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The 25-hour Moment

How *Pathologic 2* Facilitates Presentness and Constructs Its Ludonarrative

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Abstract

This thesis investigates how interactivity, one of digital games' most prominent and productive aspects, can be leveraged to produce particular experiences within games. I demonstrate how *Pathologic 2* is designed to leverage interactivity in order to immerse the player within its fiction and world, primarily by the player's own continuous interaction with the game system as represented in the game's fictional world. This interactivity, made meaningful through its systemic context, is shown to also be crucial in the construction of the game's ludonarrative, during which the player engages in continuous embodied thinking. This ludonarrative is made legible through the game's consistent representation and allows for interpretation and a deeper analysis of the game's fiction as well as the embodied player's role within it. The concept of "difficulty," a prominent device in games, is also accounted for and discussed. This "difficulty," encompassing both the game system as stress-inducing and the fictional world's as informationally ambiguous, motivates player action and is key in the further facilitation of immersion and, especially, the facilitation and nuancing of the player's embodied thinking. The cohesive and uncompromising design of *Pathologic 2* becomes a complex system of mutual reinforcement, with the player's actions, guided by the game's design, as its primary and ever-present driving force.

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Introduction

The relatively recent emergence of digital games as a medium, and the beginning stages of their acceptance as an artform, have prompted questions about the “purpose” of these games. How do games create meaning? Is it sufficient to apply previously developed theoretical frameworks from fields like literary studies in order to understand them, or should they be considered as wholly separate from established mediums, necessitating new tools and techniques for analysis? While digital games are easily construed, and not incorrectly, as a continuation of the games and forms of play that have existed in every society throughout human history, they must simultaneously be understood as cultural artifacts. They contain, to some degree or another, representational properties. They can bear meaning and invite interpretation. They are also consciously operated, demanding some degree of active participation beyond the interpretation of textual signs. This relationship between the pre-existing game and the player as catalyst is ubiquitous, as all games, in a sense, are incomplete when not operated by an outside participant. Clement Greenberg spoke of finding the unique qualities in each medium, observing that while working towards such a goal “[i]t quickly emerged that the unique and proper area of competence of each art coincided with all that was unique in the nature of its medium” (5). If we assert that games’ most “unique” property is interactivity, to put a more descriptive and recognizable name on it, what does this say about games’ “area of competence”?

Given that interactivity encompasses a vast array of potential game/player relationships, and the interactions possible in any given context can produce such different experiences, my demonstration of the potential of interactivity must demonstrate a particular way in which games may leverage interactivity to construct, in cooperation with the player, a particular experience. If, as John Dewey argues, all art is experiential, this is doubly true for games. Digital games facilitate “*an* experience” rather than the general experience of daily life (Dewey 37), and this is a possible way of identifying an implicit goal of interactivity in games. The experience, while it may have an easily identifiable “content,” is formed in the first instance by the particular form of the game itself, by its design. The game as an experience is designed in much the same way in which a novel is written, the chief difference being that games are indirectly created rather than directly authored, and require player input in order to be observable, or experienced, as anything more than the lines of code which make up the game in a literal and narrow sense.

This thesis is not written from a particular theoretical perspective, attempting instead to maintain a holistic view of games while simultaneously privileging those aspects of games that stand out when compared with works of “traditional media,” primarily interactivity. More specifically, this thesis concerns the possible avenues offered by this aspect and especially its ability to facilitate the experience of playing the particular game. While games are always to some degree a *Gesamtkunstwerk* consisting of any number of discernible aspects, the interactive nature of games, while not necessarily unique to them, is immediately recognizable as a key differentiator between games and other media. One might say games offer the possibility of more intimate participation, but it’s equally correct to say that they *require* a greater degree of participation. The great deal of investment and attention required to engage with games are what drive the discussions of the true nature of authorship within games, as evidenced by the popularity of reader-response theories within the discourse. Games, like novels, can be representational, but games will always require direct participation, and as such the discussion around narrative in games must be approached with this in mind. Games carry the potential of constructing different kinds of narrative from those present in other media, narratives driven by the interaction itself. How the interactive potential of games is leveraged and contextualized through other aspects of a particular game is what constructs, in cooperation with the player, the experience particular to that game.

Games are neither novel nor film and treating them as such will inevitably lead to disappointment. Blind reliance on well-established theories within other fields threatens to transform games into something they are not through a privileging of traditional perspectives, and any application of any such theory must be done with care so as not to smother the “medium” of digital games in its infancy. Located somewhere in-between Espen Aarseth’s resistance to scholarly imperialism and Ian Bogost’s fears of academic apartheid,¹ I write from a holistic view of games and game narrative, although focusing most intently on interactivity as a central driving force first and foremost. Even as I prefer to focus most strongly on games as systems and interactivity over interpretation of pre-rendered cutscenes or in-game text, I do not identify as a “ludologist,”² although I maintain that protecting

¹ See Aarseth (13-17) and Bogost (*How to Talk about Videogames*, 181-188) for discussions surrounding the application of previously established theories from other field in analyzing games, the former arguing against scholarly “imperialism” and the latter against the “Balkanization” of games as a hobby and field of study.

² The “ludology vs. narratology debate” is a conflict between ludologists and narratologist which may or may not be ongoing and may or may not have ever begun. Jesper Juul ascertained that “this discussion tended to alternate between being a superficial battle of words and an earnest exploration of meaningful issues” (H-R 15). The points of contention vary wildly depending on who one consults, but generally the “debate” concerns the question of whether games are “narrative” in nature and whether game studies should focus on the ludic or the

games' status as something recognizably different if not unique from the novel or film is pertinent if we are to better understand the "medium" of digital games. I concern myself chiefly with game design, which, while the role of author and designer can otherwise be used interchangeably, distinguishes itself by inserting an extra degree of separation between the originator of the work and the "finished" product. The game *as played* is not the game *as designed*. As Katie Salen & Eric Zimmerman continually remind us in *Rules of Play*, "[g]ame designers create experience, but only indirectly" (168). The actual experience is created during play, when the player interacts with the game system.

The underlying system of rules, the game system, and a sense of agency in the player's ability to interact with it, serves as the basis for immersion in this thesis. Immersion, along with its avatar-centric counterpart embodiment, are manifestations of a player's sense of alignment with the game system and player character's cognition respectively. Constructed through continuous interaction, the sense of being present within the fictional moment of the game facilitated by the player's immersion and embodiment both, serve as the basis for a complex type of game narrative that combines both the "gameplay" and "story" of a game.

Ludonarrative, a construct consisting of the narrative as created during play and the narrative as created through the game's narrative framework of fictional representation and scripted plot, operates to further the goal of making the imbuing the ludic experience of play with meaning, becomes our general model for a "game narrative."

Pathologic 2 (Ice-Pick Lodge), my object of analysis, is a narrative experience conveying the experience of embodying a specific character in a particular fictional moment in its fictional world. Through its oppressively strict and interconnected systems that still allow for remarkable player agency, it immerses the player within a coherent fictional world in which the player must choose to act in the manner perceived as most efficient in order to maximize whatever resources or advantages they possess. The game presents its systems through a consistent and coherent layer of fiction, and effectively provides the means and motivation for the player to engage with the game's systems and world. *Pathologic 2*'s fiction is not the focus of this thesis. Rather, I will demonstrate how *Pathologic 2* constructs a ludonarrative by leveraging the player's sense of immersion and embodied thinking to demonstrate experientially what it's like to embody a character within its fictional world. I aim to show

fictional aspects of games. Ryan questions whether the "debate" stems from two clashing perceptions of the term "narrative," as most ludologists accept games' ability to project a fictional world and most narratologists do in fact realize games are in fact different from novels or films (200). See Murray (177-178) and Eskelinen for the origin of the "debate". See Frasca for an early theorization of the ludologist perspective.

“*how it is what it is . . . rather than to show what it means,*” (Sontag 14) because the construction of the ludonarrative during play is more interesting than any one interpretation of it. I will not show how the game *should be* interpreted, but rather how the game becomes *interpretable* through the narrative constructed through play. *Pathologic 2* is uncompromisingly focused on this ludonarrative construction, particularly the player’s role as “coauthor.” The narrative framework informs the design of the game, which in turn informs the narrative, and the two “halves” are continually reinforcing one another as the game becomes a whole consisting of all its connected parts. The feeling of being present within the game’s fictional moment, achieved through fictional and ludic immersion as well as a design which facilitates states of continuous immersion and embodied thinking, is *Pathologic 2*’s most significant achievement.³ Using and adapting theory from the field of game studies I will demonstrate how *Pathologic 2* facilitates a sense of immersion within its fictional moment and leverages this to construct, in cooperation with the player’s embodied self, a legible ludonarrative which further facilitates the player’s presentness and allows for the exploration of the game’s fictional moment and the embodied player’s role within it.⁴

Pathologic 2’s focused and deliberate design, in which any given aspect of the game is inextricably linked to its other aspects, must be deconstructed and every identified aspect dealt with in isolation in order to accomplish such a demonstration. I have divided this thesis into three main sections. Each individual section consists of two parts: one theoretical and one analytical. The first section, “Play,” concerns the act of playing the game. In the theoretical subsection, I discuss and narrow my definition of “digital game,” before exploring the act of play as something rule-defined and separated from the everyday. Following this, I define and discuss important aspects of the game as a system, before moving on to discussing how the player interacts within this system. Finally, immersion is introduced and discussed. In the analytical subsection I identify *Pathologic 2* as a “deep game,” before exploring how it uses core elements of the survival genre to allow for emergent game states and how the player is made able to adapt and overcome the challenges presented by these various states. Through this interaction between game system and the player as agent, I conclude, is how the game first and foremost facilitates immersion. The second section concerns narrative. Its

³ My usage of “fictional” in relation to “ludic” is explained in the second theoretical section. Essentially, a game’s fictional aspects are those that are representational and meaningful with relation to the fictional world of the game, as opposed to the purely ludic aspects which relate to the game system and the player’s interaction with it.

⁴ “Presentness” or “being present within the fictional moment” are occasionally used in this thesis, a shorthand which refers to, simultaneously, the player’s sense of immersion and the player’s thinking as embodied.

theoretical subsection clarifies how the game system becomes representational as part of a game's fictional world, before problematizing game narratives and how they become interpretable. Finally, the key concepts ludonarrative, emergent narrative, and embodiment are introduced and discussed. The analytical subsection explores *Pathologic 2*'s narrative as a holistic ludonarrative, consisting of a fictional layer of meaning as well as a half-emergent narrative which frames and procedurally represents aspects of its fiction systemically. This subsection also explores the player as an embodied coauthor, performing their "role" through the player character. The third section concerns "difficulty" as a ludic and narrative device, introducing the discussion surrounding accessibility and difficulty as a device in the theoretical subsection. In the analytical subsection *Pathologic 2*'s stress-inducing design is elaborated upon and its various effects upon the experience of playing the game are discussed. After these three main sections and before the conclusion comes a small section in which I contextualize all these aspects within the game as a whole and use *Pathologic 2* to reexamine some of the lines of inquiry introduced earlier in the thesis. Alongside my analysis I refer to video footage of the game to better cite aspects of the game for which screenshots, which I use in the thesis itself as well as on its front page, are not sufficient.⁵

Play

The game system, agency, and immersion

When much energy is spent on showing that P is a perfectly deserving type of Q, the more fundamental question of what P is will often be neglected.

- Espen Aarseth, *Cybertext* 16

In this thesis I use the phrase "digital games" or simply "games" to refer to the rather diverse "medium" of what's more commonly referred to as "video games" or "computer games." The unintended, at least on my part, implication in these phrases is that the primary typological distinction should be drawn between *digital* games and *non-digital* games. As suggested by the continued popularity within game studies of pre-digital scholars like Johan Huizinga, however, this distinction is not necessarily as meaningful as one might think. While digital games certainly are distinct from something like a board game in that the rules are automated by the system of the game rather than the social system of its players, the more important

⁵ The full playthrough I use as reference, which I've recorded myself, can be found here: <https://www.youtube.com/playlist?list=PL91EYBoHGmQ2VEnfAho9XEIdpk3uPrvr6>.

distinction for our purposes isn't between the digital and non-digital, but between different kinds of games irrespective of their status as one or the other.

Espen Aarseth expressed in a conversation with *Norsk medietidsskrift* how he “does not see ‘computer games’ as a useful or well-defined scientific category. It is more productive and precise to either [talk about] *games* in general, or [talk about] more definable types of games” (“Jeg ser ikke ‘dataspill’ som en nyttig eller klar vitenskapelig kategori. Det er mer produktivt og presist å gå enten opp i granularitet, til *spill* generelt, eller ned, til mer definerbare former for spill”; my trans.; Aarseth and Mortensen). Aarseth goes on to point out how varied the landscape of the arbitrarily differentiated category of “digital games” is, noting how games with wildly different goals and structures are considered part of the same medium “just because they use a digital piece” (“bare fordi de benytter en digital brikke”; my trans.; Aarseth and Mortensen).

Chess played on a computer is different from chess on a board yet is still recognizably chess. On the other hand, chess, hockey, and tag are distinct despite all being “analog” games: one is a competition between two players, one is a team-based competitive game, and one is an asymmetrical free-for-all in which players play one of two roles which are continuously reassigned upon satisfying certain criteria. With digital games, we can immediately see a game like *Counter Strike: Global Offensive* (Valve and Hidden Path Entertainment), a team-based competitive first-person shooter with a large esports scene, as distinct from *Max Payne* (Remedy Entertainment), a single-player third-person shooter with a simultaneous focus on linear narrative told through cutscenes. The former is most closely likened to other team-based competitive sports, both analog or digital, while the latter has a clear narrative ambition. We can take this even further and use examples like *Heavy Rain* (Quantic Dream), which can be accurately described as a computer-generated “interactive experience” with divergent story paths decided activated based on player choice and performance. Beyond this lie the real grey areas of the nebulous category of “digital games” like the visual novel, a novel with accompanying sound and visuals in which the interactivity comes in pressing a button to continue reading.

The category “digital games,” then, has subsumed both the novel and film and occasionally regurgitates each in a still recognizable but slightly altered form, and additionally encompasses a wide variety of competitive sports, cooperative games, and more. Our interest lies primarily in what Aarseth refers to as “*diegetic games in virtual environments*, that is,

games which occur in a simulated physical space or world where (pseudo-/)conscious beings perform meaningful actions” (“*diegetiske spill i virtuelle omgivelser*, altså spill som foregår i et simulert fysisk rom eller verden, hvor (kvasi-/)bevisste vesener utfører meningsfulle handlinger”; my trans.; Aarseth and Mortensen). These are, to be a bit more clear and certainly more reductive, what most likely comes to mind when one hears the phrase “digital games”: games which take place in a coherent world in which characters and world have a layer of representational meaning. This excludes games which are entirely abstract like *Tetris*. Multiplayer games like *CS: GO*, while certainly meaningfully interactive, may not be narratively legible, as we will see in our discussion of ludonarrative and emergent narrative. Overly novelistic or filmic “games” like *Heavy Rain* have only token interactivity and are thus incapable of leveraging interactivity in order to facilitate immersion to the degree in which our concept of “games” must be capable. Our concept of “game,” then, is a narrative experience within a coherent fictional world that involves a significant amount of player participation. The types of games we are primarily interested in are undeniably representational “narrative experiences” in which there is room for meaningful interactivity during play. Rather, they create both the experience itself as well as the narrative *through* play.

What is play, then? In anthropologist Johan Huizinga’s *Homo Ludens*, an investigation into the role of play within culture, this general definition of is presented: “[P]lay is a voluntary activity or occupation executed within certain fixed limits of time and place, according to rules freely accepted but absolutely binding, having its aim in itself and accompanied by a feeling of tension, joy and the consciousness that it is ‘different’ from ‘ordinary life’” (28). In this brief excerpt we can identify two elements central to all forms of play, applicable to everything from tag to chess to *Wolfenstein 3D* to the Olympics. The first is the idea of an arena of play separate from everyday life, defined by limitations in time and space, with its own rules and characteristics. This is an arena of play, being anything from a tennis court to a stage to a magic circle, “all in form and function play-grounds . . . within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart” (Huizinga 10). This phenomenon has since Huizinga come to be referred to as simply “the magic circle” and remains useful for considering the location of the “playgrounds” as situated within, but separate from, the everyday. The magic circle is an arena which players willingly step into in order to initiate play. Once inside, the rules of everyday life are replaced by those of the game such that participants are no longer work

colleagues, friends, or family members, but rather players. All players implicitly agree to play by the game's rules, lest they be labelled spoilsports (Huizinga 10-11). In digital games, the rules are enforced by the game itself, as the range of allowed player actions is determined by the system of rules that constitute the game, the social contracts replaced by the code that makes up the game. The reality of the game *is* the rules, and the game exists entirely within the magic circle. This being the case, we can think of the player's sense of immersion within a game "environment" as an immersion within the magic circle.

The second universal feature identifiable in the excerpt, and one which is vital for our purposes, is the rules themselves. Without rules, there can be no game. With respect to digital games, the rules are prepackaged, and are, in a more literal sense than with analog games, what make the game what it is. The player's interactions with the game system and fictional world of the game, as well as the system and world themselves, are determined by the rules of the game, by the code. Rules make up the foundation of all games, and, with digital games, are automatically upheld by the impossibility, rather than the impropriety, of performing certain actions. Not all rules are explicitly communicated to the player, and we can consider the absence of a rule to be a rule in itself: when considering the abilities of the player within a fictional world, the ability to jump would be a rule, but so would the inability to jump. As Ian Bogost reminds us, "[g]ames are built out of constraints, and play arises from limitations" (*Play Anything* 138), and the shaping of the fictional world as well as the player's capacity for interaction through the rules is what transforms the interactivity of a game into something more than interactivity for its own sake. The deliberate interactivity of a game is wholly distinct from the necessary interactivity of operating objects, like adjusting the settings on a TV. Stepping into the magic circle implies a voluntary participation with, or even co-creation of, the game itself as a distinct object of aesthetic and experiential value. Bogost asserts that "games and play offer . . . an invitation to do *only* what the system allows, for no reason other than the fact it was designed that way" (*Play Anything* 138), and this is the invitation implicitly accepted by the player upon entering the magic circle. Rules in games can be arbitrary with respect to the world outside the game, the cultural context, but these rules will, in a well-designed game, form a coherent game system with which the player can interface.

As Jesper Juul points out, "games provide context for actions: moving an avatar is much more meaningful in a game environment than in an empty space" (*Half-Real* 18). This concerns most obviously the semiotic. Using the board game RISK as an example, moving around pieces on a board is contextualized as a competition between a number of players, and

that competition is further represented as a race for world conquest. In more formal terms, a consistent system of rules and the presence of clear goals, though not necessarily explicit narrative ones, will turn mere interactivity into a designed play experience. The avatar by itself is not conducive to constructing an experience or facilitating immersion any more than a stick is, but this changes when the stick becomes representational of a sword in a playfighting context, and the act of waving the stick around gains meaning with rules enforcing its limitations of use and goals informing the participant of why and how to navigate the combat scenario. The stick becomes meaningful in both a fictional sense and a ludic sense through its representation and through its coherence within the system of rules, respectively.

The system of rules pertains to the allowed and prohibited player actions as well as the rules governing the game world and the characters inhabiting it. It also pertains to the consequences of actions performed, the goals of the player and player character, and the ultimate consequence of “winning” the game, or whatever outcome the culmination of a player’s actions within the game may be. Furthermore, the rules of the game “add *meaning* and *enable actions* by setting up *differences* between potential moves and events” (Juul, *Half-Real* 19). The various possible choices the player can choose from in any particular interaction with any aspect of the game’s world must all have meaningfully different effects and approaches, i.e., the effects of choosing to avoid or engage an enemy in a game. Controlling a character within an empty space is meaningless because whatever actions are permitted, their performance has no effect on the player’s situation within the game system nor the fictional world itself. It should also be stated explicitly that, as play arises from limitations, it is not the player’s freedom within a system that is important in facilitating immersion or constructing a ludonarrative. Games allow for interactions, yes, but are still designed to provide a particular experience, only this experience lies dormant in the game system until the game is played. As Bogost asserts, “[t]he 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, *Persuasive Games* 46). Player actions are thus capable of bearing meaning, despite being ostensibly external factors, if the designers of the game consciously design the game account for these actions. The game system must encourage these relevant interactions, or simply disallow any irrelevant ones, if the goal is to simulate something in particular. This is of course not the goal of all games, not even those belonging to the nebulous category of “narrative experiences,” but it’s important

to avoid confusing freedom with agency lest every game will simply be evaluated based on how much stuff the player can do and how many different interactions are possible.

Systems in games and the understanding of games as systems in themselves seems intuitive and immediately understandable. After all, if games must be *designed* to be interactable through player inputs, like the press of a button, then games have to frame these inputs in a consistent and coherent manner. If there is no relationship between the individual objects of the game, or between the player's avatar and these objects, the game would be rendered incoherent. While I will not apply any concrete systems theory in my analysis, I will highlight Salen and Zimmerman's application of the notion of embeddedness in systems, in which the game may be framed as one of several systems which itself is embedded within other systems (52), to allow for a more complete view of the game system's organization. The "game system" as I have hitherto used the phrase refers first and foremost to the game's formal elements, and the organization of these. This game system potentially contains any number of systems which may organize its individual elements in any conceivable manner, but every element of every system will always be part of and relevant to the game system as a whole. In a game with a coherent fictional world, the non-player characters may be construed as elements with their own attributes populating the environment of the game world. Another system within the same game may be related to the rules of combat, which determine the range of allowed actions and consequences of these, among other things. Both these systems would be distinguishable and different in form and purpose, the first being typically simulatory and representational in nature, and the latter being more explicitly ludic, but both systems will almost unavoidable be significant in both a fictional and a ludic sense. This systemic view of the game allows for a closer inspection of the game as an indirectly designed and non-linear, rather than directly authored and linear, experience, particularly suited for our project in which the player's role as agent within the game is a focal point.

Games which easily lend themselves to such a systemic framing are likely to be what Juul describes as *games of emergence* (*Half-Real* 67). While *games of progression* are more akin to "traditional" media in that they present the player with a linear series of challenges with set solutions, as is the case with classic adventure games, games of emergence are structured as "a small number of rules that combine and yield a large game tree, that is, a large number of game variations that the players deal with by designing strategies (Juul, *Half-Real* 67-72). Juul describes emergence itself as "a higher-level pattern that is the result of interaction between many lower-level entities" (Juul, *Half-Real* 78). These two structures are two

extremes on a spectrum, and many games will naturally exist somewhere in the middle (Juul, *Half-Real* 71-72). The prototypical game of progression can be framed as inherently linear in the same way a novel is, and the limits of allowed actions for progression is somewhat akin to reading a linear text. Adventure games in which only a single accepted solution can progress the game are in essence content dispensers in which a largely recognizably structured narrative is presented piecemeal upon fulfillment of the required inputs. This would be a rather reductive evaluation of any game, but in the abstract helps inform our understanding of such structure in relation to traditional media and their structures. Emergent structures seem more immediately promising with regards to realizing the latent potential of games as narrative and facilitators of experience. Juul acknowledges the commonly loose usage of the term (*Half-Real* 76), although this is not a terminological quandary this thesis aims to resolve. What's most immediately relevant to our purposes is situating designs that facilitate emergence in relation to the already familiar structure of traditional media. Salen and Zimmerman, based on the work of computer scientist John Holland, describe how an emergent game "is more than the sum of its parts. . . . In an emergent system we might know all of the initial rules, but we cannot describe all of the ways that the rules will play out when they are set into motion" (159). As Juul phrases it, emergence (*Half-Real* 80-81).

The concept of emergence serves to highlight how, based on a game's system of rules, the experience of playing the game is shifted from a linear and directly designed one to an indirectly designed experience requiring more intimate knowledge and participation from the player. The variation of possible game states, i.e. all the possible configurations of elements within the game system and their attributes, is what Juul terms *emergence as variability* (*Half-Real* 80). This variability of possible game states means that the player has to develop, choose, and modify different strategies to overcome the challenges presented within the game at a given moment. This "variability," while some may think of it primarily as a way of ensuring that playing the game feels engaging for longer through a lack of repetition as to the exact configuration of the current game state, is crucial in that it requires the player to use their knowledge of the game system and fictional world to navigate the current game state. It ensures that no two players will have the same exact experience, and avoids play based on trial and error. This is not to say that interactions within the system produce a state of chaos, but rather that the careful and deliberate design of such a system create experiences that are recognizably similar and may have the same representational "content" but distinct with regards to the exact state of the system's objects.

The designed rule system creates and upholds the magic circle, the arena in which play occurs, and determines not only the environment of the system and the behavior of its objects, but also determines the ways in which players can interact with the game system. The player's interaction with the system happens through *mechanics*, Salen and Zimmerman identifying *core mechanics* as player interaction which "represent the essential moment-to-moment activity of players" (389). Mechanics generally are "methods for agency within the game world, actions the player can take within the space of possibility created by the rules," and these mechanics are typically verbs (Sicart) i.e. run, jump, shoot, harvest organs etc. Mechanics must fit into a coherent design.

Going back to our notion of meaningful interactivity as found within a well-designed game vs. the interactivity of the DVD main menu, we can see how mechanics must fit within the game system in such a way as to provide not maximum freedom but a greater sense of *agency*. This is the term Murray invokes as a foil to the sometimes vague usage of "interactivity," asserting that "[a]lthough gamemakers sometimes mistakenly focus on the number of interactions per minute, this number is a poor indicator of the pleasure of agency afforded by a game. . . . Agency . . . goes beyond both participation and activity" (161-162). Agency, as I use the term, is not "measurable" by the degree in which the player the player is able to induce changes in the fictional world of the game or even "wholly determine the course of the game" (Murray 162). Referring back to Bogost's assertion that "play arises from limitations" and our discussion around the meaning of player interactions within the context of the game, agency should also be considered in the context of the particular game. As Murray writes, "We may be satisfied with stories in which luck is against us if they make sense within the imaginative world," (254) and this goes for our agency as well. This is not to say that a lower *degree* of agency should be acceptable, but rather how that agency is *contextualized* within the fiction. The player may have a great degree of agency without being able to easily cause massive changes in the game's world, for instance by "simulating" accurately the agency we can reasonably associate with a player character that is somehow disempowered within the game's fictional context.

Janet Murray sees interactivity and *immersion* as reinforcing one another: "[w]hen we are immersed in a consistent environment we are motivated to initiate actions that lead to the feeling of agency, which in turn deepens our sense of immersion" (114). Immersion is a fairly intuitive term in that its meaning is immediately discernable: from the metaphor of being immersed in water (Murray 124), immersion is the feeling of being present within the fiction

of the game. While this is not in any way a concept unique to digital games, as Huizinga discussed this phenomenon in the context of child's play,⁶ it was popularized within a game studies context by Murray. The idea of the mutually reinforcing relationship between interactivity and immersion establishes the foundation for immersion as I will use the term. While the notion of immersion is intuitive, it remains rather abstract with respect to its causes and effects and is naturally difficult to empirically identify. We can however make the reasonable assumption that games are particularly capable of facilitating immersion as they typically require a higher degree of participation and investment.

A fair amount of criticism has been directed at the enthusiasm surrounding the concept, however. Some particularly harsh ones come from Salen and Zimmerman, who temper expectations by referring to what they call "the immersive fallacy," in which they point out the short-sightedness of putting immersion on a pedestal and seeing it not only as the ultimate goal of media experience, but as being so powerful as to be able to displace our reality and make "the player truly [believe] that he or she is part of an imaginary world" (450-451). Whether or not it is or will ever be possible for a fictional world to displace an individual's sense of self absolutely, this is not what immersion entails or should entail. I share Salen and Zimmerman's skepticism regarding the ability of any work to transport and keep the player in its world so absolutely, and I also take issue with Murray's hypothetical sequence of events. Although perhaps indicative of Murray's wider scope of interest which effectively includes any and all interactive digital environment, her sequence of events places too great an emphasis on the "consistent environment" and the participant as "motivated". This is perfectly fine for a digital role-playing chat room or any kind of multiform, choose-your-own-adventure-style game in which the player simply chooses to act based on their own curiosity, but is too simplistic for the kinds of single-player narrative-focused digital games we are primarily interested in. The relationships between interactivity, agency, immersion, and the "consistent environment" come across, perhaps, as a bit too neat in their chronology. The sheer variety of designs in various digital games and other digital interactive experiences which, through their nature as interactive, contain a base potential for the facilitation of immersion, are too numerous to conclude that immersion only occurs through a particular set of circumstances or in the exact fashion Murray lays out.

⁶ "The child is quite literally 'beside himself' with delight, transported beyond himself to such an extent that he almost believes he actually is such and such a thing, without, however, wholly losing consciousness of 'ordinary reality'" (Huizinga 14).

Murray's position and my own are not incompatible, but are rather differences in prioritization, as I focus on ludonarrative rather than *narrative in games* or *games as narrative*. I do not view immersion as something that must be protected from the "disruptions" that come with participatory environments, herein games (Murray 129), as though immersion is synonymous with a suspension of disbelief. The player's sense of immersion should be viewed as primarily constructed as a result of their interaction with the underlying game system, even when a fictional layer of representation is undivorceable from the system itself. Immersion, the way I will apply the term, entails engaging the player through their interaction with the game system and, to the extent it may be present, the fictional layer of representation overlying it. Are "coherent world games," games in which the player can imagine the fictional world beyond what is explicitly represented within the game itself (Juul, *Half-Real* 132), the only games capable of immersion? I see no reason to make this assumption. I view immersion as facilitated with the player's interaction with the game system, or rather its representation within the game, than the player's engagement with the representations as fiction. Rather than the player entering a Zen-like state upon subconsciously observing that the fictional world of the game is consistent or verisimilar, as some are wont to imagine as crucial to the process of becoming immersed, I theorize immersion as facilitated first and foremost through a player's engagement with a game's ludic elements, i.e. rules, mechanics, and the game system generally. A game's fictional elements must work in cohesion with the ludic elements, which is the case with *Pathologic 2*, as we shall see in our discussion of the game's ludonarrative, to assist in this facilitation, but this assistance is not assumed to be a criterium in and of itself. Immersion arises, first and foremost, from play itself.

Pathologic 2's disempowered agency

The combination of the traditional form of computer games and a new problematic content creates an entirely new art form which will take its place next to the theatre, the cinema, literature, music, painting, and architecture. . . .

The deep game calls for complete immersion, concentration, and attention.

The depth of these games, like many brilliant films, books, and plays, will have multiple levels, which will make the games enjoyable to great masses of gamers. We create games that will appeal to many different eyes. We suddenly

change our focus. We deliberately refuse to create a comfortable environment for the gamer. The addressee is not the consumer. He is the coauthor.

- Ice-Pick Lodge, “Manifesto 2001”

A somewhat more dramatic and colorful description than the usual genre identifiers, the idea of the “deep game” provides a model for considering *Pathologic 2*. Despite the fact that it was likely not written with this game in mind specifically, as the post predates the release of the game by quite a few years even if we don’t take its suggested year of composition at face value, the game is the development studio’s best attempt at realizing this ambition.

Throughout this thesis we will see how the “deep game calls for complete immersion, concentration, and attention,” (Ice-Pick Lodge) or rather, how it requires complete concentration and attention and subsequently facilitates immersion through this continuous player engagement. Before moving on to the game system and the player’s interaction with it, we will first identify how *Pathologic 2* immediately distinguishes itself within the gaming landscape, followed by its place within the “survival” genre of games, after which the core premise of the game is introduced.

Pathologic 2 is a rare breed from the offset: a game that is both “gamey” and “artsy,” both dependent on and demanding player participation in order to function as intended while unquestionably fitting within the “art game” box. In discussing games’ quest for mainstream acceptance and recognition as “art,” the idea that games must grow out of their adolescence to become “serious” is sometimes put forth or even extrapolated into the even more short-sighted idea that games which are mechanically complex or fun are not conducive to fulfilling artistic or narrative ambitions.⁷ Someone putting forth such an argument is likely to present games which are *more art*, games like *Gone Home* (The Fullbright Company), games which eschew mechanical complexity and other “gamey” elements that go beyond a degree of interactivity which can only be perceived as token, because they would very much rather be novels or films than games, as somehow “progressing the medium.” Eschewing interactivity for the sake of basing a game around the mostly-passive consumption of what are essentially *System Shock 2* (Looking Glass Studios and Irrational Games) audio logs is to my mind anything but progressive.⁸ On the other end of the spectrum are games like *God Hand*, games which are infinitely complex and engaging on multiple levels, but lack explicit

⁷ The idea of games’ “adolescent stage” isn’t exclusively invoked by think pieces on the internet. See, for instance, Murray (111).

⁸ For additional criticism of *Gone Home*, see Bogost (*How to Talk about Videogames*, 172-180).

narrative ambition and are therefore not “art.” *Pathologic 2* is not in the middle of this spectrum, rather, the game is both extremes simultaneously: both “game” and “art” simultaneously.

Perhaps *Pathologic 2* gets the “art” validation despite its unabashed “gameness” because it is not “fun” in a traditional sense, and some will even insist it’s an outright miserable experience.⁹ “Fun” is typically a misnomer when it comes to games anyway, as even the “fun” games can be frustrating in equal measure. Few games are outright “fun,” instead they are more accurately described as “engaging,” or even, dare I say, “immersive”. *Pathologic 2*, despite its reputation as some kind of “misery simulator,” is undoubtedly an immersive experience. Moreover, this immersion comes primarily, as we will see, through the game’s rules, systems, and mechanics. The game also focuses quite explicitly on being a *narrative* experience rather than a purely ludic one, and this ambition does not jeopardize *Pathologic 2* as a *game*, but rather reinforces it and is reinforced by it in turn. This is what makes *Pathologic 2* into something of an anomaly, using rather than discarding its interactive nature to fulfill its artsy ambitions, and doing so on a large scale atypical of small development studios. The game is Ice-Pick Lodge’s best attempt at fulfilling the studio’s ambition of the “deep game.” The first important step the game takes in achieving this is its facilitation of immersion, accomplished by having the player navigate a complex game system and its resulting game states, and allowing the player the agency needed to continuously adapt their strategy in dealing with them. *Pathologic 2*, at its core, is the story of a fictional town in the midst of a multifaceted crisis, the gradual decay of which is expressed through every aspect of the game. In ludic terms, navigating and struggling through this situation is the main and most consistent challenge of the game.

The game’s narrative revolves around an unnamed and anachronistic town in the midst of a crisis, as well as Artemy Burakh, the player character (PC) through which the player is able to interact with the fictional world of the game. The entire game, save the very few cutscenes in which the player’s perspective is disembodied from the PC, uses the “situated first-person viewpoint, as in *Doom*, where we see the landscape of the game and our opponents coming toward us as if we are really present in space” (Murray 180). While many genre labels may be applied to the game, with varying degrees of persuasiveness, the game is first and

⁹ See, for instance, Waynick. Alternatively, see any thread about the game on any forum.

foremost a survival game. These are the most basic “facts” about the game, helpful for the purposes of rote categorization.

Before moving on to the specifics of the game system and the player’s interaction with it, I will briefly describe the premise and generic progression of the game. The game is set in a nameless town ravished by a deadly plague. The protagonist and player character is Artemy Burakh, son of the town’s only physician, who is returning to his hometown at the behest of his father after several years spent studying medicine in “the capital.” When he arrives, he learns that his father has been murdered, and that the town is thrown in a state of worsening unrest. On his third day in the town, the plague officially arrives. Due to a train of supplies mysteriously not arriving, the town is dangerously low on essentials, especially food.

Eventually, the town will become completely cut off from the outside world. The town is in a state of panic, as looters and other undesirable and troublesome individuals roam the streets at night. Artemy, as a fledgling surgeon and son of a prominent local figure, is burdened with partial responsibility for managing the crisis. Along with uncovering the circumstances of his father’s murder, the main long-term goal of the game is creating a panacea and ridding the town of the plague. The game takes place over twelve in-game days, each being around two hours of play, depending on factors like the amount of time spent sleeping or in conversation with other characters. Over these twelve days, the player engages with time-sensitive events around town, consisting of doing tasks which could lead to breakthroughs relating to those long-time tasks, simply doing favors for other characters, or trying to uncover the truth of Isidor Burakh’s murder. As the game progresses, the plague’s presence grows, bandits and other hostiles become more prevalent, the civilian population dwindles, and government agents like the military arrive and further complicate things.

In the midst of all this is the player, controlling Artemy as they attempt to navigate an increasingly hostile and desperate environment. The majority of the game is spent between the various events happening around town, which are essentially all optional. Due to the constant passage of time, the player is unable to engage with everything happening or fulfill every request made of Artemy by the townspeople, and the player must decide which events to prioritize. These events are all scripted, with some involving making choices of some kind. The time in-between this directly authored content is spent engaging with the game’s systems, all of which in some way relate to the continuous challenge of survival. These survival systems are the game’s beating heart, and the single greatest challenge the game presents to the player. *Pathologic 2* is a true “deep game” in that it requires player

engagement and attention, as the fictional representations of a town in crisis is proportionate to the complexity and difficulty of navigating the game system as a player, or, to put it simply, the fictional world is in dire straits and so is the player as an agent within it. In this game, death comes as a result of starvation, exhaustion, infection, or from wounds sustained in combat, all of which could occur by a slip in concentration or a miscalculation on the player's part.

Pathologic 2 is clearly recognizable as part of the “survival game” genre. Games in this genre typically revolve around keeping the PC, in this case Artemy, alive. These games may have narrative ambitions, as is the case here, although many games in the genre simply end when the character dies, the goal being to simply survive for as long as possible. *Pathologic 2*, like its predecessor, constantly tracks several of the player character's attributes, information which can be accessed by the player at any time (fig. 1.1).¹⁰ When the state of any attribute is particularly dire, the information will be branded onto the screen until the situation is remedied (fig. 1.2). The original *Pathologic* predated the survival game boom of the 2010's, but at the time of *Pathologic 2*'s release hunger meters had become a common sight and a staple of survival games (fig. 1.3; fig.1.4).

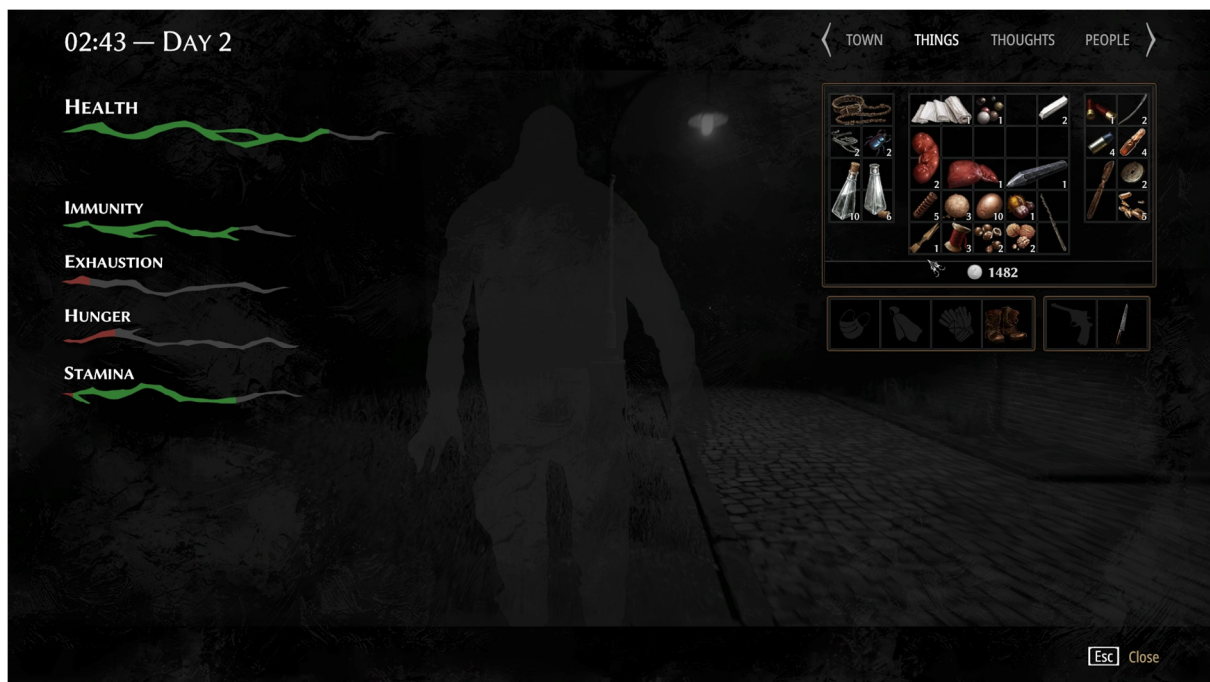


Fig. 1.1. The inventory screen of *Pathologic 2*, with the state of various attributes represented as partially filled bars on the left. These are clear examples of ludic representation.

¹⁰ All figures presented in this thesis are my own screenshots of the various games.



Fig. 1.2. Featuring the hunger gauge in the top-left. The thirst/stamina gauge is in the middle of the screen, the red signifying the amount of potential stamina, and the green signifying actual stamina.



Fig. 1.3. The various attributes related to the PC's status as represented on the left in *The Long Dark's* status screen.



Fig. 1.4. A somewhat different method of representation in *The Forest*. The lower right features an amalgam of bars representing the player character's hunger, thirst, energy, stamina, and health. These are represented as part of the heads-up display rather than in a menu.

Where *Pathologic 2* immediately differentiates itself from many survival games is through the interconnectedness of its survival systems and the sheer variety of approaches the player has access to in dealing with challenges arising from these systems. The interconnectedness of these systems is easy to demonstrate through comparison with other semi-recent survival games. While *The Forest* (Endnight Games) places greater emphasis on combat and base-building and less emphasis on its survival elements, *The Long Dark* (Hinterland Studio)'s survival mode is an experience focused squarely on surviving as long as possible, offering an arguably "purer" survival experience than either *The Forest* and *Pathologic 2*. The game's survival mode has no set objective beyond not dying of hypothermia, starvation, the hostile wildlife, or the multitude of other threats. Satisfying any of the player character's needs, while quite challenging, is fairly straightforward. If at risk of hypothermia, the player should find sticks and other flammables to make a fire or find shelter. In order not to starve, the player should either find food in the abandoned manmade structures located in various places around the island, find edible plants, or kill an animal and, again, light a fire in order to cook the meat. Thirst is alleviated by melting snow in a can or pot, which is also done at a fire. These challenges are ever-present in *The Long Dark*, and the relatively straightforward gameplay loop presented rather reductively here is not indicative of poor design but rather a pace and tone that's much different from *Pathologic 2*. The former is a slower-paced, more

desolate and bleak experience, while the latter has a faster pace and is inherently more stressful. It does, however, serve as a rather nice contrast to *Pathologic 2*.

In *Pathologic 2*, the path towards acquiring any given resource can be so winding that it's difficult to recount. If we use food as an example, we can recount a hypothetical scenario in which a player attempts to sate Artemy's hunger. Food can be bought in stores. Due to the extreme shortage of food in the town the price of food is ludicrously high however, and the price of goods fluctuates every day. This makes buying food on any given day a gamble, as the player risks having prices drop the next day. Then again, prices could increase, meaning it would be wise to spend all of Artemy's money on food and stockpile as much as possible. The player could choose to sell items, but their selling price will also fluctuate. Furthermore, shopkeepers aren't willing to buy just anything, and most items are better used in trade.

Trading with people outside of shops is slightly different. This mechanic is one in which the player can trade with any of the non-player characters (NPCs) wandering around town, exchanging items rather than money from the player's inventory with any item the NPC in question is willing to trade (fig. 1.5). Anyone can be traded with, although the townsfolk of a given district won't be willing to trade if Artemy has a bad reputation within that district. Artemy's reputation is represented through yet another bar which fills or empties depending on his actions, and this is also represented on the map screen (fig. 1.6). Attacking anyone other than undesirables like looters, in addition to stealing, corpse looting, and organ harvesting (we'll get there) are frowned upon, while attempting to treat the sick, actually treating the sick, being generous when trading, and helping out at the town's makeshift hospital can improve Artemy's reputation. Assuming Artemy's reputation is good enough to allow for trade, the player then has to take into account what items different townsfolk value. A young boy will value different things than a teenage girl, who will in turn have different priorities from a guard or a drunk. Assuming Artemy is in possession of something they would be willing to trade for, it's still possible other townspeople would want the item more, which would mean a better deal. This is another dilemma, as there is no guarantee that there are any teenage boys, who have a particularly strong interest in straight razors, to be found in Artemy's vicinity at any given moment, for instance. Running around looking to get a better deal could be a waste of precious time, as the player simply has no way of knowing who's around the next corner, or it could be beneficial to hold on to specific items for a situation in which they become more valuable. Beyond this, while some townsfolk carry food, these are typically foods which don't help stave off starvation for long, like an apple slice or some dry

toast. Trading rarely alleviates pressing concerns. Instead, the player trades for other tradables, or trades for items of potential future use, like immunity boosters or thread for repairing clothes.



Fig. 1.5. The trading interface. In this instance, Artemy is trading two walnuts and a piece of chalk for an egg and some immunity boosters. Children greatly value different kinds of nuts, which are otherwise rather useless, making them easy to take advantage of.

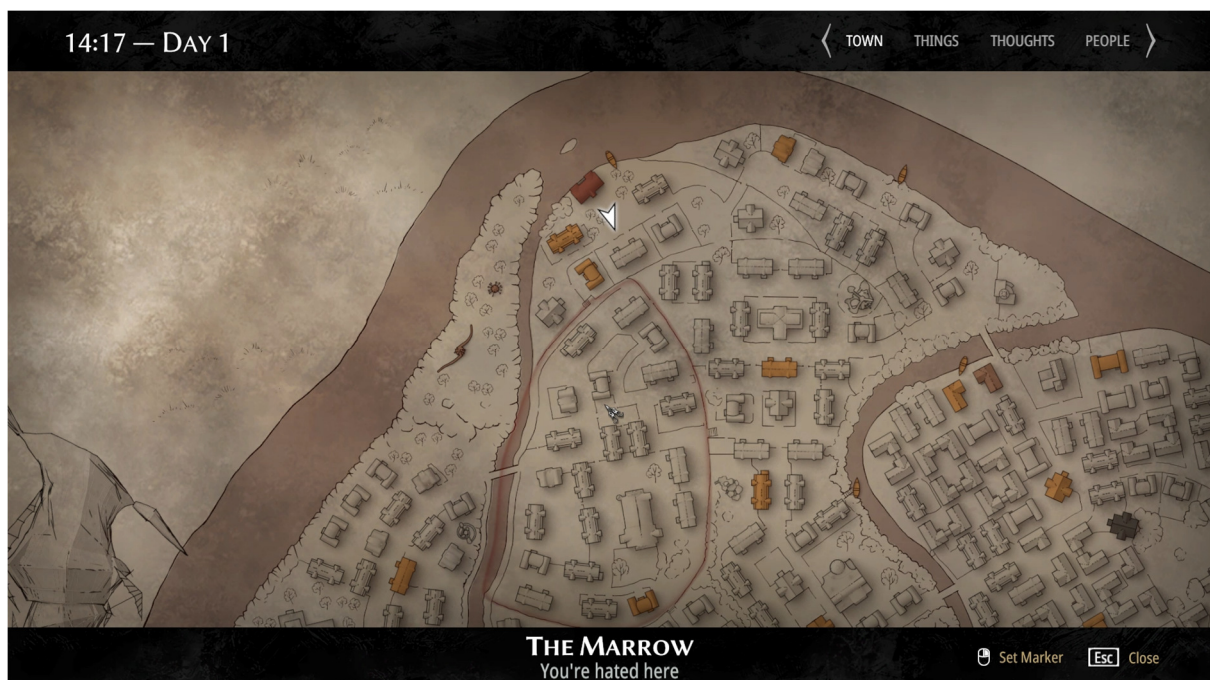


Figure 1.6. The map. The currently selected district is highlighted in red on the map itself, and Artemy's reputation within that district is written below the district's name. Being hated means some townsfolk will attack Artemy on sight, and trading is impossible.

If Artemy's reputation is too low to trade or the player needs food quickly and no one nearby has any, burglary is one potential solution. Burglary remains viable throughout the game, although there are some serious drawbacks to doing this. "Solution" may be a bit of an overstatement as well, because while every house in *Pathologic 2* can be entered so long as Artemy's reputation is above a certain threshold within the relevant district, there is no guarantee the inhabitants actually have food. They are in the same situation as Artemy, struggling to get by. In addition, being invited into someone's house before robbing them of whatever they have in their living room cupboards isn't the best way to ingratiate Artemy with the locals, making this a short-lived strategy. They could conceivably start attacking Artemy should his enthusiasm be too great, which means a drastic hit to Artemy's reputation in all surrounding districts if the player chooses to stand and fight. Fleeing to save face or to protect Artemy if the combat is too risky may prove difficult, as all enemies in the game try to prevent attempts at fleeing by physically pulling Artemy back into the fight when the player turns to run away. Then again, standing one's ground has its benefits as well, as killing the assailants means access to whatever is in their pockets. Should Artemy have a scalpel or any other sharp instrument, this also means access to whatever is in *them*.

On the west side of town, in the backroom of a pharmacy, lives a shady character named Var who'll buy all of the player's excess organs, although his prices, like those of other shopkeepers, fluctuate daily. Var also sells medical supplies like bandages and tourniquets, which are used to recover health, useful after our hypothetical organ harvesting session, as Artemy no doubt took a few blows in the process and the game doesn't feature automatically regenerating health. Medical supplies can also be obtained through various other means, and the player never has to interact with Var should they choose not to. Healthy and infected organs are needed to brew painkillers and antibiotics, respectively, and are quite useful for keeping the player and other characters alive, in addition to being necessary for discovering how to make the panacea. These are desperate times, however, and should starvation loom, selling organs is always an option. The "best" organ resources are bandits, who are hostile to everyone and therefore fair prey, along with the previously deceased. The townsfolk still won't appreciate one of the town's surgeons cutting somebody open and removing their organs in broad daylight, however. Due to a local taboo around cutting bodies, harvesting organs regardless of circumstance incurs a significant reputation penalty.

The path to fulfilling any of Artemy's basic needs can be winding indeed, and the quest for some dry toast can escalate from browsing the nearest grocery store to supplying the illegal

organ market in surprisingly little time. There are many more ways of acquiring the various resources needed than recounted here, however, and rarely is the player forced to burglarize or kill, except in self-defense if running is not an option due to low stamina. Speaking of stamina: eating certain foods, like smoked fish, raises Artemy's thirst. Thirst impacts his maximum potential stamina, which is no problem, so long as a water barrel or water pump is nearby and in working order. These break or run empty after a district has been ravished by infection, resulting in a rather acute shortage of them in the late game, though, so it's not quite that easy. Stamina is important because sprinting and engaging in hand-to-hand or melee combat drains it. Should a hostile party happen upon Artemy when he has a low maximum potential stamina and the player is unable to sneak off, the player's only hope is that they have previously acquired a firearm. These are rare and expensive, require rare and expensive ammunition, and will frequently jam if not maintained properly—maintenance which, of course, also consumes resources. In this hypothetical scenario death comes, however indirectly, from eating a piece of smoked fish, acquired by selling the organs of some poor townsfolk.

Hunger, thirst, exhaustion, immunity, health, and reputation are all interconnected attributes, which all have to be simultaneously maintained. The core of *Pathologic 2* is the eternal challenge of balancing these attributes. During play, the player is forced to prioritize, alleviating the most pressing concerns, by using their knowledge of the game's world and systems to determine an efficient course of action. The game's economy, that is, these resources and their systemic organization, is something which the player must become able to both understand and manipulate in order to survive. There are always a multitude of different solutions to any problem, but these will also come with their own drawbacks. Murdering townsfolk and harvesting their organs for profit is time-efficient but has severe penalties in terms of Artemy's reputation. Being unable to trade is a substantial detriment as it limits the player's access to potential resources quite drastically, while being attacked on sight is extremely detrimental for obvious reasons. Trading is slow and requires learning and catering to the tastes of the different groups of townsfolk, but potentially profitable in the long term, in addition to extending the player's potential item pool beyond the rather limited selection they are likely to get their hands on without trade. Buying goods like food, clothing, and medical supplies in stores is a gamble, as previously discussed, but straightforward and time-efficient should the player have the funds. The acquisition of any given resource will always require a sacrifice of some sort, the player is always "trading" one resource for another, and in this

sense the whole game truly becomes a continuous economic challenge. Our hypothetical scenario of acquiring food involved many such potential trades: the player trading items for other items, money for food, reputation for items, and organs for money. The only “free” resources are those found in dumpsters around town, which are usually only mildly useful, few, and of course limited by the number of dumpsters are on the player’s path to whatever objective they have decided upon. At least, they would be free, would checking them not require yet another resource: time. The clock is always ticking, and Artemy’s hunger and exhaustion grows with it. Doing anything except sit in menus or engage in conversation with other characters, costs precious time. This leads to its own problems, as the player may have to decide between using a shorter path through a plague-ravished district to save time. Using another path may be more time-consuming, but risk-free, while cutting through the district could mean getting infected. Once infected, there is no cure, only delaying the inevitable. In this sense, the game encourages learning not only the game’s systems, but also the physical space of the fictional world and, with trading, the habits and wants of the world’s inhabitants.

The emergent behavior of the game system gives rise to unpredictable game states which the player must then navigate and continuously overcome. This is not just limited to resources, but the behavior of NPCs who, although rather limited by modern standards, all act in accordance with the underlying rules associated with them. Everything that exists outside the game’s scripted events, which are, again, all optional, the world becomes a simulation of itself. While the player’s involvement means it isn’t a simulation in the truest sense, the game certainly simulates, through the emergent behavior of its interconnected systems, it’s world. As Salen and Zimmerman puts it, “[a] simulation is a representation of ‘reality,’” the quotations marks signifying its abstraction of the reality its attempting to simulate (423). The physical space of the game, its fictional environment, consisting of NPCs exhibiting emergent patterns of behavior, is in combination with the interconnected survival systems and the game’s simulated economy are what together create the various game states the player must adapt to. This is in combination with the scripted changes occurring in the fictional world over the course of the game which further complicates things.

As for the core mechanic of the game, what the player will spend most of their time doing, we can with certainty identify this as “walking,” as innocuous as it sounds. This undoubtedly sounds and, as watching any substantial amount of my recorded playthrough of the game demonstrates, looks boring. Most of the game plays out in the streets of this unnamed town, on the way to fulfilling some goal or visiting a character to hear what they require assistance

with. While walking, or, more likely, sprinting, the player engages with the town in various ways. Talking and trading with the people of the town, avoiding or fighting looters if at night or in a district post-infection, visiting shops, and returning to Artemy's lair to brew tinctures, are all connected through the simple act of navigation. Navigating the town is made engaging through context. The player is always walking *somewhere*, in order to *accomplish something*, and while navigating, they will no doubt be on the lookout for trading opportunities as well as thinking of the next move after finishing whatever self-determined goal they have set. The clock dictates that standing around is not an option, so the player is continuously planning in both the short- and long-term. Things may change on the way to the chosen somewhere, altering the mental schema of player goals, and the player must then replan. The player isn't aimlessly walking around for the roughly 25 hours it takes to "complete" the game. Instead, the game is a frantic, 25-hour sprint crisscrossing the town in order to keep Artemy from falling off the tightrope.

Immersion does not "occur" in the game, but in the player's mind. This is obvious, and made even more so by the sheer difference between what is actually happening on screen and what that same information feels like as it is continuously filtered and analyzed in the mind of the player during play. The game motivates learning its systems, world, and characters, and in so doing facilitates a sense of immersion. By bestowing upon the player a great degree of agency in tackling any number of game states, and by providing a vast number of meaningfully distinct ways of solving the game's challenges, the game provides a near-infinite number of potential challenges, each with several potential ways of solving them, the game motivates the player to become invested in its systems and fiction in order to be better able to evaluate how best to proceed in meeting these challenges. While I have not explicitly mentioned any character events or indeed any of the game's directly authored content with any degree of specificity, this operates in very much the same way, as the player must simply evaluate, based on the knowledge of the world and experiences they have had, which events to prioritize and what decisions to make in engaging with them. The game does nothing to intrude on the player's decisions, aside from penalizing directly immoral behavior like mindlessly slaughtering townsfolk.

In terms of a "consistent environment," many would undoubtedly consider this in terms of the fictional world of the game, but Murray's criterium can be fulfilled through a consistency in the "environment" of the game system as well, however. An internally consistent system, in terms of fictional space as well as the more abstract "spaces" of, for instance, the attributes

of the PC, naturally motivates engagement from the player. Based on the reasonable assumption that the presence of an ability and necessity to interact with the game is the first step towards developing a sense of immersion in the player, the game's various systems, and their representation within the world, must necessarily be the first instance in this development. The player being "motivated to initiate actions that lead to the feeling of agency" (Murray 114) does not mean the player is initiating these actions consciously for this purpose, they are motivated to perform actions that are conducive to navigating the game system as it exists. The player is not consciously attempting to experience "the thrill of exerting power over enticing and plastic materials" (Murray 188). This exertion of "power," the agency, comes as a side effect of interacting with the consistent game system. A sense of agency is not facilitated by catering to the player's whims and placating them through offering endless but meaningless choice which the player then fumbles through. A game is designed and must ensure that its possibilities for interaction are meaningful and coherent with respect to its game system, otherwise the player will simply be "moving an avatar . . . in an empty space" (Juul, *Half-Real* 18) in more ways than one. *Pathologic 2* facilitates a sense of agency through giving the player, at any point, the choice of what to engage with and how, but these choices all come with benefits and detriments. The player must then decide, based on their knowledge of the game, how best to proceed. The emergent nature of the game ensures unpredictably emerging game states that, along with the game's scripted narrative progression, keeps the player engaged through offering a variety of problems which requires the player to continuously adapt to the given state.

Thinking about *Pathologic 2* as a "deep game," we have seen how it requires complete concentration and attention in order for the player to make effective decisions. As for immersion, that is facilitated by the game itself rather than being a requirement as stated in the "manifesto." The game presents a series of interconnected systems tied to characters, items, and Artemy himself, relating them all to his or other character's status. The economic nature of resource management means there is always several ways of accomplishing a player-set goal, whether this be trading a resource for another in the literal sense or taking risks that may directly lead to infection or death to gain a temporary reprieve from Artemy's steadily diminishing physical state. The player must use acquired knowledge of the game's mechanics and world both to make short-term and long-term plans, quickly adapting to new conditions. This struggle, this prolonged chess match between the game's ever-evolving game state and the player, is what facilitates immersion. The player does not passively chew

the scenery or chat idly with other characters, but is constantly positioning themselves within the moment, with complete concentration and attention, in order to co-author the narrative that was always intended to emerge. Upon the player is bestowed a great sense of agency, but with it comes a sense of complete disempowerment and fragility. Neither Artemy nor the player is above or untouched by the town's decay, they are part of it, from the moment the game starts and until its conclusion. This is Murray's "immersed participation," and while the game does indeed "give us something very satisfying to do," this participation does not occur in "specific dramatic moments," (139) but within the town itself, the fictional representation of the underlying game system. While the immediate experience of play makes up the core of *Pathologic 2* as an immersive experience, the game's fictional elements further support this and, as we shall see, become inductive towards constructing the game's ludonarrative.

Narrative

Fictionality, ludonarrative, and embodiment

The player, withdrawn from the ordinary world by the mask he wore, felt himself transformed into another ego which he did not so much represent as incarnate and actualize.

- Huizinga 145

So far I have used the term "fictional" to refer to elements which exist within and carry meaning with regard to the fictional world of the game. In doing this I am taking a cue from Kristine Jørgensen and her exploration of *Gameworld Interfaces*, in which gameworlds are "interfaces to the game system" (4), i.e. the fictional world of the game is a representation of the game system underneath. She identifies *ludic* and *fictional* as two distinct, but not mutually exclusive, forms of representation (72-75). Most games include "a fictional layer of meaning" on top of the purely ludic information communicated to the player to enable them to successfully play the game (Jørgensen 73). Ludic representation undisguisedly references the game system, like health meters visible on the screen during play. Fictional representations are those that exist within the coherent fictional world of the game, "which allows the player to stop thinking about the game rules and to redirect focus onto the gameworld environment itself" (Jørgensen 73). In effect, every element of the game system that is effectively integrated into the fictional world of the game is fictional, be it information represented in the world directly, and I will explicitly expand this to include dialogue and

cutscenes and other scripted events that are not strictly systemic. Purely ludic representations are not part of the fictional world, but rather exist to provide information to the player beyond what is feasible to represent fictionally, like using a meter to measure a character's hunger rather than having recurring stomach rumbling sounds, for instance. Fictional representations or elements can overlap with ludic ones. Enemies in a game may function both as direct threats to the player character's survival while simultaneously representing a particular social group or ideology within the given fictional context. The enemy is a fictional representation that exists as part of the game's fiction, while simultaneously being significant to the game system itself as the enemy acts as an obstacle that must be dealt with somehow in order to progress or to avoid some unwanted outcome. This game object, the enemy, would thereby be significant in both a ludic and a fictional sense, both immediately relevant to the moment of play and inductive to the game's narrative and its interpretation.

If we use "fiction" to refer to elements with some recognizable representational quality, i.e. elements which are not entirely abstract or expressly ludic in nature, where does that leave "narrative" as a term? Do games not tell stories that go beyond these representations in isolation? Jesper Juul once postulated that narrative and stories are fundamentally different from the formal game system, and that while "[t]he player can tell stories of a game session . . . [and many] computer games contain narrative elements, . . . [y]ou can't have narration and interactivity at the same time; there is no such thing as a continuously interactive story" ("Games Telling Stories?"). While I agree with Juul's assertion that "narrative" has a different place within games compared to "old media," ("Games Telling Stories?") and while the so-called "gameplay" and "story" of a game can be and often are at odds in some way, there is no getting away from the simple fact that some if not all games are representational in some way. All games are narrativizable, if not narratives in themselves. Janet Murray famously asserted that *Tetris* is, despite its lack of "verbal content," a "perfect enactment of the overtasked lives of Americans in the 1990s" (Murray 177-78). In choosing to privilege the interpretation of the game's aesthetics over analyzing the game's functioning as a *game*, does this transform the game of *Tetris* into merely the narrative *Tetris*, by narrativizing the abstract and strictly ludic experience of rotating blocks in a void devoid of narrative? While I don't think Murray's analysis quite amounts to "interpretative violence," there is something to be said for how "Murray tries to interpret its supposed content, or better yet, project her favourite content on it; consequently we don't learn anything of the features that make *Tetris*

a game” (Eskelinen). How does the experience of playing *Tetris*, as constructed through the player’s interaction with the game as designed, coexist with this interpretation?

Is everything narrative just because players can create a story out of their play sessions, much like anyone can narrativize any other everyday experience? Are all game narratives merely an attempt by “the man” at keeping “gamers” down by forcing them to watch minutes of unskippable cutscenes? These are interesting, if slightly facetiously formulated, questions. Remembering Dewey, I feel it is necessary to separate the merely narrativizable from the recognizably narrative, as games are not everyday experiences but works that each possess a unique form and therefore provide, in theory, unique experiences. Reducing interactivity and limiting the player’s sense of agency in the game is likely not the best way to “tell” a game narrative. It seems reasonable to assume that regardless of whether games are always narrative in nature, any game narrative should take advantage of games’ “area of competence” in order to construct the narrative experience in an appropriate manner and, more excitingly, experiment with the new ways in which games allow narratives to emerge through play.

The games I’m primarily interested in, these “narrative experiences” or “story-focused games” or whatever vague category one might assign them to, are certainly narratives. *Pathologic 2* is, like most modern games, an amalgamation of visual and sonic representations that extend beyond the purely ludic. These range from character dialogue represented as text on the screen, to the design of characters and layout of the town and surrounding area, to the music—all of which are potentially meaningful to the narrative of *Pathologic 2*. Some of these would be identifiable to anyone as parts of a narrative, most obviously the character dialogue, while the ludic elements like the systems and mechanics the player interacts with outside of dialogue would potentially be dismissed as irrelevant to the narrative of the game. If the goal is to find the unique area of competence of games, however, none of these can be dismissed so easily. While digital games can be and are representational and interpretable, the game is not a novel, but a system, a machine, even. It is “both appliance and hearth, both instrument and aesthetic, both gadget and fetish” (Bogost, *How to Talk about Videogames* xii), a machine which produces the experience when operated by the player, or rather, game and player construct the experience through this interaction. This ludic form of narrative must come from the ability of games, through their interactive nature, to function as more direct and intimate experiences. The question then becomes “what is the purpose of the characters, dialogue, and the fictional world of the game, how do the

‘narrative’ and the ‘game’ come together to form a singular experience?” The combination of the “ludic narrative” and the wider narrative of the game is what’s sometimes referred to as the “ludonarrative.”

The term “ludonarrative” simply describes a conjoining of the ludic (“gameplay”) and the narrative (“story”), though it does not necessarily imply the two comprise any coherent wholeness. Commonly, the term rears its head in discussion of games in which the “gameplay” and “story” are perceived to be at odds tonally, thematically, or otherwise. Game designer Clint Hocking coined the term “ludonarrative dissonance” in a 2007 blog post, and this phrase has since become widely used in situations in which such a conflict is perceived. Here, he observes in *Bioshock* a “dissonance between what it is about as a game, and what it is about as a story” (Hocking). In applying this term, I will attempt to avoid any assumptions of essentialism with regards to each of its constituents, which may potentially further reinforce the easy misconception that the ludic and narrative aspects can be easily distinguished in all cases. Certainly, one could distinguish between the interactable and non-interactable aspects of a game, but these are not necessarily binary states. There are degrees of interactivity: from simply making a choice in a menu to the in-universe choice of walking this way instead of that when under pressure from a ticking clock. Action the player takes, and not just scripted ones chosen from a list, have the potential to be representational and meaningful even if they do not fit into the “story,” and dramatic moments represented in an entirely scripted context within the game can be “read” differently in light of the game’s ludic elements. “Ludonarrative,” as used in this thesis from this point on, is narrative as constructed through the player’s actions within the “gameworld” in combination with the scripted narrative framework of the game.

I have previously discussed the concept of emergence in regard to game rules, where relatively simple rules provide results irreducible to those rules. We have not, however, considered the narrative possibilities of emergence. As Walsh puts it, *emergent narrative* is tantalizing within game studies because it offers “the prospect of reconciliation between the conflicting values of narrative satisfaction and player autonomy” (72). The concept of emergent narrative represents a form of narrative unique to the “medium” of digital games, because it puts emphasis on the emergent systems possible in games. It suggests the potential of a narrative *within* play, rather than in spite of it. The term is, beyond its role within games studies discourse as a symbol of the narrative possibilities within games, far from clear-cut and remains highly malleable. In order to perceive the emergent narrative of *Pathologic 2*, it

will first be necessary to explore the various interpretations of the concept and identify a specific form of emergent narrative that's relevant and meaningful.

Emergent narrative can be viewed as a fairly straightforward concept, loosely defined as one in which “the story is no longer created by the developers, but by the system. Looking at this process from the player’s perspective, it seems fair to say that the story is constructed by the player themselves through their interactions and explorations within a particular game world or environment.” (Suter 71). “From the player’s perspective,” this may be how the narrative appears to have been constructed. Setting aside the issue of to what degree an emergent narrative has a shared authorship between player and designer for the moment, any emergent pattern is the result of those rules which make up the game in question. The narrative is, even if emergent, an indirect result of the game’s design. It is *authored*, but not fully realized until it is played.

The more difficult question to answer is this: how does emergent play become emergent narrative? While a player can certainly construct a narrative out of even the most abstract game, is this form of narrativization meaningful? Say, for instance, a player is playing *Cities: Skylines* (Colossal Order), a city-builder in which the player assumes the role of an uncharacterized God-like mayor and is free to develop a city in any way they choose. The player chooses to role-play an incompetent mayor by deliberately building roads so as to cause poor traffic flow. This is a deliberate attempt to construct a narrative out of the otherwise mostly ludic experience. What if this “narrative” forms coincidentally, caused by the player simply not playing the game very well, after which the player could narrativize this chain of events, is this narrative? This is reminiscent of how, as Galyean asserts in his explanation of the emergent narrative, “[w]e all construct narratives out of our daily activities,” we can perform the same operation within any game and ultimately “allow a narrative to emerge” (27). If the resulting narrative is not distinguishable from the narrativizations of our everyday lives, and if the narrative does not meaningfully represent something within the game’s fictional context, is this narrative meaningful? Walsh distinguishes between “a representation that *invites* narrative interpretation and an event that is susceptible to narration,” a representation which invites interpretation being “necessarily communicative, since it implies an awareness of some narrative paradigm . . . that makes the representation narratively intelligible; and it assumes the mutuality of that awareness between the sender and receiver of the communicative act” (81). By this token, the *Cities: Skylines* example could potentially be construed as either, depending on whether the characterization

through play of the “mayor” character in relation to the rest of the game’s fictional representations.

Walsh exemplifies emergent narrative through dramatic improvisation: “[t]he story produced by a group of improvising actors is not determined from the top down, by a playwright or director; nor is it the creation of any one actor. Instead, it emerges from the interactions among the members of the group—that is, the elements of the system” (76). This form of non-digital emergent narrative, Soler-Adillon observes, implies an intentionality on the part of the participants, as they are “trying to actively influence the resulting narrative.” This is part of Soler-Adillon’s attempt to narrow the “true” emergent narrative to only result from true emergent patterns that are “self-organized in the sense that no particular agent or group of agents is intending to produce them” (Soler-Adillon). With respect to digital games, in which the player may be considered an improvising actor among pre-programmed ones, the question becomes to what degree the player is in fact “intending” to affect the construction of narrative. At the very least, there is an intentionality present with regard to the purely ludic aspects of the game, insofar as these can be separated from the fictional, the player thus being a sort of contaminant in the “pure” emergent narrative produced by the system. Furthermore, if the player, as the only agent in this fictional world, is granted the ability to affect the construction of narrative, then the story is in fact produced by a single “actor,” and thus conflicts with Walsh’s definition of emergent narrative. If there is no way for the player to interact with the system, however, the narrative may very well be emergent, but the fictional world could not constitute a game, as the emergent narrative is produced autonomously as a simulation. Questions of how the presence of the player as agent affects or even disallows the construction of emergent narrative are of course relevant to any analysis of game narrativity, and while interesting, I cannot take a conservative position that disregards the possibility of agency in the elements of the system through which emergent narratives are constructed, as this necessarily excludes as examples of emergent narrative all games in which it can be reasonably assumed that the player is attempting and able to somehow impact the construction of said narrative. The concept of emergent narrative, as it will be used in this thesis, is one which is “legible,” not merely “narratable” (Walsh 80). The emergent behavior of the system becomes legible when viewed with the game’s various fictionally significant representations in mind. While the possibility of narrative within the purely ludic is not something I reject, the prominence of *Pathologic 2*’s fictional elements, and their cohesion

with the core interactive experience, suggests that it would be foolish to decline this particular game's invitation to interpretation.

In order to gain a better understanding of the player's role in the wider ludonarrative of *Pathologic 2*, it will also be necessary to clarify the role of Artemy, or rather, the relationship between Artemy and the player. "Identification" is an oft-used term to signify a reader's or viewer's reception to fictional characters and their circumstances, defined more precisely by Cohen as "a mechanism through which audience members experience reception and interpretation of the text from the inside, as if the events were happening to them" (245). Digital games allow for identification in a more literal sense, particularly in games in which players assume the role of a character within the fictional world of the game. If, as Cohen observes, "the current conceptualization of identification focuses on sharing the perspective of the character; feeling with the character, rather than about the character" (251), this suggests the player/avatar relationship of games like *Pathologic 2* as quite a strong facilitator of such a form of identification. In fact, I would take this further and claim that "identification" alone is not entirely accurate as a descriptor of this dynamic.

At the moment of contact, when the player gains control over their avatar, their character, this identification should conceivably occur near instantly. After all, the player *is* the character within the fictional world of the game. The player's agency in the fictional world is dependent on the character, and the actions performed by the player are executed by the player *as* their character. The PC interfaces directly with other elements that act based on the rules governing them, and through this identification the player assumes the role of the character as characterized within the fictional world of the game. In terms of narrative, we could conceivably refer to this as identification, provided the ludic and the fictional are distinct enough to be clearly separated i.e. the game is dissonant with respect to the character as operated and the disembodied character appearing in cutscenes. During play, the identification is a matter of course and a prerequisite for assuming control of the avatar as a ludic instrument. In cutscenes, the player identifies with "their" character, because it is no longer theirs, but instead a character within a narrative. In games in which this distinction is more difficult to make, one in which the ludonarrative is cohesive enough to allow players to consider their avatar a "true" character even during play, players may consider their PC a character in a narrative sense even if, as is the case with many of the classic role-playing games, it is effectively a character of their own making. Players can still accurately be said to identify with non-player characters, but the PC/player relationship may be a different beast all

together, clearly distinguishable from the relationship between a reader and a novel's protagonist, for instance, based on the simple fact that the player effectively *becomes* their avatar within the fictional world of the game during game.

There is a fundamental difference between the "identification" possible in digital games and the one possible in "old entertainment media," as players "do not observe autonomous social entities performing on screen, but they *make* characters perform or actually perform themselves" (Klimmt et al. 353-54). The term is still widely used, by Klimmt et al. among others, to discuss the relationship between player and avatar in games. Despite this, I would suggest *embodiment* as a more fitting term for acting through a character within a fictional world. There are two reasons for this: first, because embodiment strictly pertains to the player character, and second, because it more accurately, in an immediate semantic sense, captures the relationship between player and player character. The concept of embodiment was popularized within a game studies context by James Paul Gee, who clarifies the term as encompassing "the mind as a part of the body" (*What Video Games Have to Teach Us About Learning and Literacy* 79). Gee argues that digital games allow for a kind of "embodied thinking" in which the player inhabits the body and mind of their "surrogate" ("Video Games and Embodiment" 258). Through inhabitation, "you, the player, act in the game as if the goals of your surrogate are your goals" (Gee "Video Games and Embodiment" 258).

Gee observes that the virtual world and the character inhabiting are "built to go together such that the character's goals are easier to reach in certain ways than they are in others," which is to say that the fictional world of the game and the character within are designed with each other in mind, the allowed actions of the character is reflected in the world and vice versa ("Video Games and Embodiment" 258). The more literal way in which to interpret this assertion, which Gee also explicitly invokes, in which there is a "right" way to use the character so as not to be "fighting against the mesh," ("Video Games and Embodiment" 259) is debatable, especially in regard to games which allow for a wide range of viable options like *Pathologic 2*. At best, the "mesh" is ever-changing according to the specific game state. Gee does not go particularly in-depth regarding the implications of embodiment for narrative construction, especially not the concept of narrative as constructed in this thesis. Like how I contextualized immersion as being particularly strongly associated with the game system rather than its representational layers, it seems necessary to specify that embodiment is applied here in a manner especially sensitive with regard to the game's ludonarrative. In order to analyze the role of the player as Artemy, and how this contributes to narrative

legibility in *Pathologic 2*, we will use the ludonarrative cohesion of the game to further expand on this concept to more fully embrace the fictional aspects of embodiment.

Being Artemy Burakh: Constructing *Pathologic 2*'s ludonarrative

I want full authenticity. I will move the play outside, into the streets. Actors play out real events while being in the middle of them. The audience doesn't know they're in a play. The actors, that they're being watched. Such is my method...

- Mark Immortell, *Pathologic 2*

Before delving in-depth into each aspect of the game's ludonarrative, an overview of the whole is necessary. While each part is not easily divorceable from the ludonarrative as a whole, we can identify a few distinct main components. First comes the fictional layer of representation, which exists "on top" of the game system itself. While I have so far referred to "the game system" as the thing the player interacts with, this is not strictly true. The rules which make up the game are not perceptible in and of themselves, only their representations within the game through, for instance, the behavior patterns of NPCs. The player is in actuality interacting with the system as presented in the game's fictional world. This layer of representation instills everything with potential meaning. If we imagine the game as entirely abstract, combat will have no meaning, beyond perhaps being recognizable as some kind of struggle. If Artemy is attacked by a civilian because he performed a string of robberies, that is a representation of several things, as there are two discernable characters, one of which acting based on the rules governing him, which are themselves representations of the norms of the fictional culture he is part of. The next aspect of the ludonarrative is the "story" of the game. By this I'm referring to what is often narrowly identified as a game's narrative: the characters and their actions, every scripted event and their structure. Like the plot of a novel or film, this aspect is directly authored by the game's developers prior to actual play. This plot is complemented by the "ludic plot," by which I'm referring to the combination of the game's emergent events as well as Artemy's navigation of these. We have a clearly discernable scripted "half," and an emergent "half," both proceeding without, but also malleable through, player input. While I will not go into detail regarding the former, the latter will be examined in some detail. Lastly is the ludonarrative itself, constructed by both game and player over the

course of the game and in every moment of it. Prior to discussing these various types of narrative and their purposes, however, I will clarify the player's embodiment of the PC.

Excluding the prologue and tutorial, the player gains control of Artemy for the first time when he first arrives in town, following one of the game's few cinematics, in which he is attacked by, and subsequently kills, three men.¹¹ Artemy draws first blood before the player gains control of him, and this sets an important precedent: it is not morality, but necessity, or even efficiency, which is ultimately the deciding factor between a good decision and a bad one, between what's justifiable and what isn't. Of course, what's deemed necessary is subjective, and efficiency cannot ever truly be determined, only estimated. The player, as Artemy, must determine what risks they are willing to take and for what potential gain. Things like killing civilians for loot are heavily disincentivized, though still possible, and this gently guides the player towards generally ethical conduct, relatively speaking. The game system complicates things, however, and compassion is a luxury the player may not always be able to afford. The cinematic of Artemy killing the three men in self-defense, in addition to opening the door for similar occurrences during play, also signals something else: whatever state Artemy or the other characters are in at the end of the game, whatever ending the player chooses, it won't be clean. Some things are unavoidable, and it won't be obvious how to best proceed even when Artemy has the power to change things. Everything is relative, and any given player's performance in a playthrough of *Pathologic 2* cannot be easily evaluated. There is no knowing, and there is no perfection. The player cannot win *Pathologic 2*, merely survive it. Did all the named characters survive? Did Artemy not die a single time? These are quantifiable, but it could always be done more efficiently, with less bloodshed. Regardless of the player's actions, thousands of people will die, and the town will be nearly eradicated. Only determination and sacrifice allow the player to "win," and it's a pyrrhic victory, regardless of how well the game is played. Winning was never the point, perseverance was.

Pathologic 2 bestows a great amount of agency upon the player in terms of room to adapt to a variety of situations. The game simultaneously puts them in a situation of tremendous disempowerment. Specifically, it puts them in Artemy, who is one of the great ironic figures in *Pathologic 2*: a doctor who almost inevitably kills more people than he saves, a surgeon who, save one optional occurrence in which he performs actual surgery to save the life of a

¹¹ See https://youtu.be/_JmEb805AI?list=PL91EYBoHGmQ2VEnfAho9XEIdpk3uPrvr6&t=1279 (21:19-22:14).

criminal, and another which involves what can only be described as ritual sacrifice, uses his scalpel exclusively for organ harvesting (fig. 2.1).



Fig. 2.1. One of the game's item descriptions, readable by "touching" items in the inventory. All of the game's bladed instruments make reference to Artemy's Hippocratically complex situation and ways of cutting. "Menkhu" is a Steppe word for those who are able to "see the Lines" connecting everything, essentially another kind of surgeon and leader figure.

He is not quite the savior of the town, nor even the ethical man his profession might suggest. Artemy is reduced to digging through garbage to survive, all the while being little more than a sentient pawn for the more prominent inhabitants of the town. Any information, criticism, anger, or gratitude received from these characters is difficult to ascertain the validity of, as they all have their own angles, whether this is using the crisis to their advantage or attempting to be helpful from a position of ignorance. Artemy is continually at the mercy of not just the game system, but these characters, as well as the townspeople, who are more like a faceless mob than individual characters. They are the ones who will turn on him if he steps out of line. Artemy's reputation is determined by whether or not his actions are appropriate to the fictional cultural context rather than to any external ethical standard, so that murdering undesirables is encouraged while harvesting organs from dead bodies—organs which are necessary in brewing the first batch of panacea and thus of great benefit to whoever avoids death as a result—is discouraged. As a result, the mob is another multifaceted obstacle that the player as Artemy must circumvent, effectively placing him and the player, in both ludic

and fictional terms, at the mercy of even those he is attempting to save. Artemy subverts the expectations of his profession, as well as his role as a typical game protagonist, by being no more essential to the fictional world than any member of the faceless mob. He is a pawn to the town's more powerful figures, and is very much, despite his ultimate redemption through "saving" the town, like a particularly unconventional character as a result of his disempowerment.

This is of course felt in play as well because Artemy's state and characterization within the fiction determines which actions players may initiate within the world, as well as the quality of these actions. For instance, while he is variable described as somewhat physically imposing, he is still just one man, and is no more a threat to others than they are to him. In a fight, if one character has a knife, that character will win nearly every time, even if one of the characters is the player-controlled Artemy. Consistent with the themes and tone of the game, he is remarkably fragile compared to most PCs in games. If Artemy could massacre the whole town with some machine gun with infinite ammo it would undercut the game's sense of tension somewhat and would certainly qualify as ludonarrative dissonance. While his backstory is purposefully vague aside from the most relevant pieces of information, he is visibly not an expert at handling firearms, which is reflected in the revolver's reload animation.¹² Some may find it strange to point out things like the revolver's absurdly long reload animation, but it serves as an example of how ludonarrative cohesion facilitates embodiment. Artemy's handling of the gun is not only deliberate characterization, but instills a sense of disempowerment in the player, it places them, if they are forced to use the revolver, in the same difficult situation as Artemy. Throwing the complication of its long reload time into the mix ensures the gun is effectively useless after six shots, provided Artemy's shaky hands and the gun's absurdly poor accuracy allows the player to hit anything at all.¹³ Internalizing Artemy's fragility within the environment of the game is one recognizable aspect of embodied thinking. Embodied thinking characterizes our attempt at a purely ludic description of the player's constant decision-making. The player and Artemy are of one mind in running around trying to fulfill his basic needs, and of one body in that Artemy's physical limitations are the player's limitations. Most information is conveyed

¹² See <https://youtu.be/ZqPGHLS5TLM?t=976> (16:16-16:39).

¹³ See <https://youtu.be/z1K7suyfvUU?t=9192> (2:33:12-2:33:51) for an attempt at killing a looter from behind using a revolver in less than perfect condition. I ultimately give up after wasting several bullets and just sneak up on him to knock him out, which is not always an option. NPCs in the game do not respond to sound, and the AI in general is not very impressive, allowing for comical/depressing moments like this.

fictionally rather than ludically, as the information Artemy acquires as well as his goals represented as a “mind map” rather than through neutral text (fig. 2.2).

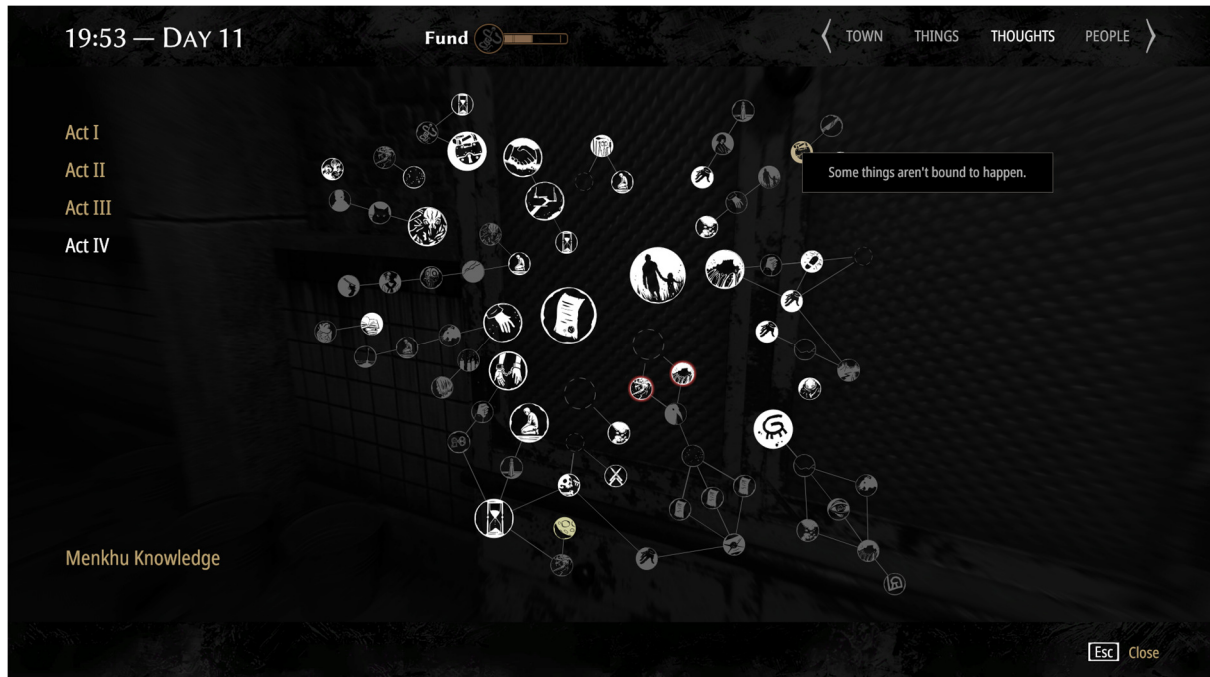


Fig. 2.2. Artemy’s mind, showing pieces of information with connections between mutually relevant ones. Some remain empty because I did not discover them. “Some things aren’t bound to happen” signifies a failure to complete a certain objective within the time available, it’s unavoidable to get some of these each playthrough.



Fig. 2.3. The plague personified. He shows up to taunt Artemy occasionally and serves as the game’s antagonist. At least, if we discount the game system itself as an antagonist.

There is one more implicit goal in the game which has hitherto only been mentioned in passing: keeping the game's characters alive. This is done through the prophylaxis mechanic, in which the player can diagnose and medicate infected people. Artemy can use his knowledge of both scientific medicine and local medical practice to treat the sick or immunize the healthy. He can give antibiotics or painkillers to the infected lying in the street, but the player will likely choose to use these hard-earned resources on named characters. The system itself works like this: character's currently in infected districts (the infection spreads and changes every day) are at risk of becoming infected. If they become infected, they will have a certain percentage chance of dying from the plague every day. These two events are both dice rolls where the player has the opportunity of impacting the odds of infection or death.¹⁴ When infected, there are ways of permanently curing the given character, but this requires serious sacrifice, as the only items capable of this are incredibly rare and expensive. These items are also what the player must use to cure Artemy if he becomes infected. Once infected, death is inevitable. Named characters have unique models and animations, and regularly have things to say that may or may not be helpful, and also give Artemy things to do, although these things may also be a huge waste of time or even detrimental to Artemy or the town. During a first playthrough, it's hard for the player to determine who is "important" to the narrative. Ultimately, though, their survival, unlike in the original *Pathologic*, do not matter with respect to winning the game. They simply die, and whatever opportunities for interaction they may have created are made permanently unavailable. Treating or immunizing these characters costs both medicine and time, and as such, the player will have to decide who to prioritize. This is another of the game's ethical decisions which, rather than explicitly presented as such, is hidden behind the logic of the game's economy. There are named characters who are given special significance, towards whom Artemy acts as a guardian figure: the town's children. These kids feature quite prominently in scripted events and are the game's main source of pathos (fig. 2.4), further complicating the player's priorities while serving as a more tangible motivation to proceed efficiently, engage with the game system, and get directly involved with the scripted events.

¹⁴ See <https://youtu.be/-P8wQp0lyuQ?list=PL91EYBoHGmQ2VEnfAho9XEIdpk3uPrvr6&t=6169> (1:42:52-1:43:58). People with a particularly low chance of becoming infected have been given immunity boosters. The default chance of infection is 50%.

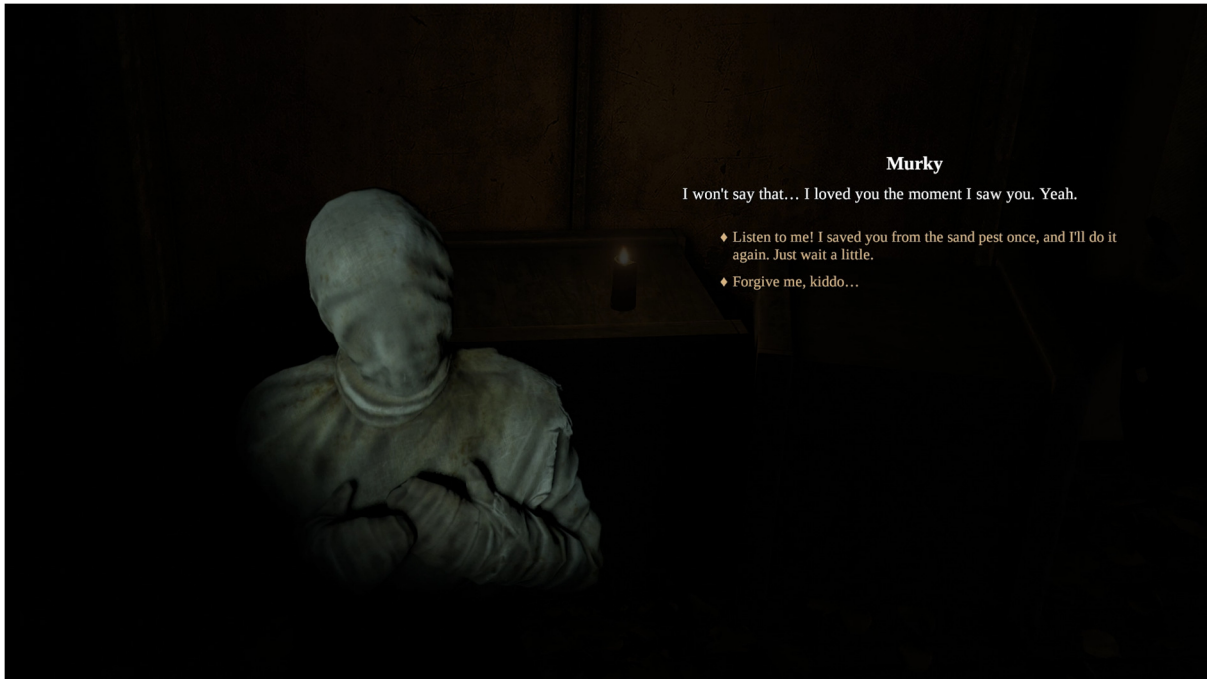


Fig. 2.4. Murky is one of Artemy’s wards, depicted here in traditional plague garb. Her and Artemy’s relationship develops throughout the game and is clearly intended to tug at the heartstrings.

How about that other play, then, where the player must perform as Artemy in the directly authored events and “story moments”? Dialogue, which functions in a fashion similar to many role-playing games in that the player chooses what to respond, capitalizes on Artemy’s somewhat vague backstory in order to allow the player a certain freedom to *think as* Artemy rather than be told *how Artemy should be*.¹⁵ Dialogue also allows the player to make choices that directly impact the game’s scripted narrative. Artemy is scrutinized quite frequently, but the player typically has the option to respond in kind through dialogue options, and these verbal hostilities illustrate the tragic divide between the dumpster diving doctor and those he is trying to save.

There is an underlying sense of isolation and growing egotism developing throughout the course of the embodied experience, hard to notice when playing, but obvious in hindsight. As things become more dire and the peaceful town becomes more desolate and hostile, Artemy’s struggle is abstracted from a mission to find the truth of his father’s murder and develop the panacea to a struggle against the game system itself (fig. 2.3). In this struggle, the player may have to perform actions that would be considered unethical in any other context. While the

¹⁵ See <https://youtu.be/rOuohbtxdCc?list=PL91EYBoHGmQ2VEnfAho9XEIdpk3uPrvr6&t=422> (07:02-09:08) for Artemy’s first conversation with Grief on the first day. Artemy knows Grief, although the player, assuming it’s their first time playing, does not. The player still has to respond to Grief *as* Artemy, encouraging the player to consciously embody the character, before developing to a more “symbiotic” relationship later on.

game effectively discourages meaningless slaughter through its design, the player as Artemy is capable of stooping to quite an ethical low. These actions are consistent with the state of the game's world, reflections of the oppressive nature of the town's decay. We will examine the function and handling of the game's moral ambiguity in our final analysis subsection. For now, it's important to point out how every aspect of Artemy's characterization is present in the narrative framework of the game and expressed through available dialogue options, while being simultaneously expressed during play. In order to make this more meaningfully legible, we will have to examine how the game represents its world in greater detail, and how the emergent and scripted narratives use the game's representational qualities to make the player's actions narratively legible.

In discussing the underlying rules and systems that make up the core challenge of *Pathologic 2*, I mentioned how all of these, in some way, tie back around to the game's most present and primary goal: survival. This is true not just for the player, or for Artemy, but for the town and all its inhabitants as well. While there are a multitude of themes explored throughout the game, like social conflict, progress versus tradition, industry versus nature, and collectivism versus individuality, all of these are represented as related to or as interpretations of the main theme of survival. For the ordinary townspeople, it's chiefly about survival in the literal sense. They are found walking the streets, each character model a representation of a specific group based on age, gender, or profession. All teenage girls look the same, save differently colored hair and clothing, as do all the soldiers, and this stands in stark contrast to the uniquely modeled characters. The number of civilians dwindles by the day. The spread of the plague, as well as looters and other hostiles, contribute to their gradual erasure until, in the last days of the game, there are hardly anybody left who isn't infected, dead, a looter, or a soldier. This gradual transformation goes for all identifiable groups of people, whose collective and individual stories are different but trend the same: the situation becomes more dire, and people are pushed, or leap, towards further extremes. The named and uniquely modelled characters, the survival of which remains an implicit goal for the player as Artemy throughout the game, are not, despite not being subject to the same strict criteria for infection or death, above this desperation. Nor, of course, is Artemy.

I have hitherto neglected to mention a rather large aspect of the game easily deserving of its own thesis: the game's relationship with theater. Existing as another layer of meaning "on top" of the innermost layer of representation, the theatrical layer recontextualizes the game and serves as a vehicle for much the game's metatextuality. This aspect of the game is

obvious only occasionally, as the player notices spotlights emanating from nowhere highlighting important things, the theatrical style of delivery of the few voiced lines in the game which appear as non-sequiturs at the start of conversations, or the dialogue of the game being framed as if upon a stage. Mark Immortell, the director of the town's theatre, exists outside the game's narrative, or at least outside its innermost representational layer. He presents the ongoing crisis as a play he is staging. The player is an actor, the protagonist is Artemy, the scripted parts of the game are scripted in a theatrical sense, and the player is the only one allowed to deviate from this script. Immortell is a force shaping the game while existing in it, not quite a developer stand-in but not quite a character like the others either, he is a self-aware puppet. He serves as a delivery mechanism for most of the game's metatextual conversations, and the player can discuss with him the nature and purpose of games, or they can refuse to indulge him and stay firmly in character and incredulous.

This framing of the game's narrative as something that exists outside the theater, on the streets of the unnamed town, informs my interpretation of how the game becomes interpretable. What's most important is not the game's scripted plot, but the game's "stage" and the player's subsequent "performance" upon it. It places an emphasis not on the game's ludonarrative *as a product*, but rather *as a process*. This process begins, if we enforce a sense of chronology upon it, with the stage and the automated "actors," the NPCs. The "generic" characters, as representations of the various kinds of inhabitants in this fictional world, reenact their own cultural norms procedurally, on the basis of their allowances and disallowances as decided by the rules. While the rules governing them is constant, they are affected by external factors, such as the presence of other NPCs guided by a different set of rules. In addition, the scripted narrative of the game, whether it be choices the player makes in dialogue or the passage of time itself, will change the world of the game and thus impact the spread and perceived behavior of these NPCs. Through this process, half-emergent and half-scripted, the inhabitants of the town act out their own rapid decay in accordance with the rules that govern them, framed by the game's scripted narrative progression. Wandering down any given street, the player can witness looters attacking civilians, soldiers with flamethrowers incinerating the infected, and any number of free-for-all skirmishes emerging from the rather limited behaviors these characters are capable of exhibiting. These are "dramatic events appropriate to the fictional world" (Murray 329-330), unpredictably occurring signs of the town's decay. Every object represented in *Pathologic 2*'s world is similarly consistent with and paralleling the game system, avoiding the problem of

ludonarrative dissonance at this stage by constructing a system of rules consistent with the fictional world's own internal logic.

Simultaneously, the player is steeped in prolonging Artemy's survival, continuing down their own path as dictated in the first instance by the system of rules and, during play, the player's own decisions. Artemy's own personal apocalypse develops alongside the town's, the specifics of either always unique in their exact configuration. The player's decisions during play make up a kind of "ludic plot," but this is not what makes up the game's narrative. This plot would be narratable, but not legible, by itself. The narrative is of a higher-level, emerging through the performances of the townspeople and the player as Artemy both. The struggle for survival is performed throughout the game in this manner, guided by deliberately designed rules, and through these performances the narrative of the decaying town emerges.

This narrative emerges through the system but is given meaning through the game's fictional representations. While the motivations of individual characters are difficult to discern, and many of the questions players may have remain unanswered, the player witnesses in the scripted conversations and events a growing desperation parallel the systemic one. The representation of the ordinary townspeople and their various social groups, the military and the looters, as well as the named characters provide legibility to the systemic chaos, particularizing the crisis from the generic to the specific. Only the streets are liberated entirely from any kind of linearity, and this "half" of the narrative is systematized in order to allow for greater complicity. Artemy's implicit characterization as a pawn is perhaps best expressed through his interactions with the faceless mob, peaceful or otherwise, and allows the player to impact the "ludic plot" while restraining their ability to impact the larger narrative. The tremendous agency does not allow the player to remedy the greater tragedy, only to interfere with individual characters and situations, and so, invariably, the situation becomes more dire. The emergent half is not emergent in order to allow for a variety of meaningfully different narrative, but different states which the player can observe and must adapt to. The town's plummet into chaos affects the immediate experience of playing the game, and the player's embodied thinking, ensuring that self-preservation is always their top priority, pressures players into opportunistically interfering with these systemic patterns, increasing their intimacy with the narrative through interaction.

The emergent narrative, infinitely cruder than any directly authored narrative, allows for a systemic view of the town's decay. The characters and factions add a deeper sense of

oppression on top of the oppressive survival systems, through directly being in the way of fulfilling any short-term ludic goal. Embodying Artemy, meanwhile, allows the player to think more deeply from *within* the crisis, rather than *about* it. There is a distinct lack of moralizing on the part of the game, with any criticism directed at Artemy or the player never spoken from a position of authority, but subjectivity. The game doesn't attempt to trick the player into committing immoral acts, nor does it attempt to be purposefully miserable for the sake of it. It is, from its genre to its mechanics, its systems, and its characters, an attempt to replicate, as occurring in its own fiction, a complete and total crisis. The player is then placed within this simulation of itself, treated like a sentient pawn, and must overcome despair through engaging with the game's mechanics on the game's terms, embodying a specific role, immersed in a specific world, all of which relate to the goals of preserving oneself and preserving the town. It's an attempt to use the interactive capabilities of games to create an experience of play that is as intimate as possible, not only to allow for new ways of thematic exploration, but to allow for a greater proximity to its fiction. You don't identify *with*, you *are* Artemy. The analytical distance so easily maintained with traditional media has been swapped for proximity, the carefully written dramatic moments are expressed indirectly, by a system of rules and the player's engagement with them. The player, an element within this system, sees more clearly the immediate, but loses sight of the big picture. This is the primary achievement of *Pathologic 2*: embedding the player more deeply within its fiction, or rather, within a continuous fictional moment than perhaps anything prior. Through a willingness to move away from the filmic and the multilinear choose-your-own-adventure style of storytelling to embrace a new, ludic storytelling, focused on an immersion through interactivity and a decision-making process requiring and further facilitating embodied thinking.

Looking at the whole of the ludonarrative, we see a complete cohesion between the game system and the game's fiction. The town's simulation of its own decay, rather than being told exclusively through a scripted plot, is systemic. This emergent narrative is legible through the fictional layer of meaning, in which every object within the game's world functions and adapts to the configuration of the given game state. The process of its decay is directly observable and affects the player's experience directly. Embodying Artemy, the player performs the part of one element within the system that is the town. All the player's actions now gain narrative significance as they play the part of the overburdened surgeon, not above the decay but part of it. The player plays an active, though not necessarily conscious, part in

constructing this ludonarrative. Through the design of the game, they are motivated or pressured into characterizing Artemy through their actions, the actions necessitated by the ludic aspects examined earlier now legible.

What's important is not the narrative's scripted plot, nor the "ludic plot" of the emergent narrative, but the entire complex system of narratives. Emergent patterns and game states are important to engage the player with unique configurations of the world to adapt to, which are always representative of an intentional hypothetical narrative activated through play, but these are not, by themselves, the point of the experience. The scripted plot and representational layer of meaning are important as motivation for the player and Artemy as well as to make the ludonarrative and the player's role within it interpretable, but these are also not the point in themselves. The point is the whole ludonarrative, the story as "written" by the player's interaction with game's emergent patterns made legible through the game's fictional layer of meaning and contextualized through the game's scripted narrative progression. At least, if interpretation of the game's narrative is the goal.

The further facilitation of immersion, however, is not the result of any or all of these things, but rather the experience of constructing it. In embodying Artemy and engaging with the game's systems, this construction becomes a continuous process which further facilitates ludic and fictional immersion. It is a demonstration of the power of digital games to embed the player within their fictional context more deeply than any novel or film would ever be capable of doing. The ludonarrative is constructed by both player and game, and therefore the player is "not the consumer. He is the coauthor" (Ice-Pick Lodge). This authorship is not about having "more direct manipulations of the elements of the story" (Murray 111), as the "story" in the narrowest sense will be generally the same irrespective of the player's actions. The point, if the goal is to make the player truly present within the fictional world of the game, is the leveraging of player agency, supported by an immersion facilitated by the player's interaction with the game system and an embodiment in the PC, to enable the player to experience what it's like to be *this character in this world at this moment*.

Struggle

The purpose of "difficulty"

By maintaining a safe distance between reader and characters, literature has been able to explore the whole spectrum of human emotions without inflicting

intolerable suffering on the reader. Any attempt to turn empathy, which relies on mental simulation, into emotions felt ‘from the inside’ would in the vast majority of cases cross the fragile boundary that separates pleasure from pain.
 – Marie-Laure Ryan, “Beyond Myth and Metaphor” 593

Difficulty remains hotly debated in game studies, in games journalism, and among casual and hardcore players. Debates around whether games should always strive to be “accessible” have appeared with increasing regularity in recent years.¹⁶ The problem with the framing of this and other questions regarding difficulty is that whatever perspective the interlocutor presents, it will often be presented in the form of a universal truism. Think pieces and forum comments aiming to strike down the big bad of either hardcore gaming elitism or ignorant gaming journalist pandering depending on which tribe they belong to, will inevitably fail to take into account the differences between the diverse forms of “difficulty” as well as the near-infinite ways this “difficulty” can fundamentally alter the experience of playing a game or reinforce a game’s narrative. Even Juul’s *The Art of Failure*, which attempts to resolve the paradox of people wanting to avoid failure but seeking out challenge in digital games (2), falls into this trap of being too general. Going beyond the question of mediating frustration as a result of failure, how is it that people subject themselves to experiences which are designed to be not only difficult, but mentally demanding or even depressing?

In critiquing a game, one must assume that its difficulty, whatever that means in the given context, is a deliberate choice. Perhaps a game was made difficult in order to instill a sense of satisfaction in the player on overcoming a particularly difficult challenge, or maybe the purpose was to allow for a sense of progression as the player gradually improves their performance. Whatever the reason, the critic must assume there is one, and not accept so easily that a challenging game is poorly made or “stupid” because it’s difficulty *clearly* serves no purpose (Juul, *The Art of Failure* 15). Some games famously use their difficulty in order to immerse the player and motivate player examinations of a game’s systems and world, *Dark Souls* (FromSoftware) and the other “Soulsborne” games being obvious examples. Attempting to calibrate the difficulty of all games to meet some nebulous lowest common denominator threshold to allow them to be completed by everyone without too much mental strain would be to make impossible the kinds of experience and narratives these games have the potential to provide. One might not care for stream-of-consciousness, or even

¹⁶ See, for instance, Kuchera.

suggest that a novel like *Ulysses* would be improved without it, but one would also have to admit that a version of the book rewritten to be as straightforward and easy to understand as possible would no longer be the same work, even if the plot remains identical. Designing perceptions of difficulty is one aspect unique to games, intrinsically linked to the fundamental property of interactivity, and the various ways in which this difficulty can manifest and be leveraged in order to accomplish any number of things should be explored freely so that we may learn something about the “medium” we call digital games.

The “difficulty” I deal with in this thesis is one which requires neither dexterity nor quick reflexes falling instead into the category of analytical complexity. Greg Costikyan, in his discussion of *Uncertainty in Games*, describes analytically complex games as “games in which players need to think about what to do, have to parse a complicated decision tree, and perhaps are uncertain, even as they make a decision, that it is necessarily the correct decision to make” (86). This seems familiar and becomes more so as Costikyan goes on to assert that “analytic complexity is the product of a system that allows a player several options but forces trade-offs,” (90) which we saw plenty of examples of in our discussion of *Pathologic 2*’s survival systems. Costikyan problematizes the resulting analytic uncertainty as being unappealing to players who “want to be swept up in the moment of play, to be, for the most part in a flow state, and not to be halted to think deeply about the next thing they must accomplish” (91). He also introduces the issue of “analysis paralysis, the phenomenon whereby one player agonizes over his choices and delays the game for others. And of course, . . . by nature, a game that requires quick responses cannot also pose difficult mental challenges for them” (91).¹⁷ While analytical complexity, along with the resulting unpredictability and challenges that come with navigating it are indeed useful for thinking about games like *Pathologic 2* which are “difficult” in a less traditional manner, I take issue with some of Costikyan’s generalizations regarding this type of unpredictability. While *Pathologic 2* is not an action game, nor even technically a game which *requires* quick physical responses, but rather encourage quick mental ones, it nevertheless motivates on-the-fly strategizing and a constant reevaluation of current goals and ways to achieve them, and this cognition is occurring while dodging plague bearers and hostiles both. A game requiring quick responses does not have to avoid challenging the player mentally, such a combination may in fact be the solution to the problem of analysis paralysis. If nothing else, it should be

¹⁷ The term “flow state” alludes to Csikszentmihalyi, popular in game studies for his theory of flow. See Csikszentmihalyi.

obvious at this point that nothing in game design is absolutely off limits and that no two things are universally incompatible. The successful functioning of any aspect in conjunction with any other is a problem that can be solved through cohesive and deliberate design.

Stress, ambiguity, and complicity in *Pathologic 2*

Your burden is heavy, Artemy Burakh. How can we show that? Imagine rolling a boulder uphill, muscles trembling. What do you feel?

- Mark Immortell, *Pathologic 2*

Pathologic 2 is a prime example of an analytically complex game as the player is constantly setting their own goals and choosing between a series of meaningfully different potential approaches, all of which have trade-off. The game feels “difficult,” however, due to how every element of its design is intended to instill a sense of urgency and disempowerment in the player. The rather harsh survival challenge, which requires constant attention and adaptability from the player to be continually overcome, is complicated by the existence of the game’s constant passage of time which lock the player out of scripted events after a certain time, motivating efficiency and decisiveness in player decision-making. The game did not appear to do well financially, and given the response from the game’s developers, this may have had something to do with some common misconceptions around *Pathologic 2*’s challenging nature (fig. 3.1). The game was always intended to be challenging, and the game makes this very clear throughout using *subtle* hints (fig. 3.2). The question then becomes why the game is designed this way, and exactly how *Pathologic 2* is “difficult”.

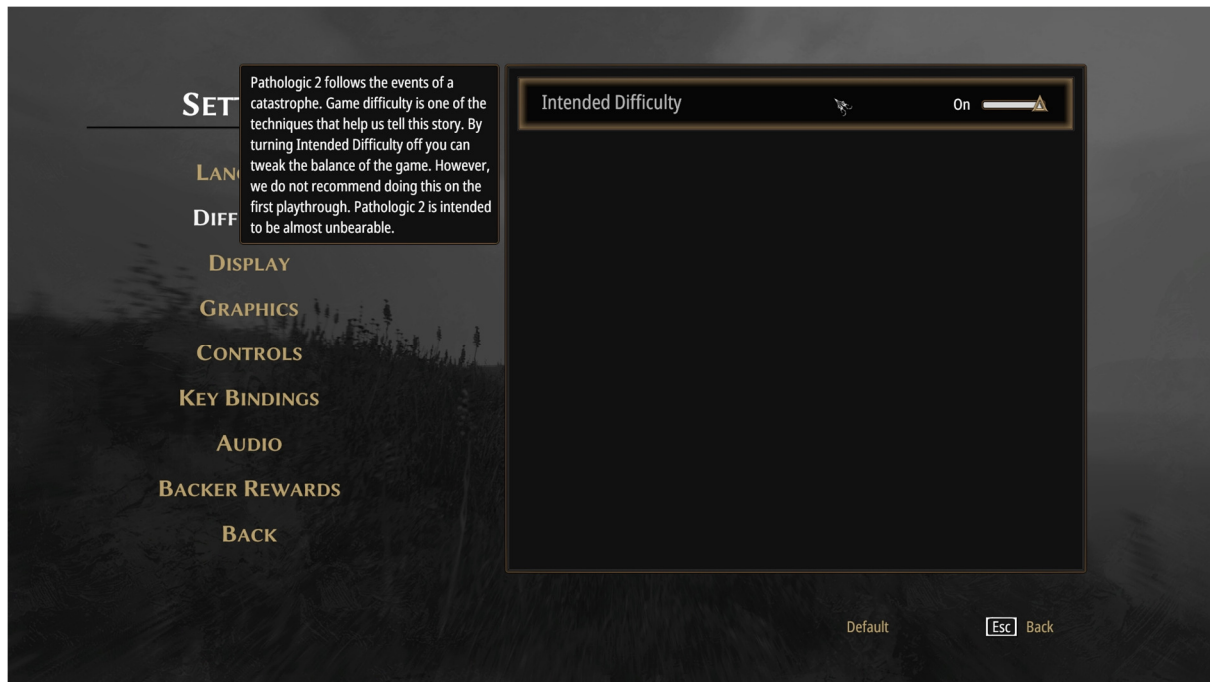


Fig. 3.1. A few weeks after the release of the game, the developers added the ability for players to change the game's parameters in order to make the game easier. The developers warn against doing this, citing difficulty as an important device for the construction of the game's narrative.

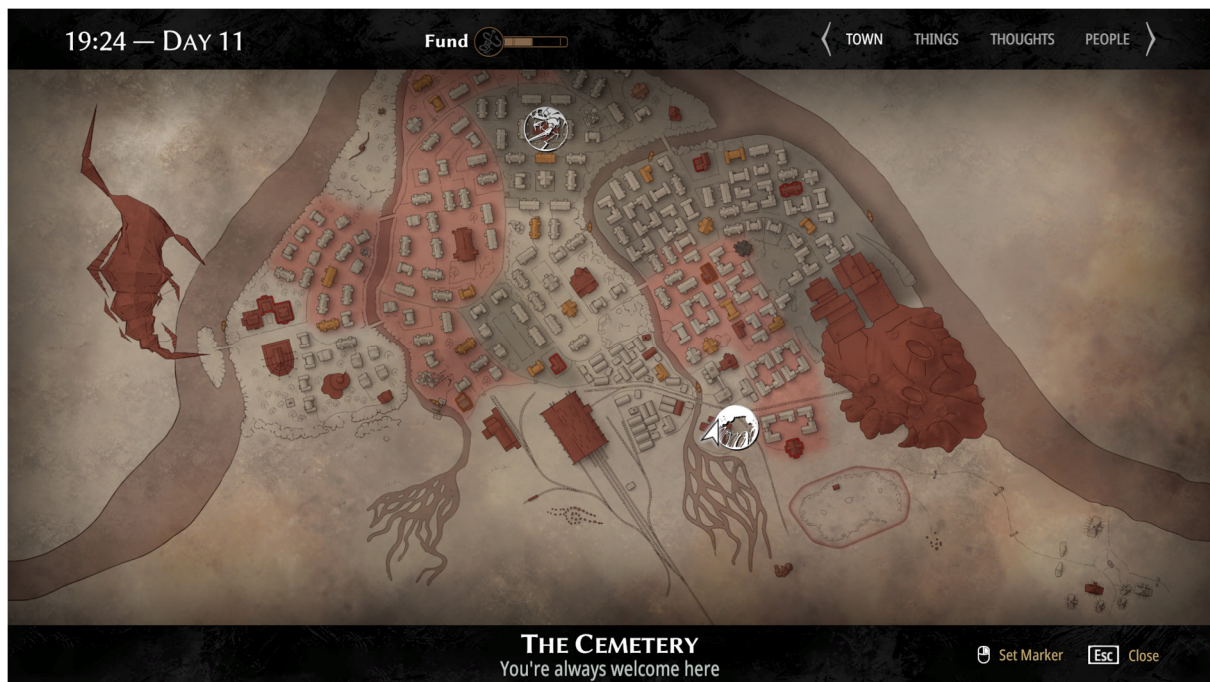


Fig. 3.2. Artemy's reputation changes in the inhabited districts, but he is always welcome in the cemetery.

“Difficulty” is a somewhat misleading word to use in describing *Pathologic 2*. While the game requires a lot in terms of player investment, the game requires very little in terms of *results* from the player. Simply buy as much food as possible in the first couple of days and

then go into hibernation until day 12. Alternatively, the player can wake up on day 11 to complete a few tasks to get one of the “good” endings. Regardless, the game will undoubtedly be over, “won”. As long as Artemy survives, the player has “beaten” the game. The experience of *playing*, some might say “suffering,” through the game in anything resembling a serious manner is entirely optional. There are no boss fights, no mandatory objectives, and no absolute fail states. The game is only as difficult as the player takes it seriously. The game does not require precisely-timed button presses, physical dexterity, quick reflexes, or knowledge from or about other games. After the initial hurdle of getting accustomed to moving around a three-dimensional digital space, assuming this is something potential players are unaccustomed to, there is effectively nothing stopping a “casual” player from performing as well as a “hardcore” player. *Pathologic 2* is analytically complex as a result of its complex and interrelated systems and variety of potential game states. The player’s immersion facilitates further immersion, but a failure to learn from and about the world of *Pathologic 2* will no doubt result in an excruciating experience in which the player ends up blaming the game for their failures—failures which only exist in the player’s head, as there is no “evaluation” whatsoever, neither in the game itself nor elsewhere, of the player’s performance. There are characters who criticize Artemy, or even the player directly, but these characters are speaking from a position of ignorance or malice, and the player is encouraged to argue against their criticisms. The “difficulty” of *Pathologic 2*, should the player engage with the game in any earnest manner, can perhaps be more accurately described as “stress,” or even “oppression”. Any game needs “some element that works against player success, an element that acts to try and ensure the failure of the player. This role (. . .) may be embodied in the game system as a whole,” (Salen & Zimmerman 387) and this is precisely what we see in *Pathologic 2*. Even accepting the personified plague figure as a representation of this hostile game system, it is ultimate the system itself, with its meters spelling the player’s slowly encroaching doom, that the player is continuously battling against. The game becomes a Sisyphean struggle against the game system itself, through which the player is enacting the difficulties in existing in this fictional moment.

Despite not being “difficult” in the traditional sense, the game’s survival systems are clearly demanding which, together with the constantly ticking clock, serve as major sense of stress. The real game-changer though, is how the game treats death. In games, death typically has one of a few consequences, the most typical being forcing the player to simply restart from a previous save or checkpoint. *Pathologic 2* also does this, but in addition, in a rather

unprecedented move, makes the game harder with each death. This is a “negative feedback loop” which in theory favors the game system as an opponent over the player, who will in turn have a harder time with each death (Salen and Zimmerman 218-219). When the player dies, they are transported to the town theater in order to talk to Mark Immortell and receive a “burden” in the form of slightly lowered maximum values on any of Artemy’s survival-related attributes.¹⁸ These are irreversible, as they are tracked across the player’s saves, the only way to completely reverse them being to start the entire game over. This may sound strange. After all, why would the game encourage players to start over if the game is all about making the best of a bad situation and persevering against the odds? That’s not the purpose of this feature, however. Instead, this rather peculiar way of handling death serves three primary functions. First, it helps create a continuity between deaths by having Mark acknowledge the player’s death even though the actions leading up to it are reversed. Second, it serves as a delivery mechanism for most of the game’s more meta conversations as Mark Immortell has unique dialogue after every death. Any dead characters are also present, and the player may talk to them as well. This also allows the player to voice their frustrations and bicker with Mark about the fairness of these burdens. Finally, it further stresses the player and serves as a source of tension when the player is in danger of dying, as the player presumably wants to avoid receiving these burdens. These “punishments” seem harsh but are little more than illusions as the burdens, like limiting the cap of the hunger meter, don’t necessarily make the game more demanding. This is partially because these burdens are absurdly small by themselves, but more importantly because limiting the hunger meter, for instance, only means a very slight decrease in the amount of time the player can go without eating. It does not impact how much food the player needs to eat in total. As such, this is Mark Immortell “motivating” his actor, all the while providing the player the opportunity to explain to him why this is unfair. Far from sadistic, this feature allows for the game’s most interesting metatextual conversations, implying the player was always “intended” to die quite a few times.

The game’s content and the logic of its organization may provide additional hurdles for the player beyond the immediately stressful aspects of the game, as it stands in stark contrast to how content is organized and implicitly understood in other games, the reading of which the player may have accrued the literacy to understand. By this I’m referring both to the logic of the world of the game itself and how players have been trained to consume, rather than play,

¹⁸ See <https://youtu.be/JLBqpdspBXk?t=803> (13:23-15:15) for one death and subsequent conversation.

games. Games which advertise their wealth of “content,” i.e., scripted events, missions, quests, and cutscenes, do this because many players gravitate towards games which offer such a wealth of content. During play, the player is typically free to consume this content at their leisure if the game is non-linear or, if the game is linear, will “see” all of it anyway. To allow players the freedom to consume, the content must be made available somehow, therefore games typically don’t allow content to be directly inaccessible, so as not to deprive players of the full “experience.” It is anything but an “experience,” however, if the game jeopardizes its internal consistency to provide access to its content.

Pathologic 2 focuses on the construction of an experience rather than on the passive consumption of the content. The game makes it virtually impossible to “see” all the “content” of the game on any single playthrough, due to its constant passage of time making events inaccessible and the likelihood of characters dying. This time pressure may appear at odds with the game’s demanding nature but is anything but, as this time pressure is the game’s biggest source of stress. It necessitates quick adaptation rather than promoting careful and leisurely consumption of “content.” The logic of *Pathologic 2*’s world, particularly regarding how information is presented as ambiguous, is also distinct from how games are implicitly understood. Players may assume that successfully fulfilling a task given to Artemy by another character will have some kind of positive effect on the world or provide some benefit for the player. As mentioned in passing earlier, this is not always the case. Characters propose ways of combating the plague based on the information they have, and this information will always be incomplete if not simply false, or they may be purposefully manipulating Artemy for their own needs. This ambiguity means the player is unable to make assumptions and must use the relevant knowledge they have accrued to make a decision. The entirety of the game is steeped in this ambiguity, leaving the player no choice to consciously consider their options rather than relying on their “gamer instincts.”

The demanding nature of the game did not sit well with everyone at the time of the game’s release. One who was not immersed is Brendan Caldwell, who wrote a somewhat infamous review of *Pathologic 2* for *Rock, Paper, Shotgun*. Memorable for its author’s abject refusal to evaluate the game on its own terms, as well as its strange comparisons to other games, like his assertion that the game feels like a “budget Skyrim” (Caldwell). The review concludes that while the game is “[ten] times more interesting than your average immersive sim (probably the genre it belongs), [it is] hundreds of times less inviting,” and argues that the strict and stressful survival systems make the game less enjoyable and distract from the

player's ability to walk around and engage with the world and its characters (Caldwell). It appears Caldwell has discovered a most well-kept secret about *Pathologic 2*: it is a game. I will go even further and admit something of which Caldwell seems incapable: the game, a reimagining of its 2005 original and the result of several years of work from a studio known for their artsy experimentation made for the purpose of pushing the boundaries of what games are perceived to be capable of, does not include complex and demanding survival challenges which permeate every aspect the game by accident or as a mistake; it was a deliberate choice that is essential to the functioning of the game. "[T]he hunger meter and its ilk are this game's swollen, valueless appendix" (Caldwell) only if one assumes that the game intended to be a museum exhibition rather than a game, that these "distractions" that the entire game revolves around and which are key in constructing the game's ludonarrative and facilitating immersion and embodiment are in fact distractions rather than what they actually are: the point.

The reasons why Caldwell's perspective is poorly thought-out are manifold. The first is simple: the argument that the dreaded hunger meter is keeping players from getting immersed in the world is completely backwards. These meters, along with other relevant aspects of the game system, are what necessitate engagement. Ice-Pick Lodge clearly assumed players would be invested enough to attempt to improve their performance and want to learn more about the game's world, and the "difficulty" was one way of motivating this behavior. If the game was straightforward, with no ambiguity as to the "correct" course of action, and no situations in which the player had to make difficult choices based on what they knew about the game's world, the player would have no reason to place themselves in the moment, no encouragement for embodied thinking, no reason to engage with the world whatsoever aside from the player's own whims. Stripping away the survival system would reveal a world in which the player has no place. The game system's elements must work in conjunction with one another to create the experience, as the intrigue alone is not enough to immerse the player, neither within the world nor its moment.

I know this because *Pathologic 2*'s predecessor exists. *Pathologic: Classic HD* (Gambitious Digital Entertainment), the only tolerable version of the game for players who cannot read Russian, seems like the same game as *Pathologic 2* on the surface, the latter being simultaneously a reimagining and a sequel to the former. While the survival system is very much present in the first game, it is not nearly as demanding as in the second, the passage of time is slower, and there is significantly less to engage with in terms of directly authored

events on any given day. As a result, the player is, in accordance with Caldwell's wishes, more or less free to wander around at their leisure. The less strict passage of time is not a motivator of planning and efficiency, but rather a promise that after just one more hour of wandering around, during which the player likely ends up talking to every single named character in the game just to see if they have something new to say that may temporarily distract from this empty experience, tomorrow will come, and with it, more wandering. The world is intriguing, but empty. This is despite a heavier focus on dialogue and a slightly more traditional narrative than *Pathologic 2*. If the survival system in *Pathologic 2* were as forgiving as with its predecessor, it would end up as much the same: an intriguing world without the challenge to go with it, where no thinking is necessary, just walking. While *Pathologic 2* also consists of a lot of running around town, what's going on in the player's head is completely altered. It is in the player's own head, rather than in the objectivity of the screen, that immersion occurs, assuming the conditions for this are present.

The second reason the game's demanding nature is vital to the experience concerns the whole of the game's ludonarrative. While not necessarily dissonant, making the game less stress-inducing would no doubt ring hollow. In games in which there is an obvious protagonist, an avatar the player uses to interact with the game world, there's no denying that this character will have to be considered separate from the game system itself by nature of being controlled by a human being rather than a preprogrammed script. *Separate*, but not necessarily *above*. *Pathologic 2* aims to subvert the special treatment many games bestow upon their PCs, and by extension, their players, by "deliberately refusing to create a comfortable environment for the gamer" (Ice-Pick Lodge). In a fictional world of moral ambiguity and uncertainty, bestowing upon the player a sense of distance from this world's problems and concerns by allowing them to make decisions without the stress of a ticking clock or the need to fulfill their digital selves' most basic needs would only further reinforce this distance, and this would run counter to the goal of immersing the player within its fictional moment. The player would no longer be capable of embodied thinking as the PC's imagined mindset and emotional state would be incongruous with respect to the player's own. Any choice made by the player, whether in the virtual space represented as a town's streets or in the directly authored "dialogue dimension," would no longer take into account Artemy's or the player's own needs, and the player would make their choice based on what they would *like* to happen as a passive member of the audience, rather than they need to happen as an active and present participant in the fictional world of the game. "The addressee is not the consumer. He is the

coauthor,” (Ice-Pick Lodge) but in this hypothetical *Pathologic 2* this would no longer be the case. The player would be *gaming* the game rather than *playing* it, meta-gaming to make the “best” decisions or complete a “perfect” run. “Perfection” is a concept foreign to this game: there is only what is happening and how the player responds to it, with no measuring sticks outside of self-evaluation and the player’s own emotional response. The stressful and oppressive nature of the game system is what glues the entire experience together, and the removal or softening of either the game’s survival elements or the ticking clock would inevitably turn the game from a one-of-a-kind experience into a dime-a-dozen adventure or role-playing game. The world might still be intriguing, but it would be passively consumed rather than experienced, and the game would be no different from a choose-your-own-adventure book or its digital equivalents like *Heavy Rain*. The setting’s novelties would soon wear off, and the experience would be forgotten because it was not an experience at all, but a second-hand account paid for through disinterested button-pushing. “A more rapidly diminishing exhaustion meter does not say anything meaningful or interesting about this otherworldly place” (Caldwell) indeed, because the game does not need to *say* anything about its setting, but rather set up the conditions that allow the player to experience it first-hand and instill in them a sense of disempowered agency that appears ludonarratively cohesive. The exhaustion meter becomes a ludic device which motivates the player to act, producing these effects.

It is entirely correct to assert that the oppressive survival systems and ticking clock “distract” from the “narrative,” as long as this assertion assumes a rather traditional perspective on what constitutes narrative. The player’s embodied perspective is further cemented by the game system’s stress-inducing design and the fictional world’s ambiguity. The player’s consciousness of the representational qualities of the game’s objects are marginalized, in favor of an economic and pragmatic perspective necessitated by the game’s fictional context. Embodying Artemy, the player will likely be conscious of the named and important characters as characters within the fictional world, particularly Artemy’s wards, like Murky. The generic NPCs however, representations of the town’s inhabitants, may be perceived, as encouraged by the game’s design, as mere sources of resources. The game encourages a ludic rather than a fictional interpretation of these NPCs, as they bear little fictional meaning for Artemy’s and the player’s immediate situation. As such, the game effectively simulates the narrowing of perspective coherent with the game’s fictional moment. In other words, the narrowing of the player’s perspective to include only what is immediately relevant or

fictionally important for the player as Artemy effectively simulates a fictionally coherent egotism based on self-preservation instincts which we may reasonably expect to occur in such a situation. As such, the marginalization of “narrative” becomes, itself, narrative. These stressful and ambiguous aspects of the game not only deepens the player’s embodied thinking but motivates their performance as a disempowered, overburdened, and desperate Artemy, deepening the ludonarrative of the game.

To provide just one example of such a potential marginalization, we can analyze the player’s usage of the trade mechanic. In figure 1.5 I displayed the game’s trading system, showing myself as Artemy trading away some junk to a little girl for precious immunity boosters and an egg. As described earlier, different kinds of townspeople will have different items available for trade and will also have different preferences for what they want in return. This child being in possession of these items and willingly trading them away for junk is therefore very much deliberate and a part of her fictional representation. It is never explicitly stated or even hinted at how exactly these children get their hands on items like these during a time of scarcity when they are at their most valuable. Regardless, the player, as Artemy, is undoubtedly taking advantage of children in such a situation, preventing them from using these items to help their own family members or friends avoid infection, or to ease their suffering when they almost inevitably do get infected. The player is likely not conscious of this when playing, as trading is so commonplace, and the faces of townsfolk will inevitably fade, leaving only a mental schema of gains and losses. A minor example, but one that is undeniably present in and active through the game system and the player’s interaction with it, made legible by the fictional representation of the objects as items and characters.

At no point does the game point out that this is what the player is doing or confront the player about this, nor does this lead to some dramatic moment in which the player sees the consequences of their actions. It simply happens. If the goal is to provide the experience of embodying a character within the game’s fictional moment, the game is better served not acknowledging this explicitly during play, as it is the pragmatic and egocentric crossing of boundaries itself which is part of the experience, not the moralizing of it. The context of these acts fit the world, and are necessitated ludically by the game’s demanding nature, and fictionally by Artemy’s looming starvation and need of resources. Juul observes, “[A] game changes the player that plays it,” (*Half-Real* 96) and while he makes this observation in a discussion of players’ improvements in their ability to overcome the challenges of a given game, this may be equally true for the player’s identity as embodied. While temporary, this

altered cognition allows for a fuller experience of the fictional world, with its miserable conditions, than any passive consumption. It conveys how the right conditions can facilitate abhorrent behavior, whether this is conscious or not, along with the subsequent justification that will no doubt come after play. The sense of complicity arises after play, when the player's critical distance is regained, and they are no longer immersed in the fictional moment, as in the aftermath of some disaster where the people involved gradually come to grips with what has transpired and regain their emotional distance. The interpretational seed is sown during play, but it is only afterwards that any true evaluation of the game's narrative and the player's own role within it can occur. This elegant movement from complete immersion to distant interpretation would not be possible without the oppressive framework narrowing the player's embodied field of vision. Instead, they would be comfortably making choices according to a whim, deciding to make the "good" or "bad" choices not to immerse themselves within the fictional world, but so that they could consume all the "content" of the game as efficiently as possible. This sense of complicity, arising directly from the stress induced by the suffocating demands of the game system, carries with it a conveyance of how living through conditions like those in the fictional world of the game may change the individual. The player becomes a demonstration of this through their performance as Artemy Burakh, developed throughout the entire game. During play this likely goes unnoticed by the player until they step out of the magic circle and can critically assess the game's narrative and their own part of it.

Thus, *Pathologic 2*'s "difficulty," and its systemic stress-inducing and ambiguous nature, not only ensures a sense of ludonarrative coherence but further nuances the game's ludonarrative as well as Artemy's role within the game's fiction. The game is indirectly designed, and it is only during play that a game can be experienced, during which the game ensures a continuous embodiment and sense of immersion. After play, when the player steps outside the magic circle, the constructed ludonarrative becomes legible. This is the "purpose" of *Pathologic 2*'s meters, time restrictions, and ambiguous fictional information.

The 25-hour moment in context

Far be it from me to call myself a person of mystical inclinations. However, when I look at you, I get the feeling that nature is playing jokes on us. It's as if both the left

and the right hand have clutched the head to realize for the first time that they are both parts of a single whole.

- Daniil Dankovsky to Artemy Burakh, *Pathologic: Classic HD*

Pathologic 2 is an ambitious and uncompromising attempt at fostering an experience. The game focuses on the experience created through play but creates a substantial world and plot to frame this experience. Immersion, besides immediately obvious things like the first-person perspective, is facilitated first and foremost through bestowing the player with a great deal of agency in navigating a game system consisting of embedded and interrelated emergent systems. The player is then forced to adapt to the given game state and take into account current attributes, inventory, physical space within the world, time of day, nearby NPCs, and a lot more, combined with knowledge of the game system and the fictional world of the game, to successfully determine a course of action. This thinking is embodied in that Artemy's short-term and long-term goals, survival and combating the plague respectively, become the player's goals. In pursuing these goals, the player and Artemy meet fierce resistance from the harsh survival challenges, the constant and uncaring passage of time, as well as the avant-garde theater director and other characters who may mislead or inconvenience them. The game's stressful nature, increasing in accordance with the town's decay, further cement a ludic immersion and the player's embodied thinking, but it also corrupts it. The game transforms both Artemy and the player into pragmatic creatures, not concerned with identifying the optimal strategy of extracting content from the game, nor with making the most morally satisfying decisions, but with the efficiency with which the player can remedy the continuous challenges associated with the most immediate goal of survival. The player's performance as Artemy narrows their field of view of the fictional world, marginalizing the narrative outside the immediately relevant or particularly pressing, and, as the game becomes even more stressful, forces the player to stretch further and further to avoid dying. This is a way in which *Pathologic 2* avoids the problem of embodying rather than empathizing with someone in a traumatic or tragic situation: by leaning on the game system to simulate, in addition to heinous acts, the justification, or rather, the mental marginalization of those acts. The player, encouraged by the game's design, constructs the game's ludonarrative and in so doing, achieves a deeper sense of ludic and fictional immersion as well as embodiment. The game, through its existence as a complex and interrelated system, through its fictional layer of meaning and world, and through its mentally

demanding nature, motivate and maintain a sense of being present in this fictional moment. It facilitates a cohesive experience through which every aspect reinforces another.

The experience of agency in this 25-hour moment, continually immersing oneself through performing in this indirectly designed play, demonstrates how games have the potential to create a different kind of narrative experience. Rather than authoring a linear narrative, games have the ability to create systems which simulate a fictional world. The player then immerses themselves within this world through meaningful interactivity in which they can impact and be impacted by this system and world. “[A] *game changes the player that plays it*,” not just in terms of the player’s ability to function effectively within the magic circle of the game (Juul, *Half-Real* 96), but in terms of the player’s embodied cognition within the fictional world. The experience of play transforms the player’s cognition, temporarily, shaped by the game’s design and their own interaction with, facilitating a true sense of immersion. Comparing the traditional narrative structure of “old media” with this new ludonarrative experience, we can see a fundamental difference in narrative construction and degree of presentness. Instead of identifying with characters within a deliberately and directly authored plot, the feelings and thoughts of these characters as well as the particulars of the setting are abstracted and simulated in the player. This is why choose-your-own-adventure-style games ultimately serve no greater purpose than their namesake: they do not leverage games’ inherently different possibilities or avoid their inherent pitfalls, and they do not allow the player the agency they need in order to embody and perform their role. “Freedom” is not the goal or even a positive thing in the facilitation of this, it is specifically agency which is required, as limitations are necessary to motivate and make player behavior meaningful. You cannot adapt a novel into a game by simply replicating its plot and tacking on a combat system or some strange minigames, you have to identify and abstracts its contents, and then attempt to simulate these in the immersed and embodied player through the player’s guided interaction with the game system and world. In *Pathologic 2*, we clearly see this with the sense of stress and responsibility, as well as the fears of starvation and other things, which would be made explicit in a novel’s descriptions of Artemy’s situation emerging instead through the game’s design. There is still room for interpretation and analysis, but this must come, in the example of *Pathologic 2*, after the experience of playing the game when the player’s analytical distance can be reestablished. This is due to the game’s design encouraging a strict sense of focus upon the elements most vital for Artemy’s survival, effectively using players’ habits of exploiting a game’s design to gain an advantage in order to simulate the egocentric and

pragmatic mindset which would convincingly develop in a person living through the conditions of the game's world.

If any of the major aspects I have examined in this thesis was removed from the game, it would cease to function as a cohesive ludonarrative or as an immersive experience. The game "gets away" with a lot because it's set in such dire circumstances, and aspects like the game's stressful design further complements this. If *Pathologic 2* was a game about gardening, for instance, the design of the game would have to be radically altered or become comical. If the game was made trivially easy through adjusting the parameters in the added difficulty menu, the experience would be made tedious as all that would remain would be the running around without the "motivation" provided through the sense of stress. The game's cohesive design begs the question: what can we learn from *Pathologic 2* in designing or critiquing games? Not much, if we take the specific design elements of the game and look for them elsewhere or encourage their presence where they don't belong. Despite my poking fun at games like *Gone Home* for their regressive design, this does not mean I am taking the stance that all games should adapt *Pathologic 2*'s design wholesale. *Pathologic 2* was made for one purpose: being *Pathologic 2*. Even *Pathologic: Classic HD*, ostensibly the same game, is such a vastly different experience from its reimagining/sequel due to a relatively slight difference in priorities and design. *Pathologic 2* is intended to simulate a plague outbreak in a fictional town in which the player embodies a single character to experience the situation first-hand, and its design reflects this goal. A gardening game may have other priorities, and the attention of games criticism should focus on examining that game, should it do something interesting or successful, to better understand how games are able to create different types of experiences using different approaches to design.

That said, there are a few things we can learn from our discussion of *Pathologic 2*. First and foremost, it highlights the importance of interactivity as the primary driving force behind game narratives. This may seem obvious, but the view that interactivity and narrative are somehow naturally conflicting, and that interactivity will jeopardize the sanctity of the authored narrative, still occasionally emerges in the popular discourse around games. In order to not create a rift between play and narrative, the narrative must embrace the player's actions and even design their narrative structural framework to produce a ludonarrative through the player's actions. Curtailing a player's ability to meaningfully interact with the game in order to protect a fragile narrative that is threatened by the player's agency will only produce a traditional narrative with token interactivity, the two parts disconnected and unable to

reinforce each other. Similarly, the view of the player's sense of immersion as something fragile, the "breaking" of which somehow renders the entire experience moot, is unproductive, as this will no doubt also be used to justify such a curtailing of player interactivity. The player's sense of immersion does not have to be protected against, for instance, explicitly ludic representations of information for fear of somehow "reminding" the player that they are playing the game, it is the "gameness" itself that first and foremost ensures the player's immersion.¹⁹ Without the room for systemic interaction through emergent structures, games would not be particularly suited for the facilitation of such an immersion. Immersion is not extant in itself; it is continuously produced through the player's engagement with the game system. Games which offer the player a sense of agency, for the player to become "the author of a particular performance within an electronic story system," (Murray 187) whether this means ludonarratively or simply ludically, will always have the capacity for facilitating this continuous immersion, provided the game itself is engaging enough over a longer period of time. Thus, immersion should be seen as something that is continuously produced through meaningful design, not something which must be protected at all costs. The latter is an inherently regressive way of viewing games.

We've also seen in our discussion of *Pathologic 2*'s "difficulty" the way that challenging or pressuring the player can have wide-reaching effects on how the game is played and experienced. While there has been plenty of discourse around how challenge motivates players to improve their performance, and players' subsequent satisfaction upon doing this, and while "difficulty for difficulty's sake" is an interesting premise, there has been less of a focus on how specific games leverage their difficulty to achieve specific goals. This focus on the challenge itself is visible in Caldwell's comparison of *Pathologic 2* to the "Souls games, in which he writes that "Souls games are about reaction, movement, and practice. You can't practice finding a piece of bread." While this is blatantly untrue, as evidenced by his own staggeringly poor performance in the game (Caldwell), his argument, as well as his performance, are both rooted in a misconception: that the player can only "practice" to get better at overcoming specific abstract game challenges. The "challenge" of "finding a piece of bread" exists to encourage the player to get involved with and learn from the game's fictional world and doing this will allow the player the knowledge and skills needed to accomplish this. There is additional irony in the fact that the games which Caldwell use as a

¹⁹ See, for instance, Jørgensen on "the transparency fallacy" (29-31) for a presentation of this argument as it relates to the gameworld as an informational space.

contrast to *Pathologic 2* use their challenging nature in much the same way as they often allow the player to circumvent the challenges of “reaction, movement, and practice” by paying attention to the world and using this to their advantage. This perspective, that a game’s challenges can only serve strictly ludic purposes, is misguided. It’s clear that the concept of “difficulty” must become more nuanced, not just for the sake of empty categorization of the different ways in which games challenge players, but in order to see how this “difficulty” functions as a device. The nature of a game’s “difficulty,” as well as how this can be leveraged to motivate player action or induce the experience with some particular significance should be carefully examined, as this is a device unique to games.

While I have, throughout this thesis, attempted to maintain a view of games as holistic, this does not mean that I do not privilege games’ most distinct properties over the already familiar aspects of traditional media. The truth is that this thesis is fundamentally elitist, I did not open by citing Greenberg for nothing, and so is Ice-Pick Lodge, as is evident in their full “manifesto.” This elitism, not exaggerated enough to completely disallow perspectives from other fields of study, is critical, however, to allow for a study of games’ “area of competence.” *Pathologic 2* clearly demonstrates the potential of digital games to immerse and continually engage players, and to, through its design, allow for a legible ludonarrative to emerge. In order to perceive this, one can’t hold a reductive view of games as “interactive stories.” Embracing this desperate need, especially in popular discourse, of taking the game out of games, will only produce games that are not games at all, but rather the inferior versions of novels or film. Games have the potential, as *Pathologic 2* demonstrates, to not only simulate a fictional world but to embed the player firmly within it, allowing for a more intimate experience of the fiction. Unless we assume that fiction is universally meaningless, games then have value as an artform because they allow such intimacy, distinct from the analytical distance of traditional media. The possibility to create a fictional world for the express purpose of immersing the player within it has many potential purposes such as the development of cultural literacy, for one. This is, again, assuming that the experience itself, separate from everyday life, is not a goal in and of itself. *Pathologic 2* serves as only one demonstration of how games can use their capacity for interaction to create such an experience. Whatever experiences games will allow for in the future, it is the critic’s job to play these games and to examine them, so that we can better understand the nature of digital games.

Conclusion

Pathologic 2 facilitates presentness, a sense of immersion and a continuous embodied thinking within the fictional moment of the game, by leveraging one of games' most prominent characteristics: interactivity. Interactivity becomes meaningful in context with the game system, bestowing upon the player a sense of agency with which they navigate the fictional world of the game and overcome the game's continuous survival challenge. It is primarily through this interactivity, especially in regard to the game's survival systems, that immersion is facilitated. The player's embodiment of Artemy Burakh, the PC, is facilitated through a ludonarrative coherence, and a coherence between Artemy as both a ludic avatar and a fictional character. The game's demanding nature necessitates a continuous embodied thinking, and nuances this further to simulate a deeper embodiment and a more complex characterization of the PC. This allows the player to not only observe the procedural representations of the town's gradual decay, but to impact it, as well as characterize Artemy, through play. The constructed ludonarrative becomes legible through the game's consistency of representation, and more deeply interpretable after the player exits the magic circle and regains their analytical distance. *Pathologic 2* keeps the player present within its fictional moment, embodied in Artemy, and immersed in its world, through this constant process of meaningful interaction.

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