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Adaptation, Remediation, and Reciprocity in Narrative Video Games

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in English

by

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ABSTRACT OF THE DISSERTATION

Adaptation, Remediation, and Reciprocity in Narrative Video Games

by

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Professor Ursula K. Heise, Chair

"Adaptation, Remediation, and Reciprocity" analyzes the developmental relationship between twentieth-century narratives in fiction and film, and twenty-first century video games. The dissertation synthesizes major developments in narrative theory, media studies, and game studies, applying this framework to novel, film, and, video game adaptations as case studies. Analysis is broken down via established structural categories of storytelling: event structure, time, character, and point of view. The results indicate the relationship between games, film, and novels is historically reciprocal, as games have also influenced the storytelling techniques available to writers and filmmakers. These developments contribute to current efforts in narrative theory and media studies to understand both the unique and shared aspects of games as a popular storytelling form which have become increasingly conventional in the twenty-first century.

The dissertation of Jonathan Kincade is approved.

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Dedication

This dissertation is dedicated to the wonderful friends, family, and partners who kept me going through this hard-fought process. Their practical and emotional support was instrumental to my success, making this achievement more than simply my own. These generous and loving individuals know who they are without being named.

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Introduction

"I run into dilemmas all the time. Situations where it's hard to judge, hard to know what's right, make a decision," says Geralt of Rivia, protagonist of the roleplaying game *The Witcher 3: Wild Hunt* (2015). The game is characterized by difficult narrative decisions the player is forced to make as the protagonist, which are often packaged in morally ambiguous scenarios for which there are no simple outcomes. While decision-making is integral to gaming, this heightened aspect of *Wild Hunt*'s design is inspired by its adaptation of The Witcher Saga of novels and short stories by Polish fantasy author Andrzej Sapkowski. Players can thus traverse the large world filled with characters, locations, and references to the novels. Moreover, the adaptation allows developers to employ the narrative design as a setup for play centered on limited freedom, moral calculation, and roleplaying. Within this framework comes a great deal of flexibility beyond adapting the written works, *The Witcher* games extend them by acting as subsequent entries in a pre-existing narrative world. The games thus extend the narrative world of the Saga, lending spatiality to an already textual virtuality.

The Witcher illustrates, in miniature, the complicated relationship between video games and the novel as narrative forms. Beyond adaptations of specific works, video games have a complicated and interwoven relationship with the media preceding them, as their development has been influenced by narratives in twentieth-century fiction and film. Games incorporate aspects of reading and viewing by employing their digital architecture to simulate these acts via a process that Jay Bolter and Richard Grusin refer to as remediation, the "formal logic by which new media refashion prior media forms" (1999, 273). Such refashioning is apparent not only in the narrative influences but also the compositional elements which have made their way into game design (Manovich 2001). Moreover, *The Witcher* novels have served as an entryway for

many fans to engage with a broader storyworld rather than a replacement for a medium that has was once in fear of being outpaced by an increasingly digital culture (Jenkins 2008). As of this writing, a televised adaptation is being developed for Netflix, the site at which old and new media collide. In short, there is today an integral relationship between reading, viewing, and playing as forms of cultural practices.

In returning to a narrative theoretical approach to video games, this dissertation reignites portions of what is now referred to as the ludology-narratology debate, which stemmed from what scholars once believed were diametric approaches to the study of video games. Ludologists such as Espen Aarseth and Gonzalo Frasca argued that games could not be studied as narratives on the basis that mimesis and simulation are varying structures whose processes are fundamentally different (Aarseth 2004; Frasca 2003). The ludological perspective held that any narrative that appears in a game is incidental to its structure as a game (Juul 2001). While some of these distinctions are useful in accounting the differences between reading and playing, the ludological perspective of the early 2000s did not foresee the level of technological and storytelling sophistication that games would achieve in the next fifteen years. Video games' capacity for storytelling has increased in a manner that is commensurate with its conventionality as a form of cultural consumption, leading to an explosion of games involving large casts of characters, evolving plots, and large virtual worlds with which players are taken.

Perhaps as a result of these developments, recent years have seen ludologists and narrative theorists separate into their own camps to perform analyses which yield different results where game analysis is concerned. Ludological methodologies are concerned with games as rule-bound structures locatable within a broader historical taxonomy of games as cultural form and play as pastime, video games as more akin to basketball than *The Adventures of Huckleberry*

Finn. By contrast, the narratological perspectives frame games as another storytelling media to which rudimentary forms of narrative theory, developed with novels and films in mind, are still applicable.

"Adaptation, Remediation, and Reciprocity in Narrative Video Games" recaptures a middle ground between narratology and ludology, synthesizing them into a system with benefits for both narrative and game studies. In many ways, this transmedial methodology is one of the dissertation project's contributions to preexisting scholarship, as neither the play-based nor narrative qualities of contemporary games can be denied in a well-rounded understanding of gaming and play, and their relationship to storytelling as separate cultural practice. Even the foundational ludologist Roger Callois, who created taxonomies of games, created the category of *mimicry* to designate open-ended forms of play such as make-believe (1968). Fiction itself also falls under this category and games of the sort analyzed in this dissertation make apparent that narrative engagement can also be a form of play (Salen and Zimmerman 2004). Moreover, examples like *The Witcher* and many of the cases selected for the dissertation indicate that game designers often utilize narrative tropes to scaffold the rule-based demands made of players.

Recent years have thankfully produced scholars whose work sits at the intersection of these traditions, providing historical and genealogical perspectives on specific games and game types. For instance, Jon Peterson's excellent *Playing at the World: A History of Simulating Wars, People, and Fantastic Adventure from Chess to Role-Playing Games* distills the lineage of *Dungeons & Dragons* as a coupling of wargames and literary concepts of mythmaking found in the works of late Romantics such as Byron, Keats, and Shelley, and the twentieth-century writers influenced by them, like Tolkien (2012). Despite its status as a tabletop game, the structure and tropes behind *Dungeons & Dragons* serve as a foundation for western roleplaying games, which

tend to be inspired by European myth and fairytale, pointing to a buried historical relationship to even computer roleplaying games that exceeds the scope of any single investigation.

This dissertation limits itself to narrative video games, which are those with fictional and representative elements that extend beyond the structure of a game *as* game. These games, like most other media, exist on a spectrum of varied constitution, ranging from a loose assemblage of elements out of which a narrative could be inferred, to specific narratives that give players decision-making power over the events constituting story. Given an increasing level of technical sophistication, these games are largely, but not always, selected from twentieth-century cases that postdate the ludology-narratology debate. Such is the case with games *Far Cry 2* (2008) and *The Wolf Among Us* (2013). The concept of adaption in the title is a reference to the fact that many of these examples adapt literary or film works, forming intriguing case studies which offer insight into the design processes narrative must be subjected, to make playable games. This leap across forms showcases the integral relationship between remediation and adaptation, which renders narrative concepts like character development as playable rules that uniquely ground a player's relationship to the action.

In contributing to the conversation on remediation this dissertation highlights the fact that games' adaptive tendencies are not a one-way process from old media to new, but a back-and-forth, reciprocal procedure. Not only have games been influenced by twentieth-century literature and film, their popularity has had a burgeoning influence on twenty-first century culture. The dissertation balances its comparative analyses of gamified literary and film tropes with similar analyses of game tropes made into narrative concepts like character development. These restructure the modes of engagement available to both film and the novel, pioneering new, convergent forms of viewer and readership.

The dissertation is thematically organized around core issues of narrative constitution. Chapter one sets its sights on the most common event structures found in games and their relationship to organizational strategies found in the novel. The chapter compares and contrasts conventional means of organizing events in fiction and video games by relating emergent structures with those of progression. There is precedent for emergence in combinatorial novels such as Marc Saporta's *Composition No. 1*, even though games seem to have supplanted the narrative form with their ease of engagement. Chapter two focuses on temporality, the logical glue that sutures events and their order. The chapter takes a sinks its teeth into the concept of unnatural and complex temporalities from fiction to do so, showing that games conventionalize aspects of narrative time that theorists once argued were experimental and uncommon. These unnatural temporalities have since become pivotal in science fiction films such as *Edge of Tomorrow*.

Chapter three looks at story inhabitants by focusing on the role of avatars and player-characters. Specifically, it analyzes a gaming adaptation of Joseph Conrad's *Heart of Darkness* utilizing an approach known as characterization statements. The chapter then maps these statements onto the game to underscore the increasing individuality and iconography of video game characters, who stand apart from the player themselves. Finally, chapter four takes a look at first-person shooter games and their influence on perspectival strategies available to contemporary novels and films. While the perspective was pioneered in film, video games have conventionalized it in a manner that has created new bodily schemata for being in virtual worlds. Each of these chapters relies on numerous visual examples and diagrams, which can be found in the appendices. The dissertation aims to be benefit both ludologists and narratologists, but also scholars seeking a comparative understanding of games' relationship to the varied forms of

narrative consumption. Its synthesis of differing approaches offers a compatibilist perspective that heretofore has been absent among scholars pulled toward the established poles. Furthermore, the project responds to recent developments in game studies and narrative theory by offering secondary approaches considering the relevance of games as a dominant form of story consumption that continues to grow.

Emergence, Progression, and Flexibility: Event Presentation and the Narrative Discourse of Gaming

Brian Lee O'Malley's comic series, *Scott Pilgrim*, wears its indebtedness to video game structure on its sleeve. While these ludic influences are clear in many aspects of its style, such as the magical realist elements, they truly crystallize in the comic's less visible, deep structure. The story recounts Scott's attempts to maintain a relationship with Ramona Flowers, by defeating the seven evil exes intent on ruining their happiness. However, the *syuzhet* organizes the core plot points into confrontations between Scott and these figures. The result is reminiscent of the boss fights that have become a convention in many video games, and Scott's engagement with the world of the narrative is game-like. His confrontations with the exes structure the narrative's progression in a clearly-defined way. Even the comic's game adaptation, *Scott Pilgrim vs. the World: The Game* benefits from this structure by segmenting the gameplay into seven levels, each of which ends in a boss fight. As such, the boss fights serve as punctuation for the organization and presentation of story events (Cassar 2013). This concept of ludic punctuation is broadly applicable to games, and emblematic of the persistent formal relationship between narrative architecture and game design, the intersection of play and narrative structure.

Play is a discourse of decision-making possibilities that, in the case of video games, are mediated by the digital media apparatus. Narrative video games break down into three broad categories, each of which is defined based on the way demands of play condition player engagement with the *syuzhet* of narrative construction. These categories are *emergent*, *progression*, and *flexible*. This chapter argues that such organization produces a ludic literacy, or player understandings of the typical ways games get organized by writers and designers. These literacies have a literal impact on the way players approach games as a written and scripted form,

but also metaphorical implications associated with conceptions of possibility and actuality that get articulated in the way a game's deep structure dispenses its events. As I will show, discourse communities are part and parcel of this literacy, because of the ways they provide players a venue in which to exchange ideas regarding possibility. In many games, this act provides a lens for previous narrative choices and interpretations, while also preempting and informing subsequent ones. Ultimately, this analysis offers an explanation for the historical trend by which games have supplanted the combinatorial novels and hypertext fictions that, in many ways, pioneered practices of narrative decision-making.

To make this argument, I first define a few key terms that feed into the structural categories that organize the chapter itself. Next, the argument proceeds through these sections by articulating their connection to the organization of twentieth-century novels. Like novel genres and story types, video games fall into types that can be distinguished based on their underlying approach to event structure. Juul has shown that most games fall into the categories of either emergence or progression (2005). These game types are used to divide the chapter into its broad sections. "Narrative Emergence" addresses the creation of player-centered narratives, such as those found in *The Sims 2*. These games typically have a few rules that combine to produce variations of play outcomes, which require players to develop new strategies for handling the challenge. The section on "Narrative Progression" sets its sights on the largest category of narrative games, which forms the core connection between games and the novel. This relationship is illustrated through a comparative analysis of the game and novel version of Agatha Christie's *Murder on the Orient Express*, both of which require players to perform a predefined set of actions to proceed through and complete them. Finally, "Narrative Flexibility" adds to the scholarly conversation on game narrative by outlining a heretofore neglected

structural category. This section analyzes *The Wolf Among Us*, which adapts and preempts the comic on which it is based. These games of narrative flexibility make the player feel like the author of a story that, in actuality, has already been designed.

1. Narrative Emergence

The Sims 2 is perhaps one of the most popular games of emergence ever released. It is largely a "sandbox game" that lacks defined goals and, instead, allows the player to create virtual people called "Sims." These Sims are placed in houses to interact with one another and satisfy their aspirations and basic needs. A player might create an entire neighborhood of Sims with families that would interact based on in-game variables not limited to this aspiration, their personality traits, and fears (fig. 1). As time goes on, families grow into multi-generational structures that span in-game years. In this way, *The Sims 2* is a great example of an emergent game. It produces ludic content by providing players with a system that generates countless outcomes, based on the way Sims' aspirations and personalities come into contact. This emergent quality of the game is true both of an individual Sims' makeup and their interactions with other Sims. As such, it characterizes the deep structure of the way events are generated and subsequently contribute to a structure that bears narrativity.

Emergence is a complex phenomenon. It has been explored in areas such as evolutionary and systems theories, cognitive science and theoretical physics. There is even precedent for the concept's use in narrative theory, where theorists have argued that emergence happens on a scale for which narrative representation is insufficient (Abbott 2008). However, this approach to emergence defines the concept in its broadest, scientific connotations, by which it attempts to explain the way relatively simple systems can combine to create features not contained in the individual parts. The foundational definition of emergence as tied to games invoked the sum of

player goals and their interaction with the system as they navigate play (Galyean 1995). Like the scientific definition of the concept, this design-oriented approach concerns itself with the way a player's experience of a game could go beyond the simple rules constituting it. As such, the narratives found in some emergent games stem from the interaction between users and digital agents within the simulated environment (Aylett 1999). In *The Sims 2*, these goals from vary from player to player and may clash with the in-game aspirations of other Sims. A player's goals may even come into conflict with the emergent set of circumstances produced by the system itself.

For example, during my own engagement with the game, I decided to simply place my goals in line with my Sims' own aspirations to knowledge, popularity, and romance. These aspirations produce wants and fears. Since one of my Sims aspirations was knowledge, wants such as "Go to college," "Go to class," and "Write term paper" were generated, along with associated fears such as "Don't go to college," or "Get on academic probation." This system of aspiration culminates in lifetime wants that characterize the Sims' long-term aspirations, like "Become Media Magnate" or "Become Education Minister." The result of this system is a long-arc toward narrative sequence of which many permutations exist, and the Sims' success or failure in confronting these milestones constitute the events. This process is complicated by a Sim's satisfaction of their fundamental needs such as hunger, energy, fun, hygiene, and sociability. These are satisfied when the Sim performs specific activities, such as sleep or engage in a hobby. During my play, my Sim became stressed by the pressure college of courses, which led to low satisfaction in the fun category. In response I had her book a vacation alone, one which cost all of her money. What followed was a comedic sequence of events in which she couldn't afford to stay at the local hotel or take part in many of the activities costing money. However, instead of

leading to failure, the game generated new scenarios from these variables. The Sim checked out of the hotel and returned home to find a bill waiting. This small sequence illustrates the way events take on an interesting quality that leads to a narrative of the Sim's experience in the gameworld. These story events and their narration are a synthesis of the gameworld outcomes and the possibilities tied to my goals as the player interacting with the system. Of course, this rendering is simply my own reconstruction of what happened in meaningful, causally structured terms (Crawford 2003). My goals as the player could have taken a different shape, and I might have stymied the Sim's development as a sort of authorial and ludic god figure.

The Sims 2's emergent quality produces a variety of situations so that no two players' games unfold in the same way. Another player might have a Sim with the same aspirations yet still get different outcomes produced by other variables within the game. This is because elements of the game's rules and design function as templates that contribute to a narrative architecture (Jenkins 2005). As such, the game's *syuzhet,* the way events get constructed and organized, is tied to its emergent nature. This allows players to craft a narrative by selecting the events that feel relevant to their own goals for the Sim. The result is a player story, which stands in distinction to the virtual-designer story that, as I show below, characterizes narrative progression and flexibility (Sweetser 2008; Thon 2011). *The Sims 2* illustrates the way games of narrative emergence succeed in relying on basic existents and events to allow players to decide which events are pertinent in a way that strays from the authorial model ascribed to narratives in most media, from oral to film.

These factors combine to make apparent the constraints of transmedia future narratives. In contrast with retrospective narratives, future narratives are "yet undecided, open, and multiple…not yet crystallized into actuality…by their capability to preserve the

future *as* future" (Bode and Dietrich 2013, 1). Whereas retrospective narratives consist of events, future narratives are organized around nodes that allow for more than one continuation of a sequence that might play out in a variety of ways. In *The Sims 2* these nodes are tied to the alternative possibilities contained in player decisions. For instance, instead of booking a vacation in response to my Sim's stress, I might have simply had her continue studying, hang out with friends, or do nothing at all. This concept of futurity explains, in literal terms, the way sequences emerge as narrative structures in real time.

Nevertheless, there is a tension between these two models of narrative construction, because of the fact that emergent games are still products of game design. The diversity of experiences inherent in the emergence of the game system simply might deceive one into thinking otherwise. Game design scholars have commented that one of the challenges of emergent narrative is to "satisfy constraints imposed by the artist, and return interesting instances for gamers" (Hendrikx 1:2). As such, a truly emergent game has yet to be designed, due to the difficulty of creating a variable system that will produce interesting rather than random, dull events. While dullness does not necessarily escape narrative logic, it defies the plot-centric forms that have come to characterize video game stories, and popular narrative media at large. Developers have proposed ways around this problem. Swartjes and Theune propose the idea of a plot agent that would corral characters into meaningful relationships with one another, by differentiating between fabula, syuzhet, and presentation (2006). This, the designers argue, would avoid issues of randomness or dullness associated with emergent narrativity. For now, that plot agent is ultimately the player.

Attached to *The Sims 2* is an online discourse community, dedicated to sharing interesting stories that emerge from players' experiences with the system. Players rely on narration to organize what happened in the game into something cohesive and understandable to those outside of it. Richard Walsh reminds us that "narrative description misrepresents in that it relates only to the emergent level," whereas "emergent phenomena themselves relate (discontinuously) to both the emergent level and the systemic level beneath" (2011, 75). To simplify, narrative description refers to the actual events that make up a given series of events while truly emergent phenomena invoke both event and the individual variables that give rise to them. Emergent games such as *The Sims 2* invoke both by providing aspirations, wants, and needs as simple templates for understanding the causality of the emergent events.

Players use these variables in representing their unique experiences to one another, templates formed from their own experience of the game. This serves as a lens for understanding one another's stories. Twitch and the Let's Play genre of game commentary have become discursive tools for these communities, by allowing players to broadcast their perspective of the play session while narrating it in voice-over. As Josef Nguyen argues, these venues "expand the meaning-making possibilities of mainstream video games and video game play through increased creation, circulation, and discussion of alternate experiences, styles, and intentions of playing" (Nguyen 2016). The sense of interest in an emergent game stems from the way simple rule systems offer variegated possibilities of experience that generate narrated engagements with and within a game. Warren Spector once argued that emergent narratives lack the affective impact of those possessing detailed, organized design. To some extent, *The Sims 2* is no exception. The emotional character of *The Sims 2* seems to rest in the player-narrator's presentation of the events, rather than the out-of-context game sequences themselves. This

development stems from the way the gaming discourse and its communities on Twitch and YouTube are the products of media convergence (Jenkins 2006). The videos and their narration function as paratexts for the sequences in the game.

The Conventional Failure of Procedural Novels

Despite its reference to video games, Spector's claim offers a productive starting point for thinking through the fact that postmodern combinatorial novels are a formal antecedent to games of narrative emergence. These novels and their formal elements never quite achieved the conventional popularity that can be ascribed to other, once experimental, aspects of the twentieth-century novel. Like *The Sims 2*, Marc Saporta's *Composition No. 1* (1962) focuses less on plot than it does on the way *syuzhet* contributes to the reader's experience of constructing the story. The "book in a box" consists of 150 unnumbered, loose pages which the reader can shuffle and read in any order. This process makes possible a factorial combination of 150 different narratives or, as framed in the introduction, "150 different beginnings with 149 possible endings." All of these sequences consist of different orderings of the same basic events and their existents: Dagmar's rape by the unnamed protagonist, Marianne's threat of suicide, the protagonist's production of the titular painting, and so on. In one reading, the threat of suicide may prompt the rape, while in another either or both of these events may never occur.

Because of the shuffling, the connections between these events are altered with each read. Furthermore, the conclusions of the narrative are influenced by the location where the reader chooses to stop. Thus, the novel's *syuzhet* lies in the shuffling itself, a tactile act that is tied to the illocutionary process of reading. However, most narrative games task players with unlocking events through kinesthetic processes, from simply moving a cursor on the screen to surmounting

complex challenges tied to the rules. For instance, *The Sims 2* requires players to move the camera around the game space and click on certain options to produce results in line with the player's goals. At a broader level, the ergodic quality is built into the very form of digital media processes requiring users to scroll a web page, click a link to advance through an article, or type on a keyboard to produce changes on the screen itself.

The shuffling conceit that structures the *syuzhet* in *Composition No. 1* is, in game design, referred to as procedural content generation. Often confused with randomness, procedural generation refers to "computer software that can create game content on its own, or together with one or many human players or designers" (Shaker et al. 2016, 1). These instances can merely seem random due to the complexity that results. However, procedural generation relies on a limited corpus of events and existents that are subjected to an algorithmic logic that produces a variety of gaming contexts and situations that are fresh and unique. The result is an emergent system that is more complex than the rules or pieces that contribute to its makeup. From a practical standpoint, procedural generation helps developers create large gameworlds in which manual design is less emphasized. *The Sims 2* uses zodiac signs to procedurally generate different Sims' personality traits and subsequent aspirations, wants, and fears. These facts of the game's design underscore the fact that *Composition No. 1* is a non-digital instance of procedural generation. The narrative existents take the place of game assets and the *syuzhet* shuffling is an algorithm that determines the events' structural and logical relationships to one another.

The result is a procedural novel that is not quite emergent but perhaps the closest the novel as a form can generate. While other novels in this tradition exist, this experimental conceit never quite became conventional as an approach to *syuzhet*. The heavy use of prolepsis and analepsis by modernists from Virginia Woolf to William Faulkner, for example, has taken

purchase in a way still has apparent results in contemporary fiction and film. So, the reasons behind this lack of convention is not inherent to experimentation itself, which can easily become standardized if adopted widely enough. In fact, there are two basic explanations for this failure, both of which are connected and might explain the lastingness of certain formalities over others.

The first explanation returns to the idea that emergent sequences lack the emotional salience of organized ones. As games, emergent systems offer the greatest number of possibilities, because of the way complexity develops in variable ways. Yet, it is difficult to deny that certain aspects of narrativity in *The Sims 2* and *Composition No.1* seem simple in the face of, say, *Scott Pilgrim*. Popular reviews of the novel agree: it is so caught in its technical innovation that its content feels underdeveloped by comparison. Moreover, the nature of these emergent media make it such that endpoints become arbitrarily chosen by the users of the system, rather than pre-generated. In the case of *Composition No. 1*, readers are likely to default to their perceptions of Saporta's intended sequence over their own (Pfahl 2015). Narrative theorists Frank Kermode and Peter Brooks reminds us that endings are a tool used for sense-making in life generally, and fiction specifically, in a process known as closure. Since the endings of an emergent narrative are always shifting, this closure can be difficult to come by. Nevertheless, its lack or scarcity is emblematic of hypermedia more generally (Douglas and Hargadon 2000). The result is a tension between reader decision, their ability to dictate the terms of the story, and authorial design.

On the surface this tension is the result of Western conventions associated with narrative production, which elevate the author of a text as the deciding voice in its interpretation. This is only part of the answer, which is also tied to the epistemic and cognitive limitations associated with a range of combinatorial narratives (procedural

novels, hypertext fictions, choose-your-own adventure novels), the psychological mechanisms of enjoyment tied to narrative consumption, and the evolutionary aspects of humans' predilection for storytelling generally and literature specifically (Mangen and van der Weel 2017). Emergent games such as *The Sims 2* employ procedural generation in a way that dramatizes player-centered narratives, however they deviate from the historical and formal expectations established by stories in fiction and film.

The second explanation for the failure of the procedural novel stems from the way video games remediate non-digital forms of emergence as computational forms. In simple terms, video games manage aspects of the emergent process in ways that facilitate player engagement with the generated event sequences. A range of scholars have already made a convincing case regarding the ways digital media machines are capable of emulating other media apparatuses and their processes (Bolter and Grusin 1999; Manovich 2001; Aarseth 2004). This emulation is characterized not only by digital media's indebtedness to twentieth-century, non-digital forms but also the flexibility that digital media offers. The spatiotemporal possibilities of simulations simply seem to outpace those of the novel. Unlike the novel, contemporary games are perceived by players as movement in time, which explains their dependence on visual-cinematic modes of communicating shifts in event structure. Games generate processes "*either* as a consequence of an act by the user, *or* as independent of her agency" (Domsch 2013, 8). In other words, games consist of actions produced by the user or happenings produced by the system, which creates an interplay between the emergent aspects of the system and a user's engagement with the decisions they make possible. Saporta's novel limits this decision to stoppages, when to stop shuffling and reading. However, unlike textual emergence, the events

generated by a game happen as a result of the player's decisions while interacting with the game mechanics (Sicart 2008). The narrative stakes of these decisions rely on literal reading practices that are built into games, ones requiring players to navigate menus, rules, and other complex systems that are presented via textual and linguistic means.

In addition to these media's illocutionary demands, ergodic ones lend themselves to a ludic literacy. This is tied to a player's understanding of video game convention. *The Sims 2* offers a more complicated suite of decisions. These factors, among others, underscore a given Sim's engagement with the existents around them, in turn establishing generic templates for encounters that will take on specific qualities that emerge from the eventful interactions between Sims. This set up is based on the player's ability to assign points to these personality spectra, in a way that relies on their understanding of statistics not just in this game but others as well. In *Composition No. 1*, all that changes is order and, as a result, the logic behind the events. No new events are generated, only new relationships. In sum, this is one of the most compelling explanations for the failure of the procedural text, which offers readers a limited set of choices that end up being illusory with respect to the narrative itself. The discursive realities of *The Sims 2* are rooted in the way video games and online communications function as intersecting digital media.

2. Narrative Progression

Narratives of progression represent another major type of execution that requires players to navigate specific sequences to unlock subsequent sections of the game and narrative. These sequences are established by a virtual-designer who organizes the system in a way that is intended to impart a specific narrative and ludic experience (Thon 2011).

This concept of the virtual-designer has authorial connotations that have been interrogated from various angles in literary theory. Here, the most pertinent aspects of authorship are tied to the way plot design is an intentional aspect of narrative construction (Brooks 1984). Mystery novels, like Agatha Christie's *Murder on the Orient Express* (*Murder*) are planned in a way that illustrates the constraints by which narratives of progression are bound. These are underscored when juxtaposed with the novel's adventure-game adaptation.

In the case of *Murder*, the narrative progression centers on Hercule Poirot's generation of the plot, which itself stems from his rejection of the initial case presented to him: "I do not like your face, M. Ratchett" (Christie 36). In narrative terminology this pivotal event stands out as a kernel, "nodes or hinges in the structure, branching points which force movement into one of two (or more) possible paths" (Chatman 1978, 53). These cannot be altered or deleted without destroying the narrative logic or altering it to the point that another plot is produced (as opposed to the alterable satellites). This kernel of rejection is immediately followed by a "cry in the night," the subsequent reveal of Ratchett's murder, and the spawning of the plot-driven proceedings that overtake the novel (Christie 37, 51). In fact, had Poirot accepted Ratchett's initial request, another plot would have been produced, one punctuated by different events. Kernels have an integral relationship to plot and are a productive concept in building an account of the affective power built into narratives of progression.

With respect to Christie's novel, kernels illustrate the ways plot is subordinate to the author's organization of its events. These events proceed through an ordered sequence toward a definitive conclusion. Like other mystery and crime novels, *Murder* is a tightly-organized system

that benefits from the author-designer's ability to plan the narrative and its trajectory. This is apparent in table 1, which illustrates how the novel's plot structure corresponds to its chapter progression. The deep structure of the plot is subordinate to a macroscopic presentation that is organized into three sections: "The Facts," "The Evidence," and "Hercule Poirot Sits Back and Thinks." Each of these is emblematic of a specific phase of the masterplot of the detective genre, its exploration of a murder case (Herman 2002; Hogan 2011). Christie generates red herrings—such as the idea there is only one murderer—which play into the eventual sense of resolution and closure that are anticipated by readers' predictions of the outcome. Mystery novels connect play and literature by creating an agonistic game between text and reader (Sutton-Smith 1997). On some level, this fact is broadly true of the closure process as it applies to novels. Here, readers are tasked with unraveling a mystery alongside Poirot. When reading other novels, they are trying to understand and predict the course of events.

This sense of prediction and the mystery novel's use of misdirection underscore the way formal devices like foreshadowing are intrinsic to progression. For instance, Poirot's insistence to Ratchett that "when a man is in a position to have, as you say, enemies, then it does not usually resolve itself into one enemy only," foreshadows the conclusion. There, it is finally revealed that what was assumed to be a single murder is actually a cohort of passengers (Christie 35). Foreshadowing presents information about later events in the telling, which is made possible by the narrative's retrospective nature. Such is the case even in everyday, interpersonal narratives in which the narrator-experiencer knows the conclusion and can foreshadow it for affective impact. This style of presentation would be difficult to pull off in an emergent, player-created narrative, which could only be foreshadowed in its retelling to others. Because of these

facts, foreshadowing plays little to no role in emergent narrative, in which story and discourse are generally aligned in the same sequence.

Unlike a game of emergence, The Adventure Company's adaptation of *Murder* adheres to a sense of virtually-designed progression. The adventure game involves listening to passenger testimonies and roaming the train cabins to collect clues. Players are tasked with combining clues or presenting them to a particular character at the correct moment. This moment is determined by the game's reference to the plot in the novel, and even to its organization by chapters and sections. "The Facts" largely serves to set up the narrative while introducing the player to the cast of characters and the game mechanics. The bulk of the game, like the novel, focuses on "The Evidence," making the process undertaken by Poirot a form of play [7-9], on top of gamifying the interpretive one that characterizes reading the novel. Even still, event sequences are unlocked based on a rigid series of interlocking mechanisms that requires speaking to the correct people in a specific order, and the game does not accept deviations. For instance, after examining Ratchett's body, players must speak with Dr. Constantine, as Poirot does in the novel, which triggers knowledge of the "incriminating paper of some kind" (Christie 79). This conversation challenges the player to find the objects Poirot uses in the novel to render the burned paper legible. However, familiarity with the novel's organization does not necessarily facilitate a player's engagement with the game's challenges. Enjoyment of the plot, and its success as a game, stems from its challenge-oriented appeal to what Linda Hutcheon and Siobhan O'Flynn refer to as "knowing and unknowing audiences" (2006, 121). The explanation for this phenomenon lies at the intersection of the game's most salient quality, its adaptation of a progressive chain into a game that demands puzzle-solving skill.

The Skill-Based Demands of Progression

The game adaptation of *Murder* is no exception to the idea that adaptation is a product of interpretation on the part of authors and virtual-designers. One of the most significant differences rests in the fact that players are cast in the role of amateur detective Antoinette Marceau, rather than as Poirot himself. The developer explains that players will inevitably make mistakes along the way, which do not characterize the genius of a character like Poirot (Sluganski 2006). Despite these differences, the game still adheres to the kernels constituting the novel's turns. These eventually come to form an event outline that corresponds to the event sequence in the novel (fig. 2). Unlike an emergent narrative, these kernels do not take the form of nodes in the game. Therefore, the future narrative framework and its nodal understanding of event structures is not as effective in accounting for the dynamics that make games of progression function.

Nodes are similar to kernels in the way both force the narrative into one of two mutually exclusive directions. However, the two narrative units differ in that kernels frame any alternatives as *past* actualities. Nodes frame alternatives as *present* potentialities that dramatize player choice in creating what appears next. This distinction between kernel and node is important because an event does not become an event until a possible consequence is realized, thereby bringing about a result that will produce a new event. Such is the difference between Poirot's refusal of Ratchett's case [3] and the player's ability to accept or decline the same decision in the game. Yet, the fact that players cannot decide whether to accept or reject the case raises certain limitations with the future narrative framework. A truly nodal adaptation might include scenarios in which different decisions are possible, leading to other outcomes for the plot.

However, the broader limitations associated with the future narrative framework stem from the theory's application and its potential uses. For instance, the theory does little to distinguish between progression and emergence as typical ways games are organized. This application makes apparent certain blind spots in the way the framework thinks through aspects of narrative construction. Moreover, the framework falls short of explaining how narratives established by a virtual-designer can approximate or delve into futurity, when those systems expect players to reify specific chains of events that might be said to have already occurred. In the game adaptation of *Murder* these events have happened in the sense that the novel serves as a script for the game's unfolding. By contrast, the game *Clue* is emergent and nodal game in a way that is underscored by the changing variables that create a new murder and method within each play session.

Murder's reliance on the novel created expectations of what will happen in the game, even without knowledge of the events that precede and follow one another (Herman 1997). Thus, what is present is not a futurity but uncertainty. The game adaptation of *Murder* makes this point apparent in the way its narrative demands puzzle-solving as a form of reading. Yet, in the case of games of progression, the nodality of events has more to do with their skill-based demands on players than it does with choice in determining the event sequences. The phenomenological constraints of the game indicate that any perceived futurity is somewhat illusory, because of the way progression funnels players down a specific path. Development of the narrative as such is stymied or halted if the player deviates from the path. This illusion is similar to Marie-Laure Ryan's convincing point that present tense fiction is really a disguised form of retrospective narration prefigured by an author who has nevertheless orchestrated the path and its

outcomes (2006). This point seems also to apply not only to *Murder*, both novel and game, but to the broad category of progression-oriented games which communicate a narrative to the player.

Familiarity with the novel also does not facilitate skill in the game because the puzzle-solving element is set up as a progressive chain that requires cognitive skill to traverse. These skills are tied to gaming logic, knowledge of the tropes associated with adventure games, and the ways in which they tend to unfold. These tendencies are not unlike the tropes that come to characterize genres and story types such as mystery fiction. The more specific aspects of this skill involve the player's ability to engage with the ergodic demands of puzzles in *Murder,* the game. Yet, simply because a player knows what event happens next does not necessarily mean they know *how* to trigger it. The game invokes the who and how of the murder, while also demanding players figure out the how of proceeding through the same event chain that would simply be navigated through illocution. This is part of what injects a sense of replay-ability into the game that is not present in the novel. While event structures adhere to the same chain, figuring out how to progress through this chain via the game's puzzles provides a challenge that must be surmounted. Otherwise, subsequent events remain inaccessible. *The Sims 2* and other games of emergence, by contrast, are more sparing in making these skill-based demands of players. As such, games of progression are imbued with a sense of challenge that keeps players glued to the game and coming back.

3. Flexible Narratives

The dichotomy between emergence and progression does not imply that these structures are in opposition with one another: the tension between emergence and progression which stems

from the open variability of emergence, versus the centralized control emblematic of progression (Abbott 2008). Flexible games synthesize this tension to produce narratives with emergent possibilities that stray into numerous asides while adhering to a sense of progression. These games, such as *The Wolf Among Us*, bend to user choice but inevitably snap back to the conventions of the virtual-designer. In this way, the player story and virtual-designer collide. After all, *The Wolf Among Us* is adaptation and remediation twice removed. The game is based on Bill Willingham's *Fables* comic, which itself modernizes characters and plots from Aesop's fables and the Brother Grimm's fairytales. This relationship of adaptation is further complicated by a transmedial one that frames Aesop and Grimm's tales as a mythological past that is subsumed within the broader lore of both the comics and games. Moreover, the game's events are yoked to a sense of progression that travels toward the comic's events, which also occur after the game. As such, the game's events unfold on an event timeline that is situated between fairytale inspiration and comic adaptation.

The Wolf Among Us consists of five episodes, each of which can be further subdivided into decision-making nodes that allow players to guide events. The ramifications of these decisions even carry over from one episode to the next. The game's episodic *syuzhet* has clear narrative connotations that aid in breaking down its events. Like the game adaptation of *Murder*, gameplay tasks the players with searching their environment for clues and talking to characters that will aid them in solving the crime. *The Wolf Among Us* adds to its adventure mechanics a narrative one that requires players to make decisions that funnel events into specific directions and make other choices inaccessible. The game opens with a disclaimer: "This game series adapts to the choices you make. The story is tailored by how you play." This overture of choice

is a key component to flexible narratives, which differ from progression in the way players are allowed to realize ludic alternatives as narrative outcomes.

For instance, Episode 1 gives players the culminating decision to arrest either Tweedle Dee or the Woodsman as a murder suspect. The character selected is interrogated by the player in Episode 2, an outcome that has cascading effects on other possible events that do or do not become realized based on the decision. In this way, the game is historically and formally indebted to hypertext and choose-your-own-adventure fictions. These similarities make *The Wolf Among Us* an example of "games as narrative play," because of its focus on narrative construction, *mimesis* as play (Callois 1961; Salen and Zimmerman 2003). Here, players' understandings of gaming and narrative logics are more important than the twitch reflexes demanded by other games. In this way, *The Wolf Among Us* gamifies players' close readings of narrative outcomes. Its adherence to the detective story type creates a similar pleasure to close reading the outcomes of murder stories while allowing players to choose the suspects they believe involved. Of course, the player is only ever choosing from a list of suspects that have been sanctioned by the game designer. In this instance, the pressure serves to show that flexible narratives bend under the dual tensions of progression and decision-making. While not emergent, the decision nodes create a player story that is generated by their engagement with the *syuzhet.*

While this sense of flexibility gives players a choice in producing changes to the narrative, they are nevertheless funneled back to a center. Based on its adherence to the virtual-designer model, game journalist Jody Macgregor argues that the game "sets up an expectation plenty of players have been disappointed by—an expectation they'll be able to radically alter the plot," only to "funnel players back to a baseline every couple of episodes. Then they branch, and then they funnel again" (2015). This limitation is evident, among other events, in the fact that

regardless of whom the player arrests as the initial suspect, neither proves to be the actual murderer. In this sense, the decision provides players with a bit of an illusion as to how pivotal the event at hand is. With narratives of progression, like *Murder on the Orient Express*, veteran players have no false expectations regarding their ability to influence the game's outcome. They expect, like a novel reader, something that is established by a virtual-designer who assumes authority for the events. The opposite is expected in emergent narratives such as the player created ones found in *The Sims 2*.

These facts place the *Wolf Among Us* in a growing category of games that attempt to use player choice, but how the plot is revealed changes more than the plot itself. In this sense, players are given control of the *syuzhet* rather than the story. The player's ability to determine the way events progress is tied to nodal turns in the *syuzhet*. On the other hand, the funneling process evokes ideas of progression. The result gives players unique experiences that make the game feel personal while also providing an authorial narrative that satisfies the emotional logic tied to closure and other theories tied to the reasons for consuming fiction.

3.1.Flexible Narrative Construction

Despite the limitations in determining the plot, flexible narratives have achieved a popularity and lastingness never seen by choose-your-own-adventure novels. Based on this, it is tempting to slot flexible narratives like the *Wolf Among Us* in the category of progression. Unlike an emergent narrative, the game has a clearly-defined endpoint that must be arrived at in the specific sequence intended by the developer. Such indebtedness also throws into question the use of the future narrative framework in analyzing such a complex work of adaptation.

The Wolf Among Us and its focus on decision-making narrative generation seems the perfect target for the theory. However, its relationship to these bookending media means that, in a sense, these events have already happened. Thus, the events of the game are necessarily a past-tense construction. Yet, the divergent paths of its nodes create turns that give the player freedom of choice. While this choice does not radically alter the conclusion, it creates a flexibility in the event chain that affects the players' understanding of the logic that sutures them. This tension raises a question regarding the legitimacy of the event structures and their contribution to the entire narrative as such. For instance, the example node of Tweedle Dee or the Woodsman casts both characters as a red herring, but which alteration to the *syuzhet* stands as legitimate is unclear from an authorial standpoint. Such is the conundrum raised by emergent texts, which establish a similar tension between author as designer and player as creator.

In opposition to those textual instances, the digital processes at work in the game index the commonalities of these outcomes for players (fig. 3). Apart from comparing player experiences, these statistics also contribute to the formation of a discourse community that takes on certain qualities of authorship, not unlike the discourse communities that coalesce around *The Sims 2*. There, however, players tend to focus on the ways emergence produces variability in their experiences. Value is placed on this variability as a desirable component of emergent gameplay and narrativity. With progression narratives such as *Murder*, the discourse takes the form of interpretation. This benefits from the fact that the static events and *syuzhet* present each recipient with the same sequences.

In *The Wolf Among Us*, and other flexible narratives, players place value on the commonality of these experiences while also debating the legitimacy of the choices that led them there. Part of the explanation for this, perhaps, has to do with player's understandings of the

folklore and comic that inspire the plot. In short, this explanation loses power when applied to a gamer who approaches *The Wolf Among Us* without prior knowledge of the other stories on which it relies. Because of the variability in game players, another investigation would need to be undertaken to determine *why* players tend to choose certain game paths over others.

What is clear, is the fact that discourse communities serve an integral function for flexible narratives' hybrid approach to the questions of authorship and player-created narrative. While this is clearly true of both emergent and progression narrative, the function of the community differs. The result is a multi-authored narrative whose story events are established by the virtual-designer but whose *syuzhet* is determined by player choice. While ergodic, multi-authorships have existed in literary history, few have taken a form that keeps players coming back to the plot. Such continual engagement stems from players having a hand in deciding the outcome of the narratives they consume, and flexible narratives resemble player-created ones in this respect. A casual glance at the Telltale Games forums shows that individual players read the event possibilities of the kernels in the context of narrative resolution, defined as enviable outcomes for the protagonist's engagement with the plot's conflict. As such, much of what gets changed in their engagement with the *syuzhet* also cuts along issues of character and characterization, a topic which is tackled head on in Chapter 3.

4. Conclusion: Gaming Discourse and Narrative Order

Video games' capacity to communicate narrative has deepened along with advancements in computation and game design. Even a glancing comparison between the adventure and roleplaying games of the twenty-first century and their 1980s forerunners confirms this historical and formal development. Behind the scenes, this propensity for story has also shaped gamers' expectations tied to specific qualities of fun and engagement at work in the medium. This fact is

evident the way game reviews focus on narrative as an aspect of formal execution. Game critics often isolate narrative from ludic components in their review of certain genres known to blend these elements: a reviewer might champion a game's play while criticizing its narrative, or vice versa. However, depending on the game, this division of elements can become less productive. *The Wolf Among Us*, for instance, places its narrative and ludic components in parallel relation such that critiquing one is synonymous with speaking about the others. In this sense, *The Wolf Among Us* is a narrative experience similar to a film or Japanese visual novel. By contrast, *The Sims 2* functions so that its systems and sub-systems are approachable in a way that is completely separate from any discussion of the way these mechanics enable narrative experiences. That *The Sims 2* enables narrative experiences says more about the way humans approach consolidating information about experience itself than it does about the game's narrativity as such.

The first benefit of this approach is its broad organization of narrative games into three dominant categories, which I've discussed in this chapter. Many narrative theorists have established taxonomies for narrative genres and story types in a variety of media that focus on the way event structures generate typical ways of organizing stories. Likewise, whether digital or non-digital, many of the ludologists and developers cited offer their own taxonomy for the ways games can be divided into distinct categories that sometimes overlap (cf. Callois 1961; Sutton-Smith 1971; Salen and Zimmerman 2004; Juul 2005). These approaches unsurprisingly concern themselves with the ways different styles of play organize different types of games. Despite these respective narrative and ludological models, little has been done by scholars to think through the way and extent to which play distinguishes narrative strategies from one another. Subdividing games into narrative types offers a framework for understanding how the medium has begun to impact new media aspects of film and television. Subsequent chapters will show

how ludic elements from video games influence cinematic temporality and encourage specific modes of viewer engagement. As such, this chapter offers emergence, progression, and flexibility as a starting points for the analysis.

A closer look at the intersections of narrative and ludic approaches to games reveals productive consistencies that are too numerous to be coincidental. These are largely the product of connections between categories pointed out by narrative theorists, on the one hand, and those pointed out by game studies, on the other. Juul's categories of progression and emergence function in ways that are similar to Tzvetan Todorov's mythological and gnoseological narratives, respectively. Todorov defines mythological narrative sequences as those which operate via a modal transformation involving a "principle of succession" (1971, 40). This sense of succession is tied to the way an event produces the one following it, and so on. Likewise, games of progression function such that players are concerned with unlocking events that, as shown, function via a similar principle of progressive succession. The game adaptation of *Murder* unfolds in phases that are triggered in a specific order through which players must proceed. These sequences consist of immutable events that, in their designed nature, have already happened. The sequence of progression allows players to rehash these events but not to alter them or to create new ones, a limitation that is baked into even an emergent novel like *Composition No. 1*, which uses a repository of events whose successive relationship is narrated in the past tense.

On the other hand, gnoseological sequences function with the conceit that "the importance of the event is less than that of our perception of the event, of the degree of knowledge that we have about it" (1971, 40). This is also true in a game of emergence such as *The Sims 2*, which illustrates that ludic literacy interfaces with player goals to produce the next

move. The focus on knowledge, perception, and experience has discursive implications that are reflected in player engagement with the community around them: emergent games encourage discussion about which possibilities of play get actualized and how to resolve these events into narrative. While these possibilities occur in gnoseological media generally, video games multiply the possibilities so much that they conceal their advance design, at least with respect to narrative organization. The failure of procedural novels is likewise tied to the way forms of narrative gaming have become integrated with, rather than supplant, literary activities (Steinkuehler 2007). On the surface, then, the division of games pointed out by ludologists has a structural fidelity that map onto categories defined by narrative theorists.

Like Todorov, I stress that these categories do not exhaust the possibilities in the deep structure of narrative games. Nevertheless, they do seem to represent basic categories which might be built upon and fleshed out by thinking through the *way* in which games communicate their narrative information, in addition to the structure of that information from the perspective of player consumption. Flexible games like *The Wolf Among Us* cast decision-making as a gnoseological process that produces mythological outcomes. Thus, the game type offers a base for building a structure that might help in better understanding the variety of ways game structure can influence narrative presentation. While the future narrative framework stands out as a specific approach to the question of type in video games, there are certain limitations when applied to games of progression and, to a lesser extent, flexibility. This is because games of progression are organized by a virtual-designer who functions similarly to an author who prefigures the narrative sequence. Flexible games contain futurity in the way decision nodes create a sense of player agency tied to the generated sequence. However, such agency is undermined by the eventual snapping back to a uni-linear sequence with a designated ending. As

such, future narrative seems most conducive to discussions of emergent games, especially in accounting for the way players construct ongoing mental models of a narrative whose sequences unfold in unplanned, seemingly real-time ways. Yet, to say that these narratives completely lack closure neglects the importance of discourse communities in building them, such that future narrative might also be useful in accounting for how interaction with these communities might anticipate player goals in the game.

This chapter moves beyond the future narrative framework by focusing on the way ludic presentation conditions different forms of event expression. Moreover, this organizational approach considers player and community role in various forms of ludic storytelling. In addition to critical convention, the rising narrativity of games in general is also signaled by fans' investment in the increasingly complex virtual, narrative worlds of specific games. As shown, part of these tendencies stem from the remediation of two previously outlined types of narrative event. Other formal aspects of players' ludic reading processes are outlined in subsequent chapters, which engage directly with player relationships to temporality, character, and point of view. Each of these constitute modalities for reading and presenting, which are influenced by a game's categorization as emergent, progressive, or flexible.

Unnatural and Complex Temporalities in Fiction, Film, and Game

Digital media have long been understood to be multi-temporal objects that create shifting layers of time produced by interacting with the system. This process stems from the way physical and digital spaces, and their temporalities, overlay one another (Barker 2014). Of course, this general understanding of multi-temporalities says little about the differences between narrative video game time and simply interacting with a website or streaming a song. Perhaps this lack of engagement stems from the fact that scholars have also neglected the way multi-temporalities lie at the heart of narrative's virtual aspects, which themselves can be differentiated by their ontological and stylistic qualities. These various slices of temporality evoke Gerard Genette's concept of metalepsis, a transgression between narrative levels organized via the "unacceptable and insistent hypothesis, that the extradiegetic is perhaps always diegetic" (1980[1983], 236). As such, this chapter argues that video games conventionalize metaleptic moves once characterized as emblematic styles of postmodern fiction. Beyond the stylistic, video games incorporate these techniques as core aspects of their temporal constitution.

To do so, this chapter engages with Jan Simons formulations of unnatural and complex as they apply to the temporal dimensions of transmedial narrative. The concept of unnatural narrative is generally understood by scholars as a response to Monika Fludernik's natural narratology, which is concerned with everyday language processing and the epistemic nature of narrative construction (1996). As such, unnatural narratives defy these epistemic limits to create defamiliarizing temporalities that violate the physical laws or logical principles associated with human experience. My analysis of Harlan Ellison's short story, "I Have No Mouth, And I Must Scream" and its game adaptation indicate the way games conventionalize specific forms of the unnatural tied to metalepsis and the creation of multiple, interactive levels. In the game,

however, these levels create differential endings in the narrative, all of which must be read as simultaneously possible and impossible in constituting the resolution to the its story. Ultimately, this literary-historical component of the argument emphasizes the way video game media contain inherently unnatural qualities that are ontological rather than stylistic, multi-temporalities that are impacted by postmodern fiction's own conventionalization of certain unnatural techniques.

Tied to the unnatural is the notion of the complex, which refers to narratives that toy with chronological structures or establish multiple narrative levels in ways that often cause confusion in viewers. Unlike the unnatural, the complex is more closely tied to narrative presentation rather than constitution, as seen in *Prince of Persia: The Sands of Time* and the way it makes games out of time itself. As I show via its connection to the film *Edge of Tomorrow* (Liman, 2014), these mechanics have created a specific type of complex film whose temporality relies on the ways video games encourage repetition and redrafting as multi-temporal engagement. Finally, the chapter's conclusion analyzes the relationship between the complex and the unnatural as means of organizing narrative time in transmedial forms. In doing so, I offer a multi-temporal understanding of non-digital media that has only ever been implied in narratology, specifically as it applies to fiction. As I will show, these related concepts represent productive yet unforged directions for understanding fiction and film, especially when the multi-temporal is understood as part and parcel of narrative consumption. Moreover, this lens also aids in recognizing the way video games elaborate these multi-temporalities as a specific instance of digital culture.

This chapter relies on the concept of temporal frames to guide its analysis of the video game cases. The concept of temporal frames understands narrative and media time as set of shifting and overlapping phenomena (Zagal and Mateas 2010). Rather than a singular or monolithic idea of time, the theory sees time as a system of interlocking components. The

framework was specifically developed for video games and divides time into four distinct streams: *real-world*, *fictive, gameworld*, and *coordination*. Real-world time encompasses the space occupied physically by the player in the actual world. This positioning serves as a reference temporality for the virtual worlds. Fictive time is characterized by sociocultural notions of time, like years, are applied to abstract gaming devices. It is further characterized by the representational elements games and bears a strong relationship to real-world time because of the way sociocultural notions of time underscore a player's relationship to both life and narrative. In this way, fictive time acknowledges the ideological, ethnological, and cosmological ways time is represented in video games as a global, intercultural medium.

Gameworld time circumscribes the events taking place in the simulated gameworld navigated by the player's avatar. This domain accounts for the time of ludic space as separate from the actual world, much in the way narrative time in a novel is separate from the reader's subjective experience of time. Still, gameworld time chiefly arises from the time that underlies the simulated worlds in which narrative games take place. This concept applies to the in-game time it takes for, say, a tetromino block to fall from the top to the bottom of the screen, but also to the day and night cycles that embellish gameworld with a sense of realism. In short, gameworld time bears a necessary relationship to the reference-temporality established by real-world time. The division between gameworld and realworld time evokes the concept of metalepsis in the way it forms a traversable boundary that guides a player's relationship to the game narrative.

Coordination time is at work in the way game events coordinate the actions of multiple game agents, whether other players or NPCs. These aspects of time are established by the game's rules and the way they draw boundaries between instances of play. Rounds or turns are generic

examples of coordination time that can be found in most games. In narrative games, however, coordination time functions to limit the way, and extent to which, narrative occurrences are available to the player—and also to trigger them when the right conditions have been achieved. This indicates the way narrative games can cause these frames to overlap to the point of being indistinguishable for the player. For instance, a game may use its day and night cycle to limit the moments in which the player can achieve certain outcomes, thus causing gameworld and coordination times to overlap.

1. Unnatural Time and Metalepsis

While the concept of temporal frames was developed for video games, its metaleptic heuristic points towards ideas already at work in narrative theory, whose novelistic origins distinguish between the time of story and *syuzhet*. Moreover, story, plot, narration, and text each has its own unique tempo, order, and duration. All of these points indicate the necessity of sketching specific types of multi-temporality and their narrative function or results. One way of understanding this is looking to postmodern fiction and its unnatural time. Multi-temporalities become unnatural when separate frames overlap to create unresolved tensions in narrative construction. Harlan Ellison's short story, "I Have No Mouth, And I Must Scream" illustrates the way these frames combine to create an unnatural temporality that, while deceptively simple, stands out as confusing and uncanny when juxtaposed with every day, folk conceptions of time.

The narrative follows a simple, chronologically ordered plot in which the characters undertake a journey to find canned goods, while being antagonized by the god-like supercomputer AM. The initial temporality of these events is rendered explicitly, with references to cultural notions of measuring time: "it was our one hundred and ninth year in the computer" (Ellison 15). This entry into the story's timeline is supplemented by the information that world

"had been nothing that could be considered anything for over a hundred years (Ellison 17). These markers of fictive time sketch a picture of the story events' placement within a narrative world whose timeline is bookended by further occurrences. Such is the case for most conventionally told narratives of progression, which are prefigured by a narrator that chooses the when of a story's inception.

Here, the backstory is nevertheless part of the narrative itself, underscored by the group's in-dialogue narration of the global events that produced their personal circumstances. At the beginning of their journey, the narrator establishes days of the week as markers of time: "We left on a Thursday. The machine always kept us up-to-date on the date. The passage of time was important; not to us sure as hell, but to him…it…AM. Thursday. Thanks" (Ellison 16). The events leading up to the story are framed in temporally broad, definitive terms, a tendency most cohesive in opening's framing of a fictive time. The narrator resorts to numerical concepts to explain the way the characters had acclimated to the aspects of the computer's onslaught "seventy-five years before," because they "had done this sequence a thousand times before" (Ellison 18, 19). Unsurprisingly, the narrator resorts to concepts of time that are measurable in days of the week and number of days, months, years.

The explanation for this trait is simplicity and convention in constructing a comprehensible logic explaining the relationship between events as placed on a timeline. Moreover, these slices of time coordinate between the narrator's representation of the events and the narratee/reader's consumption and cognitive organization of a background that gets relayed out of order. Thus, the fictive designations coordinate the order of events that otherwise might have happened at any point in the vast swaths of time covered by the narration. These are all

circumscribed by the macroscopic time of the events a taking place within the narrative world as a whole.

Despite the use of these ordered units of duration, the story also invokes less deterministic notions of time through the narrator's reference to the instant quality of certain events and sequences. The story's climax illustrates the representation of these ambiguous increments:

> All in an instant:
>
> > I drove the great ice-point ahead of me like a battering ram, braced against my right thigh. It struck Benny on the right side, just under the rib cage, and drove upward through his stomach and broke inside him. He pitched forward and lay still. Gorrister lay on his back. I pulled another spear free and straddled him, still moving, driving the spear straight down through his throat. His eyes closed as the cold penetrated. Ellen must have realized what I had decided, even as fear gripped her. She ran at Nimdok with a short icicle, as he screamed, and into his mouth, and the force of her rush did the job. His head jerked sharply as if it had been nailed to the snow crust behind him.
>
> > All in an instant. (Ellison 28)

The passage consists of a number of events that develop into a sequence. The duration of these events, which are indexed in the paragraph's individual sentences, is indeterminate. However, the narrator's repetition of the sequence's instantaneity is underscoring, implying that his representation takes longer than its occurrence. Colloquially, an instant refers to an occurrence that unfolds in ways that are perceptually immediate. In physics and mathematics, an instant is classified as an infinitesimal, something too small to be measured.

This aspect of the narrative presentation plays off of the reading process as an act in time, which warps the reader's relationship to the events' duration. Above, the sense of an instant is contained in an entire paragraph. Elsewhere, entire days are traversed in a single sentence: "Ellen and Nimdok were returned to us later that night, which abruptly became a day" (Ellison 26). These aspects of narrating time—in which paragraphs overrun the sequence being represented or sentences contain vast swaths of time—is a structural convention arguably inherited from realist novels of the late nineteenth and early twentieth century. However, "I Have No Mouth, And I Must Scream" dilates time in ways that make it ambiguous, calling into question the narrator's representation throughout.

This is evident in the way the characters' journey takes an indeterminate duration that begins concretely, but which stretches into years, perhaps longer. At numerous turns, the narrator resorts to cultural, measurable conceptions of time to encapsulate this ambiguity. At one point he runs away from his group of travelers: "How many hours it may have been, how many days or even years, they never told me" (Ellison 20). This is quickly followed by a sequence in which the characters are "in flight for an endless time," due to a bird whose wings blew them about "for a length of time we could not conceive" (Ellison 23, 25). Ultimately, the story events feed into the moment of their telling, which is evident in the present-tense shifts that characterize parts of the closing paragraphs. The narrator clarifies that "some hundreds of years may have passed. I don't know. AM has been having fun for some time, accelerating and retarding my time sense. I will say the word now. Now. It took me ten months to say now. I don't know. I think it has been some hundreds of years" (Ellison 29). This horrific aspect of the conclusion calls into question the narrator's earlier use of these concrete markers of duration, while explaining their unraveling as the story time travels toward the narrative act.

The most surface explanation for this approach to time is a literary-historical one that situates Ellison's story in the broader context of postmodern experiments with time. Novels in the postmodern tradition are notorious for the way they destabilize rudimentary conceptions of time in ways that can be achronological and fragmented. Ursula K. Heise has shown that time in this body of fiction is often "detached from any specific human observer, and in some cases is not meant to represent any temporality other than that of the text at all" (1997, 64). While this idea holds true for third-person texts it runs into a few problems when mapped onto first-person narration, where the temporality of the text is tied to a designated observer. Nevertheless, either produces an unnatural temporality because time divorced from a human observer, or technological stand-in, defies the epistemic limits of experience as we know it.

When narratives are structured by unnatural temporalities rooted in the narrative itself, rather than natural, anthropic perspectives, recipients are encouraged to restructure or reorient their perspective to whatever the narrative establishes as the deictic center (Herman 2002). As shown below, this practice of cognitive shifting mirrors the temporal orientation strategies required by games, because the mind can imagine fictional scenarios that transcend empirical knowledge of time and progression (Alber 2016). However, "I Have No Mouth, And I Must Scream" illustrates that this fact is also true of narrator's minds as a mockup of our own. As such, the unnaturalness at work here stems from the science-fictional context, the way the narrator's concrete units of duration are contrasted with and subsumed by the supercomputer AM's "forever time" (Ellison 24). The result is a mind-bending paradox, one similar to the title's metaphorical impossibility.

Conventionalizing the Unnatural

Narratives as far back as Shakespeare's *A Midsummer Night's Dream* have been shown to possess unnatural elements. However, these can often become standardized over time such that they cease to be questioned as core elements of popular narrative. Even still, the game adaptation of *"*I Have No Mouth, And I Must Scream*"* raises issues regarding what happens to an unnatural temporality in fiction when remediated as video game. At stake here is the idea that newer media technologies have the capacity to systematize temporalities whose appearance elsewhere is decidedly unnatural. The game's form resolves some of these unnatural elements because of the illusion that games unfold in real-time, rather than the past tense of represented narratives. As discussed in the previous chapter's case example *Murder on the Orient Express*, game adaptations remediate aspects of fiction as part of an interpretive process. The video game adaptation of "I Have No Mouth, And I Must Scream" is no exception to this idea, as it takes liberties with the structure by adding more specific backstories for Ted, Benny, Gorrister, Ellen, and Nimdok. Moreover, players take on the role of each character in the story, rather than restrict them to the narrator-protagonist, as they navigate AM's cruelty. Because of its focus on individual characters, the adaptation is essentially composed of five mini-narratives that lend themselves to a broader one. The game itself thus acts as a frame that surrounds these stories, creating a complicated multi-temporality for which the vocabulary of temporal frames will be useful to unpack.

Foremost important is the way the game creates differential temporalities that are organized around each character as a coordinating time in themselves. The game's separation into various characters first and foremost establishes them as coordinators who divide the game into its five levels. Selecting a character leads to an individual level that must be completed before moving on to another. Each of these pocket narratives is characterized by its own internal

sense of gameworld time and its expression in fictive terms. Moreover, the player's occupancy of each character creates an overlapping, differential temporality that the game systematizes as part and parcel of its multi-linear flexibility. The game adaptation of Ellison's story is flexible which means that multiple conclusions complete for resolution of fixed events, as discussed in the previous chapter.

Like the story, all but one of the characters perish, yet the game's multi-linearity stems from its inclusion of seven achievable endings that play out depending on the decisions made over the course of the game. These endings are composed of three variables, any of which may be absent, or present in combination with the others: AM's destruction or survival, the death or survival of cryogenically suspended humans on the moon, and the final character's possible transformation into a blob creature. The game's designer David Sears explains this feature as an aspect of the medium, arguing that players would not be satisfied if all of their decisions led to defeat for the characters: "We can't have only negative, punishing endings. We can have an optimistic ending" (Cork 2012). In this case that optimistic ending is the destruction of AM and both the lunar colonists' and final selected characters' survival.

No single ending defines the game's narrative and the resultant possibilities can be split into broad categories such as good, bad, or ambivalent—which can be defined based on cultural tropes associated with the comparative way events resolve for the characters. It is tempting to frame these possibilities through the concept of possible worlds that characterized a productive approach to more mundane narratives hew closer to everyday experience (Ryan 1991; Ronen 1994). However, this approach is more in line with the natural narratology to which the unnatural lens is a response. Moreover, the possibilities in the video game adaptation of *I Have No Mouth, And I Must Scream* are not hypothetical alternatives to one another but pieces to understanding a

contradictory narrative made up of differentials. All are possibilities that lead to resolution of the narrative events and a foreclosure of the player's ability to change anything else.

This question of which endings are "true" for a game is longstanding and has gone unresolved both in narrative theory and game studies. As mentioned in Chapter 1, games of emergence lack the closure of the flexible and progression-based games that adhere to a set timeline with a designed conclusion. As Jan Simons reminds, the sequentiality of events in games is not "an accidental result of the incapacity of humans—and algorithms, for that matter—to access data otherwise than sequentially" (Simons 2014, 28-9). In fact, the past-present signification of story-discourse events is both structural convention *and* epistemic limitation. "I Have No Mouth, And I Must Scream" conventionalizes temporal possibilities that are still impossible from an epistemic perspective, leading to the question of which timeline to privilege for the sake of discussion and labeling the narrative *qua* itself.

The core tension associated with time, both in the game and its analysis, is the issue of choice effects the causality leading its timeline of events. This choice means that video game narratives create an interactive metalepsis that is unnatural. While postmodern novels have been known to employ and conventionalize aspects of this style, games make it an inherent part of their temporal makeup. In the game these tendencies are not stylistic but ontological, conventionalized by designers and readers based on the wider cultural context in which the media is consumed (Bell 2016). The component of the unnatural that has not been pointed out is video game's capacity for all possibilities to be simultaneously true and false. This is the result of metalepsis, interactivity, and its effects on temporality. Like the story, the game standardizes a specific sort of unnatural temporality via metalepsis. The story does so by divorcing storyworld time from its narrator's experience of the world around him. The game does so via its

complication of narrative levels into distinct pockets of coordination time that effect the resolution of gameworld time in narrative terms.

2. Complex Temporality: Failure, Repetition, and Redrafting

Prince of Persia: The Sands of Time asks gamers to play with time, via game mechanics whose functions resemble remediated digital processes like pausing, fast-forwarding, and rewinding. In the action-adventure game, players take control of the Prince as he gains powers that allow him to manipulate time. The game's most common power, the power of revival, allows the player to rewind the gameworld time up to ten seconds. This can be used to undo almost anything that has occurred within that span of time, such as injury or missing a difficult jump. With it the player can help the Prince navigate a dangerous castle that is filled with traps and deadly enemies. However, the ability to perform these time manipulating actions is limited by coordination time, power tanks that must be replenished before the power can be used again.

This power and others the Prince obtains lead to play that is organized around failure, temporal manipulation, and repetition. To some extent, most games encourage an iterative process that associates timing and mastery with failure and repetition, especially in action games that emphasis kinesthetic tasks (Karhulahti 2013). Such is the case with *The Sands of Time*, which relies on repetition itself as part of the navigating the challenges thrown at the player. In one section the Prince may jump to a platform that collapses underneath his weight. If the player is not quick enough the Prince will fall to his death. Before this happens, they must trigger the rewind power, which shows the exact sequence of actions played in reverse. With the knowledge of events, the player can proceed through the challenge successfully. These translate narratively, because true death, not activating the power in time or running out of uses, leads to a game over that requires loading the player's most recent save file.

Success and failure are concepts that have been traditionally consigned to game theory and game studies approaches to video games as games. The result is a lack of engagement with these concepts and their application to game narratives. In fact, the player's success in a narrative game almost always results in the protagonist's success, and failure functions similarly (Juul 2013). The same is not true of narratives in fiction and film, in which the viewer's involvement does not hinge on success and the protagonist's failure can constitute a narrative event that is still succeeded by others. In the context of a game, failure is not an option for unlocking subsequent events on the narrative timeline. In *The Sands of Time,* the ability to rewind creates a space that allows players to use realworld time to solve problems that are simultaneously past and future within the gameworld time.

While the ten-second duration of this reversal occupies the same amount of time in both temporal spaces, the recursive structure leads to changes in the gameworld outcomes. As a game design mechanic, this time manipulation is somewhat common and can be found in games such as *Max Payne*. This prevalence stems from the combination of games' iterative play demands and the way their computational processes remediate the temporal manipulation made possible by twentieth-century media such as film stock, VHS, and DVD, and which still characterizes digital film files and the programs that run them. However, *The Sands of Time* occupies an even smaller category of games in which temporal manipulation generates recursion in the plot itself.

There is a good bit to unpack here with respect to time in the game and its relationship to games studies and narrative theory scholarship. Game studies holds a general opinion about games as simulations by which temporality is present-tense, as opposed to the past-tense that characterizes representation in fiction and film (Frasca 2003; Aarseth 2004). This perspective is supplemented, in narrative theory, by an understanding of games as emblematic of a future

narrative characterized by openness, possibility, and contingency (Bode and Dietrich 2013; Domsch 2013). Games studies approaches to temporality have led to this narrative understanding of games as future-tense structures whose outcomes get decided by player choice. However, Jan Simons (2007) has already pointed out the limitation with this approach to video game narratives and their relationship to the player. Simons writes,

> The point-of-view of the game player on the other hand, games studies scholars argue, is prospective because for the gamer the outcome of the game is still hidden in the future. As they argue, the game player still has every chance to influence the outcome of an ongoing game. But, again, this distinction confuses the phenomenological experience with a theoretical perspective. More precisely, it confuses the temporality of a sequence of events with its logical structure. How a particular game will end may be unknown to the players but for most games it is quite clear in advance which outcomes are possible and which are not. (2007, np)

In other words, this analytical mistake conflates and muddles the different ways gameworld time and realworld time contribute to narrative construction in a game like *The Sands of Time.* The foreclosure of possibility referred to here is apparent in the way the game works to underscore its legitimizing of player success with narrative asides from the Prince himself. Whenever the player fails to the point of death, he narrates in voice over "no, no, no, that's not how it happened. Let me start again." This aspect of the game's narrative is revealed to be integral to its logic and presentation.

The ending reveals that the Prince has succeeded in his quest and traveled back in time to a point before the events of the game. His narration is aimed at the companion who accompanies the Prince throughout his quest, but who has no memory or knowledge of events that have not

quite happened yet. Thus, the game counts on players to succeed in order to legitimize the Prince's narrative. As a result, the game creates a deterministic future in the gameworld's temporal logic. This determinism flies in the face of previous scholarship on game temporality and openness. Ludologist Jesper Juul argues time is almost always chronological in video games. Juul writes that "flash-forwards are highly problematic, since to describe events-to-come would mean that the player's actions did not really matter," while "interactive flashback leads to the time machine problem: The player's actions in the past may suddenly render the present impossible" (2005, 147-48). Juul's certainly makes sense when it comes to the general relationship between contingency, play, and the player-created structures of emergence discussed in the previous chapter.

Yet, another of the powers in *The Sands of Time* is triggered at predetermined moments and shows the player flashes of the Prince traversing future puzzles and challenges in the castle. These temporal elements function as a form of prolepsis that reveals further points in the game. From the player's perspective these moments offer clues about how to navigate the upcoming puzzles, while the narrative frames it as proleptic knowledge that the Prince himself is obtaining. The specific minutiae of the way a player navigates this might differ but their success is already a foregone conclusion for the game's narrative logic. Of course, the Prince's narrative voice-over and amendments point toward the furthest instance in the gameworld's future: the moment he narrates his journey.

The game's set up thus admits the past-tense nature of the events undertaken by the player. Even the power of revival functions so that the player's movement forward in time is a ludic prolepsis. These narrative and ludic prolepses forecast future challenges for the player and assume the Prince's success. While the conclusion succeeds this narration, it only comes by way

of a cut scene that reneges the constructive agency previously given to the player. Failure is a thus a key component of *The Sands of Time*, because of the way it allows the player to go back in time and redraft their attempt to one in line with the narrative progression established by the virtual-designer. Such is where the multi-temporal complexity of the game's narrative derives. While it is apparent in the intrinsic ways gameworld, coordination, and realworld times overlap with shifting relationships to their fictive representation, the game also presents a duality of past-future temporality. This is descriptively apparent in the way gameworld time is subdivided into a chambers of future and present. Gameplay asks the player to understand their actions as unfolding in real time while the game's status as events past stems from the logic of its buried narrative frame.

The recursive aspects of *The Sands of Time* necessitate this movement forward, which is followed by a return, and more movement. This same process characterizes the time reversal power that players employ as a further, miniature recursive process. There seems little debate regarding the present-tense experience of simulations, especially when it comes to the player's perception of the way they unfold as real-time objects. Yet, this perspective is complicated by the fact that the player's navigation of this temporality is stymied by a specific causality that possesses diminished contingency, a feature itself that is tied to the closed nature of the system. As such, the game evokes Marie-Laure Ryan's claim that "present-tense fiction is really a disguised form of retrospective narration" (2006, 78). While the simulation possesses some degree of openness and variability, the narrative communicated is a closed system that overwrites these aspects of the game's story events.

Ultimately, the game's ending means the Prince's story both did and did not happen. The player and the Prince certainly experience the events constituting it, but the status of the

gameworld is altered so the events are relegated to either a parallel, yet alternate timeline or nonexistence altogether. In this way, *The Sands of Time* offers a meditation on the nature of constructing interactive narratives of the sort found in video games. The game acknowledges that the player is only ever able to make decisions that are "correct" or did happen as the Prince himself remembers them, a point which evokes questions tied to the representation of character and embodied minds taken up in the following chapter. Moreover, the game occupies a specific place among time travel narratives, which themselves have been connected to shifts in the biological and technological sciences (Wittenberg 2013). *The Sands of Time* certainly in this tradition of time travel and manipulation narratives. However, its status as a game object makes apparent that its approach to temporality is also the result of the specific ways digital media technologies have been used to interpret skill-based aspects of play found in a variety of games: basketball, backgammon, and mahjong to name a few.

Thus, video games are a subsection of the technological shifts that have contributed to the rise and standardization of a certain type of time manipulation narrative. While there are games with time manipulation that precede *The Sands of Time*, such as *The Legend of Zelda: Ocarina of Time* (Miyamoto 1998), the more recent game standardized these mechanics in a way that is apparent in the diachronic line that can be traced from newer games like as *Quantum Break* (Lake 2016). This body of games organizes play around its own acknowledgement of the ways failure, repetition, and recursion are baked into the challenging aspects of video games at a broad level.

Failure and Repetition in Film

Edge of Tomorrow is a complex film with a simple plot. An inexperienced soldier is sent into battle with invading aliens, only to be caught in a time loop wherein his repeated deaths send

him back to the morning of the battle. This conflict is embellished by a presentation structured by repetition, with scenes that retread through the same occurrences with different outcomes. In what might be considered the film's first phase, protagonist William Cage wakes up at Heathrow and is sent into a beach storming that ends in his deaths: at the hands of an alien, by equipment malfunction, trying to save an ally, being hit by a truck, by another alien. After each death Cage wakes up at Heathrow with complete recollection of his previous decisions and their results. These features of its plot and presentation *Edge of Tomorrow* a complex film. Complex films designate a broad category containing many subtypes. These have been variously termed by scholars, who focus on a different tendency or aspect of film narrative and have proposed categories such as "forking path narratives" (Bordwell 2002), "multiple draft films" (Branigan 2002), "database narratives" (Kinder 2002), "network narratives" (Bordwell 2006), "modular narratives" (Cameron 2006), and "mind-game films" (Elsaesser 2008), among others. This diversity of categories has led to a bit of scholarly confusion regarding whether the complex film is a fad or the sign of an emerging convention.

Despite its certain complexity, *Edge of Tomorrow* does not quite belong to the categories proposed by narrative and film scholars. Simons critiques these categories through the lenses of narratology, game studies, and complexity theory. While he acknowledges that "new media structures (such as databases and 'navigable spaces'), virtual realities (including phenomena such as parallel worlds, forking paths, and imagined 'others'), and nonlinear temporality emerge as the most salient features of the complex film" (2014, 116). Simultaneously, he points out the fact that the traditional models of narrative theory, which characterize complex film scholarship, have difficulty reckoning with these aspects of film in asymptomatic ways. This comes through in a

dominant focus on the way temporality and complexity are tied to subject-formation and the film apparatus.

Moreover, the language of digital media is difficult to map onto narrative logic. Narratives are inherently linear while databases are not internally bound by the same constraints, thus offering users multiple trajectories of consumption. It is this consumption process in real world time that is bound by a specifically linear logic associated with representation. While video games, like other new media, are certainly structured by elements of database logic, this logic is not always readily apparent in terms of narrative consumption, especially the player's perceptual level (Manovich 2001). In these senses, the concept of a database narrative is oxymoronic or, at the very least, a pairing that attempts to put a square peg into a round hole. In the case of *Edge of Tomorrow*, this complexity is derived from the film's game-like presentation, wherein repetition and revision are fundamental part of the narrative agent's experience of the events and their representation. This makes it a specific type of multiple draft film, one in which the redrafting process is tied to aspects of repetition, failure, and contingency in video games.

Figure 4 visualizes this process, through a markup of the film's timeline as a linear, back and forward progression. Each *x* represents an instance of Cage's on screen failures, after which he is sent back to his point of origin at Heathrow. Each [*x*] indicates a moment Cage succeeds, which is always followed by the transition to a subsequent sequence of events (e.g. "Training Arena" or "The Chopper"). These sequences function as levels with their own coordination time that is constituted by the specific locations in which Cage finds himself, and the challenges he confronts there. Because of the narrative's recursive functions, Cage presumably goes back to his origin at Heathrow after failures in these sections, which are retracted based on this forward progression. For instance, once Cage reaches the "Training Arena," his failures send him back to

Heathrow but his skill presumably sends him right for [*x1*], rather than trying "The Beach" all over again. He must still progress through each individual failure of the subsequent sections but traversal of the previous ones becomes easier with time. Likewise, once he reaches [*x2*], his failure in "The Pub" means he simply goes back to origin and then straight through [*x1*] and [*x2*], to "The Chopper" sequence. In contrast to contemporary video games, *Edge of Tomorrow* is a classic game that lacks save file capabilities.

After showing its initial events, the film relies on a montage that fills in Cage's subsequent attempts at navigating the battle. This section is intercut with jump cuts in which he wakes up at Heathrow. He successfully traverses the opening battle when he decides to roll under a truck. These formal traits illustrate the way *Edge of Tomorrow* fits into a specific category of complex films in which the narrative structure is organized around "serialized repetition of actions (to accumulate points and master the rules)" (Buckland 2011, 187). Using knowledge of his past failures, Cage progresses incrementally and becomes master of the system around him, which is organized in static ways that are structured like the games of progression discussed in chapter 1. Moreover, it seems safe to assume that the film skips dozens, maybe hundreds, of other tries and deaths. The character thus respawns upon every death, typical video game lingo that refers to the process of returning after a death.

Edge of Tomorrow differs from other recursive films such as *Run Lola Run* (Tykwer 1998), which focuses on contingency in the context of free will versus determinism. Here, the focus is on chaos theory and the so-called butterfly effect, where a slight change in Lola's actions produces unforeseen results. Almost in opposition, *Edge of Tomorrow* assumes that skill, in conjunction with repetition, is sufficient for traversing the ordered system of challenges it throws at the protagonist. Here, his assessment of what went wrong and how to proceed is sufficient to

produce the outcomes he finds desirable in a way that conforms to video game logic. This is apparent in the focus on external action, especially relative to other complex films and their focus on characters with fragmented consciousnesses or multifarious narrative levels. While the plot certainly explores minor aspects of Cage's psychological experience of frustration with re-experiencing the loop, his sense of mastery and resolving the plot take center in ways that even structure the presentation.

As such, the film's action engages with the kinesthetic qualities of mastery and timing that lead to failure and repetition in an action game. *Edge of Tomorrow* often takes a tongue-in-cheek approach to this concept of timing, as Cage's montage of failures and deaths is framed as darkly comedic in light of his ability to respawn, try again, and gain mastery. This process of trying, failing, and analysis, and retrying leads to the development of new, successful strategies which themselves stem from the way games encourage players to develop hypotheses for their decision-making (Dor 2018). Coupled with repetition, this process requires players to project their understanding of past outcomes onto future engagements with the same or similar variables. Warren Buckland (2011) uses the same temporal criteria to underscore the way narrative logic in the film *Source Code* (Jones 2011) also follows an enumerated list of video game properties. This, he argues, also applies to films like *The Fifth Element* (Besson 1997) and *Inception* (Nolan 2010). Of course, the qualities that make these films game-like differ from those found in the video game films with simple temporality discussed in Chapter 4. Alongside these other complex films, however, *Edge of Tomorrow* makes apparent that film temporalities have been influenced by video games' standardization of a specific variety of complexity.

As this chapter has shown, the nature of multi-temporality differs between fiction, film, and video games. Like postmodern fiction, video games create metaleptic levels that complicate

our understanding of time in unnatural ways. However, video games incorporate this metalepsis as part of their being and it characterizes them in broader ways than can be said about the story iteration of "I Have No Mouth, And I Must Scream." However, the conceit found in the game adaptation stands out in the games *Eternal Darkness: Sanity's Requiem* (Dyack 2002), *Grand Theft Auto V* (Benzies 2013), and many others. The game may very well have simply elaborated Ted's initial story with the same outcome, yet the interactive quality of games forced a revision to the already unnatural aspects of the narrative. Still, adherence to the original story would have produced an unnaturalness in the way interactivity cuts across the narrative boundary between gameworld and realworld.

There is ongoing debate about whether or not unnatural features of narrative simply represent stylistic conventions that can become naturalized over time, or whether the impossibilities they represent will always be uncanny. Yet, these endeavors do little to offer an account of *how* this process occurs over time. While, like Simons, I resist normalizing the unnatural as something that can be resolved with reference to everyday experience, it is still a human phenomenon tied to impossibilities created by human authors and designers. As such, this accounts for the ontological versus stylistic understanding of the unnatural, which I account for via the way new media technologies structure inherently unnatural narratives.

One of the implicit conclusions here is the fact that temporal frames are a useful analytic for understanding the multi-temporal capacities of transmedial narratives. For instance, realworld time has a self-correlation that, while once seen as unproductive in narrative analysis, has become increasingly relevant in the era of digital remediation. The fact is, time of reading has a paratextual relationship to narrative structure, which is emphasized by the way audiobooks and e-readers have changed readers' temporal relationships to the novel. Likewise, fictive time is at

work in the way specific words imply a temporality that is always present yet not always explicitly stated. These shifting domains have their origins in twentieth-century modes of engagement and are thus better understood framed in that context.

The other half of this argument has indicated the way video games rely on another inherent concept tied to repetition and redrafting. These failures frame a player's narrative engagement with gameworld time. This unique quality of video games is further at work in a suite of complex films like *Edge of Tomorrow.* Yet, Simons reminds scholars that complexity "is not an intrinsic property of the phenomena under study but as much [sic] a function of the complexity of the concepts and language available to the observer" (2014, 23). As such, I acknowledge that this approach might represent less a new category of film than a way of understanding film through the lens of digital media generally and video games more specifically. Nevertheless, the resultant juxtaposition of media makes clear that films look to game narratives and processes as means of organizing their own temporalities in ways that are only just now being picked up on by theorists. While the concept of redraft applies to narrative presentation generally it is also flexible enough, in a world of remediation, to account for different processes of redrafting made possible by repetition. Of course, there is also a metalepsis at work in complex cases, in the Prince's asides and amendments to the narrative via a process of repetition and failure, and in Cage's realization that everything he has experienced is goes un-rendered.

This overlap in metaleptic tendencies raises an unengaged question in narrative theory of the relationship between the unnatural and the complex. *The Sands of Time* and *Edge of Tomorrow* establish contradictory temporalities that contain multiple event sequences precluding one. Both cases, like Ellison's story, ultimately ask the player and viewer to hold all possibilities

as having contributed to the resolution. From this perspective, their complex temporalities stand out as unnatural. While unnaturalness can be derived from either plot *or* presentation, complexity is generally a property of presentation. Here, plot might be understood as an essentially ontological category while presentation captures the stylistic aspects of narrative that change its communication. Furthermore, complex narratives are the result of acknowledging multi-temporality as a fact of experience while unnatural ones acknowledge the limits of that experience and use virtual space to theorize past it. This way of thinking about these concepts fleshes out the unnatural and complex as analytic categories for understanding narrative tendencies.

Playing Another: Characterization Statements and Character Interactivity

From Mario, Lara Croft, and Solid Snake to Master Chief and Samus Aran, the history and development of video games is marked by iconic characters whose appearance evokes the entire medium. In fact, some of today's best known fiction characters hail from video game franchises. As video games have become a more complex, pervasive form of narrative consumption, their characters have displayed an increasing tendency to stand apart from the player. This fact is in contradistinction to early adventure games, in which the avatar is a speechless stand-in for the player. Contemporary video game characters are instead defined by the concrete identity markers that make it challenging for a player to imagine the gameworld character as the self (Fernandez-Vara 2011). Consequently, games have trended toward increasingly complex characters, such as those above, who stand somewhat apart from the individual games in which they appear. This phenomenon also typifies literary characters, from Batman to James Bond, who also transcend their narrative instantiation. These similarities in the construction of character point to greater issues in scholarship, where there is not yet a compelling connection between literary and ludic conceptions of character. While game studies has neglected the way literary approaches to character still inform ludic ones, literary criticism has thought little about the manner in which games might encourage a retooling of the functional and psychological understandings of character that have been at odds with one another.

I argue that interpreting characters in literature and games is a similarly two-fold process by which readers and players make psychological judgments from the semantic information of the form. In each instance, conclusions about character stem from the story recipients' engagement with statements that form data for the basis of characterization; the core differences between the way these media approach character derive from what constitutes a statement. In the

case of novels, readers come to conclusions on the basis of cognition and behavior but also from the way form and genre cue certain assumptions about these aspects of psychology. However, video games externalize the same process by appending decision-making to empathic effectiveness, an abstract measure of a reader's connection to character desire, which already defines character-reader relationships in the novel. In this sense, players are confronted by the otherness of the character while also being given a sense of control that encourages them to inhabit the mental space of a character and to read the storyworld as a character. These juxtapositions make apparent that reader-character engagement has always been an interactive process tied to the quasi-autonomy of characters and the way they seem to exceed their narrative instantiation.

This argument is organized into three interlocking sections. The first section offers a functional account of character and revives the discussion on characterization statements by using Joseph Conrad's *Heart of Darkness* as a case study. After demonstrating the way characterization statements function in the novel, the section sets its sights on the game *Spec Ops: The Line*, taking into consideration some of the specific differences between reading and playing. A comparative analysis of these media and their approaches to character indicates the extent to which characterization statements are flexible enough to account for the separate cognitive and semantic aspects of representing minds. The following section, "Reading Player-Character and Non-Player-Character," delves further into *Spec Ops* to illustrate the video game-specific components of player-character engagement, by fleshing out the concept of the player-character, a metaleptic construct unique to video games, and relating it to literary character concepts such as protagonist. The third section, "Reading as Player-Character," explains the manner in which decision-making combines with attachment goals, encouraging players to

interpret the gameworld in their roles as player-characters. The chapter concludes by acknowledging the unnatural limits of psychological approaches to character and attempts to sidestep them by underscoring the semantic-psychological synthesis adopted by the chapter as a whole.

1. Characters and Player-Characters

This chapter subscribes to Uri Margolin's definition of character as "a human or human-like individual, existing in some possible world…to whom inner states, mental properties (traits, features) or complexes of such properties (personality models) can be ascribed on the basis of textual data" (1990, 205). This approach is referred to as the humanist theory of character because it casts characters as human or human-like subjects. However, this designation is also tied to its theoretical pushback against functional approaches to character, which bracket the cognitive and emotional systems at play in representing embodied minds and experiencing that representation (Phelan 1989). Despite its post-structuralist aims, this early psychological approach to character is still marked by a formalism that understands character as an accretion of textual data. This data takes the form of *characterization statements* (CS) that allow readers to infer specific, stable, and consistent qualities about a given narrative agent.

Characterization statements themselves can be broken down into *dynamic elements* and *static mimetic elements*. Dynamic elements include a character's verbal, mental, and physical acts, including times when a narrative agent characterizes themselves. Static mimetic elements include name, appearance, customs, habits, and setting. While these *can* change they are largely stable for the purpose of a single narrative—if they *do* change then other static elements are generally stable enough for a character to remain recognizable. Someone may grow older or change clothes but other elements, like their name, generally do not change. In short, "a

character or person is a signified, for which some other textual elements serve as signifiers" (Margolin 1990, 206). Consider the following statements from Joseph Conrad's *Heart of Darkness*, which characterize the narrator-protagonist Charles Marlow:

> a_1 He was a seaman (Conrad 5).
>
> a_2 It was upward of thirty days before I saw the mouth of the big river. We anchored off the seat of the government. But my work would not begin till some two hundred miles farther on. So as soon as I could I made a start for a place thirty miles higher up (Conrad 15).
>
> b_1 Marlow sat cross-legged right aft, leaning against the mizzen-mast. He had sunken cheeks, a yellow complexion, a straight back, an ascetic aspect, and with arms dropped, the palms of hands outwards, resembled an idol (Conrad 3).
>
> b_2 There was a vast amount of red—good to see at any time because one knows that some real work is done in there (Conrad 10).

Statements a_1 and a_2 are examples of static mimetic CSs. These CS function to provide readers with a sense of the physical circumstances associated with the character and offer the chance to consider the challenges of his journey. Statement a_1 indicates his occupation while a_2 offers contextual information about his experience that might be appended to dynamic statements, in order to develop a more complete mental model for Marlow. Statements b_1 and b_2, on the other hand, are dynamic mimetic statements. These CSs encourage readers to form a mental model of Marlow's personality, values, emotions, and other aspects of his internal states. Statement b_2 and its reference to the red coloring on a map of the British Empire betrays his initially self-professed belief in the enterprise.

Notably, both a_1 and b_1 are third-person statements by another character about Marlow, while a_2 and b_2 are statements by Marlow about himself. The perspectival variety of these statements accounts for the fact that CS are packaged both in first and third person statements by and about characters. The division between static mimetic and dynamic elements is not sharp and many sentences synthesize static and dynamic CSs. Consider the following statement by Marlow: "I had then, as you remember, just returned to London after a lot of Indian Ocean, Pacific, China Seas—a regular dose of the East—six years or so, and I was loafing about, hindering you fellows in your work and invading your homes" (Conrad 7). The CS begins with static information about Marlow's travels [just returned to London after a lot…] before he offers a dynamic statement about himself that is too metaphorical and nebulous to constitute a static CS [loafing about, hindering you fellows…].

Static mimetic - [I had then, as you remember, just returned to London after a lot of Indian Ocean, Pacific, China Seas—a regular does of the East—six years or so,]

Dynamic – [I was loafing about, hindering you fellows in your work and invading your homes]

In addition to their elementary nature, characterization statements also come packaged as *formal textual patterns*. These are character traits that coalesce based on the analogies and contrasts established between characters based on their groupings, repetitions, and other stylistic features associated with a character's presence within a narrative. This category is a bit more nebulous than the other two because its functions are more open and diverse than the sensory, propositional mimetic statements. Static mimetic and dynamic CSs are often delivered in specific ways that get borne out consistently across a text. Some of the most notable formal textual patterns in *Heart of Darkness* are related to Kurtz, who does not actually appear until somewhere

toward the middle of the novel. Until then, his character is alluded to and foreshadowed by a number of the minor characters recounted by Marlow. Consider, once again, the following CSs from the scene in which Kurtz is first mentioned:

c_1 I wouldn't have mentioned the fellow to you at all, only it was from his lips that I first heard the name of the man who is indissolubly connected with the memories of that time (Conrad 18).

c_2 When you see Mr. Kurtz,'—he went on, 'tell him from that everything here'—he glanced at the desk—'is very satisfactory. I don't like to write to him—with those messengers of ours you never know who may get hold of your letter—at that Central Station.' He stared at me for a moment with his mild, bulging eyes. "'Oh he will go far, very far,' he began again. 'He will be a somebody in the administration before long. They above—the Council in Europe, you know—mean him to be (Conrad 19).

c_3 Then he began again assuring me Mr. Kurtz was the best agent he had, an exceptional man, of the greatest importance to the Company; therefore, I could understand his anxiety (Conrad 22).

Individually both c_1 and c_2 serve as hybrid CSs about Kurtz, while c_3 functions as a dynamic CS about one character's perception of the man. All three CSs considered together form a pattern regarding the way Kurtz is referred to at a textual level. Kurtz' initial presence in the text is marked by a patterned absence that—alongside Marlow's initial admiration of him—serves as one element of characterization. The dissonance between these initial patterns and later

CSs form a broader textual pattern at work. Other notable patterns in the text serve to flesh out Marlow's disposition, such as his consistently dehumanizing descriptions of African villages.

Spec Ops: The Line adapts Conrad's novel and updates the setting to contemporary Dubai. In the game, players take control of Captain Martin Walker, who leads an Army squad that is tasked with locating survivors in the storm-ravaged city. This mission is incited by the disappearance of Colonel John Konrad, whose platoon failed in an earlier rescue attempt that began six months prior to the game's events, when his platoon was trapped in the city one their way home from Afghanistan. The dichotomy between these men illustrates the way game characters can be separated into *player-characters* and *non-player-characters*. The concept of the player-character is pivotal because of the way it describes a feature of narrative games that rises above the general term "avatar." As Rune Klevjer convincingly argues, it is fundamental to differentiate between "'avatar' understood as a playable *character* (or persona), and 'avatar' understood as a vehicle through which the player is given some kind of embodied agency and presence within the gameworld" (Klevjer 2012, 2). As such, the concept of a player-*character* possesses all of the functional and psychological connotations of character at work in a novel.

The distinction between avatar and player-character is important because a player's vehicle of agency and presence in a gameworld does not need to be a character and is often a sprite, cursor, or inhuman object. The car piloted by the player in *Need for Speed: Hot Pursuit 2* is certainly an avatar but does not resemble a human of the sort constituted by Martin Walker. An avatar becomes a player-character when identity markers and the communication of mental states, traits, and internalities coalesce into CSs that players can interpret apart from their own experience *as* the character. This trait points to the quasi-autonomous nature of characters, "not whole works, not single signs but mostly showing sufficient cohesion to be considered as

somewhat independent fictional entities" (Heidbrink 2010, 67). This independence allows characters to travel across narrative situations while remaining recognizable.

Marlow himself narrates Conrad's novel *Lord Jim*. However, characters' quasi-autonomous status also explains the way they can traverse entire narrative instances—setting, period, work, medium—while maintaining a recognizable quality that seems to make the source character a template of sorts. In fact, knowledge of the game as adaptation seems to encourage a certain understanding of the characters' relationships, one in which Walker is cast as Marlow and Konrad as Kurtz. Walker, like Marlow, initially believes in his nation's presence and mission on the foreign continent but becomes disillusioned with this project by the conclusion.

Part of what makes Walker resemble Marlow is the combination of CSs that serve as psychological statements relating their mental worlds and associated traits. Both men are violent yet diminish the role of violence in their contexts and psychological makeup. In his own dynamic CS, Marlow mentions: "I've had to strike and to fend off. I've had to resist and to attack sometimes—that's the only way of resisting—without counting the exact cost—according to the demands of such sort of life as I had blundered into" (Conrad 16). Likewise, Walker grows increasingly brutal despite urges from his teammates to abandon their mission. Along with his degraded visual appearance, this descent is reflected in the intensity of his animations on the screen, which become swifter and more aggressive as the story continues. Nevertheless, Walker frames each of his decisions as necessary to proceeding with the mission and achieving an ultimate good. Success in ludic and narrative terms is connected, as discussed in the previous chapter. However, here the goals of the characters are emphasized (Ryan 2006). Such goal-related engagement in video games is analogous to what Patrick Hogan calls empathic effectiveness, an abstract measure of narrative recipients' emotional connection to characters'

desires and motivations (2011). Characters with complex motivations have high empathic effectiveness that promotes investment in the plot. This occurs when goals are motivational, require considerable effort, and have low instances of substitutability that make them concrete and specific.

Ultimately, *Spec Ops: The Line* adapts Marlow by making an empathically-effective attachment-goal into a mechanical ludic goal that drives play as well as the narrative. Furthermore, a similar developmental arc ties Walker to Marlow. It includes their goal-related pursuit of an individual with whom they develop an ill-founded obsession. Such obsession is self-destructive and leads to a sense of disillusionment with their nations' imperial projects. In essence Walker resembles Marlow because of analogous contextual CSs which intersect with the dynamic CSs in similar ways. Both Marlow and Walker have similar professions and group belonging, as men who travel to foreign lands for their nations' imperial projects. This context is complicated by their pursuit of an individual with whom they develop a self-destructive obsession.

2. Reading Player-Character

Spec Ops' game design makes an excellent case for understanding the way CSs function with respect to player engagement with the narrative. Game theorist Daniel Vella adopts Margolin's taxonomy of CS categories while building upon them with video game-specific elements that further subdivide each concept. Static mimetic elements, for instance, are broken down into *represented*, *contextual*, and *mechanical* components (2016). *Represented elements* are constituted by CSs delivered via audiovisual or linguistic signs attached to the figure in question, such as name, physical appearance, costume, voice, or animations. This is pertinent because player-characters have a limited set of animations that are generally carried out in a way

specific to the character, differentiating them from others (Westecott 2009). Martin Walker, for instance, moves like someone who has military training typified by specific maneuvers. *Contextual elements* convey information about a character's place in their environment and include their possessions/inventory, environment, and role (job, profession, group belonging).

Spec Ops indicates this contextual information via the heads-up-display, showing weapons and ammunition, which interacts with the war-torn environment to underscore Walker's role in relation to the gameworld and its fiction (fig. 5). *Mechanical element*s are CSs inferred from the structure of a figure as a game component. This category of CSs is structured by the capabilities, limitations, and passivities of a character as a piece within a gameplay system. Vella encourages scholars to read characters' rule-bound limitations as CSs with meaningful data related to that character's narrative function. Along these lines, the player's inability to broker peaceful outcomes with non-player-characters might be read as a feature of Walker's character, as much as it is a component of the game's design.

Dynamic elements, like their static mimetic counterparts, also undergo a subdivision into character actions and player actions. *Character actions* are performed without a player's input, such as idle animations, voice-overs, or activities performed during cut-scenes. These are embedded into the deep structure of the virtually-designed aspects of the narrative. *Player actions* are those perceived by the player to be as much their own as the player-character's. The player will direct Walker to target certain enemies but, of his own accord, he will shout obscenities and bark orders to his squad. As such, player action is an actualization of the possibilities and limitations expressed by mechanical CSs.

The above taxonomy of CSs offers a vocabulary for discussing the strategies that readers and players use to arrive at psychological conclusions regarding character traits, which involves

reading characters as features of the narrative world. Progress in *Spec Ops* involves navigating from point A to B while defeating enemies and keeping Walker's health above zero. To navigate these spaces and their challenges, he relies on a variety of weapons and a sense of mastery is implied when these mechanical elements are considered alongside the represented and contextual ones: his seemingly standard military dress, an idle animation that involves his shifting eyes that seem to constantly search his environment, his relationship with his Army unit, his role as Captain of this squad, and the list continues. Furthermore, these mechanical elements enable the dynamic elements borne out in both character and player actions.

However, the process of reading characters through their CSs also applies to the range of characters that show up over the course of the narrative. Colonel Konrad, for instance, is described through the same patterned absence that initially forms a large part of Kurtz' characterization. Thus, the dominant components of his character are filtered through Walker's biased understanding of the man. Formal textual patterns of this nature underscore some of the limitations associated with the cognitive approach to character, which doesn't make space for the aesthetic, structural, and formal means that media have of introducing and invoking characters.

If anything, this fact points to a certain ambiguity built into the process of reading characters. Mariana Torgovnick takes issue with what she refers to as Marlow's consistent vagueness, a formal textual pattern that "can be and has been linked to terms like 'psychological complexity'" (1990, 145). In the case of *Heart of Darkness*, Torgovnick argues, this psychological understanding "veils not only what Kurtz was doing in Africa, but also what Conrad is doing in *Heart of Darkness*" (*ibid*). Conrad's stylistic and thematic approach to character has been accused, by Torgovnick and others, like Chinua Achebe, of using veiled irony and primitivist tropes to criticize an imperialism that it happens to reenact. Engagements with the

novel's politics aside, Torgorvnick's pointed criticism raises character-specific issues regarding the relationship between the text of a narrative and the context of its recipients.

In other words, this is a question of metalepsis and its relationship to character. As argued in the previous chapter, metalepsis is built into video game ontology and function. This metalepsis becomes apparent in players' mediation between their own understanding of character and the characters' understanding of the gameworld, reading the character versus reading the gameworld as the character. Furthermore, the linkage between vagueness and psychology is implicated in cognitive approaches to literary production and criticism, the collision between lasting contributions from naturalism, realism, and modernism, on the one hand, and developments in cognitive sciences, on the other.

This collision has led to a theory of character guided by the realworld process known as theory of mind, the ability to attribute mental states, dispositions, affects, and emotions in the inference, analysis, and judgment of others' behavior. Numerous scholars have underscored the reciprocal relationship between every day acts of "mind reading" and those at work in the specialized act of narrative consumption (Zunshine 2006; Herman 2013). However, the cognitive approach has caused scholars to ignore some of the unnatural qualities of represented minds in fiction. As defined in the previous chapter, unnatural narratives create defamiliarizing scenarios that violate the physical laws or logical principles associated with the epistemic limits of human experience. Many of the unnatural aspects of character have been made conventional and generic, such as omniscient narration that maintains close, free proximity to a character's mental world (Iversen 2013). While the mental models readers apply to characters are similar to those used for real minds, virtual models create an illusion of specificity heretofore unachievable with real individuals (Caracciolo 2014). This illusion impacts the manner and depth with which we

read into characters' psychological motivations and a diversity of readings get produced as a result.

In light of these unnatural qualities, it is useful to distinguish between the respective ideas of psychological convention and fidelity when referring to character. Convention is semantic, rooted in tropes—the horror character who walks into the darkened home—their normalization, and cultural notions of what forms an appropriate response to a given situation. However, fidelity is tied to representing and simulating embodied minds in a manner that mimics their real world functions. To some extent narratives incorporate a mixture of both qualities. The stream of consciousness typical to modernism, for example, straddles these structures by capturing the winding trajectory of thought and sense perception in an exaggerated manner that has come to define an entire formal textual pattern and story type. *Heart of Darkness* is guilty of this straddling too, which should come as little surprise, given its modernist bent.

Dynamic mimetic statements will be interpreted by readers in a variety of ways that can be ascribed not only to the mental scripts available to them but also their subjective and cultural understanding of that script. This is also true of the dynamic acts that play out in games. Structuralist theorist Roland Barthes touched on this tension in his now famous analysis of Balzac's *Sarrasine*. Barthes writes, "if we are told that Sarrasine had '*one of those strong wills that know no obstacle,'* what are we to read? *will, energy, obstinacy, stubbornness,* etc.?" (1974, 92). Even a single trait couched in a dynamic mimetic statement about a character can produce a constellation of qualities loaded with a variety of connotations. What one person might read as unattractive arrogance, another might understand as admirable bravado.

The hesitation at play in the selection procedure subjects the CSs to a semantic transformation that is interactive in nature. In a narrative context, the difference between these

readings produces a different perception of character, especially when the sum total of dynamic statements might produce variable readings over the course of an entire text. The end result is a different set of formal textual relationships that serve as a base for the superstructure of character. Perhaps this haziness explains, at least from one perspective, the diversity of literary and political readings ascribed to Marlow. These readings have resulted from Conrad's modernist, "impressionist" style, which allows him to maintain contradictory values (Brantlinger 1988). Not only does this formal textual pattern mask Marlow's function as Conrad's mouthpiece, it exacerbates a reading process that is already equivocal and invokes the character's quasi-autonomy.

Video games such as *Spec Ops* simply explicate the procedure in an external, visual manner that is underscored by decision-making and goal-related engagement. For instance, one of the game's decisions involves choosing to save a group of civilians or a CIA operative with valuable information. With the first option, players simply find the information on the agent; in the second instance, he gives it to them directly, and the civilians are sacrificed for the sake of expedience. The decision thus serves as a role-playing situation that affords players the opportunity to read the game environment as Walker while distancing themselves in terms of the possible decisions built into the system. Moreover, the decision paints Walker in ways that underscore the player's interpretation of his character.

3. Reading as Player Character

The ambiguity of reading characterization statements contributes to the manner in which players read the game environment and its narrative *through* CSs, a process that involves reading as the player-character. While the process of reading character will generally be applied to both the minor and major characters who show up over the course of a narrative, the process of

reading *as* a character will generally be limited to the player's adoption of the player-character. As a result, the player-character becomes a role that encourages a specific sort of perspective-taking that is tied to goal-related engagement. This process has an analogue in the way novels focalize the storyworld through the mind of specific characters, an issue that I will address directly in the next chapter.

Reading as the player-character first involves a mechanical understanding of the character's role as a game piece and the way these traits intersect with the representational and dynamic elements that flesh out the character. In this sense, represented elements and dynamic statements are superstructural with respect to the mechanical base. This organization is the result of mechanical CSs structuration of characters as ludic, non-psychological game pieces. Consider a breakdown of Walker's mechanical elements as game piece. Winning involves guiding him to a specific point in the gameworld, which involves traversing levels that are marked off by cut-scenes. Along the way, he is confronted by enemy units that he can shoot and who can shoot him. The player loses if Walker's health is reduced to zero, the result of taking too many hits from enemy weapons, which can be avoided by hiding behind pillars, walls, and other forms of cover. Everything else appended to Walker is a representational way of thinking through Walker's goals, possibilities, and limitations as a sort of chess piece. These conditions manifest themselves differently in narrative terms, which more closely resemble ideas tied to survival, success, and goal-related engagement.

The mechanical elements of character are masked by the layered relationship between functions, limitations, and goals, on the one hand, and the represented and dynamic CSs that embellish them, on the other hand. In light of these facts, figure 5 takes on new significance, in which the contextual elements on the heads-up-display can be understood as a visual projection

of Walker's mental cataloguing of his weapons and tools. The contextual option to "slip out," by pressing the 'A' button, is the player-as-character reading the environment for possible and appropriate action, given the setting and demands of the game. Because the player's success is synonymous with Walker's, and vice versa, progress and success will be read narratively in terms of Walker's mastery as a soldier (Lankoski 2011). In this sense, contextual CSs interact with player actions to frame the world through the character's functions and limitations as a person.

Thus, Walker's mechanical role as a game piece meant to eliminate all others intersects with represented elements at work in his background as a soldier. This approach to character psychology is embellished by the way avatars mediate the relationship between the body as subject and the body as object, "between bodily space and external space" (Klevjer 2012, 6). If avatars mediate physicality and the external gameworld, player-characters take this process a step further by mediating between mental space, populated with experiential schemata, and the internality of the player. As a result, the game creates a schism between the player's identity in the real world and their enacting of Walker's in the gameworld (Ryan 2006). This dramatizes the character as a component internal to the game and one external in terms of the player's engagement with him.

The player action at work in the game's decisions bears a significant relationship with character actions and static mimetic elements that allow the player to make judgments about the character. Earlier cut-scenes rely on character actions and paint Walker as patriotic, a firm believer in the United States' mission in Dubai. Thus, either of the decisions here will be cast against this establishing information for the character, and the player's actions are looped back in with ideas communicated by the character's virtual design. A realworld player who might not

advocate violence, and would prefer peaceful solutions, has any route involving those decisions foreclosed. The only possible decisions serve to underscore the represented and contextual CSs associated with Walker's character. This process of reading the world as a character is the result of the increased identity markers that have been ascribed over the history of the medium's development. In the case of Walker this involves a fictional military history that precedes his role in the narrative of *Spec Ops*.

While the process of making decisions as a character is a departure from the novel, some of the features that enable that process are also on display in *Heart of Darkness*. The novel, and others by extension, also engages in a similar tactic through its focalization, a topic treated directly in the next chapter as a process tied to the perspectival ways recipients are oriented to virtual worlds from a variety of media. It is enough for the current chapter's argument to point out that focalization also has a hand in the psychological connotations of this orientation.

Marlow forms the diegetic frame of Conrad's novel, as the events are filtered through his understanding of the world, imparted via his CSs. His early characterization as a romantic encourages readers to juxtapose their own perceptions with his. Consider the moment in which the helmsman of Marlow's steamboat is killed by a spear and he sounds the ship's horn in response: "the tumult of angry and warlike yells was checked instantly and then from the depths of the woods went out such a tremulous and prolonged wail of mournful fear and utter despair as may be imagined to follow the flight of the last hope from earth" (Conrad 46). This bit of narration functions as a dynamic CS marked by Marlow's stated perception of the African natives as warlike yet scared. His filtering and characterization provide little space for readers to understand the bellicose sounds as, say, defensiveness. Moreover, its status as narration also causes it to function as a formal textual pattern tied to the consistent ways in which Marlow

invokes the African natives. That is not to say it is impossible for readers to make this connection, reading past Marlow's understanding of the storyworld. However, this movement beyond his characterization of the world itself involves relating diegetic, internal judgments by the character, with external, extradiegetic judgments made by readers.

4. Conclusion: Character Interactivity

This chapter has strayed from the strictly cognitive approach to find a middle ground between the semantic and psychological philosophies of character, resulting in a compatibilist synthesis incorporating the productive conclusions of each. The theory of characterization statements appends psychological conclusions to the data set that is CSs while acknowledging that the process is less than specific in the conclusions it may generate. The strength of this approach is that it accounts for the quasi-autonomy of characters, the fact that they seem to stand apart from their individual narrative appearances while being yoked to them in terms of the specific ways that form structures, encodes, and communicates CSs. And while the construct of the player-character makes apparent a certain form of interactivity, I would like to conclude by underscoring the interactivity of recipient-character engagement in novels too.

As such, the first conclusion to this approach is an interactive understanding of character. Character analysis and interpretation is itself an interactive process that leads to an additive, transformative understanding of the embodied minds within a narrative. The nature of this interactivity, of course, differs between the novel and game, especially in the way play structures a synthetic relationship between player and character, player-character. It is tempting to differentiate between these forms of interactivity as kinesthetic and cognitive. While this distinction holds some water, this chapter's argument has indicated that interpreting CSs is the

result of a specific mind-media interplay. Moreover, there are important divergences, which stem from what constitutes interactivity in a novel versus a game.

Spec Ops functions via a shifting interactivity that, as discussed in chapter 1, unfolds even without user input. As mentioned in the previous chapter, the character's failure or success in his military mission is generally synonymous with the players' failure or success in the game. These outcomes and their relationship to decision-making explains why a CS approach to games necessitates a new space for dynamic statements that take the form of either player or character actions. The character's success is simply framed in narrative terms, rather than ludic ones. These results are then inscribed by CS transformations, producing a reciprocal change in the player's perception and, as a result, the character themselves. Ultimately, the decisions that players make as Walker have a variable outcome on the narrative's conclusion, producing one of four endings that alter player understanding of Walker's relationship to the conflict driving the story. *Heart of Darkness* operates with a fixed interactivity that requires the reader to hesitate among constellations of meaning produced by static mimetic statements and their dynamic counterparts. Instead of goal-related engagement, the decisions here are solely related to the interpretation of CSs, a process that is still at work in video games. As such, video games demand the same process of interpreting a character but demand that players also use this reading to make decisions that inform the trajectory of play itself.

While literary theory and cultural studies have done much work to differentiate between various literary movements and their contribution to popular narrative discourse, the same task has not yet been initiated with games studies. Like other forms of cultural production, there are trends that can be grouped into types, a task that is much easier to perform along ludic lines than narrative ones. However, it is still unclear whether the historically apparent increase in video

game character complexity is the result of similar developments in game design. The next step in adding to a holistic understanding of game characters involves focusing on the medium's aesthetic movements and technological developments.

Literary theorists have just about exhausted the manner in which realism and modernism function as a turning point in the conventionality and fidelity of representing the mental states, emotions, and actions of another. In literary historical terms, the movements can be understood in terms of their subtle contributions to popular narratives. This is especially true of the literary characters who, like the video game characters of the opening paragraph, have become iconic and exceeded the bounds of the works in which they appear, taking on lives of their own in other works and adaptations. Such is true of Philip Marlow, James Bond, Harry Potter, Sherlock Holmes, and so many more.

Dirty Mirrors: Prosthetic Telepresence and Visual Deixis in the Subjective Point of View

First-person shooters are one of the most recognizable game genres, defined by their gun-oriented action and subjective point of view. Aside from their popularity, they are notable because their definition includes the perspective from which the game unfolds. This point of view has an immersive effect on a player's understanding of their own body's relationship to the action within the virtual world, and the majority of contemporary video games take place in virtual environments which "provide the player with a spatiotemporal organization of the components of the game system into an experiential world" (Vella 2016, 2). These games have played a pivotal role in extending or reshaping conventional understandings of perception, which is apparent in the perspectival strategies designers use to orient players to narrative worlds. Moreover, the developmental relationship between mimetic texts and simulated spaces is complicated by the fact that narratives themselves comprise virtual worlds whose constitution depends on the medium's mode of expression (Ryan 2015). Closer inspection reveals that game focalization strategies frequently rely on the visual repertoire of film and conventionalize first-person orientation. The dominance of the first-person perspective in games has led to the rise of bodily schemata associated with embodied perception in virtual spaces, outlines which films and novels have begun to borrow.

This chapter employs the narratological concept of focalization to differentiate between character or roleplay, on one hand, and mental projections of embodied presence, on the other. Game focalization differs slightly from novel focalization, for which the theory was developed, in that games are focused on visuospatial modes while novels are generally bound by the epistemic limits of language as a means of representing space. As such, the typical first-person

shooter game *Far Cry 2* provides an excellent case for this visual vocabulary, which I will discuss via Britta Neitzel's framework for video game points of view and Rune Klevjer's concept of prosthetic telepresence. I will then apply these concepts to the first-person shooter film *Hardcore Henry*, which remediates prosthetic telepresence via the discrepancy between its internal point of view and external execution. This application is fruitful because films are also concerned with visuospatial focalization. The accretion of these perspectives on perspective are then mapped backward, so to speak, onto Ernest Cline's gaming novel *Ready Player One*, which incorporates first-person visuospatial concerns its first-person narration. Finally, the chapter concludes with a comparative analysis that sums up some of the similarities and differences between these approaches to visual perspective by relating the prosthetic telepresence of games and films to linguistic deixis found in Cline's novel.

1. Point of View and Prosthetic Telepresence

Far Cry 2 has been cited as a sort of spiritual successor to Joseph Conrad's *Heart of Darkness*, making it a loose adaptation of sorts. The first-person shooter fits into the genre due to its play requirements and characteristic placement of the camera, which overlays the player-character's body. This perspective showcases the subjective point of view at work, a category defined by the game camera's relationship to the player-character and their occupation of the game space itself. Players occupy the role of a selected protagonist, a mercenary sent into an unnamed African country to hunt down an elusive, Kurtz-like figure known as the Jackal, an arms dealer who has been instigating the nation's civil conflict. However, this ostensible freedom of choice bears little meaning in relation to the narrative, as the chosen character does nothing to alter the game's potential outcomes. Game theorist Britta Neitzel defines this viewpoint as subjective because the game utilizes its camera in a manner that coincides with the

player-character's location within that space. As a result, the player-character is used as a window into the game space, and the field of view only ever shows a vision of the game space defined by the player-character's sight lines. As figure 6 shows, the player-character's placement is visually indicated through the character's hand, camera controls that simulate looking, and the player-character's shadow, among other signs.

According to Neitzel, "the computer outsources the effects of the player's spatial-material reality into the monitor's image space. This space, including the effects of the actions, is tracked and interpreted, again affecting the subsequent actions" (2013, 4, my translation). While broadly true of all focalization, these effects are in games inflected by the close proximity players are given to the player-character's bodily position, in addition to the way this immediacy comes to bear on potential actions and decision-making. Consider the fire in figure 6 as a focus, the point of action. This view is taken in by both player and player-character from the same perspective, so that the player sees the game space as the player-character itself does. Behind the player-character, there may be more fire, enemies, vehicles, or other objects, but the player must reorient the player-character's view in order to take in those objects. As a result, the subjective point of view limits information to what the player-character can apprehend through the screen as field of perception, which simulates the everyday epistemic limits associated with audiovisual experience of being in the world. Turn to the left and the fire crackles into the player-character's right ear, turn to the right and the opposite happens. When faced head on, the fire reacts in a way that is difficult to ascribe to a single ear. *Far Cry 2*, like other visual narratives—including comics and film—shifts the target of its focalization between visual and auditory channels (Mikkonen 2008). In fact, the game often shifts between these channels on the fly, so that

attending to them both necessarily indicates a point of action that can be subdivided into multiple foci.

Far Cry 2's design elements also highlight the intersecting issues of embodiment and perception, which are tied to focalization. Game studies scholar Rune Klevjer argues that games function via a prosthetic telepresence that relies on players' own projections of bodily schemata into the virtual world (2012). Relying on the phenomenology of Edmund Husserl, Martin Heidegger, and Maurice Merleau-Ponty, Klevjer underscores the experience of virtual embodiment that players have through a controller or keyboard. These schemata are unrelated to roleplaying and fictionality and the result of this projection allows the camera itself to become an extension of the player's locomotive vision, relocating their bodily self-awareness into the virtual world through the player-character as tool. Other scholars have argued that characters function as tools or virtual hands (Lankoski 2016). However, Klevjer argues that player-characters are related to, yet fundamentally different from, other forms of bodily extension like tools and musical instruments. One difference is the potential concreteness of a game character.

As discussed in chapter three, the character is necessary for narrative progression, more than a tool with digital ends. However, Neitzel reminds scholars that human perception and embodiment go hand in hand (2013, 15). This conclusion stems from the fact that, in subjectively focalized games, the player never sees the subject doing the seeing and the game does not attribute an independent view to the player-character. That the player is the only one who sees, she argues, creates an impression that the player's body is included in the game's diegesis. This projection occurs on the various narrative levels where game focalization functions differently from other narrative media. Analogous to the discussion of game temporality in chapter 2,

metalepsis is hardwired into game focalization, which systematically blurs the boundary between the character in the game and the player outside of it.

By establishing the player's vantage point as the player-character's visual field, players are immersed in the game space. Immersion might be understood as a feeling of ludonarrative depth, characterized by rapt player attention. This, in turn, stems from virtual worlds populated by characters with whom the player can empathize, and whose gameplay actions are relevant to the scenario (Grimshaw et al. 2011). However, first-person shooters such as *Far Cry 2* function by metering immersion as one player state among others, allowing players to form different relationships to the content: critique, enjoyment, immersion, and so on. Such is the case with the game's dirty mirrors: when the main character stands in front of a mirror, it shows nothing but its cracked, dirty surface, and the result is paradoxical. The lack of reflection disrupts the realism at play in the game's perspective but also highlights the player's full possession of the player-character. Nevertheless, immersion is ultimately the result of the narrative *and* the perspective from which a game is relayed (Schneider et al. 2004). Narrative is a context for play while perspective is the function that links the two structures.

However, the irony of *Far Cry 2*'s dirty mirrors has developed into a broader technique for producing immersion in the subjective mode. Part of this irony stems from the subjective point of view as a conventional means of representing human experience. Early narrative theorists of film have underscored the subjective framing first-person shots serve, to help viewers see as the character does (Chatman 1978; Branigan 1992). Perhaps this is why Michael Nitsche, in his analysis of the iconic *Super Mario 64*, concludes that strategies for providing players a manipulatable camera are rooted in film's tendency to explore the space around a character and their relationship to it (2005). However, the relationship between film and game

focalization strategies is more complicated, with a key difference stemming from the fact that a game's camera is not a camera at all or, at least, ceased to be one at some point in the medium's development: the game camera is purely metaphorical.

This difference is apparent in the function of film versus game apparatuses. In film, a general point of view shot shows a point of action as a character would see it, while subjective shots show the "physiological and emotional qualities" of a character's embodied perception (Galloway 2006, 41). No doubt, the use of the subjective point of view in games historically developed from film technique. But while films taking place *entirely* in the subjective mode exist, they are uncommon, this mode has become standardized as the defining feature of an entire game type. First-person shooter games are abundant and non-experimental: they have conventionalized the subjective point of view as a narrative device for immersion.

Players transgress the line between self and player-character while investing in its perceptual boundary. Nowhere is this clearer, in *Far Cry 2*, than in the game's malaria mechanic: one of the game's periodic mechanics centers on a malaria infection the main character acquires toward the beginning, which must be managed throughout the game. This is indicated by the visual and auditory channels. At times, the player-character's breathing becomes labored, accompanied by the soft, audible thumping of a beating heart. Moreover, the screen blurs, turns yellow, and other potential points of action become inaccessible to the character's perception so the only one remaining is constituted by the player-character. Otherwise, any potentially interactive element would constitute a point of action. This visual cue provides access to the aforementioned physiological qualities of the character's experience but leaves the emotional aspects to the players' interpretation of characterization statements. By extension, this cordoning process also limits the player's perception and ability to project their schemata within the game.

Point of Evaluation

That the sound travels toward the player-character as simulated perceiver means that *Far Cry 2* represents the player-character's body as a potential point of action. This tendency broadly applies to subjectively focalized games, which create a connection between virtual and real space by merging point of view and point of action. In this sense, the game camera anchors the player's relationship to the actional perspectives, which is apparent in the game's indication of damage and wounds on the player-character. The screen reddens whenever the main character is injured, and the game shows wounds on visible arms and legs. This centrality and merging makes the player's position one of evaluation, which is defined by their relationship to the player-character as a reference point for the values communicated by the game's design (Thon 2014). While a few of these references stem from the player-character's role as a character who will communicate characterization statements, many of them are organized ideologically through the game's structure, via the paths of action rendered possible or impossible by design. *Far Cry 2*, for instance, does not allow players to handle conflict through any means other than violence. Moreover, its requirement of attending to multiple foci is an ethics determining the ideal choice within the game space, from moment to moment.

Furthermore, this ideological dimension shapes the specific aspects of the player's relationship to the point of action, and its framing by the point of view. It is key that *Far Cry 2*'s conflict takes place in an unnamed African country. Its non-speaking player-character is caught between two factions whose civil war threatens to tear the country apart. Yet, as a mercenary from another country, the point of evaluation ironically situates the player-character as outsider to the conflict, with no clear goals or represented mental states.

The gameplay is thus affected by aspects of perspective that are metaphorical: point of view as ideology. Such ideology is at work in the ludic elements and the way they give rise to the fictional parameters mapped onto them. For instance, Michael Hitchens' diachronic analysis of the genre shows that its protagonists are largely white men with military backgrounds (2011). The gun-oriented contexts and game-based demands explain certain aspects of this historical trend, while others are tied to the gaming industry's own demographics, which have resulted in a homogenous approach to character race and gender. Even so, the trend indicates a conventional point of evaluation from which first-person shooter games unfold. It is ultimately difficult to separate this ideological fact from the creation and use of the visual perspective.

On the one hand, this framing seems to appropriately capture the game's focus on a global mercenary culture that contributes to armed conflict in developing nations. But on the other hand, the game is portrayed with a player-character whose thoughts and emotions are left to the player. Instead, the player's ideological relationship to the warring factions emerges from their decisions over the course of the game, the result of binary choices whose narrative of progression still funnels players to the same endpoint. The game ends with the protagonist's self-sacrifice to protect fleeing refugees, and players only get to choose whether that happens via demolishing a mountain or protecting them during a border crossing.

While the game's moral concerns are connected to the point of evaluation into which players are thrust, it handles them in a manner that is reductive for the sake of enjoyment over immersion. These issues of perspective-taking bring into sharper focus the way developers program athletic, combat-savvy bodies as the sites of prosthetic telepresence. As a result, *Far Cry 2* runs into similar issues as those igniting critics of Conrad's novel. Like the novel, the game critiques a violence that is encouraged by its narrative, a conclusion apparent in the

game's final reveal that the Jackal's plan was to destabilize the nation in favor of saving the very refugees that war impacts the most. But the source of this tension is different in *Far Cry 2*, since it lies in a loaded point of evaluation characterizing the genre at large, prompting ambivalent conclusions about the its demands of shooting Africans to achieve this supposedly peaceful goal.

2. Subjective Point of View in Film: *Hardcore Henry*

The prevalence of first-person shooters demanding prosthetic telepresence has helped to produce a body of films that draw inspiration from points of view pioneered by games such as *Far Cry 2*. One example, Ilya Naishuller's *Hardcore Henry*, takes place entirely in the subjective point of view and offers a good model for thinking through the effects and impacts of this perspectival borrowing. While not the first to unfold in the subjective mode, *Hardcore Henry* sets itself apart from other films through the intersection of its focalization and over-the-top action plot. After Henry is brought back to life as a cyborg missing his memories, he sets out on a violent journey to save the woman he believes to be his spouse. This journey is time-limited, as Henry must recharge his health at various points, to keep his cybernetic implants operational. What follows is disorienting in a manner that is similar to a first-person shooter, which itself is the result of the pitched camera (Stoffregen et al. 2008). These elements of the film combine to mimic aspects of the experience associated with playing a first-person shooter.

This similarity is apparent in figure 7, which shares its visual structure, organization, and orientation with the image in figure 6. This particular moment of battle casts the enemy as the point of action, filtered through Henry's subjective point of view. The camera is used as a stand-in for Henry's position within the storyworld itself and the film's camera engineer explains that the formal achievement is technological as much as stylistic: "if you attach a GoPro to your forehead and bend forward, the camera will capture only half of your body. For the full POV

experience, you need your camera to capture the whole body" (Failes 2016). As a result, the film's visual and narrative concerns are filtered through the camera's positioning and Henry functions as the literal window into the narrative. The resulting shots offer a view of Henry's weapon and peeks at his body that are shown depending on both context and the implied placement of the protagonist's head.

The camera in *Hardcore Henry* is a literal representation of an agent's position, which places it in an overlapping category with films which use the recording act as a narrative frame. Such is the case with found footage films, from *Cloverfield* to *REC*. The shakiness of the cameras is comparable, as is the fact that it is associated with the focalizer's engagement with the narrative world. However, unlike these examples, in which the camera itself is a literal part of the storyworld, Naishuller's film employs the camera as the character's field of vision itself. By contrast, other films in this category separate the camera as window into the world from the character's perception of that world. This distinction separates point of view shots from subjective focalization as a dominant mode of representation.

This subjective focalization is furthermore apparent in the film's use of the point of view to communicate Henry's mental and emotional states. Like numerous other subjectively-focalized player-characters, Henry is mute, and the film displays a self-awareness of its indebtedness to video games by weaving his lack of voice into the plot: armed men storm the facility in which Henry is being kept, just before the doctor has the opportunity to restore his speech. This seemingly insignificant plot element functions as a practical means of structuring the film's game-like approach. While not all subjectively focalized player-characters are silent protagonists, those found in first-person shooters are more likely to be silent than characters that can be fully apprehended via other focalization methods (Neitzel 2013). Moreover, the

subjectively focalized player-characters who *do* speak independently of the player have been cited as breaking immersion, in their shift from controlled to autonomous functioning (Jørgensen 2009). The camera in *Hardcore Henry* employs up-and-down and back-and-forth motions that serve as a stand-in for nodding and shaking of the head. The jerkiness of these movements varies, underscoring the affective depth of Henry's response to the other characters' speech. As a result, the film relies on bodily schemata similar to those employed in *Far Cry 2* and other subjectively focalized games (fig. 8).

This is also apparent in the film's visual indicators, which communicate Henry's embodied states and their associated affects. The visible presence of Henry's body is central to this mechanic, as he gesticulates to others in a manner that relies on viewer inference as to the reasons behind his actions. Henry often puts his palms out, for instance, as a conciliatory gesture that appeases the other characters, an inference related to essential processes of story cognition tying actions to motivation and affects (Herman 2013). These gestures unfold in addition to the layered visual cues that are reminiscent of video games. One pivotal, comedic scene shows Henry hooked up to a device showing a simple read-out of his well-being, a simple, battery-like bar that is reminiscent of the health bars found on the heads-up-displays in many video games. While the particulars of this display get lost in the science fictional plot, it nevertheless evokes schemata of the sort seen in *Far Cry 2*. In this moment, Henry becomes the point of action by way of this machine, just as a health bar prompts mental models of a player-character's health and well-being alongside ideas of winning and losing.

Of course, video games' kinesthetic interactivity is one area in which *Hardcore Henry* confronts its limitations in mimicking the subjective focalization of first-person shooters. Similar to those subjectively focalized player-characters who speak, Henry's actions cannot be

interpreted synonymously with the viewer's responses. While the game camera allows players to isolate their own point of action, via a controlled point of view, the film's camera determines these vantages. Its subjective point of view has fidelity with the action-oriented plot but the film's capacity for immersion is limited by the shots' predetermined quality.

Moreover, the viewers' point of evaluation is determined by Henry's strict, externally focalized perspective. Because he does not give voice to his own mental states, they tend to come filtered through other characters' leading, often unreliable questions. This raises massive questions when it comes to the silent protagonists in both *Far Cry 2* and *Hardcore Henry*. Their silent point of evaluation seems to render them somewhat flat as an ideological perspective that might inform the narrative. Perhaps this compression is the result of their minimal affects and their reliance on implication over declaration. From an ideological perspective, then, *Hardcore Henry* runs into similar issues that characterize *Far Cry 2* specifically and first-person shooters more generally.

The character's action-oriented repertoire of moves and abilities relies on a bodily ability that is associated with the same sort of backgrounds as those characterizing first-person shooter player-characters. As is the case with *Far Cry 2*'s Africa, "viewers need no knowledge of Moscow's geography or Russian language or culture to experience the bulk of the film's appeals" (Gallagher 2019, 80). This appeal comes directly from its frenetic action and gaming reference, which themselves evoke a hyper-masculine aesthetic which exists within action films' and first-person shooter's convergent histories. Moreover, the film is part of what Michele Barker terms a "cinema of movement," asking viewers to move *with* the onscreen image in time (2017). While the lack of direct intervention implicates observers somewhat less in the events carried out, the film itself relies on schemata that exceed ableness, enter the realm of superlative,

and circumscribe the limits of this movement. One can only inhabit Henry's perspective insofar as they are familiar with the games and science-fiction narratives from which it stems.

Nevertheless, the film's expressive deviations from the game are pivotal, indicated by specific limits regarding film's ability to mimic gaming form and function. The difference stems from the fact that prosthetic telepresence of the sort found in gaming focalization relies on a virtual tool that can be manipulated by the narrative recipient. At best, *Hardcore Henry* fits into a domain shared by gaming-related media such as machinima. More than thematically focused on games, machine cinema, or machinima, are movies composed of preexisting game assets, allowing them to harness the possibilities of the form within the constraints of film. These films, such as the popular *Red vs. Blue* series that popularized the medium, consist of controlled gestures that draw from a collective frame of reference in gaming and technological history (Krapp 2010). Likewise, Naishuller's film utilizes the gestural movement of the camera as a reference point that evokes first-person shooters. The gestures involved literally signal the presence of the viewer-character forming the point of view. While the film does not afford viewers the prosthetic telepresence at work in a game, it nevertheless mimics certain aspects of the embodied experience in a subjectively focalized game. It is currently unclear whether subjective focalization will become a readily-employed mode in film, as it has become conventional in video games. However, the increasing release of subjectively focalized virtual reality films for the Oculus signal a cinematic future already somewhat present.

3. Subjective Point of View in the Novel: *Ready Player One*

Ernest Cline's novel *Ready Player One* (2011) focuses on the accessibility of the aforementioned virtual reality technologies and their subjective point of view. Despite its game-centric plot, the novel is set in a quasi-cyberpunk future where these technologies are common

to the point of being used for everyday activities like work and socializing. The narrative is told in the first person by the eighteen-year-old American gamer Wade Watts, making it a literary example of the subjective point of view, one that creates a layered narrative whose focus on gaming showcases its concerns with subjective focalization, in both in plot and perspectival structure. This attention is first at work in the character's orientation within the physical world. Just before first entering the virtual world, Watts tells the reader, "I saw a brief flash of red as the visor scanned my retinas" (Cline 26). This seemingly simple statement evokes the visual nature of the narratives discussed in this chapter, which the novel mimics through language.

Here, subjective focalization is grounded in language rather than visual cues, and the novel's first-person orientation evokes an embodied perspective similar to the subjective lens of video games. For example, Watts' orientation in the aforementioned scene establishes him as a point of view taking in a point of action formed by the flashing light. Moreover, physical description of the narrator's player-character is facilitated by this first-person point of view: "a small mirror was mounted inside my locker door, and I caught a glimpse of my virtual self as I closed it" (Cline 28). Thus, the novel goes to the trouble of showing the narrator's body, but does so by having his first-person perspective literally and figuratively reflected by the virtual world.

The narrator forms an epistemic center for the story as a virtual world, which is created by means of readerly assumptions and inferences regarding his orientation in the world. This is key, because Cline's novel establishes a compressed visual relationship between the reader, narrator, and his player-character. Aside from its clear relationship to the subjective organization of the other media, there is precedent for this visual approach in literary and narrative theory. Manfred Jahn takes literally Genette's question of whose sight constitutes a narrative's diegetic frame

(1996). The model consists of a world that circumscribes a limited, conical field of vision taken in by an eye. The reader's extradiegetic perspective shows an initial focus formed by the subject, who is free to train their eye on a specific focus of interest within the world. Of course, this perspective on seeing and embodiment go hand in hand, as is the case with the specific bodily placement casting the narrator as point of view and point of action.

The passage above involving the narrator's reflection casts his own image as a specific focus within his subjective field of view. The fact that readers often do not see a character's body is key, and the text is not obligated to provide material details of the sort required by film and games. Cline's novel shows the character, in a manner of speaking, without showing him at all. The visual details are left ambiguous, beyond the fact that his player-character bears some resemblance to his own appearance, only more handsome. This lack of visibility resembles the manner in which *Hardcore Henry*'s abstains from filming and using anything other than the camera to show the focalizer's body.

Like the dirty mirrors in *Far Cry 2,* the novel finds a means of invoking the character's placement without giving away too much detail. Although the narrator's view of the player-character is filtered through the subjective point of view, the novel's markers for orienting him in the physical world initially underscore his use of the player-character as a tool. Early, third-person references to the player-character highlight its object nature and distance from the narrator: "I began to walk my player-character down the hall, using a series of subtle hand motions to control its movements and actions" (Cline 29). Even within the virtual world, the narrator comments explicitly on this embodied separation, and the distance between worlds is underscored by reference to the hand controls used to move the player-character.

However, as Watts spends more time in the virtual world, *Ready Player One* complicates this distinction, sliding further into a subjective point of view that combines references to the player-character and narrator's bodies. This process can be seen in the narrator's orienting language: "My player-character slowly materialized in front of the control panel in my stronghold's command center, the same spot where I'd been sitting the night before, engaged in my evening ritual of staring blankly at the Quatrain until I drifted off to sleep and the system logged me out" (Cline 200). The various clauses of this sentence slide further into the subjective point of view as it progresses. The sentence begins with another third-person reference to the narrator's player-character before shifting to the narrator's own possession of the stronghold within the player-character's virtual world. Furthermore, this clause switches to the use of personal pronouns to invoke the narrator's placement *within* the virtual world. In this sense, he occupies a position outside of the virtual world but from a subjective POV that mimics his placement in the same location as the player-character.

In linguistic terms, the narrator uses deixis to frame his and the reader's relationship to the player-character's subjective point of view. Deixis refers to the elements of language that orient listeners to a specific time, place, and person (Galbraith 1995), and whose reference shifts with changing contexts. The most basic terms implying a deictic field, the space occupied by a speaking subject, are *now*, *here*, and *I*. Notably, these are also the domain of the subjectively focalized game. According to deictic shift theory, these coordinates are conceptually translated by readers to narrative environments as a means of anchoring and orientation. In a subjective, first-person novel the reader's sense of here and now is generally synonymous with the narrator's placement. The novel complicates this process with the narrator's own deictic

references to the player-character's placement within the virtual space, a placement that is generally presented as his own.

Over the course of *Ready Player One*, the player-character shifts from an externally focalized object to a subject that coincides with the narrator's perspective within the virtual world. In fact, the two become difficult to disentangle. This blurring of boundaries coincides with the narrator's increased time in the virtual world, an acclimation that is reflective of real-world player subjectivity. Both the narrator and his player-character are sitting in the stronghold, staring at the quatrain, but his player-character's view is filtered through reportage.

The novel's point of evaluation comes by way of the narrator's vicarious obsession with 1980s popular culture and the narration is dense with allusions. Eighties media and their creators, such as *Star Wars*, Rush, and *Zork*, form a constellation of hypertexts that are interwoven through the novel's plot. These references emerge from the novel's focus on digital media and give rise to a minor game of familiarity and recognition between reader and text. The novel rewards readers who understand these allusions with a feeling of mastery and knowledge similar to the narrator's own. The novel's allusions are also emblematic of Watts' everyday speech, apparent in his use of metaphors involving *Donkey Kong* and other stereotypically nerdy reference points (Cline 22). These, coupled with the plot's resolution, make the novel seem more fantasy than science fiction—in the end, pop culture knowledge and video game savvy are effective enough to topple a capitalist institution. In addition, the novel has little to say about the way in which the movies, games, films, and music it references are themselves products of the very capitalism its protagonist seeks to thwart. As a result, it falls into an ironic trap that catches many cyberpunk novels and their focus on the relationship between capitalism, on the one hand, and cultural production and consumption, on the other.

Furthermore, the novel's reliance on these cultural reference points makes knowing synonymous with being, understanding the pop culture allusions driving the plot is equated with *being* a gamer. The characters often compete for mastery of this knowledge while making fun of those who lack it. Megan Condis has shown that unfortunate linkage, whether intentional or not, produces an image of gamer culture in which white maleness is the default category against which all potential gamers are measured (2016). Nowhere is this fact more crystalized than in Wade's surprise that Aech—his best friend and companion within the virtual world, whom he does not meet in reality until the novel's climax—is actually a fat black woman, rather than the white man her avatar makes her out to be. Like her mother, Aech uses a white male avatar "because of the marked difference it made in how she was treated and the opportunities she was given" (Cline 320). On the one hand, it may be tempting to read this ideological plot point in line with the novel's dystopian backdrop but, on the other hand, Wade's assumption that others' avatars are created in real-life image is a blind spot in his perspective. These issues combine, signaling the degree to which the novel reifies existing race and gender-related issues within gamer culture.

From a purely formal standpoint, the novel's deixis allows readers to reorient their mental perspective, to take in the foci as expressed in a visual model of focalization. Furthermore, the novel offers a linguistic remediation of a visual perspective via this deixis (Cohn 2013). In so doing, it creates a layered narrative that uses subjective focalization strategies to narrate the bodily experience of prosthetic telepresence. This results in a nested focalization, both within the novel's plot and its perspectival structure. From the reader's perspective, the narration complicates the relationship between physical and virtual bodies, player and player-character,

reader and narrator. If the player-character is a window into the game space, then the narrator in *Ready Player One* is a window to a window.

4. Conclusion: Prosthetic Telepresence and Visual Deixis

Mapping Neitzel's approach to perspective backward onto films and novels yields the metaphorical and synthetic relationship between the concepts of prosthetic telepresence and deixis. At the very least, both are cognitive strategies for engaging with the virtual nature of bodily placement. This happens via a proxy embodiment, a "*channeling* our body into shape and place, into screen space…making it irrelevant in its original (non-extended) configuration" (Klevjer 2012, 13). Both prosthetic telepresence and deixis give players, viewers, and readers the sense of being in the time and space of a mediated storyworld. This time and space is anchored to an embodied point of view, whose focus specifies a point of action. In narrative contexts, this time and place is generally anchored to a point of evaluation composed by the protagonist's values.

Of course, kinesthetic interaction sets these concepts apart, as prosthetic telepresence functions via a manipulatable tool that exists within a virtual world. Cinematic space is thus not "traversable" in the same manner as game spaces. Nevertheless, the screen's visual set-up and the film's reliance on certain gestures indicates that even *Hardcore Henry* functions via a sort of visual deixis that lies in between the linguistic deixis of the novel and the fully-enabled prosthetic telepresence of a video game. This roots viewers in Henry's body for the entirety of the film, so the film's lack of spatial projection is directly tied to his perceptual field inasmuch as it is also a limitation of the camera apparatus. The visual-field theory that underlies this approach to focalization beneficially synthesizes past and present approaches to focalization, as

visual narratives such as those analyzed here consist of events whose organization and movement facilitate their encoding into language that mimics a specific visual perspective.

The narration in *Ready Player One* sets apart its focalization from the other cases. Unlike the visual media here, the novel relies on the narrator's own references to his positionality. The dynamic between the narrator and reader is quite different from the one between a player and player-character. The novel's subjective focalization strategies bear closer resemblance to film than game, due to this lack of interaction. However, it further sets itself apart from film with its sharper insight into the protagonist's mental states, which are given explicitly. Unlike the other media here, the novel's focalization is internal, due to the close proximity it maintains to this sensory data. The result is a greater fidelity between the first-person narration and the evocations of bodily placement. By contrast, *Far Cry 2* and *Hardcore Henry* are externally focalized, in their reliance on inference. These media maintain an ironic distance within their proximity, one which tries to frame the player-character's bodily responses as another's.

While first-person, subjective perspectives are perhaps the most popular, this focalization strategy is not exhaustive of those video games use to anchor player perspectives to a narrative. However, the subjective point of view anchors players body to the virtual world via prosthetic telepresence. That novels and films have begun to remediate this perspective raises the question of other game camera perspectives, the bodily orientations they prompt, and their continuing influence on other gaming-related media from the novel to machinima.

Appendix A: Figures



Figure 1. The Sims 2's character creation screen showing aspirations and personality traits.



Figure 2 Events in "The Facts," Agatha Christie: Murder on the Orient Express.



Figure 3 Typical breakdown of player decisions in The Wolf Among Us.

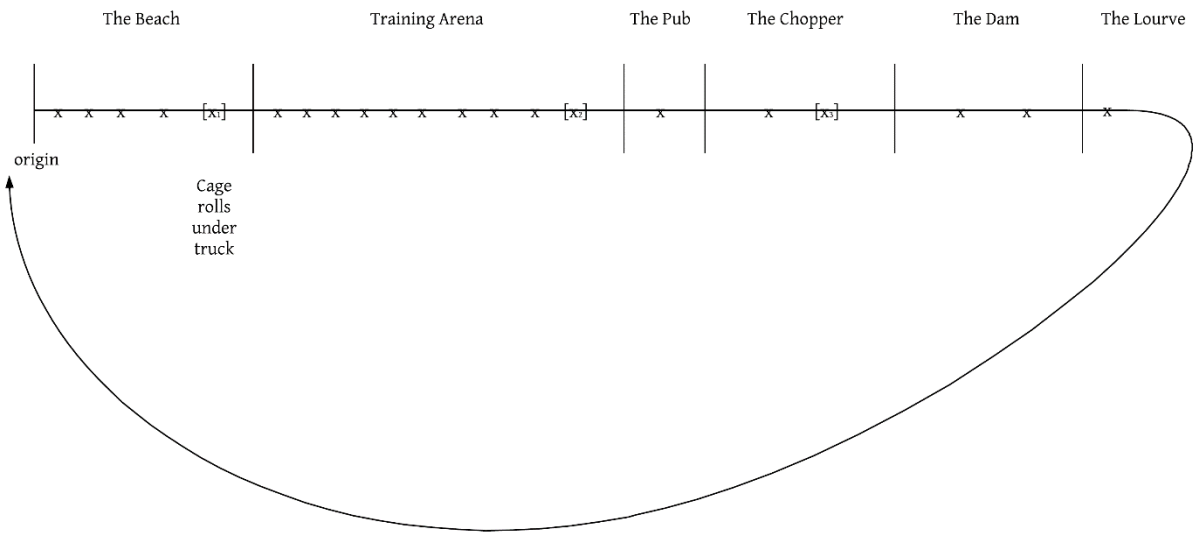


Figure 4. A timeline of complex temporality in Edge of Tomorrow.

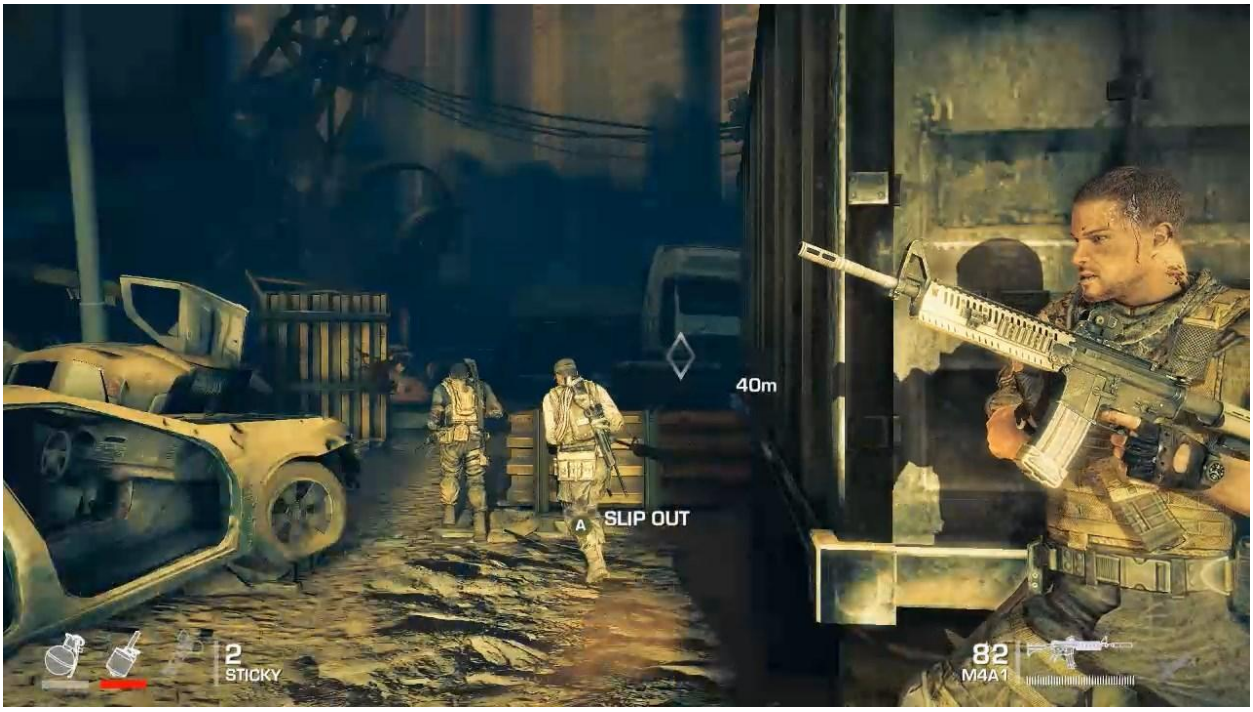


Figure 5. Spec Ops: The Line with heads-up-display.



Figure 6 Subjective POV in Far Cry 2.



Figure 7 Hardcore Henry holding a weapon.



Figure 8. Subjective POV in Far Cry 2 and Hardcore Henry.

Appendix B: Tables

The Facts

1. Poirot arrives to Istanbul from Syria.
2. Poirot stays in the Tokatlian Hotel, then departs on the Orient Express.
3. Ratchett requests Poirot's help and is rejected.
    a. The train stops in Belgrade.
4. A cry is heard in the night (Ratchett is murdered).
5. Poirot is alerted of the murder by M. Bouc.
6. Poirot speaks to M. MacQueen.
7. Poirot inspects Ratchett's compartment and corpse.
8. Poirot makes known that Ratchett is an American named Cassetti.

The Evidence

9. Poirot collects and analyzes the evidence.

Poirot Sits Back and Thinks

10. Poirot offers two possible solutions to the case.

Table 1 Macroscopic event structure in Murder on the Orient Express.

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