**Ideologies of Choice: A theoretical Analysis of Player Agency in Video Games**

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# Abstract

Player interaction is a definitive feature of video games, and the choices that are made when playing games create personalised individual experiences for each player. When there are tangible responses to their actions, players decisions within game worlds lead to an experience of agency. This exegesis explores a theoretical analysis of both video games and literature to suggest a different perspective on player agency; that player choices function as a response to the constructed ideologies of video game worlds and are shaped by the player's relationship with their character. The goal of this analysis is to understand whether non-consequential choices enhance a player's experience of a linear game narrative.

This exegesis accompanies my work within *Project: Mystic*, a linear mystery game set in 1920's Aotearoa. Linear video games have predetermined narratives so to aide in the development of *Project: Mystic* this exegesis explores player agency through the relationship between the player and the player character and the designed ideology of the game world. On the relationship between the player and the player character, this exegesis explores ideas of differing player and player character knowledge, the designation of "I" on the player character, and autonomy and desire in restrictive game worlds. On video game worlds I explore necessary and voluntary player actions, the effect of a player's participation in a game narrative, and the role of player autonomy within the constructed ideology of a game world. Through a theoretical analysis of video game literature and the application of established theoretical texts on agency as a perspective to explore player agency in video games, this exegesis proposes an analysis on player agency in linear video games that was utilised in the development of puzzles and game mechanics for *Project: Mystic*. This exegesis also outlines the development of *Project: Mystic* and how this research informed its production.

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# Introduction

A point of distinction in the audience experience of video games is the relationship that forms between a player and the game, as the player becomes more than an observer through their interaction with the mechanics and narrative during gameplay. The primary goal of this research is to question if narratively non-consequential choices are effective at enhancing a player's experience of agency through their personal connection to, and autonomy within, the narrative of a linear video game. Often when players are given choices in a game, a positive outcome to their choice is framed not as a consequence of their actions, but rather a reward for one choosing a 'correct' option. This facade generated by decisions coded with good or bad morality strips players of their agency and confines them to act out a specific, predetermined reality.

This exegesis functions as a critical accompaniment to my contributions in the development of *Project: Mystic*, a short-form mystery game set in 1920's Aotearoa. In *Project: Mystic* a journalist interviews the only survivor of a mysterious wreck of the Mystic Liner, and the Player takes control of the survivor during their last moments on the train, unravelling the mystery that led to the wreck. To inform the design of player choices that appear in *Project: Mystic* I have utilised Jacques Lacan's concept of the Mirror Stage (1977) as a lens to examine the dissonance between player and character, and employed Louis Althusser's interpretations of Ideology (1984) as a framework to explore player agency within designed, virtual environments. These concepts are explored alongside ideas presented by existing theoretical videogame research and supplemented through analyses of player choice in games in my Literature Review and Related Works chapter. In the Methodology chapter I outline how these ideas informed the design of aspects of Project: Mystic, through an action research led iterative approach to development; the details of how this informed the game systems in the creative work are expanded upon in the Results chapter.

## Literature Review and Related Works

In this chapter I will discuss player agency in games through a combination of video game literature and theoretical concepts. For the first section I apply Jacques Lacan's psychoanalytic concept of the Mirror Stage (1977) to an examination of the relationship between a player and the player character. I discuss the impact of contrasting levels of player and character knowledge of the game world on the player's experience, then explore the player's designation of first person pronouns on the player character and its effect on their relationship, before exploring the way that desire and player autonomy influence the player's reception of gameplay that restricts their agency. The second section of this chapter explores videogame environments through the lens of Louis Althusser's theories of Ideology (1984). I explore how video games construct ideologies through both compulsory player actions and how the player character is situated within a game's narrative, then examine the affective value that a player's participation in a narrative creates, and how autonomy functions as a response to constructed ideologies within game worlds. In the final section of this chapter I apply these concepts into the context of linear games, discussing how player choices function within games with linear narratives.

Prior to this review I have outlined how player agency is discussed in various video game literature, and the different ways in which it is defined. Player agency can be described as the act of player choice as a reflection of the game world, as Salen and Zimmerman suggest that "playing a game means making choices and taking actions. All of this activity occurs within a game-system designed to support meaningful kinds of choice-making" (2004, p. 33). Meaningfulness is something that appears often in the context of player choice, as Tanenbaum and Tanenbaum theorise that this develops from the player's intent behind a choice, rather than purely the outcome of that choice (2010). The relationship between the player and the game environment is similarly explored by Tulloch, emphasising that "how players choose to navigate the game world and what their expectations might be are, in part, consequences of the design decisions made by the game authors" (2010). Players input actions and choices into designed systems with results that reflect the design of the game, however Tulloch also writes that "players are far from unwitting prisoners of restrictive rules; they are active agents in the construction of play" (2014). It is the interplay between the game rules and the player that allows for gameplay, and thus provides players with choices; "videogames conflate the rules of a game with the mechanics of the equipment" (Boluk & LeMieux, 2017, p. 8), as player choice, and as a result agency, occurs as a consequence of game restrictions.

The concept of the Mirror Stage presented by Jacques Lacan (1977) provides a unique analogy for the relationship between the player and the player character. Lacan proposes that an infant's self-perception is disconnected when looking in a mirror, as they see someone who's actions appear to be more realised than their own. This dissonance causes frustration as their experience of their own actions do not align with what they see (Lacan, 1977). When playing a game there is also a dissonance between the player and the character; what you see as the player is different to what the character sees, your goals are different to the character's goals, and ultimately your actions are different to the character's actions. Through applying this lens the game becomes the mirror and the character is a digital reflection whose actions are distinct and more realised than that of the player - they have an inherent understanding of the game world, even when it is unfamiliar to the player.  Noah Wardrip-Fruin et al. outline that, despite how our conversations are usually shaped by our environment and social contexts, "in a game we may not know how to speak with characters, what statements might have an impact, or even if it is possible to speak" (2009, p. 5). Narrative and roleplaying games (RPGs) are prime examples of this as the player is either assuming the role of a predetermined character or inhabiting a defined world and will inevitably come up against barriers while assuming the role of a character that understands the world better than they do.

A clear example of this phenomenon emerges in BioWare's 2007 action RPG *Mass Effect*, where players get to customise the appearance, background, and decide the actions of protagonist Commander Sheppard. Despite all this, the character is always a respected veteran soldier, and non-playable characters (NPCs) will react to player actions based on the character's unalterable history. This creates a disconnect between the player's actions and their character; if they create choices that align with heroic persona that the game has assigned to Commander Sheppard, they may have to disregard their own agency when it does not fit with the constructed narrative of that character. Sheppard will know more about the setting of *Mass Effect* than the player will, leaving the player to puppet a character that already has previously had agency within the world the player is now navigating. Other RPGs suggest alternatives to this. In CD Projekt Red's *The Witcher*, also released in 2007, the player steps into the shoes of Geralt of Rivia, an infamous monster hunter known as a witcher. Much like Commander Sheppard, Geralt has a complex history within the game world that the player could not influence. However, at the start of the game he has amnesia and both the player and

Geralt are now surprised when an NPC disapproves of choices the player has made, as both player and character learn more about Geralt as the game progresses.

The same dissonance is caused when the inverse occurs, and the player finds themselves knowing more than their character. Speaking on the relationship between a player and the player character in *A Play of Bodies: How We Perceive Videogames* (2018), Brendan Keogh mentions that when a character in a game dies, the player's behaviour will adapt when they face the same challenge again, as they "use the memories of that failure to ensure [they] do not repeat the same mistake" (p. 13). In this scenario, the player now knows more than the character; conversations and events that the player traverses will play out the same as before, exposing the scripted nature of the game's world. This balance relies on a suspension of disbelief from the player that changes how they interact with the game, as their past failure allows for the exposition of parts of the game that the player character now doesn't know. This results in a sense of dramatic irony as the player already knows how they shouldn't act when they return to a situation where they previously failed.

Other aspects of game mechanics can also influence this relationship, and space between the player and player character's knowledge of the game world can be bridged if the game is designed to make the player think more as their character would. Tulloch states that "many video games take on a pedagogic relationship to the player. They train the player to play in specific ways" (2010, p. 33)—and it is this teaching that defines how players must interact with a game to successfully progress the narrative. As a result of a game teaching the player how they should play the game, the player begins to see the limitations the character is faced with and can more clearly identify how the character fits into the game world. As the player learns what the character is capable of, the disconnect between what the character can *possibly* do and what the player can *physically* do in the game reduces, and players are able to approach problems with an understanding of resources the player character has at their disposal. When a player actively makes choices that respond to the game in methods that the character would, this connection continues to develop as choices like these provide a reactive realisation to a player's autonomy within the game world. As something tangible happens in the game as a result of player input the action allows for a fulfilment of the player's desires that, through this teaching, correspond with those of the player-character. These actions aren't necessarily presented to the player though clear binary options, as gameplay provides a vital role in this aspect of the relationship. *Assassin's Creed Unity* (Ubisoft Montreal, 2014) sets players loose in a fictional simulacrum of 18th century Paris as

Assassin Arno Dorian. The core gameplay in *Assassin's Creed Unity* revolves around combat, stealth, and parkour. While stealth and combat are presented naturally to the player as a result of their character's abilities and the tools they have, parkour is encouraged in gameplay through how densely populated the city is with NPCs. If the player sticks to the ground, they will be weaving in and out of people and obstacles while simultaneously navigating the twisting streets of Paris. If they take to the rooftops, the player now has a more direct course to their destination as they climb, swing, and dash across the vacant rooftops. The player is not instructed when they should engage with the parkour systems while navigating the game world, but it subconsciously becomes the player's desired mode of transport as it helps them get to their destinations quicker, and thus compels the player to interact with the environment the way Arno should. An intrinsic consequence of the parkour in *Assassin's Creed Unity* is that the player character looks stylish as a result of player input. This combines with the extrinsic reward of faster navigation through the game world when players engage with the parkour systems, transforming the method of traversal that is synonymous with the player character into actions that are desirable to the player. This relationship also develops in systems that players consciously choose to engage with, as with the way that the player attacks enemies in *Silent Hill 2* (Konami Computer Entertainment Tokyo, 2001). In *Silent Hill 2* you play as James Sunderland who is for all intents and purposes just ordinary. James is awkward to control when compared to other games, and his attacks feel like they drag on longer than they should. The effect of this is that, when facing up against one of the horrors in the town of Silent Hill, running becomes just as valid an option as the player is as scared as James would be – every encounter comes with relief if the player survives, or solace if they manage to escape.

The act of making a decision that effects the reality of the player character encourages a switch in language; as the player creates ripples within a game world, their reference of the player character shifts from "they" to "I". On the subject of player actions, Keogh states "If you were to ask me what I was doing … I would say simply, 'I am jumping,' not 'I am pressing the X button'," (2018, p. 2). This assertion comes despite being physically distinct to the player character. His experience of the game world is one in which he engages with, but never physically enters. It is the language of this statement that is important in the context of this discussion: the consequence of referring to the player character in the first person is that the player is reinforcing the link between their inputs and the character's actions. In *Bodies That Matter: On the Discursive Limits of "Sex"* (1993), Judith Butler discusses the concept of designation, where a name becomes a signifier for someone or something through the performative action of naming. (pp.

208-218). A very particular aspect of her analysis references the idea that this concept should not be defined by preconceived ideas of what the correct designation of something is, and that reiterating a name fixes it to what it is naming (p. 213). As referring to themselves with first person pronouns is how the player would refer to their own actions outside of a game, labelling their character in the same way is the player referring to the character's actions as an extension of themself. Through the designation of "I" for the character, the player is diminishing the separation between the two. The player's actions that are presented through the character are recognised as being their own despite the player only physically pressing buttons. The reiteration of this language to refer the player character fixes it to that character and strengthens how the player views the character. Despite the incorrect use of "I" to refer to something that is not inherently themselves, the use of the first-person pronouns by the player reinforces the connection between the two, which is further solidified the more the player uses this language. The addition of actions which encourage the player to act, and think, like their character allows for a multitude of situations where they use first person pronouns when referring to character actions; phrases like "I should climb onto these buildings" or "I should avoid these enemies" cement the designation into their experience of the game, and contributes to a players personal expression of agency within a game.

Player Agency and the Relevance of Decisions (Thue et al., 2010) describes a system in which a non-linear narrative can have branching events determined by an AI. This system is derived from the idea that a perceived agency, a player's perception of their ability to make changes, is not reliant on increased theoretical agency, the player's ability to change the course of their experience. The distinction between perceived agency and theoretical agency is important within the context of interactive linear narratives, as it points to the importance of autonomy. In games, a player has the ability to interact freely with an environment, even when they have no agency over choices in the world. This autonomous control of a character reflects the player's inputs through the character's movement and allows for players to make unplanned choices that corelate to their desired expression of agency within a game world. Thue's system is also designed around successfully creating desirable outcomes that are foreseeable to the player, placing an affective value on generating a desirable outcome. This emphasis on desire has correlations to Lacan's work, as desire and satisfaction are important aspects of the choices that we make both inside and outside of games.

A decision that players make in BioWare's Mass Effect shows how autonomy plays a role in providing a personal response to choices that only have a perceived

agency. There is a situation where the player is given a choice to surrender their weapons when arriving in an unfamiliar area, but regardless of whether the player chooses to relinquish their weapons the player character will be forced to hand them over. If the player had made the decision to hold on to their weapons, this sequence of events uses the perceived agency as part of the narrative—both the player and their character express displeasure at having to do something they did not want to. Tanenbaum and Tanenbaum suggest that "when play and story intersect, agency is better understood as a commitment to meaning instead of a desire to act freely" (2010), consequently when the player's choice is restricted due to the narrative, this meaning gives context to their choice and results in an experience where they are frustrated at a another character and not at the game. There is an emphasis on actions rather than consequences in this choice, as the player's ability to make a choice at all made the scene a better reflection of agency than if their weapons had been confiscated instantly.

*Applying Ideology: The Game World*

Louis Althusser's interpretation of ideology offers a framework for understanding human agency (1984). He theorises that people exist as subjects of ideological and repressive state apparatuses that provide the illusion that we have agency in our actions, usually by obedience to systems of oppression though actions that are compulsory as a subject of those systems (Althusser, 1984). With this view, a person's actions are more a reflection of their environment than an extension of their own personal agency; one has a restriction on choice imposed by these state apparatuses, so actions are governed by an obedience to that system. When considered in the context of video games, then the game world functions as an environment with its own state apparatuses which the player must subject themselves to in order to play the game. Domsch suggests that "a dynamic system like a video game can make *all* the consequences of a player choice non-negotiable and enforce it on the game state" (2013, p. 141). It is through a player accepting the defined rules and restrictions set out by a game that they are able to progress in the game. The ideological state apparatuses that define these restrictions exist within the game lore (what the player should be doing in context of a given scenario), the game's progression (what the player should be doing next), and on a meta reflection for what is expected in a game of the genre that is being played. These function as a result of a game's design, as the repressive state apparatuses express themselves to the player through the ways the game punishes players – be it death or

otherwise. The structure of a game having these restrictions is not a signifier of a game having less player agency, but rather one that has constructed a different reality that functions through its own ideological systems.

Grand Theft Auto V (2013), an action-adventure game by Rockstar North, is often referred to because of its open world and 'do-what-you-want' approach to gameplay. Despite this, the player is still the subject and the game is designed around them acting particularly dangerous. The repressive state apparatus of the game environment reflects that idea; you will be hunted by the police if you hit someone with your car the same as you would if you went on a killing spree. As a player, you may have the autonomy to choose how you alert the police, but the game is built to ensure very specific systems play out. To complete the story of Grand Theft Auto V the player must kill 726 NPCs, even when trying to kill as few people as possible (Blake, 2021). The very narrative of the game makes the player respond to scenarios with violence, as this is what is expected of their character; their choices become a reflection of the game's systems rather than a consequence of their individual desires. The same can be said for Mass Effect, which has a morality system with players choices being reflected as either Paragon (heroic) or Renegade (ruthless). A game developer who worked for BioWare said that around 92% of the people who played through Mass Effect favoured Paragon options throughout the game and its two sequels (Ebenger, 2020). The choice for players to follow the Paragon path is one that fits well with Commander Sheppard's respected status within the game world, even the name of the alternative being Renegade implies that those choices are a deviation from character. The morality system in Mass Effect rewards players who stick to one side of the moral spectrum extrinsically, which further supports this ideology with a 'correct' course of action for the player. The choices offered to the player contribute to them having less agency within the game world; the narrative strictly reinforces the notion that if they are to continue being perceived as a heroic character, then they must choose the Paragon dialogue options. The narrative acts as a repressive system that players have autonomy within while they simultaneously are expected to give up their own agency to embody the character they are playing. The choice between good and bad is less of a choice when the player is repeatedly told that their character is canonically good, and as a result are structurally discouraged from being bad.

Agency Reconsidered (2009), by Noah Wardrip-Fruin et al., discusses the idea that agency in games is distinct from the idea of free will, and that the experience of agency depends more on the satisfaction of the player. Designing agency in games, in this perspective, then should be structured around "[enticing] players to desires the

game can satisfy" (p. 7). In their research, Wardrip-Fruin et al. identified that one of the key differentiating factors that separate video games from other media is the experience of agency within the narrative; agency within narrative offers players a unique experience through the ability to be in control of when or how they receive information. However, they explain that the difficulty of realising agency within a game world is that too much restriction rail-roads the player and constrains their experience of the game, whereas too little restriction forces the breakdown of the strings that tie the narrative together, muddying the story and losing clarity. This analysis of agency details that if the façade allows for player satisfaction through their choices, much like the concept of perceived agency (Thue et al., 2010) discussed in the previous section, then the intention of the game world satisfies the player's expectation of agency, even if it is just an illusion.

A key element of MacCallum-Stewart and Parsler's discussion of agency within game worlds in *Illusory Agency in Vampire: The Masquerade – Bloodlines* is that: "By being part of that imaginary construct, [the player is] encouraged to believe that their actions are individual and independent. However, in reality they are held within a frame of meaning that is entirely created by the game world" (MacCallum-Stewart & Parsler, 2007). This is a useful exploration of the experience of agency within games. However, the frame of meaning of one's choices in a game can extend out of the game itself through to the affective experiences of the player—the personal connection between the player and the narrative they participated in creating is no less important if it is not tangible. A player that has made exactly the same decisions in a game as someone else will have had a different emotional response as a result their autonomy. It is also interesting to see the connection to Althusser's work in this quote; the frame of meaning that MacCallum-Stewart and Parsler are referring to can be described as the ideological state apparatus that the game developers have created, and this illusion of agency is present through the player's subjection to these ideologies. Approaching agency in games with this lens, the definition becomes not dissimilar to our experience of Althusser's interpretation of agency within the world. The ideologies that govern what choices the player character will face are only different to our own through the knowledge that there are codified systems in games that react to player's input. It is when a game restricts a player's theoretical agency that ideologies of the game world become apparent.

Despite the construction of game's ideology being a result of decisions made by a game developer, player choices are not exclusively predetermined, binary options that

the developer has outlined. "Play doesn't come just from the game itself, but from the way that players interact with the game in order to play it" (Salen & Zimmerman, 2004, p. 33). Players often make choices that function independently from these designed sections of choice, but still act as a reaction to this repressive ideology. These types of choices rely on the player's own autonomy as the reward a player receives is only an intrinsic satisfaction, regardless of whether the game acknowledges their choice. The active choice that a player makes around what systems they choose to engage with reflects how players have agency within the ideology defined by a game; players are able to explore their own rules of play within the confines of a game's world, "rather than remaining subject to the mechanisms of control as defined by the rules of the game" (Boluk & LeMieux, 2017, p. 204). Every player's experience of a game world is fundamentally different because of their autonomous control of a player character, and systems can be ignored or abused by players through their personal response to the game's ideology. In Insomniac Games' 2018 action-adventure game *Marvel's Spider-Man*, side-missions that aren't core to the game's narrative progression are presented to the player by interactions with NPCs around the map. These missions are completely optional to the player, but the act of engaging with this system is what makes the player feel more like a hero, more like Spider-Man. A player who ignores all the side-missions throughout the game will still experience the game's full core narrative, but will have an experience that is less aligned with how the game world presents Spider-Man. The systems within the game encourage players to help NPCs like the character of Spider-Man would, but nothing forces the players to complete these missions other than their acceptance of how the game's ideology defines their place within the game world. Player autonomy can also be expressed through self-imposed restriction; it is both the actions and inactions of a player that mould their experience of choice. *Hitman* (IO Interactive, 2016) sets players in large sandbox-style levels with the goal of eliminating a few NPCs as Agent 47. *Hitman* rewards replaying levels with there being a multitude of opportunities and paths the player can follow to achieve their goal. The more familiar players become with a level, the more they master the level, the more they become like Agent 47—a master assassin that has perfected their craft. *Hitman* players explore new challenges for themselves once they master a level; using no disguises, killing targets only with 'accidents', and completing a level without being spotted are unnecessary requirements to completing a level in *Hitman*, but all feed into the illusion that the player is Agent 47, and strengthens their place within the defined ideology of Hitman. "The practices are perhaps of no great significance … however, what it shows is the need to acknowledge the production of a game world or game's identity as taking place through

player agency, not in opposition to it" (Tulloch, 2014, p. 347).  When players interact with a video game they are subjecting themselves to the rules that the game's ideology defines, but it is through their own personal responses to that ideology that players create the unique incidents that contributes to their own personalised experience of a game.

*From A to B: Player Agency in Linear Video Games*

Player agency in linear video games is presented in a few distinct forms. Players are often given theoretical agency (Thue et al., 2010) over isolated systems that are separate from the core narrative of the game. Using my research as a theoretical foundation for the analysis of agency in linear games, I have decided to separate the different choices presented in linear games into three distinct categories: active, aesthetic, and narrative agency. The goal of this is to examine the different ways that choice is currently utilised in video games and build off these concepts when designing choice for *Project: Mystic*.

Active agency is choice through autonomy, and manifests through the choices being made that are related to how a player interacts with an environment. This style of choices is often made as a reaction to restrictions caused by the ideology of a game, but also serve to bridge the connection between the player and the character as a function of the player's input. A game with a strong sense of active agency in the player interaction would be *Portal*, (Valve, 2007), as each level follows in a predetermined linear sequence, but the choices that you make to solve a puzzle aren't always linear. Player progression in *Portal* is broken down into distinct levels called test chambers, each with a puzzle that the player solves to move on to the next. There are often multiple ways to solve each puzzle, so players can make different deliberate choices on how to interact with the environment that can resolve the puzzle and allow them to move on. This form of agency is an extension of the player's autonomy and is different from choices with predetermined outcomes that encourage compliance to a specific narrative. The actions of a player are only possible as a result of the constructed ideology of the game world, so there is no incorrect way for a player to express their active agency as a game does not penalise a player's autonomy within a game world.

Aesthetic agency within games is the ability for the player to change visual or auditory elements of the world without consequence to narrative progression. This can be something as straightforward as character customisation but can also extend outside of the player character. An example of this can be found in Irrational Games' first-person

shooter *Bioshock Infinite* (2013). The player is given the option to pick out a broach for the deuteragonist Elizabeth to wear around her neck. The player chooses between a bird or a cage, and whichever style broach they pick Elizabeth will wear for the remainder of the game. The choice represents the players own personal reflection on the narrative, and the consequence is something that only they will see. Aesthetic choices offer freedom to player choice with little influence from the game developer over which option the player should choose. However, the options are usually decided in advance by the developer, so the choice would sit within the restrictions of a constructed ideology, as the player's expression is limited by the freedom the developers allow.

The third application of agency in linear narratives is narrative agency. In this situation the choice that the player makes relates to what in-game lore or information about the world around them they want to learn. In *Firewatch* (2016), a walking-sim style mystery game from developers Campo Santo, players experience the story of fire lookout Henry. Throughout the game the player communicates with Henry's supervisor Delilah and often can choose how to respond to her questions and general comments. With these choices, the player puts themselves in the shoes of Henry and is able to relate more to his experiences or learn more about Delilah if they choose to ask. This can also apply to information that the player chooses not to read, be it notes or other unnecessary lore that they find; the act of reading the new information is just as valid a choice to the player's expression of agency as choosing not to read any extra material in the game. Narrative agency can also be apparent through localised narrative experiences, as when the player chooses the name of a shale slide that they discover during the events of *Firewatch*. In this example the name the player chooses will be assigned to the location on the map from that point on. Agency within narratives, like dialogue trees or extra information, offer more natural presentations of narrative in linear games, as players feel as though they are a part of conversations or are actually able to learn about the world through how they choose to engage with it.

## Methodology

This section details the methodology I used during the development of *Project: Mystic*. The research for this thesis is informed by a pragmatic paradigm, using a combination of qualitative and quantitative methods to design the choices that appear to the player in *Project: Mystic*. The base of this approach is through action research, with *Project: Mystic* as the creative work that serves as the foundational investigation of this study. Action research in this thesis manifested through the practice of re-evaluating the results of experiments through critical reflection before ideating on results to refine and develop the work. However, to address the research problem more succinctly, the use of a mixed method approach allowed for an integration of the analysis of relevant creative works based on ideas extrapolated from grounded theories. I used these ideas (discussed in the previous chapter) to examine different mechanical and design-based explorations of agency for systems in *Project: Mystic*, which were then developed and refined in response to the research. The key iterative cycles for the development of Project: Mystic included the ideation and generation of concept art for the environments and key characters, and the prototypes for puzzles. These would then be combined into the level grey-box, a playable in-engine representation of levels without final 3D assets, while assets were developed. We completed two rounds of testing, and with each round there were sections of the game at different stages of completion that we received feedback on. Anything generated during development would be reviewed by the team before progressing to the next stage and would be adjusted in response to feedback from surveys and internal testing.

To facilitate our iterative process, we developed a Game Design Document that outlined different aspects of the gameplay, mechanics, and narrative of *Project: Mystic* (Appendix A). This document was a living reflection of our design goals in the project and was adjusted to accommodate for updates to design decisions made after surveys. Despite this, the document always remained consistent with its description of the core concept of the game, and the goals of gameplay and mechanics. Decisions for the development of the game were made relevant to the different areas of expertise of each of the developers; my contributions to *Project: Mystic* was primarily through gameplay and puzzle design, production, programming, and creating concept art and textures. I also developed our Game Design Document during production and influenced the larger structure of the narrative design to ensure aspects of my research was reflected within the dialogue and structure of the game.

For the production of *Project: Mystic*, an agile pipeline was necessary to guarantee an iterative approach that incorporated player testing and feedback into the development and implementation of game mechanics and ideas. To reflect elements of this research, mechanics, and puzzles in *Project: Mystic* were designed around introducing intentional moments of player choice, and we constructed the core narrative beats of the game early in development to ensure thematic consistency between ideas and prototypes. *Project: Mystic* has two player characters, a Journalist named Justin Case who is fixed within the game's narrative, and the survivor of the train wreck, who the player gets to design and name. During our pre-production we created prototypes of a prospective character creator, as it was determined that this system would be a way to engage with player choice. The character creator developed to become a diegetic piece of the story where Case opens an identification document of the survivor before interviewing them. While developing prototypes of different game mechanics, starting with a safe puzzle in the office at the start of the game, I produced concept art of the levels that would make up the key scenes in the game and a couple of the important characters. The environment concept art provides a visualisation of the tone and aesthetics of different areas, as well as providing the basis for the level design. However, these designs were not final, and adjustments were made in response to player feedback once a grey-box was created and tested. Figure 1 and figure 2 below shows how the concept art heavily informed the design of the levels for *Project: Mystic* through the concept art and final design of Case's office.

**Figure 1**

*Concept art of Case's office*



**Figure 2**

*Case's office in Project: Mystic*

The grey-box of the project was also an important step in the method of implementing research concepts into game mechanics. For *Project: Mystic* I created a playable grey-box of the game that contained all levels that were set on the train (figure 3). This was produced simultaneously alongside the development of a refined version of the office and café levels that included dialogue and 3D models. We approached the development of the game in this way so that we could playtest a build of the game for our second survey.

**Figure 3**

*Character interaction in the Project: Mystic grey-box*
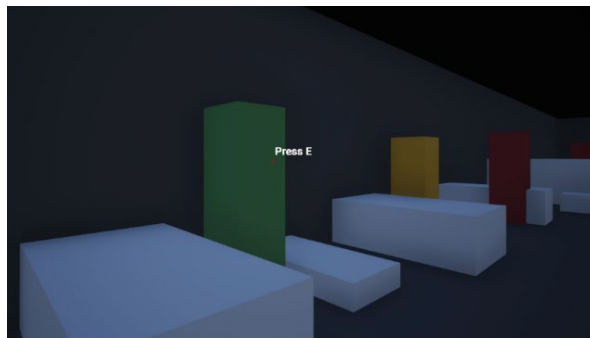


We had two rounds of testing for *Project: Mystic*, the first was to get an understanding of audience expectations of the first two puzzles and the journal mechanic. This manifested in a survey filled out by 35 people who were predominantly interested in narrative driven games and who were between the ages of 18 and 24 – the target demographic for the game. The first survey was purely a form filled out by participants, and asked about the safe puzzle that takes place in Case's office (where players would have to find two halves of a code to a safe), and a puzzle that takes place when the survivor first arrives on the Mystic Liner (where the player has to find out the owner of a bag by asking around). The participants were also asked about their thoughts on an in-game journal, and whether they would record information relevant to their objects in a journal if one was available.

The second survey involved a play through of the first few levels of the game before filling out a form about their experience. This survey was undertaken by people who were all within the age range of our target demographic. This time however, all but one of the nine participants were people who did not often play mystery games. This round of testing was used to gauge the accessibility of our puzzle design, character creator, and journal mechanic, and was also used to determine whether the players had enough information presented to them to navigate the game world effectively.

To reinforce the emphasis of our collective research contributions to *Project: Mystic*, our Game Design Document was used as a living reflection of our findings and was updated when necessary.  This document was referred to both when assets were being created or when mechanics were implemented to ensure that our research was informing the creation of the project. The third puzzle of *Project: Mystic* resolves in the player opening a door on the train. The original version of this puzzle had the player interact with a skull that had appeared on the door, with the solution being that they had to remove a gem that was in one of its eyes. After discussion within the team it was decided that this puzzle contradicted our previous emphasis on player interaction with the in-game journal and did not resolve through player interaction with the environment—an informal document detailing the changes made to this puzzle can be seen in Appendix B. This agile approach to development complimented our three person team's workflow and informed the feedback cycle of the project; we treated elements of the project as distinct blocks so that we were able to iterate on mechanics or concepts in response to our surveys and personal reflections without impacting the development of other systems within the game. To support this process I created an asset list (figure 3), where we tracked what needed to be done for the different levels, with labels designating how necessary assets were to the completion of *Project: Mystic* and our individual research.

**Figure 4**

*Excerpt from Project: Mystic Asset List*

| Location | Item | Type | Label | Status |
|---|---|---|---|---|
| Office | Door opening | Animation | Want | Complete |
| | Exit level | Animation | **Need** | Complete |
| | Player Character waking up | Animation | *Nice* | Incomplete |
| | Safe opening | Animation | **Need** | Complete |
| | Chair | Asset | **Need** | Complete |
| | Desk | Asset | **Need** | Complete |
| | Furnature | Asset | **Need** | Complete |
| | Interior decorations | Asset | *Nice* | Complete |
| | Office decorations | Asset | Want | Complete |
| | Phone | Asset | **Need** | Complete |
| | Safe | Asset | **Need** | Complete |
| | Safe codes | Asset | **Need** | Complete |
| | Safe documentation | Asset | **Need** | In Greybox |
| | Safe objective sketch | Asset | Want | Complete |
| | Upstairs | Asset | *Nice* | Complete |
| | Waste-paper bin | Asset | **Need** | Complete |
| | Dialogue grunts | Audio | **Need** | Incomplete |
| | Footsteps | Audio | **Need** | Incomplete |
| | Music behind door upstairs | Audio | *Nice* | Incomplete |
| | Paper rustling sounds | Audio | *Nice* | Incomplete |
| | Phone ringing | Audio | **Need** | Complete |
| | Safe noises | Audio | **Need** | Complete |
| | Writing sound | Audio | **Need** | Incomplete |
| | Dialogue | Mechanic | **Need** | Complete |
| | Greybox | Mechanic | **Need** | Complete |
| | Leave area | Mechanic | **Need** | Complete |
| | Safe opening | Mechanic | **Need** | Complete |

# Results

The results of my research into non-consequential choice in linear video games was realised through the design of player choices withing *Project: Mystic*. My work exploring the way that player agency is presented in linear games resulted in developing the foundation for different puzzles and mechanics present in the game. Player choices were designed with player knowledge in mind, involved theoretical agency (Thue et al., 2010), and were designed to represent aspects of the constructed ideology of the game world, with player participation of (and agency within) the narrative guiding those decisions. The surveys, playtesting, and iterative design processes allowed for the outcome of these mechanics to be successful in exploring the effect of these choices.

*From A to Z: How Explorations of Agency Informed Design in Project: Mystic*

Different mechanics in *Project: Mystic* were designed as a result of exploring the way that player agency is presented in linear games. The mechanic that most reflects the player's expression of active agency in *Project: Mystic* is the journals that the player characters have. Players can manually input whatever information they feel is relevant into their journal, prompted by a sketch that appears in the journal corresponding to their current objective. The sketch appears in their journal and doesn't give the player more information than what they have learnt (figure 4). The design of the levels on the train also contributes to the player's active agency, as they are able to explore almost all different areas of the train once they have their first objective. This advances the construction of a defined ideology within the game world; the character is a porter who has been transferred onto the train so the narrative context dictates that they would be capable of roaming freely throughout the carriages after talking with the conductor.

**Figure 5**

*Example of a player's manual journal input in Project: Mystic*
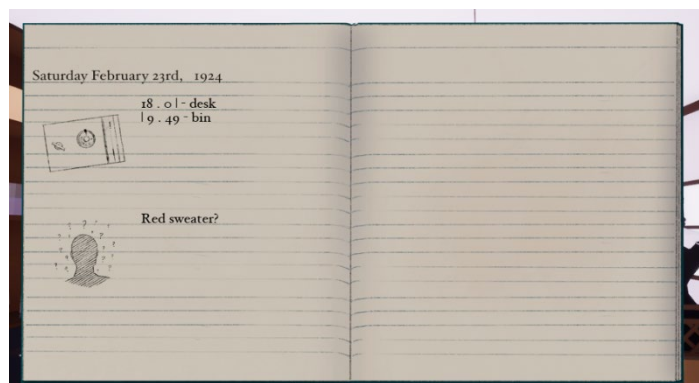
The influence of aesthetic agency is prevalent in *Project: Mystic's* character creator (figure 5). The player begins the game as a journalist, but when they meet the survivor of the train wreck they get to design the character that they are meeting. When the two characters meet, a flashback begins, and the player assumes control of the character they designed. The player is given the option to name the character, with the name they enter becoming what the player character is referred to as by other characters (figure 6). As these aesthetic choices are made by the player while they are already immersed within the constructed ideologies of *Project: Mystic*, their choices are able to be influenced by the world; the character creation does not happen separately from the experience of playing *Project: Mystic* so players can design a character that reflects what they expected to see. When the flashback commences both the player and the character do not know how the events on the Mystic Liner unfold but the player has already had the opportunity to experience the game world; the player character is confused as they have to adjust to their new work on the unfamiliar train, and the player's experience mirrors that as they adjust to their new character and environment.

**Figure 6**

*The diegetic character creator in Project: Mystic*
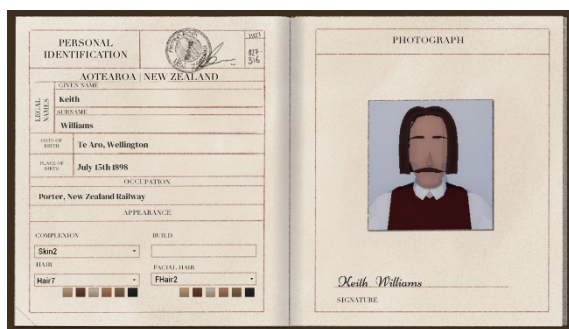
**Figure 7**

*Character refers to survivor by the allocated name*





A player's experience of narrative agency in *Project: Mystic* is expressed through both what they choose to interact with in the game world, and what decisions they make within the branching dialogue systems. Decisions within the dialogue trees are reflective of affective value; players are able to learn different things about the NPCs and the game world through choices they make, but because of the lack of a morality weighting on decisions it is up to the player to respond to the choices they have made. Interactable assets around the level also offer insight into the environment for players who have the desire to engage with more of the game world.

For Survey One we asked 35 people to respond to questions about the first two puzzles of *Project: Mystic*. From the written directions in this survey we found that roughly 60% of the participants were accurately able to solve the first puzzles (by inferring a three-digit code to a safe based on two halves of the code, figure 7). The information for this puzzle needed to be clearer, as some were overthinking the solution to the puzzle or misunderstanding what they should have been looking for. As a result of this we changed the design of the code to better communicate that it had been torn in half, with dots between the different digits and a line underneath the numbers that led to the torn edge of each half of the code (figure 8).
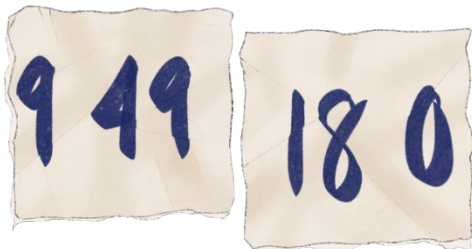
**Figure 8**

*First iteration of safe codes*



**Figure 9**

*Updated version of safe codes*
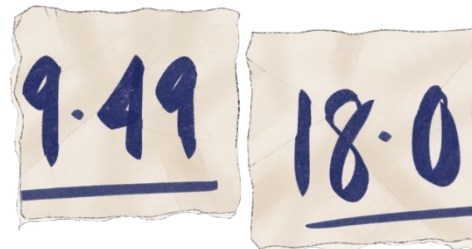


The note-taking system received approval from many of the participants, and although we were initially working on a completely manual system, the feedback was in favour of a more automated system. The participants expressed that for the second puzzle in particular (where the player is identifying the owner of a bag by asking around), it would be useful to have that information recorded as is not as immediate as the solution to the safe. A salient point that came through in much of the feedback was the desire to have information relevant to objectives presented to players. It was based on the results of this survey that we decided to develop the system to include sketches that correspond to player's current objectives in the journal to keep the player informed without compelling them to absently move from one task to the next.

In contrast to the participants of the first survey, our players for survey two were people who do not often play narrative games, despite being within a similar age range. This testing was important in understanding the accessibility barriers that would stop people unfamiliar with narrative games from engaging with *Project: Mystic*. The most glaring flaw that we found in our design through this testing was, as many of them were unfamiliar with narrative driven games, that multiple players didn't immediately know mechanically how to interact with different objects in the game world. The players were not all aware of what the common controls within the genre may be, leading to

confusion as they hunted for the correct input to react to the fact that the crosshair had changed to indicate that they were near something interactable. This feedback was necessary to prevent us from alienating audiences. During the playtesting, three of the nine players in this round of testing were unable to solve the safe puzzle, and with two of them it was because of the accuracy needed when turning the dial of the safe. Most of them found that the conversations and dialogue flow was clear, but only a few used the journal. These insights emphasised the value of clear and concise means of communication with the players, trusting them to engage with mechanics if they feel like that would be meaningful to their experience of the game; players should not feel like they are required to use the journal while they are playing *Project: Mystic*, as it is just a tool for their navigation of the game world.

The feedback that we received was a crucial element of the development of *Project: Mystic*, as the result of my research into player agency would be futile if the output was a game that was not engaging or enjoyable to players. The responses from testing ensured that the puzzles and mechanics that I developed in *Project: Mystic* were iterated so that they were successful in enhancing the player's experience of the game's narrative, proving an invaluable contribution to my research.

## Discussion

As a result of this research I have learnt much about the practical and theoretical aspects of player choice in video games. Utilising Jacques Lacan's idea of the Mirror Stage (1977) and Louis Althusser's interpretations of Ideology (1984) as lenses to examine player agency alongside video game literature has changed how I approach designing video game puzzles and mechanics. If I were to do this research again, I would be interested in expanding my theoretical references to include a more diverse range of perspectives, scrutinising these concepts that I have analysed with discussions from different ideas on how agency functions. While this research is concise, I feel like the exploration of player choice within linear narratives offers a unique insight into how people engage with games. The combination of both theoretical and non-consequential choices in linear games creates a different player experience of agency, and my analysis of the ways that choices are presented suggests a method of exploring these ideas. This research would also have benefited from more extensive testing of mechanics that allow for player agency in comparison to designs of similar mechanics that do not, however this was outside the scope of this research. Player agency in video games is widely discussed in literature through various interpretations. With this research I contribute a different perspective that builds off previously established ideas in video game literature and amplifies these discussions of agency with contextual backing from theoretical concepts.

**Conclusion**

The theoretical concepts that underpinned this research offer unique perspectives for the analysis of player agency in video games. Through the lens of the Mirror Stage by Jacques Lacan (1977) I explored the relationship between the player and the player character, and how the different levels of knowledge of the game world impact the player's experience. I also used this relationship to analyse designation in the context of using first person pronouns to describe the player character, as well as examining player reception to restrictive gameplay through desire and player autonomy. The theories of Ideology presented by Louis Althusser (1984) allow for an analysis of video game worlds and their constructed ideologies. I developed this analysis through a reflection of compulsory and voluntary player actions and an examination of the player's participation in the game narrative, as well as exploring the role that autonomy plays within player navigation of game world ideologies. These explorations suggest a perspective on player agency where player choices are shaped by the player's relationship with their character, and work as a response to the constructed ideologies of video game worlds. These Ideas were developed into an analysis of different mechanics in linear games, and presented through the categories of active, aesthetic, and narrative choices within these games. Player choice in linear games allows for building the relationship between the player and player character, while alluding to the constructed ideologies of a game world. As a result of their agency within a game, these choices allow for a player to have affective personal responses to the narrative.

This analysis informed the production and development of *Project: Mystic*, a story-rich mystery game that was produced as the creative work component of my research. Design decisions surrounding elements of player choice in *Project: Mystic* were influenced by a combination of this research and feedback. The methods of my research resulted in a constructive approach to designing mechanics for narrative-driven linear games, with the result being a creative work that I am proud to have been a part of.

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*Project: Mystic Game Design Document*

**Project: Mystic Game Design Document**

Studio Witchwood

Last Updated May 4, 2021

# 1. PROJECT TITLE AND DESCRIPTION

## 1.1. Game Name
Project: Mystic [working title]

## 1.2. Logline
A weird and eerie tale of capitalists, coaches, and cults.

# 2. GAME OVERVIEW

## 2.1. Core Concept
A short-form narrative mystery game set in 1920's Aotearoa; a journalist interviews the only survivor of a mysterious train wreck. The Player takes control of the survivor during their last moments on the train, uncovering the mystery that led to the wreck.

## 2.2. Genre
Mystery, Indie, Atmospheric, Casual, Narrative-based

## 2.3. Target Audience
Late teen / young adult New Zealanders

## 2.4 Look and Feel
3D, low-poly art style with more emphasis on shape and colour. First person perspective and simplified / cinematic style during important scenes.

Assets primarily have a flat or simple gradient as it's texture, and will be stylized to look generally low poly with emphasis on colour. Objects of note, usually those that are interactable, will have sketchy textures that signify important information, and will match stylistically with the journal. Style will be emphasised by dramatic warm or cool lighting depending on the mood of the scene and the progression of the narrative.

## 3.    GAMEPLAY AND MECHANICS

### 3.1.    Gameplay

Project: Mystic has a linear narrative set mostly in the condensed but open plan train carriages of the Mystic Liner. Exploration and NPC interaction drives narrative progression; the primary focus of the gameplay is to encourage dialogue and character interactions, with small puzzles that are grounded in environmental details that reward players paying attention to their surroundings.

### 3.2. Puzzle Structure

All puzzles are diegetic, and correspond with narrative progression and dialogue. Solutions to the puzzles will be uncovered through information gleaned from discussions with npc's, exploration of the environment, and connecting pieces of information.

There are three puzzles; the safe in the Journalist's office, the missing bag on the train, and the mystery of room 3B:

### 3.2.1.    The safe In the Journalist's office

The player wakes in Journalist Justin Case's office in 1924 to their phone ringing. They are tasked with finding the two halves of the code to the safe, where the documentation of the 1923 Mystic Liner disappearance is stored along with a copy of the lone survivor's passport. The codes are found in the waste-paper basket by Justin's desk and on the set of drawers near the safe. The player, after locating the codes, needs to input the correct code in the safe to retrieve the documentation.

### 3.2.2. The missing bag

When arriving on the train, the survivor (who is a porter filling in on the Mystic Liner on April 2nd, 1923) runs into Benjaman Lai. Lai is the conductor of the Mystic Liner, he gives the player a passenger list and tells them that they have found a bag and are unsure who the owner is. The player goes and retrieves the bag, possibly seeing that the letters JF are embossed on the front, before heading into the salon carriage to ask around to see if anyone knows who the bag belongs to. Using the passenger list and the information they receive through conversations, the player can deduce

that the bag belongs to Jane Finch. If they go to room 4A, they will be able to place her bag down.

### 3.2.3 The mystery of room 3B

The player wakes by the bar on the salon carriage, hours after blacking out in room 3B. It is now dark, and when they head back to the second sleeper carriage they will notice that one of the paintings on the wall, one that is not lit, has changed in appearance - the portrait now has closed its eyes, and a green eye is now on it's forehead. The door to 3B is locked, and to open it the player must turn out the lights to the other paintings though the fuse box connected to the lights at the end of the carriage. The solution to this puzzle can be found though piecing together that; the lighting (and painting) has changed, the player has had to turn on lights when entering different rooms while on the train, Jane mentioned the lights in her conversation with the player, and the note that first encouraged the player to go to room 3B mentioned darkness / midnight on it. Once all the lights are out the door opens, revealing a bright and enticing room that looks different than it did before.

### 3.3. Objectives - What are the objectives of the game?

In Project: Mystic, the player will have objective sketches appear in their Journal, these will help guide the player diegetically without providing them with information they didn't receive in game. Each objective leading to the climax of the narrative has a unique sketch representing it in the character's journal.

### 3.3.1. Justin Case

1. In the office the player's objective is to unlock the safe and to find the documentation on the person they are meeting up with.

2. The player designs the character in the character creator, and in the café their objective is to locate that person.

### 3.3.2. Flashback

1. Initially (when the player is first on the train) their objective is to do their job, they are a porter and are told to find the owner of a misplaced bag.

2. When placing the bag in the passenger's room the player uncovers a strange letter leading them to room 3B.

3. Room 3B is supposed to be unoccupied, but the door is locked. The player then has to find the key in the baggage carriage (or a crowbar, depending on their own choices) to get the door open.

4. After getting into room 3B the player blacks out, and their objective is then to get back into room 3B. The door is locked again, and this time they must solve a puzzle to unlock it.

### 3.3.3. Prologue

1. The player returns to Justin's office to drop off all their paperwork and finds a mysterious package waiting for them.

## 3.4. Game Flow

The flow of Project: Mystic relies on a combination of intrinsic and extrinsic motivation to guide the player though objectives; the player's interaction with characters and the environment reward them with information about those things that are unnecessary to story progression as well as key information for progression tied into the core puzzles, making interaction with characters and the environment a familiar state if the player gets stuck or confused. All interaction options are made clear to the player through a change in the player's crosshair

## 3.5. Mechanics

The mechanics in Project: Mystic are derived from basic player interaction; you can interact with objects, talk to non-playable characters, and write in your journal. Players will also get to make choices about what they say to characters, how they solve puzzles, and the different objects they interact with in the environment; all interactable objects in the environment will make the player's crosshair open from a dot into a circle.

### 3.5.1. Object Interaction

Many objects around the different environments in Project: Mystic are interactable to the player. Some will animate or move (like doors or the office safe), and some will provide a response from the player character. Often an audio snippet will play so that the player can recognise exactly what they are interacting with.

### 3.5.2. Dialogue

Interacting with NPC's will prompt a dialogue interface with branching dialogue options. Player's can learn different things about the characters depending on what options they choose, and (despite having no weight on the narrative progression) players will not be able to exhaust all dialogue options for characters

### 3.5.3. Note Taking / Journal

Players can enter their own notes in a Journal corresponding to each player character, notes are able to be input next to each of the objective sketches when relevant to the narrative.

### 3.5.4. Character Customisation

When entering the Café, the player will customise the design of the survivor character. This will happen through a diegetic menu of the character's passport. The design they create in this section of the game will influence how the character looks within the game world going forward; players can alter the character's skin, hair, facial hair, accessories, and build, as well as giving the character a name.

### 3.5.5. Light Switches

The light switches to the bag storage rooms and the conductors office on the baggage carriage, along with the rooms in the sleeper carriages, are able to be turned on and off by the player. These will remain on or off if a player moves between carriages, and serve as a clue to the final puzzle

### 3.5.6. Choice

No set of choices in Project: Mystic will be classified as the "correct" option for the player, if a player chooses to be rude to a NPC or solve a puzzle their way then the affective outcome of that choice should be the consequence.

### 3.6. Control Scheme

WASD: Movement scheme for keyboard configuration.

Mouse: Look around (first person)

E/LMB: Interact

J: Open in character Journal

P: (As survivor) open Passenger List

Esc/tab: Open pause menu

### 3.7.   Game Options

The game options can be accessed from both the main menu and the pause menu, from the options menu the player can adjust the game resolution, game quality, and audio levels, as well as accessibility options for dyslexia type font.

### 3.8.   Replaying and Saving

Project: Mystic is a short form story that can ideally be played in one sitting, however a save/load game option would be ideal for accessibility.

## 4. STORY, SETTING AND CHARACTER

### 4.1. Story and Narrative

Project: Mystic has two core narratives. The first follows journalist Justin Case as they wake up from a nightmare of a dark railway track while asleep at their desk. They are woken up to a phone call from their manager, and are tasked with interviewing the only survivor of a mysterious train wreck - a porter who had been transferred to work on the train the morning of the incident. After gathering the necessary documents from their office, Justin heads to a local café to interview the survivor.

The main focus of Project: Mystic is the story of that survivor, and the player relives the events that lead to the wreck though a flashback; when arriving on the train, the porter talks to the conductor and is told to find the owner of a bag that has been misplaced. After talking to some NPC's, the player finds the room of the owner of the bag, but also uncovers a letter that alludes to strange happenings in another of the rooms. The porter checks out the room to find it locked, but manages to find a way in. However, once inside the room they find a clock that causes them to blackout, and awake back in the salon carriage - now empty of people, and darker than before. The porter returns to the room and solves a puzzle that unlocks the door, when they step inside the room is longer than it should be and leads to a cathedral.

The centerpiece of the cathedral is the same clock they saw earlier that, when they approach, transitions the scene to the train tracks, and the same event from Justin's dream plays out with a different ending.

Back in the cafe Justin thanks the survivor, and mentions that it is a shame that they did not remember past the blackout. They leave, and Justin returns to their office to drop off the documentation. In the centre of their office is the clock that the porter saw on the train, and Justin walks up to interact with it.

## 4.2. Game World

Project: Mystic is a low-poly first-person mystery game, with a lo-fi jazz influence and atmospheric lighting to recreate the style of a lovecraftian noir, the world is stylised after alternate history 1920's Aotearoa. In contrast to the other levels, the areas on the train are uncomfortably tight - this is to emphasise the creeping fate of the porter as they navigate the train. Dialogue with characters is branching, and the outcomes of conversations are designed to have an impact on the player though NPC's attitudes and tone changing based on player choices.

## 4.3. Areas and Levels

Players can walk back and forth between the different levels of the train at will, the nightmare of Justin's is the same as  what the survivor experienced in the flashback. Shifts in lighting will be used to show a passage of time throughout the game.

### 4.3.1 Rural Track Side

The character's stagger shakes the camera as they stumble alongside the train tracks. Isolated by the wilderness. The design of this level is meant to teach the players the basics of movement in the game and establish the eerie mood. They walk towards a tunnel, which blinks closed as they walk in (and during the survivor's flashback opens again after).

### 4.3.2. Office

Messy and overflowing with mismanaged paperwork, the interior of the office is very dingy to reflect the status of the journalist. The overall design is very typical of a lovecraftian/noir detectives office, and is one of three rooms in the building - the others consist of various locked studio offices.

### 4.3.3. Café

The Thorndon Café is warm and cozy, and contrasts to the tone of the office and the cramped later stages of the train. The café is a small hole-in-the-wall coffee house with an early 1920's style decor - the interview starts in the cafe and transitions back to the café for one of the player choices and then later at the conclusion of the interview, this time at night time.

### 4.3.4. Baggage Carriage

A cold and metallic section of the train, this is the area where the baggage is stored alongside various provisions for the journey. Of note, the conductor's room is in this carriage, as well as a misplaced bag, the master keys, and a crowbar.

### 4.3.5. Salon Carriage

The Salon Carriage carries a bar and public seating; it has small tables for drinks, or may be large enough to play cards, this is where most of the interactable characters can be found, and is where the player wakes after blacking out in room 3B..

### 4.3.6. Sleeper Carriages

The Sleeper carriages contain two of the player's objectives; Jane Finch's room and room 3B. In the second Sleeper Carriage, the player will solve the final puzzle of the game and open the door to room 3B through turning off the lights above the eerie paintings on the walls.

### 4.3.7. Cathedral

Austere and atmospheric; a sight of ontological horror. The cathedral is stylised after a rural wooden chapel, and is made up of pews and a pedestal on which the arcane mechanism is sat. Its general size and location does not match its corresponding placement on the train.

## 4.4. Characters

### 4.4.1. Player Characters

1. Survivor
   An unlucky porter who transferred onto the train the morning of the wreck, their appearance is customisable by the player.

2. Justin Case, Journalist
   A Journalist eager to prove themself in their new job, overworked and underpaid.

### 4.4.2. Non-Player Characters

1. Harold Winchester
   A gruff, middle aged man who doesn't really care for his staff. Justin talks to him on the phone in his office.

2. Holly Fielding
   A helpful bartender that can be found in the Café, Holly is the owner of the Café and will inform Justin on where to look for the survivor.

3. Barnabas Cockburn
   An abrasive character that the player can talk to in the Café, although he will not be of much help.

4. Stuart Bruce
   A Café patron that Justin can interrupt. Stuart can be helpful but only if the player waits for them to finish their food.

5. Rangimarie Turei
   Another NPC in the Café, Rangimarie talks to the player but isn't very helpful to their search for the survivor.

6. Benjamin Lai
   Benjamin is the character who gives the player their first objective on the train, if you snoop around his office you will find letters to his partner.

7. Jane Finch
   A strange passenger aboard the Mystic Liner, Jane is the character who's bag the player finds and it is in her room where the player learns about room 3B.

8. Ruth Highfield
   Ruth is a NPC the player can talk to about the bag, she is a cleaner and can be found reading in the Salon Carriage.

9. Charles Baker
   Single father that, along with his daughter, can be found in the Salon Carriage, he will be snappy if the player is rude about his daughter.

10. Harriet Baker

    Charles' daughter, she will not be very helpful to the player in their search for the owner of a misplaced bag.

11. George Macfarlane

    A wealthy man that can be found aboard the Salon Carriage, he is dismissive of the player.

12. Wiremu Ngata

    Wiremu can be found aboard the Mystic Liner as the bartender in the Salon Carriage.

### 4.4.3. Mentioned Characters

1. William R. Chambers (office door)

2. _ Baker (office door)

3. Matthew L. James

4. Hone Ngata

5. Guy Holland

6. Maia Holland

7. Louise Petrović

8. Jacob Blackwood

9. Abe Pierce

## 5.   AUDIO, MUSIC, SOUND EFFECTS

Ambient 1920's inspired Lo-fi Jazz will make up the bulk amount of music. Music will be adaptive transitioning tracks as the player progresses through the various train carts.

### 5.1. Start up Theme

5 Seconds Bit Tune

### 5.2. Main Theme

Plays the record track from the train, uses the arcane leitmotif

### 5.3. Train Tracks

Spooky 7th track sounds blue and tired while the character staggers

### 5.4. Office

Soft ambient music coming from behind the door of another room, in the office the player will hear the sounds of the phone ringing, and the safe dial as they turn it.

### 5.5. Café

Ambient sounds track played lyrically overstock the sounds cafe life and bustling streets.

### 5.6. Train

A layered musical track that changes based on player proximity to the Salon Carriage. When the player is near the Baggage Carriage, the piece mainly consists of rhythmic drums and low bass sounding like the train's mechanisms working. Instruments are added as they advance, culminating as a full lofi piece when they reach the Salon Carriage. This piece is overlaid by the gramophone track and musician.

### 5.7. Cathedral

Mechanical Sounds, mixed with church organ music and the arcane motif

### 5.8. Arcane Motif

A short lead motif the musically represents the supernatural including, the arcane mechanism and the dark void spector.

**6. INTERFACE**

**6.1. HUD**

The HUD for Project: Mystic is context sensitive, with a minimalist design employed to flow with the immerisve play style. The player has a crosshair that changes to show when an object is interactable.

**6.2. Menus**

I Project: Mystic there are three general menus; being a main menu, an options menu, and a pause menu. There are also three diegetic menus; the (context sensitive) character journal menu, the Mystic Liner passenger list when the player is on the train, and the character creator.

**6.2.1. Main Menu**

Start Game

Options

Quit Game

**6.2.2. Settings Menu**

Screen Resolution

Graphics Quality

Audio Levels

**7. ARTIFICIAL INTELLIGENCE**

**7.1. Non-Player Characters**

NPC's will mostly remain seated or still during the game, looping through idle animations. NPC will have the Dialogue Plugin Actor AI, allowing for branching conversations, all will have capsule collision overlap for player detection and crosshair animation. Movable characters will use UE4 psychics Navmesh to control movements around a sandbox.

## 8. TECHNICAL

### 8.1. Target Hardware

Windows Minimum: OS: Windows 7 64-bit (requires 64 bit OS)
Processor: Dual Core Processor, 2.5 GHz or higher
Memory: 4 GB RAM
Graphics: DX11 compatible video card
DirectX: Version 11
Storage: 500 MB or lower

### 8.2. Development software

#### 8.2.1. Game Engine

Unreal Engine 4.25

#### 8.2.2. Plugins

Fmod 2.01
CS Dialogue Plugin 4.22+

#### 8.2.3. 3D software

Blender 2.90

#### 8.2.4. 2D software

Photoshop CC
Procreate 5X

## 9. DEVELOPMENT MATERIAL

Hyperlinks to other development documentation; the Asset List is an itemised spreadsheet of all desired assets, with a status for completion and a label for whether it is wanted, needed, or nice to have in game. The Core Interactions document outlines all important and miscellaneous dialogue in the game, broken down into levels. The interactable Assets spreadsheet outlines all assets that the player can interact with in game, if those assets need audio, animation, or dialogue attached, and has a status on whether that has been implemented. Our trello board is a kanban board that allows for a macro look at the progress of sections of the

game, broken down into levels and colour coded to outline relevant disciplines of work required. The Bug List is another trello board that lists all currently known in-game bugs, and if they have been fixed.

**9.3.1. Asset List**

**9.3.2. Core Interactions**

**9.3.3. Interactable Assets**

**9.3.4. Trello Board**

**9.3.5. Project Bug List**

Project: Mystic
# Puzzle Three

My goal when designing the puzzles in *Project: Mystic* was to encourage interaction with the environment and to utilise our note taking mechanic. These to facets to the design of the puzzles ensured the player would have a consistent methodology when approaching a puzzle, and hopefully that they would have a heightened feeling of accomplishment when solving a puzzle as the only clues they had were ones that they found themselves.

The current plan for the third puzzle happens towards the tail end of the narrative, the player is trying to re-enter room 2C, where they feel like something shady is going on; they found a note earlier in the game that describes of a meeting in the room and are suspicious of what is going to take place. Last time they entered the room they blacked out, and now they have found that the door is once again locked. For the puzzle I had a skull on the door with a gem in one of the eye sockets, the player would deduce that they have to search to find another gem to place in the other eye, but when they do nothing happens. After this they would take the gem out, notice that they can take the other gem out and see that the door would open when both gems are removed.

## What doesn't work?

As it currently stands, this puzzle feels out of place when compared to the others in the game. When I came up with the idea for the puzzle, the goal was subvert the player's expectations of how they could solve the puzzle. This, however, is makes the puzzle feel flawed; why is there a skull? How is the gem connected to the rest of the narrative? Will the player realise that they can take the gem out? This puzzle leaves the player with more questions than answers and makes them feel foolish not accomplished as they don't solve the puzzle, but rather stumble upon the solution.

The environmental elements of this puzzle are rendered meaningless by the solution, and the note taking mechanic (when considered independent of the necessity of the environment aspects) is useless through a lack of a solvable answer to the puzzle. The puzzle falls flat of the parameters that I had set for those in *Project: Mystic*, and creates a situation that would leave players confused and most likely frustrated.

# A new approach

To fix this puzzle I decided to start by and figuring out what elements the environment on a train I could manipulate to function as the components of a puzzle. After some messing around with rough concepts that involved moving the furniture, interacting with objects the bar, looking out the windows, or searching the other rooms I ultimately settled on the lights. It's reasonable to assume that some time has passed since the player character blacked out so the setting changing to dusk would fit in naturally with the narrative; a change in lighting that would simultaneously encourage the player to pay attention to what is different in the carriage. The goal remains that the player must open a door in the sleeper carriage of the train, but this time the door has no keyhole or handle.

The idea I came up with was having paintings of different people on the walls outside the rooms in the sleeper carriage which would have individual lights on them. These lights are now noticeable as they stand out in the now darkened environment. In all of the paintings the subjects eyes are closed, except for one of the paintings. This painting wouldn't have it's light on, and the subjects eyes would be open and bright. This would be the first signifier to the player that the solution is related to the paintings. Another signifier would be on the note the player read, with the passage telling of the meeting describing opening eyes - open the eye, open the door - as well as talking of darkness.

As it stands the player would have to turn off the lights for the paintings, which would open the door and allow them to progress. This, however doesn't cut it for me. The puzzle does now involve use of the note taking mechanic, as the player will have an easier time of solving the puzzle if they copied down the note earlier in the game. The question is, how do they know how to turn off the lights? Is there a fuse box? Maybe a main light switch? Do they smash the lights above the paintings? The solution may be environmental, but there is no indication for the player to actually figure out the solution; they will still stumble on the correct solution when they understand that the answer lies with the paintings.

The answer to this was fairly straight forward. Create a pattern where the player expects to interact with light switches. When entering the room where they find the note and room 2C, have the player turn on the lights. This creates multiple instances where the player has interacted with the lights, however that is all it is - a coincidence. To solidify this as a pattern of behaviour for the player to default to, the idea would also be for the player to turn the light on when entering a room for an earlier puzzle where they find a bag for a passenger too, as well as the light in their office. This reoccurring action solidifies the idea of interacting with light switches, so when the player is faced with a problem where they want to turn off lights they don't make assumptions on how they can turn off the lights.

# The updated puzzle

The player wakes by the bar after blacking out in room 2C, they head back to room 2C to find the sleeper cart dark bar the lights on the paintings on the walls. They check the door to see that it won't budge despite missing it's handle and keyhole. The player notices that the light above a painting beside the door to 2C is off, showing a portrait of a man with bright green eyes - any other painting they look at has the light on and features characters with closed eyes. Piecing together the information from the note and the clue of the painting, the player turns off the lights by each painting, and as they do so the paintings shift one-by-one to variations with open eyes. Once all the lights are out the door to room 2C thuds and then opens, revealing a bright and enticing room that looks different than it did before.