PATHOS.
An Exploration in Interactive Narrative as a Vessel for Aristotelian Tragedy and Emotion

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INTRODUCTION.

A tragedy can be described as a story without a happy end. The hero will embark on a journey in which there is no reward or triumphant return home, and the audience will follow them, despite knowing the sorrow that waits at the end of the road. The genre of tragedy is broad, and has been used as a label for stage plays, novels, video games, and more. But what exactly constitutes a tragedy? Is it a major character death, a failed quest, or simply the absence of a "happy" ending?

One of the earliest descriptions of a dramatic tragedy can be found in Aristotle's *Poetics*. According to Aristotle, a proper tragedy is a drama in which the protagonist makes a fatal mistake, or *hamartia*, that ultimately leads to his downfall. This sequence of events must be presented linearly, and occur in a clear and rational order by following an obvious system of cause and effect. The audience experiences emotions of pity and fear toward the protagonist and their plight; with these feelings gradually building throughout the plot until they reach a peak, and are finally released in a moment of catharsis. For Aristotle, emotions are integral to tragedy: the audience's pity and fear, the protagonist's desperation and despair, the denial and acceptance felt by both. The moment of catharsis is described as one of "purification," in which the audience is able to release these negative emotions at the end of the story.

It is important to note that in *Poetics*, the elements Aristotle identifies as being key to a successful tragedy come from his own observations of the Greek tragedies that were performed during his time (Noyes, 1898). Although he primarily focused on analyzing and characterizing the events appropriate to the plot of Greek tragedy, he does imbue significant value in the audience's reactions; emphasizing the specific emotions of "pity" and "fear" that should be evoked by the plot. However, this humanities project does not seek to quantify or conduct an empirical evaluation of the emotional reactions of the audience. This project seeks to explore how the principles of tragedy outlined in Aristotle's *Poetics* can be fulfilled by an interactive narrative, and how emotion manifests within this framework as a narrative tool and theme. The first half of the report provides a literature review of Aristotelian tragedy, interactive narrative as a medium, and emotion, which is then followed by a discussion of these concepts in the context of two case studies. Finally, the latter half of the report details the artifact created as a result of the theories and discourse examined in previous sections.

SECTION I. Aristotelian Tragedy

Aristotle viewed the arts as a form of *mimesis*—or an imitation—of life. In *Poetics*, he described the creation of art, whether it be poetry or music, as "natural to man from childhood" (Bywater, 1984, p. 2,318). People inherently seek to replicate the world around them, and in doing so they develop a new understanding of it and themselves. Aristotle believed that consuming works of tragedy specifically was part of an ethical education. By viewing and reacting to a mimesis of certain people and events, the audience may form new beliefs and experience new emotional responses (Lear, 1988). Tragedy as *mimesis* provides the audience with the opportunity to imagine themselves in tragic scenarios and situations, but in a controlled environment. Aristotle emphasizes the importance of a plot that progresses in a rational manner. He believed that tragedy should occur with reason, and there should be a clear system of cause and effect that governs the story (Lear, 1988). In both fiction and reality, every choice has an outcome, and every action has a consequence.

The protagonist is the driving force in the system of cause and effect that guides the story. Their choices influence the trajectory of the plot, and their *hamartia* is what triggers their downfall. *Hamartia* is defined as the specific mistake or error made by the protagonist

that leads to their eventual downfall (Lear, 1988). For Aristotle, the protagonist's *hamartia* must be a purposeful choice. Whether it is made out of ignorance, such as Oedipus unknowingly marrying his mother, or it stems from a more intrinsic personality flaw such as vanity or hubris, the protagonist must willingly make the decision that destroys their life. In *Poetics*, Aristotle identifies three plots that should be avoided in a tragedy: a good man who passes from happiness to misery, a bad man who passes from misery to happiness, and an "extremely bad" man passing from happiness into misery (Bywater, 1984, p. 2,325). Aristotle states that the first two plots are too simple to evoke any real emotion in the audience, whereas the third may appeal to some emotions but fail to specifically cultivate the feelings of pity and fear that are integral to a proper tragedy (Bywater, 1984).

Confusion may arise from Aristotle's mention of a "good man" in the plots that must be avoided, as he uses the exact same description in previous passages to describe the ideal tragic protagonist. This inconsistency is addressed later on when Aristotle clarifies that the ideal plot must be an intermediary between the first two plots described, and the plot should not center around an uncommonly good or uncommonly bad man (Reeves, 1952). Instead, the protagonist should indeed be a virtuous man, but he should not be so virtuous that he is incomparable to others, and the tragedy he experiences should result from an error of judgment, rather than the result of partaking in vice or senseless depravity. Therefore, the protagonist should be a decent human being, but a flawed one, as most human beings are. The reversal of fortune that results from his *hamartia* is integral to the plot, but so is the role that the protagonist plays in committing that *hamartia*. Aristotle was uninterested in stories in which the gods or other heavenly beings forced tragedy in the lives of men. He was concerned with tragedies inflicted upon a protagonist by their own unwitting hand.

Aristotle's belief that tragedy should evoke pity and fear in the audience largely stems from the concept of tragedy as a *mimesis* of reality. If the plot and protagonist accurately reflect the world and the people in it, then the audience will come to see themselves and their lives in the story depicted. To Aristotle, "pity is occasioned by undeserved misfortune, and fear by that of one like ourselves" (Bywater, 1984, p. 2,325). When the protagonist of a tragedy is someone the audience is able to identify with, they come to interpret his suffering as more than just a fictional story, but a possible or alternate future for themselves. It is important to note here that the Greek tragedies of Aristotle's time usually revolved around conflicts between family and friends. Although conflict between a higher power and a mortal can be compelling due to the dramatic power imbalance, conflict between two humans, especially those joined by blood or friendship, is much more accessible to an audience.

The phrasing of "undeserved misfortune" further clarifies that although the protagonist does consciously make a decision that contributes to his downfall, his decision was made without full awareness of the situation or the consequences that would follow. The system of cause and effect that governs the plot of a tragedy is often the clearest in the eyes of the audience and the eyes of the audience only. The nature of a tragedy usually requires the protagonist to operate under some level of ignorance, whilst the audience is forced to helplessly bear witness to the suffering that they know could have been avoided. The protagonist, whether they be uninformed, misinformed, or simply influenced by an error in judgment, will slight themselves or those they love, triggering a chain reaction far more disastrous than they could ever imagine.

The protagonist's *hamartia* triggers a series of events that will eventually culminate in the discovery of the truth they were once ignorant to or the unforeseen consequences of their actions. It is crucial that the discovery of what they have done coincides with the reversal of their fortune (Daniels & Scully, 1992). In the aftermath of the discovery, the protagonist, who is as good as any other but equally as flawed, now finds themselves in a most pitiable and fearful state. Although the protagonist could not have possibly predicted the outcome, or been

aware of the truth, their fate is still self-inflicted, and therefore deserved. Now that the protagonist has discovered the entirety of their *hamartia*, and their good fortune has reversed, the plot reaches the climactic peak that is the *pathos* of the story.

The Ancient Greek word *pathos* can be defined as experience, emotion, calamity, misfortune, or passionate emotion (LSJ, 2024). In *Poetics*, Aristotle uses *pathos* to refer to both terrible misfortune and strong emotion. In the context of the former, Aristotle lists *pathos* alongside the protagonist's discovery of his *hamartia* and the reversal of his fortune as key elements of a tragic plot. This *pathos* is objective, and usually manifests as some sort of "destructive act" committed between family or friends (Lear, 1988). For example, upon hearing a prophecy that he is destined to kill his father and marry his mother, Oedipus departs his hometown and vows to never return. However, he is unaware of the fact that the man and woman who raised him were his family in name only, and adopted him when he was an infant. Through a dark twist of fate, Oedipus travels to his true birthplace, and it is here that an argument with a stranger on the road results in him killing a man who is actually his biological father (Britannica, 2024). Oedipus was not forced to kill the man; he did so of his own volition, and in doing so he splintered the family he had never known.

After saving the city from a tyrannical Sphinx, Oedipus wins the hand of the recently widowed queen, and eventually has four children with her. When the truth of his parentage is eventually revealed, his wife—and mother—commits suicide. In some versions of the story, Oedipus blinds himself in a fit of grief, and exiles himself to hopelessly wander the world (Britannica, 2024). One could argue that Oedipus' *hamartia* is leaving his hometown, as it is this departure that ultimately leads him to the city where the tragedy will unfold. But his *hamartia* is also the violence he inflicts upon a stranger, his marriage to a recent widow, and his decision to create a family with her. His discovery of the truth leads to his happy life being abruptly turned upside down, and it is here that the audience encounters *pathos* in its second use: the specific emotions of pity and fear that are cultivated as a result of the reversal in fortune. This *pathos* is subjective. Objective and subjective *pathos* must work together in order to deliver a successful tragedy (Lear, 1988, p. 318-319). Now that the story has come to an end, the audience is to experience catharsis, and expel the pity, fear, and other negative emotions felt during the story. But what exactly is catharsis?

Like *pathos*, the Ancient Greek word *katharsis* can be interpreted in different ways. The two main definitions that scholars have identified is "purgation" and "purification." The first has a distinctly medical connotation; it refers to the practice of cutting the flesh to expel harmful elements and promote healing. The second comes from a religious context of cleansing the spirit and refining emotions in pursuit of spiritual ascension (Schaper, 1968, p. 132). It may be tempting to conclude that the *katharsis* Aristotle references is one in which the audience is "purified" of their negative emotions. However, the line between purgation and purification is a thin one. It can be argued that a medical purgation has thus "purified" the subject of harmful elements, and the spiritual purification of an individual requires unseemly thoughts and emotions to be "purged" from the mind and soul. But in *Poetics*, Aristotle uses *katharsis* in the context of the poetic arts; more specifically the phenomenon in which strong emotions are cultivated throughout a fictional plot and then released at the end of the story. Therefore, *katharsis* is treated in a purely aesthetic manner, rather than a religious or medical one (Schaper, 1968, p. 134).

To further explore the connection between fictional works and emotion, I would like to return to the example of Oedipus. Part of what makes Oedipus' story so tragic is how he was largely driven by good intentions. He left the people who raised him out of the fear he would commit atrocities against them, but this departure is what led him to the city of his birth. He comes across a sphinx terrorizing a city on his travels and chooses to risk his life to solve its riddle and defeat it, but this choice is what leads him to marry his mother. But it is

important to note that Oedipus is not so virtuous a hero that he is completely without fault. He still kills the stranger who quarrels with him on the road, and he is still foolish enough to believe he can escape his own fate. Aristotle believed that when the audience is able to recognize themselves in the complexity of a protagonist, they go beyond viewing a tragedy as a fictional *mimesis* of reality, and come to interpret it as a possibility of them experiencing—and inflicting—such horrors in their own lives. This act of imagination is what cultivates the emotions of pity and fear that are so integral to tragedy. The audience is meant to pity the protagonist, who is just as well-meaning, flawed, and ignorant as themselves. The audience should fear the idea that people, in their imperfect human form, may cause destruction to those they love despite having good intent, or even because of it.

Fictional tragedy provides us with a safe and controlled space in which the audience can imagine and reflect. It is in this manner of participation and engagement with the story that the audience manages to find enjoyment. This enjoyment is not masochistic in nature; but pleasurable in the sense that the audience recognizes a fictional likeness to reality, and they may learn something from this specific replication of the world (Daniels & Scully, 1992). Over the course of the story, the audience experiences a range of negative emotions, from apprehension to horror to fear and despair. In reality, these are feelings humans generally avoid, as they are unpleasant. But in the context of fiction, the audience is not only allowed to feel them but is encouraged to do so. The audience develops negative feelings in reaction to and consideration of the plot they witness, they allow them to fester inside, and then they are ultimately given the opportunity to release these emotions from their bodies at the end of the story. Once they have been purified, they may rise from their seats and leave. No one has actually killed their father or married their mother. Those events are left in the space of the story. As spectators to a fictional tragedy, audience members "imaginatively live life to the full, but risk nothing" (Lear, 1988, p. 325).

In *Poetics*, Aristotle frequently emphasizes the importance of a rational plot. Aristotle did not believe the purpose of tragedy was to depict a senselessly cruel world, and a faultless man who suffers because of it. For Aristotle, tragedy depicts men who suffer misfortune at their own hands, but accept the blame. In the aftermath of the climax, Oedipus does beg the gods for death, desperate to escape reality. But by the end of the story, he has chosen instead to live the rest of his life in solitude, repenting his actions. The audience, upon departing the fictional space, may experience something akin to relief. But it is not simply because the story is now over, and they can return to reality. It is because they have witnessed the ugliest and the most honorable sides of humanity, and they can take comfort in the idea of a person, who despite unwittingly destroying themselves and those they love, can still conduct themselves with great dignity (Lear, 1988).

SECTION II. Aristotelian Tragedy in an Interactive Narrative

The Greek tragedies that were originally written thousands of years ago, and a majority of the fictional tragedies we consume today, are united in that their stories are fixed in content. Adaptations may make small alterations to the plot, but the general overarching structure of the beginning, middle, and end remains largely the same. The audience bears witness to the plight of the protagonist, who will suffer the same fate over and over, replicated again and again throughout time. But what if the audience could experience the same story, told in multiple different ways? What if there was a way in which they could play a part? What if they were no longer relegated to passively observing the protagonist, but were responsible for guiding them through the story? Making decisions for them?

The emergence of interactive narratives in film, literature, video games, and more has inspired decades of research and discourse in academic communities. From Choose Your

Own Adventure books to virtual reality experiences to hypertext fiction, interactive narratives can be created across mediums both digital and traditional. An interactive narrative can be broadly defined as a narrative that requires input from the user—the person or group experiencing the narrative—in order to progress. This can take several forms, such as a narrative that is delivered via an interactive interface but whose content does not change, or a narrative delivered via a system that is generating content in real time based on user input. For the purposes of this project, tragic interactive narratives will be explored in the context of digital interactive narratives only. Analysis will be conducted using Marie-Laure Ryan's concept of interactive narrative as a system that functions based on a mutual feedback loop between the story and the user (2011). Ryan's framework can also be interpreted as a "processual encounter" in which the audience transforms into a "user" through active participation in the narrative presented to them by the system (Brown, Barker, and Del Favero, 2011, p. 213). This process of transformation is what equips the user with agency and influence over the plot. Whether the user is simply clicking on scattered story fragments to piece together a cohesive plot, or they are typing responses to engage in dialogue with a character, the user must give in order to receive from the system, and vice versa.

As touched upon in the examples above, the specific mode of interaction can vary greatly depending on the piece and its medium. Ryan describes interactive digital narratives as an "interactive onion" that consists of layers: the outer layers primarily utilize interactivity as a mode of presenting the predetermined story, the middle layers focus on user interaction and involvement with the predetermined story, and the innermost layers refer to stories that are generated on the fly through user interaction with the system (2011, p. 37). Ryan goes on to identify five specific levels of interactivity found within the interactive onion, ranging from Level 1: Peripheral Interactivity, which is a narrative designed to be interactive purely through its interface and user input does not affect narrative content, to Level 5: Meta-Interactivity, a rare approach in which the user's input may expand or add to the story for future users. This project will focus on Level 3: Interactivity Creating Variations in a Predefined Story, and apply this level as a framework to explore how an interactive narrative can successfully deliver an Aristotelian tragedy.

Level 3 is structured so that the user takes on a role within the storyworld and exercises limited influence over a predominantly fixed plot. This style of interaction is internal, whereas an outer layer of the interactive onion, such as Level 1, refers to external interaction. Internal interaction usually involves the user being given a body or avatar that allows them to engage with the storyworld through movement, speech, and more. This style of interaction is often found in video games, and there tend to be higher stakes as well for the user; as one wrong move or decision can result in their body/avatar being "killed" and they may have to restart the game. External interaction is more exploratory in nature, and usually offers a more limited form of user interaction, such as moving a mouse around on a webpage to reveal hidden text. The user does not influence or alter the content of the plot. Internal interaction in the context of a video game often manifests as the user being tasked with a quest that consists of multiple different tasks. There are several variations of the plot, and the version the player experiences depends on the way in which they approach the completion of these tasks. The user will continue to progress through the plot until they eventually reach one of several predetermined endings (Ryan, 2011).

The limited freedom and semi-fixed plotline provided by Level 3 is what makes it most suitable to deliver a tragic interactive narrative. In *Poetics*, Aristotle establishes that the protagonist must suffer a punishment that is proportional to their guilt (Noyes, 1898). It is the protagonist's own actions, their *hamartia*, that triggers their downfall. Level 3 echoes this theme of agency and accountability by requiring the user to navigate the plot from within the storyworld as a character. What happens to the character is the responsibility of the player,

who dictates their actions. Although the general structure of the story and its content is still determined by the system, the specific way in which it progresses, and any variations that occur as a result of interaction, are also a product of the user's input. Level 3 offers multiple versions of the plot, but its semi-fixed nature requires certain events and sequences to occur across all versions. This structure would fulfill the Aristotelian principle of a tragedy needing to involve the following plot points: the protagonist's *hamartia*, the discovery, the reversal in fortune, and the fall from grace. These elements would remain fixed, but the context surrounding them—how they happen, why they happen, etc.—changes depending on user interaction; resulting in a unique narrative experience for every plot variation.

Aristotle believed in consuming tragedy as a tool for personal development. By replicating the world around them, people can experience a tragedy in the safe environment of a fictional story without real-world consequences, and thus refine their emotions and beliefs in response to what they witness (Lear, 1988). A tragic interactive narrative would take this process a step further with the element of user interaction. By providing the user with influence and agency in the plot, interactivity can deepen narrative immersion and elevate the experience of tragedy as an opportunity to reflect and imagine. The emotions of pity and fear that should accompany a tragedy, and the relief that follows, are directed not just toward the protagonist and the characters surrounding them; but internally for the user as well, as their participation has bridged the inherent distance that often separates traditional mediums and their audiences. In addition to the element of user interaction, digital interactive narratives often incorporate audiovisual components such as music, sound effects, and complex 3D environments to further immerse the user in the story by engaging the imagination and the senses simultaneously.

In a digital interactive narrative, the user no longer watches the protagonist from afar, but walks alongside them and influences their decisions and actions. The line between user and protagonist blurs, with the user playing an active role in the tragedy that occurs. The protagonist's *hamartia* is their *hamartia*, the protagonist's guilt is their guilt. However, the gravity of their actions may not be apparently obvious at the beginning of the narrative. Usually, when the user begins a digital interactive narrative, they are given some form of instruction on how to interact with the story. With this information in mind, the user ventures forward: they click on their first link, guide their avatar in a certain direction, etc. The interactive narrative is often designed so that the first few choices made by the user determines the specific version of the story that they experience. In digital storytelling, this is referred to as a branching structure.

Carolyn Handler Miller describes a branching structure as consisting of many interconnected story "branches" that act as a path for the user. Dotted along the path are points at which the user is presented with a scenario or a question that prompts them to choose from several choices. Once the user makes their decision, the path separates into "branches," and the user progresses further down their selected branch until they are met with another fork in the path. In its simplest form, a branching structure narrative operates off of "if/then" logic: "if" the user selects Option A, "then" B will happen (2014, p. 117). In a way, the if/then logic of a branching structure is an extension of the system of cause and effect that is so important in an Aristotelian tragedy. Every choice made by the user has a consequence, whether that be immediate or something that manifests later in the story, and like the protagonist of a Greek tragedy, it is often impossible for the user to determine in the moment just how much of an impact their decision will have.

Due to the nature of constant splits happening in the plot, a branching structure can quickly spiral out of control, which is why narrative designers rely on several different techniques to contain the story. Designers may implement a faux-choice construct, which still presents the user with several options, but all lead to the same ending. A cul-de-sac construct,

which would be most commonly found in something like an action and adventure video game, allows the user to stray from the main path and enter an unexplored area, only to be forced back to the main path upon discovering that area is walled in (Miller, 2014, p. 118). Implementing moments in which the user experiences the illusion of choice, or is otherwise forced to comply with the system, echoes the theme of inevitability found in Aristotelian tragedies.

A tragic interactive narrative villainizes the user by making them complicit in the tragedy that ensues. The user is presented with a branching structure of indeterminate complexity; where every choice sends ripples of unknown reach through the story. The if/then logic that governs a branching structure is what facilitates user influence over the specific progression of the plot. The mutual feedback loop between the story system and the user is built upon the principle of specific choices leading to specific outcomes. As the protagonist, the user consciously makes these decisions based off of the information that is available to them at the time. Whether the user is aware of the lasting impact of their choices, or they have been purposefully deceived by the system in some way (e.g. faux-choice construct or cul-de-sac construct), the user must operate based on the assumption of free will. This sense of agency and control contributes to the devastation of when they eventually discover how all of their choices have come together in the end. Finally, the user then experiences a reversal of fortune, and suffers a punishment that is proportional to their guilt.

The emotional dynamic between a tragic interactive narrative and its user is much different compared to the relationship between a Greek tragedy and its audience. The dramatic tragedies described in *Poetics* are referring to the tragic poetry and performances of Aristotle's time. In this setting, the audience was limited to a stationary observation of a live rendition of the work; whether that be a collection of actors on stage bringing the text to life, the text being read aloud, or simply reading the text itself. Viewing a possibility of their own reality, a reality in which they have inflicted harm to their loved ones despite good intentions, cultivates feelings of pity and fear. The user of an interactive narrative is no longer just a viewer. By engaging with the story, they become an orchestrator of the terrifying reality it depicts.

Digital interactive narratives have the potential to serve as a compelling vessel for an Aristotelian tragedy. The conventions of the genre can be adapted and applied to deliver the principles and themes outlined in *Poetics*. The element of user interaction allows for the audience to transform from a passive observer to someone who not only consumes the story, but influences it as well. The user is given control over the protagonist, who acts as their gateway into the storyworld. As the protagonist, the user navigates the fictional environment created for them by the story system. A mutual feedback loop is facilitated between the user and the system: the system provides the protagonist with a branching narrative that consists of interconnected plotlines separated by decision points, and the user reacts to these decision points in order to further progress down a specific plotline and reach an ending that represents the culmination of all their previous choices. In the context of an interactive tragedy, the user experiences firsthand the incredible guilt of unknowingly inflicting harm upon others; with "others" referring to both the protagonist and the other characters around them. The emotions of pity and fear are experienced by the user both externally, towards the protagonist and their plight, and internally as a manifestation of the user's own guilt.

SECTION III. Aristotelian Tragedy, Interactive Narrative, and Emotion

According to David Novitz, to properly understand and experience fiction is to respond to it imaginatively. The audience must acknowledge and accept that what they are witnessing is fiction, and therefore separate it from reality (1980). When audiences "extend"

themselves to the level of fiction, they experience the story without being limited by the conventions of the real world (Walton, 1978). In doing so, they are able to be moved by the story and identify emotionally with the characters and their lives (Novitz, 1980, p. 282). This is how they grieve for the deaths of fictional characters, how they become angry on the behalf of someone who doesn't exist, how they are able to recognize themselves in the tragedy of another. This project seeks to explore how emotion manifests within a tragic interactive narrative that has been developed to fulfill the principles of an Aristotelian tragedy. I will approach emotion as an abstract concept that presents itself in the story as both an external and internal element; with external referring to the emotions experienced by the audience in response to the story, and internal referring to how emotion features as a thematic and narrative element within the story itself.

The concept of external emotion is best introduced with Marie-Laure Ryan's explanation of emotional immersion. Ryan identifies three main types of emotional immersion in fiction: subjective reactions that occur in response to the actions of a character, such as embarrassment or approval; empathetic emotions felt *for* the characters that can be broadly categorized into feeling "happy" or "sad;" and finally the emotions that the audience feels towards themselves during the course of the story: fear, horror, excitement, etc. Ryan describes subjective reactions as a "distanced evaluation" of the characters (2015, p. 108), and therefore the least effective. Empathetic emotions can be interpreted as another example of the audience "extending" themselves to the level of fiction: despite understanding that what they are witnessing is not real, they allow themselves to imagine that the characters do in fact exist, and are thus able to empathize with them and share in their emotions. The emotions that the audience feel for themselves during the story is the most complex type of immersion, as these emotions are both "external" and "internal:" they are the result of making "distanced evaluations" of the characters—viewing them objectively as fictional beings that do not exist—whilst empathizing with them at the same time by extending oneself to the level of the story and thus identifying with the characters emotionally.

In *Poetics*, Aristotle describes the phenomenon in which the audience of a tragedy experiences negative emotions throughout the plot, with these emotions gradually building until they reach a peak at the climax and are ultimately released in the final act. This key moment of catharsis is an example of subjective reactions and empathetic emotions coming together to feed into emotions that the audience feels for themselves in the context of the story being consumed. Audiences experience these intense emotions in response to tragedy because it "deals with man in relation to his universe" (Gallagher, 1965, p. 217). In previous sections, tragedy has been repeatedly framed as a work of *mimesis*, or an imitation of the world. Aristotle, who believed the consumption of tragic works was integral to personal development, stressed the importance of the plot consisting of a series of rational events. He was uninterested in stories that centered purely around senseless suffering, and instead felt dramatic tragedies had the potential to demonstrate to audiences that it was possible to endure great trauma with dignity. When audiences react to a work of tragedy, they are reacting to both the fictional events portrayed—the events involving the characters and the world in which it takes place—and the specific conception of life depicted by the tragedy. Just as we seek to understand the world through replicating it, we seek meaning in the thematic structure of a narrative (Weston, 1975, p. 92).

External emotions are the culmination of the three types of emotional immersion described by Ryan: subjective reactions, empathetic emotions, and the emotions that the audience feels for themselves (2015). Aristotle believed the ideal form of emotional immersion in a tragedy was experiencing pity and fear. However, these negative emotions are felt in response to both the narrative and what the narrative represents. Tragedy as *mimesis* goes beyond fulfilling the inherent human desire to imitate and understand the world around

them. Tragedy as *mimesis* is also an aesthetic vessel for conveying certain themes and beliefs. Greek tragedies usually centered their stories around conflict between family and friends; conflict which was the result of the protagonist's own mistakes or transgressions. There must be order and rationality in the plot, and the events that occur do so "unexpectedly, but in consequence of one another" (Lear, 1988, p. 310). A proper Aristotelian tragedy depicts a protagonist who, despite suffering greatly at their own hands and causing harm to those they love, is still capable of accepting responsibility, and conducting themselves with dignity. Mimetic works present the narrative in a way that allows the audience to identify that which they feel strongly toward (Schaper, 1968, p. 139). The audience first experiences subjective reactions to the events portrayed by the tragedy, then comes to empathize with the characters as the story progresses and they learn more about them. Finally, the emotions of pity and fear that they feel toward themselves manifest in response to both the content of the narrative and what it represents.

Studies have found that readers tend to engage with literature through the eyes of the different characters involved; often occupying the perspective of the protagonist but also shifting from the perspective of one character to another. The act of shifting our perspective to another in order to better understand them is referred to as "role-taking" or "perspective-taking" in psychology (Coplan, 2004). The application of role-taking to fiction is part of what facilitates the cultivation of pity and fear in the audience, and any other external emotions experienced. Over the course of the narrative, the audience alternates between placing themselves in the shoes of the protagonist and other characters, whilst simultaneously engaging with the story as themselves. Imagining ourselves in the position of those depicted in fiction is an intensely personal and emotional process. Interactive narratives take this a step further by giving the audience-turned-user the opportunity to embody the protagonist and actively inhabit their position in the story; responding and reacting to the plot as it develops.

In fiction, emotions often manifest within the story as a narrative tool or theme. There are of course the emotions felt and expressed by the characters, but there is also the specific way in which these feelings influence their actions, and how these actions then play into the plot. In the story of Oedipus, the shock discovery of the truth of his family heritage drives his wife/mother to commit suicide. In some versions of the tragedy, Oedipus is so overwhelmed by his grief and guilt that he blinds himself in response, and exiles himself from the city he once proudly ruled over (Britannica, 2024). Internal emotion can also refer to when emotions are incorporated as a design element, game mechanic, or interactive mechanism. To further explore how emotion manifests within a tragic interactive narrative, the next section focuses on two digital interactive narratives with tragic elements: *The Path* by Tale of Tales and *OMORI* by Omocat. These case studies demonstrate how the principles of Aristotelian tragedy can be given new shape and meaning in digital interactive narratives, and how interactivity can elevate the external and internal emotions of the narrative experience.

SECTION IV. Case Studies

I approached analysis of *The Path* and *OMORI* by adapting and applying close reading techniques to gameplay experiences as described by Jim Bizzocchi and Joshua Tanenbaum; primarily the use of analytical lenses, or identifying specific aspects of gameplay to focus on (2011). For the purposes of this project, I created the following analytical lenses to discuss how the case studies fulfill the principles of an Aristotelian tragedy.

- How does emotion manifest in the story world? (Between characters, in the plot)
- How does it manifest in the story system? (Incorporation in interaction mechanics)

- Does the protagonist fulfill the requirements for the ideal Aristotelian protagonist? (Well-meaning but flawed)
- How much influence is the player given by the system?
- How do the Aristotelian principles of *hamartia*, the discovery, reversal in fortune, downfall, and *katharsis* manifest in the narrative?

THE PATH

The Path by Tale of Tales is a 2009 indie game based on earlier versions of Little Red Riding Hood. Although it is marketed as a horror game, it possesses distinctly tragic elements. On the Tale of Tales website, *The Path* is described as an "atmospheric experience of exploration, discovery, and introspection" (Tale of Tales, 2009b). The game opens with six sisters of varying ages and personalities inside of a room. The player is prompted to choose one sister, and once they have made their selection, their chosen sister is equipped with a basket and sent off to Grandmother's house. Gameplay in *The Path* is relatively simple, and limited to maneuvering the sister through various different environments. A majority of the game takes place outdoors, where the player receives clear instructions to stay on the path that cuts through the eerie woods. However, if the player obeys these rules and proceeds straight to Grandmother's house, their experience of the game is overwhelmingly uneventful, and eventually ends with a message informing them that they have "failed" by not encountering the wolf.

For the purposes of this project, I conducted two playthroughs of *The Path*, and chose the sister named Ruby each time. During the first playthrough, I stuck to the path as instructed and indeed found that I experienced nothing particularly interesting. Upon reaching Grandmother's house, I guided Ruby through the gates and the interior of the cottage, eventually reaching a bedroom where Grandmother rests on a bed. It's difficult to tell if Grandmother is dead or simply asleep, but Ruby curls up beside her and dozes off. The ending screen of the game states that I have failed to encounter the wolf, and also failed to collect items or unlock "hidden rooms." During my second playthrough, I purposefully walked off of the path into the mist-shrouded trees, where I discovered a whole other world waiting in the shadows. The environment of the woods is "dark" and "polluted," full of symbolism for the grim reality of adulthood: rusted needles, the skeletal hull of an old car, and in Ruby's case, an abandoned playground (Ryan & Costello, 2012, p. 119).

Once the player has guided their chosen sister into the woods, it doesn't take very long before aimless wandering leads to the discovery of random objects and collectible items scattered across the ground. When the player has guided the sister into close enough proximity to one of the objects, they release the keyboard or mouse controls to allow her to interact. This momentary loss of control allows the player to learn more about the sister and her personality. The brief cutscene of her interactions with the object is often accompanied with poetry verses fading in and out of view that allude to her thoughts and inner dialogue. In the case of Ruby, who is a rebellious teenager, she spray paints a brick wall whilst a quote appears that reads "Gravity pulls everything down." Other verses imply that Ruby does not believe she will live to old age, and provide more insight into her cynical nature (Tale of Tales, 2009a). Each girl possesses their own unique brand of innocence and naiveté, and it is their dark curiosity around the alluring woods, which symbolize adulthood, that endangers them.

Continued exploration in the woods occasionally triggers the ominous sound effect of chains clinking or a wolf panting; alluding to the danger that lurks nearby. Paw prints brush across the screen alongside white swirls that appear on the edges in an attempt to guide the

player back in the direction of the path. One of the only other characters encountered in the woods is a mysterious girl in a white dress. She does not speak, and mostly frolics about cheerfully, but if the player chooses to allow their chosen sister to interact with the girl in the white dress, she usually takes their hand and leads them back to the path. If the player continues to trek deeper and deeper into the woods, they will eventually come upon an area that triggers sinister music. During the second playthrough in which I explored the woods, this area was presented as an abandoned playground for Ruby, and approaching it caused parts of the screen to go blindingly white. There was also a brief glimpse of a shady looking man standing nearby.

If the change in soundtrack and ambiance wasn't enough of a warning, the girl in the white dress appears once again, providing the player with one last chance to turn back to safety and avoid whatever horrors await. The player now stands at a fork in the road: they can either accept the outstretched hand, return to the path, and proceed as they were originally instructed, or they can walk past the girl in the white dress and proceed into guaranteed danger. If the player has already "failed" the game once before, they will assume that the latter option may result in success. If the player is on their first run, they may struggle between the urge to satisfy their curiosity and following the girl in the white dress back to the safety and surety of the path. Because I started the second playthrough with the clear purpose of encountering the wolf, I guided Ruby toward the abandoned playground and the shady man.

Like prior interactions with objects and the environment, the encounter with the wolf is presented as a cutscene. For Ruby, it begins with a sequence where the man drags what looks like a body wrapped in a rug away from the playground. It then cuts to Ruby simply standing and watching the man walk around. The player is briefly given control again, and despite having witnessed what was most likely a glimpse into a grisly future, the player prods Ruby toward the man so they may interact. The following cutscene shows them sitting together on a bench; he offers her a cigarette which she boldly accepts, and the music grows more ominous. The sound of a snarling wolf and beating heart fills the screen, and then there is a slow pan out accompanied by the sound of a motorcycle speeding off. The encounter with the wolf has now come to a deeply unsettling end.

When the game fades back in, I have returned to the path, where Ruby is lying in a heap in the ground. As rain pours down around her and the teenage girl begins to stir, the true gravity of the player's actions begins to sink in. Ruby struggles to her feet, disoriented, and begins to limp her way toward Grandmother's house. The slow, laborious walk is a stark contrast to her earlier brazenness and emphasizes the fact that she has endured some horrible ordeal. Once Ruby reaches the house, I guide her through the doors, and find the interior has dramatically changed. What was once a vaguely creepy cottage in the first playthrough is now a distorted, nightmarish maze of cramped hallways and doors. I randomly wander into a room full of giant machinery, and Ruby is suddenly and violently crushed under one of the metal masses, resulting in the game coming to an end. This time the end screen does declare "Success!" over having encountered the wolf, even if the items I collected and the rooms I discovered are minimal. However, after witnessing what it took to achieve such success, I feel a strange sense of guilt rather than accomplishment.

The Path is an unsettling game in many ways, but a major element that contributes to this lasting impression of unease is the subversion of the ludic contract. Coined by Clint Hocking, the ludic contract refers to the agreement of "seek power and you will progress" made between a player and a game (2007). Malcolm Ryan and Bridget Costello summarize the ludic contract as the player being presented with a goal that they must achieve, and the game throwing obstacles in their way to prevent the player from achieving this goal. These obstacles can manifest as anything from mazes to boss battles, and they should be "difficult

but rewarding." Once the player has successfully jumped through all the hoops laid out for them by the game, they achieve the goal and secure victory (2012, p. 116). The player "seeks power" in the completion of tasks, and is thus able to "progress" toward the end of the game.

The ludic contract is the standard for most video games: players assume that if they follow the instructions given to them, whether they are explicitly stated in text on screen or as dialogue from another character, then they will "win." In *The Path*, you can only "win" by doing the opposite and disobeying instructions. If the player has already experienced one run in which they abided by the ludic contract and "failed" as a result, then on their second run they will likely stop operating under the assumption of the ludic contract and purposefully guide their chosen sister away from the path and into the unknown. A failed run will also have informed them that a condition for success is the encounter with the wolf, and the player will find that in order to facilitate this encounter, they must ignore the warning signs provided by the game and allow the sister to proceed into danger. The subversion of the ludic contract thus villainizes the player and forces them into the position of being responsible for the suffering experienced by the young girl in the woods.

According to Ryan and Costello, *The Path* creates an interactive tragedy in four stages: first, the game presents the player with the illusion of a ludic contract when in reality the player must defy instructions in order to "win." Second, the game pushes the player to explore the forbidden woods and learn more about their chosen sister through her interactions with the environment. Third, the player reaches the point at which the wolf encounter is imminent, and they must decide between proceeding or returning to the safety of the path. The player will choose to proceed, as they cannot win the game otherwise. Finally, the player witnesses the aftermath of their decision, and has no choice but to guide the sister deeper into the nightmarish experience by entering Grandmother's house and facing a grisly death (2012). These four stages will now be expanded upon and analyzed through an Aristotelian lens.

In *The Path*, the player's *hamartia* manifests twice: in the first stage, where the player goes against the game and ventures off the path, and in the third stage, where the player chooses to proceed with the wolf encounter. In both cases, the player makes a conscious decision with both immediate and eventual consequences. Leaving the path and wandering deep enough into the woods will eventually result in the encounter with the wolf. When the player is on the precipice of the wolf encounter and is given a warning (ominous music, snarling sound effects) and a way out (the girl in the white dress), their choice to proceed results in the sister experiencing a traumatic event, and then later dying horrifically in Grandmother's house. However, there is a significant difference in the player's *hamartia* compared to that of an Aristotelian protagonist's: the player is not making these decisions for themselves, but for the sister they control from a third-person perspective.

The "narrative distance" the game creates between the sister and the player cultivates sympathy and a sense of responsibility for the girl (Ryan & Costello, 2012, p. 119-120). The player watches over her quite literally, as the camera tends to float from above or directly behind her. The player is also forced to let go of the controls in order to allow her to interact with objects, which provides an opportunity to sit back, observe, and learn about each sister's unique personalities, thoughts, and desires. The choice to position the player objectively instead of having them embody the sister and navigate the world through first-person creates a gap between the player and the sister as a character. The distance provided by this setup contributes to the villainization of the player, as they experience the game not "as" the sister, but rather an orchestrator of the tragedy that ensues. It is the player who presses the keys and moves the mouse to lead the sister off the path and into the woods. It is the player who watches the sister hesitate between the girl in the white dress and the wolf but guides her towards the latter.

In *The Path*, the *hamartia* is done by the player not to themselves, but to the protagonist of the game: the innocent sister. The player's initial decision to act on her naive curiosity surrounding the woods and lead the sister off the path, and their continued defiance of the game's instructions, guarantees the consequences of their *hamartia*. The player realizes the gravity of their actions in the aftermath of the wolf encounter, and this discovery seamlessly flows into the misfortune that awaits the limping, traumatized sister in Grandmother's house. This is how the formula of an Aristotelian tragedy shines through in *The Path*.

Returning to the concept of internal and external emotion introduced in the previous section, I would like to propose *The Path* as an example of a tragic interactive narrative that deals with external, or player-facing, emotion. The themes of guilt and regret that are associated with the player in their villainization parallel the important element of inspiring pity and fear in the audience described in *Poetics*. According to Aristotle, the narrative content of a tragedy should be written so that the audience feels pity from the undeserved misfortune of the protagonist, and fear from the depiction of a protagonist like themselves (Reeves, 1952). In *The Path*, the narrative content of the game has been designed with the interaction of the audience in mind. The audience thus becomes the player, and the game gives them direct control over the protagonist: the player chooses the sister who will make the journey to Grandmother's house, they guide them through the world of the game, and they facilitate fatal encounters. The player is made responsible for the sister, who is unaware of the dangers that await in the woods. They orchestrate her traumatic loss of innocence at the hands of the wolf, and they bear witness to the aftermath of the event in the distorted maze of Grandmother's house. Pity in the context of *The Path* is felt for the chosen sister, whose suffering is the cost of the player's success in the game. Fear in the context of *The Path* is markedly different from how it is described in *Poetics*, as the player experiences the interactive narrative not "as" the sister but rather as an objective witness and guide. Here, fear manifests in a more empathetic light, with the player watching apprehensively as the sister ventures forth into danger.

The world and the events of *The Path* serve as a fictional *mimesis* of reality in which the player is able to actively engage with a tragic interactive narrative. The story system deceives the player by subverting the ludic contract; thus forcing the player to commit an act of harm against their chosen sister in order to fulfill the requirements of victory. The negative emotions cultivated throughout the game continue to build, reaching a peak when the encounter with the wolf is presented, and are then gradually released throughout the aftermath in Grandmother's house. Applying an Aristotelian framework to *The Path* demonstrates how the principles laid out in *Poetics* can be found in a digital interactive narrative.

OMORI

OMORI by Omocat is a role-playing video game released in 2020. Like *The Path*, it is categorized as belonging to the horror genre, but the game centers around a tragic narrative. *OMORI* is an example of internal emotion in a digital interactive narrative where emotions are utilized as a game mechanic, narrative tool, and theme integral to the gameplay experience. *OMORI* initially presents itself as a fantastical world full of bright colors and funky shapes, where the player is invited to follow the titular protagonist, Omori, and friends on their adventures. But there is a darkness that lurks in the background of these whimsical places, and the player slowly begins to realize that all is not what it seems. In order to piece together the scattered fragments of Omori's story, the player must embark on a journey of exploration and discovery; overcoming obstacles and completing tasks along the way.

The game consists of three distinct planes that Omori travels through: White Space, Headspace, and Black Space. Each plane has its own unique appearance and represents a different approach to memory, trauma, and repression. White Space is, as its name suggests, a white space of inconceivable size. The monotonous plane is home to a small square outlined in black where Omori first appears, and beyond those walls is a door. White Space symbolizes the safety of boredom and isolation. Within the black square, and surrounded by nothingness, Omori is effectively protected from any kind of negative thoughts, emotions, or memories. However, loneliness leads to boredom, and Omori eventually leaves White Space through the door, where Headspace awaits.

Headspace is where a majority of the game takes place and represents escapism through the idyllic nostalgia of childhood. The vibrant color scheme and perky music depicts the innocence of Omori's life before the accident. The first hints towards the mysterious accident manifest as creepy entities that randomly materialize in Headspace, disrupting the cheerful landscape and triggering fear and curiosity in the player. The game tasks Omori and his friends with searching for their friend Basil, who recently went missing. As the group travels across Headspace, they complete tasks and battle enemies to receive more information, level up, and progress toward finding Basil. Progression through Headspace is regularly broken up with interval sequences spent in the real world, where the player learns that Omori is actually a reclusive middle-school boy called Sunny. The player soon finds that the real world counterparts of Omori's cheerful friends have grown into cynical, emotionally volatile pre-teens in the aftermath of the accident, adding to the mystery surrounding the event.

Once the entirety of Headspace has been explored, Omori enters Black Space, which is where the horrific revelation of the accident is finally made accessible to the player. Presented as a series of doors floating aimlessly in a dark space, Black Space symbolizes the uncertainty and chaos of trying to process trauma. Like White Space, Black Space is of inconceivable size, and the random placement of the doors makes it difficult for the player to determine where to go or how to begin. But once the player starts opening doors, they reveal disturbing fragments of memory hidden behind each one, and this allows them to finally connect the pieces of the accident (Younis & Fedtke, 2023). The player learns that Sunny, who struggled to control his emotions as a child, one day got into an argument with his beloved older sister, Mari, and pushed her down the stairs in a fit of rage, killing her. Sunny's friend Basil, who witnessed her death, was terrified of the consequences Sunny would face and convinced him to stage her death as a suicide (Trock, 2022). In the aftermath of this shocking event, Sunny retreated into himself, creating Headspace as an escape from reality and Omori as a version of the innocent child he was before the accident. In Headspace, his friend group has not splintered apart, and his sister is still alive.

Emotion features significantly in the game as both a key game mechanic and a narrative element. The battles that take place in Headspace teach Omori and his friends how to work together as a team and master their emotions, which range from "neutral" to extremes such as "mania" and "enraged" (Fukunaga, 2021). Battles function similarly to rock-paper-scissors, where each character gets a turn to attack, and each emotion has an effective and ineffective counterpart. For example, "happy" beats "sad" and "sad" beats "happy" (Omori Wiki, 2024). Each character's current emotional state is displayed on the screen, allowing the player to strategize accordingly. The fastest and most efficient way to win battles is to manipulate the emotions of the characters with attacks, skills, follow-ups, and items. Follow-ups specifically strengthen the bonds between Omori and his friends as shouting encouragement to each other can increase attack power and even heal damage inflicted by enemies. The player's dedication to developing emotional regulation skills in the characters is integral to completing the game successfully.

Outside of battles, there are moments in which exploration of Headspace results in Omori encountering some form of a trigger for his trauma, and a pop-up message appears that explicitly states how he feels. For example, when Omori comes across a deep pond in a corner of Headspace, shadows suddenly begin to creep in from the edges of the screen, and it is shown that Omori is afraid of drowning. Walking Omori away from the water erases the shadows, but the disruption to Headspace's otherwise peaceful appearance leaves a lasting impression. As Omori and his friends level up, Omori slowly learns techniques to cope with his fears and anxiety, such as taking deep breaths to calm down.

Compared to *The Path*, *OMORI* operates under a more conventional version of the ludic contract where the player is tasked with completing tasks and overcoming obstacles, and they are appropriately rewarded for it. The characters level up with every battle won and skill acquired, and the cultivation of emotional regulation skills specifically is what prepares the player to defeat Omori in the final battle. Emotion is incredibly significant to *OMORI* in both its plot and its gameplay. Understanding what the characters feel at any given moment, why they feel that way, and how best to act on that feeling is integral to winning battles and progressing through the plot. *OMORI* does not seek to villainize the player like in *The Path*, but it does present the player with a fork in the road during the final battle between Omori and Sunny. The game takes the approach of having several different endings rather than a distinctly victorious or non-victorious outcome.

In Aristotelian terms, Sunny is the protagonist of the tragic narrative at the center of the game. His *hamartia* stems from his inability to control his emotions, and culminates in him pushing Mari down the stairs. Although Sunny attempts to escape reality by living in Headspace as Omori, this complex defense mechanism is taken away once the player has accomplished all the tasks the game provides for them. In Black Space, the player discovers the truth of Headspace and Omori, and this leads to the game returning to the real world. The consequent reversal in fortune manifests in two ways: Sunny, who now wishes to leave Headspace for good and return to society, comes into direct conflict with the very thing he created to protect himself and relied upon for years; whereas Omori, who has grown far beyond an escapist alter ego by feeding off of Sunny's complacency and solitude, is endangered by Sunny's newfound agency. In this context, the reversal in fortune or "fall from grace" experienced by the two characters is specific to their situations and the desires they have possessed up until this point in the game.

In the climactic battle that ensues, it is up to the player to decide who prevails and how. The two possible outcomes each have their own unique catharsis. If Sunny prevails, then he has defeated the manifestation of his self loathing, and will now begin the long journey to processing his complex trauma and returning to society. If Omori prevails, then his victory represents the morbid relief of giving up on healing and succumbing to trauma. The tragic interactive narrative at the heart of *OMORI* provides the user with the ability to make variations in a largely predetermined plot; specifically in the last half of the story. A majority of the game consists of the player engaging in the ludic contract: completing tasks and searching for Basil. But there is also an element of speculation and curiosity in regards to the mysterious accident, and the recurring theme of anxiety and fear that comes from the darkness lurking throughout Headspace. Once the player discovers the protagonist's *hamartia*, the game gives them control over the trajectory of the remaining plot, and the player is able to determine the ending of Sunny's story.

SECTION V. The Artifact

For this project, I have created *Pathos*, an artifact that demonstrates how a digital interactive narrative can fulfill the principles of an Aristotelian tragedy, and how emotion

manifests in the narrative as a result. Based on the research and analysis I have detailed in previous sections, I developed *Pathos* on Twine, an open-source tool for creating interactive and non-linear stories (2024). Stories are built in Twine by connecting passages of text to each other with embedded links. Rather than write an original tragedy, I chose to create a template for an interactive narrative that incorporates three types of branching structures. Each demonstrates a different approach to user agency and influence in the plot; thus allowing for in-depth exploration as to how emotion may manifest in a tragic interactive narrative. The passages in Twine consist of two components: adapted excerpts from F. Storr's 1912 translation of *Oedipus the King*, and accompanying meta analysis that explains how the specific structure addresses the research question using the story of Oedipus. *Pathos* consists of 77 passages and is over 22,000 words. User interaction is internal, with the user being directly incorporated into the story world as either the embodiment of the protagonist or a semi-omniscient presence. Users click on links in order to progress through the story.

As explained in Section II, traditional storytelling often follows a linear plotline with a clear beginning, middle, and end (see Figure 1). Their participation with the story is one-sided: they observe and react, but they cannot alter or add to narrative content. Although turning a page in a book or clicking play on a film count as interaction, a genuinely interactive narrative requires continuous "two-sided effort" between the system and user to create a mutual feedback loop (Ryan, 2015, p. 35). The system responds to user interaction *dynamically* by actively reacting and returning their input. For example, in Section II the mutual feedback loop of a branching narrative is described as the system first presenting the user with narrative content, the user reacting to this content by choosing a branch, and the system leading them down that specific narrative path. The user is able to experience multiple different variations of the plot. But the reader of a traditional book (excluding Choose Your Own Adventure novels) can only turn the page to read what's next. The contents of the page will never change.

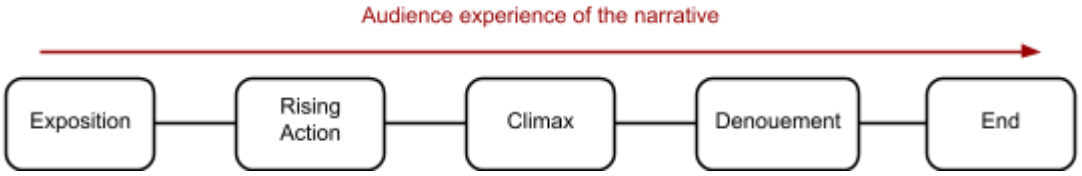

Figure 1: Diagram depicting the linear flow of a traditional narrative and the audience's experience of the story.

Interactive narratives often utilize non-linear structures to transform the audience into users and incorporate their interaction to produce meaningful and compelling narrative experiences. The three structures I created in *Pathos* are a standard branching structure, string of pearls structure, and branch-and-bottleneck structure. These variations align with Level 3 of Marie-Laure Ryan's Interactive Onion to varying degrees. As explained in Section II, Level 3 involves "interactivity creating variations in a predefined story" (2011, p. 44). What makes these structures a suitable vessel for an Aristotelian tragedy is the existence of a semi-fixed, overarching plot that can be experienced in numerous ways depending on how the user interacts with the story. The semi-fixed plot allows for key Aristotelian principles to be fulfilled in a rational sequence: the protagonist commits their *hamartia*, they later discover the truth or consequences of their action, their fortune is reversed, they experience their fall from grace, and *katharsis* occurs at the end. However, interactivity prevents the user's narrative experience from being a strictly straight line as shown in Figure 1. Instead, it is possible for the user to experience the narrative in multiple variations by splitting from the main storyline, looping back in the narrative timeline, and more.

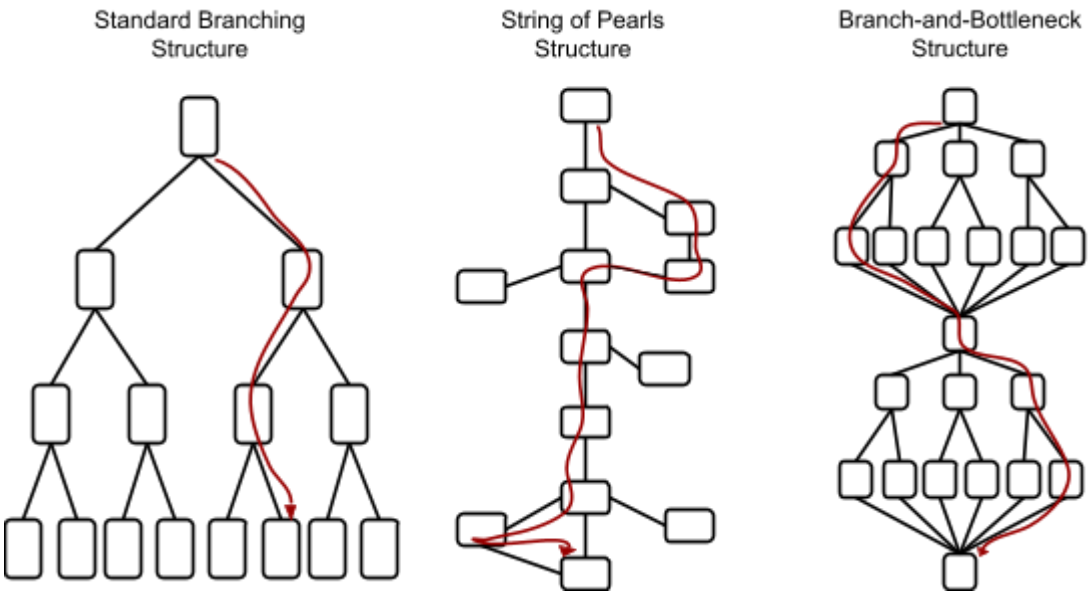

Figure 2: Diagram depicting the three types of nonlinear narrative structures used in the artifact. The red arrow drawn through the structure provides an example for a possible route through the narrative.

Standard branching structures tend to have multiple different endings, whereas string of pearls and branch-and-bottleneck structures have only one ending. Although the story system is designed so that the tragedy that ensues is inevitable, the user is still responsible for how it unfolds. The mutual feedback loop facilitated between the story and the user takes the form of the user first reading a passage of text, then clicking on the hyperlink of their choice to progress forward in the story. In response, the system takes the user to the correlating passage, where they will once again read the text, make a decision, then move on to the next. This continues until the user eventually reaches the end of the plot. It should be noted that the concept of the user "creating variations in a predetermined story" does not mean they are engaging with the system in a way that involves them generating narrative content to add. Instead, the variations created by the user is the specific path they take through the narrative: the passages of text they choose to read next and why. All possible variations of the story have already been written into the system, but the user cannot consume all variations simultaneously. Their experience of the narrative and the specific story they consume is purely a matter of which links the user decides to click.

Utilizing three types of nonlinear structures allows for the artifact to demonstrate how different types of interactivity can influence the way in which a user experiences a tragic interactive narrative. The artifact begins with an expository sequence that sets the scene and introduces the major characters. When the user comes to their first fork in the path, they are faced with three different routes through the story. Route 1 is a standard branching narrative, Route 2 follows the string of pearls structure, and Route 3 is designed as a branch-and-bottleneck structure. Route 1 positions the user to embody the role of the protagonist and exercise extensive influence over the plot. Route 2 and Route 3 give the user a more distanced control over the protagonist and utilizes faux-choice constructs and other techniques to feed them the illusion of choice. All routes cover the following key plot points:

- The prophecy that foretells Oedipus will slay his father and marry his mother.
- Oedipus exhibits a specific personality flaw, such as hubris or cowardice, and kills a stranger who is, unbeknownst to him, his biological father. These two components of a flaw and an action make up his *hamartia*.

- Oedipus marries his biological mother and has children with her. This is another facet of his *hamartia*, and also feeds into the reversal in fortune that he experiences later.
- Oedipus learns the truth of his parentage and discovers that the man he killed was actually his father. He has fulfilled the prophecy, and Jocasta kills herself.
- Oedipus' comfortable life as the respected ruler of Thebes and responsible family man unravels.
- Oedipus blinds and exiles himself at the end of the story.

Route 1 begins when Oedipus is a young man leaving Corinth. In *Oedipus the King*, the story begins when Oedipus is already King of Thebes, and his origins are pieced together through lengthy expository monologues about the past. Because Route 1 is designed to provide the most agency and influence to the user out of the three structures, I believed starting the story from before the original text's timeframe was well suited to the theme of freedom and choice. This way, the user feels more in control of narrative development. Key elements of the plot such as Oedipus' *hamartia* are largely predetermined by the story system, but the user is able to choose how and why this *hamartia* happens. Route 1 is written so that the user is positioned to fulfill the role of Oedipus. The passages use second-person point of view to facilitate this, with the story presenting decision points as direct questions.

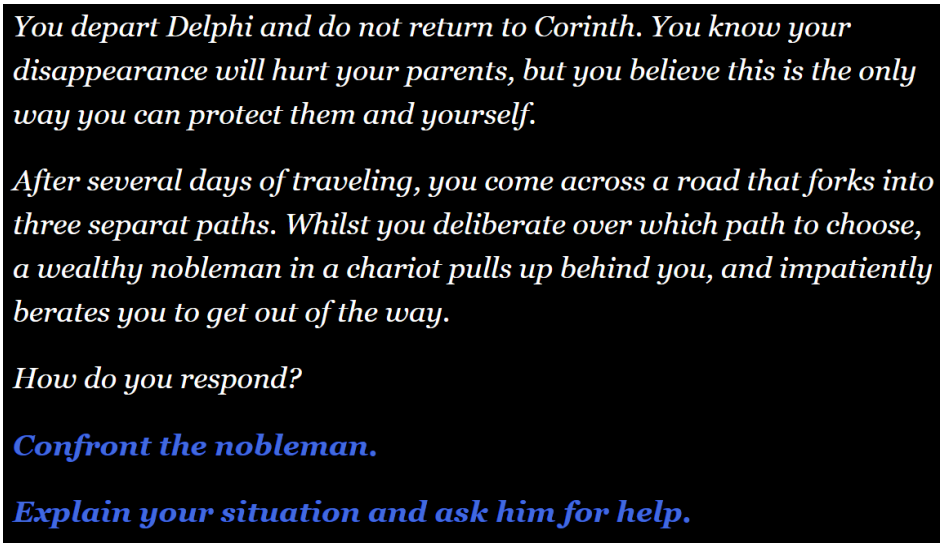

Figure 3: Screenshot from Route 1 in Twine board demonstrating the use of second-person POV to position the user as the protagonist.

The structure of Route 1 is best described as a standard branching narrative and provides the most possible variations of the story. Because standard branching narratives function by frequently providing the user with decision points, the number of branches will continue to grow exponentially, resulting in countless endings. The complexity of this structure is difficult to control, and the abundance of choice can potentially burden the user and take away from aesthetic enjoyment of the story (Alfieri & Madison, 2021). Adapting a pre-existing story such as *Oedipus the King* to this type of structure is especially challenging, as the continuous branches would require new material to be generated and added to the original text. To control the expansion of the narrative, faux-choice constructs have been implemented to connect branches with similar plots. Similarly to *The Path*, the various branches in the story end in a linear sequence to demonstrate the user's loss of control over the final act of the plot. This caters to the Aristotelian principle of the audience experiencing *katharsis*, or a release of the negative emotions they have accumulated throughout the plot, towards the end of the story. The user is not just deprived of their influence, but relieved of it,

so they can focus entirely on witnessing and reacting to the protagonist in the aftermath of the climax.

Figure 4: Screenshot of Route 1 from Twine board. Ending passages are excluded due to screen size constraints. Please see Figure 5 for a complete diagram.

Route 1 is not a branching narrative in its purest form, but the overarching shape of a branching narrative is still present. In creating *Pathos*, I wished to demonstrate how interactivity and user agency in a narrative can influence the development of an Aristotelian tragedy and how emotion manifests within that framework. I felt an overabundance of narrative variations was unnecessary, as several possible routes would already serve as a suitable illustration for the different ways that user interaction in a branching narrative would transform the story and thus the way in which emotion plays out. Out of the three structures, Route 1 provides the user with the most agency and influence over the plot (see Figure 5).

Despite utilizing techniques such as faux-choice constructs and sharing links between passages, the core principles of a standard branching narrative are still followed. The if/then construct that governs the narrative's progression remains; mirroring the Aristotelian principle of the plot consisting of a rational sequence of events driven by cause-and-effect. Every decision point provides two options to the user to choose from. Each option leads to a unique variation of the story. Some passages, as indicated in Figure 4 above, share the same two options. However, due to the narrative content of the individual passages being unique, the user will still experience a different interpretation of Oedipus' story.

For example, in Figure 6, the "Explain your situation" passage and "Confront the nobleman" passage are decision points that share the same options: "Strike the nobleman" and "Reveal your identity." The "Explain your situation" passage and "Reveal your identity" passages take a much less aggressive approach to the scenario presented by the story, whereas "Confront the nobleman" and "Strike the nobleman" belong to a more reckless route.

Depending on the combination of passages read by the user, their understanding and perception of Oedipus' character changes. The exact components of Oedipus' *hamartia*, such as the specific personality flaws and actions that comprise it, are also unique to the specific path the user takes through the narrative.

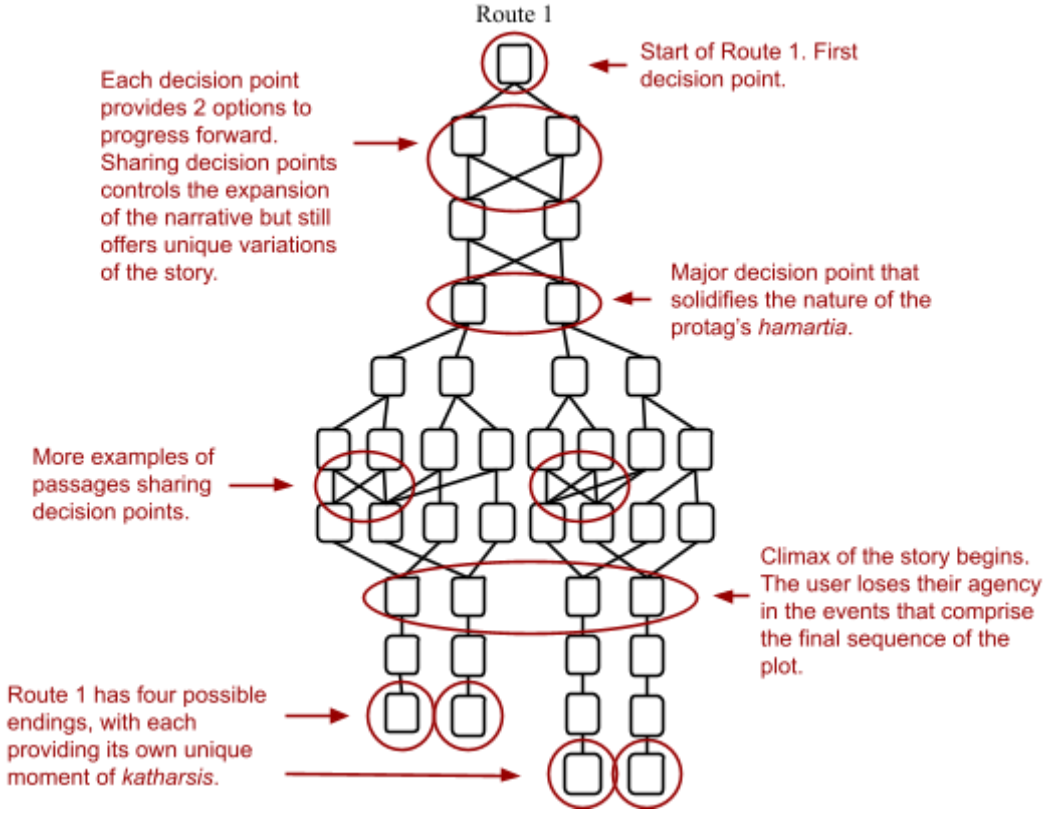

Figure 5: Visual depiction of Route 1's standard branching narrative.

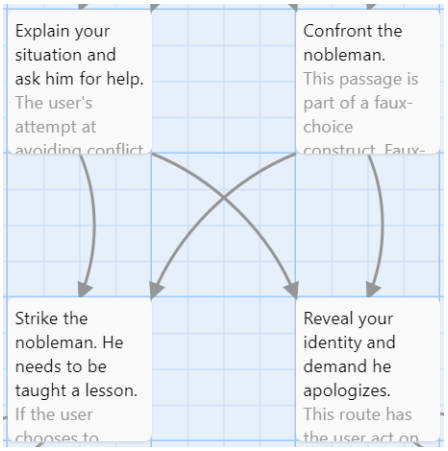

Figure 6: Screenshot of Twine board demonstrating decision points sharing links in Route 1.

Despite the creative liberties taken in expanding the story of Oedipus, certain plot points must still be included in order to fulfill the principles of an Aristotelian tragedy. Oedipus' *hamartia*, the discovery of the consequences of his actions, the reversal in fortune, and the downfall that follows must occur in this general order; as Aristotle emphasized the importance of a tragic plot unfolding in a rational sequence of events. The story ends in a moment of *katharsis*, where the audience is able to release their negative emotions by witnessing how Oedipus faces the aftermath of the tragedy he caused with his own hands.

The specific way in which these plot points play out varies across the different branches in Route 1. For example, in some paths, Oedipus does not slay Laius immediately, but rather inflicts a fatal wound and flees the scene. Instead of killing Laius decisively, the act of running away from the consequences of his actions adds cowardice to his *hamartia*. Every choice made by the user leads them further and further down a specific path through the plot with its own unique events and implications. All variations of the plot also emphasize the multifaceted nature of Oedipus' personality by including various flaws such as hubris, aggression, and cowardice in addition to righteousness and a strong sense of duty. Balancing out these traits is integral to fulfilling the requirements of a tragic Aristotelian protagonist: someone who mostly means well, but is prone to misdeeds and misjudgment like any other.

Route 2 and Route 3 begin when Oedipus is already the King of Thebes, which is the same chronological approach to the story as the original text. These two paths require the user to work backwards in time to piece together the reason behind the plague that has befallen the city. Because these routes are structured around the user operating under the illusion of freedom, the narrative experiences they offer are more limited compared to Route 1. As shown in Figure 7, Route 2 and Route 3 share the same starting passage, which is also a decision point for the user. One link leads to Route 2, whilst the other leads to Route 3. These routes take a similar approach as *The Path* with the dynamic it creates between the user and the protagonist by positioning the user at distance, yet providing them with detailed insight into Oedipus' emotional state and thoughts. The passages in both routes are presented in third person; with the story system narrating the events of the plot to the user, who is then prompted to respond to these scenes by clicking on links. Compared to Route 1, which positions the user to navigate the story as the protagonist who is experiencing these events in real time, Route 2 and Route 3 engages the user as an observer and orchestrator of the story (see Figure 8).

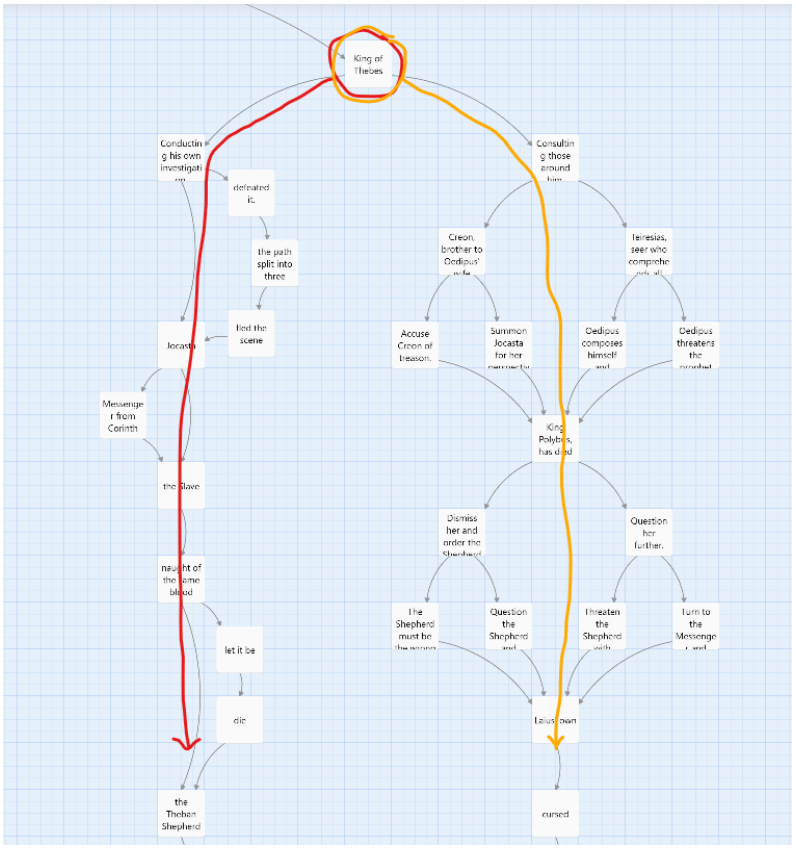

Figure 7: Screenshot of Route 2 and Route 3 in the Twine storyboard. Both routes share the same starting passage but diverge. Red represents Route 2, and orange represents Route 3. The final passages in each route are cut off due to screen size limitations.

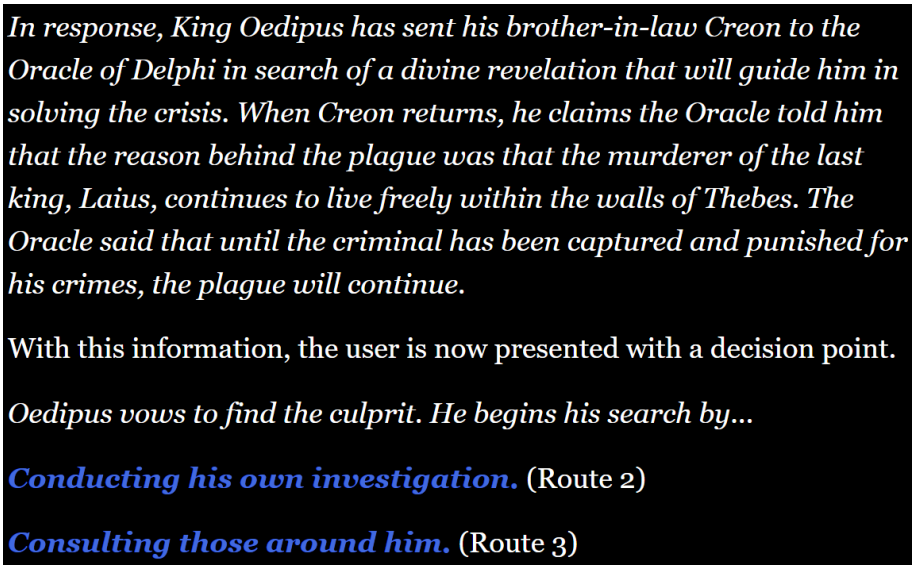

Figure 8: Screenshot from Route 3 demonstrating the point of view used in the passages. Route 2 and Route 3 narrate the story to the user.

Both Route 2 and Route 3 approach emotion as a narrative theme that is expressed through descriptions of the character's thoughts and feelings. Oedipus' inner monologue, and his reactions to those around him, are made explicitly clear to the user. Like in *OMORI*, this structure allows the user to make an informed decision on how to proceed forward with the plot, and therefore shapes the emotional tone of the variation of the story that they experience. For example, the passage in Route 2 when the reveal of Oedipus' birth parents is set in motion presents the user with two options: pursue the matter further by interrogating the Theban Shepherd, or heed Jocasta's pleas to let the matter go. The first option is framed in the context of Oedipus "growing impatient" of Jocasta's advice; more specifically her attempts to persuade him to stop investigating. Clicking on this link demonstrates a certain disregard for his wife's distress, and a near ruthless desire to hear the truth. The second option, on the other hand, is written as Jocasta warning Oedipus not to pursue the topic for his own sake. Her warning demonstrates consideration for her husband and their life together, and fear for the truth she already suspects. But even if the user chooses to click on her link and follow her advice, the tragedy still cannot be averted, as the *hamartia* has already been made.

Route 2 is designed as a string of pearls narrative, and thus provides the least amount of possible variations in the narrative experience (see Figure 9). Decision points are presented to the user where they are able to access short branches that diverge from the main storyline. However, these links are not presented to the user as a question or a command to react to a specific scenario. String of pearls narratives tend to be more exploratory in nature; with all branches ultimately connecting back to the main storyline. Branches in a string of pearls narrative tend to provide more context or insight into the world and its characters, rather than separating into a completely independent variation of the story like in a standard branching structure. Because Route 2 takes place when Oedipus is already the King of Thebes, the branches contain flashbacks from his early life, such as when he defeated the Sphinx or when he was found as an abandoned infant in the mountains (see Figure 10).

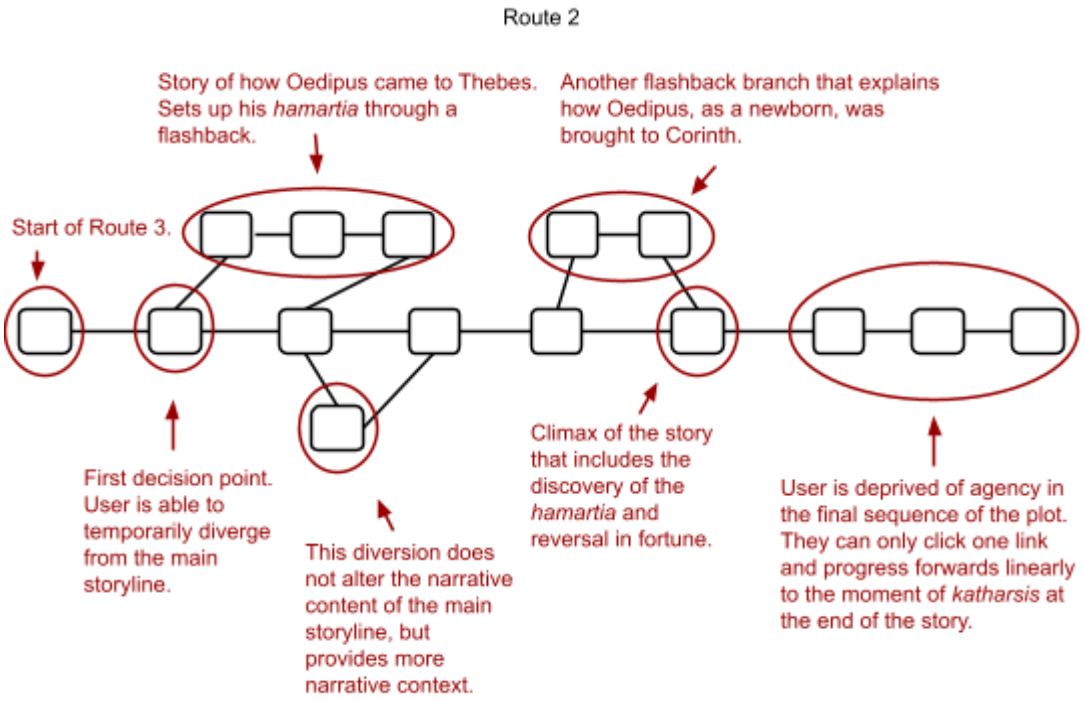

Figure 9: Visual depiction of Route 2's specific string of pearls narrative structure.

During this time, a great Sphinx was terrorizing Thebes, and so their ruler's death had to be pushed aside. Oedipus remembers the Sphinx, for he was the traveler who came across it guarding the Theban gate and ***defeated it.***

This highlighted phrase indicates to the user that this is a link to a new part of the story. The user has no way of knowing whether this will continue the main storyline or simply branch away from it. This is why the string of pearls structure is often used for side quests in video games. In the context of this project, these side branches provide the user with a deeper understanding of the protagonist.

Oedipus asks ***Jocasta*** *to tell him more about what happened to Laius on that fateful day.*

Figure 10: Example of a decision point in Route 2. The first link leads to a branch that gives more information surrounding Oedipus' past. The second link continues the main storyline.

If the user does not pursue any of the branches, and progresses only within the main storyline, their experience of the narrative is equivalent to reading an abridged version of *Oedipus the King*. Exploring these branches intensifies the build up to the climax in the main storyline, and helps the user cultivate a better understanding of Oedipus' character. The presence of the branches is what prevents the story from feeling like a totally linear experience. Their availability, and the subtle suggestion with which they are presented to the user, lends a relaxed form of interactivity to the experience that centers around exploration.

Route 3 follows a branch-and-bottleneck structure, as shown in Figure 11. This variation of a branching narrative consists of decision points with two options that will ultimately lead to a "bottleneck" passage. The bottleneck passages represent key plot points in the main storyline that happen regardless of previous choices made by the user. Route 3

begins when Oedipus is already King of Thebes, and the first decision point has the user choose between consulting Creon or Teiresias over the details of Laius' murder. Both characters allude to the idea that Oedipus himself may be the killer, which will later be confirmed in a bottleneck passage.

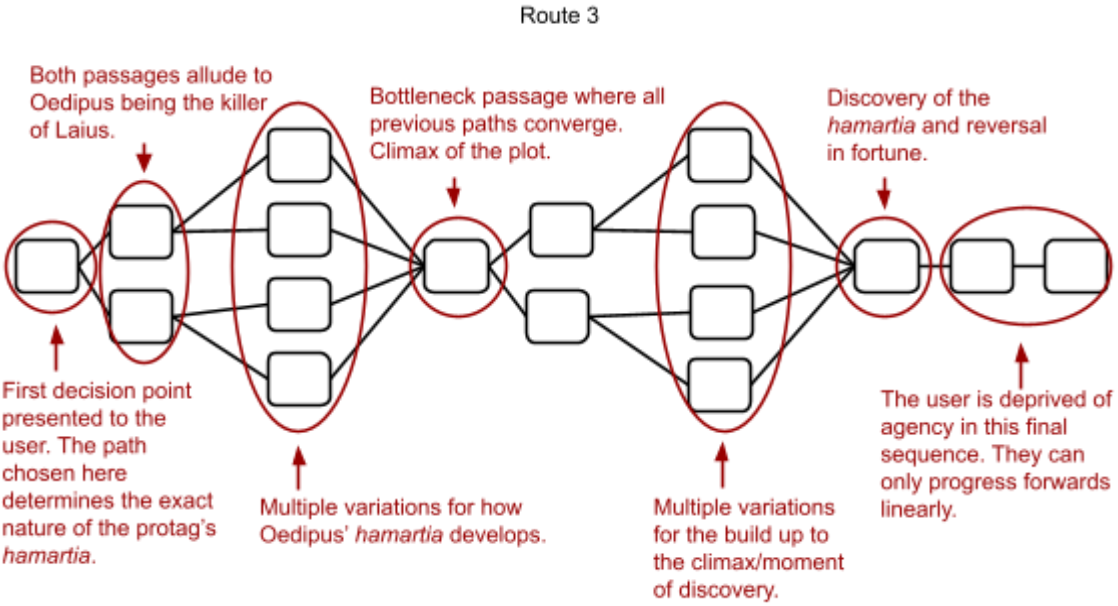

Figure 11: Visual depiction of Route 3's specific branch-and-bottleneck structure.

The user is not able to influence the element of Oedipus' *hamartia* that relates to him killing his father and marrying his mother as these events have already occurred in the story, but they are able to build onto Oedipus' *hamartia* by developing the personality flaws and emotions that drive his actions in the current timeline. These passages, which represent the rising action of the plot, all lead to the first bottleneck passage where the climax occurs. The decision point here concerns how Oedipus responds to the Messenger's shocking revelation that he is not the son of Polybus and Merope, and he was abandoned as an infant by a Theban Shepherd. Jocasta begs him not to pursue the matter further, as she is already suspecting the truth, and the passage explicitly states that Oedipus is suspicious of her reaction. The user is then prompted to choose between outright dismissing her worries or interrogating her further. The former option is harsher yet efficient, as he puts aside his suspicion to get more information, whereas the latter option plays off of the suspicion with him turning his full attention to her.

The second bottleneck passage involves the discovery of Oedipus' *hamartia* and the subsequent reversal in fortune. This passage specifically has the Theban Shepherd confirm Oedipus' identity as the son of Laius and Jocasta, which leads to the devastating realization that not only did the prophecy which foretold his patricide and incestuous marriage come true, but Oedipus put these events in motion by leaving home in an attempt to avoid it. The user is now deprived of their control, as this passage ends with only one link that leads into the final sequence of the story. The branch-and-bottleneck structure approaches user agency in a way that communicates how the illusion of choice and influence does not necessarily equate to freedom in the plot. For a moment, the user is able to take four different paths through the story, but these variations will all ultimately lead to the same climax. In Figure 12, they may try to avoid the discovery of the truth by heeding Jocasta's pleas, but that is still not enough to escape the inevitable reveal of Oedipus' misdeeds.

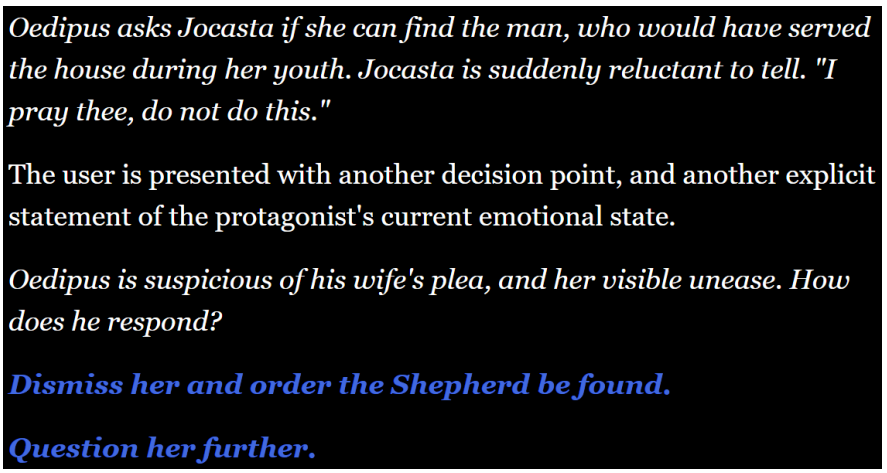

Figure 12: Screenshot from Route 3 of a bottleneck passage. The protagonist's emotional state is made clear to the user before providing them with a decision point.

CONCLUSION.

This humanities project explores how the principles of an Aristotelian tragedy can be fulfilled in an interactive narrative, and how emotion manifests within this framework. To approach this research question, three core elements of the project were established: tragedy as described in Aristotle's *Poetics*, interactive narrative as a genre and medium, and emotion as an abstract, aesthetic concept in a narrative. Extensive readings were conducted on these three elements to compile a literature review that identifies core themes and discourse relevant to the project; such as the integral plot points in an Aristotelian tragedy, interactive narratives as a mutual feedback loop between the system and the user, and Marie-Laure Ryan's three types of emotional immersion in fiction (2015). These theories and concepts were then applied to two case studies: *The Path* and *OMORI*. Close readings were conducted on the case studies with the use of analytical lenses as described by Bizzocchi and Tanenbaum (2011). These analytical lenses specifically examined how the two digital interactive narratives fulfilled the principles of an Aristotelian tragedy with their approach to user agency and influence in the story and the utilization of emotion as a game mechanic and narrative theme.

The artifact of this project is a digital interactive narrative based on Twine titled *Pathos*. Composed of three different types of nonlinear interactive structures, each structure adapts the Greek tragedy of *Oedipus the King* with a different approach to user influence in the story. *Pathos* builds upon the findings of the literature review and case study analysis to explore the different ways an interactive narrative can fulfill the principles of an Aristotelian tragedy and how emotion manifests within this framework. The presence, illusion, and absence of user agency is integral to the narrative experience of *Pathos*. By clicking on links to pursue specific paths through the story, the user "creates" variations in a largely predetermined plot. Although all narrative content has already been written, the context in which it is received, and the meaning it lends to the wider story differs depending on the variation experienced by the user and how they act on the protagonist's emotions. All routes cover major Aristotelian plot points, and demonstrate how the themes of accountability, reason, and emotion are expressed through user interaction with the narrative. In the future, this project could be expanded upon with the creation of an original interactive narrative. Instead of adapting a pre-existing text, writing an original tragedy would allow for the use of more types of nonlinear structures that are more exploratory or abstract in nature.

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APPENDIX: ETHICS DISCLAIMER.

This humanities project does not involve any human-facing elements or other components that may be cause for ethics concern. As a result, an ethics checklist and other ethics documentation were deemed not necessary for submission.