

THE DYNAMICS OF THE PLAYER NARRATIVE
HOW CHOICE SHAPES VIDEOGAME LITERATURE

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THE DYNAMICS OF THE PLAYER NARRATIVE
HOW CHOICE SHAPES VIDEOGAME LITERATURE

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To my wife, Cora, for her unyielding faith in me.

To Fallon, Quinn, and Silas, who inspire me every day to be more than the sum of my parts.

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SUMMARY

The author narrative and the player narrative are distinct and separate parts that make up the whole of videogame literature. The videogame medium encourages a mixed-media understanding of conventions and the rejection of essentialism that leads to, inspires, and facilitates the player narrative. Videogame literatures require discreet actions that, as part of any possible reading, the player must do—and in doing the player must make a choice with mind and body that involves a human-to-machine expression of agency within constraints that define the player narrative. So the decision making process in videogame storytelling is that human-to-machine interaction that can be understood as both the means by which the videogame story progresses, and the process by which the player wields his or her narrative within the procedural possibility space. Videogame literary analysis requires understanding how players make those decisions, understanding how the player leverages media conventions in order to wield power over the narrative, and understanding what role the player has in videogame storytelling. The choice dynamics of a videogame narrative are the key narrative elements within videogame literature that provide players and researchers tools for evaluating choice opportunities within videogame literature toward forming a better understanding of the space between and connection to the author narrative and the player narrative. All of these analyses combine to form a picture of decision making processes in videogame literature that are complex and contradictory path making endeavors that define the narrative experience in videogame literature, and the interconnected dynamics of the author and player narrative space.

CHAPTER 1

INTRODUCTION

This analysis grew organically from a broader analysis of the literary value of commercial videogames. Videogame studies have focused primarily on the functional aspects of creation and play, however I desired to look at videogames as literary objects and evaluate them accordingly. My initial thesis proposal involved an investigation into narrative structures in videogames, focusing on the function and construction of choice in videogame storytelling, and the crucial role of choice as a tool for narrative advancement within videogame stories. And Literary Studies begins with an evaluation of the literature itself. Whatever else can be done with the theories, discussions, and texts that have blossomed within literary criticism, we must first examine the literature itself.

Videogame literature, however, are literatures of complex media, with theorists and practitioners whose hands dip into many pots from varying and often disparate perspectives. After more than twenty years of videogame criticism, there have been many books, papers, and presentations on form and function, many that argue as to where within the academic fields videogames belong, and many that discuss the past and future of gaming in culture. There have also been many that focus on the unique position of narrative in videogames, discuss in broad strokes the nature of interactive narratives, and cover the various problems inherent to interactivity concerning a rather Aristotelian approach of storytelling. But whatever else a videogame may be, whatever arguments exist for how games should be studied, if there is story within it, that story deserves direct and focused literary criticism.

However, many of the more prominent theorists of New Media (Jesper Juul, Espen Aarseth, Marku Eskelinen to name a few) have been the most dismissive of many of the videogame genres that most prominently feature narrative, namely story-games or adventure games. In terms of serious academic study, videogames have the misfortune of falling firmly within the pejorative “popular culture.” And much of the most active years of videogame criticism devolved into protracted arguments as to whether videogames should be evaluated as literature or games. Similarly, it seems strikingly common for evaluators of videogames to have played only portions of the games they are evaluating, or to have watched others play the game in their stead, rather than experience the game in its entirety, replay after replay, until every path is illuminated.

To evaluate how narratives function within videogames is not to diminish whatever other important critical evaluations of the medium; it is to acknowledge that we have a medium in which new methods of storytelling have arisen and merit our focus and consideration. To that end I began my analysis by surveying contemporary videogames, focusing specifically on videogames in which narratives function as the primary driving force behind game progression. In that survey, I evaluated how narrative progression within videogame stories occurs and identified the distinct medium-specific conventions that facilitated storytelling to advance both game and narrative. I began to identify how choice functions, narratively, within videogame literature, and the implications of choice dynamics for interactive narratives as a process, and what this means for videogames as a form of interactive fiction.

However, in attempting to identify and define great works of videogame literature, I encountered a narrative space in which a story was being told, facilitated by

the medium, but was not being told by that medium. I encountered the player narrative space. Now though this space is not unknown, I found myself intrigued by the role of choice in defining that space insomuch as it makes that space possible. Thus, this thesis is born of a desire to understand the player narrative experience, the interplay between that narrative and the author narrative, how the videogame medium facilitates that narrative, the role of choice in that facilitation, and the structural makeup of videogame literature that informs and creates the opportunity for the player narrative to exist. In what is an almost paradoxical take on reader-response theory, for videogame literature, the formalist evaluation of videogame storytelling would be to recognize the function of reader response toward the structure of the literature. Reader response in videogame narratives is often a genuine human-to-machine process, at times seemingly interactive, at times decidedly participatory, in which readers must make active decisions in order for the procedural structure of the game to form the narrative path.

In this analysis, I seek to define choice in videogame literature as a narrative device in a structural capacity, evaluating not only the psychological concerns of decision making and how those concerns relate to videogame storytelling structures, but to evaluate the experience of choice toward building a player narrative. What kind of storytelling is videogame storytelling? What does choice add to the experience? What is the player's role in that experience? What does videogame storytelling afford the player? When a story is situated within a procedural environment, when the player can diverge from the story being told and wander paths of his or her own inclination, when skillful responses are required from the player in order to manipulate the medium into telling a

story, where do the author narrative, the storytelling capabilities of the medium, and the story experienced by the player converge or diverge?

In order to evaluate the structural function of choice in storytelling, however, we need to take stock of what relevant language exists and how the videogame medium has so far been constructed and defined. Thus the second chapter of this analysis is concerned with what unique affordances are provided through storytelling in a digital medium like videogames, identifying how the story is told and how the cultural concepts involved in the videogame medium influences player's perceptions of the medium, and how those perceptions influence the conception of the player narrative.

The third chapter in this analysis is concerned with evaluating the structure of storytelling in videogame literature and how it is possible for both the author and the player to tell a story within the same space. This chapter takes aim at interactivity in videogame literature, defines the distinct limitations of a procedural system acting as an agent for story production, and argues in favor of videogame literature as ergodic and not interactive. Most distinctly, this chapter defines and separates the author narrative space from the player narrative space and identifies the nature of the interplay that occurs between the two story spaces.

Through both the second and third chapter, choice is identified in multiple examples as a key defining feature of videogame literature and the player narrative. Choice is problematic and often paradoxical. It isn't enough to be aware of choice as a functional aspect of videogame narrative structure; how we perceive choices, how we deal with them, and how we represent them are all necessary considerations for a fully formed evaluation of choice in videogame narratives. So the fourth chapter concerns the

theories and research into processes of decision making that might help explain how a player navigates available options, in a broad sense, and to account for what choice is as an experiential element within a videogame narrative.

To help understand what choice contributes to the individual player experience and how it can encourage the player narrative, the final chapter of this analysis focuses on evaluating choice dynamics. Choice dynamics explain the degree to which choices impact the author narrative and therefore the player impact on the author narrative. Understanding choice dynamics provides players and researchers with tools for evaluating choice opportunities within videogame literature toward forming a better understanding of the space between and connection to the author narrative and the player narrative. All of these analyses combine to form a picture of a decision making process in videogame literature that serves a complex and contradictory path making endeavor that is ultimately about engaging the narrative experience in an effort to prolong the player narrative through distinct skill mastery.

CHAPTER 2

HOW THE VIDEOGAME MEDIUM GIVES RISE TO THE PLAYER NARRATIVE

In *Ideas: General Introduction to Pure Phenomenology* Edmund Husserl defines *noema* as the correlated mental elements behind the structure of any intentional act (238). It is a term meant to encompass matters of intuition, judgment, perception, etc. In *Cybertext: Perspectives on Ergodic Literature* Espen Aarseth defined that videogame storytelling (among others) is *extranoematic* (1). His use there of the root of Husserl's archaic term is a direct connection to phenomenology, the study of the structure of experience, and is a claim that videogame storytelling involves a distinct intentionality that goes beyond mental processes to include bodily acts of doing—direct physical involvement. But the phenomenology of videogame storytelling is far more than the physical act of button pressing. Experiencing videogame storytelling is to experience storytelling through a multimodal medium that encourages the player to encounter his or her own personal telling of a story.

Storytelling is the result of discreet bodily capacities developed through skillful manipulation of mind and body, a capability of all normal humans. The skills necessary to create paper, to bind books, to filter and capture light, and develop and refine technologies for human-machine interaction are all bodily capacities developed through skill acquisition, using tools developed through a similar set of capabilities. But *why* we create these tools as we have created them is more than the sum total of bodily capabilities. Certainly, many of the tools necessary to craft a book or construct a camera

were developed to afford capabilities that our biology lacked. But *why* we create books or cameras is a cultural correlative, a set of cultural experiences that correlate with bodily capabilities, afforded through skill and experience with the materials we use to make them and the social needs for creating them—the same social needs that drive us to tell stories in the first place.

That we developed mediums for the transmission of ideas is also a cultural correlative. To paraphrase what Janet Murray says in *Inventing the Medium*, designing any single artifact within a medium is part of the broader collective effort of making meaning through that medium's conventions (13). That a book, or projector, or computer affords storytelling is a signal of its cultural significance and a product of its role as a cultural correlative. Even as we develop new technologies, we define the figurative meaning of their creation, leaning upon our own various cultural experiences to decide just what affordances that new technology is imbued with. Understanding the reading or viewing of a story within any medium is therefore not only a result of comprehending the various signs and symbols represented within mediums, but is an affordance that comes from experience in being audience to the viewing or telling of a story through a medium. This is at least a portion of the basic phenomenology of storytelling; experiencing storytelling involves the intentional arc of bodily capacity, but requires a set of cultural correlatives concerning the medium used to transmit the story.

Each medium therefore affords certain capabilities depending upon how we have chosen to interpret its affordances, and according to the literal limitations of that medium. After all, one could have a film that transmits its story as a scrolling text, an automated book as it were, as though the pages of a book were simply splashed upon a giant screen.

Similarly, a book could be created of each individual still image of a film that the reader could leaf through. And yet, there are likely hundreds of culturally defined aspects of being a book or being a film that neither could measure up to. The struggle for any particular storytelling medium is therefore establishing those cultural definitions that distinguish it from any other storytelling medium. For videogames, this has been a struggle.

It could be argued, for instance, that at a basic level the first text-based games, like *Colossal Cave Adventure*, were little more than Choose Your Own Adventure stories transposed into a computer. “You are in a maze of twisty passages, all alike” as the game so often informs you, with text written to the screen. As originally designed, on the PDP-10, *Adventure* is a text-based adventure game, a format repeated again and again, even nostalgically to this day, in which the player can make simple decisions about directions he or she can move, or type simple words to retrieve or make use of items listed within a textual space. It uses no images and at its core works just like a classic Choose Your Own Adventure novel, where the player could make simple decisions which would lead to simple reactions. Granted, in the novels, decisions simply led you to yet another page of the book, and ultimately led most likely to some sort of gruesome death, whereas *Adventure’s* decision making involved an “interactive textual simulation” (Jerz) and puzzle solving. But for the reader the effect was similar in either case, with wrote pre-determined outcomes branching upon branches; the reader gets a story, and makes a few banal decisions about where the twists and turns should go.

On the other hand many contemporary videogames, like *Xenosaga*, have been criticized as extremely long films broken up by interspersed and arguably less important

user-interactions. As Jeremy Dunham explains in his 2003 review of the game, in *Xenosaga Episode I* “there isn't as much exploring as there is cinematic cut scenes.” According to Namco, *Xenosaga* features 30 hours of cinematic sequences (Dunham). Some of the cinematics last up to 15 minutes during which the player can only sit and watch, or skip the cut scene entirely and miss important plot developments, or key mission/quest information. The liberal use of lengthy cinematic sequences proved contentious in the gaming community; many, like myself, appreciated the cut scenes. They were extremely well done and generally exciting. But others complained that too much story was *told* to the player, with too many story elements missing from the play experience. Dunham opined, “Ultimately, the general reaction to these movies is what will probably make or break *Xenosaga's* success” and indeed, they did. The next in the series cut the cinematics dramatically, an apparent lesson learned about the length and frequency of cut scenes within the medium.

How we come to define the videogame as a storytelling medium is dependent then on how we experience the medium, contrasting the degree to which it mimics other storytelling mediums, and identifying the capabilities afforded to it that may not be afforded to another, or is perceived therein as less effective in another. Yet, defining characteristics of a medium can always be called into question, even if a medium has well-established conventions. Limitations in printing and copying, for instance, have lessened through the ages. Authors therefore continuously play at the boundaries of what we perceive as “book” and what may yet come to encompass that medium. And though there have always been images in books, of course, authors like Mark Danielewski call into question the very representation of the textual image itself. Danielewski’s *House of*

Leaves (see fig. 1) blurs the boundaries between textual and visual narratives. Such a construction can come across as gimmicky, but it also reminds us that regardless of the symbols used for constructing the narrative, they share an essential method of construction.



Fig. 1 a scanned image of *House of Leaves*' visual structure

Authors and publishers pay attention to structure, to the bits and pieces that form the construction of the whole, as essential to the larger narrative. Specific typesets, case settings and font sizes, and even distinct punctuation methods can relay something of the nature of the story or characters portrayed through the written word. The formal structure of writing prompts readers to conclude something about the essence of a narrative before they even begin reading. Danielewski places as much emphasis in the basic construction and form of his visual as he does the structure and form of his written word, turning the written word *into* the visual within his works and informing the reader about the significance both the words and of their relative positioning. Visual narratives, from comics and graphic novels, to film and videogames, are built upon systems of visual cues

that, like font and case setting, signal to the reader an unstated nature about the narrative—it communicates something shown rather than told. Though the story presented in a visual narrative may be provided in tandem to written dialogue, using the images to support the written word, or vice versa, the visuals are no less important to understanding the story.

We derive a narrative from visuals through the juxtaposition of graphical representations. A graphic novel or comic book, for instance, may present the visual representation of its narrative through panel progressions, using the gutter, to separate one panel and the next. Structurally, the gutter serves as a signal that one panel has ended and another has begun, while some amount of time has passed between the two. Because of the gutter, the comic book narrative is structured as sequential art and may or may not contain the written word. The gutter provides *closure*, what Scott McCloud explains, in *Understanding Comics: The Invisible Art*, as the “phenomenon of observing the parts but perceiving the whole” (63). The human brain has adapted to fill in gaps within a visual in order to make sense of that visual; we call that closure. Shown several panels of a man, like those in fig. 2, each displaying his figure in a different pose, our brains perceive that man walking up a hill. The cultural correlations tell the reader the order in which to read the panels, and panel progression tells the reader how to process those images in succession and form from that a coherent whole.



Fig. 2 sequential visual narration

All narrative systems rely on closure of some kind because telling a story relies on references that stand in for the concepts presented within a narrative. To see an event is one thing, but to describe that event in a way that is meaningful to someone else is another matter altogether. It requires that we allow one thing to represent another; according to Ferdinand de Saussure, to pass on meaning we use *the sign*. *The sign* represents the concept of anything, from a concrete, physical item, to an idea that exists only in the imagination. It is the fact that the sign is a representation that makes it a sign and not the thing itself. The sign “assumes that ready-made ideas exist” (842) and that the word or words for those ideas were created only to relay those ready-made ideas. The sign “unites, not a thing and a name, but a concept and a sound-image” (842) giving the image of the item or concept in one’s mind a verbal reference point. Without a structure to manage how and when those references should be presented, they exist as individual signs and symbols that lack connected meaning.

Though visual narratives relay meaning through image juxtaposition, they still communicate that meaning to us in functionally the same way as a textual narrative; the same basic structures are required to ensure comprehension. So, just as the word “tree” is not actually a tree, a painting of a tree is yet another layer of symbolism that merely represents a thing. Further, just as letters combine to create a word which conveys meaning, droplets of paint on canvas combine into images that convey meaning. For instance, though the image in fig. 3 is clearly *of* a pipe, it is not, itself, a pipe, as Magritte so famously declared. It is, after all, only paint on a canvas (and in this case, pixels on a screen, or ink on a page). No matter how we view the image, it will ever remain a representation and not a pipe. It is in some way but a shadow of what it *seems* to

represent, just as the written word is only the concept of the spoken word, which is but a concept of the ready-made item or idea.



Fig. 3 Magritte's pipe, a famous example of symbolic representation

How well the sign acts as a representation of an item or idea depends on the interpreter and the structure of the representation of that sign. The interpreter of signs, the reader, and the player become the interpreters of meaning. Just as the concept of the sign requires that the interpreter understand the reference to what it signifies, “meaning [is] constituted through the systematic distinctions that differentiate [signs] from one another” (Mohr 351). The signs give the interpreter the perception of the meaning and closure encourages the reader to combine signs in a progression, though only so long as there is a structure in place that encourages closure. As long as the signs are presented in a way that allows the interpreter to process the combined meaning, the full weight of the sign, all of its past and current representations, combine to create of the sign a symbol that can stand for even further abstractions of ideas.

Similarly, what can and cannot be done within any medium is completely dependent upon whatever cultural ideas define that medium. The more we evaluate the representation of elements within a medium, the easier it becomes to piece together

elements that are common between works within that medium and begin to understand how any one medium becomes differentiated. Further, because we're constantly redefining our mediums, we borrow from what we know in a pastiche of ideas that become the foundation for new conventions. *Star Wars*, the movie, for instance, famously makes effective use of alphabetic narrative through a distinctly visual convention, beginning each movie with a prologue of text scrolling, flying even, away into the stars. And *Epic Mickey*, the videogame, rather than use elaborate cut scenes like most of its contemporaries, makes liberal use of still images (see fig. 4), like a children's book, to relay story snippets between gameplay elements, as seen below. Thus, *Adventure's* transition of a familiar genre into a new medium and *Xenosaga's* over-reliance upon the conventions of prior mediums is all part of the process, and speaks more about the developer's understanding of familiar media than it necessarily speaks of the nature of the videogame storytelling medium itself.



Fig. 4 example of still scenes found in *Epic Mickey*

Videogames borrow extensively from filmic notions of mimetic storytelling, diegetic narrative elements, and extradiegetic narrative devices. Many very recent games, like *Limbo*, *Journey*, and *Flower* have experimented with some very compelling mimetic storytelling that borrows less from the camera angle tricks of filmic mimesis, and more from the diegetic and extradiegetic audio conventions employed in film. In *Flower*, for instance, the narrative is simple and sweet, and conveyed using only the visuals displayed on the screen through the player's camera positioning as the player awakens the deadened world within the gamespace. *Journey*, on the other hand, makes use of diegetic pictographs that display while the player watches various structures of an ancient civilization power up. Though the cut scenes' camera angles are examples of extradiegetic narrative devices, the pictographs are not one to one representations meant to *tell* you the story, and indeed are only seen secondarily as part of a larger scene, as though watching panel progressions to understand a series of events; instead they're abstracted representations meant to show you the story and use color and emotive qualities to imply about the history of the space the player is awakening. *Limbo*, on the other hand, simply displays the journey the player imposes on the character and allows the player to glean from it whatever he or she may. The camera is static and there is never any narrative exposition. And each of these games make full use of stereophonic sound to give a depth of space, or use extradiegetic mood music to provide thematic tension, all of which are conventions borrowed from film and television.

And though the novelty of stereoscopic sound within an explorable environment, or the beauty of well-timed audio within a narrative seem wonderfully fresh in videogames, such auditory narrative conventions have been a staple of film for decades.

BioShock, for instance, makes use of silent film methods. *BioShock* not only uses environmental sound to inform you that potential enemies are within earshot, a fairly standard concept of diegetic sound use in contemporary film and television, but also uses diegetic music, playing from radios or over an intercom system, or even through the character's personal radio, to influence the narrative. William Gibbons does a fantastic narrative analysis of *BioShock* for Gamestudies.org in which he rightly points out that "The careful selection of songs frequently allows the lyrics to be 'misread' as commenting on the game's action in the manner of a voiceover, spurring players to reflection without removing them from control." In a key moment that Gibbons points out, for instance, in a bar that looks as though it had hosted a New Year's party just before everything went to hell, the main character witnesses a brutal killing and is introduced for the first time to a major villain. Just as this happens, the song "The Party's Over Now" begins to play from a juke box. "Most literally, the song's title slyly refers to the New Year's Eve party at the restaurant, the beginning of the end" (Gibbons) but narratively its used to add layers of meaning without artificially removing the player from the aesthetic of the gamespace. As Gibbons notes, filmmakers have used such "title-based musical puns" since the silent film era.

But videogames also make use of film conventions that seem odd or jarring in the videogame narrative and can disrupt the player's sense of engagement. Contemporary commercial videogames' extensive cut scenes often break away from the camera perspective generally provided to the player, and in first person games break away from the character's perspective to add an extradiegetic viewpoint, which creates a strange disembodiment of a because of this unattributed perspective. The player, usually given

some control over games' camera angles, instead sits passively viewing scenes as the designer would prefer within an environment in which he or she had been viewing events unfold as though the player were looking through the main character's eyes. *BioShock* provides a good example of this, as well. This break from how the game is played to how some story elements are presented impacts the aesthetic of the experience. Further, there's usually an unfortunate pause, or loading moment, during which not only is the flow of events disrupted, but after which you'll often find that the character isn't necessarily where you left him and may or may not be in the same state. Often, relying on filmic conventions requires that the character be coded to be in specific spaces, wearing specific things, looking a specific way, etc. that may not reflect the decisions made by the player.

These bits and pieces of elements and conventions of other mediums make up a significant portion of the videogame storytelling experience. Sometimes these combine to create something not quite as good as they might have been in their borrowed medium, and sometimes they become the fuel for an innovation that comes to define the new medium. But it is an inescapable portion of the videogame narrative experience, and defines distinct aspects and challenges for the player narrative; the jarring transitions between media conventions that push and pull within and against the grain of the combined narrative experience within a videogame encourage the player to view the narrative in flux. In some ways, it's like breaking the 4th wall, the metaphorical wall that separates the reader from the literature. When the 4th wall is broken, as in fig. 5, it allows for a reconsideration, a meta-analysis of the narrative as a narrative, and encourages the player to imagine his or her own telling of the story as potentially separate from the

imposition of the author's story. By breaking the aesthetic, you break the convention that establishes the limits of the reader's capabilities. When I see my character moved to a different space than where I had placed him, or see him wearing a different sword than I had given him, or see party members included in the cut scenes though I had not included them in my party, I begin to sense that the author and I have been telling two different versions of the same story in tandem.

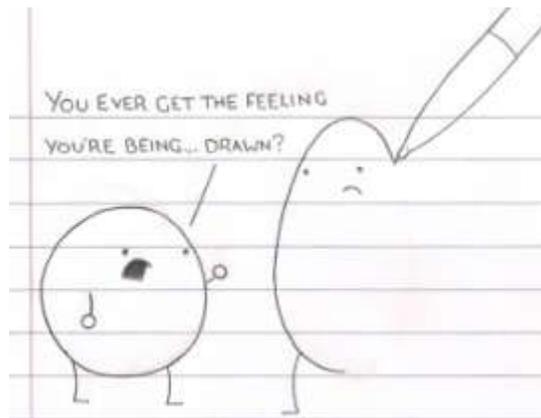


Fig. 5 illustration of 4th wall meta-think

In western culture, we generally see a story as a static event, something with a sustained beginning and end. Even when stories allow alternate retellings, that retelling is in and of itself a static chain of events. The readers don't need to decide how the story is told; their choice in such circumstances is solely fixed on whether or not to engage in the alternate version. We see this commonly with movie adaptations of books or other stories established in alternate mediums, or even film adaptations of already existing films. We seem to commonly come to the conclusion that a story has an essence and often that first experience, or most familiar experience with the story stands as the standard for that essence. The essence is therefore unique to each person according to which version of the story he or she has experienced, and whether or not he or she is familiar with any other versions. When an adaptation retells the story, readers naturally evaluate the new version

compared against their "essence" of that story. The retelling only stands alone, divorced of that essence, when told to an audience unfamiliar with any prior or possible future versions. But to introduce an alternate version is to shake the foundation of whatever essence has been attributed to the story.

Generally, this means persuading the reader to take a stance and decide which version of the story is "best" and therefore encourage the reader to reevaluate the essence of that story. Succeed and the story is accepted; fail and it, or choice failures within it, are rejected. Even within sections of a videogame in which the author or developer is now imposing upon you his or her version of events, they have simultaneously caused you to question their vision, encouraging you to consider your own version of those events; that the author ever let the reader have some say in the telling of the tale disrupts the power structure required to lay claim over the narrative. So though the author may retake the reins and once again direct the story, the user becomes aware that the path he or she is now being led upon is but one of potentially many. No matter the developer's preference, no matter how he or she would like the story to be received, the shift between author and player control unequivocally yields some conceptual control to the player.

There is no one essence; there is only a conglomerate, an aggregate of adaptations all leaning upon their shared connections in the zeitgeist. There is no one *Beauty and the Beast*. There is no one *Little Red Riding Hood*. There is no one *Zelda*. And yet, through experiencing each version, through comparing and contrasting them, and finding their commonalities and methods and themes, we begin to understand a combined essence. We come to know what to expect and how the general story will likely play out. After enough experience with *Little Red Riding Hood*—perhaps you read the Grimm Brothers' fairy

tale, listen to the Sam the Sham's song *L'il Red Riding Hood*, watch the anime *Wolf's Rain*, and play through *The Path*—and we begin to establish a grand concept of Red Riding Hood. Presumably, play enough *Zelda* (and maybe even watch a bit of that Saturday morning cartoon!) and we can begin to master the concept of *Zelda* stories. And each individual retelling of that *Zelda* story adds yet another piece to the *Zelda* mosaic and simultaneously informs the individual narrative, each piece that makes up that mosaic. And then a new *Zelda* comes out, adds new elements, challenges the conception of that essence and, to one degree or another, we build yet another new concept of the *Zelda* essence, even if that new concept is to directly reject the latest iteration.

Thus in games, not only can we make decisions that lead to multiple alternate versions, alternatives that might even branch upon each other, but the cut and paste of media conventions already speaks to the story telling possibilities of any one story across multiple media. When the medium's structure itself is fractured through inconsistent narrative devices, 4th wall breaking transitions, graphical glitches in 3D clipping, odd use of legacy media, or other elements that pull the reader away from the narrative, it invites the reader to question the narrative space; it takes the reader away from the message and has them, instead, criticizing the messenger. *Epic Mickey* served as a good example earlier of a game that made use of legacy media in order to convey significant story elements. It was a recent reminder of a game still wading out into the what-can-be-done space of the videogame medium. When I played *Epic Mickey*, my very first thought at seeing those still images was, "why?" There are cut scenes within the game, but they are used at different points than the still images. Still images are for transitions points, when Mickey travels from one stage to the next. They tell the player the between-the-action

bits of the story. During the action, however, if the player needs to know something important, cut scenes are employed. Granted, the entire game is basically a nostalgic callback to legacy media in effective and pleasing ways; it is, after all, a vehicle for Disney to reintroduce Oswald (Frum). But from bad camera controls, to weird transitions between still images and cut scenes and old film reels, etc., as a player, I couldn't help but imagine, first, better controls and better story management, and then, since the wheels were turning, changes to the story—changes that I came to because the game's structural issues encouraged a meta-evaluation of the story-game.

But maybe all of this is simply a product of our hypermediated culture? But then, games reflect that as well. You can read books in *Skyrim*, and watch movies in a theater in *Final Fantasy X*. You get to attend a play in *Final Fantasy IX* and an opera in *Final Fantasy VI*. And you can listen to some pretty decent radio stations in *Grand Theft Auto III*. In *Final Fantasy VIII* you can take online courses in junctioning (highly recommended). And in *Mass Effect 3* you get a giant encyclopedia of material that you can spend hours reading through to learn all about the people you just met, the stuff you have seen, and the places you have been. And in each, the borrowed conventions of other mediums shine through, not only informing you that you're now experiencing mediums within mediums, but encouraging a patchwork understanding of medium expectations.

The videogame encourages a mixed-media understanding of conventions and the rejection of essentialism that leads to, inspires, and facilitates the player narrative. The videogame is a multimodal medium that does not fear a pastiche of media conventions. The reintroduction and allusion to media conventions that have been, the misapplication and sometimes even naïve misappropriation of those conventions, and the very

postmodern sense that comes with this persistent borrowing creates an eclectic notion of storytelling that demystifies author control and makes storytelling a part of mutual play. Thus, the very medium can be the driver of both the wedge between the author's narrative and the player's narrative, and that shared mutual experience and possibility space. And therein the author and the player interact in some way to define the narrative path by leveraging the medium.

CHAPTER 3

UNDERSTANDING INTERACTIVITY AND GAMEPLAY IN CONTEXT

Interactive is the ubiquitous term when discussing player narrative and storytelling in videogames. But what is *interactive*, and is my gameplay a process of interactive storytelling? In *Hamlet on the Holodeck*, Janet Murray calls the use of the word *interactive* “vague and pervasive” (128), yet there are some recurring thoughts between theorists. Stuart Moulthrop, in “From Work to Play,” states that games are “configurative, offering the chance to manipulate complex systems within continuous loops of intervention, observation, and response” (63). In that context, interactivity can be seen to provide the user with opportunities to produce response from the system. In a similar vein, Robert Coover says that for storytelling, interactivity allows the reader to “interfere with the story, introduce new elements, new narrative strategies, open new paths, interact with characters, [or] even with the author” (qtd. In Landow, 105). Chris Crawford echoes both of those descriptions in *The Art of Interactive Design*, describing interactivity as “a cyclic process in which two actors alternately listen, think, and speak” (29). These similar yet distinct definitions point to the idea that interactivity in literature is a back-and-forth construction of storytelling in which the author yields some storytelling power to the reader/player, and the two share responsibility as constructing agents.

So when you interact with a narrative, you cannot simply participate in the experience of its telling; you must have some ability to influence the narrative such that

the narrative responds to your input. Janet Murray points out, in “From Game-Story to Cyberdrama,” that in interactive storytelling “the interactor is scripted by the environment as well as acting upon it” (6) so that interactivity “arises from the two properties of the procedural and the participatory” (10) reiterating in *Hamlet* that an interactive environment is “an environment that is both procedural and participatory” (74). For videogames, the procedural environment is an actor that also participates in storytelling, and in doing so responds to the user. This mutual participation seems, in a loose sense anyway, to resemble Crawford’s definition of interactivity. As Ian Bogost clarifies in *Persuasive Games*, “Such environments must be meaningfully responsive to the user” (42). Participating in the storytelling involves little more than following along and does not require that the participant influence it. To be interactive, both actors must do more than participate; they must be able to influence each other meaningfully. When the user has influence and the system is open to user influence, the user then has *agency*.

Agency is the key to informing the user that he or she has the ability to influence the system. Murray describes *agency* as “an aesthetic pleasure characteristic of digital environments, which results from the well formed exploitation of the procedural and participatory properties” (*Inventing* 410). Yet *agency* isn’t simply the ability to move within an open digital space, or press a button on command. Murray says, “The mere ability to move a joystick or click on a mouse [...] is not *agency*” (*Hamlet* 128). Without clear instances in which user influence brought about meaningful procedural response, as Ken Perlin says, the “player quickly realizes that anything that happens that is not caused by his own *agency* is being caused by the equivalent of a set of dice being thrown inside the software” (16-17). While such proceduralism may display the influence of the

procedural environment over the variables within that environment, it does not display afforded agency to the user. Murray's distinction of agency arrives "[w]hen the behavior of the computer is coherent and the results of participation are clear and well motivated" (*Inventing* 410). Thus, the resulting experience of "making something happen in a dynamically responsive world" (*Inventing* 410) tells the user that he or she has influence over the experience.

Agency, however, only speaks to the ability to influence a system. To influence a story, the player must be presented with choices that allow him or her to interfere with the narrative. Brenda Laurel suggests that interactivity within storytelling can be characterized by the frequency, range, and significance of the choices available to the interactor (20). Chris Crawford says that the degree and quality of interactivity in storytelling is determined by speed, depth, and choice, saying, "Choice is to thinking as battle is to war. You can philosophize and deliberate all day long, but the end result of all your mental gymnastics has to be a choice of some sort" (40). If there are no choice opportunities, if the reader has no influence over the narrative, then that narrative is *static*. The *static* narrative "asks us to set aside our right to make choices" (Perlin 13-14). The static narrative tells us a story, but exists with or without us. Interactive stories must offer the user a sense of agency to influence a story's narrative, what Murray calls *dramatic agency*.

But dramatic agency only requires that the user *feel* as though he or she has agency; you don't actually have to be able to influence the narrative because, to some extent, a user need only be convinced of his or her influence. *Dramatic agency* is "the experience of agency within a procedural and participatory environment that makes use

of compelling story elements” (*Inventing* 418). Murray contends, “if changing what a character is wearing makes for a change in mood within the scene, if navigating to a different point of view reveals a startling change in physical or emotional perspective, then we experience dramatic agency” (“Cyberdrama” 10). The dramatic agency of interactive narration requires only a clear connection between user decision-making and procedural response: “the total number and credibility of user actions is not necessarily important; rather, the relevance of the interaction in the context of the representational goals of the system is paramount” (Bogost 46). Even if the procedural actor presents choice opportunities that do not result in any actual influence, the impression of interactivity may yet remain as long as the presentation of that choice opportunity is convincing.

In identifying the elements of agency involved in interactivity and interactive storytelling, there seems to be a chasm between the two in which the relative user capabilities toward influence are obscured. Interactivity requires agency in which participants meaningfully respond to one another and influence each other, yet in videogame storytelling, story elements can be manipulated to create a sense of dramatic agency that requires no influence on the part of the player. A procedural environment can manipulate its dramatic agency to use story elements to convince a user that he or she has agency, reframing the system’s roll of a die as though it was a product of user influence. In *Portal 2*, the story offers several fake choice opportunities. On the first play-through, the player may notice that Chell, the main character, is offered opportunities to follow alternate paths. In truth, were the player to replay that scene and attempt to follow the “other path,” he or she would find that there is no actual other path; the story follows one

singular path from beginning to end. Wheatley, a comic relief and eventual antagonist, seems to take a jab at the player in regards to this dilemma, saying, once free from the spatial strictures of the puzzle rooms, “Look at this! No rail to tell us where to go! Oh, this is brilliant. We can go wherever we want! Hold on, though, where are we going? Seriously. Hang on, let me just get my bearings. Hm. Just follow the rail, actually.” Yet such arbitrary choice opportunities as those provided in *Portal 2* only function toward agency once; as soon as the user realizes that the choice opportunity is arbitrary, it no longer provides dramatic agency.

Further, a game story can be constructed in such a way as to never actually change or add any additional storylines but by virtue of the game elements alone alter the player’s perception of agency. In *Limbo*, there is but one story and one single version of that story. Along the way, however, are a series of puzzles, and how the player solves the puzzles, and just how long the player takes to solve them, all impact the player’s perception of that story. A particularly challenging puzzle may take many attempts and a great deal of time to complete. This time taken impacts the player’s perception of where he or she is at in the story and the relative condition of the character at that point. In *Limbo*, for instance, any individual puzzle may have as a consequence some gruesome character death if the puzzle is not completed accurately. So the player may have watched the character die, brutally, many, many times before the story progresses. Further, the player may begin to feel like the character (rather than the player) is lacking in some skillset. The player begins to add dimensions of character to the character through the player narrative. It doesn’t seem unreasonable to suspect that even though those character deaths were in some ways part of some alternate telling of events, they may well still

hold some sway over the player's perception of the character, the story, and his or her sense of dramatic agency. After all, by the player's hands alone does the character live or die. And it also impacts the literal progression of events concerning how each puzzle was solved, in which order, the outcome, etc. So even if the user's perception is that the puzzles are outside the narrative, or that they are extradiegetic narrative devices, the literal progression of events still changes each play through while the macro narrative remains completely unchanged.

However, when the story occurs within a procedural environment, since all elements of that story's telling, everything that can or will happen, happen within the system, the system can hide how it's happening, obscuring the user's ability to evaluate whether or not he or she has dramatic agency. In *Ogre Battle 64*, the game registers statistics for the user's moral behavior, called the Chaos Frame, but does not make those statistics available to the user. Instead, the user is left to imply, only by gauging the sort of people willing to join the player's cause, or by the nature and tone of the story as it progresses, what morality score that user has within the Chaos Frame for that play through. Once you beat the game, you are given an ending that is dependent upon your overall morality. As the game does not mention until the end credits what your Chaos Frame score is, the player has no direct knowledge of the Chaos Frame itself, and is left generally unaware of many of the consequence of his or her choices, that he or she had choices, and even which moments within the game have afforded dramatic agency. It is possible to have completed *Ogre Battle 64*, received the morally ambiguous ending, and simply never be aware that alternative endings were available, nor what decisions create paths to those new endings, even once the Chaos Frame score is divulged. By hiding the

system by which the player can measure the impacts of his or her decisions, dramatic agency is obscured despite being a significant factor within the game.

Further, you can interact with the system in innumerable ways that the system may account for in terms of mimetic action, but not in narrative. You may grind away for 60 hours in some forest in the middle of nowhere, but the moment you return to the prescribed narrative, the story moves forward without any acknowledgement as to what you've done. Your experience required that the system respond to your influence in terms of system interactivity, but did not require the system to acknowledge your story elements. So despite having the ability to influence the system, despite being able to manipulate things that exist within the story space (like, say the weapon and armor that you happen to be carrying), and despite being able to influence the literal progression of events, the player may still come away declaring that the story is "linear" which is commercial game review code for the impression that a game lacks dramatic agency. So, is it interactive storytelling only if the user has actual influence, or is interactive system response enough to be interactive storytelling? Is perceived dramatic agency over the story enough to negate the need for identifiable agency over the system, and does the perceptibility of the dramatic agency impact whether that dramatic agency is afforded?

I'm unsure on either point, but I'm certain that there is a difference in the experience of interactive narrative as it exists in the videogame space and interactive narrative as it exists in your average LARP session. There is an authentic quality of dramatic agency that exists in real world interactivity that does not seem to exist in videogames. Sure, metaphorically, the procedural environment in a videogame seems to listen, seems to speak, seems to think in response to your listening, speaking, and

thinking, but in truth, that system responds only with a limited set of possibilities, amongst a limited narrative capability. The videogame story, though it may present variable possibilities within, has a limited number of configurations for that story. The videogame is situated within the confines of the elements provided within its programming; it is a bag of goodies. There may be lots and lots of goodies in that bag, but there are only however many goodies as that bag has been filled with.

But when I participate in improv, or D&D, or LARPing, even if I've been given a set of rules, a procedural environment as that may be, the number and configurable possibilities of the narrative that may transpire between myself and whatever other interactors I am interacting with is limitless. Most children, for instance, have played Pass the Story, or variations thereof, in which one person starts the story and another person continues it. The story is thusly passed from person to person, each adding his or her own personal touches to the narrative until finally someone ends the story. Now, if you've played such a game, and especially if you've played with children, you know that it doesn't take long for the story to veer dramatically off course. But that's the variability of interactive storytelling. The story responds to each and every interactor and can be shaped and molded, and in turn each interactor can actively evaluate each other's additions to the story and *choose* whether or not to incorporate each other's input. The videogame story's variability, on the other hand, is wholly dependent upon the restrictions of the system within which that game is designed.

In videogame storytelling, the player's influence is actually quite limited. In fact, viewed objectively, as far as game stories have so far been configured, the player has extremely limited influence. One can imagine the story existing along a path. That path

may be wide, it may be narrow. It may have numerous side paths, or may be very straightforward. It may twist and turn, repeat itself, revisit itself, reconfigure itself along the way, but however that path is traversed, the player is not the driver, but a passenger. The player's role in the most restrictive narrative, at its most dynamic, may indeed involve yanking the wheel to the right, choosing one portion of the path over another, or even stomping on the brakes. But more often the player's influence over the narrative amounts to flipping of the turn signal. Though, in the least restrictive narratives the player may actually have some freedom to drive around the space, smell the roses, poke at things, etc. if the player ever wishes to explore a new space, he or she must return the wheel to the author. And unless the actions taken while the player was out gallivanting were actions scripted into the author's narrative, those actions will go unnoted in the macro narrative, leaving the player to wonder whether or not his or her time spent exploring was extradiegetic.

See, interactivity requires more than a response, it requires active listening—listening that accounts for the information provided and adjusts, changes, accordingly. Videogames do not listen. As Chuck Jordan from Gamasutra points out, contemporary story-games generally feature “interactive segments punctuated by non-interactive sequences.” *Heavy Rain* is an excellent example of this convention. Sony has described *Heavy Rain* as an “interactive drama” (Purchase). *Heavy Rain* does indeed offer many, many more choice opportunities, even delving into the mundane, than many story-games afford, but the impact of player choices is still quite limited—strikingly so considering the frequency of choice opportunities. There are wonderful moments where the game world moves forward whether the player is involved or not. When Norman Jayden, one

of the main characters, first encounters the police precinct, a news conference is about to commence. If the player chooses to watch the conference, once it is time for it to begin, the player can see the events unfold. The player can choose to leave during the middle of the conference and it will still continue without noticing the player's absence. In fact, the player can choose not to go, or can get lost trying to find the bathroom, or exploring the lockup windows, and not only miss the conference but be completely unaware that it ever took place. This seems to suggest a truly dynamic interactive space. However, one need only replay seemingly key moments in the game to realize that what the game truly offers is a strictly constructed story with limited variability, whether you engage with it or not. In every interactive sequence— whether its Ethan Mars driving wildly against traffic and the player has to avoid traffic by executing the right button sequences, or Scott Shelby dodging bullets in a bad guy's lair— try for a moment to do things wrong, to fail at the sequence and the player learns that most of his or her actions carry little weight, and many actions that seem as though they should be horribly significant have no impact whatsoever. And though the world moves forward without player involvement at times, telling you it's alive, at other times, like when Ethan Mars sits on the park bench waiting for the player to engage with his NPC son, the clock on the pole will tick-tick-tick away for literal hours without any significant change to the time of day in the environment, with the NPCs still playing in an endless rainy day gloom despite it being technically well into the wee hours of the morning. So, sure, go off the path, do whatever you want, but it kind of doesn't matter: "Players have the freedom to tell whatever story they want, but quickly realize that no one's listening" (Jordan). In videogame storytelling "The developer can speak, and the player can speak, but only one at a time" (Jordan) and only

the player ever really listens. The interactivity in most games may indeed afford the user the ability to get off the path and wander around, but eventually, for the narrative to move forward, the user must return to traveling as a passenger and give up the wheel.

In fact, more often than not, the interactivity is but the veneer of a tightly managed narrative. Denis Farr, in his blog Vorpal Bunny Ranch, says that videogame paths often amount to “long corridors” within which the player may be able to wander, may have secrets to find and little bits and pieces to explore, but when that’s all over you still enter and exit at the same point and the game moves on regardless of whatever exploration you may or may not have done. Farr points to *Final Fantasy XIII* as a prime example of the long corridor issue (see fig. 6), particularly as its use of this convention

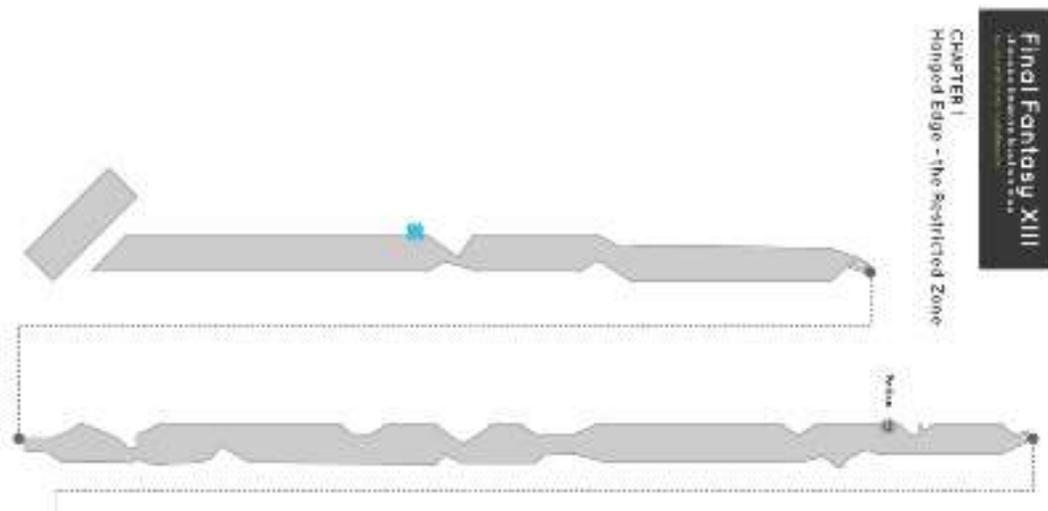


Fig. 6 example of a "Long Corridor" in *Final Fantasy XIII*

led many to call it restrictively linear (read: lacking in dramatic agency). Now, Farr argues that limiting the exploration space, and limiting concordantly the possibility space, helps keep the narrative intact and encourages the reader to complete the game, noting that expansive environments can be conceptually fatiguing to the player. There’s a decent argument for that opinion. Yoshinori Kitase, one of the producers of *FFXIII*, said of the

relative linearity of the game, “we've got a story to tell, and it's important the player can engage with the characters and the world they inhabit before letting them loose [...]”. When you look at most Western RPGs, they just dump you in a big open world, and let you do whatever you like... [It] becomes very difficult to tell a compelling story when you're given that much freedom" (Qtd. in Ingham). The problem comes only in the perception of the interactivity possibilities. A Final Fantasy game, for instance, has traditionally featured large open spaces between story segments within which player's have the freedom to play out their own story possibilities. Further, the vivid depth of the gamespace provided within *FFXIII* suggests expansive player interactions. However, the player quickly comes to realize that the supposed depth is the exceptional façade of the walls of a surprisingly narrow corridor.

Now, not all player narrative story spaces are such literally narrow corridors, but instead the idea of narrow corridors—that the player is essentially traveling along a rail within a limited possibility space— speaks to the nature of all player narrative story spaces within videogame literature. And the author narrative story space is equally restricted. Both narratives exist on separate planes running in tandem. These planes, as they might be imagined, can be seen as all of what is possible within the limitations of whatever system the gamespace exists within. So, all of the code, the coding language, the barriers therein defined, all shape the nature of possibilities afforded to any one videogame. These become the underlying structure within which the game and the narrative exist. And the game, or the gameplay elements, the choice opportunities, allow the player to enact his or her own story while fulfilling the obligations necessary to progress the author's narrative.

In fact, because the player is so dependent upon the gameplay elements to engage in anyway with videogame literature, there is a natural tension that builds between the game and the story elements. The player must manage gameplay inputs to move the story forward, but in doing so is constantly removed from immersion. So often within videogame storytelling there is a story, and a game, and the two don't reflect each other well. This natural tension is well represented in the ludology and narratology debate. Are videogames but merely storytelling mediums and nothing more? Or are they at their core games first and should therefore be evaluated only as games, or primarily as games, with the story but a window dressing, an afterthought to that more primary distinction? I have already clarified my distinction of and disinterest in tackling this argument in the introduction chapter, however some of us "play" a game for the story and the story space, the exploration and discovery, while others play for the gameplay, for the skill challenge and competition, so it's worth wondering *how* story-games really are games.

An evaluation of a game in which the game-like elements are managed by the procedurality of the title rather than through action taken by the user might help us to understand how story-games function as games. Amongst contemporary videogames, story elements have become a foundation for just about every title, so now there are lots of different types of story-games available to players. It has therefore become easier to find examples of games for which it's harder to argue against the idea that story and gameplay can coexist within the same possibility space and even enhance each other. But what about games in which the player can automate much of the gameplay, therefore focusing on the storytelling? *Final Fantasy Tactics* is a tactical role-playing game developed by Square in 1997 (released in North America in 1998). *FFT* revolves around

a story of political intrigue, betrayal, and rebellion set in a sword and sorcery fantasy world, and follows Ramza and his relationship to the events and people involved in the game world's Lion War. Gameplay is split between character management, world exploration, fetch quests, and tactical battles. Like most role-playing games, *FFT*'s gameplay focuses on character development and battles, using character development to improve the player's odds of succeeding in battle, and using battles as significant choice opportunities between author-provided story elements. Player agency, however, is generally limited to the specifics of how a battle is won, and not whether it was won, as the game doesn't provide meaningful loss scenarios unless losing is the only possible outcome.

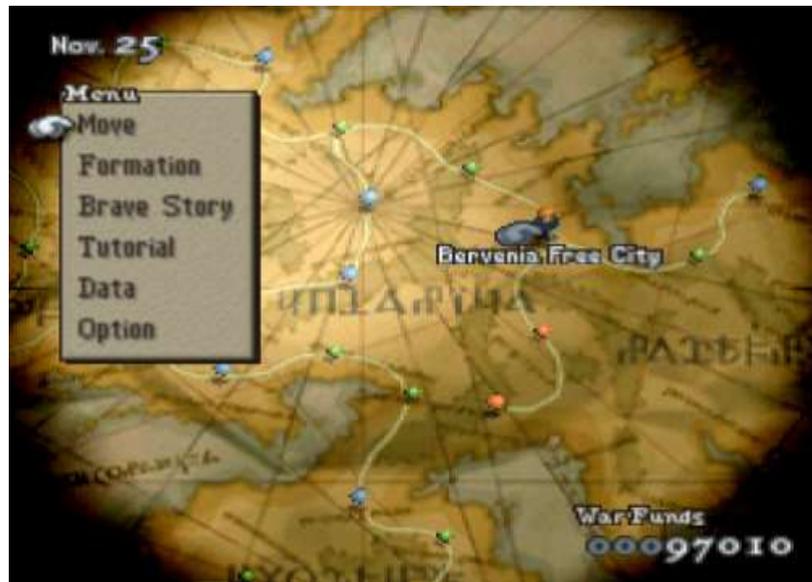


Fig. 7 the world map in *Final Fantasy Tactics* displaying the points along the rail

The only other areas of significant player agency are concentrated on optional fetch quests and world exploration, which generally add only to the player's available inventory, but in some cases may open up otherwise unavailable storylines, or hidden characters, neither of which have any noticeable impact on the overarching story. Further,

the world exploration, which is a prominent feature in many role-playing games of the 90s, is extremely limited in *FFT*—the game provides the player with a world map (see fig. 7) and set locations that may be reached, but you cannot deviate from the path set out before you, and exploration along the path is set along a literal dotted rail, with only specific points that may be more deeply explored.

In terms of sheer time spent playing the game, the turn-based tactical battles take up the bulk. The storyline presented in various cut scenes and dialogue boxes interspersed within tactical battles take up a fair chunk of the rest of the playtime, with time spent on character management (and development) and fetch quests highly dependent upon the individual player. So the central driving gameplay feature, the primary “gaming” that occurs within *FFT*, are those tactical battles. And yet, despite the game’s focus on those tactical battles, Square added in an interesting feature: Auto-battle. Auto-battle allows you to completely automate the tactical battles, leaving all of the decision-making up to the AI of the computer. That AI can be tough, but when you can wield its evaluative power, those insanely difficult battles can also be ridiculously easy. So then what is the game when you play on auto-battle? You press a button to page through the dialogue boxes, and select the AI mode for your characters. You move from dot to dot along the dotted rail, adjusting character equipment/jobs as necessary or to suit preference, or not at all—whatever seems necessary to ensure your automated characters are able to defeat the enemies so you can see the next story element—rinse, and repeat. To simplify further, you watch storylines and watch battles, then pause briefly, if necessary, to manage characters and equipment, then continue to watch battles and storyline.

So *how* is this a game and what insight does that give us toward player narratives? Johan Huizinga says play is simply “a well-defined quality of action which is different from ‘ordinary’ life” (99). It is “is superfluous,” in that you step “out of ‘real’ life into a temporary sphere of activity” (103). Certainly, my engagement with *FFT* is superfluous at best. I use *FFT* for diversion—to entertain myself. But the same can be said of movies or books. So how does a game differ from entertainment? Huizinga points to the nature of the tension produced through play that is not produced in movies or books, etc. Certainly, the drama presented in other forms of entertainment can create a sense of dramatic tension, but games produce a sense of tension that only accompanies chance; “Tension means uncertainty, chanciness: a striving to decide the issue and so end it” (105). For play, tension results from choice. That definition of play falls in line with Roger Caillois’s definition of a game. Caillois points out that choice, the ability to alter the outcome, is also a key element of what makes a game a *game*, saying, “An outcome known in advance, with no possibility of error or surprise, [...] is incompatible with the nature of play” (126) because “a basic freedom is central to play in order to stimulate distraction and fantasy” (141). However, again mirroring Huizinga, Caillois makes clear that for choice to be play, it requires knowledge that the choices you make will not impact the real world (127). So to be a game, its outcome can’t impact the real world, and must involve opportunities for choice.

This sort of definition, however, while inclusive, and certainly validates *FFT* as a game, it also seems rather laissez-faire. Indeed, games need structure as well. Huizinga noted that games have time and space requirements, dictating that play “begins, and then at a certain moment it is ‘over’” (104). Huizinga also notes that play follows “fixed rules

and in an orderly manner” (107). Similarly, Caillois says that games can fall easily into “uncontrolled fantasy” (130) and that rules are required and swiftly applied to ground gameplay into a measured and reliable structure. And *FFT* certainly has superfluous choice managed by rules. Hidden rules dictate the outcome of each and every attack, the number and frequency of random encounters, the chance of finding an item after an enemy is defeated, the rate at which skills grow, etc. Rules also dictate which spaces I may explore, and which I may not, which battles I can win and which I must lose, the type of equipment available to me at which points in the game and the character growth possible along which stages of that game. Everything I can do with *FFT* is managed by rules and sets of rules, all overlapping each other.

Bernard Suits says “games are goal-directed activities in which inefficient means are intentionally chosen” (173). He says this, initially, a bit facetiously, but points out that it’s not that every action taken within a game is inefficient, but instead that there are many ways a thing could be done. For games we take an inefficient path, defined by an established rule set, *in order to take the inefficient path*. See, Suits agrees that games require some non-serious decision-making (176, 185), but they also require what he calls a *lusory attitude*. The *lusory attitude* says, “I obey the rules just because such obedience is a necessary condition for my engaging in the activity such obedience makes possible” (181). I play videogames because I want to confine myself to its rules in order to receive the outcome, the storytelling they offer, the story I get to explore even within such restricted confines. I want to explore its world in the restrictive capacity it requires. I want to manage the characters even though my choices do not change the outcome of the story. I want to do the quests—every one of them, fetching every item— because I have

that lusory attitude. So games like *FFT* are games not just because they fit within structural definitions, but because they afford player choice within gameplay constraints that encourage the lusory attitude that makes videogame storytelling possible.

The gameplay gives the player a set of distinct rules and obligations that afford the interplay between the author narrative and the player narrative. For the narrative planes, one containing the author's narrative, one containing the player's narrative, each is constrained by the boundaries of the system, and each is connected to the other by choice opportunities provided through the gameplay elements. This becomes the



Fig. 8 the story space in videogame narratives

story space, as shown in fig. 8. The specific nature and division of the capabilities of each narrative, the player's and the author's, is further defined by the gameplay and further limited within that larger plane of possibility spaces. Fig. 9, for instance, shows one of many possible variances that may occur within either space; in this example, the author narrative allows for branching paths determined by specific choice opportunities, and the player narrative seems constrained within narrow corridors that run in tandem with the author narrative, branching similar to the author's narrative, but more open to exploration and narrative meandering along the individual branches.

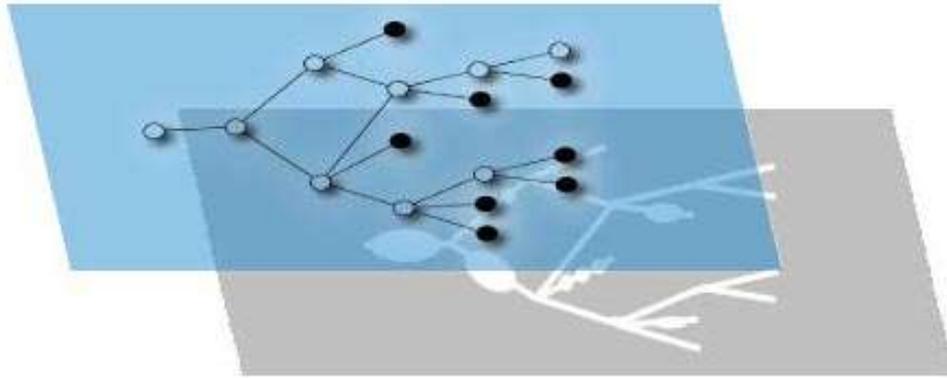


Fig. 9 example of the two separate story planes in videogame narratives

Notice, however, that the author's narrative space is extremely constrained. Recall the dotted paths in *FFT*, for instance. There is no variability. The narrative space is confined to the path, but the author narrative is even more restricted, stuck within the dots along that path. That is not to say that the story isn't in some way variable in that player choices may impact whether the path goes right or goes left; instead, it's to point out that all possibilities of that path making has already been predetermined. The player is not choosing amongst infinite possibilities but is instead choosing amongst the limited set of possibilities provided by the author. In fact, the previous example of the author's narrative space not only includes a limited set of choice opportunities, but if we look closely at the story branches (see Fig. 10) we can see that some choices may actually lead

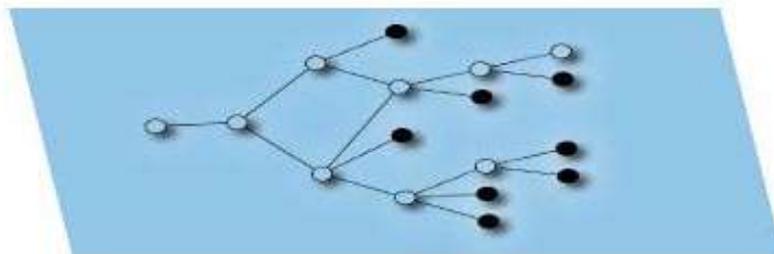


Fig. 10 example of story branching in the author's narrative plane

to the same outcome. At the very first branch you can make one of two choices, with the subsequent paths from that decision-making leading to four new choice opportunities, two from one decision, three from the other. However one of the three from the second choice opportunity leads to the second outcome from the first choice opportunity. And this is but a simple diagram. Many games feature extremely complex branching that, when teased out, are in fact brief branch expansions that quickly consolidate back to a limited set of possibilities. *Heavy Rain*, for instance, exposes its branch consolidations upon replay when the player realizes that the possibilities provided are minor variations leading to the same outcome. And *Portal 2* shows one of the possibilities represented by the black dots in the narrative branching; what seems like a choice opportunity may in fact lead to a deadend or may not lead anywhere at all because it was never a choice opportunity.

Those black dots could also represent end-points for the story—potentially undesirable outcomes, or simply one of many ways in which the story may conclude. *Castlevania: Symphony of the Night* (SotN) is a classic PlayStation 2 game that provides a wonderful example of meaningful loss states that form acceptable ending points. *SotN* features five possible end states. The first two end states, call them A and B, are technically losing states, though upon completion of the paths that lead to A and B the player isn't actually made aware that he or she has not *truly* won the game. The user only becomes aware that B, for instance, is a losing state once the user completes end state C, and only upon completion of end state D does the user discover that C was also a losing state. In both A and B, the user is allowed to kill the “final boss” but is left unaware that Dracula is the *true* final boss and that the other bosses were just pawns of some sort. End

state E, on other hand, only comes about after the game has been completed and the player enters a code before starting a new game. From here, however, what is and what is not extradiegetic becomes difficult to distinguish.

The player's narrative space (see Fig.11), however, isn't nearly as constrained as the author's narrative space. Even when the player's narrative space is confined to the basic path defined by the author narrative, and even when the possible set of fairly arbitrary choices (walking, jumping, etc.) are further constrained by the limited space, the player still has variability within the space. Further, the player narrative path, because it

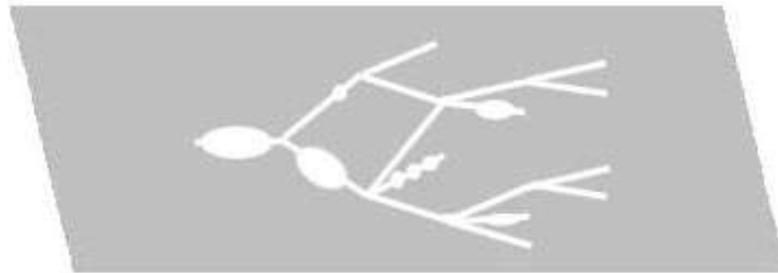


Fig. 11 example of the player narrative plane in videogame narratives

follows in tandem with the author's narrative path, always at least covers the same ground as the author's. So note that the branching in the player narrative space is the same as the branching in the author narrative space. In one sense this is representative of the player's narrative constraints; after all, the player's narrative may only take place in context of the author's narrative. However, note how within several branches the player's possibility space is different from the author's. These bubbles within the branches represent the variability afforded to the player because of the gameplay.

In context, we can see how within these player narrative bubbles, even within a highly constrained narrative, the player still has room to tell his or her own story. *Final Fantasy XIII*, for instance, while highly "linear," featuring a narrative path that isn't

nearly as branching as shown in the previous diagram, still offers the player opportunities to stretch outside the literal bounds of the author's narrative. Along many paths the player may encounter a city or a number of NPCs. Some of these encounters may be scripted to respond within the constraints of the author's narrative. Some, for instance, may offer snippets of micro narrative that, while they may not impact the author's macro narrative—they cannot change the endings, they cannot alter the entry and exit points of the branch—they can provide a little bubble room within which the player can flex a little narrative muscle. Even when there aren't optional narrative bits that validate the player narrative experience, the simple act of wandering within the branch, forestalling exiting, for any reason, including further exploration of the space, finding secret items, grinding for level gains, etc.—these rather arbitrary decisions form a part of the player narrative that definitely existed for the player but likely will not have been noticed by the author's narrative. In a general sense, one might not expect such arbitrary choices to impact the author's narrative, but when grinding or exploration lasts hours and hours while the author's narrative has suggested that timeliness is of great importance, one might expect the author's narrative to take note of your lollygagging.

Even in the very most constricted construction of the player narrative, due to the properties provided to videogame literature because of gameplay, the player still has power, albeit limited power, over his or her own personal narrative within the story space. In *Ico*, for instance, the narrative is extremely focused. There are no branching paths. The exploration space is extremely limited within the confines of a dilapidated castle and by the physical limitations of the player-character. The only literal variation in story available to the player is the various this-then-that progression of the player's

wandering within the castle and the player's completion of puzzles. The player narrative bubbles within the author's narrative path are completely restricted to the specifics of how the player completes a puzzle and whether or not the player wandered into gamespaces that offered no functional purpose, no narrative purpose, and no ulterior purpose aside from simply choosing to wander/explore. So, aside from the specifics of completing a puzzle, and whatever variability happens in attempting to follow the author's narrative path (getting lost, being confused, etc.), the only additional player narrative is available if you intentionally prolong exploration for the sake of extending the player narrative.

And in the very most open constructions, the player has considerable room to enact his or her own narrative, even to the point of ignoring the author's macro narrative. The image below represents a story space similar to that presented within games like *Grand Theft Auto III*. *GTAVIII* features sandbox style gameplay in which the player is afforded great degrees of freedom to wander and play within the space. The game provides a number of system responses, from cars to steal, to weapons with which to blast the environment, to NPCs that can be beaten up, stolen from, assisted, or even propositioned. And the vast majority of these gameplay elements hold no sway over not only the macro narrative, but the micro narrative as well. In fig. 12, in fact, only those small dots within the larger space have any sorts of distinct limitations. Consider them satellite narratives that float within the player narrative space. Should the player choose to engage in the author's narrative, the player need only connect to one of those satellites, sometimes by entering a specific building, sometimes by accepting a mission or quest, and sometimes through having completed a quest series. In doing so the player then

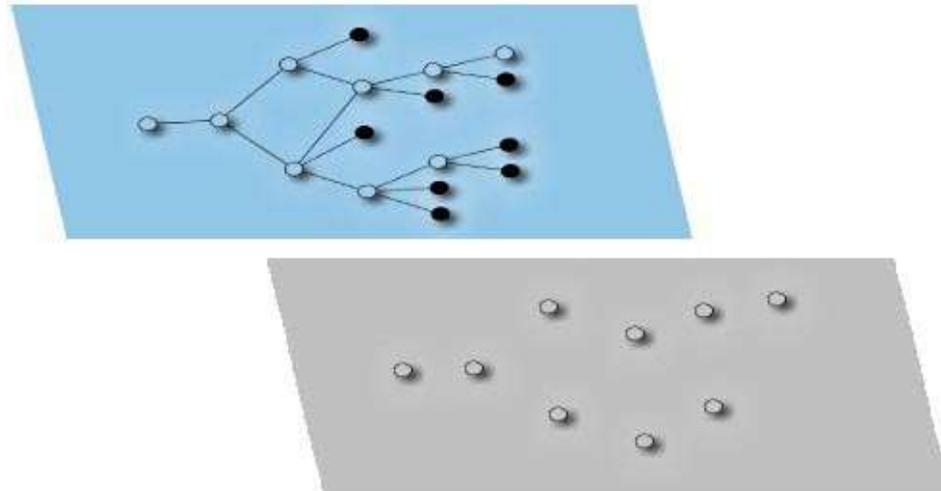


Fig. 12 example of choice opportunity points in a sandbox narrative space

engages in that author's narrative and deals with the limitations suddenly imposed on the player's narrative space until the conclusion of that narrative bit. Otherwise, the player can wreak havoc all over the shared procedural space with nary a peep (aside from police visits in the micro narrative) from the author narrative.

But it is the choice opportunities presented to the player that dictate the interplay between the player narrative space and the author narrative space. Along the branching path of the author narrative proposed in the several diagrams so far, it is those dots, those choice opportunity points, that distinguish the brief moments in which the player narrative and the author narrative directly coincide, and among the key elements that define story games as the games that they are. In those moments, the player experiences the closest thing to interactivity that he or she can expect to experience within videogame literature. During those choice opportunities the author, for a brief moment, seems to listen to the player. When those moments are at their most "interactive" the player makes a choice, a dynamic choice, one in which the player is aware of the decision, and aware that his or her decision will be in some way impactful by watching the author's narrative

respond. However, in its least interactive the player may be completely unaware that he or she has made a choice, or the system may “respond” to player input in exactly the same way regardless of the decision the player makes. The choice opportunities dictate the dynamism of the videogame narrative experience, as a whole, and inform the player of the degree to which the player is of any real relevance to the telling of the author narrative, and the degree to which the author narrative accounts for the player narrative. The author narrative can frame the player narrative as in the fig. 13, or it can be but one

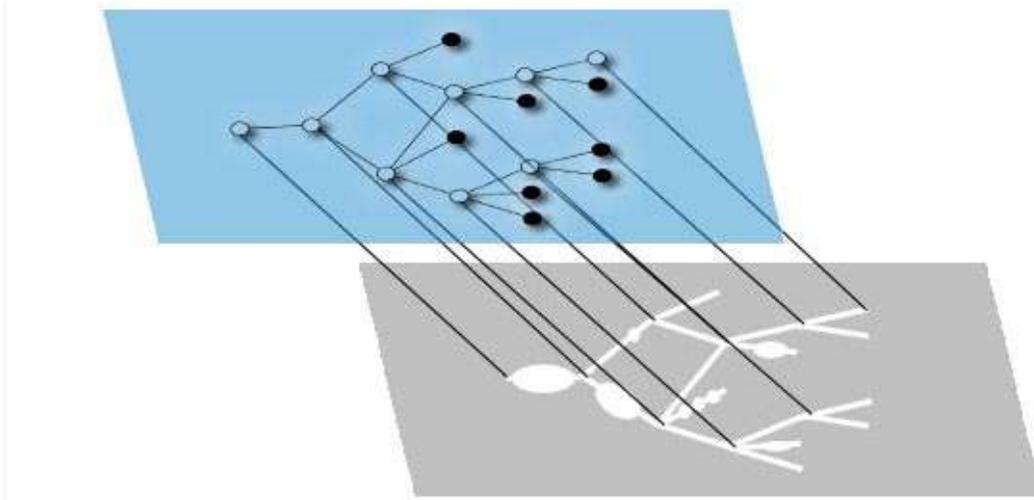


Fig. 13 example of choice driven connections between author and player narrative planes

portion of the available possibility space, something the player engages in, in order to access additional possibility space, because the player happened upon it, or because the player decides to engage with the author narrative. Either way, the various choice opportunity point connections may well be fairly disjointed in the player narrative experience (see fig. 14). He or she might go hours, days, maybe weeks between experiencing the author narrative and might therefore have completely forgotten about the progression of the overall narrative, or may be so far separated from it that there is no recognition of a coherent macro narrative at all. Regardless, for any iteration of the

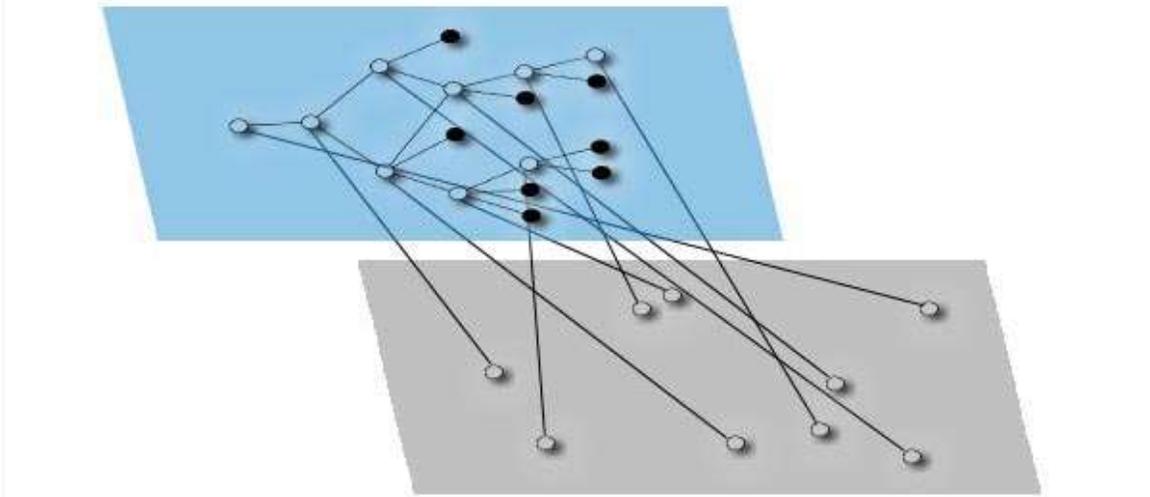


Fig. 14 example of disjointed choice connections in videogame narratives

possible story space, the author narrative is clearly defined, and the player narrative is clearly constrained, to one degree or another, and the relative interactivity of videogame narratives is clearly questionable.

Another fantastic way to really see this distinction is by breaking the procedural requirements that prevent the player from experiencing the story outside of the author's prescription. Take *Final Fantasy IV*, for instance. Add to it a *Game Genie*. Input the requisite walk-through-walls code, a max levels code, maybe some choice item codes, and enjoy for a while the freedom of playing god. Nothing can withstand you. See, you can walk through walls and therefore walk past many space-specific trigger points that start portions of the author narrative in order to get items or otherwise enter places that would not normally be available at this stage in the game. If you do this while you have a character in tow that hasn't been coded for that area, the game may well glitch. But otherwise, you can wander fairly freely (even encountering built levels that weren't included in the final game). So, for instance, I might use the code to skirt around the space in The Village of Mist in *FFIV* that triggers the razing of the village in order to see

the village before it was razed. However, oddly, the village is razed anyway; the coders never made a non-razed version because you only normally go that far into the village while it's on fire. I might further use my max levels code to take on the battle with the main character Cecil's friend turned enemy Kain in the crystal room of the kingdom of Fabul. In the author narrative, Kain beats me soundly. But I'm a god now! So we battle. And we battle. And we battle. See, Kain was never coded in that battle to die. There is no end to this version of the player narrative. Kain misses me, or hits for zero, and I simply cannot drain away all of his health. We are locked in battle forever. The game does not care that I am now god. It does not care, either, that I skipped story elements. It will still play them, once, out of order if necessary provided I go step on spaces, or if subsequent story elements wipe out the previous coding then bits of story will never have been relayed and the game won't fret at all. So even after using a tool to hack the system in order to wander outside the story space, I am nonetheless still limited, narratively, to the predefined author narrative, or my own rather crazy and disjointed hacked version. The author's narrative only "changes" its structure in terms of the order in which I receive it, and not really the order in which it was given.

There must, therefore, be some term that accounts for the seeming interactivity, or the concepts behind that agency, that doesn't get mired by the technical distinctions of interactivity that videogames cannot carry. In *Cybertext: Perspectives on Ergodic Literature*, Espen Aarseth laid out an important foundation for the distinction between the types of stories one can tell through static modes, like your average paperback novel, and the dynamic seemingly interactive storytelling found in videogame narratives. Certainly, Aarseth never privileged videogames as the true apex of such storytelling, as he devotes

much of his effort toward cataloging forms of literature that, despite having been created long, long before digital narratives, are forebears to videogame storytelling. Still, the essence of Aarseth's distinction between what he calls ergodic storytelling and any other is, as with prior definitions of interactivity, the user's ability to influence the narrative: "During the cybertextual process, the user will have effectuated a semiotic sequence, and this selective movement is a work of physical construction that the various concepts of 'reading' do not account for" (1). This, he says, is *ergodic*.

Ergodic is a term derived from Greek that means work (from *ergon*) and path (from *hodos*), and as such ergodic literature requires reader initiated path making. Aarseth says, "In ergodic literature, nontrivial effort is required to allow the reader to traverse the text" (1). What effort is nontrivial is vague, but we know some efforts don't count. Aarseth states that simple eye-scanning across the page, or flipping from page to page within the cover of the book is not enough (1-2), a distinction that is quite similar to what Murray says is required to afford agency. So it stands to reason that, as far as videogames are concerned, simple eye-scanning across the screen, or the pressing of a button to move from textbox to textbox is not enough either. Yet, nor is it enough to simply move your character across a digital space. You must be able to move with purpose, toward a goal, or with the knowledge that the story does not advance without you—but not just without you to turn the page, as it were, but without you, at the very least, to set the narrative in motion. You must have a rule set within which to constrain your actions that then defines both the work you must do and the path that may be traversed, echoing here the requirements of a game.

Whatever nontrivial effort the user takes to facilitate path making, it must also involve thoughtful consideration toward meaningful outcomes. Ergodic's distinction of nontrivial effort has an assumed qualification that Aarseth calls "extranoematic" (1). *Extranoematic*, as we previously defined, is an archaic term, but one from phenomenology. As such, Aarseth's use of *extranoematic* is a claim at intentionality that goes beyond purely mental processes, and distinctly includes a physical act of doing that coincides with thoughtful evaluation. Users of an ergodic text make distinct actions that facilitate building the narrative path and make discrete judgments in taking those actions. The player makes choices. The player makes considerations in making those choices. There may be reward evaluations that the player makes before deciding, or there may be "social" concerns involving the nature of the player's character that might inform his or her decision-making. The player may be utterly overwhelmed with choice opportunities and may therefore be unable to make a decision at all, or may have been left with no further author-narrative goal-oriented decisions and may instead seek deliberately to disengage from the author narrative for the sake of the prolonging the player narrative. Even inadvertently making decisions without considering the specifics of that decision because the player was spamming the confirmation button in order to race through the dialogue is a consequence of the player making a consideration (dialogue = boring) toward the author narrative.

Yet, when the "text" itself actually generates the narrative paths, as the procedural environments within videogames do, the use of effort as a defining characteristic does call into question whose and what sorts of efforts should be evaluated. Despite recognizing the procedural capabilities of ergodic literatures, Aarseth oddly ignores auto-

generated path making, never distinguishing procedurality as a force for effort in path making. This does not seem to be an intentional exclusion however and I believe that it is reasonable to think a fully formed definition of ergodic literature must include *all* non-trivial effort toward path-making as legitimate effort, whether generated by procedural response or extranoematic action. Further, Aarseth concedes that, used adjectivally, ergodic is capable of indicating “a situation in which a chain of events (a path, a sequence of actions, etc.) has been produced by the nontrivial efforts of one or more individuals or mechanisms” (*Cybertext* 94). In fact, in response to a blog post by Noah Wardrip-Fruin on the blog Grand Text Auto, Aarseth states:

I am completely open to use [sic] ergodic to mean auto-generated paths as well as user-generated paths, so by all means do (just don't tell anyone I said so...). The main rationale for the concept was to distinguish between texts that are unicursal *and* static, and texts that are somehow different from this.

No medium exemplifies these ergodic qualities more than the videogame; videogame literature is dependent on the extranoematic responsibilities of the user *and* the medium, ergodic qualities defined as much *because* the path may be created as by *how*.

Thus, whether or not videogame stories involve interactive storytelling, I prefer to think of them as ergodic texts rather than interactive fictions. Ergodicism doesn't require that my effort be the driving effort, only that I set things in motion, that I open the gates, or direct the traffic, that the procedural responses coordinate with a decision making process that requires some action on my part. There's an argument to be made that, narratively speaking, much effort produced by a player in videogames is trivial (an argument I made at the beginning of this chapter against videogames as interactive

fiction), but whether it's trivial or not doesn't depend on the narrative outcome, only that without that input the story cannot progress, the path cannot continue, and I had to make a considered judgment. There is nothing trivial about any action that is capable of setting the story in motion. So, if the procedural environment's use of dramatic agency convinces me that my efforts are narratively impactful, or, on second play-through, is exposed as narratively trivial, it does not change the ergodic quality of the text. Noah Wardrip-Fruin et al came to this same conclusion in *Agency Renconsidered*, calling agency "a phenomenon involving both player and game, one that occurs when the actions players desire are among those they can take (and vice versa) as supported by an underlying computational model" (1). Videogame literatures require discreet actions that, as part of any possible reading, the player must do— and in doing the player must make a choice with mind and body that involves a human-to-machine expression of agency within constraints that define the lusory attitude of the player narrative.

CHAPTER 4

DECISION MAKING AND SKILL MASTERY

We understand the importance and role of choice in defining the videogame medium, as choice is among a few distinct items that, at its core, define a videogame. We know that in a story-game I can make choices, and that those choices matter, and that I am both playing a game and experiencing a story. There is a structure, which also matters because free choice without rules is ultimately fairly meaningless. Wardrip-Fruin et al remind us that “Agency is not simply ‘free will’ or ‘being able to do anything.’ It is interacting with a system that suggests possibilities through the representation of a fictional world and the presentation of a set of materials for action” (*Agency Reconsidered*, 7). Instead, as we have shown, we need a possibility space within constraints. I could read a story very similar to those featured in videogames. I could watch a movie with a story very similar to those found in videogames. But instead, I play a videogame because I choose to restrict my experience to within a possibility space of rules and structure that both allows my storytelling but also limits it. The key here isn’t why I wouldn’t instead choose a movie or a book, but rather that what a videogame story has to offer is wholly unique from the narratives I receive through other media. And what a videogame has to offer, within those constraints, and through that agency, is the ability to make choices. So the decision making process in videogame storytelling is a powerful process of human-to-machine interaction that can be understood as both the means by which the videogame story progresses, and the process by which the player wields his or her narrative within the possibility space.

The videogame player wants to *engage* in a story. The videogame player doesn't want to be a passive observer; the videogame player wants to make choices. The videogame player wants influence. So how does a gamer go about making choices? We can certainly point to some of the more functional aspects of making a choice. If we look at some basic economic models, for instance, we have a few good arguments for why a player might choose to do this or that. However, we should try to keep it fairly high level, particularly considering, as Lawrence Blume and David Easley explain in *Rationality*, "The purpose of decision models in economics is to explain the behavior not of a single individual but of aggregates of individuals" (13). So though we can use economic models as a guide to the thinking toward some of the decision-making processes behind a player's choice, we must keep in mind that the implications are limited. But the rational choice model is a definitely a good starting point for describing player engagement.

Rational choice theory "is a theory of intentional behavior, in which beliefs and desires are meaningful constructs" (6). "The intentional view holds that rational choice theory is a commonsense" (6), that we can evaluate the world around us and make reasonable decisions based upon what we want and what we know. "In this view belief and desire are in fact mental states that are connected to action" (6) and allow a person to take discreet action toward satisfactory choice resolution. Rational choice is a concern for "the efficient pursuing of ends by available means" (6). Now, first, we are playing games, and as we've just defined, games are somewhat driven by ends through inefficient means. But remember, this does not mean that all things we do in a game are acts of end resolution obfuscation. Indeed, often one of the goals of playing a game is completing the

game itself, as inefficient as it is in doing what it does, as efficiently as possible. So, we assess what we know toward what we wish to achieve and then act.

This very formal notion of decision making makes a lot of sense in story-games in terms of the bits and pieces of character management often required. In *Mass Effect 3*, you are encouraged to make decisions with a mind for future impact. You're given a strong lead character, Shepard, to mold and many supporting characters who help define who your character might become. From here, you have choice; you can play the role of the character and do what's best for that role, or you can game the system and focus on manipulating the system to maximize simple rewards. Granted we're being reductive and assuming that the two options are mutually exclusive, but they serve to illustrate relevant point about rational choice. We'll speak to the first option later, but let's look at the second option for now.



Fig. 15 example of choice management in *Mass Effect 3*

From the first decisions you make in *Mass Effect 3*, you are cued to the game's system of managing your character's character (see fig. 15). You're given gauges for Shepard's moral development; you can make your character a literal Paragon of all that is good and moral, or you can mold a true Renegade and gain the scar-faced mug to go with it. And as you progress in the game, you begin to learn that quests and optional story bits become available depending on your moral status. Not only that, but you may also detect the not-so-subtle visual cues that tell you how to respond in order to get a Paragon or Renegade score. Further, the game also offers these interesting narrative breaks within cut scenes in which the player can interrupt the NPCs as they're speaking and berate or encourage them for additional morality points. As the game progresses, you amass quite a few points and will eventually retain a distinct moral alignment.

Often in games like *Fallout 3* or *Fable*, and the previously discussed *Ogre Battle*, just which options will result in which outcome is part of the mystery of the story. You don't get to know whether you've done good or bad, for certain, until after you make the choice. Increasingly, however, games like *Mass Effect* and *InFamous* have added in the ability to know beforehand just how best to game the system toward any specific morality alignment necessary. In *InFamous*, for instance, about halfway through the game, you're given a choice: close some water valves leaking a poisonous substance into the populace's drinking water by hand and drench yourself with the poison, but spare the people, or force an NPC to do it for you and watch as that NPC is drenched instead. Now those options are fairly obvious as to which is the "good" option and which is the "bad" option, but the developers then add in a warning about which is the bad option and how it

will negatively impact how people see you character (see fig. 16). Otherwise, however,



Fig. 16 screenshot from *inFamous* showing unambiguous decision making outcomes

InFamous follows a similar formula as other moral alignment games in providing no explicit statement, from attacking innocent people, to blowing property.

By exposing the mechanics of the moral alignment in *Mass Effect 3*, the developers open that aspect of the game to direct manipulation. So as John Hopson says in his piece *Psychology of Choice*, “The most obvious thing to do when confronted with multiple options is to pick the choice or pattern of choices that maximizes reward.” Given a basic game guide with the specifics about which interactions or what moral development is needed in order to receive X quest, or get the best item of a set of possibilities, and suddenly you can find yourself molding a fairly psychotic and narratively inconsistent nature, but you’ll very efficiently reap your rewards. And note here that we don’t have to get into the gaming of a glitch in the software in order to gain item rewards (like weapon duplication in *Castlevania: SoTN*, or *Game Genie* item codes in *FFIV*), or manipulation of the loosely coded probability of a in-game slot machines for

currency manipulation (like in *Dragon Warrior VII*). We could game the alignment system in *ME3* for no other goal than having a shining Paragon or lunatic Renegade, but in the process, either way, we make the decision not for or with consideration to what's "best" for the narrative, or what's "right" for the situation, or what's "appropriate" for the character, because instead we've turned those complex narrative ideals into irrelevant window dressing over an elaborate game of checkers.

Indeed, playing that way does seem as though it kind of ruins the narrative. Unless, of course, the narrative you wanted to see was that of the 100% Paragon, or 100% Renegade. In fact, you can even game the system with the narrative in mind. Sometimes part of the full experience of any one game is seeing all of the possible outcomes of that game, which may well explain the sensational outcry against *ME3* because of the ending. Player rage at the lack of substantial consequence to the end of the *Mass Effect* series became fodder for video game magazines, news reports, and even the *New Yorker* (Clark); after three installations filled with broadly disparate user choice opportunities, the concluding scene of the final game distilled all of those hundreds of hours of hand-wringing decision-making into a few banal options, each of which result in what is effectively the same conclusion, differentiated only by recolored visual effects. However, for some, seeing each of those colored outcomes, despite how frustratingly similar they are, is part of experiencing that videogame and doesn't ruin the narrative, but instead helps form the broader aggregate essence of *Mass Effect*.

If narrative integrity is your goal, however, you can instead make every play through stay true to your vision of the character, to the narrative cues of who the character is, or even to your own moral imperatives. I have to admit that whenever I play

a hero in a game, I have a hard time making “bad” decisions even when I’m fully aware that there is no real consequence, that the game doesn’t track it, and that I might even get a better reward for doing so. This speaks to our second option, playing a role and doing what’s best for that role. Now, whether you’re pretending to be the character(s) or whether you’re simply enacting the player narrative, in either case you’re functionally doing the same thing; you’re making decisions with the implications of others in mind rather than making decisions that maximize reward regardless of the impact on others. You need only consider what the choice says of the character’s morals, or consider how NPCs might interact with your character, or even consider what such decision says about your own character, as perspective in line within a subset of rational choice theory: game theory.

In game theory, you still seek to maximize rewards, but you also take into consideration your impact on others. Eric Rasmusen, in *Games and Information: An Introduction to Game Theory*, describes game theory as “concerned with the actions of decision makers who are conscious that their actions affect each other” (10). Game theory requires an explicit acknowledgment that when you make choices, you do not make those choices in seclusion (metaphorically); “Game theory is not useful when decision makers ignore the reactions of others or treat them as impersonal market forces” (10). Now, in a videogame, of course, the decisions you make only impact the responses of the system, but in videogame narratives those system responses are connected to narrative elements that can be evaluated in the same ways you might evaluate how your boss will respond to an insult, how your wife will respond to a kiss, or how your dog will respond to a stick. Regardless of the situation, there are things you may want in response to your actions, but

you have to account for others' possible reactions and whether getting what you want can come about through their response to your actions, and if your larger goals can accommodate any possible fallout from that action.

In *Fallout 3* you can take any number of actions toward all sorts of NPCs, but they will respond in kind. If you attack them, they will attack you. If you're kind to them, there's a good likelihood that they'll pay that back at some point (though not guaranteed!). If, for instance, you desire to take what you want in *Fallout 3*, you can, at will, steal just about anything lying around. You can also pickpocket just about anyone. However, the characters don't like it when you steal from them and they will either report you to a local authority, call the town on you (which effectively calls in the local authority), or they'll just attack you themselves. So how to go about getting what you want without angering the people? Luckily, in *Fallout 3* you can simply hide behind people and things to steal with ease, but you have to be diligent and consistent about it or the townspeople will hunt you down.

Clearly, there's a fine line here between gaming the system in a rational choice manner and gaming the system in a game theory manner. But the distinction lies in the concern or lack thereof to social consequences, i.e. seeking reward regardless of the means toward satisfying the ends, or accounting for the implications of the decisions made. And for games, that you can have a concern for social consequences in regards to systematically defined people is a product of the narrative and the agency defined with it. The narrative allows you to see the NPCs as people. It provides you with the context needed to make value judgments that go beyond the immediate satisfaction of taking an item and instead consider the future relationship with those you intend to steal from.

Even if the concern for that future relationship is primarily in regards to future rewards, it still involves accounting for social consequences in decision making. And the agency allows you to act on those considerations and see your decision impact the narrative and the characters within the narrative, allowing you to build empathy toward those procedural people.

Similarly, playing the bad guy for the sake of playing the bad guy, or playing the good guy for the sake of playing the good guy can be a product of game theory decision making. There's a difference in playing the role for the sake of completing all versions of the story and playing the role for the sake of the social response. In highly dynamic games, when you're a good guy, the people let you know. In *InFamous*, if you're a hero, the people cheer you on as you pass in the streets. They line up to take your picture. Transversely, in *Fable II*, if you do evil, the people will cower and run away at the sight of you. In *Fallout 3*, if you cross the line, you'll hear all about it on the pirate radio broadcast. In fact, it seems impossible to live it down. Once the radio announcer gets word of your bad deeds, he never stops talking about it, even if he also reports on some of your noble deeds. Your play through experience may well involve a desire to be liked or be hated by the NPCS and may therefore involve acts driven not by game completion goals, but by a desire to interact with people in a specific way.

We also draw into all of those specifics whatever cultural distinctions we carry regarding how to act, what is and is not appropriate, the value of goods and services, and myriad factors that cannot be adequately accounted for in straight statistical modeling of economic and social interaction patterns. Behavioral patterns and unrelated psychological concerns can be significant factors in decision making that completely disregard the

rationale of rational decision making. For instance, Albert Bandura points out that “efficacy expectations determine how much effort people will expend and how long they will persist in the face of obstacles and aversive experiences” (194); that is, the degree to which one believes he or she is capable of completing a task measures into whether he or she will continue to attempt a task. In fact, enjoyment plays a significant role in task completion, especially for games, things that imply *fun*. Self-efficacy can make or break whether you’re “good” at a game, or gaming in general, and color your experience and therefore your decision making: “the satisfaction of the need for competence, that is, the feeling that the personal skills match the game’s requirements, and the need for autonomy, that is, the feeling of being in control of the game, explain a significant amount of variance in game enjoyment” (Trepte and Reinecke, 556). Similarly, there are behavioral models that show that “sharp declines in the rate of reward are very punishing for players and can result in quitting” (Hopson), thus decision making can be impacted by any number of good or poor design decisions on the part of the developer that play for or against the natural inclination of the player.

It’s clear that decision making is complex and dependent upon myriad factors, and our innate decision making limitations play a crucial role in how we handle choice. The Psychologist Barry Schwartz says in *The Paradox of Choice: Why More is Less* that we manage decisions according to how we frame those decisions in the mind. Whether we have a manageable concept with which to perceive of how best to decide is limited by our psychological state. We are therefore limited by our biology, in some cases unable to make informed decisions because we’re unable to process them well enough. Judgments may be inaccurate, and, as Schwartz points out again and again, we may even fool

ourselves into believing we know what we're doing when we don't, all because we may simply be incapable of processing the information.

These limitations play a part in whether we can, or even *want* to maximize the preferred outcome from a choice scenario. Schwartz says, "For most of human history, people were not really faced with an array of choices [...]. Instead of 'Should I choose A or B or C or...' the question people asked themselves was more like 'Should I take it or leave it?'" (142). What Schwartz suggests here is that we navigate choice by reevaluating our options into manageable categories, paring them down until we can split them into binary opposition. From there we simply decide whether or not to engage; we choose to do or not do. In videogame narratives, this may happen at multiple points—any at which the ergodic qualities allow the player the freedom to act. At the introduction you might choose to wander the area to familiarize yourself with the game world or controls before having to make meaningful decisions later. Mid-game, after a particularly pertinent plot development signals that change may have happened within the game's story environment, or that upcoming plot turns may close off portions of the story space, you may abandon the author's narrative to seek out new quests; or near the finale, you may avoid progression in order to tie up loose ends, investigate what you may have missed, or simply prepare yourself for the final challenges that await. Whatever the reason, that decision boils down quite simply into whether to continue the narrative path or disengage from it.

A split binary model of choice management isn't entirely new, as it has been used by linguists to explain how we differentiate the meanings of words that describe similar things. Linguist and structural theorist Ferdinand de Saussure suggests that we use binary

oppositions when we compare meaning in language in order to navigate complex distinctions between words. As we discussed when speaking about the sign, words are, after all, arbitrary. There is nothing about the shape of the letters, the structure of those letters as they form words, or the sounds created to vocalize those words (aside from mere similarities in onomatopoeia) that distinguish the meaning of one word or another intrinsically. Words retain cultural meaning according to mutually agreed upon definitions and connotations. Thus, any one word could potentially describe any number of things. In order to clarify meaning, we then situate new words in contrast and comparison to known words in order to choose how to interpret that new word. This isn't dissimilar to how we define many other things in culture, including, as discussed in chapter 2, how define a medium. Saussure says that all values are governed by the "paradoxical principle" (845) that they are always composed of that which is dissimilar and that which is similar. It stands to reason that we would make use of such innate capabilities in order to manage other types of decisions as well, seeking analogs between what we know and what don't in order to decide how best to proceed.

Making that initial choice to disengage may boil down to a simple this-or-that decision, but managing an abundance of choice is still extremely complex. Schwartz says that millions and millions of years of humanity's survival have depended on our ability to make "simple distinctions" (142) in order to manage choice. He suggests it may simply be that "we are biologically unprepared for the number of choices we face in the modern world" (142). When we evaluate an experience, we compare it to what we hope the experience would be, what we expect it to be, similar experiences (past and present), and the experiences of others (182). We are thus flooded with dozens upon dozens of relevant

and irrelevant considerations. The more possibilities that we see, the more difficult it is to make a satisfying decision. He calls the abundance of possibilities available “bittersweet” (221) because, while we want choice, often believing that more is better, having too many choices serves only to distress us, leading to crippling indecision. “All of this choice” Schwartz says, in his TED talk, “produces paralysis rather than liberation.” This is what he calls the paradox of choice: “with so many options to choose from, people find it very difficult to choose at all.”

In sandbox style videogames, nothing is more exciting than the abundance of choice available. Sandbox games, as mentioned in chapter 3, are so called because, like the sandbox in the back yard, the play is free form (within the bounds of the sandbox, of course). The world is open and alive, populated with semi-autonomous characters that go about their daily business. You may be the center of the universe in these games, but that universe revolves, even though it revolves around you. However, the massive scale of such games can quickly become overwhelming. *Grand Theft Auto*, *InFamous*, *Assassin’s Creed*, *Red Dead Redemption*, *Skyrim*—all of these are great examples of games with the sandbox style, open world model, to one degree or another. Each presents to the player a vast, expansive space in which to explore. For some, the space is scattered into several interconnected areas, while others open a gigantic map and give you the run of the place right out of the gate. Either way, you’re free to pursue your own agenda, within whatever structure has been provided by the developer. The player has the freedom to fully explore within procedural constraints and engage in gigantic digital world, with utter joy.

But while this freedom is exciting, it can also be debilitating. Bethesda Games said of *Skyrim*, before it came out, “The game is actually too big” (Gameranx). They said

this as a positive marketing tool; however, do a simple google search on “Skyrim too big” and you get pages and pages of links to discussion boards, blogs, and user submissions to game review sites featuring complaints (and accolades) concerning the overwhelming size and scale of the game, and the impossible amount of freedom of choice. After the initial excitement of freedom wears off, you then have to actually decide just what to do. Every place you go, you pick up new quests by default. Just about any character you speak with has some connection to some quest. *Skyrim* floods your mental space with quest options in a seemingly never ending series of choices. So what will you do? What happens when, while journeying toward your choice, you encounter yet more options? Which will be more satisfying? What if you can’t find that trigger character again? What if the new quest is time sensitive? What if doing one quest causes another to disappear? And then there are all of the game theory aspects to consider, and all of the rational choice concerns. There are so many possibilities that, for some, the end result may simply be not to have the experience at all. But if choice is so capable of crippling the decision making process, how do we ever manage to make decisions at all?

This choice paradox relies on the same properties as Saussure’s paradox principle: when we evaluate choice and the value or meaning of that choice, we also evaluate what it doesn’t mean and the possible contrary outcomes that may result. As such, even in the face of overwhelming choice, choice capable of crippling decision making, we really do still ultimately break it down into binary oppositions, often defaulting toward what choices seem most relevant, most fun, most useful, etc.—whatever concern drives you most. And if those decisions lead to a new evaluation of options available, then the player breaks those new choices into manageable chunks as well. If no manageable categories

can be made, he or she always has the choice to disengage, even within the player narrative and may reengage with the author narrative or may quit the game entirely.

Game designers tend to offer choice abundance assistance in a similar manner. Gearbox president, Randy Pitchford, for instance, suggests that games should offer choice frequently, but should limit the number of options available within a choice (Vanderwall). Similarly, he says, offering novel choice helps to limit the degree to which players consider all of those pesky cultural correlatives that might mire a decision making process (Vanderwall). In order to make the paradoxical choice concerns within videogame storytelling less conflicting, more often than not we see the primary impetus of open world games directed toward a main mission, with optional or less important side missions presented along the way. In essence, the first binary opposition is then do the mission, or do the side quest. Side quests then work in a similar fashion. If, upon choosing to do a side quest, you're presented with a new side quest, you simply need choose whether or not to continue with the current side quest. It is in fact rare for such open world games to simply dump multiple side quests on the player all at once. Instead, the player needs to discover the optional quests, one by one, retaining a simple distinction between this or that. In the meantime, the user also always has the choice to disengage from the structure entirely and wander the towns, fight the monsters, explore the terrain, find secrets or side quests, or basically cause the "mission" to remain in wait until the player is ready to engage once again. This too becomes a concern of do I do the mission, or do I take a break? Do the mission or wander around? There may yet still be too much choice, and chunking choice opportunities into distinct binary options clearly doesn't

always prevent players from being overwhelmed by, at the very least, the possibilities, but it's clear that we have some ingrained psychological tools for choice management.

So we can now speak fairly confidently about the decision making processes involved in disengaging from a path. But what does such disengagement serve? Is not avoiding completion of the game contrary to the point of the game? Don't games, as part of their rule system, have some sort of goal to which the player should aspire? Aren't all the treasures and leveling designed toward that purpose? When I choose to avoid the narrative path, the path toward completion, and instead engage in alternative activities that are completely unnecessary and superfluous to my ability to complete the game, what *is* that experience? When the player abandons the author narrative entirely, what is that player narrative experience? Digital media theory defines the structural role of choice, and economics and psychology tells us how we manage that choice, but neither defines the experiential role of that choice; this is a phenomenological concern.

Here's a scenario: I'm sixty hours in and grinding away in the Omega Ruins of *Final Fantasy X*. I had circled the sphere grid, *FFX*'s skill and attribute modification system, have the ultimate weapons, and killed even the most dangerous foes with fell swings, dealing 99,999 damage every hit. There was no treasure left; I had already obsessively gathered every chest in order to obtain the 99 warp spheres, despite having no use for them. There were no bosses to beat; I had killed them in the first run through in this dungeon, and had long ago defeated all of the optional bosses. I was not working toward a serviceable purpose that had any relevance to game completion. No, I was just grinding—not even grinding for experience... not even really for pleasure; I was just grinding. I had only one thing left to do in *FFX* and that one thing would complete the

game. So why was I grinding? I'm still experiencing a story, but what story am I experiencing? What kind of story is it?

The cultural correlative of videogame decision making requires the development of new skills in order to understand storytelling in videogames. We know from evaluating the story space planes in chapter 3 that the author narrative and player narrative are connected through choice opportunities. Those choice opportunities not only require all of the relevant choice-related considerations, they also require the adept use of certain acquired skills. After all, what are we doing when we exert control over our tools if not making use of acquired skills? The phenomenologist Hubert Dreyfus's stages of skill acquisition can shed some light on that. In order to experience the world, we manipulate our bodies. When we find our biology incomplete, we create, through skillful manipulation of bodily capabilities, new tools that help us to make up for our inabilities. You may remember this from chapter 2. But in order to manipulate these new tools, however, we must acquire the skill to do so. We move in stages, from novice, to advanced beginner, to competent, then proficient, and finally expert. As novices, we are new to the skill, only just piecing together, blending through analogy, whatever relevant knowledge from other acquired skills that may help in acquiring this new skill. By expert level, we are so familiar and adept with the skill that we hardly need consider what must be done and have full control.

According to Dreyfus, this holds true for both bodily skills and intellectual skills. And as the mind *is*, biologically speaking, but a bodily concern, this seems reasonable. Dreyfus uses chess as an example for skill acquisition; considering that our medium is an aspect of gaming, his description of mastering chess is apt. The novice recognizes some

very basic aspects of the rule structure and begins to evaluate how his or her choices might impact the conclusion. As competency increases, the player begins to recognize how to compartmentalize several sets of decisions into categories of risk. By expert level, what was once an overwhelming list of possible choices and outcomes has become second nature cased-based, if-this, then-that responses rather than a process of active decision-making.

To add choice is to intentionally forestall the sense of "being" that is required to attain mastery expertise. After all, "If the player is doing as well as it's possible to do, it implies that they've mastered the game. It also means that the game has become perfectly predictable and most likely boring" (Hopson). Choice acts as an impediment to mastery but also a jolt of motivation to continue. Choice protracts the skill acquisition stages that come before expertise and encourages a slower, less certain, but more exciting development. Just as adding a new *Zelda* changes my aggregate concept of the *Zelda* essence, to a certain extent then choice instills the unfamiliarity of the novice back into the skill acquisition process. Imagine for a moment that previously discussed expert chess player. He knows every piece and every combination of moves, or if he doesn't necessarily "know" them, he certainly knows how to respond without deliberation. But if we were to add a new piece to chess, a new piece with a new set of rules, suddenly the expert is novice again. It likely would not take him long to return to expert status, but for one brief, delirious moment, the expert would feel the rush and fear of deliberation in chess once more.

The same happens within videogames. Part of what we learn in establishing that combined essence of things is an understanding of how that thing works; we develop the

skill to recognize a *Zelda* story and develop the skill of how to complete a *Zelda* story. We're not really talking about skill to tell or experience a *story* but instead the skills to navigate the choice opportunities within a videogame story. There are always things in chests in a *Zelda* story, for instance. There are always numerous challenges involving use-specific items in a *Zelda* story. And a dungeon in which you found a chest will always make use of the special items found within that chest. These are combined understandings of both the *Zelda* essence and the *Zelda* gameplay that you make use of in order to build a skillset that allows you to become the master of a *Zelda* game. And as James Madigan for *The Psychology of Videogames* says, "at their heart, games are about mastery, developing new skills, or acquiring new knowledge." For instance, you will always be the underdog in a world filled with enemies. This speaks to some larger essence of the *Zelda* story space. In response, your game skills have told you to look under every bush and every stone to greedily hoard your rupees in case you need to buy more stuff. The *Zelda* world is a fowl friendly environment. This, too, speaks to the *Zelda* story space. And your game skills inform you that you shouldn't challenge such a pro-chicken environment or risk facing the wrath of the chicken hoard. Videogames merge story and game in such a way as to allow a player to develop videogame narrative skills. But, in merging story and game, novelty becomes both a concern for gameplay skill development and narrative skill development.

See, choice is simultaneously exciting and frightening. We already know that choice can overwhelm us, but there is also excitement in novelty, particularly when the novel is encountered in something we are expertly familiar with. "How is this possible? How have I not encountered this before?" one might ask. Part of the excitement of every

new *Zelda* is the prospect of adding new *Zelda*-ness to our *Zelda* essence. And yet, there is an itch of fear in it as well. To go so immediately from expert to novice, to have to reconsider your habits, to relearn the skill, if only for a moment, can be alarming. And this fear only compounds. To throw a new choice into the mix may well be very manageable for the expert; he or she may quite quickly evaluate this new choice and adeptly acquire any new method required for mastery. But add ten choices, or twenty, or a hundred, or a thousand, and the expert begins to imagine a scenario where his or her prior expertise is of little consequence to mastering this skill. In fact, a skill with so many variables can therefore dissuade you from believing that this new thing is something you *can* master; the paradox hits and can discourage you from taking up the new experience altogether.

So experiencing choice in videogame narratives is to embrace a continuing sense of novelty. Even in revisiting a familiar game, you still embrace the possibility that, within a single narrative, new elements may yet arise, even though you've experienced the game many, many times, injecting novelty into your experience. It is as much about continuing the story as it is denying an immediate grasp at all of what that story might be, including the story told to and only by the player. The agency within ergodic literature allows your decisions to represent how you see yourself or to experiment with paths you might never take otherwise. There is risk in this sort of determination, both in what our decisions may say about who we are, and toward the integrity of the narrative. But that is what we have come to expect from videogame narratives: the freedom to choose without the burden of consequence, because we can always restart, return to the previous save, and retry making a better version. And so sometimes when we're left without substantive

options, when we've exhausted all of the choices and are left instead simply swimming in the story space, experts of grinding and treasure, experts of wandering and quest finding, experts of missions and boss battles—sometimes we just want to keep on engaging at that expert level without having to face all that choice again.

Forestalling completion at the expert level for the sake of retaining expertise is also about holding on to the player narrative. See, to engage again at expert is a challenge to your expertise. But for the chess player, he or she simply plays a new game and applies those expert skills. There is always the risk of defeat, but you have all of your skills right from the start. For the *Final Fantasy X* player, you may also restart. When you do, you still know the rules of the game, of course. And you still have all of your expert skills. But your character doesn't. The chess player doesn't restart the game with a board comprised solely of pawns. But maybe you're a chess that likes playing with a board of queens? And so, maybe sometimes, you encourage a long and meandering stalemate so that you can engage at that penultimate level, a god of the board! And so too does the *FFX* player who disengages from that last step and wanders purposelessly, grinding without reason for hours on end. I'm at my highest; my characters are as strong as they can get. And the author has finally stopped speaking. Now it's my turn to take over.

James Bishop, writing for Gamasutra, says of *FFX*, "A major theme throughout *Final Fantasy X* is the constant attention to who is the center of the story." *FFX* tells its story through the characters' telling of their stories. The narrative is at once presented to us yet distinctly owned by Tidus's narration, Yuna's emphatic claim that it's her story, too, and Jecht's videoed chronicling of his story. The player is never encouraged to view themselves as one of the characters; instead, the player is in some way involved in the

telling of the story without being physically represented within it. Tidus's recognition of his power to shape his own events despite the machinations of the unfolding world around him reflects the player experience in videogame narratives. The player narrative exists in tandem with the game's narrative "as a distinct layer on top of it" (Bishop). And Tidus reflects that player narrative experience: the story moves on, but not without me! In videogame literature, the player has control to shape his or her own narratives.

Choosing to disengage from the procedural narrative in videogame literature is thus a process of active decision making, working to avoid the system-defined narrative paths of ergodic literature in an extranoematic effort of nontriviality that serves only to advance the player's narrative, and the distinctly noematic effort of the decision-making mental processes that inform that player's personal in-game story. The player chooses by breaking it down into the simplest manageable chunks of information, negotiating the medium and the narrative goals of the story versus the desire to prolong his or her own personal experience. Sometimes it's a simple choice to do or not do; sometimes we play a game long past when the value of its rewards mattered, long past when narrative bits still hid within the system, and long past any plausible reason why we've chosen to grind and grind and grind, because sometimes we're busy experiencing our own version of events. See, that's the phenomenology of videogame storytelling: you're not just given the videogame story; it's not simply told to you, or received by you; you experience it.

CHAPTER 5

CHOICE DYNAMISM

So once again we are reminded that choice is a distinct and crucial aspect of the videogame medium; it defines the relationship between author and player and establishes the connections between them; it frames the unique relationship between videogame literature and those who experience it. Choice informs the player of his or her dramatic agency and establishes the degree to which he or she may have impact. Videogames inform the player of the dynamism of his or her actions, allowing for a functional evaluation of how best to interact with the literature, and offering the player discreet opportunities to define the boundaries between the author narrative and player narrative. To do this, videogames offer signals and cues to the player that inform of the value of the choice opportunities presented and help develop the player's skillset toward mastering a videogame narrative. In *Terms of Play: Essays on Words That Matter in Videogame Theory* I presented a theory on choice dynamics which I use there to describe choice dynamics in videogame literature. While initially presented to provide an example of how one might indeed make many seemingly trivial decisions within videogames that later prove to be quite integral, and that therefore it isn't simple to define trivial and nontrivial in extranoematic terms toward videogame literature, I have since found the theory of choice dynamics to be quite useful for evaluating videogame literature and, in particular, evaluating the functional role of choice toward the player narrative experience and will therefore revisit my choice dynamics theory in this analysis.

Choice dynamics rely fundamentally on Espen Aarseth's ergodic distinctions of literature in which the reader must both think and act in order to traverse the text. Aarseth takes a structuralist approach to evaluating user perception pertaining to dynamic user choices by coining the terms *texton* and *scripton*. *Texton* and *scripton* hearken to linguistic concepts like *langue* (language as a system of signs) versus *parole* (language as it is used), or the difference between the structure and the perception built by the structure. He describes these terms both in *Cybertext* and in his essay "Nonlinearity and Literary Theory," stating in *Cybertext*, "*Information* is here understood as a string of signs, which may (but does not have to) make sense to a given observer" (62) and therefore a *scripton* is that string of information as it appears to readers, and a *texton* is a string as it exists in a text regardless of reader interpretation (62). These are key distinctions in understanding the difference between how choice is presented to the player versus how choice may actually function within the system.

In *Nonlinearity* Aarseth says, "in a dynamic text the contents of the scriptons may change while the number of textons remain fixed (intratextonic dynamics), or the number of textons may vary as well (textonic dynamics)" (767) and a "scripton is, then, an unbroken sequence of one or more textons" (767). He identifies dynamism through units of meaning's relationships to one another and whether or not those relationships can be altered structurally, reiterating again that a static story is of strict construction; it cannot change—its textons cannot change their relationships to one another during the course of the story. The story will always deliver its information in the same way, through the same means, in the same order, without any alterability, every time the story is experienced. Even if the reader interprets the information of a static story differently, creating new

scriptons, this is in no part because of the dynamism of the story; it is simply a product of user error or an extra-textual change in user perspective. Dynamism requires a structural alteration of the reading of a text.

In a dynamic interaction, the story changes because the narrative can be structurally altered, with textons added or removed according to the dramatic agency of the reader and the significance of the interactivity defined by the procedural expressions of the medium. The order in which textons appear, for instance, can be altered, leaving the amount of textons the same, but altering the scriptons and therefore altering how the reader perceives those textons. Or textons can be added through user interactions that change the story every time the user experiences it, forming completely novel scriptons in every interaction. It's even possible for the scriptons to remain the same, in which case presumably the outcome of the story might remain the same, even if the textons change; individual events may change, but those events might not alter the path of the overarching narrative of the story, or the changes may not be noticed by the reader.

The ability to or not to add, remove, or rearrange textons in order to create new scriptons is at the heart of nonlinear, or multicursal, or multisequential storytelling. Aarseth says in *Nonlinearity*, "A nonlinear text is an object of verbal communication that is not simply one fixed sequence of letters, words, and sentences, but one in which the words or sequence of words may differ from reading to reading" (762). *Linearity*, on the other hand is "a quality of the individual reader's experience within a single [scripton] and his or her experience of following a particular path, even if that path curves back upon itself or heads in strange directions" (Landow 104). The linearity or nonlinearity of a text, therefore, is dependent upon the sequence of the path one takes. If the path of the

story is in fixed sequence, with no ability to break from it, no ability to revisit previous sections of story, or no new character perspective from which to watch the story unfold, then the path is linear. In a technical sense then, it is hard to imagine a linear videogame story, and indeed I have noted several times within this analysis the frequency at which “linear” is used as a pejorative in videogame analysis while not actually speaking to true linearity. Certainly, most videogame stories have an A to B storytelling construction, but that concerns only the course of the path, the macro narrative, and not the progression of events within that path. Even in a strictly focused path, textons from side quests and optional paths may be rearranged within the narrative in dynamic ways to allow for, at the very least, relative interactivity that breaks linearity, and in any circumstance in which the player has any range of control of any number of character or story elements allows the player to alter the literal progression of events.

Videogame stories can play a dual role therefore that allows for cohesive singular, even linear-seeming narratives yet offer optional choice opportunities that let the user form new scriptons, altering the micro narrative, even if the macro narrative seems to ignore the addition of those textons to its construction. Role-playing games, from *Final Fantasy* to *The Legend of Zelda*, usually include side quests or optional storylines outside of the main narrative. Such side quests usually provide additional character information, brief asides, comical interruptions, new powers or equipment, or in-depth explanations or speculations, but do not change how the author’s story proceeds from that point, nor the outcome of the story. So, in *Final Fantasy Tactics*, even when the player chooses to go through the optional, hidden quest to find Cloud, a character from *Final Fantasy VII*, despite having ushered a being from an alternate dimension into the *Tactics* world, there

is never any mention of him in the main narrative. Even if the user includes him in the main party, and his character model appears in the background during important scenes, there is never any mention of him outside of his quest line. Once his optional quest line is complete, the story moves on along the same path it would have if the user had never accessed that quest at all. The impact of these side quests is to break the progression of events in what might otherwise be a linear story. The story, however, is therefore effectually still quite focused despite its variability in progression. So while not every texton impacts the construction of every part of a story in a videogame, if it impacts the story's progression at all, it affects its linearity.

Even when a videogame story doesn't allow for any side quests or any additional scenes, the game may still offer choice opportunities that, while arbitrary, change the scriptons while never changing the textons. In *Papo and Yo*, you guide a young boy, Quico, through the world he has escaped into to avoid his alcoholic father. The game involves a series of puzzles that must be solved and sometimes the player must choose to do negative things in order to progress. For instance, the player must sometimes make Quico feed the monster in the game, the imaginary world's representation of Quico's alcoholic father, in order to get the monster angry, allowing it to smash through walls, which in turn allows the player to advance. Now, technically speaking these are functional tasks that complete a puzzle, like choosing to or not to put a key in the key hole. These are choices, but they are fairly arbitrary choices. Either do the task and move on or don't and remain and delay the author narrative. However, *Papo and Yo* presents these choices in narrative context that changes the frame of reference for the player. Rather than simply recognize that without making the appropriate decision, the game will

not progress, the player confronts the need to do things that seem hurtful and unpleasant. For instance, near the end of the game, the player learns that the little girl, Alejandra, who has been following Quico around was in fact hurt by Quico's father and is actually a representation of the game designer, Vander Caballero's, first love (Minority). In fact, the imagery suggests that something quite awful happened to that poor girl, as in the game she is swallowed whole by the monster. And near the end of the game, simulacra of the girl are dropped from tubes in the sky onto a platform and Quico must throw those



Fig. 17 obligatory "choice" in *Papo and Yo*

Alejandra doppelgangers to the monster in order to feed her to him, again and again (see fig. 17). And each time the simulacra lands near the monster, it awakens with life and she runs screaming. It is a difficult moment of making an arbitrary choice in order to progress the game. The player could simply choose not to participate in what seems to be a fairly despicable act, but the player is also confined at the current moment and has nowhere to wander and no possible alternatives. You must feed the monster until he is sated and asleep, then you may finally part ways with him, pushing him off the nearby edge. That you must feed her to him is symbolic of accepting the truth about the past and is a

conceptual “choice” that, even as the symbolism points out, is not really a choice at all, but instead something that simply must be done.

Indeed, videogames may also offer choices that are completely arbitrary but may still be capable of altering the story structure. In fact, a game story can be constructed in such a way as to never actually change or add any additional storylines but by virtue of the game elements alone alter the textures and therefore still impact the linearity of the story in the perception of the user. Linearity, after all, isn't dependant on how many paths are available but instead depends only on the agency available within that path. Some arbitrary choice opportunities, like those fake ones provided in *Portal 2*, as discussed in chapter 3, where the game suggests that you may take actions that in reality you really can't take, only function toward agency once; as soon as the user realizes that the choice opportunity is arbitrary, it no longer has influence over player decision making, and conceptually therefore no longer influences the story structure. On the other hand, in



Fig. 18 fake choice in *Final Fantasy VI*

JRPGs like *Fire Emblem*, *Golden Sun*, *Dragon Warrior*, *Breath of Fire*, and *Final Fantasy*, the common convention for fake choice opportunities are the abundant “yes or no” dialogue option boxes that, regardless of which choice you select, will always result in the same outcome. However, as shown in fig. 18, these choice opportunities aren’t relegated only to yes or no options but are any choice opportunities in which either option results in the same outcome, or one option does nothing and one option moves the story forward. Sometimes this functions as doing or not doing the task like in *Papo and Yo*, and sometimes selecting the option you’re not supposed to select causes the dialogue box to reappear, again and again until you make the correct choice. The choice is clearly arbitrary, but technically even if the result is the same regardless, or the question is repeated over and over, the player still makes a choice and has power to change, in some small way, the progression of events.

Altering textons in order to change scriptons is a process of path making. Whether a story is *unicursal* or *multicursal* defines the paths available to the user. A *unicursal* story has one, singular path through which a user may traverse. This is not a matter of progression of events, but in the path itself. It may be tempting to imagine a path as a line, but in videogame narratives paths are rarely so straightforward. Aarseth uses Penelope Reed Doob’s labyrinth to describe *unicursal*, saying it is a maze with “one path, winding and turning, usually toward a center” (Cybertext 6). In a *unicursal* story, there are no alternatives to the path. We have previously discussed *Limbo* and *Ico* as very good examples of this. Sure, you may be able to wander around in that maze and experience any number of things while within it. There may even be branches that lead nowhere and therefore inevitably require the user to move back, continuing to traverse

the singular path available. If that path is invariably from A to B with no option for any other end point, the story is unicursal. You may or may not be able to interact in ways that might change how your progress within the path, therefore establishing dynamism in a unicursal story, but your path is, regardless, singularly focused toward one lonely end.

Similarly, progressional variation isn't enough to establish a new path; choosing to or not to venture down dead end branches in a unicursal path does not somehow open up a new path. A new path requires new textures and scripts upon which to explore new progressions of sequence that lead toward a new path. When critics call *Portal 2*, and *Final Fantasy XIII*, or indeed any videogame, linear, what they usually mean is that it is unicursal (and even then they're usually being extraordinarily strict in their conception of the available paths). As Wheatley pointed out, in a unicursal story you are essentially always following the rail, traveling, regardless of whatever methods you take to solve the puzzles, along a singular path. You may be able to drop off the rail for a moment, but without a branching path, an offshoot from which to travel a new path, the narrative remains unicursal. Progressional variation within a path only speaks to path linearity and not the structure of the path. Remember, the author narrative space exists within a plane of story possibilities and is defined by a path within that narrative space (see fig. 19). If that path is a single line, regardless of the bubbles in which exploration may occur, regardless of whatever circling or labyrinthine construction of that singular path, the author narrative path is still unicursal.

A *Multicursal* story, however, provides the user with more than one alternate paths author narrative impacting, whether at the macro or micro level. Now while, technically speaking, most videogames have at least two end states, a success state and a

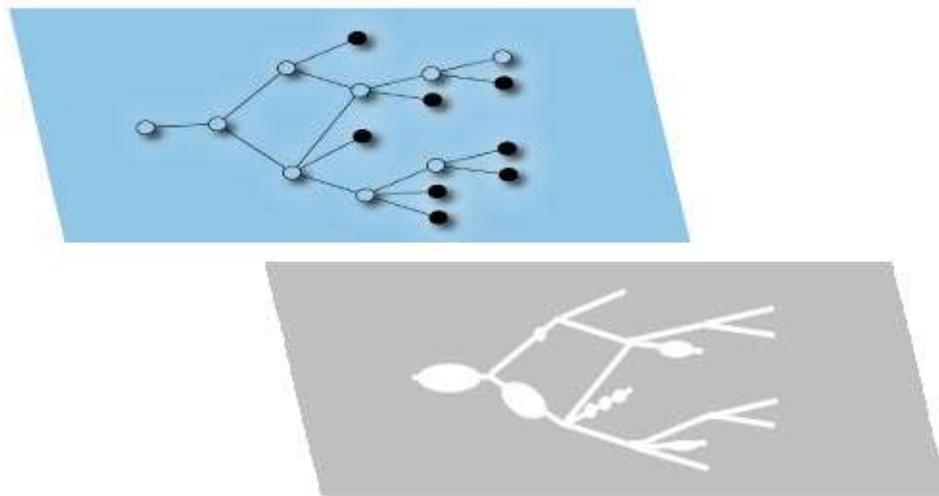


Fig. 19 example of paths in the narrative plains in videogame storytelling

failure state, the failure state is not an actual path available. Though you can lose in most videogames, if the failure state is a pause in the path, but merely an opportunity to retry events so that the path can continue, then it is not a new path. Most games from the 80s and 90s simply add a “Game Over” screen and provide you with the opportunity to “Continue.” Further, because it is extradiegetic, the game over ending is really just a nuisance. More recently games have done away with the game over screen altogether; when you die, you just simply reappear at the last save point, check point, revival point, etc. No, having the ability to lose isn’t a new path on its own. Unless the losing state imparts some further meaning to the narrative, it doesn’t change the scriptons. As well, without new textons as part of the losing state, the path is simply unfinished, more akin to closing the cover of a book, and the story is therefore unicursal regardless of whether it’s linear or nonlinear.

Similarly, the success state doesn’t necessarily involve a positive outcome, but simply signifies the completion of a path. The success of that state is that it is completed.

The end state can be a loss scenario and still be a successful completion of the path. In fact, all paths could be loss scenarios so long as the path concludes. In *Fallout 3*, there is an optional quest at Tenpenny Tower in which the user is encouraged to solve a dispute between mutated humans, called ghouls, and the rich inhabitants of Tenpenny Tower. The story line of the quest leads the user to believe that he or she, through the correct set of choices, may be able to solve the problem in a way that is amicable to all parties involved. However, regardless of which choices the player makes, one side or the other, either ghouls or humans, will be destroyed either by the player or by the other side. Player choices simply decide who dies and by what means. Even when the player chooses the option to negotiate a truce, that truce simply results in the ghouls massacring the humans while the user is away. Though many might choose intentionally to kill one side or the other, or even both, there is, in reality, no positive outcome to this quest line; no matter what, a society of people will die. To be multicursal, no matter the progression of the sequence of events, no matter the positive or negative narrative outcome, requires only that the story provide more than one traversable path, distinct from the macro or micro narrative path. The Tenpenny Tower quest provides several different paths, though albeit all with a losing outcome. And by providing more than one outcome, the story is also nonlinear, as by branching into new versions of the story with slightly different outcomes, the user finds new traversable paths and the progression of events change.

Thus ultimately, it's hard to fault the player for interpreting the linearity or course of a path incorrectly, especially against these more technical descriptions. As has been noted several times throughout this chapter, user perspective is at the heart of the complications that arise when evaluating the ergodicism of videogame narratives in broad

strokes. In evaluating videogame narratives it is necessary to first consider the micro and macro scale of the narrative, ideas mentioned many times before in this analysis. Though a given story may be, on the macro scale, a unicursal, nonlinear narrative, some confusion as to whether a story is possibly multicursal, unicursal, linear, or nonlinear might arise simply because, on the micro scale, the user is able to dynamically interact with nonstory impacting elements of the narrative. In videogame storytelling, and particularly in story-games, the common narrative construction is to have a fairly unicursal main story, with an overwhelmingly linear progression of story events, that nonetheless features multiple side stories with limited access to progression events that require key progression measures be met in order to continue along the path, or at the very least allow a number of system responses that allow the player to do things outside of the author narrative that impact the player's perspective of the progression of events. If the choice opportunities of the game never impact the narrative itself, user perspective is the only element that allows for a nonlinear understanding of events. His or her unique decision between the narrative elements come to form an individualized understanding of how story progression occurs, but that understanding may never be reflected through any dialogue, any visual sequence, or truly any persisting narrative throughout any of the rest of the game by the author and may ultimately be viewed as completely trivial to the narrative and therefore a trivial effort in and of itself.

This separation of story events might encourage a player to believe that a game is linear because those tangential narratives, resulting from optional side quests, seem not to impact the macro scale of the story. From the player's perspective, his or her micro level involvement with elements of the unicursal, nonlinear narrative may lead to claims that 1)

it is linear because he or she has only changed the progression of irrelevant events, and/or

2) it is multicursal because the path of the narrative is different based on whichever optional branches of the path the procedural elements create, even if the end state never changes. And they may have a point. If the player plots out the story according to the dialogue, cutscenes, audio files, etc. that comprise the given story, they may notice that for most videogames, the given story never changes. After all, the main story, with its A to B construction, has multiple side stories that may hold no significance to it, likely have no significance to any of the other side stories, and whether you wander those additional branches or not, A will still end at B. Is it nitpicky to call such a story nonlinear when C to D and E to F, though all available story elements which allow the user to alter the story's progression, have no impact on the progression of A to B? Further, if A to B is the game's story, and A to B is linear and therefore has no choice opportunities, what is C to D and E to F except trivial, having absolutely no importance or value to the main narrative. If C, D, E, and F had importance, would they really be completely optional? Such concerns call into question the very ability to establish an overall qualification of any videogame narrative and suggest that videogames are better suited to having individual story elements, the textons and scriptons, evaluated for such qualifications.

But it's also important to remember that the procedural agent of a videogame is an agent capable of affecting effort upon textons and scriptons within a videogame narrative. Often, particularly in a story game, the greatest influencing effort by the player is little more than a button press and a very noematic process of deciding which button to press in order to advance to the next textbox. In such cases, it is the procedural environment that does the heavy lifting. It calculates, it performs constant feedback loops, it checks

and rechecks for a change in that loop, and pulses on and off again to signal that a change is necessary in the procedural environment. Only automated, procedural mediums can impart path making effort to the medium itself. Again, all the player may have done was passively press a button on a controller. In *Superbrothers: Sword and Sworcery EP* the game takes a novel approach to allowing the procedural environment to be an agent of path making. The game has certain progression points at which nothing can be done until the moon phase of the real world is at a specific point. For instance, one section of the story is unavailable until the new moon. The game tracks the moon phases of the real world via date and time settings on the player's device and opens the next narrative path once the new moon phase has been reached (see fig. 20). Until then, no amount of in-game player decision making will progress the story. Outside of manually changing the

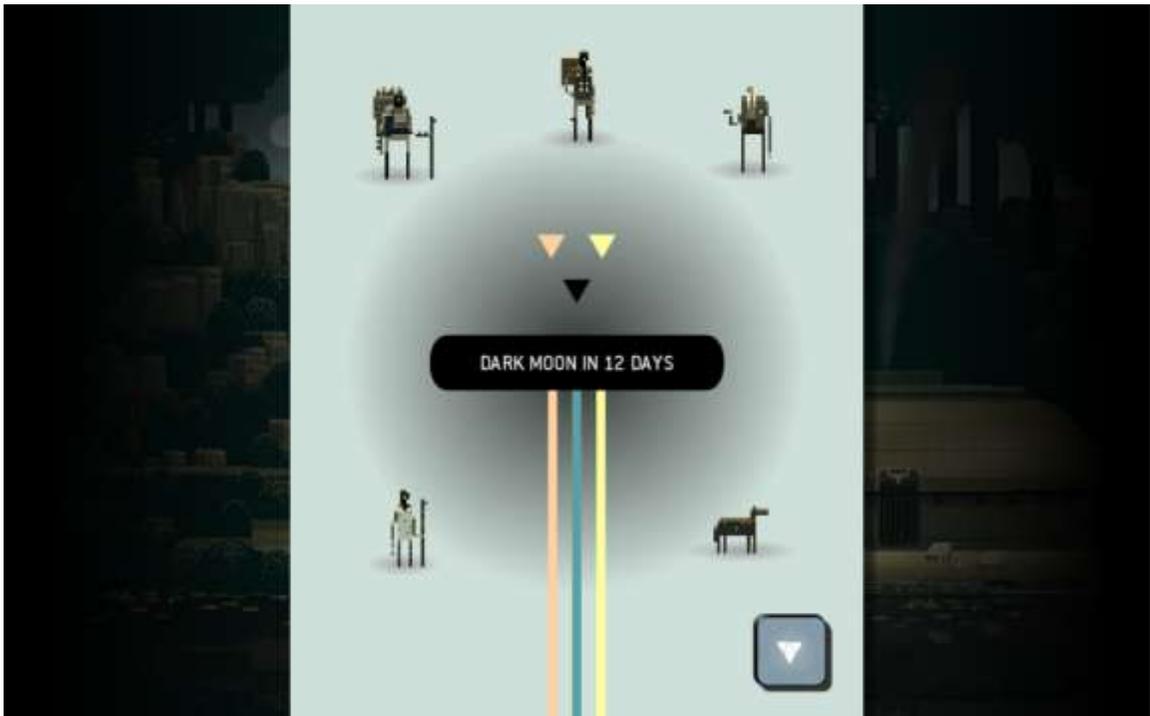


Fig. 20 the procedural environment defining the path in *Superbrothers*

device's time and date settings, the player must wait until the procedural environment allows access. As suggested in chapter 3, the procedural nature of the videogame narrative is just as much an agent of nontrivial effort upon the progression along the videogame narrative path as any player. Without the player, the game would perform its feedback loop without advancing along the path to its end, and without the procedural environment that game would be little more than an overpriced piece of plastic (or vaporware, as the case may be).

Thus we have an image of some of the dynamism of videogame choice opportunities in which path making occurs both through procedural response on the part of the system, and extraneous effort on the part of the user. The degree to which either plays more of a role in that path making defines some of the narrative cues that inform the player of choice dynamism and therefore the skillset that players learn. The many paths of a narrative are dependent upon the explicit and implicit cues of the narrative or procedural environment. Explicit and implicit elements of storytelling within a videogame are perhaps the most important aspects to consider when evaluating the user perspective of videogame storytelling. Is a story meaningfully dynamic if it is merely *implied* that the user has affected a change upon the story? The more implicit the cues are, the more difficult it is to define whether you're truly experiencing a new path through a losing event, or a new progression through a winning event. As mentioned earlier, subsequent play-throughs might change the player's perspective as to the value of his or her prior decision making, but in terms of the first stroll down the path, he or she may feel very satisfied with the ergodicism of the storytelling, and may therefore come away convinced that the story was dynamic even if it wasn't. The implicit and explicit

cues of a narrative or procedural environment impact player understanding of textons and therefore impact scriptons, the static or dynamic nature of the storytelling, the paths a player might take, and whether or not that path is limited to a linear progression.

Choice dynamics rely on the aforementioned (chapter 3) suggestion by Aarseth that ergodic be redefined within an adjectival reconstruction that can account for both player extranoematic decision making and procedural response. This adjectival reconstruction is predicated upon separating two states of ergodicism. The first state is *explicit*. *Explicit ergodic* events are explicit actions or chains of events produced by the efforts of one or more individuals or mechanisms that act as agents for narrative path making; these are chains of events in which it is clearly apparent to the player that path making has occurred. The second state is *implicit*. *Implicit ergodic* events are implicit actions or chains of events produced by the efforts of one or more individuals or mechanisms, which act as agents for narrative path making; these are chains of events in which it is not clearly apparent to the user that path making has occurred. These ergodic states account for both the player and the system and acknowledge that while the player may not be fully aware of the dynamism of a choice, the system's responses are not ignored and are not irrelevant.

Each ergodic state comes with three distinctions: *dynamic*, *relative*, and *arbitrary*. *Dynamic ergodic* events are actions or chains of events produced by the efforts of one or more individuals or mechanisms that have significant effects upon the textons or scriptons of a narrative. *Dynamic ergodic* events impact the macro narrative and therefore have the ability to change the macro scale of the author narrative, altering the progressional structure of both the author narrative and the player narrative. *Relative*

ergodics are actions or chains of events produced by the efforts of one or more individuals or mechanisms that have limited effect upon the textons or scriptons of a narrative such that the impact is only capable of affecting change in minor events within a scripton, changing the author narrative at the micro scale but not the macro scale, while also altering the player narrative. Finally, *arbitrary ergodic* events are chains of events produced by the efforts of one of more individuals or mechanisms that have no effect upon textons of the author narrative on the macro or micro scale, but can impact the scriptons of the narrative according to the player's perspective, but serve only to imply dynamism and to alter the progressional structure of the player narrative.

Used in this way, these adjectival definitions of ergodic allow an observer to point out a specific event within the videogame narrative and identify its role in path making within that videogame. For instance, an explicitly dynamic ergodic event is an event within a videogame in which it is clearly evident that your choice affects the storyline (whether as part of a side story or main story) in such a way that it is possible for your decision to change the path of the story, impacting the macro scale of the author narrative. The previously mentioned examples from *InFamous* and *Mass Effect 3* in chapter 4 are very good examples of games with explicit dynamic choice opportunities; the game informs you directly that by making this decision, you will impact future events within the narrative. *Braid* presents a very interesting twist on explicit dynamic ergodic events. In *Braid* you don't know that what you've done is dynamic until after you've done it, but as part of the experiencing the story you learn the significance of your actions. At the final puzzle stage, the game requires the player to run through a small gauntlet attempting to chase a bad guy who has abducted a beautiful princess. Once you

complete the stage, however, you learn that you instead set in motion the reverse showing of how you, and not the knight who seemed to have scared the princess, are the villain kidnapping the princess. The game takes the player's actions, every explicit step, and replays it in reverse showing your character chasing the princess rather than saving her. It's an allegory for the damage we can cause when seeking to prevent damage from happening, but is a very unique example of how choice dynamics may be expressed to the player.

Implicit dynamic ergodic events change the world and the author story without even telling the player. Recall the *Ogre Battle 64* or *Castlevania: Symphony of the Night* examples from chapter 3. In both, it is possible to take explicit actions that change the author narrative path without being aware that you've done so. In *Ogre Battle*, if you make boy scout decisions at every step, you'll miss the author narrative paths that lead to the main character, Magnus, becoming a tyrant. In *Castlevania: SoTN*, if you happened to come across Maria, an NPC in the game, while wandering the castle during your first play through, then you'll get the item from her that allows you to see the "truth" and opens the author narrative paths, preventing you from seeing the ending of the first path, completely unaware that you've missed anything.

Some dynamic events are small and seemingly irrelevant, and may come across as relative ergodic events, and yet because they are a required portion of the author narrative, they are nonetheless dynamic. In *Final Fantasy VI*, the leader of a resistance movement asks your character, after loading the question with guilt and pathos, whether she would be willing to join the resistance. The player can choose yes or no. If the player chooses yes, the leader gives the character an item, and the mood grows optimistic until

suddenly a soldier comes in wounded from the battlefield, and then the story advances from there. If the player chooses no, on the other hand, the leader will look disappointed, and the game will require the player to choose again. Initially this seems like another classic JRPG you-chose-the-wrong-choice decision. Indeed, choose yes, and it will move forward like before, but choose no, and the leader says something slightly different this time and looks disappointed once again. On the third round, if the player chooses yes, the story once again moves forward as in the first instance, but if the player chooses no that third time, the character walks dramatically into the base, makes a speech about not knowing what to do, and then the soldier comes in wounded from the battlefield and the story progresses just as it would have if the player had chosen yes, except the item received changes and is given from a soldier instead of the leader. Without replaying the event to see each interaction, the player would likely believe his or her decision was quite important, given the state of events at that moment. Instead, however, the event was brief and relative only to that small conversation, but because that small conversation was part of the macro narrative and required for game progression, the event was dynamic.

Similarly, for implicit relative ergodic events, the user might choose to talk to one person over another in a side quest, or skip talking to a specific towns person altogether, and therein miss an opportunity for some other quest; whichever the case, the user is not explicitly made aware of the impact of his or her decision, yet ultimately the decision was limited to the micro scale of events: that quest may have been missed, which has a relative impact on the storytelling of this play through, but has no impact on the macro narrative that leads to completion of the author's narrative path and is therefore an implicit relative ergodic event. In *The Legend of Zelda: Majora's Mask* the procedural

environment runs the storytelling automatically, whether you're there to experience it or not. Events happen, like clockwork, in a 3 day cycle. All events happen at the same time, every day, unless the user alters one or more events along the path of that larger event's progression. For instance, at Romani Ranch, on the evening of the first of the 3 day cycles, aliens come to abduct cows. If they succeed at abducting said cows, they will then proceed to abduct Romani herself, leaving Cremia, her sister, saddened for the remaining 2 days of the cycle. However, if on the first day, Link, the user's protagonist, prevents the aliens from abducting the cows, then Romani will also be spared and subsequent opportunities come available from her and her sister. If you did not come onto the ranch and see the alien abduction, but instead first met Romani on the second or third day, you'll meet a strange character with no memories, but will be given no explicit information as to why she is this way nor what you could do to prevent it. If you never ventured to the Romani Ranch on the first evening, you will simply never be aware of the alien invasion and subsequently never be able to receive the rewards available from Romani for having saved her. The cues after the first day are all given implicitly and require direct and specific action by the user to discover that he or she may impact events related to those cues. But those events, whether impacted or not, will not alter the macro narrative as they are not required portions of the author narrative in order to complete the game.

However, some relative ergodic events are so explicit that they suggest a much, much greater significance to player's actions than is actually required in order to experience the author narrative. James Hawkins writing for *Unraveling Yarns*, a game narrative evaluation group from Joystick Division, a now defunct videogame evaluation

website, says, “*Bastion* and *Limbo* occupy opposite ends of the narrative spectrum in video games.” He claims that while both games have given primacy to the narrative, prioritizing the narrative integrity over gaming elements, they are, nonetheless, “polar opposites in practice, [...] each typify the unlimited capability of storytelling at this point in the interactive medium's history.” Now, *Limbo* has been evaluated a couple of times in this analysis and is a highly mimetic unicursal story in which the player can make a few relative choices concerning seeking hidden achievement awards (that go a long way to breaking the visual aesthetic of the game), and arbitrary choices in terms of solving specific puzzles and the time spent wandering along the single path. *Limbo* does not provide any alternative paths and thus does not give the player the ability impact the author narrative.

Bastion, however, is not the polar opposite it appears. *Bastion*, does feature a very diegetic Ron Perlman-esque voiceover narration by Logan Cunningham that “provides a persistent narrative” (Hawkins). This narrative encourages the player to believe that every action he or she takes is relevant to both author and player. *Bastion* seems in some ways a response to the criticism that games don't pay attention to our grinding sessions and our small decisions. *Bastion* pays attention to everything. The moment you first move the character, the narrator adds, “He gets up.” Find a weapon and the narrator tells you about it. See an enemy and the narrator warns you about it. Choose a direction and the narrator opines as to your reasoning. Route the enemy quickly, or labor through them, barely surviving; travel through a level with minimal exploration, or expose each nook and cranny; choose to save the antagonist or dispatch him; in *Bastion* it seems that every action you take warrants exposition. Even when you fall from the edge, the narrator tells

you about your death followed quickly with “Just foolin’”, as falling does not bring about a consequential death in *Bastion*. And yet *Bastion* wields this novel technique deftly; while the narrator does indeed comment on just about everything, he does so only once. Each piece of the narration is a triggered event, based upon the completion of whatever actions or series of actions that then reward the player with narration. These narrative bits are like prizes in a bag that the player might be rewarded with so long as the conditions are met, but are unique and individualized prizes that the player may only receive once. Further, but most importantly, they are in large part optional. You have to trigger specific events to get the outcome, but most of these events are not required (though quite likely without trying) in order to advance the author narrative. Theoretically, there are only two real alternative macro narrative paths the player can take, and they become available only right near the end. Everything else, despite the false sense of significance, are relative only to the micro narrative.

Arbitrary ergodic events are the tricky ones. Whether or not they’re arbitrary often requires multiple play-throughs and keen observation. The simplest arbitrary ergodics to identify are explicit, and tend to (but don’t always) strongly imply that your decision matters; in fact their purpose within the narrative seems to be specifically to convince the user that a non-impactful decision is impactful. The JRPG convention of irrelevant yes or no questions is a prime example. These questions seem important as they often imply something of the moral character of the user. Sometimes it’s whether you like something, or saw something, or know about something, etc. On other occasions, like when the game is teaching the user how to fight or how to play a mini game, the user is explicitly told that his or her actions will have no impact on the story. Though the user

may get pounded by a foe in a battle that teaches about techniques, once the battle is over the user will find the health bar full because there was never any danger of stumbling across a losing path. It's also worth noting here the distinction between fake choice opportunities and arbitrary ergodic events. Fake choice opportunities result in arbitrary outcomes even though they might preclude a macro narrative event because they aren't real choices. Instead they are narrative devices that imply choice for the sake of impacting the player narrative. In fake choice, you can't even choose "no," you either do or don't do, with not doing meaning that you don't continue the author narrative. While this is still a choice in that the player must act, not doing is solely a player narrative decision while doing is a required portion of the author narrative.

However sometimes arbitrary ergodic events may be included in important scenes in which, if the user chooses anything except the "correct" choice, the game requires the user to repeat the events again and again until the correct decisions are made. We've discussed this happening in repeated dialogue boxes in JRPGs, but it also happens in western games that seek to maintain tight control over the narrative. In *L.A. Noire* interrogations are a key component of the game. Within these interrogations the user may select from multiple choices in order to best interrogate the suspect. Yet often only one of those possible interrogation questions will advance the chain of events. All of the other possibilities are arbitrary and serve only to make the user feel as though he or she has agency. In *Assassin's Creed* the player is allowed great freedom to wander within the virtual space, this time a virtual space within a virtual space. In *Assassin's Creed*, the player controls a character that enters into the memories of his ancestors who happen to be ancient assassins. The player has the freedom the fudge reality a bit, however there are

limitations. If the player begins killing innocent people, the game will reset the player's progress to the last checkpoint and make you try again. The game gives you the ability to do things that it doesn't want you to do, further warning you not to do them, and then resets the game if you do. All of these are examples of explicit ergodic events with arbitrary outcomes because the system resets unless the player chooses the one correct choice.

Implicit arbitrary ergodic events, on the other hand, are often so difficult to identify that in many ways they may simply be figments of the user's imagination. In *BioShock* the user is surrounded by people who have gone crazy by injecting themselves with the same substances the user is encouraged to inject the protagonist with. This substance alters your DNA to allow you to gain electric hands, or fire blasting capabilities, or any number of superpowers that allow you to more easily defeat enemies and are in certain cases required of you in order to progress along the path. However, implicitly the user is encouraged to view these genetic alterations as a double-edged sword that may eventually come to strike you back. This may lead the user to believe that he or she needs to use the genetic enhancements sparingly for fear of becoming a mutated abomination. No such reaction ever occurs. You can inject yourself forever and never turn into a weird creature, and never had any reason, outside of limited supply of injectable substance, to conserve usage of the injections. The story certainly encourages the user to believe that he or she should be careful, but does so implicitly, not explicitly, and making that choice would be arbitrary as the impact of choosing to or not to inject relates only to how well-prepared you are to handle your enemies. Arbitrary events at best only ever send the user on paths that contain no author narrative, and may even seem

momentous to the user, like a 40 hour grind in the hardest dungeon of a game, but have no impact whatsoever on the narrative path. In fact when the user is finished with an arbitrary ergodic event, the story will continue as though it had been on pause through the duration of that event.

However, implicit arbitrary events can also be those wonderful bits of dynamic details that add nothing to any portion of the author narrative but speak something to the vividness of the story space and help bring characters to life. Let Mario stay put for a little while. Put your controller down and let Link stand for a bit. Given enough time, they will suddenly break out of your control. Mario might fall asleep, apparently drowsy while waiting for you. Link will start tapping dirt off his boots and straightening his tunic. These are distinctly 4th wall breaking extradiegetic events. They bear no impact on the author narrative in either the macro or micro scale whatsoever. Move the controller mid-animation and often there won't be an appropriate transition animation between the character's "impromptu" movements and your imposed control. But they endear the player to the character. They make the character have character. They allow the player see the character and player as distinctly separate entities, and draw a line between the gamespace and the player space. And they are examples of the system enacting an arbitrary event. Similarly, ever time the player wanders within a space with drawing out author narrative, the player enacting only player narrative, these two are implicit arbitrary ergodic events. You're choosing because you're being told you have a choice to make, you choosing by default to wander.

Any ergodic event, no matter how arbitrary, is significant to the player's perception of the story and therefore impacts the player narrative. That may involve

initially linear or nonlinear stories, or unicursal or multicursal paths, but by virtue of providing a number of choices at multiple intervals that impact the significance of the experience of the user, and therefore the scriptons of the story, they are nonetheless ergodic. Often, these chains of events are little more than opportunities for the procedural environment to decide between responses available within a continuous loop. Yet such a decision is what advances the user along the path, and all he or she may have done was press A on a controller. In the meantime the programming churned away, evaluating the paths it could open for you, and dynamically choosing, based on your seemingly insignificant involvement, to send you to path B instead of C, despite the fact that B, C, and D will all eventually lead you to E. Choice dynamics help define the player narrative in videogame storytelling within a medium that is so overtly multimodal, including most distinctly that, outside of whatever form the stories may take, they are also games!

Videogame stories are open and dynamic if for no other reason than that they change the player narrative upon every play through, and housing within them an active agent that persistently, tirelessly helps the user develop the story and the paths available through every decision made.

CONCLUSION

Videogame literature requires player input. The player plays some role in the telling of the videogame narrative. That role can have broad degrees of agency, or that role can have decidedly minimal agency, leveraging instead dramatic elements to convince the player that he or she has more agency than is truly afforded. In either case, the voice of the player cannot be ignored. The author may rule the course of the macro narrative, but the player narrative is inseparable from it. And in order to evaluate the player narrative, one must be able to account for how the player is able to interact with the author narrative. Interactions occur within distinct choice opportunities provided through procedural response within videogame literature. Whether those choice opportunities lead to macro narrative changes, micro narrative changes, or player narrative changes impacts how players perceive the narrative. Awareness of those choice dynamics allows for a more complete understanding of the videogame narrative, the degree to which the player's narrative takes precedence, and the pathing making opportunities afforded within the author narrative.

More work in player narratives is needed as they are undervalued aspects of videogame literature. My work here in this analysis has served only to identify how the videogame medium facilitates the player narrative, how agency provides the choice opportunities that make the player narrative possible, and only some of how we as players navigate those choice opportunities. There is much opportunity for work in player narratives concerning the player narrative experience and its impact on narratives and storytelling. Particularly, massively multiplayer online games are ripe for player narrative evaluation. Players live out pseudo lives in MMOGs, balancing the development of a

character and their own sense being within these digital world spaces with the reality that those world spaces have an author created history, with sporadic author narrative sprinkled throughout the world. However, unlike other story-games, the MMOG has a much greater emphasis on activities afforded to the player narrative that are largely ignored by the author narrative. The author narrative in the MMOG is extremely limited and relegated to the periphery of the overall narrative experience in an MMOG. Undoubtedly, players likely don't even see themselves as participating in the telling of a story in an MMOG, and this seems an interesting perspective to evaluate. Further, the player leverages so much more of his or her decision making in an MMOG off of the impacts of his or her decisions on other players, that it no doubt adds complex webs of game theory concepts that must impact the player narrative in ways I have not anticipated in this analysis.

Going forward, I plan to continue developing my theory on choice dynamism in videogame literature toward continued player narrative analysis. The dynamics I have so far identified have not been meant to stand as the only degree of dynamism that occur in choice opportunities within videogame literature, and I presume that there are nuances even to those I have identified that may need a more thorough evaluation. Further, my videogame literary evaluations have been quite limited to commercially successful, big budget studio games and I have doubtless not done enough literary evaluation of lesser known games, or art games, or untraditional narrative formats that can be found within videogame literature. But I believe I have a strong foundation with which to move forward, and with choice dynamism I have some of the tools that seem necessary to continue with that work.

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