality on the part of the character that acts as the player's perspective, with supporting a theoretical position that suggests that all games are not narratives, are not literary, but are solely games.

Unfortunately, Aarseth's position goes largely unchallenged due to the inability of other scholars to recognize the properties of the avatar perspective and understand their advantages as a means for storytelling. Let us recall the absence of personality discussed earlier. This absence is an effective means to not break the player's sense of direct involvement with the game; the player can feel as though he or she is in the game, that he or she is Jack Ryan, not that he or she merely plays the role of Jack Ryan. It is also a quick and easy means of relaying information to the player while still remaining in the context of the game. If one accepts that one cannot have any say in matters in games that use an avatar perspective, it is much simpler to communicate both the ergodic objectives of the game and the narrative themes, for the player does not need to concern him- or herself with the motivations of the character that functions as the avatar. In *Bioshock*, ADAM rewrites a person's DNA, which then allows for the operation of plasmids, a series of powers ranging from being able to set people on fire, telekinesis, invisibility, and disruption of electronic security systems. ADAM is collected by Little Sisters from dead people who have been consuming it. Little Sisters are little girls that have been transformed into vessels for storing the ADAM due to being implanted with the parasitic sea slug. When the player is first presented with the opportunity to harvest ADAM from one of the Little Sisters, there is a shouting match between Dr. Tenenbaum, the creator of the Little Sisters, and Atlas regarding whether the player, as Jack, should harvest the ADAM from the Little Sister. Acquiring ADAM is important since it allows the player to upgrade Jack's plasmids and acquire new ones, thereby making him more effective in combat and increasing the player's tactical options. Harvesting the ADAM will yield more of it, but the Little Sister is disintegrated in the process, leaving behind only the implanted sea slug. Freeing the Little Sister will yield less ADAM, but is the moral of the two choices. When Atlas states, "that's not a child, not anymore it ain't," the player is unable

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not highly useful to analyse in depth here. See "Gender and Videogames: The Political Valency of Lara Croft," "Mobile Identities, Digital Selves, and Post Cinematic Selves," and "Does Lara Croft Wear Fake Polygons?: Gender and Gender-Role Subversion in Computer Adventure Games" for a small sampling of other approaches.

to offer any sort of response, either agreeing or disagreeing with Atlas, that the game will recognize precisely because any sort of response would give Jack a personality, and thus destroy *Bioshock*'s use of the avatar. Furthermore, Atlas states, "listen to me, boyo, you won't survive without the ADAM those… things are carrying. Are you prepared to trade your life for the lives of my wife and child for Tenenbaum's little Frankensteins?" Tenenbaum's response is to cut off Atlas and throw Jack a plasmid, offering a way to free the Little Sister from her condition, and stating the player also should because "I will make it worth your while," which she does every so often by having cured Little Sisters leave assorted gifts of ADAM, ammunition and other plasmids. At this point Tenenbaum walks away and Atlas goes quiet, leaving the player free to make whatever choice he or she wishes.

Of note is that the player's motivation for whichever choice he/she makes is irrelevant. The player can harvest the ADAM from the Little Sister, rationalizing that he/she really does need it. Or the player can be a sadist and finds this opportunity a means of expressing it. Or the player could merely not think much of Tenenbaum and thus see no problem with killing the Little Sisters. However, a game using the avatar perspective does not keep track of the player's motivations for his or her actions. Throughout this scene the developers are attempting to force the player to have a moral dilemma about harvesting the ADAM, given that the Little Sister is whimpering throughout this whole scene, and then ends up backed into a corner when the player approaches, a frightened look in her eyes. But this dilemma is deliberately outside the physical confines of the game itself and is intended to take place purely in the player's mind.[13]

Based on her selection of games, Marie-Laure Ryan uses "internal-ontological interactivity" to refer to the avatar perspective. She sees internal-ontological interactivity as a type of interactivity in which "the user is cast as a character situated in both the time and space of the virtual world. His actions determine the fate of the avatar, and by extension, the fate of the virtual world" (*Avatars of Story* 116). Certainly this fits my definition of the avatar perspective, but it also broadly encompasses another perspective that serves a completely different function when the player traverses the narrative of a game, and the two deserve to be evaluated separately. As such, I wish to instead remind us of the chief advantage of the avatar perspective, that it is an impersonalized character waiting to be filled by the player, yet at the same time the avatar perspective is characterized by an inability on the player's part to give the impersonalized

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[13] See Chapter 3 for details.

character either purpose or personality. We should remember that the reason for doing so is to allow the player to consider the circumstances in which the given character finds him- or herself as though they are occurring to the player within the game's narrative, which functions by removing any intermediaries of personality on the part of said character. This allows the player to experience **all** actions directed at the player's avatar as though they are directed at the player him- or herself.

1.3 The Assumed Persona

> JOE GREENE. Then let me ask YOU a question. What do YOU think about the summary executions happening on the very streets of New York?
>
> J.C. DENTON. I'd call it civil unrest.
>
> JOE GREENE. Let me be more pointed. How does it feel to be ordered to murder civilians just because they support the fastest-growing political movement in this nation's history?
>
> J.C. DENTON. In a democracy, armed rebellion is criminal, not political.
>
> JOE GREEN. Rebellion, as the Declaration of Independence tells us, is not only our "right" but our "duty" when we have suffered "a long train of abuses and usurpations."

Ion Storm's *Deus Ex* is set in 2052. The world is currently suffering from terrorism and global instability. A plague known as the Grey Death ravages much of the populated world. Key government agencies and officials are spared from being infected by the Grey Death through a vaccine known as Ambrosia. The vaccine is currently distributed by UNATCO, the United Nations Anti-Terrorist Coalition, formed and headquartered on Liberty Island after the Statue of Liberty was decapitated in a bombing. The player plays as J.C. Denton, an employee of UNATCO, who is currently the second nano-augmented human; his older brother Paul Denton, also employed by UNATCO, is the first. Nano-augmentation relies on nanites, cellular-sized machines that circulate within a person, to provide cyborg-like capabilities. For example, J.C. Denton starts equipped with an illumination augmentation located behind the eyes, an internal health monitor and targeting system – equivalent to the heads-up display (HUD) in other first person shooters (FPSs) – and the Infolink, a system for receiving microwave satellite

communications directly into the agent's brain, as well as providing a live video transmission of whatever the agent currently sees. More sophisticated augmentations, such as speed enhancements and regeneration, become available later on. Nano-augmented agents are intended to replace their mechanically augmented predecessors, such as Gunther Hermann and Anna Navarre, who have had their organic parts, such as joints and muscles, swapped out for previously high-tech mechanical ones. Mechanically augmented agents are inferior to their nano-augmented counterparts because, like all machines, they constantly break down and require maintenance, and because they are socially stigmatized due to their mechanical appearance. Nano-augmented agents do not require maintenance, for their augmentations exist in symbiosis with their organic bodies, and they bear few outward signs of their augmentation.

The game begins with the player required to retrieve barrels of Ambrosia that were headed to Liberty Island, but stolen by National Secessionist Forces (NSF) terrorists. In the process of recovering the barrels, the player discovers that UNATCO is a front for Majestic 12, a group of global conspirators who have been seizing governments around the world. Majestic 12 is in turn an offshoot of the Illuminati, a group of wealthy businessmen who previously ran the world in secret, and whose organization is descendent from the Knights Templar, but who have since been overthrown by Majestic 12. As J.C. Denton, the player must set the world right through uncovering the conspiracy, helping to develop a cure for the Grey Death, and defeating Bob Page and Majestic 12. The game presents to the player three ways of ending the game, all of which deal with the philosophical issues behind the combined issues of mass surveillance and global power. One ending has the player restore the Illuminati, who return the world to late 20th century capitalism, in which the masses have limited freedom while a wealthy few rule the world in secret. The second ending has the player destroy all global communications infrastructure, which causes a new dark age and thereby prevents power from being wielded on a global scale. Finally, the third ending has the player merge with Helios, an AI consciousness, and administer the world as a benevolent dictator.

The scene in the epigraph to this sub-chapter occurs in the Underworld Tavern just after the player has arrived in New York to assist Paul in recovering the barrels of Ambrosia. Note Joe Greene's insistence on asking what YOU think, only to have J.C. Denton respond for the player in a manner that, most likely, does not mesh with the player's actual views. Though the player, as Denton, is free to converse or not with Greene as he or she wishes, Denton will speak his own

mind on behalf of the player once conversation is initiated. To put it more technically, once conversation is initiated, a pre-recorded dialogue between the two will play automatically and cannot be interfered with by the player. Though there is the option before this point either to ask for Greene's help with Denton's current assignment in New York, or dismiss him as irrelevant, both options result in Greene posing the above question, and Denton answering in the same way, that the people are committing unlawful rebellion and must be dealt with. As it is quite likely the player does not sympathize with Denton's view that summary executions are a result of "civil unrest," Denton's response, and the player's lack of ability to input his or her own views, seem on the surface to be highly jarring.

Let us contrast this with the avatar perspective outlined above. Jack in *Bioshock* offers no opinions of his own; he has no personality, and thus acts solely as a conduit for the player to the game's narrative. J.C. Denton in *Deus Ex* has his own personality; he states how he sees order as more important than the rights of citizens. But he does not express this personality freely. As I mention above, this conversation with Greene occurs only if the player initiates it. Though there are a number of conversations and events in *Deus Ex* that the player must experience in order to complete the game, this is not one of them; it is entirely possible to play through the whole game without ever encountering Greene. Only the player's intervention at this specific instance causes the above exchange to occur. Marie-Laure Ryan regards internal-ontological interactivity as a type of interactivity in which "the user is cast as a character situated in both the time and space of the virtual world. His actions determine the fate of the avatar, and by extension, the fate of the virtual world" (*Avatars of Story* 116). This definition fits both Jack and Denton perfectly. However, in *Bioshock*, Jack's lack of intervention in the scene with Tenenbaum and Atlas over harvesting ADAM out of the Little Sister is one way of demonstrating how Rapture has deviated from Ryan's ideals, how society has fallen apart. The above exchange between Denton and Greene in *Deus Ex*, in which Denton speaks his own mind independently of the player, reveals the state of affairs in the United States in 2052, when *Deus Ex* is set. Citizens' rights are not respected, there is mass rioting, and Denton, an agent for UNATCO, sees no problem with executions in the streets in order to maintain order. Both are equally valid techniques of revealing narrative to the player, yet both are clearly different techniques for the delivery of narrative, and cannot possibly be grouped under one category precisely because they function differently and offer different options to the game designer.

Deus Ex uses what I call the assumed persona perspective because in such a perspective one assumes or takes on the persona of the character in question. The *OED* defines persona as either "an assumed character or role, *esp.* one adopted by an author in his or her writing, or by a performer," or "the aspect of a person's character that is displayed or perceived by others." Either definition is applicable to the assumed persona perspective; *Deus Ex* utilizes the latter definition because Denton's personality is revealed throughout the game.[14] In this case, the player is required to see the world as Denton does, to see that maintaining law and order is necessary. Is the player denied free will, the ability to see the world through his or her own eyes, unfiltered by the perspective of another? This is not only the case; it is also precisely the point. As Ken Perlin states in his article "Can There Be a Form between a Game and a Story?" in describing watching *The Sopranos*,

> The power of the work lies in pulling us into the point of view of a character who makes moral choices wildly at odds with the choices that most of us would make. In some strange sense we "become" Tony Soprano for a time, a very novel and unsettling experience for most of us.
>
> This transference can be effected in such a focused and powerful way only because we agree (when we start watching) to give over our choice-making power, and to passively allow the narrative to lead us where it will. When this is done well, then we are drawn inside the head of one character (or in some cases several characters). In that mode we are taken to places that we might never reach in our actual lives. (12-13)

Because the player inhabits an assumed persona that has its own personality, it can offer a different way of thinking that the player does not have, and therefore allow the player to see the world from that mindset without the experience being awkward or cumbersome. Denton's view that order should be maintained even at the cost of people being executed can then be used as a springboard by the developers to extrapolate on how the world has come to be the way it is, and how Denton can possibly hold the views he does. At the same time, an assumed persona cannot think and act totally independently of the player. If this were the case, it would be impossible to

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[14] BioWare's *Mass Effect* also uses the assumed persona, though it utilizes the former definition. In *Mass Effect*, the player is expected to act out either a Paragon (good guy) or Renegade (bad guy) version of the protagonist, Commander Shepherd. The game's ending is determined both by the choice the player makes at the climax of the game, and whether the player acted out more so as either a Paragon or Renegade throughout the game.

assume the persona of the given character, because the character would always perform his or her own actions independently of the player. For example, if Denton had his own complete personality independent of the player, he might start executing people if the need for such arises. Having control taken from the player so totally would likely cause the player to reject the fiction of the game and quit playing in disgust.[15] Therefore, the assumed person carries some limitations on how much or little of the persona the player is intended to assume, dependent on how much the developers wish to push the perspective on the player.

Daniel Kromand's conference paper "Avatar Categorization" covers the characteristics of the assumed persona fairly well, though he refers to it as the *closed avatar*, so named because "the player has no control over the avatar's mind, and change is only possible through a predetermined narrative progression" (401). In their conference paper "Characters in Computer Games: Toward Understanding Interpretation and Design," Petri Lankoski, Satu Heliö and Inger Ekman cover how this change is important, though they are speaking more about how the goals of a game affect a character's motivation. Nevertheless, as they state,

> dramatic change can explicitly be expressed through the goals of the character. If the change is natural, so will the goals be. In Deus Ex JC Denton's goals in the beginning of the game express his commitment to his employers [UNATCO]. In the course of action JC's goals change as he (and the player) finds out details that contradict his earlier beliefs concerning his employers and his own values. This change is expressed as new goals.

The goals of the game are important, for they provide the necessary ergodic action to motivate the character's change. However, this does not adequately explain how this change is expressed to the player. The player will possibly begin the game understanding that Denton's worldview is flawed. Through playing the game and seeing the world through Denton's perspective, he or she will come to understand *why* Denton's worldview is flawed and *how* it came to be flawed. Such opportunities do not exist for the avatar perspective, for Denton as an avatar would not be able to express his worldview, and thus the player would not be able to see how it came to be flawed. As such, the player's engagement with Denton as an assumed persona provides an alternate way to tell a story in a video game as compared to the avatar perspective. This engagement occurs

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[15] See Chapter 3 for an analysis of how *Bioshock* strips away control temporarily in a manner that enhances its narrative.

because the player spends the entire time playing as Denton[16], and this engagement therefore differentiates him from other characters with whom the player interacts. The assumed persona makes Denton stand out beyond being a flat or round character because the player gradually comes to see the world through his or her eyes. This change is not one the player witnesses the character undergo, but rather one that the player assists the character to undertake. Undergoing what Kromand calls the "predetermined narrative progression" (401) allows the player to experience the same events that lead to this change in the character.

If Kromand's *closed avatar*, as distinct from his *open avatar* (see 1.4 The Player Character), works well, why not just use that term? The reason is that Kromand attaches a second pair of identifiers to his closed/open dichotomy. Kromand sees open and closed avatars as also allowing for either *central* and *acentral identification*, drawn from Murray Smith's *Engaging Characters: Fiction, Emotion and the Cinema*. As Kromand sees it, "whenever movie viewers identify with the onscreen character in an emotional first-person perspective, and thus see the character *as themselves*, the identification is called *central*, whereas it is called *acentral* identification whenever the viewers see the character – emotionally – as a third person" (401), and thus he sees such identification functioning in a similar manner for video games. On the one hand, Kromand's reasoning is sound, for his statement suggests that, in the case of *Deus Ex*, one identifies with Denton when exploring and fighting, for those are handled from a first-person point of view, while dialogue is handled through a third-person point of view. However, linking the identification to point of view is problematic. There are games, such as *The Elder Scrolls: Oblivion*, which allow for point of view to be switched from first- or third-person at the press of a key. There are also games, such as *Command and Conquer: Renegade*, in which dialogue on the part of the player's assumed persona is delivered while the player still occupies a first-person point of view. I would suggest instead that the player's identification with the character in the given perspective is unimportant, especially given that *all* perspectives will allow for some identification by the player to the character in question. Kromand also recognizes the problems with his own schematic, for he states of the acentral-closed avatar that it "is the most problematic and the least used" (404). Because of all of these troubles, it seems most sensible to regard the

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[16] Some games require that the player use more than one character of the same perspective type during one playthrough of the game. However, this is far from typical.

assumed persona as the perspective in which one assumes the persona of the character in question, one who holds an identity separate from that of the player.

1.4 The Player Character

DEIONARRA. You see a strikingly beautiful ghostly form before you; her arms are crossed, and her eyes are closed. She has long, flowing hair, and her gown seems stirred by some ethereal breeze. As you watch, she stirs slightly, and her eyes flicker.

NAMELESS ONE. "Greetings…?"

DEIONARRA. Her eyes slowly open, and she blinks in confusion for a moment, as if uncertain where she is. She looks around slowly, then sees you. Her tranquil face suddenly twists into a snarl. "You! What is it that brings *you* here?! Have you come to see first-hand the misery you have wrought? Perhaps in death I still hold some shred of use for you…?" Her voice drops to a hiss "…'my love.'"

NAMELESS ONE. "'My love?' Do I know you?"

DEIONARRA. The spirit makes a begging motion with her hands. "How can it be that the thieves of the mind continue to steal my name from your memory? Do you not *remember* me, my love?" The ghost stretches out her arms. "Think…" Her voice becomes desperate again "…the name *Deionarra* must evoke some memory within you."

NAMELESS ONE.

    1. "No, I'm sorry. My memories are lost to me."

    2. Lie: "Yes…yes, the name *does* sound familiar."

    3. "I *think* I feel the stirrings of memory… tell me more. Perhaps your words shall chase the shadows from my mind, Deionarra."

    4. "It does not. Farewell… Deionarra."

Black Isle's *Planescape: Torment* is set in the *Dungeons & Dragons* universe's *Planescape* campaign setting. *Planescape* deals with a series of interconnected planes of existence, where certain energies or beliefs are dominant. For example, fire is dominant on the

Elemental Plane of Fire, while chaos is dominant in Limbo, where all matter is formed purely by the will of every person, both on individual and collective levels. The hub to all these planes is Sigil, the City of Doors, so named because it is a city of portals that are activated by anything imaginable. Specific physical objects one carries, beliefs one holds, a tune one hums at a specific time, and even actions one takes, can all act as the trigger to opening a portal. Such portals usually link to objects on the same plane; therefore, most of Sigil's portals allow one to move around only within Sigil itself. However, some portals allow access to other planes. It is possible to travel back and forth through these planes regardless of where one starts provided one has the necessary trigger for the portal, and one can survive in the appropriate environment. For example, Limbo, as mentioned earlier, requires one to have the necessary willpower to shape the environment to one's liking. Failure to do so results in one drowning in Limbo's soupy mass. Other planes, such as the Elemental Plane of Fire, are hostile to ordinary humans for obvious reasons.

Planescape: Torment begins with the player, as the Nameless One, a human male, waking up in the Mortuary of Sigil. Morte, a floating skull, approaches and asks the player what he or she remembers. Since the player obviously does not remember anything, Morte explains it would be best to figure that out. Morte notes that the Nameless One is covered in tattoos and scars, and that there are instructions tattooed on his back that state that the player should first attempt to seek out Pharod. During this search, the player gradually discovers that there have been hundreds or even thousands of incarnations prior to the current one. The player later discovers that a night hag, Ravel Puzzelwell, took the first incarnation's mortality from him, and that the Nameless One's mortality has gained a life of its own, becoming The Transcendent One, and continually sends shadows to try and kill the Nameless One. The player must then discover how to reach The Transcendent One's lair in the Negative Energy Plane in order to confront it and somehow be rid of it from the planes.

The above exchange between the Nameless One and Deionarra, a lover of one of the earlier incarnations known as the Practical Incarnation, demonstrates the defining attribute of the player character perspective: the player can set the personality of the character he or she inhabits. When compared to the assumed persona, which is an entity that holds an identity separate from that of the player, the player character is its mirror image. The degree to which the player can set the personality of the player character, as with the separation of identity for the assumed persona,

is dependent on the game that utilizes the perspective, but the ability to set the personality is a clear requirement. This coincides with Kromand's definition of the *open avatar*, so named "since it has no personality traits without the involvement of the player" (401). Having said that, one is not always presented with dialogue choices in *Torment*, but they are presented frequently, and there is never a moment where the Nameless One takes over the conversation and speaks on the player's behalf. Additionally, these choices are not there for flavour. In the case of the epigraph for this sub-chapter, Deionarra is unstable, having been dead for several decades and confined to the area around her bier in the Mortuary. Her instability is compounded by the fact that, throughout this time, her immortal lover has been returned to the Mortuary after every death, and every single incarnation has forgotten her once more. Such a predicament hardly improves Deionarra's disposition. Nevertheless, she holds important information due to who she is and what she has become in death. However, the player needs to be careful about how to retrieve this information from Deionarra. At the same time, the game will keep track of how the player has handled such conversations, as well as other actions he or she has taken. For this conversation, manipulating Deionarra psychologically to get the information the player needs will make the Nameless One slide towards evil, while reasoning with Deionarra will make him slide towards good. Lying and tricking her is a chaotic act, while being honest with her is a lawful one.

Torment is based on 2nd edition Advanced Dungeons & Dragons (D&D) [17] rules for its gameplay, and therefore also uses it for determining character personality. D&D handles this through alignment, which it bases on the twin axis of morality and ethics. One's morals can be good, neutral, or evil, while one's ethics can be lawful, neutral, or chaotic. These characteristics are fleshed out in further detail in the *Player's Handbook 3.5*, used for the 3.5 edition of D&D, though its implementation of alignment is similar to 2nd edition. With regard to morality, "good characters and creatures protect innocent life. Evil characters and creatures debase or destroy innocent life, whether for fun or profit" (*Player's Handbook* 104), and "people who are neutral with respect to good and evil have compunctions against killing the innocent but lack the commitment to make sacrifices to protect or help others" (*Player's Handbook* 104). For ethics, "lawful characters tell the truth, keep their word, respect authority, honor tradition, and judge those who fall short of their duties. Chaotic characters follow their consciences, resent being told

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[17] AD&D was rolled into D&D in 2000 with the release of the 3rd edition D&D ruleset. The system as a series is therefore referred to as D&D.

what to do, favor new ideas over tradition, and do what they promise if they feel like it"
(*Player's Handbook* 104). Additionally, "someone who is neutral with respect to law and chaos
has a normal respect for authority and feels neither a compulsion to obey nor a compulsion to
rebel. She is honest but can be tempted into lying or deceiving others" (*Player's Handbook* 104).
All characters will fit one of these parameters along each axis, creating an alignment. For
example, chaotic good people are characterized by performing good deeds, but feeling that the
laws that govern society get in the way of such activities. Neutral evil people have no concerns
with harming people to get what they want, but have no specific regard either for or against the
laws of society or of nature. Lawful neutral people see law, order, tradition, and so forth, as
needing to be upheld, but are relatively unconcerned with the moral repercussions of such
attitudes. Someone who is neutral along both axes is referred to as True Neutral in 2nd edition
rules and in *Torment*. Such an alignment represents someone who is either uncommitted in either
a moral or ethical manner, or someone who chooses deliberately to keep all such aspects in
balance. This alignment is the starting one in *Torment* because the Nameless One awakes in the
mortuary with no recollection of who he is. Therefore, until the player develops the personality
of the Nameless One, the former definition of True Neutral is initially in use: someone who is
uncommitted in either a moral or ethical manner.[18] *Torment* uses the D&D alignment system to
keep track of how the player has acted and modify the player character's personality. Actions the
game judges to be good, evil, lawful or chaotic will result in the player's alignment gradually
shifting in such a direction. With enough actions in the same direction along a given axis, the
game will notify the player that the Nameless One's alignment has changed to the appropriate
alignment.

That is not to say that the implementation of such a system for categorizing personality
automatically means that a game is utilizing a player character perspective. For example,
regarding *Baldur's Gate*, also based on 2nd edition AD&D rules, though the player sets his or her
character's alignment at the beginning of the game, Diane Carr writes,

> I tested the limits of the game by playing as 'Bad Joan', a homicidal ingrate, and
> found myself thwarted almost immediately. Playing out the first chapter of
> *Baldur's Gate* bent on evil did little to alter the game's plan. If I persisted in

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[18] It is possible after beginning the game that the player attempts to act good and evil, as well as lawful and chaotic,
or acts in a noncommittal manner. If such actions were to take place, then the second definition, where one actively
maintains balance between good, evil, law and chaos, would be in use.

trying to kill the 'wrong' person, my character would be obliterated by a much
more powerful game character. Limits are also imposed by the dialogue options,
because they are supplied by the game. In most conversations there is an obliging
or curious option, a noble response, and a rude or villainous retort. If my
protagonist is too rude, or too violent, none of the game's other characters will
help her. The only effective way to play Bad Joan as a real villain is to have her
obey and conform where expedient – for her to manipulate others via an
affectation of virtue. Obviously this would mean that she was nasty, but it would
also mean that her dominant trait (evil) would reside solely in the perceptions of
her user. (*Computer Games* 51)

Though *Baldur's Gate* and *Planescape: Torment* are both based on the same game rules, this
difference between the implementation of the rules is due to a difference in game perspective.
Carr notes that the player's character in *Baldur's Gate* does not seem to be able to project an evil
identity in any manner that would allow the player to complete the game. Indeed, the fact that the
evil of the character "would reside solely in the perceptions of her user" (51) coincides with the
explanation I provide earlier for the avatar: the player's motivation for whatever choice he/she
makes is irrelevant to the gameplay itself. I would therefore argue that *Baldur's Gate* implements
an avatar perspective despite the fact that it uses the same rule system as *Planescape: Torment*.
Taken more generally, the implication of this conclusion is that it is not the game rules
themselves that are of concern to which perspective is employed in the given game, but how the
game interprets and utilizes its own rules. *Planescape: Torment* has the player's alignment
switch as a result of an accumulation of actions taken on the part of the player. By contrast,
alignment in *Baldur's Gate* is fixed. A lawful good character that is rude to everyone, constantly
lies and cheats people, and murders whomever he or she pleases will forever remain lawful good.
If the game does not recognize the player's actions as having an impact on shaping personality,
then the game cannot be said to implement the player character perspective.

1.5 The Overseer

Human behavior is economic behavior. The particulars may vary, but competition
for limited resources remains a constant. Need as well as greed have followed us

to the stars, and the rewards of wealth still await those wise enough to recognize
this deep thrumming of our common pulse.

<div align="right">-- CEO Nwabudike Morgan,
"The Centauri Monopoly"</div>

Sid Meier's Alpha Centauri begins in the year 2101 on a planet orbiting Alpha Centauri, referred to occasionally as Chiron, but usually as Planet. Humanity has first arrived on the United Nations starship UNS *Unity*, a colony ship from Earth.[19] However, when the ship arrives, the crew separates into seven factions organized around competing ideologies. The *Unity* is damaged and breaks apart over Planet. Each of the faction leaders escapes with his or her crew and crash-lands his or her escape pod. From here, each leader must compete with the others to build up his or her faction into a civilization. While doing so, the factions research new technologies that allow them to better survive on Planet.

However, Planet is not like Earth. Its indigenous life form, known as mind worms, acts as a defensive mechanism to repel the foreign humans, and constantly harass the factions as they attempt to build up their civilizations. In addition, the naturally occurring xenofungus encroaches on human territory, and must be cleared so that the land may become usable for human purposes. As players expand across Planet and discover more advanced technologies, they come to learn that Planet is sentient and becoming catatonic. Only through eventually merging with the planet's consciousness can the player's faction stabilize Planet's catatonia. However, it is not necessary to achieve this during the course of a single game session; it is possible to defeat the rival factions through conventional means, and be informed of having to eventually merge with the planet in an epilogue to such a game session.

The opening epigraph to this sub-chapter is from Nwabudike Morgan, leader of Morgan Industries. Morgan's statement is a matter of philosophy. All human activity, whether monetary, academic, or romantic, and so forth, can be traced back to a competition for limited resources. These constants remain even when stranded on Planet, even when the context of humanity's entire world view has changed completely. According to Morgan, those wise enough to recognize this commonality in all human affairs are then best suited to exploit it, and in so doing to lead humanity into the future.

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[19] All of the *Civilization* games allow players to construct a spaceship that travels to Alpha Centauri as one of the means for achieving victory over the other civilizations. As a number of developers of *Civilization II* went with Sid Meier to found *Firaxis Games*, *SMAC* beginning on Alpha Centauri renders it a spiritual successor to the franchise.

We should note the context in which Morgan's statement is set. It occurs when the player selects Morgan Industries as the faction to play. This statement is not in response to any given action within the game itself.[20] The epigraphs provided for the other three perspectives are taken from dialogue. Yet in *SMAC*, dialogue is simply not present. Faction leaders do not debate the points of their ideology with one another, as one would expect in attempting to prove the merits of one's ideology. Certainly they conduct diplomacy with the player, but they all use the same scripted phrases when asking for technologies or making threats, and the player's responses all use the same phrasing no matter which faction leader he or she plays.

The faction leader's ideology instead is expressed in three specific ways. The first is through the technology the player researches, in which a given leader, irrespective of the one the player is currently playing, will present his or her ideology in a short quotation similar in style to the one provided by Morgan above, and identical to the one provided by Yang in the introduction to this thesis. The second is through completing a certain type of city improvement for the first time in one of the player's cities. For example, Colonel Corazon Santiago of the Spartan Federation has this to say when the player first constructs a Children's Creche:

> Proper care and education for our children remains a cornerstone of our entire
> colonization effort. Children not only shape our future; they determine in many
> ways our present. Men and women work harder knowing their children are safe
> and close at hand. And never forget that, with children present, parents will
> defend their home to the death.
>
> > -- Col. Corazon Santiago,
> > "Planet: A Survivalist's Guide"

This quotation fits into Santiago's philosophy of basing a civilization on ancient Sparta, where every man had the ability to serve as a soldier should the necessity have arisen. Though this quotation is triggered by an in-game event whose timing is determined by the player, this quotation is not an opinion Santiago herself expresses at any specific instant. Rather, it forms part of her ideology with regard to how an ideal society should function, and the other faction leaders express themselves in a similar manner once the player has first completed a specific city improvement. All seven factions have certain in-game bonuses that are applied inherently to one

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[20] This is not entirely true, for it is also heard in the video played when one constructs The Merchant Exchange wonder. However, it is still used with a similar purpose: to express the ideology of the faction leader.

of several social factors: economy, effic,[21] support, morale, police, growth, planet, probe, industry and research. The Spartan Federation receives bonuses to morale, resulting in newly produced troops fighting better than standard, and police, meaning that more military units can be used to suppress discontented people, also known as drones. At the same time, the Spartan Federation suffers a penalty to industry, meaning it cannot produce units or structures as quickly.[22] Four types of social engineering categories further influence these social factors: politics, economics, values and future society, each of which contains four options.[23] Since Santiago already receives bonuses to police and morale, a player playing as her would benefit from choosing the Power option in Values, as it gives further benefits to morale and support, but gives further penalties to industry. These trade-offs may be preferable, however; having a larger and more efficient military may be more useful at certain points in the game than having one that is easily replaced. Improving industry, such as by choosing the Planned option in economics, may bring industrial output to levels close to or equivalent to the other factions but will also yield marginal gains to Growth and deliver penalties to effic. But again, these choices may be necessary depending on the in-game circumstances. Each faction's ideology is confronted with these in-game realities, and the player should select the appropriate social engineering options to deal with the given situation,[24] and then select ones that better accentuate the faction's advantages when the time is ripe.

This is how *SMAC* implements the overseer perspective. In it, the player is intended to project the given philosophy onto the game world. Theoretically this can be a philosophy purely of the player's creation, but in the case of *SMAC* the philosophy is one provided by the game on the player's behalf. Unlike the games using the other three perspectives, there is not a teleological narrative the player must enact in order to complete *SMAC*.[25] For *SMAC*, the

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[21] Effic is short for efficiency.

[22] Some factions also have bonuses or penalties that are not represented in the social factors. The Spartan Federation gains one such bonus: their prototype units do not require extra minerals to construct. This allows them to field newly developed units more cheaply than their opponents.

[23] Only the default options that provide no bonuses or penalties are available when beginning a new game; the others become available once the player has researched the appropriate technology.

[24] It is possible to play continuously without modifying the social engineering options, but doing so is to give up in-game advantages unnecessarily.

[25] I use teleology here to refer to achieving an ideal end state. *Bioshock*'s ideal end state always occurs after defeating Fontaine, *Deus Ex*'s after confronting Page at Area 51 and initiating one of the three endings, and *Torment*'s after confronting the Transcendent One. The narrative of all three games leads logically to these ideal end states. By comparison, *SMAC* can be won after an indeterminate amount of time and through indeterminate circumstances. It therefore is not a teleological narrative.

technologies are, under the default game rules, researched in a mostly random order. The structures one builds within one's cities can be built in any order, but are usually built according to the tactical necessities of the random map that is generated for each session. The terrain then shapes the conflict between the player and the other faction leaders, resulting in different social engineering choices being selected to suit population growth, industry, military support, or wealth as the game situation dictates.

All games that utilize the overseer perspective also utilize a third-person, usually isometric, point of view. However, not all games that use a third-person isometric point of view automatically use the overseer perspective. As Simon Egenfeldt-Nielsen, Jonas Heide Smith and Susana Pajares Tosca state in *Understanding Video Games: The Essential Introduction*, "genres and subgenres… consistently adhere to one or very few perspectives [here used as point of view]. For instance, real-time strategy games always employ the third-person perspective. The same holds true for turn-based strategy games" (109). There is a danger in conflating genre and point of view with my concept of perspectives. For example, the *Command & Conquer* series of real-time strategy games utilises full-motion video (FMV) in which various characters speak directly to the player, giving orders and providing information on how the strategic situation is going for whichever side the player supports. Once these FMV sequences are complete, the player is deposited into a third-person isometric point of view and uses the forces at his or her command to accomplish whatever objectives the given mission entails. At no point in these games does the player provide input on what he or she thinks because no mechanism exists to do so. Therefore, such games use the avatar perspective[26] even though the point of view is the same. The difference is in the narrative context. The *Command & Conquer* series of games do not allow the player to project an ideology, whereas *SMAC* does. One must be careful and remember to examine the narrative content specifically before determining the perspective in use.

The Overseer perspective relates most closely to Ryan's external-ontological type of interactivity from *Avatars of Stories*, which she describes as the user

> holding the strings of the entities that populate this world, and sometimes
>
> selecting these entities, but not identifying with any of them, she specifies their

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[26] *Command & Conquer: Tiberian Sun* is an exception. The Global Defence Initiative (GDI) campaign has the player watch Michael McNeil be given orders during the cutscenes, and the Brotherhood of Nod campaign mirrors this with Anton Slavik. Both have their own personalities during the cutscenes, but the in-game interface outside of these cutscenes is the same as the other games in the series, where the player provides no input with regard to personality. Therefore, *Tiberian Sun* uses the assumed persona perspective.

properties, makes decisions for them, throws obstacles in their way, alters the environment, launches transforming processes, and creates events that affect the global evolution of the virtual world. (113-4)

Where Ryan and I differ is with her statement, "since evolution is a never-ending process, the narratives of this group never come to a resolution, unless this resolution is the total destruction of the system by a catastrophic event that the user cannot prevent" (114). It is indeed possible to develop games such as *SimCity* without an end point, but games such as *Civilization*, which is listed among Ryan's examples of games that utilize external-ontological interactivity, and *SMAC* do indeed have end points.[27] Furthermore, *SMAC* utilizes the various end points as a means of asserting different conclusions to the narrative, whether through global peace, economic mind control, military might, or merging with the planet's consciousness, thereby transcending the current phase of human existence and moving on to the next. Reaching such an end stage while forced to work with the advantages and constraints forced on the gameplay by the player's given ideology allows the player to see how this particular ideology can be used to triumph over others.

With regard to how the overseer functions, this perspective can initially look a lot like a variation on the assumed persona. One could very easily argue that one is intended to assume the persona, for example Nwabudike Morgan's, and use it as a mediator for the game world. I would caution against this approach, however. The major difference between the assumed persona and the overseer is that the assumed persona has the player adopt the persona in order to have the persona directly influence the storyline. J.C. Denton's views colour the world deliberately for the benefit of the player. His interpretation of the world is something the developers can use to play against the player's own expectations and thus shape the narrative. By contrast Nwabudike Morgan's views do not influence the story. No matter which of the seven faction leaders one plays as, the overall narrative of *SMAC* will remain identical. Instead, the overseer perspective intends the player to project his or her adopted ideology onto the game world, and through this projection the player gains insight into the narrative of the game.

Ted Friedman in "The Semiotics of SimCity" provides a more comprehensive description of how one projects this ideology. In examining *SimCity*, he asks,

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[27] In *Civilization*, one can conquer everyone through military force, be the first civilization to construct a spaceship to Alpha Centauri, or have the highest score by 2100AD without having completed the previous two victory conditions. In *SMAC*, one can conquer everyone militarily, gather sufficient energy to take control of the global market, achieve a diplomatic victory by convincing a majority of the population to support the player as planetary leader, or transcend through merging with the planet's consciousness. Unlike *Civilization*, *SMAC* has no time limit.

What does it mean to identify with an entire city? Perhaps attempting to map "roles" onto the player's on-screen identification misses the point. When a player "zones" a land area, she or he is less identifying less with a role than with a process.

This distinction between a role and a process is important, though Friedman prefers to examine how a player is drawn into a game, rather than the narrative implications. For a game that utilizes a narrative, however, the identification with a process becomes far more important. If the player plays as Santiago, for example, the player is not Corazon Santiago, sitting high above every one else and reaching out to determine where to build cities, what to build within the cities, on whom she should wage war, and so forth. Santiago herself has no in-game graphical representation. Therefore, much of the game interface becomes an abstraction, a tool for providing instructions on the process with which one is engaging, rather than seen as a way of looking at the world directly from Santiago's eyes. This process is the projection of Santiago's ideology, and taking the in-game advantages and constraints the Spartan Federation suffers to defeat the other factions by whatever means the player finds most effective. From here, the player is relayed the implications of Santiago's ideology through quotations she provides when researching technologies, building structures, or completing wonders, and from here is immersed in the game's ergodic properties.

1.6 Summary

The above four perspectives, the avatar, the assumed persona, the player character and the overseer, are four separate methods for situating the player as an agent within the unfolding narrative. Each provides implicit and explicit advantages over the others for storytelling. If the perspectives are seen as a means for storytelling, then it is far easier to understand why it is that video game developers utilize a specific perspective. In doing so, it is also then easier to see why current scholarly analysis of the avatar and its use in video games has largely been inadequate. With this understanding in place, we resolve the first issue in understanding video games as literature: how it is the player is situated as an agent within the unfolding narrative. But in order to fully understand how some video games can be literature, we must resolve the second issue: how the ergodic nature of a video game allows the player to traverse its narrative.

CHAPTER 2
ON ERGODICS

In *Cybertext: Perspectives on Ergodic Literature*, Espen Aarseth proposes the concept of ergodic literature, in which "nontrivial effort is required to allow the reader to traverse the text" (1), as opposed to nonergodic literature, "where the effort to traverse the text is trivial, with no extranoematic responsibilities placed on the reader except (for example) eye movement and the periodic or arbitrary turning of pages" (1-2). However, this is not the only way in which we can interpret video games. In fact, there are many competing visions, all of which are vying for legitimacy. In fact, legitimacy is the main problem within the field of game studies. As Aarseth writes in "Computer Game Studies, Year One,"

> The greatest challenge to computer game studies will no doubt come from within the academic world. Making room for a new field usually means reducing the resources of the existing ones, and the existing fields will also often respond by trying to contain the new area as a subfield. Games are not a kind of cinema, or literature, but colonizing attempts from both these fields have already happened, and no doubt will happen again. And again, until computer game studies emerges as a clearly self-sustained academic field.

I must part company with Aarseth in two ways. The first way is obviously my attempt to see some video games as literature, with which Aarseth disagrees. The second way is the means by which we define the study of video games as an academic field. In order to demonstrate that video games are worth studying for their own sake, we must have a means to perform a qualitative analysis of each and every game. In other words, we must be able to determine what aspects of a game are effective, and which are not; this not only encompasses the gameness of a game, but also any literary devices it employs. Without a means to judge games qualitatively, we cannot explain how the properties of games in general are in use to create an artefact worthy of study. There are many games that utilize narrative in order to tell stories. By understanding that some games are literature, it is then possible for scholars to debate the merits of those games and

analyse them on a qualitative level, not merely on a technical or cultural one. Without understanding how and why a game might be effective at expressing its themes and issues on a qualitative level, it is then impossible to discuss the merits of particular video games.

In this chapter, I propose that Aarseth's concept of ergodic literature is the most effective means to perform such a qualitative analysis. In order to postulate that argument, we must engage with three discussions. The first discussion concerns the major theories proposed by other scholars that compete with or complement ergodics. Many of these theories find their basis in media other than video games; others do not describe in a concrete manner how it is that a game is telling its story. The second discussion is the ludology/narratology debate, with the seminal works for both movements being, respectively, Aarseth's *Cybertext* and Janet Murray's *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. This debate has been focused on whether video games are simply games, or if they are specifically storytelling devices that share continuity with pre-existing media. The third discussion with which I engage is my own attempt to ground the disparate scholarship of video games through performing a close reading of video games themselves and seeing them as works of ergodic literature. In doing so, I demonstrate that all video games that communicate a story utilize the player's ergodic exploration of the game world in order to actualize their narrative.

We must begin by understanding the difficulty in utilizing other proposed theoretical methods for interpreting video games. The most popular method is to attempt to interpret video games using traditional literary techniques. There is a substantial problem in making this attempt. The most pertinent question is simply this: what theories does it make sense to apply to a video game structure? We could attempt to utilize reader-response theory, but Aarseth's point, "the performance of their [the reader-response] reader takes place all in his head, while the user of cybertext also performs in an extranoematic sense" (*Cybertext* 1), demonstrates in a basic way why such a reading would be incomplete. Similarly, we could turn back all the way to Aristotle's *Poetics* for guidance and try to see how some games are mimetic, but what exactly does it tell us of video games? In truth, it can tell us something about specific video games, as in Mark Rowell Wallin's examination of the *Lord of the Rings* series of video game adaptations ("Myths, Monsters and Markets"), or Brenda Laurel's analysis of how to design a computer interface (*Computers as Theatre*). Unfortunately, the problem with such approaches is that, given the limited scope of analysis of the literary aspects of video games that contain such material, we

require a technique that is more readily applicable to video games so as to generate further criticism.

Narrative theory would seem like the logical place to turn. Markku Eskelinen, however, sees a similar problem with the application of narrative theory to video games.[28] As he states,

> if you actually know your narrative theory (instead of resorting to outdated notions of Aristotle, Propp, or Victorian novels), you won't argue that games are (interactive or procedural) narratives or anything even remotely similar. Luckily, outside theory, people are usually excellent at distinguishing between narrative situations and gaming situations: if I throw a ball at you, I don't expect you to drop it and wait until it starts telling stories. ("Towards Computer Game Studies" 36)

The problem is that the theories generally are less effective because, as Eskelinen's example demonstrates, games do not operate in the same manner as traditional literature. That is not to say that we cannot use such theories at all, but rather that we cannot rely on them as a means to interpret all video games because they were intended for analysing a completely different medium. Aarseth's concept of ergodic literature is the most straightforward and easily understood explanation as to the principal difference between video games and traditional literature: one must provide nontrivial effort, one must externally reconfigure the work, by playing it, in order for the game's meaning to be made accessible to the user. While other theoretical models can help to explain specific games, *all* video games are ergodic[29]; it is therefore most logical to start from this basis, for that is the common element from which all games that employ narrative can be compared and analysed. With this in mind, we will see how the nontrivial effort demanded by games that employ narrative can be used by the game to express literary themes and thus force the player to contemplate literary issues.

To do this, we must first engage in the ludology/narratology debate within video game criticism, probably the most significant debate to occur thus far. The seminal scholarly work for this debate was Gonzalo Frasca's "Ludology Meets Narratology: Similitude and Difference Between (Video)games and Narrative." In it, Frasca states, "the term *narratology* had to be

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[28] See also Eric Zimmerman, "Narrative, Interactivity, Play, and Games: Four Naughty Concepts in Need of Discipline" to understand in better detail some of the issues that are of concern here to Eskelinen.
[29] See Markku Eskelinen and Ragnhild Tronstad, "Video Games and Configurative Performance" to see a more detailed postulation on ergodic literature, though lacking entirely in application to specific works.

invented to unify the works that scholars from different disciplines were doing about narrative." To counter this, "we will propose the term *ludology* (from *ludus*, the Latin word for "game"), to refer to the yet non-existent 'discipline that studies game and play activities.'" Frasca borrows from Roger Caillois' *Man, Play, and Games* the terms *paidea* as the equivalent to the English "play," and *ludus* for "game." The chief difference is that play has no end goal, whereas games do. Video games that have no formal end goal are thus *paidea*, whereas those that do are *ludus*. All four of the games analysed in this thesis are thus *ludus* video games. This end goal is defined by the rules of the game, which constrain action in a certain way so as to direct activity towards a meaningful result. Frasca points out that for video games, "the player is not an external observer. Observers are passive, the player is active. If the player does not act, there will be no game, and therefore no session at all. It is a completely different activity to watch a game and to play the game."[30] Ludology is therefore concerned with the mechanisms behind the playing of the video game, and it thus naturally incorporates Aarseth's theory of ergodic literature into it.

Though Frasca attempts in "Ludology Meets Narratology" to define narratology as working with ludology, he also needed to define ludology against something that it was not. As such, narratology by default became its opposition, and its most prominent supporter was Janet Murray, author of *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. Murray does not see games as games in and of themselves, but rather, as she titled Part I of *Hamlet on the Holodeck*, "A New Medium for Storytelling." She opens by presenting a scene from an episode of *Star Trek: Voyager*, in which Captain Janeway plays out in the holodeck the role of a Victorian gothic governess similar to Charlotte Brontë's *Jane Eyre*, noting that Janeway is able to pause the holonovel when her presence as Captain is required in the real world (14). As Murray states, "the holonovel offers a model of an art form that is based on the most powerful technology of sensory illusion imaginable but is nevertheless continuous with the larger human tradition of storytelling, stretching from the heroic bards through the nineteenth-century novelists" (26). Murray thus sees the opportunities presented by the computer as extending those provided by earlier art forms. The most important concept Murray develops is that of agency. "Agency is the satisfying power to take meaningful action and see the results of our decisions and choices" (126). She continues by noting that agency "goes beyond both participation and

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[30] Gonzalo Frasca has also produced a number of other works that illuminate ludology well. See "Simulation 101: Simulation Versus Representation," "Simulation Versus Narrative: Introduction to Ludology," and "Ludologists Love Stories, Too: Notes from a Debate that Never Took Place."

activity. As an aesthetic pleasure, as an experience to be savored for its own sake, it is offered to a limited degree in traditional art forms but is more commonly available in the structured activities we call games" (128-9). As such, she sees the computer as a storytelling mechanism that is best used when it empowers the player, much the same way as the holodeck allows the user to retain control over the simulation. The conflict between ludology and narratology comes from the fact that in *Hamlet on the Holodeck*, Murray sees all video game forms as storytelling devices, whereas the ludologist would prefer to see the game as a game in its own right.

My position within this debate is that some games can both tell stories and be games in their own right. As Eskelinen states, "I think we can safely say we can't find narrative situations within games. (Or if we sometimes do… the narrative components are then at the service of an ergodic dominant)" ("Towards Computer Game Studies" 37). Eskelinen's aside here provides a useful basis for supporting the idea that games can both tell stories and be games at the same time. Instead of seeing narrative as dominant to ergodics, we should see each as co-existing with the other. In other words, a video game's narrative can support its gameplay, and its gameplay can also subsequently support its narrative. If we consider ergodics and narrative to have the potential to be engaged in such a continuous feedback loop, we are then able to see precisely how it is that some video games utilize ergodics as a means of storytelling, as a means of accessing a game's narrative.

Having covered why ergodics is the most suitable theory with which to make qualitative judgements on video games, and having covered through the ludology/narratology debate the merits of a combined view of both issues, we are now in place to perform a close reading of video games themselves. On a basic level, why should we do this? As Aarseth writes in his editorial to the first issue of *Game Studies* in 2001, "we have a billion dollar industry with almost no basic research" ("Computer Game Studies, Year One"). Part of the basic research that must be done with video games is to take specific examples from them to support the theories one wishes to promote. Three of the four games I provide as examples of games that are literature, *Deus Ex*, *Planescape: Torment*, and *SMAC*, were published before Aarseth founded *Game Studies* and noting the lack of basic research into video games. All three of these games have been critically acclaimed; indeed both *Deus Ex* and *Planescape: Torment* can be found routinely

in lists of the top games of all time.[31] There are substantial literary elements to all four of these games; however, there is a limited body of scholarly work that makes a concerted effort to analyse them as such. Perhaps the absence of such analysis of the games themselves is because, as Aarseth writes, "adventure games seldom, if at all, contain good stories. Even the most entertaining of these games, like Warren Spector's *Deus Ex*, contains a cliched storyline that would make a B-movie writer blush, and characters so wooden that they make The Flintstones look like Strindberg" ("Genre Trouble" 51). Of course, Aarseth sees no reason to explain to those unfamiliar with *Deus Ex* why this is the case, preferring instead to remark, "what makes such games playable at all, and indeed attractive, is the sequence of shifting, exotic, often fascinating settings (levels), where you explore the topography and master the virtual environment" ("Genre Trouble" 51). Aarseth's point as to the importance of the exploration of the game space is valuable. However, arguing such exploration is solely the point would mean that the video game is capable of nothing more than a simulation, and to apply such a reading to *Deus Ex* is to ignore its narrative, though this is also precisely Aarseth's purpose. Many games employ literary techniques such as symbolism, allusion and unity. They draw on literary tropes from cyberpunk and fairy tales. Ignoring these aspects provides at best an incomplete interpretation of such works. Therefore, the remainder of this chapter resists Aarseth's views on how video games should be interpreted, and instead explains why and how an ergodic video game, which also employs a narrative, is able to function as literature.

One of the most compelling powers of a game for evoking literary themes is its ability to exist conceptually on multiple levels simultaneously. Jesper Juul explains this in *Half-Real: Video Games between Real Rules and Fictional Worlds* by using the rules of a game to describe the game's fictional and factual existence. As Juul points out in analysing *Tekken 3*, a fighting game, "there is no real-world person called *Eddy Gordo*, but in the *fictional world* of *Tekken 3*, there is a person by the name of Eddy Gordo who fights using the martial art of capoeira" (167). At the same time, "in the real world, it is factually true that you can choose Eddy in *Tekken 3*,

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[31] For *Deus Ex*, see "The VGC Top 100 Best Games of All Time, #50-41" and "The 101 Best PC Games Ever, Part Four." For *Planescape: Torment*, see "The 101 Best PC Games Ever, Part Two" and "The Greatest Games of All Time: Planescape: Torment." For both games, see "GameSpy's Top 50 Games of All Time" and "IGN Top 100 Games 2007." I mention these references because the praise given to *Deus Ex* and *Torment* concentrates on the story, choices and themes presented within these games, yet there is an underwhelming scholarly response to such games.

and that you can control the character of Eddy so that he attacks his opponent using capoeira moves" (168). As Juul thus points out,

> The first point looks at *Tekken 3 as fiction*; the second point looks at *Tekken 3 as real activity*. The description of the fictional character of Eddy *also* describes the real-world fact that having selected that character in *Tekken 3* gives the player the option of performing a number of special moves. *That Eddy Gordo fights using capoeira moves describes the fictional world of the games, and it describes the real rules of the game*. (168)

With this in mind, how does this relationship between the fictional world of the game and its real rules potentially allow a game to also be literature? Let us examine a scene from *Deus Ex*, in which the player, as J.C. Denton, has boarded the parked 747 of Juan Lebedev. Lebedev is a sympathizer with the National Secessionist Forces (NSF) and attempted smuggler of Ambrosia, a vaccine for the global plague known as the Gray Death. At this point, Denton's orders are to locate and kill Lebedev. The following conversation begins once the player has entered Lebedev's room:

> JUAN LEBEDEV. I surrender!
>
> J.C. DENTON. What?
>
> JUAN LEBEDEV. Easy now, Agent. UNACTO has a policy against killing unarmed prisoners. We have much to learn from each other.
>
> J.C. DENTON. We're assuming control of the airfield. The vaccine will be returned to the international authorities.
>
> JUAN LEBEDEV. Don't you want to hear why your brother came over to our side?
>
> J.C. DENTON. He makes his own decisions.
>
> JUAN LEBEDEV. You know he wouldn't betray UNATCO without a reason.

Immediately after this exchange, Anna Navarre, a fellow UNATCO agent, arrives and provides Denton with new instructions:

> ANNA NAVARRE. Good work. Now finish the job.
>
> J.C. DENTON. He surrendered. He's an unarmed prisoner. UNACTO policy protects him.
>
> ANNA NAVARRE. Terminate the prisoner, Agent. If you are too afraid, you are

ordered to return to base on Manderley's authority. There is a helicopter
waiting.

As per Juul, this scene operates on both a factual and fictional level, both of which interrelate. First, there is no person called J.C. Denton in the real world, but in the fictional world of *Deus Ex*, there is a person called J.C. Denton who is being ordered to execute an unarmed prisoner. At the same time, in the real world, it is factually true that the player can control J.C. Denton in *Deus Ex* for the purpose of executing an unarmed prisoner, that this prisoner will die when shot, stabbed, and so forth, and that J.C. Denton's list of goals at this moment contains the entry "Assassinate Juan Ivanovich Lebedev." Thus, J.C. Denton being ordered to execute a prisoner describes a moment in the fictional world of *Deus Ex*, and it describes an instance of the real rules of *Deus Ex*. Therefore, the player is forced into a situation which carries with it in the real world all the associated moral dilemmas of how Navarre can even give such an order. At the same time, Lebedev's fictional existence means that the player is also not forced to execute anyone in reality because this activity is taking place in the fictional world of *Deus Ex*.

In concluding his analysis of the simultaneous co-existence of the fictional world and the real rules, Juul notes, "the fictional world of a game strongly depends on the real world in order to exist, and the fictional world cues the player into making assumptions about the real world in which the player plays a game" (*Half-Real* 168). In the real world, we know the implications of executing unarmed prisoners; in the fictional world, we know that Lebedev is dead when he screams out, his body drops to the ground and creates a pool of blood, and the interface marks Lebedev's corpse as "Dead Body (Juan Lebedev)." Because of this, the nontrivial effort one must input, in this case whether one executes Lebedev, is used to indicate to the player the dystopian future that *Deus Ex* presents. Far more than merely demonstrating this fact to the player, far more than dramatizing the hero's agony in being put in this situation, the game requires, as a work of ergodic literature, that the player directly experience and contemplate this dilemma. Putting the player in this situation, forcing the player to make a choice as to whether Lebedev lives or dies by his or her hand, is an example of how *Deus Ex* engages with literary themes because it expresses *Deus Ex*'s theme of the totalitarianism of world governments through ergodic decision-making. Traditional narrative theory is unable to offer a complete analysis of this process.

Yet the above decision in *Deus Ex* is not even a binary one. Because the game requires nontrivial effort, the developers can utilize the player's understanding of the real rules to access narrative in the fictional world that is otherwise inaccessible in other media. In the above situation, it seems obvious that the player should either execute Lebedev or return to the provided helicopter and report back to Manderley. Yet there are actually two additional options available. We know according to the real rules of the game that Denton can engage in conversation with people. Therefore, when ordered to execute Lebedev, the player can attempt to question him in Navarre's presence. This results in Lebedev revealing most of what he knows, but it also angers Navarre, who executes him himself in the fictional world before he can reveal the conspiracy behind UNATCO. Manderley is greatly annoyed and refuses to provide Denton's pay for the mission, but this solution, if the player can use his or her understanding of the real rules to realize such a solution exists, allows the player to not leave the aircraft like a coward, and also does not force the player to commit an unjust act.

We also know, based on the real rules of the game, that Lebedev is just one character model among many, all of which will die in the same way when killed. Therefore, the second alternative available to the player is to instead, in the fictional world, kill *Navarre*, who, according to the real rules of the game, is a model that can be engaged with just like any other, who obeys all the same properties, and is affected in all the same ways. However, the real world expectation that Navarre should die the same way as Lebedev is deliberately undermined when Navarre, a mechanically augmented UNATCO agent, activates an installed cloaking device during the fight and detonates upon being killed; this thus removes any trace of her body. Nevertheless, her death then allows the player to question Lebedev without interference and thereby discover the existence of Majestic 12, an offshoot of the Illuminati. In this single extended scene in *Deus Ex*, through the game functioning as ergodic literature, we are presented with a situation that engages in literary themes, in this case a dystopian and authoritarian future dominated by a morally bankrupt world government. Yet, because the game requires nontrivial effort to enact this theme, and because the game functions as a fictional world that reflects back on the player's real world, the player is then forced to face the real world dilemma and implications of executing an unarmed prisoner *without* actually being forced into such a situation. At the same time, the player has a way of solving this dilemma and its implications through an understanding of the game as a fictional world, and can thus recognize that

conversing with Lebedev or killing Navarre is also a way to escape this moral trap *without* sidestepping the issues the game forces upon the player. *Deus Ex* therefore functions both as a video game, and also engages with literary themes, through utilizing the player's understanding of the game's real rules and how they reflect on the fictional world. This understanding allows the player to access narrative material in a manner impossible to other media.

Deus Ex also utilizes mechanisms of proprioception in order to deliver narrative. As Torben Grodal argues in "Stories for Eye, Ear, and Muscles," "a purely linguistic model [of storytelling] may seriously impede descriptions of those media like video games that rely on a series of nonverbal skills" (133). Grodal further states, "Novels, films, or video games may be full of nonnarative material, like philosophical reflections, descriptions unrelated to the narrative core, or lyrical segments" (133). Of course, the nonnarrative material all video games contain specifically is gameplay. In the preceding example of Lebedev's execution, we have a scene that requires nontrivial effort that is framed through dialogue, which in this case is Navarre's order to execute Lebedev. However, it is also possible to have a scene that requires nontrivial effort that is also framed through ongoing nontrivial effort. For an example of this, we turn once more to *Deus Ex*, in this case when Denton first arrives in Hong Kong. At this point, the player has recently found out about the conspiracy behind UNATCO, and that it is really an arm of Majestic 12, a thus far mysterious group trying to overthrow and coerce world governments and global organizations, including the United Nations. After escaping from the Majestic 12 helipad, the player arrives in Wan Chai market.

Up to this point in the plot, the player will have had specific authority figures providing very explicit goals to accomplish, most notably attempting to locate the barrels of Ambrosia stolen from Liberty Island. The ambient tracks for New York are dark, orchestral arrangements. The player's enemy has been the NSF, and the player's allegiances are with UNATCO. However, this all changes once the player enters the Wan Chai market. The main goal is to locate Tracer Tong because he is somehow supposed to disable Denton's "killswitch," an instruction to an agent's nano-augmented systems to being exponential nanite growth, thus eventually killing the agent.[32] This is complicated because the Luminous Path triad, enemy to the Red Arrow, is hiding Tracer Tong. It is unclear which of these two triads is to be trusted because both

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[32] Mechanically augmented agents are equipped with a killphrase, a phrase that, once spoken, will cause the agent to detonate almost instantly. Both Anna Navarre and Gunther Hermann can be killed at certain points within the game should the player have decrypted or acquired their killphrases.

manipulate people and the police for control over Hong Kong's business sector. The music track is an upbeat, partially synthesized New Age rhythm that incorporates traditional Chinese instruments. Finally, the player receives orders from Daedalus, whom the player knows only because Daedalus hacked into UNATCO's detention centre computer in order to allow Denton to escape. In other words, the player now has uncertain objectives, uncertain allies and enemies, and an uncertain environment; this is in contrast to the time spent in the previous environment, where the player was certain about his or her goals and why his or her actions were just. *Deus Ex* thus creates a simulated proprioception of this new environment that is itself uncertain. The player's ergodic engagement with this uncertainty creates suspense. The previous worldview consisting of UNATCO as a global peacekeeping organization fighting the NSF terrorists is entirely a lie, a smokescreen to distract from the conspiracy of Majestic 12. Alex Jacobson states in an email titled "Welcome to the Fold," which the player will find after deactivating Denton's killswitch, "all the time I worked for UNATCO seems like a dream, killing time in some virtual world so I didn't have to make the hard choice in the real one. Now I feel like I've finally woken up." The player's proprioception of Wan Chai market and trying to locate Tracer Tong is his or her own wake-up call; he or she has escaped the illusion of global terrorism that Majestic 12 wishes to perpetuate, and is beginning to see the truth behind the conspiracy for global power. This provides the basis for the three endings, which provide their own arguments as to how society should resolve such a concentration of power.

Aarseth argues, in his article "Aporia and Epiphany in *Doom* and *The Speaking Clock*," "the ergodic work is individualized or quasi-individualized on the audience level, in that different audiences at different times may have experienced very few (if any) of the same sign vehicles" (33). If this were true, it would technically be impossible to provide quotations from games in a reliable manner as evidence of the points one makes. Yet all four games I analyse in this thesis allow quotations to be drawn from them in a consistent manner. At the same time, all four of these games are ergodic in that they can be reconfigured and that one requires nontrivial effort to traverse them. Therefore, I must part company with Aarseth; an ergodic work that employs narrative allows its audience to experience many, though not all, of the same sign vehicles. The value in a game being ergodic is that it allows the player to reach such a sign vehicle through nontrivial effort. For example, the opening cinematic of *Deus Ex* shows Bob Page and Walton Simons, the game's two antagonists, discussing how their plans are going to

take over the world, Page with the plans, and Simons in charge of implementing them. This speech takes place before a statue of a hand reaching over the Earth, obviously symbolic of Page's plans. When the player reaches level two of the Versalife facility in Hong Kong, he or she will step into a large hall that contains this same hand reaching over the Earth. This sign vehicle is first presented as a non-ergodic cinematic, while the second is reached through nontrivial effort. Finding this sign vehicle tells the player that he or she is on the right track in tracking down this global conspiracy that seeks to enslave the Earth. Furthermore, this symbol is then repeated in the ending that has Denton side with Morgan Everett and the Illuminati in creating a new world order based on late 20th century capitalism. This final cinematic sequence, which takes place after Denton has killed Page, has Everett stand in Page's place before the same statue, and Denton in Simons' place. Denton talks of how he will begin to distribute the vaccine for the Grey Death in both New York and Paris. Everett explains to him that the Illuminati must not act directly: "We only influence. Suggest. Insinuate." Everett explains the role the Illuminati will take in restoring the world, to which Denton asks "And who are we? Who are we really?" The camera pans to centre the statue, and Everett then ends the conversation by explaining the philosophy of the Illuminati: "We are the Invisible Hand. We are the Illuminati. We come before and after. We are forever. And eventually, eventually, we will lead them into the day." The game then ends with a short quotation from *Paradise Lost* appearing on the screen overtop of the statue: "Better to reign in hell, than serve in heaven." Here, the sign vehicle, presented initially as non-ergodic, is symbolic of Majestic 12's tyranny over the world. It is then appropriated in a moment of discovery on the part of the player to let him or her know he or she is on the right track towards dealing with Majestic 12. Lastly, in the Illuminati ending, achieved through the player's actions earlier on, the sign vehicle is appropriated as a symbol for how the Illuminati will rule the world. The quotation from *Paradise Lost* suggests that the Illuminati is a necessary evil because it offers stability and limited freedom for the people of Earth, yet rules them in secret. The above example contains an allusion to another literary work and its own literary themes, and also contains literary structure and technique. (To ignore the existence of such material, as Aarseth suggests we should, is an unreasonable request. At the same time, to analyse such material irrespective of its medium is also unreasonable.) So long as we trace the capabilities of the medium in question, so long as we remember that the game is ergodic and see its literary qualities through that lens, then our analysis will remain true to the work itself.

The examples I have provided above suggest that, in order for an ergodic video game to function, it must present either a complex sequence of individual nontrivial actions, or a fictionally simple, yet factually profound moment. A third way for a game to be ergodic is to provide minimal options, essentially forcing the player down a single predetermined path. This method sounds ineffectual, and it certainly would be in other media. However, we should note the effectiveness of this technique as compared to interactivity. As mentioned in the previous chapter, Chris Crawford writes in "Assumptions Underlying the Erasmatron Storytelling System" that interactivity "mandates choice for the user. Every interactive application must give its user a reasonable amount of choice. No choice, no interactivity. This is not a rule of thumb; it is an absolute, uncompromising principle" (191). Crawford is absolutely correct that interactivity cannot function without choice. It is not, however, an absolute, uncompromising principle that a game must be interactive, only that it is still ergodic. The chief advantage of a game requiring nontrivial effort of the player is that there are no conditions as to what this effort might be, or how a game contextualizes it, only that it exist.[33]

Planescape: Torment contains a literary example of where the game is ergodic, yet not interactive because there is no meaningful choice offered to the player. In the Clerk's Ward of Sigil, the Society of Sensation operates a Festhall at which people share their experiences.[34] Within the Festhall are a number of sensory stones that contain snippets of other people's memories; it is implied that the accessible memories for the Nameless One are actually all those of his prior incarnations. The memories of the stones are accessed through activating the stone, reading the snippet associated with it, and then deactivating the stone. There are also three sensory stones in the Private Sensorium; one of these is an extended memory of Deionarra as well as the most significant of the previous incarnations, the Practical Incarnation. In this memory, the player is presented with Deionarra's thoughts, the Practical Incarnation's and the Nameless One's as well. Note that in the quotation below the Nameless One's lines of dialogue

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[33] See also Chris Crawford, "Interactive Storytelling" for the problems he views with current storytelling mechanisms in video games. Crawford's interpretation considers the current video game storytelling techniques to be flawed or over-simplistic, whereas I see them as limitations imposed by the current hardware that also create its intricacies.

[34] Members of the Society of Sensation are known as Sensates. This is one of five factions the player can join. Each expresses a philosophy as to the meaning of life, therefore each offers the player a different way to express the Nameless One's beliefs regarding an inability to die. The Sensates believe that life is best served when one shares one's experiences and tries to accumulate as many and as rich of ones as possible; this philosophy is of particular relevance to the Nameless One, since he is also continually remembering the experiences of his previous lives.

are the conversation options the player selects; however, either Deionarra or the Practical Incarnation speaks them for reasons that are made apparent in the dialogue itself. The only other option presented at each stage is to end the memory prematurely.

> SENSORY STONE. You feel your vision tearing, doubling, until you are that man striding from the light, it IS you, but NOT you… you feel yourself being TORN; it is Deionarra's experience, but at the same time, it is also *yours,* and you… what…
>
> NAMELESS ONE. Echo: "I asked too much of you to accompany me, Deionarra. I have no right to place you in such danger for my sake…"
>
> SENSORY STONE. It is your words, but they are a surgeon's words, chosen with cold skill, without a TRACE of emotion. With every word, you feel yourself SNEERING inside, knowing what the (stricken) girl will see next through her (longing-stained) eyes, and who – are you THAT person, that man TWISTING her with your words, not KNOWING how powerful they are to her, like bolts from a ballista, piercing her breast, her… yet she SEES only RELIEF at your return. How… how can she FEEL… and not know you mean to…?
>
> NAMELESS ONE. Echo: "I have come to ask your forgiveness, Deionarra. I shall return to you as soon as I am able –"
>
> SENSORY STONE. Your vision tears again, doubling and bleeding, until you are facing yourself again, trying desperately to speak, to WARN Deionarra that this is not a man, but a creature that kills for his own needs, he doesn't CARE about you, Deionarra, you are a TOOL to him, a TOOL he needs to – but Deionarra speaks, and you can't STOP her…
>
> NAMELESS ONE. Echo: "I would place myself in a *thousand* dangers, embrace eternity for you, my Love! I am *not* afraid! Listen to me – I will accompany you, though the Planes themselves should bar –"
>
> SENSORY STONE. "…though the Planes themselves should bar the way…" You feel yourself shattering, relief and satisfaction – his SATISFACTION at her words, KNOWING she would say them, always KNOWING, and her admission of love is like the slamming of a portcullis across your heart. Trapped. She is yours, but you must be *certain,* so you drive the nail home.

NAMELESS ONE. Echo: "The way is dangerous. You will have to be strong…
far stronger than you are now."

SENSORY STONE. Swimming through her mind, relief, the wave of relief, the
end of longing, yet LONGING for him more at his words, not noticing his
manipulation… all you need is to be strong, and his path shall be as one with
yours! Your thoughts are like fires… for you can be strong, stronger than he
knows, you know no fear, you would DIE for him…!

NAMELESS ONE. Echo: "I can be strong, my Love. I will –"

SENSORY STONE. Her words slide off of him like water. The serpent in her
breast, the one piercing her heart with its poison has been replaced by this
serpent in the flesh. She sees nothing of this, and his next words are planned,
carefully, so carefully…

NAMELESS ONE. Echo: "I can't say if we'll succeed, Deionarra, but I'll do my
best to protect you. And I will expect nothing less of the same from you.
You…"

SENSORY STONE. "…you may be required to make some *sacrifices.*" At that
final, terrible, word, you feel yourself being TORN apart; he means her harm…
he means YOU harm, for you are HER, and he means to HURT her, yet you
NEED her to be harmed, and – you want to SCREAM AT HER THAT SHE IS
IN DANGER, RUN, RUN, DEIONARRA, FOR HIS EYES UNMAKE ALL
THINGS AND –"

NAMELESS ONE. Echo: "Of course, my Love. Life is sacrifice. This I have
learned."

SENSORY STONE. You… she… her… you speak the words, and in it, you feel
yourself dying inside. You are a spectator, and you have watched a woman die,
for the words are a death sentence.

Deionarra is here presented in the typical role of the maiden in need of saving by the hero.
However, because this is a memory, the player cannot make a meaningful choice, such as either
saving her, or allowing her to die, for this scene has already occurred in the past. Jill Walker
elaborates on this in "Do You Think You're Part of this?: Digital Texts and the Second Person
Address." Walker explains "how you seem to be part of the texts you read and the games you

play, and how, in electronic texts, your scripted response is necessary to the very act of reading or playing" (35). She relies chiefly on Seymour Chatman's diagram of the narrative-communication system (*Story and Discourse* 151). Chatman postulates four links between the real author – the individuals at Black Isle, in this case – and the real reader – the player. From real author to real reader we have the implied author, narrator, narratee, and implied reader.[35] The implied author and implied reader distinguish the person or entity making or receiving an address in a fictional work from the actual physical people making or receiving it. The difference between a video game from a traditional literary work is that, as Walker points out, while one has options or capabilities, thereby making the game ergodic, "to take the role of the narrator in an electronic role-playing game you accept a limited vocabulary, a vocabulary determined by your narratee" (40). Therefore, "are you sure you're narrating at all?" (40).

In this sequence in *Torment*, it is clear the player does not narrate at all; the player merely performs the role asked of him or her by the game. Yet this procedure the player effects is exactly what is occurring within the fiction of the game as well; the Nameless One is equally unable to perform any function other than to live out Deionarra and the Practical Incarnation's memory. The fact that the game requires the player to advance the memory serves to demonstrate the inevitability of the Practical Incarnation's manipulations of Deionarra, and the complete inability of both the player and also the Nameless One to try and warn her as to the danger. As Walker points out, "you're supposed to forget all about Chatman's careful separation of real reader, implied reader and narratee" (45). Thus, removing interactivity by eliminating choice only heightens the effectiveness of this sequence, for the player is barred in a meaningful way from trying to save Deionarra, which only serves to heighten the tragedy of her manipulation. At the same time, simplifying the player's options also allows the player to inhabit both Deionarra and the Practical Incarnation's consciousness and see how their projections of themselves and of each other are not reflected in reality. Deionarra cannot see how manipulative, how evil, the Practical Incarnation is, and the Practical Incarnation knows the effects of his words on her on an intellectual level, but not on an emotional one. However, the player is aware of both of these aspects through narrative, through the fact that the player can inhabit both Deionarra and the Practical Incarnation's point of view, yet the player also has the Nameless One's views, which

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[35] Chatman puts the narrator and narratee in brackets because he does not consider them essential, thus one or both can be omitted if appropriate to the work in question.

reveal the reality of the situation to the player.[36] All of these factors in play allow the player to be set up to respond on an emotional level to the end of this memory.

> SENSORY STONE. He is leaving! You must make him remain… and the experience SWIRLS around you, terrible, the spiralling towards the final scene… the QUESTION you… she… wants to ask, don't ask it, Deionarra! Don't ASK IT BE SILENT BE SILENT
>
> NAMELESS ONE. Echo: "My Love, before you go…"
>
> SENSORY STONE. HIS ANGER HIS IRRITATION WHAT *NOW* GIRL WHAT *NOW* YOU MEWLING BANSHEE
>
> NAMELESS ONE. Echo: "'Before I go?' It looks like I am in no danger of that. Come, Deionarra, can't these questions wait for the morn? There is much–"
>
> SENSORY STONE. SHE… YOU… SHE IS DESPERATE DROWNING SAY IT SAY IT SAY IT AND SHE… YOU… SPEAK IT
>
> NAMELESS ONE. Echo: "Do you *want* me to come with you, my Love?"
>
> SENSORY STONE. The rush of emotion dies in your mind. This is the end. The words he… you… are about [*sic*] speak are true, but the truth is not the truth she sees. There are no lies, only cold calculations. Of *course* he wants you to come with him, Deionarra. You understand it clearly, too clearly: He has invested too much in this poor girl to let her go.
>
> NAMELESS ONE. Echo: "Of course, Deionarra. I would not have asked you to come with me if I did not want your company. You *know* how I feel about you…"
>
> SENSORY STONE. There is a cold silence in his mind, then a hissing of a thought, a response sharp and deadly, like a dagger blade. The lie comes swiftly, unburdened by emotion.
>
> NAMELESS ONE. Echo: "I love you, Deionarra."

---

[36] This may seem like a case of an omniscient narrator because one is viewing the thoughts of all three characters involved simultaneously, but this is not the case. The sensory stone itself stores Deionarra's memories, and is available for viewing by all members to the Society of Sensation, of which Deionarra herself was once a member. The statement "it is Deionarra's experience, but at the same time, it is also *yours*" suggests that the thoughts of the Practical Incarnation are not normally accessible to other clients, but only becomes accessible to the player because the Nameless One was himself the Practical Incarnation in a past life. Seeing the type of person that is the Practical Incarnation is meant to reflect back on how the player has shaped the Nameless One's personality (see Chapter 1: The Player Character).

SENSORY STONE. And you want to SCREAM as you feel the lie wash over her

like a RADIANCE, but it is a SHADOW of TRUTH, A SERPENT'S KISS,

AND HE MEANS YOU HARM AND SHE CAN'T *SEE* YOU WANT TO

CALL OUT BUT SHE IS CRYING WITH JOY EVEN AS – EVEN AS –

NAMELESS ONE. Cry with joy… with frustration… with joy… with despair…

SENSORY STONE. The emotion washes over you, like you are drowning,

DROWNING, and you need to speak, you LONG to speak, but you

cannot…and…

NAMELESS ONE. Tear yourself away from the experience.

SENSORY STONE. …and you scream, scream as you tear your hands from the

stone, bloody tears rushing from your eyes, running in streams down your arms,

your hands, to coat the stone. Blood! Her blood! And… you can't WARN her…

and you can't stop CRYING…

The player here realizes that he or she cannot intervene to save Deionarra. The constraints that cause this to occur are not forced by means of a cutscene or other non-ergodic mechanisms; her death is therefore tragic because the player is knowingly unable to intervene. In addition, the player is granted the ability to see the Practical Incarnation's manipulation of Deionarra through the eyes of Deionarra, the Practical Incarnation, the Nameless One, and the player him/herself. All points of view are encompassed simultaneously, and all are able to occur through removing the player's choices and reducing this sequence to a simple ergodic one. The player can thus also feel sorrow at this manipulation. Such a feeling occurs through seeing how uncaring the Practical Incarnation is towards Deionarra, seeing how oblivious she is to his nature, and, in having identified with the Nameless One as a player character, seeing how the Nameless One reacts. At the same time, removing choice also makes the player/Nameless One helpless to this manipulation. This in itself only heightens the tragedy because the Practical Incarnation, being an earlier incarnation of the Nameless One, is indeed also simultaneously the Nameless One, and thus is also the player, therefore the player can also feel guilty given that a past version of the Nameless One, one likely different from that the player has constructed, has caused this tragedy. Yet, since this is also Deionarra's memory, the player is also Deionarra herself. As such, the player comes to understand three separate and conflicting experiences simultaneously, all of which provide different insights on Deionarra's death sentence. Interactivity is not a necessity in

a video game; nontrivial effort is. In a traditional work of literature, the work itself does not deliberately inhibit the reader from configuring it mentally. But in this scene in *Torment*, the player cannot access the full meaning of this scene without reconfiguring the game externally. Only in being ergodic, and in *not* being interactive, can this scene in *Planescape: Torment* function. The game's subversion of the maiden to be saved, while also exploring characterization through comparing or contrasting the Nameless One with the Practical Incarnation, demonstrates standard techniques used in traditional literature. At the same time, much like the earlier examples from *Deus Ex*, this scene would be impossible to experience in traditional literature because of its use of nontrivial effort. Presenting the player with a single option to advance this memory only heightens the inevitability of Deionarra's death, and blurring the distinctions between real reader, implied reader and narratee adds to the ability to more fully develop the characters of both the Practical Incarnation and Deionarra. Yet this scene's effective engagement with traditional literary forms means that it must be analysed and interpreted as we would such literary forms in traditional literature. Since this scene is representative of *Planescape: Torment* as a whole, we must conclude that it is both a game and also literature.

In this chapter we have explored how it is that a game's state of being ergodic literature and requiring nontrivial effort allows the player to access its narrative, and how this allows games that integrate narrative into their gameplay to be recognizable as literature, provided that such games are also engaging on a literary level. We want to be able to mark such games as literature because it is a means of qualitatively analysing them and thus demonstrating to other scholars the opportunities and capabilities for ergodic storytelling. This analysis springs from the ludology/narratology debate and finds that the theories developed are useful for analysing games as games, or games as narratives. At the same time, some games, such as the ones selected for this thesis, benefit from analysing both aspects in tandem. We find that this approach is more effective than relying solely on traditional literary methods because such methods are not universally applicable, whereas all video games are ergodic. Such an understanding will then allow us to have a more complete understanding of how some video games are literature when combined with the work presented on perspectives in chapter one. Therefore, now that we have analysed these two aspects separately, we will now see how they work in tandem.

CHAPTER 3
VIDEO GAMES AS LITERATURE

The first chapter of this thesis explained that a perspective is the mechanism by which the player enters the game world and interacts with it. There are four such perspectives: the avatar, the assumed persona, the player character and the overseer; the first chapter also elaborated on their properties and advantages compared to each other. The second chapter explained in detail that ergodics is the external reconfiguration of a work, and nontrivial effort is the component the player must provide in order reconfigure the work and subsequently effect meaning from the game. In doing so, the second chapter described specifically how ergodics and nontrivial effort function within a video game, as well as how their use within certain video games helps mark them as literature. This third chapter will put the two concepts together in order to provide a methodology for scholars to analyse video games as works of literature and judge their effectiveness on a qualitative level. A video game becomes literature when both the perspective of choice is being used to contextualize the narrative and story, *and also* when the ergodics are being used to allow the player to effect the narrative and story. This chapter will first demonstrate that the above is true, and then put it into practice through a close reading of all four video games, *Bioshock*, *Deus Ex*, *Planescape: Torment*, and *SMAC*, paying specific attention to how the perspective employed, the game's ergodics and the game's narrative all interrelate.

To see how perspective, ergodics and narrative interrelate, it is necessary to see that it is a video game's use of perspective that allows it to be literature and a game simultaneously. This occurs because of how game space is constructed and distinguished from the real world. J. Huizinga's *Homo Ludens: A Study of the Play-Element in Culture* explains this in further detail:

> All play moves and has its being within a play-ground marked off beforehand either materially or ideally, deliberately or as a matter of course. Just as there is no formal difference between play and ritual, so the "consecrated spot" cannot be formally distinguished from the play-ground. The arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc.,

are all in form and function play-grounds, i.e. forbidden spots, isolated, hedged

round, hallowed, within which special rules obtain. All are temporary worlds

within the ordinary world, dedicated to the performance of an act apart. (10)

Huizinga's argument is that such play begins when one enters a scenario where all participants

accept that certain rules are in effect. It does not matter whether we accept a given activity as

being a game, only that we obey the rules set forth. Katie Salen and Eric Zimmerman build upon

this premise in *Rules of Play: Game Design Fundamentals*. They adopt from Huizinga the term

"magic circle," describing it as "appropriate because there is in fact something genuinely magical

that happens when a game begins" (95), for "within the magic circle, special meanings accrue

and cluster around objects and behaviors. In effect, a new reality is created, defined by the rules

of the game and inhabited by its players" (96). Jesper Juul then elaborates on Salem and

Zimmerman's explanation through relating this idea specifically to video games:

When a ball game has a rule prescribing that the game stops if the ball leaves the

playing field, this relates to the border between game space and world space. But

in video games, the magic circle is quite well defined since a video game only

takes place on the screen and using the input devices (mouse, keyboard,

controllers), rather than in the rest of the world; hence there is no "ball" that can

be out of bounds. (*Half-Real* 164-5)[37]

Juul is correct to point out that the game rules within a video game are well defined, and so in-

game factors that break the rules of the game are non-existent.[38] However, we can also add here

the concept of perspectives to in-game factors that are well defined and that shape the context of

the game. The perspective is the mechanism by which the player enters the game world and

interacts with it. As such, once the player begins to engage with the world ergodically according

to the limitations imposed by the game rules, the properties of the perspective in question then

cause the player to be subjected to the effects of the magic circle as well. In *Bioshock*, for

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[37] Juul then points out how the real rules of the game simultaneously inform its fictional world (167-8). The relationship between the game rules, its ergodics and its narrative, factors that Juul does not address, were covered previously in Chapter 2.

[38] This is not strictly true, as players can exploit in-game bugs and glitches in order to play outside of the boundaries the designers originally intended. For example, it is possible in *Deus Ex* to pass through walls by pressing Denton against a wall and then throwing a grenade so as to trap Denton between the wall and the grenade. Doing so will cause Denton to appear on the other side of the wall. This can be used in some levels to skip through areas or certain conflicts. Most bugs are patched as a matter of course, but some bugs are discovered after the developer has stopped patching the game.

example, the player is perfectly aware, even without being told, that he/she should not make a conceptual division between Jack Ryan and himself or herself. All in-game addresses to "you" or to "Jack" are then treated as one and the same. In *Planescape: Torment*, by comparison, the player comes to understand that as part of exploring the game's narrative he/she is to be shaping the Nameless One's personality. The narratives the player experiences within video games then become, as Huizinga writes, "forbidden spots, isolated, hedged round, hallowed, within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart" (10). The very act of playing the game creates the magic circle and demarcates a space independent from the real world. The magic circle thus logically envelops both gameplay and narrative. At the same time, the game's perspective can now stand in for the magic circle. The way in which the player is asked to situate himself or herself within the game world constructs the game space. In being so situated, the perspective frames the ergodic action and narrative content of the game. Such a framing then implicitly explains to the player the limits of his or her actions as well as what ergodic action is expected and permitted according to the game rules, which then frames how the narrative content will be accessed. In this way, a video game can be two things: it can be both a game and a space in which ergodic literature is experienced.[39]

Of course, I write that a video game *can* be a space in which literature is experienced, not necessarily that it is. The distinction between a game that has a narrative and one that does not was covered back in the introduction. However, the difference between a game that has a narrative and one that uses it beyond merely a framing device for the ergodic action is less clear. In "Aporia and Ephiphany in *Doom* and *The Speaking Clock*," Aarseth argues, "the worst kind of mistake an aesthetic theory of ergodic art can make is to assume that there is only one type with which to be concerned, e.g., 'the electronic text,' 'electronic literature,' etc., with a single set of properties" (34). Much as Aarseth goes on to suggest that there are multiple types of ergodic art, I suggest that there are multiple types of video games. Aarseth continues his argument by stating, "a computer game is textual (it has no description, unlike football) but it is not narrated, since there is no such thing as the unfolding of a predetermined story" (35). Technically this is not true; one could argue that the ending of a singleplayer game is indeed predetermined. For

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[39] See Egenfeldt-Nielsen, Simon, "Exploration in computer games – a new starting point" for a view on how the exploration of a game can effect meaning.

example, Jordan Mechner discusses in "*The Sands of Time*: Crafting a Video Game Story" how the Prince of Ubisoft Montreal's *Prince of Persia: The Sands of Time* narrates his own story as a flashback. As Mechner states, "when the Prince, as video game heroes are apt to do, is killed during gameplay, he hastily corrects himself: 'Wait, what did I just say? That didn't happen. Let me back up a bit.' And the 'story' resumes from the last save point" (117). This particular mechanism means that while the exact path to the conclusion may not be predetermined, mostly because the exact playthrough of the game will not be identical from player to player, even deviations such as being killed by accident are impossible, because any such case is merely a matter of the Prince "misspeaking."[40] Therefore, while Aarseth's claim that a video game is not narrated is sound, it is more accurate to see a game as experienced.[41] At the same time, there are games that engage the player with ergodic action and frame it with the employed perspective.

We now have a basic framework of video game types: games without narrative, games that use narrative as a framing device for the ergodic action, and games that use narrative and in so doing engage with and utilize stylistic techniques common to non-ergodic literature, and also be analyzed and interpreted with similar techniques. However, the difference between a game that integrates narrative and ergodics, and one that uses narrative as a framing device is not yet clear. As mentioned in the introduction, a video game becomes literature when both the perspective of choice is being used to contextualize the narrative and story, *and also* when the ergodics are being used to allow the player to effect the narrative and story. If the game is no longer ergodic, then it is no longer a game, but instead a movie or book that uses the computer or console as the method of delivery. If the game does not use a perspective, then it is a video game that does not engage in literary themes or using literary devices. However, if the game does both aspects effectively, it can be regarded as literature.

All video games depend on being ergodic; we therefore must look to see how effectively the ergodics are integrated with narrative. Take, for example, id Software's *Doom*. The backstory is that the Union Aerospace Corporation has been experimenting with teleportation technology on Phobos and Deimos, Mars's two moons, and accidentally opens a gateway to hell. The player, as a lone space marine, must make his or her way through the space station and stop the demonic

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[40] A similar technique appears in Ubisoft Montreal's *Assassin's Creed*, though in that case the death of the protagonist, Altair, is a result of his genetic descendent, Desmond Miles, misremembering Altair's actions.
[41] See Craig Lindley, "The Gameplay Gestalt, Narrative, and Interactive Storytelling" 204-7 for a view on how the three-act structure of cinema inadequately describes the plotting of a standard videogame.

invasion. Notably, this backstory is only contained within the game's documentation; none of it appears during gameplay. There are no signs in the levels that the UAC has been experimenting with teleportation technology, nor are there any scientists left, or information that describes their work. The ergodic action during gameplay consists entirely of navigating through each level towards its exit and killing any monsters that get in the way. As such, the narrative behind *Doom* is not integrated into its gameplay; *Doom* therefore makes no claims to being literature, nor is engagement with the backstory necessary to enjoy the gameplay; the purpose behind the ergodic action is nothing more than traversing levels and killing monsters[42]. By contrast, the four games used in this thesis do indeed integrate their narratives with their ergodic action. Removing either the ergodic action or the backstory would remove a fundamental part of the literary experience of the game. How, then, does the third group of games make themselves interpretable to the player as literature? We must analyse how it is the game utilizes the given perspective in combination with traditional storytelling techniques *as well as* the game's own innate ergodic capability to create a coherent narrative that the player can traverse. The remainder of this chapter is devoted to demonstrating this unity among each of the perspectives.

The assumed persona, in forcing the player to assume the persona of a central character who has his or her own personality traits, can lend itself well to the delivery of narrative through nontrivial effort because it forces the player to see the fictional game world through the eyes and worldview of another. In *Deus Ex*, when the player first meets the Prototype AI System located in Everett's laboratory, the AI presents itself as omniscient and mysterious in part through requiring nontrivial effort from the player.

> PROTOTYPE AI SYSTEM. JC Denton. 23 years old. No family. No ancestors.
>   No employer. No--
> JC DENTON. How do you know who I am?
> PROTOTYPE AI SYSTEM. I must greet each visitor with a complete summary
>   of his file. I am a prototype for a much larger system.
> JC DENTON. What else do you know about me?
> PROTOTYPE AI SYSTEM. Everything that can be known.

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[42] *Doom* does require a narrative if only to establish backstory. It would otherwise be unclear why there are teleporters, or why the opponents are mostly demonic in appearance. As mentioned in the introduction, *Tetris*, by comparison, would not benefit from a narrative that establishes backstory; an explanation as to why the blocks are falling would detract from the goal of the game: to attain as high a score as possible.

If this passage were presented in a play, it would be a simple matter for the prototype AI, later identified as Morpheus, to continue the dialogue and explain what it knows about JC. However, in *Deus Ex*, the dialogue simply ends here, and the player is exited from conversation mode and returned to a first-person point of view. If the player prefers not to listen to anything further from Morpheus, there is nothing at all preventing the player from walking away and completing the game. However, the specific requirement of nontrivial effort to continue this conversation, in combination with Morpheus' suggestion of his omniscience, lends to it an air of mystery. Presenting Morpheus in this way and requiring the player to right-click on the AI's in-game representation is an invitation to the player to express his or her curiosity about Morpheus' opening lines, rather than simply having him or her continue to read on through the dialogue between Morpheus and JC Denton, as would be done in a nonergodic work of literature.

But there is more to this conversation, and we shall dissect it here. The use of the assumed persona in this instance also helps with presenting Morpheus' arguments in a digestible manner to the player. The next stage of the conversation is presented to the player thus:

> JC DENTON. Go on. Do you have proof about my ancestors?
>
> MORPHEUS. You are a planned organism, the offspring of knowledge and imagination rather than of individuals.
>
> JC DENTON. I'm engineered. So what? My brother and I suspected as much while we were growing up.
>
> MORPHEUS. You are carefully watched by many people. The unplanned organism is a question asked by nature and answered by death. You are another kind of question with another kind of answer.
>
> JC DENTON. Are you programmed to invent riddles?
>
> MORPHEUS. I am a prototype for a much larger system. The heuristics language developed by Dr. Everett allows me to convey the highest and most succinct tier of any pyramidal construct of knowledge.

Morpheus here explains its omniscience and leads into its actual topic of discussion by pointing out how it is different from everyone else JC has met thus far by virtue of being an omnipresent AI. This is fairly obvious and this is also Morpheus' point. Again, the conversation cuts off here and the player is asked to engage it once more.

> JC DENTON. How about a report on yourself?

MORPHEUS. I was a prototype for Echelon IV[43]. My instructions are to amuse

visitors with information about themselves.

JC DENTON. I don't see anything amusing about spying on people.

MORPHEUS. Human beings feel pleasure when they are watched. I have

recorded their smiles as I tell them who they are.

JC DENTON. Some people just don't understand the dangers of indiscriminate

surveillance.

MORPHEUS. The need to be observed and understood was once satisfied by

God. Now we can implement the same functionality into data-mining

algorithms.

As per the assumed persona, JC's arguments are presented on the player's behalf. In this case, they are for the purpose of expressing the shock over what Morpheus proposes: that human beings enjoy being spied upon, that this is the purpose of a deity, and that humanity's technological capabilities are sufficient to create an AI that can replace a deity. The conversation cuts off once more just as Morpheus expresses megalomania. If the player is still interested, he or she can, with nontrivial effort, continue the conversation.

JC DENTON. Electronic surveillance hardly inspires reverence. Perhaps fear and

obedience, but not reverence.

MORPHEUS. God and the gods were apparitions of observation, punishment, and

judgment. Other sentiments towards them were secondary.

JC DENTON. No one will ever worship a software entity peering at them through

a camera.

MORPHEUS. The human organism always worships. First it was the gods, then it

was fame (the observation and judgement of others), next it will be the self-

aware systems you have built to realize truly omnipresent observation and

judgement.

JC DENTON. You underestimate humankind's love of freedom.

MORPHEUS. The individual desires judgment. Without that desire, the cohesion

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[43] ECHELON is currently a network of signal gathering stations operated primarily by the United States. It has been subsumed by the United Nations by the time of *Deus Ex* and is an outmoded system. Both it and the hypertext transfer protocol (HTTP) have since been replaced by the Daedalus protocol, which is itself a more advanced system than Morpheus.

of groups is impossible, and so is civilization.

In other words, according to Morpheus, civilization is impossible unless the human worships an entity, and society has now reached a level of technology that allows that entity to be of humanity's own creation. JC's counter-arguments are fairly poor, but this is out of necessity. JC is intended throughout this entire conversation to move along the dialogue for the benefit of the player, while at the same time expressing the player's shock and disbelief at what Morpheus argues. *Deus Ex* enhances the player's engagement with this conversation by both compelling the player into listening through presenting Morpheus as mysterious, and also by removing all of the player's subsequent options other than strategically provided moments of nontrivial effort within the entirety of the conversation. Morpheus's closing lines to each stage of the conversation are a verbal hook to snag the player's curiosity; every time the conversation cuts off, the game implicitly asks the player whether he or she is still interested, still curious. Of course, not only is the player still curious at each stage of the conversation by virtue of what Morpheus is and what it proposes, but also we must question whether there is conceivably a player who would simply walk away, who would refuse these invitations. In fact, it is better to see this additional choice, to walk away, as not being one at all, for the game manipulates the player through effective writing and presentation into furthering the conversation. A complete ergodic engagement at this point is not necessary; as James Newman writes, "while they [video games] may contain interactive or ergodic elements, it is a mistake to consider that they present only one type of experience and foster only one type of engagement. Videogames present highly structured and, importantly, highly segmented experiences" ("The Myth of the Ergodic Videogame"). (The assumed persona aids in making the nontrivial effort more pertinent when presented.) In so doing, *Deus Ex*'s use of the assumed persona takes what would otherwise be an interesting idea and tantalizes the player through requiring nontrivial effort.

This scene with Morpheus is one of two that foreshadows the player's final confrontation with Bob Page at Area 51, where Page is attempting to merge with Helios, the AI system that currently administers the world as a result of Daedalus and Icarus merging with each other. Morpheus's description of how an AI will be able to watch over the entirety of the world goes hand in hand with the Illuminati's teachings. After sinking the superfreighter PRCS Wall Cloud, the high ranking Illuminati member Stanton Dowd provides backstory information on Bob Page's past while at his family crypt. He describes how Page as a former Illuminatus was

impatient, noting, "Page resisted the degrees of Illuminism as they were interpreted," and that he would sleep through the morning yoga exercises. Dowd then discusses how Page has organized Majestic 12 around a secular system of security clearances instead of higher levels of spiritual enlightenment, but notes, "our organization lasted from the Crusades to the early 21st century, and our only secret was a technique of meditation, a way of imagining your body dissolving into light."

Deus Ex places significant emphasis on light and illumination. Daedalus was a craftsman from Greek mythology who fashioned wings from wax for himself and his son Icarus. However, Icarus failed to heed Daedalus' warnings that the wings would melt, and so Icarus died when he flew too close to the sun. In *Deus Ex*, Daedalus is the first global AI system that monitors all Internet traffic simultaneously because a piece of its code is in every machine on Earth. However, it goes rogue after determining that Majestic 12, its creator, is a terrorist organization alongside the NSF and the Illuminati. Icarus is created as a more loyal AI to replace Daedalus, but both cannot dominate global communications until they merge and become a single AI named Helios. In Greek mythology, Helios is a god who pulls the sun around the Earth in a chariot. In other myths and popular conceptions, the sun represents illumination from the heavens. *Deus Ex* therefore inverts the myth of Daedalus and Icarus because once the two AIs come too close to each other, they are able to ascend to a higher plane of existence and provide guidance to humankind. This guidance is obvious once Denton hears reports of how Helios has been spreading its influence across the globe, for example using its control over global communications to shut down the Triads in Hong Kong and resume trade with mainland China.

The above mythological allusions link back to the game's title in the final conversation between Denton and Page, which proceeds as follows:

> AUGMENTED BOB PAGE. You're too late. Already I'm more than human…
>
> JC DENTON. Does that mean I don't get the job?
>
> AUGMENTED BOB PAGE. Soon I will be pure light! Pure energy! Helios and
> I… Ha-ha-a-a! While the Illuminati cower in the shadows --
>
> JC DENTON. You will be the Supreme Enlightened, the Illumined One.
>
> AUGMENTED BOB PAGE. Everett has taught you well. I will be what the
> Illuminati aspire to be but cannot create for themselves, soon, when my
> augmented systems, like yours, are complete and able to be integrated with

Helios. I will burn like the brightest star…

JC DENTON. You're gonna burn alright.

AUGMENTED BOB PAGE. Look at you: You're nothing but a little man… a little man still living inside a body. Lose your body and what are you? Nothing! You vanish! You die…

As the assumed persona, Denton answers for the player what Page has made of himself: "You will be the Supreme Enlightened, the Illumined One" in case the player has not figured this out by this point. The conversation is thus able to proceed smoothly. Here the player comes to understand that Page has grossly misinterpreted the meaning behind illumination, believing it to be a physical matter rather than a spiritual one. He also believes it to be a matter of personal gain, rather than one for serving the interests of humanity, as Helios explains is its desire, and why it wishes to merge with Denton instead of Page. Here the game's cyberpunk themes, notably Denton being a nanotechnologically augmented human, meet its theme of a dystopian future of world government oppression, represented by Helios' existence and Page's intentions for the AI. There are three possible solutions to this problem. One is to merge with Helios and literally create a *deus ex machina* and bring about a new world order, hence the game's title. The second is to return control to the Illuminati in exchange for limited personal freedom combined with political and economic stability. In this ending, Everett explains, "eventually, eventually we will lead them into the day," suggesting that the Illuminati will not bring about enlightenment because they themselves are not yet ready. The third is to side with Tracer Tong and destroy global communications, which have been centralized at Area 51, thereby rendering world government impossible and reducing government to only being capable of operating on a level comprehensible to its citizens. One of the last moments in the game for that ending is with Denton running away from Area 51's anti-matter reactors as a computer counts down to when they will detonate, the screen then turning to white just after the computer reaches one; this ending is also consistent with Dowd's explanation of imagining the human body dissolving into light. It is the player's experience throughout the game, the ergodic actions he or she has taken and the nontrivial effort the player has inputted to reach this point, that determines which of the three endings the player feels most appropriate to enact. Denton acting as an assumed persona throughout *Deus Ex* allows the game's themes to be accessible to the player through his

assistance in moving along conversations, which facilitate the player's interpretation, and which then helps the player decide which of the game's paths is the most beneficial for humanity.

The avatar, in requiring the player to see himself or herself directly as the main character, can similarly use ergodics and nontrivial effort to make what would otherwise be an interesting idea have even greater impact on the player. *Bioshock* utilizes the avatar as a way of questioning the player's activities and the nature of free will. The turn in the game's plot is when the player finally encounters Andrew Ryan, who, while playing miniature golf, explains that Jack, the player's avatar, is really his son, genetically grown so as to have the body of a thirty year old, but really only two years old. In the introduction to a new game of *Bioshock* Jack is shown opening a package from his parents, though it is not revealed until speaking with Ryan that the package is a gun, and the plane did not crash of its own accord, but crashed because Jack hijacked it. Ryan then explains that the phrase "would you kindly" causes Jack to obey whatever command is given.[44] To demonstrate this, Ryan commands Jack to run, walk and sit. The player no longer has control at this point and watches as Jack moves about at Ryan's command. It becomes obvious that Jack has been manipulated by Atlas from the beginning, and that Jack and the player have never truly had a choice about the actions that have been taken thus far. In this case, the avatar lacks a personality and history because Jack has simply been a mindless slave of Atlas, doing his bidding unquestioningly. To demonstrate this matter absolutely, Ryan hands Jack his golf club and commands him: "kill." It is now doubtful the player would like to comply; however, the player can only watch through Jack's eyes as Jack beats Ryan to death with the putter, ending with the club iron snapping off, lodged in Ryan's bloodied head. Once Ryan is dead, Atlas asks Jack if he would kindly take Ryan's genetic key card and transfer control to Atlas. The player now regains control over Jack and must follow Atlas' bidding by inserting the key card in order to continue with the game; no other solution is possible.[45]

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[44] In the introduction, the note attached to the gift also begins with the phrase "would you kindly." The rest of the note is obscured for obvious reasons, but presumably instructs Jack to hijack the plane and crash it near the lighthouse that leads to Rapture.

[45] The only in-game solution I could theorize to work around this is to utilize the grenade launcher, not take the Grenade Launcher Damage Immunity upgrade, which renders Jack immune to the damage from his own grenades and disable the Vita-Chambers, which will resurrect Jack if he is killed prematurely. The last of these steps can only be done in version 1.1. With the above conditions met, it should be possible to kill Jack using the splash damage from the grenades. However, Jack is temporarily invulnerable between when Jack meets Ryan and when the player inserts the genetic key card into the control terminal and transfers control to Fontaine. As such, the developers were clearly unwilling to accept suicide as a legitimate recourse to this situation.

Theoretically Ryan's death scene is not ergodic, for the player watches a pre-recorded scene play out. But when taken in the context of a work that is ergodic, this stripping away of the player's ability to input nontrivial effort itself has meaning. In this case, it clearly demonstrates that the player has no free will, and has been under the command of Atlas ever since having come to Rapture. Rune Klevjer supports this type of reading in his conference paper "In Defense of Cutscenes," in which he argues, "A cutscene does not cut off gameplay. It is an integral part of the configurative experience. Even if the player is denied any active input, this does not mean that the ergodic experience and effort is paused" (195).[46] Indeed, the stripping of the player's ability to provide nontrivial effort in this specific instance is a stark contrast to the fact that the player has had the ability to control Jack all this time. Furthermore, the player's objective all the way up to this point has ultimately been to try and kill Ryan because Ryan has been luring Rapture's spliced citizens and using its automated security systems to try and kill Jack. Up to the actual encounter with Ryan, the player has had every reason to try and kill Ryan. But once the player actually encounters Ryan, there is no choice in the matter, for, as Ryan cries out while being bludgeoned to death, "a man creates, a slave obeys." Restoring ergodic control over Jack only then further emphasizes the slavery of Jack and the player, for the player is fully aware of Atlas' control, but is literally powerless to resist his command to transfer control of Rapture over to him; the game offers no other solution than to do as Atlas says.

In her article "Beyond Myth and Metaphor – The Case of Narrative in Digital Media," in which she originally developed the internal/external exploratory/ontological pair, Marie-Laure Ryan discusses the problems of the implementation of an actual holodeck, and all its associated advantages, as a video game and how this would affect interactivity. Regarding the characters of traditional media, she suggests, "we simulate mentally the inner life of these characters, we transport ourselves in imagination into their mind, but we remain at the same time conscious of being external observers." By comparison, the holodeck does not function this way. Referring to the opening chapter of Janet Murray's *Hamlet on the Holodeck*, Ryan writes, "Kathryn Janeway, the commander of the starship Enterprise [*sic*], actually falls in love with Lord Burley, a computer-created character." Ryan therefore provides a good case for suggesting that one plays

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[46] For a view on how cutscenes can aid interactivity through increasing player involvement, see Cheng, Paul, "Waiting for Something to Happen: Narratives, Interactivity and Agency in the Video Game Cut-scene." Cheng's analysis is useful, but unfortunately also conflates some properties of scripted events, in other words events that are scripted to occur while the player is still engaged in nontrivial effort, with cutscenes themselves, where the player no longer has ergodic control.

"a rather flat character whose involvement in the plot is not emotional" for the purpose of "exploring a world, solving problems, performing actions, competing against enemies, and above all dealing with interesting objects in a concrete environment." Torben Grodal counters Ryan's internal/external and exploratory/ontological pair by stating, "interactivity is not centrally about changing a world; on the contrary, it is about changing the mental states of the player, whether that takes place by changing some objects in the world or by changing one's point of view" (143). In the case of *Bioshock*, the use of a flat character, indeed a person who is designed deliberately to have no personality whatsoever, is intended not to be about changing Rapture for the better or worse, but instead to cause the player to identify with Jack through the avatar perspective. Such identification occurs because of the avatar's lack of personality, and the game then uses this reaction to then question why it is the player has been taking the current course of actions. This question of free will occurs frequently in traditional literature and in other media, but *Bioshock* uses the game's ergodic capabilities and the avatar perspective to provide a new way of expressing this familiar question.

As mentioned previously, the avatar perspective also allows an unmediated delivery of the game's content to the player. Upon entering the bathysphere within the lighthouse after the plane Jack was on has crashed, the player is introduced to an in-game movie, as opposed to a cutscene. In the movie, Ryan asks, "Is a man not entitled to the sweat of his brow?" and answers that "the man in Washington… the Vatican… [and] Moscow," believe that it should belong to the poor, God, and everyone, respectively. Ryan states that instead of these options, he chose Rapture. The video of the movie itself ends, allowing the player to look through the glass of the bathysphere and see the underwater city. Ryan continues to speak, commenting that Rapture is

> a city where the artist would not be censored, where the scientist would not be
> bound by petty morality, where the great would not be constrained by the small.
> And with the sweat of your brow, Rapture can become your city as well.

These statements align Ryan with Rand's Objectivism. As Ayn Rand writes, "my philosophy, in essence, is the concept of man as a heroic being, with his own happiness as the moral purpose of his life, with productive achievement as his noblest activity, and reason as his only absolute" (*Atlas Shrugged*, 1170-1).

By contrast to Ryan, who favours free-market capitalism, but even more strongly favours Objectivism, Fontaine is concerned entirely with making his own fortune. His smuggling

business, supplying goods such as bibles, is filling a niche that the community wants. His plasmid business, which thrives due to the use of the Little Sisters to collect ADAM, is not at all bound by the immorality of such actions. By contrast, Ryan is bothered by this, even though he claims not to be. In a diary entry entitled "First Encounter," regarding a Little Sister he states,

> Her pallor was off, green and morbid, and there was a rather unpleasant aspect to her demeanor, as if she were in an altogether different place than the rest of us. ...I understand the need for such creatures, I just wish they could make them more presentable.

Ryan's hesitation indicates a reluctant acceptance of the Little Sister because of her necessity to support the plasmid business. Her unsightly appearance is Ryan's focus because he would prefer that Rapture function without her. Fontaine, though, is unconcerned, because through hard work he makes his place within Rapture. In other words, Fontaine serves exactly the free-market ideals that Ryan espouses while one rides the bathysphere to first enter Rapture. At the same time, Fontaine is unconcerned with Objectivism as a philosophical matter; he is out to make a profit and make his way. None of this needs to be explained or mediated to the player by any means; the avatar perspective allows the player to pick up all these clues simply through wandering Rapture's halls and following Atlas' orders as a slave.

Bioshock uses the audio diaries in combination with the avatar perspective as a way for the player to witness the collapse of the paradoxical ideals upon which Rapture was founded. As the main plot is Jack's conditioning by Fontaine and later act of killing Fontaine to escape or utilize Rapture, it is not necessary to listen to the audio diaries. However, the player will learn little of the conflict between Ryan and Fontaine beyond the immediate circumstances that led to Jack being created. The diaries are scattered across Rapture, and they tell the story of how Fontaine began his career in Rapture as a smuggler, later becoming an entrepreneur and spreading ADAM among its inhabitants. Ryan founded Rapture at the bottom of the ocean in order create a society isolated from socialism, religion and communism, and so he therefore sees Fontaine's smuggling operations as a threat to that isolation. However, Ryan is initially reluctant to intervene. As the player continues to explore Rapture and recover these journal entries, which are scattered about out of order, the player gradually comes to see how Ryan abandons his ideals of a non-interventionist government to deal with Fontaine. Ryan's final audio diary entry is entitled "Mistakes," in which he states,

Could I have made mistakes? One does not build cities if one is guided by doubt. But can one govern in absolute certainty? I know that my beliefs have elevated me, just as I know that the things I have rejected would have destroyed me. But the city… it is collapsing before my… have I become so convinced by my own beliefs that I have stopped seeing the truth? Perhaps. But Atlas is out there, and he aims to destroy me, and destroy my city. To question is to surrender. I will not question.

Not to intervene is to let Fontaine, as Atlas, continue to destroy the city, yet to intervene is to abandon his ideals. These audio diaries are an effective way of revealing the character of Ryan, Fontaine and others without having to meet them. They also serve as the heart of the story. One would normally conclude that the story is about the Little Sisters, given that the game ending depends on whether the player has freed them, or harvested them for their ADAM. The good ending has Jack refuse the genetic key to Rapture, take the little sisters up to the surface and help them live out their lives until he dies of old age. The evil ending has Jack turn on the remaining Little Sisters and use Rapture and its spliced citizens as a means to wage war on the rest of the world. I contend, however, that the heart of *Bioshock*'s story is the player's recognition of a lack of free will and Ryan's abandonment of free-market capitalism and his descent into despotism in order to maintain the ideals of Objectivism and contain Fontaine. When Ryan states he will not question because to question is to surrender, he chooses instead to blindly follow his beliefs, and in so doing he becomes a slave to the ideology. This then leads to his despotism, which destroys the city. Ironically, this course of action is also contrary to Objectivism. In *The Virtue of Selfishness*, Ayn Rand notes the dictionary definition of selfishness is "concern with one's own interests" (x). Ryan tries to stop Fontaine in order to preserve his beliefs, yet this very action makes himself a slave to it. Jack's slavery, his lack of self-determination, experienced ergodically by the player, mirrors Ryan's slavery to Objectivism. Rand asks her reader to "observe the indecency of what passes for moral judgments today… a dictator is regarded as moral, since the unspeakable atrocities he committed were intended to benefit 'the people,' not himself" (*The Virtue of Selfishness* xi). As such, Ryan's very pursuit of his ideals paradoxically causes him to abandon them, for, as Rand states, "reason is the faculty that identifies and integrates the material provided by man's senses. It is a faculty that man has to exercise *by choice*" (*The Virtue of Selfishness* 13). Ryan's refusal to question what he is doing to save the

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city he has founded on his ideals is itself a refutation of them. At the same time, Ryan's commitment to his beliefs simultaneously causes him to be a slave to them. The player's unmediated observation and ergodic experience of this narrative through the avatar perspective allows *Bioshock* to paint Ryan as a tragic figure, and also to express the complexity of being concerned with one's own interests.

The overseer perspective presents other options for the discovery of narrative through nontrivial effort that are unavailable to the other perspectives. *SMAC* uses the overseer perspective to demonstrate several competing ideologies that are attempting to build a new civilization after the *Unity* has left Earth. The player's ergodic engagement in playing through the factions requires him or her to bolster the innate advantages each faction holds according to the game rules while suppressing the limitations where possible. As Grodal argues, "in video games such activities often demand rather detailed cognitive maps and motor skills, and playing therefore often requires extensive training of necessary skills" (139). *SMAC* demands mainly that the player learn the game rules. However, it is also of significant benefit to learn the personalities of the faction leaders, for that makes it easier to predict how they will act in game sessions. In discussing the *Halo* universe, Steven Jones notes, "my explanation has had recourse to a dedicated wiki, the series of novels, and the trailer for the third game, not to mention actual gameplay. Only some portion of that story… can be gathered from the gameplay itself" (74). The same is true of the personalities of the faction leaders; much can be gathered through the quotations they provide when having researched certain technologies or built certain improvements, but much of this is contextualized far more effectively by the faction profiles provided by Firaxis Games, the developers of *SMAC*. These are psychological profiles that in the game's fiction were created prior to the launch of the *UNS Unity* for Alpha Centauri, though the game makes no reference to this information. The Psych Profile for Lady Deirdre Skye of Gaia's Stepdaughters describes her as follows:

> Relies on deep intuitive sense combined with scientific knowledge for determination of future actions. Powerful mind and will combined with broad base of knowledge leads her to excel in chosen area of expertise. Sense of isolation from childhood events (e.g. divorce of parents) and pre-launch events reinforces strong tendency to introversion.

> Strong connection to environmentalism causes may cloud scientific judgment; strong democratic leadership style may result in subject placing welfare of loyal subordinates above welfare of mission as a whole. Appeals to reason should prove effective in discouraging these behaviors.

These notes set up a few in-game items of importance. Introversion suggests she will not act aggressively. The intuitive sense, particularly when combined with the note in a previous paragraph that she "immediately distinguished self with deep intuitive knowledge of plant strains and ability to intuit powerful genetic manipulations," suggests that her knowledge comes first from what she feels, and then with what she knows. This relates to her faction's improved Planet rating, which allows her to capture mind worms much more easily than the others, as well as making it less likely that Planet, being sentient, will try and destroy terrain improvements through expanding the xenofungus aggressively.[47] The note about a strong connection to environmentalism means that a computer playing her will favour Green economics in the Social Engineering and will not select a Free Market. Most of the other factions contain similar descriptions, though some also contain other notes, such as Yang's, which notes, "CAUTION: Earlier psych tests show suspiciously near perfect normals along all axes. Subject may use strong will and extensive knowledge of psychiatric indicators to manipulate test results in his favor." All these profiles provide a more explicit framework that explains how each leader would construct his or her society.

SMAC's implementation of the overseer uses ergodic action to teach the player its message through rote learning. With regard to learning the game, Grodal argues,

> when starting a new game we may follow different routes and have an experience of controlling many options. But when we gain mastery we may not only experience the game as a series of routes that we may follow but also create a total 'map' of the game and realize that we have a set of limited options. In this stage, the game is more likely to be experienced as a 'message' from the game producers because we get insight into their game design." (144)

In learning how each of the factions performs and how their advantages give a particular shape their society, the player comes to learn that *SMAC*'s message is that the personalities of all seven

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[47] The intuitive connection also results in Deirdre having a series of quotations for technologies researched entitled "Conversations with Planet," which are spoken by Planet itself.

factions are all actually required out of all society. This is evidenced by the fact that the *UNS Unity* breaks apart over Alpha Centauri in the game's opening cinematic, with each of the seven factions subsequently taking those who side with them to Planet's surface. For example, Deirdre acts as the conscience of society, Yang the human will to achieve self-improvement, and Morgan the innate value of wealth and competition. Each faction leader is presented as highly extremist because the faction leader is not intended to be a person with which the player can identify; instead the faction leader is expected to be symbolic of the attributes he or she represents, and as such the player is expected to identify with said attributes. In this way, the overseer perspective in *SMAC* combined with ergodic activity presents an argument for a balanced outlook regarding how society should be constructed, that it must be constructed out of a series of conflicting viewpoints in order to exist at all. The adoption of any one viewpoint taken too far will inevitably bring about the flaws inherent in that viewpoint, which are only countered by other balancing forces.

We end this analysis of perspectives and ergodics with the use of the player character in *Planescape: Torment*, where the player is expected to shape the personality of the character he or she is playing. The Nameless One comes with a preset background, that of an immortal who loses all of his past memories after every physical death. Therefore the Nameless One has both a past history around which the story is based, yet is also a blank slate for the player to shape his personality in reaction to the events of the game as the player experiences them. In Chapter 2 I discussed how witnessing the memory of Deionarra's death in *Planescape: Torment* was ergodic due to a lack of capability to intervene, and how this feature allowed it to attain literary value through presenting a tragedy while preventing the player from acting and showing the player's helplessness. In other words, a lack of choice created meaning. However, the opposite effect is also possible. The player discovers from Trias, an angel that has since sided with the lower planes, that the portal to reach the Nameless One's mortality is in the Mortuary itself, only a few metres away from where the game opens. Activating the portal requires inscribing a regret onto the Nameless One's flesh. There are a series of choices presented in four categories: "Regret: 'I regret what happened to my companions…,'" "Regret: 'I regret my actions…,'" "Regret: 'I regret my past…,'" and "Regret: I regret events that have led up to this point…'" Each category contains several options, such as, "…all my companions had to suffer for me to reach here," "…I wandered all over the Planes when the damn portal was right here when I FIRST woke up,"

"…ever asking to become immortal," and "…that I have no regrets to write upon this scrap of skin."

Selecting any of the various options will successfully activate the portal and take the Nameless One to his mortality, located within the Fortress of Regrets. On a basic level, searching through these options puts the player into the mind of the Nameless One. In reading through them, the game asks the player to remember what he or she has experienced up to this point. Therefore, this moment functions as a way to recap many of the game's events without attempting to do this in a heavy-handed manner through description or dialogue. At the same time, the game cannot discern whether any of these options actually matters to the player, so on a strictly ludological basis none of them matter at all; any random answer would complete this ergodic sequence and allow the player to proceed with the gameplay. However, having played through the game all the way up to this point, having experienced the story of the Nameless One, having engaged on an emotional level with the possible companions, having witnessed the crimes of the past incarnations, and having possibly committed some as well, one of the myriad options presented is bound to resonate with the player. Therefore, the decision here, while meaningless within the game itself, matters greatly to the narrative experience of the game as a whole. Here then the distinction blurs between the Nameless One and the player. Establishing the alignment of the Nameless One throughout the entirety of the game thus far means that choosing an appropriate regret, which the game cannot analyse to determine whether it is appropriate to said alignment, is merely another ergodic action to set personality. Yet this action affects not the Nameless One, but the player, for it is the player who will have been changed by the events of the game.

The capacity for works to be able to change peoples' beliefs is uncontested in other media. Aarseth, however, questions this possibility for video games. Borrowing from Ryan's "Beyond Myth and Metaphor," Aarseth asks "what player… would actually commit suicide, even virtually? Novels are very good at relating the inner lives of characters… games are awful at that, or, wisely, they don't even try." (50). Jan Simons in "Narrative, Games, and Theory" notes "many games actually are designed to make at least one of the players meet her virtual death (e.g., chess, checkers, poker, *Pacman*) and there are single-player computer games that can never be won by the human player…(e.g. *Tetris*)." Of course, none of these games has a narrative, and Simons furthermore does not use his examples to answer Aarseth's question. If we

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consider the Nameless One, someone who has lived an indeterminable amount of time, whose past selves have brought untold torment on the world, and whose existence threatens the Planes themselves, would suicide not be a reasonable option? Because of the player character perspective, that option is the player's. In confronting the player's immortality, known as the Transcendent One, a player with an outlook that suggests that the Nameless One's existence has indeed been a curse on the Planes may believe that suicide is the best of the options.

Suicide can be achieved by one of three means. The first is to receive the Blade of the Immortals, a weapon forged by a drop of the Nameless One's blood, and use it while confronting the Transcendent One. The other two options set the central theme of *Torment*. The Transcendent One allows the player to question it before it will kill the Nameless One and everyone else who may know how to return to the Fortress of Regrets. The first of the two options deals with answering a question posed throughout the game, assuming the player has invested sufficient wisdom in the Nameless One over the course of the game.

> NAMELESS ONE. "Then this is my final question: What can change the nature of a man?"
>
> THE TRANSCENDENT ONE. THE QUESTION IS MEANINGLESS.
>
> NAMELESS ONE. "Nonetheless, before there is an ending between us, I will hear your answer.
>
> THE TRANSCENDENT ONE. THEN THIS IS MY ANSWER AND YOU ARE THE PROOF. *NOTHING* CAN CHANGE THE NATURE OF A MAN.
>
> NAMELESS ONE. "If there is anything I have learned in my travels across the Planes, it is that many things can change the nature of a man. Whether regret, or love, or revenge or fear – whatever you *believe* can change the nature of a man."
>
> THE TRANSCENDENT ONE. THEN YOU HAVE LEARNED A FALSE LESSON, BROKEN ONE.
>
> NAMELESS ONE. "Have I? I've seen belief move cities, make men stave off death, and turn an evil hag's heart half-circle. This entire Fortress has been constructed from belief. Belief damned a woman, whose heart clung to the hope that another loved her when he did not. Once it made a man seek immortality and achieve it. And it has made a posturing spirit think it is something more

than a part of me."

The player can here choose to unmake the Nameless One, unmake the Transcendent One, or force the Transcendent One to merge with the Nameless One. The idea behind the use of the player character and this theme of belief is that one can make oneself whatever one wishes to be through belief alone, as the player has witnessed the power of belief through having given nontrivial effort on such matters throughout the game's story. Therefore, the player's beliefs, informed to a large extent through the player's reaction to having witnessed the effects of all the past incarnations' effects on the Planes, are sufficient to be able to choose how to end the narrative.

The other way to access the end of the game is to recognize identity as a theme of the game. This is evident from the fact the player's player character is called the Nameless One. There are many people the player will meet who question the importance of a name. Some suggest it has great power, while others believe that not having a name also gives a measure of power. The loss of the Nameless One's name occurred because Ravel kills the original incarnation to test whether she was successful in making the original an immortal. It was here she discovered that the incarnations would lose their memories after each death. All subsequent incarnations therefore lost access to the name of the original. This information can be found in the bronze sphere that Pharod sends the player to locate.[48] If the player brings this with him to the Fortress of Regrets, the Good Incarnation will reveal that he was the first incarnation to emerge after Ravel killed the original person. The bronze sphere, in giving back all of the original incarnation's memories, also restores his name.[49] Assuming the player has had the Transcendent One explain that there is a link between it and the Nameless One, the knowledge of the original incarnation's name then allows the player to confront the Transcendent One in a different way.

> NAMELESS ONE. "If we are linked as you say, then speak our name."
>
> THE TRANSCENDENT ONE. A NAME IS A THING EARNED BY A MAN
>
> THROUGH HIS ACTIONS. BY THE NATURE OF THAT, THE NAME WE
>
> ONCE HAD IS MEANINGLESS.

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[48] He does this because the Practical Incarnation tricked Pharod into thinking the bronze sphere would give Pharod the ability to atone for his crimes, when the Practical Incarnation really wanted it because he knew it contained the memories of the original incarnation.

[49] The game does not reveal what that name is. Doing so would probably diminish the meaning of such a discovery.

NAMELES ONE. "You don't *know* what our name was, do you?"

THE TRANSCENDENT ONE. THERE IS NO ONE IN ALL EXISTENCE THAT KNOWS OUR NAME. THIS IS OUR SHIELD. NAMES CARRY POWER. WHEN ONE IS *NAMELESS* AS WE ARE, THEN ONE IS STRONG. WE CANNOT BE HUNTED. WE CANNOT BE TRACKED. WE CANNOT BE HARMED.

NAMELESS ONE. "Why was that ever important? Were we being hunted?"

THE TRANSCENDENT ONE. ALL THAT LIVES IS HUNTED. THE PREDATOR IS DEATH. IT HUNTS US NO LONGER.

NAMELESS ONE. "Then know it hunts us now. Our name is known to me, creature. In knowing it, I have become strong."

THE TRANSCENDENT ONE. YOU *LIE.* OUR NAME IS LOST, FORGOTTEN, AND SO IT SHALL REMAIN UNTIL ETERNITY DIES.

NAMELESS ONE. "Do I lie? If you are of me, you *know* when I deceive you. I do not lie now."

THE TRANSCENDENT ONE. EVEN WITH SUCH KNOWING, YOU DO NOT HAVE THE POWER TO DEFEAT ME.

NAMELESS ONE. "Yes I do – and I shall not allow you to trick me into a battle that is not even necessary. For in knowing my name, my true name, I know yours. There is nothing more you can do to me."

THE TRANSCENDENT ONE. I WILL *UNMAKE* YOU.

As with belief, the same ergodic options exist at this point to deal with the Transcendent One. In shaping the personality, and thus the identity, of the Nameless One through the use of the player character perspective, the player him- or herself is subsequently also changed through the ergodic experience. The value of identity thus becomes imparted through ergodic action, framed ultimately by every moment within the game. *Torment*'s argument is that knowing one's self gives power. If this power is to be used to end the Nameless One's life, then the game acknowledges that as an appropriate ending.

In this final chapter we have seen how the given perspective of a game, in combination with the game's ergodics, not only provides the means by which a player traverses a game's narrative, but can also shape the story a game tells. As mentioned in the beginning to this

chapter, a video game becomes literature when both the perspective of choice is being used to contextualize the narrative and story, *and also* when the ergodics are being used to allow the player to effect the narrative and story. Through this combined use of ergodics and perspectives, we can see how and why each of these video games is literature, and we can note that because of their skilful use of these two aspects that they communicate their themes to the player effectively, yet also in a manner not possible to traditional forms of literature. These views lie in contrast to those such as Aarseth, who would rather see video games studied solely as video games. However, as we have seen, there are some video games that are simultaneously video games and literature, and therefore they must be studied as such.

CONCLUSION

Markku Eskelinen concludes his article "The Gaming Situation" by stating that we should not study games as narrative and drama because

> stories are just uninteresting ornaments or gift-wrapping to games, and laying any emphasis on studying these kinds of marketing tools is just a waste of time and energy. It's no wonder gaming mechanisms are suffering from slow or even lethargic states of development, as they are constantly and intentionally confused with narrative or dramatic or cinematic mechanisms.

It should be abundantly clear by now that the stories of the four games I have analysed do not fit the judgment Eskelinen provides in the first sentence. As I stated in the introduction, there are a large number of games for which my theory of perspectives and ergodics cannot be used because the games themselves do not implement a narrative, or use their narrative as merely a framing device for their ergodic properties. For such games, Eskelinen is correct to conclude that it is a waste of time to analyse the stories of those games for the stories themselves. At the same time, there are a number of games that *do* implement a narrative for the purposes of telling a story, for communicating literary themes to the player, and that utilize traditional literary techniques to do so. Much of the previous criticism, notably the bitter ludology/narratology debate, has been unable to recognize how the ergodics of a game is used to access this narrative. This lack of recognition has closed off a vast pool of critical analysis of games and has denied game theorists a wealth of material with which to build upon for future scholars to utilize.

If, as Eskelinen argues, "stories are just uninteresting ornaments or gift-wrapping to games" ("The Gaming Situation"), it is then logical to ask why some games, such as the four analysed in this thesis, place quite so much emphasis on developing them. If the purpose of the game is merely for play, then why is *Bioshock* concerned with demonstrating the personal slavery that can result from trying to pursue free-market capitalism while also always pursuing one's own interests? Why is *Deus Ex* intent on demonstrating the problems of totalitarian governments and seeing a solution in spiritual illumination? Why does *Planescape: Torment*

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want to demonstrate the power of belief and identity? Why does *SMAC* want to demonstrate that society must consist of a series of competing ideologies? The answer is because, for some games, their stories do matter; the game developers are deliberately using stories in video games to communicate a message to the player. If stripped of their stories, each of these games would be a shadow of its former self. Certainly there would be ergodic action with which to engage, but there would be nothing beyond this. The ergodic action would have no meaning. There are many games that do this quite well, but that is because the developers of those games chose to engage on a purely ergodic level. Other developers have chosen to create games that also engage on a literary level. Analysis of these games that ignores their stories is akin to forgetting that these video games are video games at all and subsequently analysing them as we would traditional forms of literature. Stories and storytelling are an integral part of many video games; to forget or ignore this is to diminish our analysis of the medium as a whole.

With regard to the ludology/narratology debate, Celia Pearce explains in much harsher terms why game studies has been lacking: "if we are to talk about games and play, or games and narrative, or games and *anything*, we would be better served to talk about *games* than about each other" ("Theory Wars"). The greatest problem in talking about games has been simply that there has been inadequate analysis of the games themselves. The main reason for this is that many games cannot be explained or discussed in a meaningful way without being able to qualitatively judge them. If no such system is in place, then a meaningful discussion of these games cannot be performed. For games that employ narrative, the method I have proposed to interpret them in a qualitative way is to examine how the game in question utilizes its choice of perspective, the means by which the player enters the game world, in combination with the innate ergodic capability of all video games. These two put together allow for a different method, an ergodic method, of communicating literary themes, asking philosophical questions, and providing outlets of creative expression. The fact that some video games also employ conventional literary techniques does not mean that they are the same form of literature as traditional print literature. However, it does mean that the techniques presented to such works can also be applied to video games so long as one is careful to remember that video games are ergodic, and that they require nontrivial effort in order to traverse their narrative.

This thesis demonstrates that certain video games are literature. This understanding comes from taking the current scholarly work on avatars and redefining it in terms of

perspectives. All video games that utilize narrative at present also utilize one of four perspectives: the avatar, the assumed persona, the player character, and the overseer. Each perspective allows the player to explore the game's narrative in different ways. This exploration occurs through the fact that a game is ergodic, it requires nontrivial effort on the part of the player in order to actuate meaning. All video games that have a narrative utilize both these concepts in parallel. The player's exploration of the narrative is thus mediated by these two concepts. With such an understanding in place, it then becomes possible to recognize the literary qualities of video games.

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