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Games Worth a Thousand Words:

Critical Approaches and Ludonarrative Harmony in Interactive Narratives

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If we are going to reach our potential when innovation dries up, we need to be important. We need to speak to the human condition. We need to make games that people care about so much, they can't not play them.

—Jonathan Blow

Video games stand on the precipice of artistic legitimacy in the academic community. In 2004, game designer Eric Zimmerman wrote, "Academic journals, conferences, and courses about computer-based storytelling, digital interactivity, and gaming culture have flourished like a species of virulent weed in the manicured garden of the university" (154). Today, academic programs are continuing to openly encourage students to take gaming seriously, to pick up a controller and start playing their homework. However, these university programs are by far a representative minority. For many academics, video games are written off as a waste of time, as inherently-inferior experiences that lack any semblance of artistic depth. Perhaps this sentiment stems from the relative newness of video games as an art form. Steve Russel's *SpaceWar!* was one of the first video games. It was created in 1961, just over fifty years ago (Juul 3). In it, two triangular shapes served as analogs for spaceships that players controlled in head-to-head combat. Due to funding and technological constraints, many early games were forced to experiment in interactive media utilizing limited artistic devices. Low processing power prevented games from looking realistic. Limited memory forced game designers to think as engineers first and artists second. While video game designers have always had imaginative dreams about the potential of interactive media, the required technology has only recently become available. Today, both gaming-capable computers and home consoles are commonplace in households. The available technology allows game designers to render characters in stunning detail. They are also free to

create gigantic worlds that take hundreds of hours to fully explore. Because of this, video games have recently proven to be an excellent vehicle for delivering compelling narratives.

But how does one formally talk about the quality of an interactive narrative? Unlike literature and film, video games privilege player agency. Games ask players to temporarily serve as puppeteers to digital avatars. Because of this, theorists have struggled to adapt preexisting critical strategies from other art forms that ask audiences to consume media in a more passive way. Even today, scholars greatly disagree on a fundamental level about how games should be analyzed. Some choose to view video games exclusively as rule-based systems that players make choices within. Others model video games as digital play spaces that create imaginary worlds and narratives. However, a growing number of theorists are attempting to combine these two approaches into one universal theory that captures the essence of video games. This thesis will present examples of preexisting academic approaches to the study of video games and will offer an augmented approach that holistically addresses harmony between a game's narrative and gameplay.

The epigraph above, taken from Jonathan Blow's self-titled "rant" given at the 2006 Game Developer Conference, highlights the internal urgency that game developers are now experiencing to successfully merge compelling story and engaging gameplay. He makes reference to the nebulous phrase, "the human condition," which is the critical theme that all great works of art seek to examine in one way or another. In essence, we find ourselves in the midst of a small-scale digital gold rush to find new and innovative ways to convey story in video games, to express the human condition in a way that affects the reader as strongly as other form of media. Blow's imperative statement demonstrates the need for a careful reexamination of how the narrative of a video game is facilitated by its gameplay.

Video games and narrative do not have an ideal history. Often, technical limitations prevent players from feeling any real emotional attachment to video games. John D. Carmack, co-founder of id Software, has even been quoted saying that a “story in a game is like a story in a porn movie. It's expected to be there, but it's not that important” (qtd. in Kushner 120). Video gaming was born from a group of programming visionaries who saw the personal computer’s potential for playing games. Carmack is one of these foundational programmers and was a part of the staff that created the wildly-popular first-person shooter *Doom*. During his foundational years, he was supposedly a “voracious reader like his parents, favoring fantasy novels such as Tolkien’s *The Lord of the Rings*. He read comic books by the dozen, watched science fiction movies, and, most enjoyably, played Dungeons and Dragons” (19). Like many early games, *Doom* was written and crafted exclusively by programmers with a love of science fiction and fantasy. This is one reason why so many early video games are set in fantasy worlds with elves, wizards, and warriors. Carmack’s tongue-in-cheek commentary on story and gaming reflects the gaming industry’s early focus on simply making games more and more technologically innovative. Technical limitations were abundant, and only recently has there been a strong enough demand for compelling storylines in games to justify the cost it would take to realize one.



Fig. 1. Screenshot of id Software's *Doom*, an early first-person shooter with innovative gameplay and programming technology.

Writer Grant Tavinor, on the topic of why video games have received little artistic legitimacy, writes, "For many people, I suspect, the image of videogames is still one of rather crude digital entertainments: pixilated space invaders moving jerkily across a screen, yellow discs munching glowing balls, and tiny men climbing ladders and jumping barrels might come to mind" (1). The games that Tavinor refers to are *Space Invaders*, *Pac-Man*, and *Donkey Kong*, respectively. These games exist today as popular icons of gaming in its entirety. Similarly, the game *Doom* comes to represent the overly-violent subject matter of many video games. However, games have radically changed in the ten years since *Doom*'s creation. Many people wonder what draws people to play video games for hours and hours. Tom Bissel, author of *Extra Lives*, ponders this by saying, "I wondered if my intensified attraction to games, and my desensitized attraction to literature, was a reasonable response to how formally compelling games had quite suddenly become" (160). While games such as *Doom* do exhibit legitimate artistry, it does so in a way that is uniquely "game like." The player experiences tension when they are about to die.

They experience relief when they find armor and health packs. Games such as *Doom* enable players to have emotionally-involved experiences. However, contemporary games now have many more innovative tools at their disposal to tell a wider variety of compelling stories.

As a student of English literature, I am familiar with the power of well-written works of art. Since taking a class on modern drama, I have made a habit of reading Samuel Beckett's *Waiting for Godot* at least twice a year. It is a piece of literature that resonates strongly with my own perception of the world. I attribute Beckett's artistic excellence to the particular strategies he employed as a dramatist. He capitalized on the Absurdist style, writing brief, poignant lines of dialogue with frequent pauses to embody the dreadful weight one experiences during an existential crisis. *Waiting for Godot* is thus an exemplar of art using its mechanics—in this case pauses and brief dialogue—to enhance its narrative. It is my belief that the very same principle dictates the quality of a video game's storytelling, that a video game's worth can be determined by the strength of the harmony between its narrative and gameplay.

The Birth of a Gamer

This is one of my earliest childhood memories. I am three years old. I live in a small town in a small blue house in New Hampshire. My family has a giant back yard and an even larger front yard. Out back is a swing set that is moderately used and a tricycle with squeaky wheels. During this memory, however, I am indoors. I am playing a game. I am saving the world.

The first role I ever took in a video game was the iconic blue hedgehog named Sonic. He is the titular protagonist of Sega's 1991 *Sonic the Hedgehog*. My parents had given me a Sega Genesis system for Christmas. I was hooked at once. I would play as Sonic nearly every day, getting further and further in the game. The player is given three "lives," a popular convention of early gaming. When Sonic dies, he is brought back to life at the last "checkpoint" he came across

with one less life. This allows the player to progress in small, segmented chunks without having to start the entire game over again. Because of this convention, I was able to master the individual skills I needed to succeed, what video game theorist Jesper Juul calls the player's "repertoire" (56). I was learning to think strategically within the system. I learned that each enemy I faced had a set pattern and a set weakness to exploit. I learned that I got the most points if I ran quickly through each level, but I tended to live longer if I took my time.

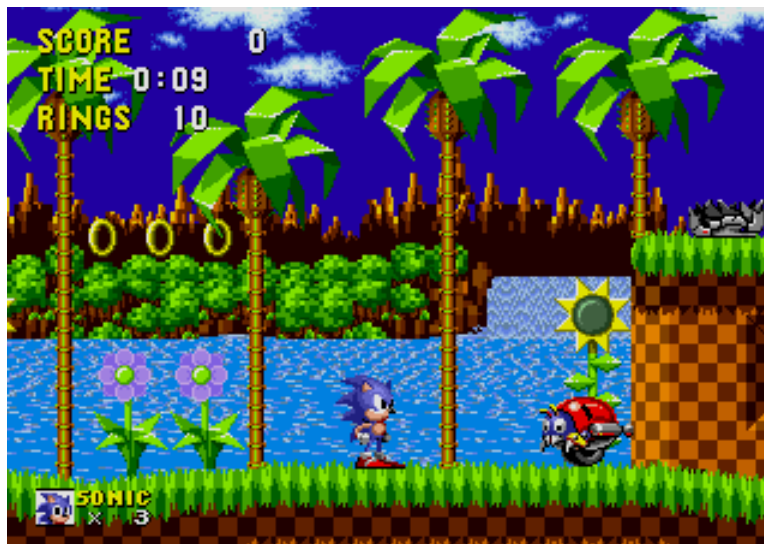


Fig. 2. Screenshot of *Sonic the Hedgehog* featuring Sonic, the titular protagonist.

What ultimately kept me playing was my emotional attachment to the characters. Before I started playing video games, my interests were already primarily placed in indoor activities, such as reading books, watching videos, and playing with toys. They each held my attention well enough, but there was nothing quite like the rush of playing video games, of stepping into Sonic's red shoes for a short amount of time. My father fondly recalls the first time I played *Sonic*. He watched as I got through the first three levels, made it to the boss (i.e. particularly challenging enemy). He had a menacing, dastardly name: Doctor Robotnik. Robotnik enters the screen floating in a spherical machine. If I were to watch the sequence now, I'm sure there would be absolutely nothing intentionally terrifying about it. However, the then three-year-old me threw

the controller in the air and screamed for help. My father came into the room and consoled me. For the next few days, I watched my father beat Robotnik for me from the adjacent room. I had been so immersed in my role as Sonic that his villains legitimately frightened me. In this way, gaming allowed me to become an amateur actor at an early age, to step into the role of a hero and make a difference in the world, all without leaving the living room. Little did my parents know that their one Christmas gift would be just the start of a long line of gaming consoles to enter our household.

Today I find myself in a unique position between multiple identities. I am a gamer, and I have been for nearly all my life, but I am also a student of English literature. I started my university career studying literature because it allowed me to examine the mechanics of storytelling. As Jonathan Blow stated, there is something exceptionally touching and important about works that examine the human condition. Books can act as representations of society and mirrors into the self. We learn from these small-scale representations of the world around us and choose to change accordingly. It is my belief that video games, like books, have the potential to touch players in this deeply personal way. Through my studies in literature, I have come to know the potential power of utilizing a multiplicity of theoretical frameworks to analyze a single text. Having conducted a survey on popular methods of analyzing video games, I suggest that a similarly diverse approach to the study of video games would allow scholars to better name and evaluate the experiences they have with video games.

The Problem of Definition

Immediately complicating the matter of studying games is that there is not one simple definition of what a video game is. Without a standardized definition, it is difficult to examine the intersecting applications of two or more theorist's arguments. Many academics today, in

some way or another, tend to indicate which definition they are basing their arguments in their writing. It has developed into a cumbersome necessity of sorts, one that may not be as crucial as it may seem. Below I present three competing definitions and examine their differences.

In his book titled *Half-Real*, Jesper Juul examines seven potential definitions for a game and synthesizes them into one coherent definition. He states that a game is:

1. a rule-based formal system;
2. with variable and quantifiable outcomes;
3. where different outcomes are assigned different values;
4. where the player exerts effort in order to influence the outcome;
5. the player feels emotionally attached to the outcome;
6. and the consequences of the activity are optional and negotiable (Juul 6).

Juul's definition is useful in defining the game elements of a video game. Of particular importance are his assertions that games must have a quantifiable outcome that the player necessary has an emotional attachment. With this definition, we can reduce any video game to its component parts, to its formal game structure until specifics like the blue color of Sonic in *Sonic the Hedgehog* or the menacing expressions of the enemies in *Doom*.

Grant Tavinor, author of *The Art of Video Games*, offers a more simplistic definition of a video game than Juul. He writes, "X is a videogame if and only if it is an artifact in a visual digital medium, is intended as an object of entertainment, and is intended to provide such entertainment through the employment of either rule and objective gameplay or interactive fiction" (32-33). When not pushed too far, Tavinor's definition works perfectly well at properly identifying video games. We can clearly see why games such as *Sonic the Hedgehog* and *Doom* fit within this definition. They are interactive artifacts that are visual and digital and were created

to entertain players with their formal systems. However, when abused, one could claim that programs such as Microsoft Word or Paint are games if the developers chose to say that they were created with the purpose of entertainment. Unlike Juul, Tavinor's definition fails to determine what sort of formal digital systems qualify as video games.

Offering a hybrid of the two previous examples, video game designer Eric Zimmerman defines games as "a voluntary interactive activity, in which one or more players follow rules that constrain their behavior, enacting an artificial conflict that ends in a quantifiable outcome" (160). Like Juul, Zimmerman necessitates the presence of a quantifiable outcome in order for an artifact to be called a game. He also highlights the need for an "artificial conflict," such as the conflict between Sonic and Doctor Robotnik. Zimmerman's definition is unlike Tavinor's as it does not consider the creator's intention. It does not matter that the creator of *Doom* says that it was designed to entertain. However, like Tavinor, Zimmerman's definition allows for a broader group of artifacts to be titled "games" as it does not state that players must have an emotional attachment to the outcome of a game.

While these three definitions are useful and applicable for specific purposes, I found Tom Bissel's commentary on video game definitions to be the most useful. He writes, "I have come to believe that anyone who can tell you what a game is, or must be, has seen advocacy outstrip patience" (xiv). In Bissel's opinion, all three of these definitions are forced. There is a growing need for standardized discussion among academics who study video games, and thus a definition that could be universally agreed upon would be invaluable. However, I agree with Bissel's sentiment that no one definition of a video game will ever be suitable. Take literature, for example, as it has had hundreds of years to mature and mutate into what it is today. Literary scholars constantly encounter new artifacts that force preexisting definitions of literature to

expand, such as the Japanese keitai shousetu (cell phone novel) and the Twitter novel. After hundreds of years, literary scholars have failed to come to a consensus on a single, all-encompassing definition of what “literature” means. How can we expect a fifty-one year old form to do the same? Instead, we may instead change our goal from attempting to define what games are to looking at how we can better use definitions to critique video games.

Critical Approaches: Making Sense of the Video Games

Consider the study of English literature. It is inarguably a highly-studied and well-respected field of academia. Professors are careful to arm their students early with preexisting analytical approaches to the study of any given text. A student can decide to specialize in formalism, or perhaps choose reader response theory, or even deconstruction theory. Each of these approaches provides a formal methodology to study literature, and each provides a uniquely different analysis of the same text. The literature student also has access to various grammars to describe devices employed in literature. When analyzing Shakespeare, for example, students will most likely make use of terms such as “soliloquy,” “prologue,” “pun,” and “iambic pentameter.” Even students of other disciplines are vaguely aware of these terms. They feel readily accessible and familiar since they have been integrated into the standardized curriculum of middle and high schools.

The same cannot be said of the study of video games. While there are many well-thought-out approaches and theories, the academic landscape is rapidly shifting, causing students to stand on unsteady grounding. This shifting can be attributed to the extremely different academic backgrounds of those studying the phenomena of video games. One theorist, a programmer, for example, may choose to exclusively focus on the game as a system of “operative code functionalities” (Seaman, 230). To this theorist, the game’s aesthetic qualities are entirely

superficial, like the particular size, shape, and color of a chess board's bishop piece. Given any other visual appearance, the bishop would still function in precisely the same manner—it would still move diagonally any number of spaces across the board and capture any enemy piece that may be occupying its space. Another theorist with a background in philosophy may choose to disregard the formalist systems of a game and study the aesthetic beauty of the game world. This theorist might take chess and comment on the aesthetic differences of height among the game pieces, on how the two combating armies are arranged in a particular order on the game board. Because the academic study of video gaming is still relatively in its infancy, emerging theorists appropriate the analytical tools from better-established fields of study, causing dissonance when theorists of different backgrounds attempt to craft one harmonious approach.

To summarize the current theoretical landscape of the study of video games, there are three main analytical approaches: Ludology, Narratology, and Hybrid Approaches.

Narratology

Narratology is a multidisciplinary field of study that is frequently employed for the study of video gaming. It originated from “Aristotle's Poetics and the study of storytelling media such as drama, novels, and films,” (Juul 15). Narratology is inherently transmedial as it has applications across various art forms, and thus focuses more closely on stories themselves than the vehicles by which they are delivered. Similar to the complications with the definition of “video game,” narratologists base their work on contesting definitions of “narrative.” One such definition, essentially Zimmerman's summary of J. Hillis Miller's definition in *Critical Terms for Literary Study*, states that “a narrative has an initial state, a change in that state, and insight brought about by that change. You might call this process the 'events' of a narrative.” He continues, “A narrative is not merely a series of events, but a personification of events through a

medium such as language... This representation is constituted by patterning and repetition. This is true for every level of a narrative, whether it is the material form of the narrative itself or its conceptual thematics" (156-157). This definition recognizes both the material and immaterial elements of a narrative, making it as useful for the study of games as it is the study of literature.

Academics using the narratology approach do not necessary need to adhere to classification to determine what is a viable artifact to study. As Zimmerman suggests, instead of asking, "Is this thing... a 'narrative thing' or not?" one could ask, "In what ways might we consider this thing... a 'narrative thing'" (157). When applied to video games, narratologists tend to gravitate towards the most traditional-seeming narrative devices. The "narrative things" that are considered typically include plot, character, setting, conflict, dialogue, exposition, climax, and denouement. Rarely do narratologists include strategy, rules, goals, controls, or other gameplay mechanics in their list of "narrative things." Gameplay mechanics are instead more typically studied by ludologists. To offer an example, a narratologists studying *Sonic the Hedgehog* might examine the particular characterization of Sonic or the use of anthropomorphism to tell a hero's tale. He may address the fact that Sonic has three lives (shown on the bottom left corner of Fig. 2), but only to comment on how it contributes to making Sonic's world incoherent (Juul 123).

Common narratological criticism on video games focuses on how a particular game's rules and mechanics stand in opposition to its narrative. This includes Sonic's three lives. Juul offers two distinct categories for fictional worlds: incomplete worlds and incoherent worlds (122). Incomplete worlds are based on Marie-Laure Ryan's principle of minimal departure which states that all fictional worlds are incomplete because they cannot represent the entirety of the universe (123). Thus, media consumers must supply their own details to the world, often filling

in elements from their own perception of reality to make a conceptually complete world. For *Sonic*, the player assumes that there is a larger world outside of what is directly experienced in the game. Incoherent worlds, on the other hand, are worlds that contain details that cannot be explained using logic within the fictional world. Juul offers a simple test called the “retelling test” to check whether an element within a fictional world is incoherent. If one can only provide a summary of the particular element in question by referring to mechanics outside of the fictional world, said element is incoherent. Nothing within the world of *Sonic* explains why Sonic gets three lives or why there are checkpoints at specific places. Other games, however, have attempted to integrate gameplay elements into the world itself. This includes *Bioshock*’s use of “Vita-Chambers” (Fig. 3) which are actual inventions within the world that bring people back to life. However, narratologists tend to primarily care whether or not a particular mechanic is being disruptive to the narrative. The default recommendation is to remove a mechanic first before trying to integrate it into the fictional world.



Fig. 3. Screenshot of 2K Boston’s *Bioshock* featuring the Vita-Chamber (center).

The ultimate goal of many narratologists studying video games is to heighten the consumer's experience of the narrative qualities of any given art form. This has led narratologists studying video games to propose revisions to the ways game developers present narrative. Janet Murray, author of *Hamlet on the Holodeck*, encourages developers to explore endeavors such as "cyberdrama" (Murray 281). Because the interaction between player and character in video games closely resembles the relationship between actor and character in theater, Murray proposes that the future of interactive narrative may resemble something close to the Holodeck from the television series *Star Trek*. In the Holodeck, simulations take place that are near-identical to the real world events. Users engage with the world directly with their bodies and interact with advanced artificial intelligence. Murray also places significance on "reader response" theory that suggests "the act of reading is far from passive, [that] we construct alternate narratives as we go along" (112). With this focus on user-narrative interaction, Murray, like other narratologists, purposefully or inadvertently seeks to keep gameplay a minimum in interactive narratives in the hopes of strengthening its narrative qualities.

Narratology is frequently criticized by ludologists for not accounting for the particularities of video gaming as a form of media. Henry Jenkins, in his essay "Game Design as Narrative Architecture" criticizes Murray for being "prescriptive" by "advocating for games to pursue particular narrative forms." (119). While novels and plays excel at linear, progressive narratives, video games naturally excel at "emergent narratives" (Juul 157), which are narratives with no single, linear structure. Events A, B, and C may be experienced by the character as B, A, C, or C, A, B, all while keeping the story coherent. Juul suggests that emergent narratives break most conventions of narration (158). To deal with narratological criticisms, some game designers find themselves afflicted by what Eric Zimmerman calls "cinema envy" (qtd. in Wardrip-Fruin

and Harrigan xi). To prevent game designers from simply turning games into interactive movies, academics turn to a field known as ludology to analyze the specific elements of video games.

Ludology

Ludology, as described by Miguel Sicart, is primarily concerned with “studying the ontology of games... to recognize patterns or typologies in the design of mechanics,” meaning that it seeks to name and categorize the particular mechanics specific to games and examine how they work as individual components of a larger system. Sicart characterizes this study as a “formal analysis” that “should be understood in relation to aesthetic formalism, which contrasts 'the artifact itself with its relations to entities outside itself.’” Unlike narratology, ludology is medium specific. It focuses exclusively on the mechanics of games, and thus cannot be applied to other media such as film or literature.

Gameplay is the central focus of the ludologist, but ludic analysis also involves the player. A game “functions, in part, as an appurtenant extension of the linguistic intentions of the author (or authors) of the system. All media elements... function as operational language-vehicles and can potentially be considered 'linguistic'” (Seaman 233). One theorist who suggests that gameplay is linguistic in nature is James Gee, who states that video games employ specific “design grammars” (28) which are “the principles and patterns in terms of which one can recognize what is and what is not acceptable or typical content in a semiotic domain” (28). Gee uses the term “semiotic domains” to refer to any “human cultural and historical creations that are designed to engage and manipulate people in certain ways” (36). He continues, saying that semiotic domains “attempt through their content and social practices to recruit people to think, act, interact, value, and feel in certain specific ways” (36). One example of design grammar is the particular set of literary devices at the disposal of an author. Readers within the semiotic

domain of literature will readily recognize similes and metaphors, just as gamers will readily recognize boss battles and fetch quests. This form of ludic study emphasizes the input of the gaming community on defining gameplay elements.

Miguel Sicart offers yet another strategy to define gameplay: "A game mechanic... is the action invoked by an agent to interact with the game world, as constrained by the game rules... The best way of understanding mechanics as methods is to formalize them as verbs." By standardizing the writing of gameplay mechanics as verbs, scholars can more efficiently exchange ideas on similar gameplay mechanics across games. Both *Bioshock* and *Doom* share the gameplay mechanic "to shoot," as they are both first person shooters—though, unlike Sicart, I prefer to express gameplay mechanics in the gerund form (e.g. "shooting" instead of "to shoot"). With the established similarity of shooting between *Bioshock* and *Doom*, one can conduct a study on their particular mechanics. For example, *Bioshock* provides the player with significantly less ammo, causing the player to feel a greater attachment to each round as every missed shot counts more.

Another important area of study for ludologists is taken from film studies: diegetics. Alexander Galloway states that "the diegesis of a video game is the game's total world of narrative action. As with cinema, video game diegesis includes both onscreen and offscreen elements" (7). Since diegetic components involve the player, ludology is concerned with the nondiegetic elements of video games. These elements may include elements such camera angles, background music, game configuration menus, controls, character creation, and character abilities. Galloway also offers a distinction between "operator and machine" actions within games (37), meaning that any action within a game can be described based upon its relation to

the game world and its actor. For example, menu configurations are considered nondiegetic machine acts within video games, while combat is considered a diegetic operator act.

While ludologists tend to focus on the ludic elements of video games first and foremost, theorists have suggested to even consider narrative a ludic element itself. Writer Mattie Brice claims that games as simple as *Tetris* may display narrative that is an essential part of the gameplay. This narrative takes the shape of the emotional response of the player, in this case, the particular way one feels tension building before scoring four lines at once. In a more general sense, Brice comments, "So far, video games rely largely on past media to tell their stories—for example, by creating cinematics or filling an experience up with text and dialogue. What we are just starting to find out is how games can tell stories in their own unique way, which often manifests in minimalistic games, often dubbed 'art games.'" (Brice).

Brice continues by offering an example of how one game utilizes narrative gameplay:

The most popular example is *Ico*, which communicates the relationship between the protagonist and Yorda through a hand holding mechanic. The player receives the complex emotions of a relationship through the ludic circumstances that surround the situation that the characters find themselves in. You're anxious when Ico has to leave Yorda on her own to solve a puzzle, breathing a sigh of relief when you find her unharmed or panicking when she's captured. Your finger both feels at home and cramped on R1 as Ico drags her along... *Ico* tells the typical boy-saves-girl story without relying on the narrative elements native to other mediums.

While Brice refers to narratological components of *Ico*, the analysis remains one of ludology. The focus is on how the gameplay mechanic—Ico holding Yorda's hand—evokes particular

emotions from the player. However, Brice's commentary suggests the possibility of blending the two approaches of ludology and narratology.



Fig. 4. Screenshot of Team Ico's *Ico* featuring the gameplay mechanic of hand holding.

Like narratology, ludology has been criticized for being too limited in its scope. In *Half-Real*, Jesper Juul states that it would be “hard to imagine an Anna Karenina Game... where the goal of the player is to commit suicide by throwing his or her character under a train... The goal has to be one that the player would conceivably want to attain.” He offers a similar observation about the absurdity of making a game adaptation of Hamlet with the goal set as, “With much effort, fail to avenge [your father’s murder] and die a meaningless death” (161). Conceivably, these games would be difficult, but by no means would they be impossible. Certainly, such an adaptation would consider how its gameplay must necessarily reflect its narrative. Assuming that Hamlet is the player’s character, the goal would more accurately be written as, “Avenge your father’s murder.” The fact that the game does not allow you to achieve this goal would only add to the player’s empathy with Hamlet.

One game, Tale of Tale's *The Path*, utilizes this dramatic irony in its adaptation of *Little Red Riding Hood*. The player is presented with one goal, "Go to grandmother's house and stay on the path." If the player follows the goal, they are presented with a screen that tells them they have failed the game. To succeed, players must deviate from the path and find the Big Bad Wolf. In this way, the rules of the game act as a curious deterministic force in the game. The player can only succeed by steering his character into danger. By only rewarding the player when they break the rules of the game, *The Path* transcends the capabilities of ludology and narratology to sufficiently describe its content. Juul's commentary highlights the need to not only merge the studies of ludology and narratology, but also suggests that there must be a way to analyze the moments of harmony between gameplay and narrative.



Fig. 5. Screenshot of Tale of Tale's *The Path* featuring one character's inner monologue upon meeting the Big Bad Wolf.

Hybrid Approaches: Toward a More Diverse Analysis

Already, theorists have suggested a hybrid approach that utilizes both ludology and narratology to analyze video games. By selectively using these hybridized approaches, one can

more accurately analyze the quality of a game's construction. In their essay, "The Pleasures of Immersion and Interaction: Schemas, Scripts, and the Fifth Business," J. Yellowlees Douglas and Andrew Hargadon adapt Mihaly Csikszentmihalyi's concept of "Flow" (204) for the purposes of game analysis. They write,

'Flow' [is] a condition where self-consciousness disappears, perceptions of time become distorted, and concentration becomes so intense that the game or task at hand completely absorbs us... this state hovers on the continuum between immersion and engagement, drawing on the characteristics of both simultaneously... Where immersion involves identification with characters and narrative elements... engagement involves deciphering the author's or game designers' intentions. During a flow state... [players] both identified utterly with the objects they were manipulating... just as they also were deeply involved in determining the constraints built into the game itself (204).

Douglas and Hargadon say that flow is a fleeting state that players slip into under ideal conditions. By applying both ludic and narratological studies, they are able to identify particular elements within a game that prevent players from achieving a state of flow. This theory roughly relates to Coleridge's idea of willing suspension of disbelief and Janet Murray's commentary on the importance of "immersion" (Murray 98). Given that players actively use their own creativity and desire for immersion to create belief, one could use the "flow" approach to appraise the engaging and immersive qualities of a game, both ludic and narratological (110).

Another theorist, Henry Jenkins, seeks to find an analytical middle ground that "respects the particularity of this emerging medium—examining games less as stories than as spaces ripe with narrative possibility" (119). He argues that game designers are more "narrative architects"

than "storytellers" (121). Jenkin's approach privileges the particular geographical layout of storytelling in two types of video games: procedural and emergent (i.e. linear and non-linear). He writes:

Environmental storytelling creates the preconditions for an immersive narrative experience in at least one of four ways: spatial stories can evoke pre-existing narrative associations; they can provide a staging ground where narrative events are enacted; they may embed narrative information within their mise-en-scene; or they provide resources for emergent narratives (123).

Environmental storytelling is done in video gaming by triggering story events by moving one's character into particular locations. In *The Path*, as shown in Fig. 5, players are given their character's inner monologue when they approach particular objects within the three dimensional game world. This is an emergent game as it is the player's choice where to move and explore as they see fit. Such a game, Jenkins claims, must be studied as having "alternative aesthetic principles" that "privilege spatial exploration over plot development" (124).

One final approach is outlined in "Preliminary Poetics for Interactive Drama" by Michael Mateas. He offers a framework to analyze the player's agency in any interactive experience. He borrows from Murray's aesthetic categories (i.e. immersion, agency, and transformation) for interactive stories and Aristotle's structural categories for drama (19). Mateas writes that "the trick in developing a theoretical framework for interactive drama is integrating the phenomenological (that is, what it feels like) aspect of first-person experiences with the structural aspects of carefully crafted stories" (22). This approach assumes that the player is theatrically performing their character during gameplay. To examine the quality of any particular

game with this approach, one must identify moments, in a way similar to reader response theory, that break a player's connection with their character.

Each of these approaches inherently exhibits a subjective aesthetic hierarchy that reflects what each theorist finds most valuable in gaming. For Douglas and Hargadon, the most valuable games are ones which maintain a sense of flow. For Jenkins, the privileged element is environmental storytelling, and for Mateas it is theatrical immersion. As video gaming is a diverse, multimodal medium for the conveyance of storytelling, it is fitting for its audiences to have greatly different expectations, particularly when gamers approach any given game from radically different backgrounds. By studying these differing approaches to the study of video gaming, we can get a better understanding of the various elements that players tend to value in interactive narratives. To craft a high-quality game, perhaps, is to appeal to as many of these popular, reoccurring expectations which players place on games.

When acting as a critic of video games, I have my own highly-subjective idea about what makes a high-quality game. My opinion strongly resonates with Tom Bissel's critique of the *Call of Duty* franchise. He states that *Call of Duty* exhibits a failure to deliver a consistent "ludonarrative" (27). During the game, you are given the agency to point your firearm and shoot at any character in the game—friendly or otherwise. If you choose to shoot friendly characters, the narrative of the story does not change. You are essentially able to behave in a way inconsistent with the narrative's characterization of your character. Commenting on this, Bissel states that "believing in the game's fiction often becomes as difficult as obeying orders issued by a world-class hypocrite" (38). A parallel illustration of this dissonance in ludonarrative would be an actor playing Hamlet with a gleeful, blissful expression as he delivers the "to be or not to be"

soliloquy. The effect on the audience is jarring and disruptive, preventing them from engaging the material.

Games that exhibit ludonarrative dissonance are plentiful. Writer Matthew Burns offers one moment of ludonarrative dissonance in the popular series *Uncharted*. The player takes the role of a charming archeologist turned treasure hunter in a series of over-the-top adventures. Burns writes, "The experience implies two completely different worlds. One is where Nathan Drake is an affable hero, and the other is where Drake murders hundreds of fellow human beings and feels nothing. Though the developers took care to paint over the seams where they could, even the cleverest narrative design couldn't change how completely incongruous that really is, on a basic, fundamental level." Early video games relied on the ability to reuse gameplay segments to extend the time players have with one particular game. This is both to save on the cost of a game and to reduce its program's size, as repetitive segments can reuse the same code. Thus, "interactive fictions introduce elements of contingency and repeatability that undermine the ability of fictions to convey sustained sequences of events apt to produce emotional and intellectually compelling drama" (Tavinor 129). Games like *Uncharted* are essentially engaging subject matters too large for their underlying gameplay mechanics. The narrative promises deep character interaction and climactic moments, and yet the only input the player can give is in exploring new areas, solving puzzles, and engaging in combat. Treated individually, the combat and narrative are excellent. Presented together, however, they are dissonant.



Fig. 6. Screenshot of *Uncharted: Drake's Fortune* featuring the ludonarrative dissonance in its frequent use of combat sequences.

The Harmonic Approach

At this point I will propose the pursuit of one particular approach to the study of video games, one which focuses on analyzing moments of ludonarrative dissonance and harmony. I augmented the term offered by Mattie Brice, "ludonarrative resonance," which means "the successful use of game mechanics to communicate a narrative experience" (Brice). I rename it "ludonarrative harmony," which is a positive symbiotic relationship between the narrative and gameplay of an interactive narrative. The distinction is subtle but important. Where Brice argues stresses the suitability of gameplay for a particular plot, I emphasize the need for gameplay to enhance plot, and vice versa. It is conceivably possible for a game designer to choose a gameplay vehicle that does not disrupt the conveyance of a narrative while leaving the overall experience dull. When gameplay and narrative fuel one another, players are more apt to maintain a state of flow and remain suitably immersed and engaged with the game.

For clarity's sake, this is not to say that ludonarrative dissonance is not a viable tool for game designers to use in a positive way. There are many examples where this has been done, such as the objective-outcome incongruity in *The Path*. As Juul writes, "Any incongruity

between rules and fiction can also be productive. As in any aesthetic field, there is a chance that what is considered a problem can also be used as a positive effect" (184). However, on the whole, players expect a certain balance and harmony between gameplay and narrative, and "anyone who plays video games knows that well-designed gameplay is a craft as surely as storytelling is a craft. When gameplay fails, we know it because it does not, somehow, feel right" (Bissel 11). To demonstrate the difference gameplay can make in conveying a particular narrative, I will offer a brief comparison between two narratively-similar games.

Gameplay Matters: *Indigo Prophecy* and *Heavy Rain*

Quantic Dream's *Indigo Prophecy* was released in 2005 on the PlayStation 2 system. It was marketed as a prototype of "interactive drama," one that sought to affect the player emotionally. The narrative content is complex, as it presents the player with characters that seem to be complete in their characterization. What are of particular importance in *Indigo Prophecy* are its controls. During action sequences, players must quickly complete a short Simon Says minigame (shown in Fig. 7) that requires players to press corresponding buttons on their controller. The Simon Says display is placed at the center of the screen, obstructing the cinematic that plays in the background. At the top left of the screen, players are given an indication of the finite number of times they are able to fail the Simon Says minigame and still progress. If the player fails to input the commands and does not have any remaining white dots, they fail and must start over again.



Fig. 7. Screenshot of Quantic Dream's *Indigo Prophecy* featuring the "Simon Says" control style.

In 2010, Quantic Dreams released a spiritual successor to *Indigo Prophecy* titled *Heavy Rain* that was released on PlayStation 3. The narrative style of *Heavy Rain* was almost identical to its predecessor, however the gameplay shifted radically. Controls were no longer conducted by the player inputting Simon Says patterns. Instead, actions in the game world are executed by pressing buttons, moving the control sticks in certain patterns, or by holding multiple buttons at once. The game utilized "contextual mechanics" that changed the purpose of each particular button and control stick motion depending on the player's proximity to objects within the game (Sicart). When standing near a door, a player would be presented with two options: knock (assigned to the R1 button, for example) and open (assigned to a quarter-circle motion with the control stick, simulating the turn of a wrist).



Fig. 8. Screenshot of Quantic Dream's *Heavy Rain* featuring the contextual controls during a climactic scene. Pressing R1 would fire the gun while executing a quarter-turn with the control stick would holster it.

Unlike *Indigo Prophecy*, *Heavy Rain* did not utilize a retry system. Instead, the basis of *Heavy Rain*'s gameplay is that characters can fail and even die, yet the story will always continue onward. Most games utilize a game over state when the player fails to meet particular game conditions, but there is no such thing in *Heavy Rain*. By essentially only changing two gameplay elements, *Heavy Rain*'s ludonarrative became harmonious where *Indigo Prophecy*'s was not. The renovated controls allowed the game to translate the character's internal state and project it onto the player. When the character is under great duress, simple actions in the game world are executed by increasingly more difficult button combinations on the controller. There are also moments, such as when a character is running, that a player will have to repeatedly press two or more buttons in rapid succession. This is an example of the way games "often substitute one [diegetic] difficult task for another" (Juul 173). The controls essentially tap into the player's own emotional responses at playing a game, and allows them to synchronize with what the character is experiencing in the game world.

Furthermore, and despite the claim that "the existence of tools intra-frame or extra-frame does little to disrupt the user's immersion in the interactive" (Douglas and Hargadon 198), the reduction of gameplay controls to minimalistic white indicators allows the player to get a better view of the dramatic action. In *Indigo Prophecy*, players' eyes are drawn to the bright red, blue, yellow, and green circle pieces instead of the action that is occurring in the background. In short, all gameplay revisions made between *Indigo Prophecy* and *Heavy Rain* positively contributed to the game's narrative itself.

To offer a more detailed application of the harmonic approach to analyzing games, I will next conduct a small-scale analysis of thatgamecompany's *Journey*.

Journey: A Harmonious Experience



Fig. 9. Screenshot of thatgamecompany's *Journey* featuring the protagonist and their destination.

To begin, *Journey* is a game that utilizes no dialogue or recognizable speech. The player assumes the role of a sapient cloth creature that has no arms and two stilt-like feet (Fig. 9). At the beginning of the game, the player walks forward over a sand dune and is presented with stunning view of a far-off mountain. At this moment, gameplay halts and the title, *Journey*, superimposes itself onto the screen. The character is then free to walk forward and explore the desert area they are in. Soon, the player may be joined by a second adventurer controlled by another player

somewhere else in the world via an internet connection. The player does not know who the other adventurer, and will not know until the very end.

Before breaking down *Journey*'s ludonarrative components, I turn to an interview with Jenova Chen, the co-founder and creative director of thatgamecompany. When asked about the genesis of the game, Chen responded:

We wanted to try to make a game about multiplayer, particularly about making the player have an emotional connection with another player. And this is something that I rarely see in a console video game, because most of them are about, y'know, killing each other, or killing something together. The player rarely has a bond with another player. And so when we worked on *Journey*, that was the focus — how can we create a world, and a type of gameplay, that people will actually like each other? (qtd. in Mason).

On the topic of combat in video games, Burns writes, "As an industry, we still haven't developed anything as mechanically complex as our combat, but at least we've figured out that we can remove it." *Journey* is one of these games that looks to eschew the convention of combat in its ludonarrative. There are only two sequences in the game where combating is a game mechanic, and even then the player is seeking to run away, not deal damage. The game is about the pilgrimage of one or two relatively defenseless characters through beautiful and challenging environments. Employing a combat gaming mechanic would have caused ludonarrative dissonance.

During this journey, the avatar, essentially the "player's epistemic and behavioral proxy in the game world" (Tavinor 84), utilizes four distinct modes of transportation: walking, jumping, gliding, and sand surfing. The latter two are always available to the character, but are the least

efficient and most cumbersome. To progress faster and more expressively, characters can glide for a brief period of time by consuming energy. Energy is indicated by glowing glyphs on the character's scarf (which elongates as characters collect hidden pieces of cloth through each level). Finally, sand surfing does not require the use of glyphs, but is only possible in one distinct level in the game. This accounts for nearly all of the player's abilities except for one. The player is also able to "sing" by pressing the circle button. Depending on how long the circle button is pressed, characters can sing in long or short notes. The notes are accompanied by a unique symbol that is displayed over the character. The symbol is randomly generated at the beginning of the journey and will be distinct from any other character's symbol.



Fig. 10. Screenshot of thatgamecompany's *Journey* featuring the character using their "singing" ability. Note the superimposed symbol assigned to that character (center).

While there are relatively few gameplay mechanics in *Journey*, the resultant experience on the player is deeply harmonic. A critical aspect about the game is that characters can only recharge their energy when they are in contact with other pieces of cloth in the world. As cloth is scattered far and wide, the easiest and most accessible source of cloth is your fellow adventurer. The singing ability recharges the energy of any other piece of cloth in its area of effect. Essentially, if you and your fellow adventurer sing to one another, you can infinitely recharge

each other's ability to glide through the air. Because gliding feels far more enjoyable than walking, the gameplay indirectly encourages the player to feel an emotional attachment to the other player. Cooperation becomes an inarguably good strategy to complete the game, and furthermore, it provides an allegorical demonstration of the benefits of cooperation, or, in other words "a specific stylized concept of a real-world activity" (Juul 172).

The effective power that *Journey* has to manipulate its readers into feeling a particular way about cooperation stems from its careful use of game rules. Juul claims that "a statement about a fictional character in a game is half-real, since it may describe both a fictional entity and the actual rules of a game" (163). The rules of the game limit the player to four specific modes of transportation, and thus one can describe the character as *limited* themselves. The character is effectively left powerless on both a diegetic and nondiegetic level, just as much as a checkmated king is left powerless to act. Juul continues to say that "the rules work with the representational layer of the game to project the game world" (136). We can begin to characterize the people that live within the world of *Journey* without ever one hearing inner monologue or dialogue. Because they are left powerless on their own, we can assume that they seek to maintain a culture that brings people together.

While Juul's observations allow us to gain insight on the interrelations between the narrative and the gameplay of *Journey*, I disagree with his statement that "it is hard to create a game about emotions because emotions are hard to implement in rules" (20). It is my belief that many video games simply overestimate their own ability to handle complex human emotions. As Mattie Brice earlier suggested, even games like *Tetris* can evoke emotional responses from players by utilizing a few core gameplay mechanics. *Journey* succeeded in portraying a narrative that was of suitable size and scope for its gameplay to handle.

The harmonic quality of *Journey* does not solely lie in its clever use of gameplay mechanics, but also its astounding aesthetic qualities. Speaking about the visual aesthetic of *Journey*, Chen says,

In *Journey* it's very much about the quality of the sand: how the sand sparkles in the different light situations, how players can leave trails and how they can surf in the sand. The simulation and shader technology are very supportive to the art style... We learned from theme park design... from Disneyland's design. When you have open space it often feels like you don't know where to go, you feel lost. You don't know how to navigate. Actually in *Journey* we can say it's huge but the experience is rather guided, because there's always a 'doorway', a giant 'weenie' — which is a Disney term, it's something in the distance to guide you in the right direction. If you were to wander really far away from the map, we do have an invisible wall that tells you, '[Hey], that's probably not the direction you wanna go.' (qtd. in Mason).

Chen's nicely summarizes the way in which the game's environment specifically helps guide the player without resorting to an explicitly stated goal like the one offered in *The Path*. Drawing inspiration from theme park designs, they made the mountain in the distance the only interesting point along the horizon at the start of the game. If the player does try to head in any other direction, strong gusts of wind will blow them back onto the course forward. This greatly resonates with Jenkin's theory examining environmental storytelling. Here, the environment itself steers the character, allowing the game to never resort to using written word or dialogue. Furthermore, the stunningly-bright and brilliant landscape helps to create an "aesthetically rich fictional world" (Tavinor 60) early on in the game. The vastness makes the player believe that

there is a gigantic world to explore when, in reality, they are essentially stuck to one linear pathway.

Finally, Chen comments on the particular design of the characters, saying that "the reason the character doesn't have arms is that in most online games, if the character has arms people say 'oh, why can't he pick up a weapon...?' We don't want the player killing something with a weapon. We say, 'well, he doesn't have arms, so don't think about it.'" (qtd. in Mason). Here we see that *Journey*, in its very design, attempts to predict the way in which players typically play within a virtual space. By not giving the characters arms, they not only prevent the player from thinking of doing violent actions within the game, but also set the players up to feel utterly helpless in moments of crisis. In one climactic moment, the characters come face-to-face with gigantic serpents crafted out of stone. If one of the characters is spotted, the serpent crashes into the player and removes a significant portion of their scarf, nearly halving their available energy.

In this moment, *Journey* is using the player's sense of agency, which is "the satisfying power to take meaningful action and see the results of our decisions and choices" (Murray 126), to cause the player to feel frightened and weakened after they are attacked. This moment comes at the end of the journey, after the player has searched hard to find scrap pieces of cloth to lengthen their scarf. The fruits of the player's labors are almost entirely taken away the moment the creature shreds their scarf. They can no longer glide for as long as they once could, and they are left even more susceptible to further attack. Here, the game is utilizing Tavinor's concept that "players are able to feel guilty or threatened because their fictional proxy—the player-character—allows them to have an active role in the fictional world, giving them the opportunity to do things to be guilty for, or to be in a position where it is rational to fictionally feel frightened for oneself" (Tavinor 149). Because the player feels that they could have avoided the serpent,

they feel internally guilty for letting their character get attacked, and they must deal with the consequences. These emotionally evocative aspects of *Journey* are inherently ludonarrative in nature. While it is possible to describe them individually, using the approaches of ludology and narratology, *Journey* feels entirely flat unless it is analyzed on both levels at once.

Toward Better Games and Better Approaches

Many people who play video games feel that game design is "at what feels like a mysterious barrier," that "something's not quite right; something always seems to go wrong when [games] try to put that higher level of emotional maturity into [the] next big game" (Burns). However, the rare moments of genuine innovation, such as the kind exhibited in thatgamecompany's *Journey*, maintain players' hopes that they will continue to experience greater and more compelling experiences in the video game medium. As I said earlier, I have established a habit of reading *Waiting for Godot* at least twice a year. I have now added playing *Journey* to that list, as it provides me with a therapeutic experience. We have a tendency to "assume that stories told in one medium are intrinsically inferior to those told in another," but Janet Murray offers a piece of information to put art into perspective: "Shakespeare and Jane Austen were once considered to be working in less legitimate formats than those used by Aeschylus and Homer." She concludes by saying "Narrative beauty is independent of medium" (273), and that all it takes is time and new ways of approaching the study of particular art forms to make their works shine.

Once more, we find ourselves returning to the words of game designer Jonathan Blow. He states, "Games that do not attempt to harmonize meaning with gameplay cannot succeed as works of art" (qtd. in Bissel 156). I wholeheartedly agree with Blow, and thankfully we are approaching a period that is more welcoming of daring departures from the economically-safe,

cookie-cutter video games. Game distribution systems such as Valve Software's Steam allow independent developers to market small-scale video games to a large audience for fractions of the cost it would take to utilize traditional distributors. As artistically harmonious games are made more available to wider audiences—and, more importantly, at cheaper prices—game designers will have to pay greater attention to the way in which gameplay and narrative works within their games. In 1997, Janet Murray posed that "we may be at the juvenilia stage of electronic narrative for some time yet" (Murray 279). It is my belief that the existence games with ludonarrative harmony such as *Journey* proves that we have passed beyond juvenilia stage. Now we are ready for some serious gaming.

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