

THESIS

MERE MUSIC OR MORE? INVESTIGATING THE EFFECTS OF SOUNDTRACKS IN
VIDEO GAME NARRATIVES

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ABSTRACT

MERE MUSIC OR MORE? INVESTIGATING THE EFFECTS OF SOUNDTRACKS IN VIDEO GAME NARRATIVES

Narratives in video games can be highly complex, and due to Game Studies' over-reliance on Film scholarship, the complexities of the co-creation of these narratives have yet to be understood. There are many elements within games that are not present within film, and this can alter how a narrative is experienced within the medium as compared to film (Salen & Zimmerman, 2004). One of the major elements of narratives that is understudied within games is music. This thesis analyzed player reports of how music affected their ability to experience the narrative within two games. Specifically, how the music affected their transportation into the world, as well as how the music affected their ability to identify with the main characters. Through a combination of in-game and postgame interviews, transcripts were created and thematically analyzed along with the video and audio data.

Through this analysis, participants consistently demonstrated that they were unable to identify or recognize the music with the game. However, the emotions evoked from the music seemed to be the same emotions felt during the scenes where those tracks existed. While the explicit memory of the music was almost nonexistent, there was evidence of implicit memory of this music embedded within the world and characters of the game. Finally, rather than attributing music as the source of the emotions used by the narrative, it is possible that the music was simply part of the narrative, so any reference to the music alone was inaccessible to the players.

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TABLE OF CONTENTS

ABSTRACT.....	ii
ACKNOWLEDGMENTS	iii
CHAPTER 1. INTRODUCTION	1
CHAPTER 2. LITERATURE REVIEW	3
Narratives, Film theory & Music.....	3
Transportation and Identification in Film.....	3
Music in Film.....	5
From Film to Games	7
Game Theory and Narrative	8
J Hillis Miller & Narrative Gaming	10
Game Theory & Music	12
Game Theory, Narrative & Music.....	13
Research Questions	14
CHAPTER 3. METHODS	16
Participant Selection	16
Games.....	17
Final Fantasy X	17
NieR: Automata	20
Interviews.....	22
Participants.....	23
Game Interview	24
Observational Data Gathering.....	25
Post-Game Interview	26
Analysis	26
Pilot Study	27
CHAPTER 4. RESULTS	28
Wait, there was Music?: The Noticeability of Music in Games	28
Final Fantasy X & Music Identification	28
NieR: Automata & Noticeability	32
“Creepy is a Good Word”: Music and World Development.....	34

NieR and Affective connection between scene and world	34
NieR and Focus	35
Final Fantasy and Affective connection between scene and world.....	37
Final Fantasy X and Focus	38
From Jock to Deep: Music as Character Development	39
Final Fantasy X and Character Development	39
NieR: Automata and character development	43
CHAPTER 5. DISCUSSION.....	45
Memory.....	45
Too Much Input	46
Music Stored as Implicit Memory	48
Implications: Music as Vehicle for Transportation, Then, as a Part of the World	49
Future Research	51
Limitations.....	53
REFERENCES	55

CHAPTER 1. INTRODUCTION

Viewers watching a story unfold in a movie can be emotionally swayed by the music (Smith, 1999). But what happens when a viewer isn't just a viewer, but a co-author of the story: a player of a video game? Narratives in video games can be highly complex (Salen & Zimmerman, 2004) and capable of telling incredibly compelling stories. Even so, narratives in video games are under-studied and still slightly contentious as the Game Studies has yet to agree on whether games should be studied from a ludological or a narratological standpoint (Cassidy, 2011; Gaut, 2012; Majewski, 2003). The video game industry is also one of the major media industries in the world with individual games equaling and sometimes outselling film, the type of media Game Scholars compare video games the most with. For example, *The Avengers: Infinity War* (2018) made over \$640 million in its opening weekend, the largest opening weekend of a film in the world at the time (Shaikh, 2018). However, that record was quickly surpassed that year by *Red Dead Redemption 2* (2018), a video game that earned \$725 million in its opening weekend: at the time, the second largest entertainment opening, right behind another video game, *Grand Theft Auto V* (2013), whose opening weekend brought in \$1 billion dollars. (Huang, 2019). The comparison to film as a visual medium, combined with video games' relatively new addition to the field of communication, has led to the study of games to be primarily based in film scholarship. However, as the field of video game studies matures, academics have begun to use more medium specificity within their research, building theories for video games rather than relying solely on those found in film studies.

Video game narrative, in particular, will benefit from the medium-specific research as there are many complex systems and elements to narratives in games that may not exist in film (Salen & Zimmerman, 2004). And one of the most understudied of these elements is music's role within this type of narrative. Music in film has been shown to represent the mood of characters, scenes and expected mood of spectators (Smith, 1999). But, unlike film where audiences are spectators, players of video games take the role of characters and inhabit the world. They experience the narrative of a game through play that involves interacting with the representation of the narrative world through the rules set by the mechanics of the game (Salen & Zimmerman, 2004). These mechanics are partly responsible for the myriad of forms narratives can take in the medium and because the narratives take so many differing forms in video games, they are very appealing to study while also making traditional visual media perspectives on narrative less than ideal for considering storytelling in games (Arsenault, 2009; Salen & Zimmerman, 2004). So, rather than use film conceptualizations of narrative, other conceptualizations are required, like J Hillis Miller's conceptualization of narrative (1995). His flexible framework of what makes a story allow for the accommodation of many storytelling elements required in this type of co-authorship, including elements like music (Salen and Zimmerman, 2004).

With Miller's conceptualization of narrative, music becomes, not just a tool to share the emotional state of the characters and world, but also a part of the representational ruleset of the characters and world that the player inhabits during the game.

This thesis has analyzed music's effect on a player's narrative experience, specifically its effect on transportation and identification. Through a combination of gameplay and online interviews, I had participants play one of two games and then discuss with them their interpretation of the music's effect on the processes of transportation and identification.

CHAPTER 2. LITERATURE REVIEW

Narratives, Film theory & Music

Transportation and Identification in Film

Game studies as a field, habitually relies on theories from film scholarship. (Carnagey et al., 2007; Deselms & Altman, 2003; Kirkland, 2007; Whalen 2007; Wolf, 2001). This is especially true for how video game narration uses music. As such, it is important to have a general view of how film scholars conceptualize narratives within the medium. While many of these theories are not specific to film, they have been adapted to that medium. For example, the narrative theory of transportation refers to the audience being lost in the narrative world of the text (Gerrig, 1993). Gerrig himself wrote with fictional narratives contained in books as his context, but states that these concepts should be applicable with any media form since transportation relies on the combination of cognitive engagement, emotional engagement, and mental imagery (Gerrig, 1993; Green & Brock, 2000). This is, also, not a static condition as audiences' levels of transportation vary throughout the narrative (Bezdek & Gerrig, 2017). Further, transportation alters the consciousness of the audience, altering their focus in such a way that they may not be fully conscious of their surroundings (Green & Brock, 2000; Kuzmičová, 2016). As such, transportation, as a dynamic process involving the altered consciousness of the audience member, can possibly occur wherever narratives are present, be they in book, oral storytelling, or film.

Transportation has also been found to be highly correlated with enjoyment of a narrative, though, it is more specific than enjoyment. As such, it is a desired state for creators of narratives (Green, et al, 2004). Green et al. have also found that transportation theory suggests that

“safety”, even through trials, are key in narrative worlds as well as giving the reader opportunities to connect with others (2004). In film, this expresses itself as audience enjoyment in the plight of characters in the narrative, as well as the connection through characters (Green et al., 2004). In fact, though it is still up for debate, some scholars suggest that transportation could be a requirement for another narrative theory, identification.

Where transportation can be seen as travel to a narrative world, identification could be thought of as travel into a character within a narrative. The more time someone spends in a narrative world, the more they relate to characters that they encounter (Green et al., 2004) one way in which people may relate to narrative characters is through identification, a process in which audience members increasingly lose self-awareness, replacing it with the identity of the character within the narrative (Cohen, 2001). As such, audiences become increasingly empathetic to the character they are identifying with. The character’s wants become the person’s wants, things that make the character upset also make the person upset, and the audience's identity is slowly subsumed into the character’s identity. Much like transportation, the loss of self (whether it be identity or the real world) is not permanent, nor a solid state, but can fluctuate throughout the narrative, or due to outside factors (Cohen, 2001). It is also, much like transportation, a process that involves altered consciousness(Cohen, 2001). While opinions differ on how, it has been shown that transportation and identification are related when it comes to understanding audience involvement in a narrative (Murphy et al, 2013; Sestir & Green, 2010; Tal-Or & Cohen, 2010), for instance, the use of identification to illuminate the gendering of monsters within the horror genre (Briefel, 2005). However, visual media, like film, make special use of audio, specifically music, to enhance these concepts.

Music in Film

The use of music in film is important for many reasons, although, the most common seems to be music's ability to emotionally engage the audience. It has been found to aid in both transportation and identification (Costabile & Terman, 2013). As an integral part of the scene, music can signify the emotion of the characters on screen as well as the overall tone of a scene (Smith, 1999). In film, this is accomplished through two techniques, the first of which is through arousal responses, where the music, combined with other elements of the film, generate physiological changes within the audience that evoke emotions (Smith, 1999). The second of which is the communication of the emotions of a scene through the theory of expressivity (Smith, 1999). Whereas expressing an emotion requires an object to be the target of that emotion, expressivity simply requires something to have traits reminiscent of an emotion (Kivy, 1989; Cochrane, 2010; Noordhof, 2008). People do not simply get mad; they get mad at something. This is the same for any emotion. Since this is the case, humans can express emotions, but music does not. A song cannot be sad at anything, though, through its formal elements, can be recognized as sadness, thus allowing a listener to attribute sadness to it without the piece itself having to express that particular emotion (Kivy, 1989).

However, many discussions of expressivity, including Kivy's, Noordhof's and Cochrane's, are discussing the music by itself. Film music is part of the film and not meant to be experienced alone. This type of music, program music (Smith, 1999), is always found with other elements of the film, including visual and plot. This music is even considered to originate from the same event that created visuals in film (Anderson, 1996). Gorbman (1980) once argued for medium specificity in film music, noting that the synergy between film and its music could not be ignored. Film music should be analyzed with its context from the film (Gorbman, 1980) just

as film should be analyzed with its music for context. Looking at film music in this way allows for a broader understanding of its applicability in film narrative, for example, the differences in emotions communicated by a scene vs those evoked by a scene (Smith, 1999). In fact, music is so integral to film narrative, some have even re-imagined the diegetic dichotomy, arguing that non-diegetic music should actually be referred to as intra-diegetic as music is key to the narrative structure, thus, can never be non-diegetic (Winters, 2010).

Emotions have intentional objects. And, while music alone does not have an intentional object, music in film does, and those intentional objects are the visuals and plot (Gaut, 2012). Film makers use the expressivity of music and combine it with the characterization, plot, and visuals of a film to aide in the creation of the film's narrative. In this sense, music is a key element of the visual narrative, giving the audience genuine emotion by being expressive of the emotion (through the music) while providing an intentional object for the audience (through the visual characterization and plot). However, the communication of emotional states to the audience is not the sole purpose for music in film. It also alters the perception of the visuals and when taken in conjunction with those visuals, heightens the emotional qualities that are experienced further than either the audio or the visuals could accomplish on their own through a process known as affective congruence (Smith, 1999) This is key to the narrative experience of the audience as it allows for better narrative comprehension, including “a better understanding of character motivation, better anticipation of future narrative events and the encoding of narrative information in the spectator’s memory”.

This increase in narrative comprehension is specifically useful when looking at an audience’s ability to be transported or identify with characters. As identification is an empathetic relationship, a better understanding of character motivation will likely make it easier to identify

with that character. Likewise, a better anticipation of future events suggests a more fleshed out world while giving the tools to the audience to traverse it once they have traveled there. Finally, encoding of narrative information on audience memory is very reminiscent of Gerrig's third condition of transportation: the return of a changed traveler. Film is referred to as a visual medium, but that name belies the importance of music in its an audience's ability to experience the world or the characters.

Music plays a key role in the narrative of visual media (Smith, 1999; AJ Cohen, 2001). Not only does music add to the emotional content of a scene, but it communicates to the audience what emotion they should have while watching as well. But, what about video games? Video games are also considered a visual medium, but the added element of gameplay adds an extra layer of complexity to understanding music and narrative.

From Film to Games

Video games are visual media much like film. And, as such, have been studied primarily through techniques that are used to understand films. However, the interactive nature of video games necessitates different techniques to gain a full understanding of the medium, particular if the narrative is to be studied. Other "traditional" visual media present narratives from the past, whereas video games require a co-authorship that presents a current narrative (Cassidy, 2011). While narrative elements differ from game to game, the temporal difference is true for all. Perhaps this, combined with a history of research rooted in a debate between ludology vs narratology as the perspective researchers should take is why video game research has been so difficult. Luckily, many researchers are attempting to meld the old ludology vs narratology debate of games into new hybridized methods of analyzing games (Ang, 2006; Arsenault, 2014; Frasca, 2003; Kokonis, 2014; Laas, 2014; McManus & Harrah, 2017; Murray, 2005). Scholars

even argue that to have a better understanding of video games, we must also understand the fans of those games and the intertextual activities they engage in (Consolvo, 2003). There is no one way to study video game narrative, but many ways that illuminate different aspects about the narrative, the player and the culture that created both. One of the things to study is the player-avatar relationship and how that relationship draws the player into the narrative world of the game. And, one key piece of that relationship that is missing is the understanding of how music affects that relationship.

Game Theory and Narrative

While arguing for medium specificity when studying narrative in film, Gaut pointed out that medium specificity does not necessitate concepts that are only relevant to film (2012). The same should be said for medium specificity with narratives in video games. The use of narrative theories that are not specifically designed for video games have revealed much about the medium. For instance, transportation has revealed that video games, specifically story driven RPGs (role-playing games) can cause intense emotional reactions, including complex feelings like guilt (Mahood & Hanus, 2017). However, one of the major differences between films and video game narrative is the interactive nature of the medium, that being, the game portion of video games. While an audience member of any medium interacts with that medium (audience of a film, do not simply passively receive the film, but, rather, interact with it) there are different levels of interaction (Milojevic et al., 2013). Playing video games means entering the “magic circle”, a set of rules that create a system that give actions within the system meaning (Salen & Zimmerman, 2004). It is the juxtaposition of gameplay and story that has led to academics discussing whether this medium should be studied through a ludological standpoint or a narratological standpoint, whether games should be studied as a system of rules that give actions

meaning (ludology) or as stories (narratology) with many reaching the result that while games themselves are not narrative, they may contain narratives, represent narratives, or even exist as non-traditional narratives. Majewski (2003) discusses the possibility of using drama theory, rather than narrative theory to analyze narratives in video games. Cassidy (2011) refers to games as non-traditional narratives due to their co-authored nature as well as the nature of the viewer (player) character relationship. This dichotomy is deep seated within the field, however, as that same field evolves, so too must the ways in which we research games. Perhaps it is time to use more holistic views of narratives and games systems to further understand this medium.

Narratives in games cannot be considered the same way as narrative in film. Where film tends to have a linear narrative (Bandersnatch notwithstanding), video game narrative can be divided into two types: embedded narratives, stories already crafted by the game, and emergent narratives, stories experienced through play of the game (Salen & Zimmerman, 2004). The interactivity inherent in the medium alters the linear narrative format. While both media (video games and film) can have embedded narrative, video games almost always generate the additional emergent narrative. To understand the overall narrative in a video game, both must be understood. Scholars have already begun this research, for example, demonstrating that interactive narratives may lead to increased identification (Ahn, 2015). However, to further the research in this area, we need a conceptualization of narrative that can encompass both the traditional embedded narrative as well as the interactivity based emergent narrative. J Hillis Miller's conceptualization of narrative is one such way as it is highly adaptable and can be applied to nontraditional narratives (Salen & Zimmerman, 2004).

J Hillis Miller & Narrative Gaming

Miller's conceptualization of narrative is a flexible one, requiring three traits for something to be considered a narrative (1995). First, it must have a sequence of events, meaning the state of the world in the narrative must change over time. Next, there must be some sort of symbolic characterization with at least three characters: a protagonist, an antagonist, and a witness, though, the witness is free to also be either the protagonist or the antagonist. Finally, there must be some kind of recognizable form. This form can be a recognizable form within the text including qualities like rhythm in poetry or recognizable form within culture, like genres and even generate meaning when they are subverted because they are going against expectation. With the flexibility that these forms can take, it also seems as if they can take the form of game mechanics. Video game genres, battle systems, exploration, character stats; these game mechanics are not simply ways to create challenge for the players, they can also be used to create a recognizable form that helps a player/ audience member to engage with a narrative.

Because of its flexibility, Miller's narrative framework can be applied to traditional narratives, like literature, as well as to non-traditional narratives, like video games or even video game trailers. As an example, the latest expansion to *Final Fantasy 14*, known as *Shadowbringers*, had a 7-minute trailer set to a track of the same name. Applying Miller's conceptualization of narrative to this trailer can help a viewer see the entire trailer as a narrative rather than connected clips with narrative elements. While it is in jump cuts and requires knowledge of the previous games, there is a clear change in the game the audience watches as the protagonist defeats the main antagonist of the last game, only to struggle against a new antagonist until he embraces the darkness. This is exhibited by the narrator referring to him as the *Warrior of Dark* and the visuals of him defeating the antagonist, this angelic being bathed in

light and spreading the light around. The music also plays a key role in the understanding of sequence. For example, the moment when the protagonist is victorious is also the first moment throughout the trailer where the music uses a major chord, bringing a bit of levity as the protagonist becomes victorious. Personification is handled mostly through the visual in this game as all the characters are anthropomorphized (including the cat and bunny people), although, the use of the words like “warrior” and “friend” also aids in the personification of the protagonist. Finally, perhaps the overarching form could be the triumph over evil, as the protagonist struggles to overcome the second antagonist, he meets only to eventually do so. However, there is also meaning in the subversion of the expectations of the form, in this case, the holy angels are the evil antagonist. This is demonstrated visually, as well as through the music as it creates a sense of dread due to its use of minor chord until the eventual overcoming of the antagonist, punctuated with major chords.

Looking back at video games, the mechanics that form the magic circle, the system of rules within a game, could be considered recognizable forms within the game through its systems, as well as have the ability to adhere to cultural forms as these systems are not a complete separation from the real world where real world systems don’t apply (Consolvo. 2003). They are repeatable and recognizable elements, much like Miller’s forms, that can be used within video game narratives. Within games, elements that contribute to the narrative are known as narrative descriptors (Salen & Zimmerman, 2004) and can be anything from the heads-up display to the art style, to the music, to the plot. As representations of the game world, understanding narrative descriptors are key to understanding narratives in games. Many narrative descriptors have been researched (Solarski, 2017; Collins, 2008; Gregersen & Grodal, 2008), However, one descriptor that has not received much in the way of study is music as a narrative descriptor.

Game Theory & Music

While video game research has its roots in film theory, researchers have begun to branch out in attempts to have medium specificity in their work. And, while research in video game music is rare, it does exist and even shows evidence of music as an important narrative descriptor. For instance, the composer of the game, *Silent Hill* (1999), deliberately altered specifics of the music (rhythm, tone, etc.) outside of standard Western practices. This deliberate subversion of recognizable form (Miller, 1995) was used to create unease in the player (Cheng, 2014). Within this same chapter, Cheng references another interview that discusses how the mechanical elements of the game (awkward controls, clumsy combat, etc.) were used to increase the horror element of the game by reducing capability of the player. Both of these elements of the game (music and mechanics) were used to heighten the horror elements of the player interaction, thereby creating a world of dread for the player to explore.

As video games are a co-authored narrative, it is also important to take into account the intention behind the creation of the music. In *A Composer's Guide to Game Music* (2014), composer Winnifred Phillips details many of the intricacies for aspiring composers of video game music. For instance, in a game where there are multiple gameplay states like combat vs exploration, the music is key in communicating to the player what state the game is in. This also gives meaning to the controller inputs, allowing the same inputs to have different meanings based on the particular state the game is in (Phillips, 2014). Phillips even emphasizes the importance of this music's function, stating that music that is unable to clearly communicate this differentiation of states can cause players to lose their connection to the game as they struggle to think of the particular button combination rather than rely on audio cues, potentially interrupting transportation or identification (Phillips, 2014). Music also allows composers to alter their

perception of time by the player, allowing for a player to be lost in their transported world, as well as act as a mnemonic device with the use of leitmotifs, aiding in personification (Miller, 1995; Phillips, 2014). However, even from a game developer's viewpoint, music is not considered as important as other elements of the game. They are rarely part of the development team (Phillips, 2014). However, music's importance in film, as well as its role as a narrative descriptor shows potential for it to be much more important as an aspect of narrative in games.

Game Theory, Narrative & Music

Collins once made an appeal for academics to increase the study of video game music (2007). Responding to what she described as the "silence of academics", she authored a piece discussing the importance of the medium and the audio that goes with it. Since then, research in video game music has become more prevalent, specifically with regards to the effects of music on gameplay (Jørgensen, 2017; Zhang & Fu, 2015). However, for an understanding of how music affects the other aspects of video games, like narrative, film theory is still used to fill in the gaps (Zehnder & Lipscomb, 2006). Video game music research is improving but the reliance on film theory shows it is still lacking, specifically music's effect on narrative.

Even so, there are things we can draw from the research that is currently available. For example, Collins speaks to music's ability to represent characters, as well as their narrative transformations through leitmotifs (Collins, 2008). While Collins talks about narrative progression through music, Cook speaks to music's ability to represent narrative progression as well as ludic progression (Cook, 2014). In one example, Cook refers to *Civilization 5* (2010), a 4x strategy game where the player begins in the stone age and progresses through time to futuristic technology like giant robots. As the player advances through the ages, (stone age, renaissance, medieval, etc.) the music attempts to match the time period. In her paper, she

discusses how music evolves as the game progresses, matching the ludic progress, as well as the narratives (both embedded and emergent). However, As Consolvo discusses, the magic circle is not absolute. Cook looks at the type of music used (mostly westernized music or music that follows western stereotypes) to argue that Civilization 5 has embedded colonial influences.

Research Questions

Music effect on video game narratives has yet to be understood but could be very important in understanding how players navigate in-game narratives. As a narrative descriptor, music can help give shape to, not only the characters of video game worlds, but of the worlds themselves. And, in a medium where the audience members inhabit these characters and worlds, it is important to gain a better understanding of how music is influential in the crafting of these elements in games. As music has been shown to aide in the evolution of characters as well as communicate emotional states, it seems likely that it would aid in identification:

RQ1: In what ways, if any, does the music in video games affect character identification?

RQ1a: In what ways, if any, does music affect the player to adopt the perspective of characters within the game ?

RQ1b: In what ways, does music affect the player's fondness for characters within the game ?

RQ1c: In what ways, is the music influential in the simulation of feelings and thoughts appropriate for the character in which they are identifying with ?

Much like identification, transportation is a state where an audience member's reality is temporarily replaced with that of the narrative world. As such, music should also affect an audience member's transportation into that world:

RQ2: In what ways, if any, does the music in video games affect a player's ability to be transported into the narrative world?

RQ2a: In what ways, does the game music affect the actions and emotions of the player as they play the game?

RQ2b: In what ways, does the music help the player to remain in the narrative world?

RQ2c: What, from the music, remains with the player once they return from the narrative world?

Finally, this is a medium of co-authorship, where the audience members inhabit the characters and the worlds. However, the way they inhabit these characters and worlds are shaped by the mechanics in each game. As such, studying narratives in games should not be done without looking at the how the mechanics are used in the narrative.

RQ3: In what ways, does the music affect the narrative elements of the game mechanics?

CHAPTER 3. METHODS

In order to answer the research questions posed above, I observed and interviewed five participants as they interacted with a game narrative. These participants each played a short section of either *Final Fantasy X* (2001) or *NieR: Automata* (2017), and, through a combination of semi-structured game interviews and post-game interviews, I analyzed participant reports of their feelings of transportation and identification during and immediately after these playthroughs. The interviews took place over the course of fall, 2020.

Participant Selection

Participants were found through convenience sampling. Once potential participants were found, they were given a questionnaire to fill out before the interviews were scheduled. This questionnaire was used to help decide which game the participants would play as well as give a little context while the interviews were being analyzed. Identity (gender, race) was asked as there is still an assumption of games being targeted at a straight white cis-male audience, though, this question was not required. Level of comfort with RPGs and how often games are played helped contextualize the participants with this form of storytelling with the assumption that the more someone reports playing RPGs or video games in general, the more comfortable they will be with the mechanics of gaming and the form in which narratives take place in them. Finally, the specific game experience for both games were assessed. Participants were only placed in groups they had minimal experience with (never played and limited understanding of the story). However, age and number of years playing video games were questions that were not asked. As these answers would have been important in contextualizing the participants, future research should include these questions in the questionnaire.

Games

Two games were chosen for the Study. Both were RPGs due to their ability to cause intense emotional reactions within players (Mahood & Hanus, 2017). They were also chosen because of their use of music throughout the game as a possible narrative descriptor. Difficulty was also a consideration for both games as there was a relatively short amount of time that participants could learn how to traverse the game, however, both games also have difficulties that can be easily managed. Because the participants missed the intro to each game, I created a short video for each game, showing the early embedded narratives in each game. Participants were given the link to the video to watch immediately before the game-interview.

Final Fantasy X

The first game chosen was Final Fantasy X due to its heavy emphasis on embedded narrative, world building and character development. Much of the difficulty in this game is found in the combat, but as it is a menu based fighting system, taking time to process while the game is being learned is easy to do. This was important as the participants did not have much time to get accustomed to the game and did not have the option of playing the tutorial. Final Fantasy X has also been studied for how its music is central, not only to the narrative but the gameplay and their interaction (Greenfield-Casas, 2017; Washburn, 2009).

Final Fantasy X is the story of Tidus, a star athlete in a futuristic city, who is suddenly transported to a post-apocalyptic yet fantasy themed world, where he struggles to unravel the mysteries of his new situation. Fortunately, he is not alone. He meets friends along the way, some more begrudging than others, who attempt to help him return home while he becomes more intertwined with their lives and more concerned with helping them than returning home to a life of luxury that he was never happy with to begin with. While all the characters are important,

Tidus is the primary focus of the story, exemplified by the very first line of the game, spoken by Tidus, “Listen to my story, this may be our only chance”.

The segment the participants will play in starts about an hour into the game. In it, Tidus, recently finding haven in Besaid Village, ends up tagging along with a group of adventures as they head out. These adventurers consist of three guardians, Wakka, Lulu and Kimahri, as they protect their summoner charge, Yuna. Yuna is beginner her journey to travel the land, gaining strength, in order to combat an ancient evil creature, known as Sin, travel along with her, protecting her until the end.

Wakka, Tidus’ big brother in many ways, found Tidus washed up on the shore. As a fellow athlete, Wakka feels for the bewildered Tidus, who he believes is suffering from amnesia rather than actually being from a different world. He suggests that Tidus comes along in the hopes that, throughout the journey, someone will recognize him. Not everyone is as thrilled for Tidus’ company, though. Lulu, in particular, is very adamant about Tidus not coming, and is very standoffish to him throughout the journey. Yuna, on the other hand, is very happy that Tidus will be journey with them for a period of time, even asking him to become one of her guardians by the end of the short segment. Kimahri speaks very little throughout the entirety of the game and has zero lines of dialogue in this segment. The game even points out how no one knows what Kimahri is thinking. Despite potential protests, Tidus follows the group, boarding a boat to Yuna’s first destination.

Unfortunately, before the group arrives, Sin arrives and decimates the village. Once the group arrives, Yuna assists the village by performing a ritual know as a sending. She guides the spirits of the dead to the afterlife, allowing them to live in peace.

The story itself is communicated through traditional Japanese role-playing game (JRPG) gameplay. Players control the primary character as they explore the world. Occasionally, a battle will break out randomly, and the game will switch from an exploration mode to a battle mode. In this mode, each character has a specific specialty that can be used to exploit enemy weakness. For instance, Lulu's magic is useful to enemies who are not vulnerable to weapons attacks. Likewise, Wakka's and Lulu's ranged attacks are good for those enemies who are too far to be hit by a sword. Much of the embedded story, however, is communicated through cutscenes: pre-generated "movies" with zero interaction.

The music, itself, is key to the story. Composed by long time Final Fantasy composer, Nobuo Uematsu. The music is ever present throughout the segment chosen for the game, only missing in two short cutscenes. The tracks, like many other video game music tracks, vocals. This is true for every track except the track, "Hymn of Fayth", which is used throughout the game as a leitmotif connected to the power of summoning.

Scenes

During the playthrough of Final Fantasy X, there were two scenes, in particular, that the participants really responded to. The first of these scenes is the scene where Tidus travels on a boat with his new friends from Besaid Village to Kilika. The second of these scenes is the final scene the players have access to that I refer to as the summoning scene.

Boat Scene. After leaving the village of Besaid Tidus and pals board a boat to make the voyage to Kilika. While on the boat, Tidus, through a cutscene, plays around with the other passengers on board. He plays around by climbing over passengers, stealing binoculars, and generally acting silly. Players are then free to walk around and explore the ship, talking to any

characters who will respond. Some characters are more talkative than others. For instance, Lulu simply says “I don’t know who you are or where they came from. Afterwards, Tidus speaks to Yuna in a cutscene. In this scene Tidus reveals to Yuna (and the participants) that he is angry at his father but will have to live with those feelings because his father died at sea 10 years previously. He left and never came back. Yuna retorts that it’s very likely that he was transported to this new world, just like Tidus was, so is probably alive.

Summoning Scene . After arriving in Kilika, the group goes to aid the village as they have been recently attacked by Sin. Yuna, goes to perform a summoning, a ritualistic dance that ushers the souls of the dead to the afterlife. This prevents the souls from lingering and becoming monsters. Tidus goes to watch and asks Lulu for an explanation of what is happening while Yuna dances on the water at Sunset. Once she is finished, Yuna runs to Lulu for reassurance. Lulu brushes Yuna’s hair out of her eyes and reassures her that she did well.

NieR: Automata

NieR: Automata was chosen due to its balance of embedded and emergent narrative, world building and character development. Much of the difficulty within this game is found in the combat. Unlike *Final Fantasy X*, the combat in this game is action based and could take longer to get used to. However, *NieR: Automata* offers many ways to circumvent this difficulty, including a reduction of the difficulty through the options menu and an NPC (non-playable character) companion that may be used to aid the player in battle. With these two things to mitigate the difficulty, players are free to explore the open world or tackle the mission as they see fit. *NieR: Automata*’s music is also an ideal choice as it uses vocals as an instrument, adding a range of emotions to the music that instruments cannot capture on their own (Shelemay et al., 2006).

The story of NieR: Automata takes place in the distant future (post year 11000) where humans and aliens are fighting with their proxies, androids and robots respectively. The players control 2B, an android who is fighting in the continuous war against robots and aliens.

In this segment of the game, 2B is looking for other androids who have gone missing. Through her search, she, and her android companion, 9S, discovers a robot carnival. The robots here were odd in many ways. Rather than attack, they had their faces painted like clowns, dressed as clowns and said things like “Oh. wHat fUN! Oh. wHat fUN!” and “LeT’s bE happy together! TOgetHer! ToGethER!”. Continuing through the carnival to the center, 2B discovered a massive robot named Simone. Simone was dressed like an opera singer and had used the still living but crucified bodies of the missing androids as decoration for its arena and body.

The story focuses much less on embedded narrative and the mechanics reflect this. There is only one cutscene in the segment that the players experience. It 30 seconds long and shows the reveal of Simone. All other plot information is conveyed through in-game scenes. Even dialogue happens while the player is running around. As opposed to Final Fantasy X, all gameplay states intertwine with each other, allowing more freedom in aspects of the game like when to explore, when to fight, etc.

Music in NieR: Automata differs from traditional JRPGs like Final Fantasy X in 2 primary ways. The first is varying versions of many tracks. Rather than having a single track for any given area, many tracks have a quiet version, where the track is subdued with techniques like limited visual, a normal version and a dynamic version that makes heavier use of percussion. The second is the use of vocals. NieR: Automata makes prolific use of vocals, although, these vocals simulate language without having symbolic meaning due to them being sung in a “chaos

language” invented by lead singer Emi Evans (Hertzog, 2020). With these two differences, any given track can have up to six versions, with each quiet, medium and dynamic version having vocals or lacking them. The emotions evoked from each track is then subject to potential alterations as the track is altered in these many ways.

Interviews

The interviews were broken up into two segments: an initial gameplay interview followed by a post-gameplay interview, both of which will be discussed below. Gameplay and interviews took place on “Zoom”, a video communication software. Online interviews were chosen primarily due to the Covid-19 pandemic of 2020. “Zoom” was chosen as the software used because many of its features will be helpful in capturing game interviews online rather than in person.” Zoom” captures both participants in the chat window, has built-in screen share capabilities, video recording and an auto transcription feature. These features will allow for the recording of gameplay, voice, and facial expressions through both the game interview and the post interview.

Participants gained access to the game through a Steam account I set up specifically for this study. Participants gained access to the account 24 hours before the scheduled interview period to allow for download times. They were instructed to refrain from play until we were on Zoom, at which point, the 2-part interview commenced and lasted between 1-3 hours. During this time, participants played through a pre-determined story in game. At the conclusion of this story, the post interviews began. After both interviews reached their conclusion, the participants were instructed to log out. After which, I changed the password, and sent the new log in information to the next participant.

Participants

The participants were split in half. For the purposes of this project, they will be given pseudonyms. Three participants played *Final Fantasy X* (Beth, Mark and John), While the remaining two played *NieR: Automata* (Phillip and Sandy). Originally, *NieR* was going to have the larger half due to its open world nature but, due to computer requirements, less people were able to run that game.

Final Fantasy Participants

Beth felt she was very comfortable with storytelling, music and video games. She performs music and uses it to tune out in day-to-day life. She values her identity as a storyteller, creative writer and poet and takes much inspiration from video game stories like the *Dragon Age* series. Mark also felt a strong connection to music, listening to it for hours every day, though , he said he didn't have a strong emotional connection to the music. He's also a big fan of stories, particularly fantasy novels and played many fantasy games when he was younger. John made special reference to his storytelling ability and video game proficiency. He makes a living as a content creator for tabletop RPGs like *Dungeons & Dragons*, so he is constantly creating interactive narratives. He also plays video games consistently with a wide breadth of interests when it comes to genres.

NieR: Automata Participants

Phillip used music to unwind during commutes or to help him focus during mundane tasks. He felt fairly comfortable with games and more so with stories, having spent some time around the theatre in high school. Sandy felt comfortable with music, stories, and video games.

She enjoys music of most genres, is an author with multiple short stories and a novel published and plays a wide variety of games.

Game Interview

Rather than have the participants play on their own, and then conduct the interview at a later date, I joined each participant as they played. Participants, who had access to their given game due to the shared *Steam* account, shared their gameplay through the Zoom call. The game interview was chosen for multiple reason. First, gaming interviews help in creating a more play like atmosphere that helped in generating questions about the game as it is played (Schott & Horrell, 2000), Second, as this study is interested in music's effect on transportation and identification, game interviews have been very useful in facilitating that. Identification occurs during the interaction with the media (Cohen, 2001) as such, during or immediately after is the ideal time to study participants' responses (Shaw, 2010). And, considering the connection between identification, I was interested in seeing if transportation behaves the same way.

These were semi-structured interviews with interim gameplay discussions that engaged the participants in the game they were playing. The questions were influenced by "sound diaries" (Duffy & Waitt, 2011). While originally used as a method for listening during a music festival, the practice of identifying meaningful music and then returning to discuss that music was helpful in understanding how music created meaning within game narratives. During the game interview, participants were instructed to mention any music that felt meaningful in anyway. I took note of the individual tracks they mentioned and then used the post interview time to discuss those tracks in more depth. I also discussed with participants what, if any enjoyment they received from the game as enjoyment is highly correlated with transportation (Green, et al, 2004). While enjoyment does not guarantee transportation, it allowed the participants to talk

about specifics of the game that could be contributing to their feelings of transportation. The musical and enjoyment-based questions attempted to identify how participants felt about the game, the world, and the characters as they experienced the narrative, particularly, how the music played a role in these. Unfortunately, game interviews interrupted the process of both transportation and identification. In order to avoid interruption as much as possible, the questions were asked at specific points within the game, usually after a cutscene and before prolonged stretches of gameplay. This should have reduced the number of times the participants were interrupted. Transportation and identification are both non-static processes, so, interruptions for the participants were unavoidable. Therefore, limiting the amount of interview interruptions should have allowed the pros of game interviews to outweigh the cons.

Observational Data Gathering

A key element of the interviews, particularly the game interviews, was the collection of visual data. The use of Zoom allowed for the video recording of gameplay and facial reaction simultaneously.

A key component to thematic analysis is the transcription of the interviews as it allows for the researcher to re-engage (Braun & Clarke, 2006). During each interview, I took in depth notes, I then revisited each video interview twice followed by three more reads of the transcripts. The first time, I focused on transcribing incidents I missed during my initial note taking. The second time, I continued to transcribing events I missed while beginning the coding process. These multiple steps of transcribing, along with the visual recordings from the interview resulted in a rich analysis.

Post-Game Interview

After the game interview, participants were given the option for a short (~15 minutes) break before the post interview starts, though, no participant used it. This second interview was also semi-structured, using a combination of planned questions and information brought up during the game interview. The post interview allowed for the participants to answer the questions without the distraction of the game, while still being reasonably close to the time processes of transportation and identification took place. Also, the second interview added nuance to many of the answers given (Shaw, 2010) as well as helped bridge the temporal differences between video games and traditional visual media (Cassidy, 2011). During this interview, participants were asked questions that allowed them to answer how they felt about the world and characters upon reflection as opposed to their feelings as they were actively participating in the world.

Analysis

Thematic analysis was chosen to analyze the transcripts as it has been shown to be effective at identifying emergent patterns (Banks, 2013; Braun & Clarke, 2006; Guest et al., 2012). As described above, I engaged in memo taking during both interviews. It is my belief that the combination of transcript, memo, gameplay, voice, and face lead to a rich data. I also be used the 5 steps as described by Braun and Clarke (2006) and exercised by Banks (2013).

- 1) I will engage in active reading of each transcript three times, at least, before beginning the analyses to immerse myself within the created texts.
- 2) I will generate an initial list of codes that identify particular features found within the interviews.
- 3) I will then analyze the codes for themes.

- 4) The themes will then be reviewed for their relevance to the research questions.
- 5) Finally, themes that are identified will be cross examined with resisting literature.

The analysis of the themes that were developed show that music can be seen much less as an auxiliary addition to a game and much more as a key piece of the narrative.

Pilot Study

I conducted a short pilot study in order to the clarity of Zoom as the participants shared their screens. This test pilot participant gained access to the *Steam* account, download their given game, then played through their segment of the game. This gave me a better understanding of the potential difficulties participants would encounter when downloading their game, allowed for stress testing how difficult it was for a reportedly “average” desktop to run these games while running zoom, and allowed me to test how long the narrative segments took.

CHAPTER 4. RESULTS

Wait, there was Music?: The Noticeability of Music in Games

The first theme that emerged from the interviewees was whether or not they could accurately identify music. As participants discussed their experience in the games, they were usually unable to identify if music was happening during that scene. This occurred in both in game interviews and postgame interviews. No matter what state of play I asked about (exploration, cutscenes, fights) players had a difficult time even remembering if music occurred and were certainly not able to actually recall it. Even when they claimed they were actively listening for the music, they were still unable to recall if there was any music during play. The few times they were able to identify music, it was likely that they would actually misidentify that music in some manner. The interviewees who played *Final Fantasy X* were slightly more able to recognize the music they heard than players of *NieR: Automata*, but neither group had clear recollections. Due to the differences in both games and the scripts from the participants in each game, the results section will be broken up by theme, as well as game.

Final Fantasy X & Music Identification

As music was rarely identifiable by the players, one of the most prominent of the patterns found was the type of scenarios where they were able to identify the music (fight scene, cut scene, etc.). The three participants, Mark, John and Beth had a few instances where they responded similarly to questions about memory of music during the in-game interview, as well as the post-game interview.

Final Fantasy X & Music Identification During the Gameplay Interview

During the gameplay for Final Fantasy X (FFX), participants were asked if they had noticed the music so far. Beth was unable to remember any music during the gameplay interview, but both Mark and John did. The most detailed response was from Mark, who explained that he was aware the music changed during fight scenes. He said, “the music intensifies before a boss battle. I haven’t noticed [the music] much just walking around... I’ve noticed it during the battles.” Similarly, John answered

There was a bit that I was entertained by because it was very reminiscent of the original 8-bit video game sound, as opposed to this which is much more epic. And so, like, when you’re walking along, some of the music harkens back to the older versions'

The scene being referenced shows the characters boarding a boat. This scene is unique in a number of ways. The first is that all characters are visible on the screen (as opposed to only Tidus being visible). The second is that it has fewer gameplay states than the rest of the game. During this segment, the players are only able to explore. There is no chance of fighting. There is no chance for character dialogue, one of the primary modes of communicating the embedded narrative. Even the ability to explore is limited as the characters are encouraged to simply make their way to the dock. In many ways, the lack of gameplay made this seem very similar to a cutscene, in game movies that are used to embed narratives. Cutscenes are of the gameplay states discussed in the post-game interview that players were able to identify music in.

Final Fantasy X & Music Identification in the Post-Game Interview

At the tail end of the post-game interview, participants were asked if they remembered any music. They were then given tracks to listen to in order to see if they could identify the track in question. As mentioned above, John was able to talk about the presence of music in the boat

scene, however, both he and Mark also claimed that the music was easier to identify during cutscenes. While they could not recall or correctly identify music when played for them, they were able to recall that music existed in those cutscenes.

Cutscenes. At the very beginning of the game, there is a cutscene where the main characters are sitting around a campfire. When Mark discussed where he remembered the existence of music, he mentioned this opening scene and described the music as “calm but sounded like the beginning of an adventure.” John also claimed to remember music in this beginning scene. Both Mark and John also remembered hearing music in the final scene of the play session, though only John could actually identify it during the post-game interview (Mark misremembered aspects of the song which will be described later). In fact, John identifying this song was the only instance where a song was correctly identified.

Reasons for Lack of Attention. One of the reasons the participants gave for the lack of attention to the music was that their attention was focused on other things. For example, Mark explained, “I don’t notice music in cut scenes. I’m busy focusing on the dialogue.” This was particularly intriguing considering he noticed music more during cutscenes than any other time during the game. Beth also expressed that her focus was elsewhere. She was unable to identify any music during the game, and , during the post-game interview, she said about the music during the last scene, “I tried to notice the music, because you mentioned it, but the colors were beautiful and it’s the first time you get to see Yuna do something other than the fighting so I thought it was a really cool moment to get to know her better and see what she has to do.”

Final Fantasy X & Misinterpretation of Music

A second pattern that emerged was the misidentification of music, even though there was an emotional association connected to it. During the post-game interview, in the few events

where participants were able to remember music, there were usually misattributions or outright errors with their recollection. For instance, John attributed the track “A Fleeting Dream” to the opening scene, saying “So, my first reaction is it’s actually the opening music when they’re sitting around the fire, but I could be wrong.” He was. It actually appeared during a cutscene with Tidus and Yuna discussing Tidus’ dead father.

Then, there were instances where the participant was shocked at what a song actually sounded like when they heard it during the post-game interview. Mark, for instance, claimed he remembered music in the background of the final cutscene, though, could not remember it. When he heard it, he was surprised, explaining that:

I never would have told you [there] was chanting. The music I was thinking of was that violin undertone in the end. My gut thought was that the chanting felt really natural in that setting. I didn’t question it. It almost felt like it was happening there in the background and wasn’t part of the music. I wasn’t thinking of the chanting as music.

He described , after re-hearing the music, that he remembered the existence of the vocal chanting, but attributed it to the scene, separate from the musical track itself.

Participants also only described the music with vague language. For example, John consistently described the music as “cultural” with sentences like “when there are meaningful moments, I feel like the music of this game takes on a much more cultural sound.” Beth referred to it as simply “beautiful” or “pretty.” It was clear participants had only limited vocabulary to describe the music they had heard, which was reflected in how they talked about it.

The vagueness in their language did not extend to how they described the emotions evoked from the music and its connection to the scenes they existed in. They described remembering the feelings they had at certain times and connected the music to those feelings. Or they described the effect of those feelings. For example, during the final cutscene, Yuna, one of

the characters, sends the souls of the dead to the afterlife after a village is struck by the primary antagonist, Sin. Mark explained that while the music “didn’t stand out,” to him, and he could not specifically recall it, he “felt more, and the music played into it.” Mark claimed that this scene was the most evocative for him and that the music was key to those feelings. Similarly, Beth was unable to remember what the music sounded like, but she was able to describe the feelings she had while she was watching the cut scene, explaining, “That last scene was really cool. Really pretty. I played a little bit of Final Fantasy XIII, and it took me a hot second to get into, but I feel like if I played 5 more seconds of this game, I would have gotten into the whole series.”

Overall, although participants noticed the music at certain times more than others and their memories were generally vague or inaccurate, they expressed a sense of impact from the music that demonstrated its importance in the overall experience they had playing FFX.

NieR: Automata & Noticeability

The same patterns that emerged in FFX were also present in NieR: Automata (N:A). However, there was less evidence of them. This is likely due to NieR having less songs during this segment. However, there was still evidence of these patterns, and, because of the unique ways in which the two players approached the narrative, they each expressed patterns specific to their experiences. Sandy spoke on the ability to recognize music, whereas Phillip had multiple instances where he misinterpreted the music.

Sandy

Sandy was confidently able to identify one song from her playthrough. When asked about the music during the post-game interview, she remarked about the song she spent the most time with, saying that it “Kinda reminded me of the music of *Raft*, so eerie and calm. I can’t think of the tune now, but I recognize that there was music going on that reminded me of *Raft*.” Sandy

was possibly so confident because of the amount of time she spent in the area with this song: 43 minutes. This is the most any participant spent with one song. Sandy was able to spend this much time with this track because she wasn't interested in the embedded narrative. When asked to expand, she explained that she “just likes to explore.”

Other than this song, Sandy remembered very little. She claimed to remember a little bit of the Simone track, specifically in the “opening scene” where it was a cutscene rather than gameplay. When asked about remembering other songs, like the track from the carnival area, she simply replied “nah.”

Phillip

Like Sandy, Phillip also confidently spoke about the music he noticed, though, when he did, he usually misinterpreted some aspect of the music, misremembered specificities about the music or even substituting the silence for the ambient track when music was present. For instance, there is an optional fight that the players of N:A can engage with. Phillip attempted it twice, dying both times. When discussing the music during the post-game interview, he claimed that after the first time he died, the world music change, saying:

When I died the first time trying to beat the tank, I noticed that the song had shifted. It still had that undertone of that creepy amusement park, but it almost had a classical note to it. Um... it was different than it was the first time, which was interesting. At least there when I was <platforming> it seemed a little different (Phillip, postgame).

Phillip also spoke confidently about the lack of music in one scene, saying “I noticed the detail about the car, whereas, in another game, I would have been more focused on accomplishing the objective. In a way, it made me stop and smell the roses and appreciate the level of detail the

game developers put into this (Phillip, post-game).” However, the scene he was discussing did have music. In fact, it was the same track that Sandy described as eerie and calm.

The ability to even notice music was spotty at best. It was rare when the participants did and when they did , it was almost as likely that they misattributed aspects of that music. As such, no participant was able to speak on the music they heard while playing, however, there was still much that emerged that potentially showed music as narrative descriptors of the world as well as key in relating to characters within the game world.

“Creepy is a Good Word”: Music and World Development

Participants were unable to speak about the music in-game, but they were able to speak about their experience with the game world. At the end of the post-game interview, participants were given a chance to listen to the tracks they heard in game. Through these discussions, a connection between the emotions connected to the music and the emotions connected to the experience of the scene emerged. Descriptions of the scenes and the tracks that played during them were similar, even as participants were unable to recall the connection to the scenes and tracks.

NieR and Affective connection between scene and world

While music was rarely identifiable, the emotive responses were consistent. Participants, while unable to recognize the individual tracks, when given the opportunity to listen to them again, the way they described the evocative responses to the music matched the evocative responses from the scenes that those tracks originated from. One of the most common examples was the connection between the NieR Carnival area and the feeling of creepiness. Both Phillip and Sandy reported that the area was creepy, with Phillip saying:

I wanted to get out of there it was weird. Something about post apocalyptic and being in an amusement park is 2 kinds of weird. I don't want to be in this thing cause I know something's gonna come get me. Maybe it's because you associate amusement parks with clowns, and if you're afraid of clowns... which I'm not... that same motif played into this. Why am I in this abandoned amusement park.....um.... Yea, it was... I think creepy... creepy is a good word. Not like jump scare creepy, but you have a feeling that something bad is waiting for you, and, turned out to be true *chuckle*. Turned out to be true (Phillip, post game).

During the post-game interview, Sandy also invoked that feeling of creepiness, saying “It’s (the world) like... It’s like creepy in that lonely dystopian kinda way. I really like it.” When specifically asked about the Carnival, she said “Anywhere where you see clowns is creepy. Especially nowadays.”

NieR and Affective Connection between Music and world

Neither was able to recognize the music, but when originally asked about the music, Phillip said that it sounded like “a very creepy park. One of those ones you see on the road in a small town. They come and set up for the weekend or whatever. And, like, somebody messed with the music, mixed 2 songs together. But, yeah, it certainly has an element of stress. It's stressful but at the same time it kinda helps you focus”

NieR and Focus

Participants had a hard time focusing on music. However, they also reported that the music affected their ability to focus on other elements of the game. Participants reported heightened senses of transportation in that they felt as if they were lost in this narrative world. They also reported high levels of focus and feelings of being taken away from their current environment. For instance, Phillip said the music helped him focus. When I asked him to clarify, he said:

IDK, it's kinda like, my wife is on the phone in the bedroom talking to one of her friends from high school and I'm completely tuned out of that conversation and she's maybe... 20 or 30 feet away, and I'm totally focused on this. Like, my cat earlier tried to walk by

and I didn't really pay much attention to him. It's ok, though, I gave him plenty of pets earlier (Phillip, post-game).

With specific tracks, participants reported incredibly high level of focus that not only had them unable to register what was happening in the real world (wife talking on phone in same room/ cat leaving lap, etc.), but a loss of the ability to perceive things in game as well as a feeling of a loss of time in game, like Phillip saying, "how did I end up under this boss?" This wasn't necessarily a welcomed feeling. Phillip expressed frustration at suddenly realizing he was under the boss, crediting the music as how he lost himself:

"with the music playing, you're really focused and drawn into the moment. Perhaps to a detriment. Perhaps that's how this happened, I somehow ended up underneath the boss. I guess I was so focused on slashing and such, I didn't pay attention to wear I was. So that was weird. Cause when it happened I was like 'How did I end up underneath the boss' (Phillip, post-game)."

He also mentioned how silence (was not silent as discussed above) allowed him to explore the world, whereas, noticing the music limited him in noticing the particularities of the scene.

Participants were unable to focus on the music, yet the music was able to alter their focus on the game world and real world. This altering of focus was reported as a key element in feelings of transportation. As reported by Phillip when asked about the final boss:

<Simone> was terrifying. I was in a theatre but also a Roman coliseum death match. It was disorienting. That boss was creepy. Music made it seem like you were watching a play and you were in the play. So that was kind of an interesting breaking down of the 4th wall between you and the game. Like you felt like you were there instead of the character going back to the being so focused on the game and ignoring your surroundings (transportation). It was definitely very appropriate music for the scene cause it played off the coliseum theatre aspect of it but it was also very... almost *Star Wars*-y like when Luke and Vader have a major battle. It had the whole symphony going. That's what it felt like (Phillip, post-game)."

According to Phillip, the music felt like coliseum music, but was altered in a way to make a coliseum feel like the climax of a movie. Combined with the other aspects discussed previously, he felt as if he was simultaneously watching and in this coliseum.

Final Fantasy and Affective connection between scene and world

Final Fantasy X players also reported a connection between their affective responses and the music, specifically when the music was appropriate to the scene. For instance, Beth described the music from the Summoning scene as “spiritual and holy”, but when asked if she remembered it, she said “Not very well. In the moment, I was like ‘wow, this really fits.’” Regardless of her memory of it, Beth seemed to believe that the music was important to this scene. Similarly, John noted the use of cultural sounds during meaningful moments, saying ,”

It takes on a much more cultural sound than the other stuff. Like the battle music seems like epic battle music whereas that felt very, not specifically Asian but not western and I feel like they did a good job of making it like it was kinda sad music but there was also this amazing thing going on so it was kinda epic music too. Profound is a good word for it (John, post-game).

When I asked whether the profoundness came from the action on screen, He replied “I think I probably would feel that way without that, but I think it enhances it for sure.”

Another example from John is when described the track, “A Fleeting Dream.” He used the term melancholy to describe it, though he felt unsure that this term was accurate because there was this hopeful building of momentum midway through. Afterwards, I described the scene where the track existed: Tidus explains to Yuna that his father is dead (melancholy), then, Yuna has the sudden realization that his father is actually alive (hopeful). Much like the term creepy in *NieR: Automata*, the emotional responses mirrored the settings that they existed in.

This mirroring was not always the case, though. And, when it wasn't, the participants were openly bothered by it. For instance, Both Mark and John took note of the music after the sending scene. After such a somber moment, the traditional "town music" caught them off guard with Mark saying,

It feels kinda whiplash they had the serious somber seen and now there's a kid running and feels happy. I feel a better transition cause it feels like nothing happened to the village."

John said:

I will say, this kinda music is a little weird in a situation like this because all these people are like 'oh my god the town is destroyed, I have nothing left, the town is dead' and it's just like *happy grinning dance*. Not really happy but it's not really sad either. This was a good opportunity for some before and after music. This is good before and after should have been more catastrophic (John, postgame)".

Final Fantasy X and Focus

Focus was not as big of a theme in Final Fantasy X, perhaps due to the game being less action oriented than N:A. However, all participants reported increased attention during the Sending scene. Beth, in particular, made mention of her increased focus during this scene. Mark also discussed his increased focus during this scene, though, he cited the lack of music at one point during the scene as the reason, saying "Here, I've noticed the seagulls in the background, they don't have music, but they have seagulls which make you feel more in it. Probably why I didn't notice, I bet they have more sounds like that in the other cutscenes."

The connection between music and scene help shaped the perception of the scenes the players experienced. However, the music seemingly accomplished more than that. Players had

strong reactions to environments they explored in-game. But they also had strong reactions to the characters they embodied in-game as well.

From Jock to Deep: Music as Character Development

Both of these games, when played in full, have players interacting with characters for hours on end. Easily surpassing 30 hours playtime, players get to know the past of the characters they control as well as how to exist as these characters to build the present and future. However, in this study, players were only given about 45 minutes with the characters and only given a small part of their past narratives. Even so, players were able to have strong reactions to these characters. Participants were able to make strong connections to the controlled characters, as well as strong relations to the other characters through the focus on the controlled character. And, whenever participants referenced a scene where they felt a strong connection to a character, music seemed to be highly important to that scene or was very appropriate for the emotions evoked.

Final Fantasy X and Character Development

In FFX, the players take control of 5 characters, though they are directly in control of Tidus. Throughout the playthrough, regardless of the players' feelings toward the controlled character (Tidus is annoying, 2b is bland, etc.), the players seemed to connect strongly with the controlled characters. For instance, players would not only use "I" statements when referring specifically to Tidus' action (as opposed to their own or the other member of the party) but related to Tidus as a new character in the world. John said, "His story is the one that interests me because his story is the one about learning the world. The other characters already know the world, So, interacting with them is going to teach him, therefore, me, about it." The shared

experience helped create an empathetic bond to experience the world with. When discussing the story, Beth said “ I like that Tidus is narrating it. I think it makes a really good connection between the player and the character.” This bond extended to how the controlled character felt about the other character. And, just as the music was part of the world for participants (creepy, etc.) the music was also part of the characters, matching the nuance the participants felt about the characters.

Tidus

Players still had to grow to like Tidus, even though he was the controlled character. Much of this growth came during scenes where participants reported music playing an important part. However, even participants who didn’t like him originally felt invested in him because he was good in a fight. When asked during gameplay about his feelings for Tidus, Mark first said “I want the guy with the sword.” Later, he said:

Tidus reminds me of a jock in high school who’s overly confident a bit... His voice actor seemed natural which made him a pretty believable character. I like him and would be inclined to focus on leveling him up as a character because I like him, I like his fighting (Mark, post-game).”

Similarly, John Said “Tidus is such a tool. He’s really useful in combat.” He had a sword, he was strong, he was reliable. His battle acumen and his usefulness mechanically bred interest in his personal story. Yet, when participants spoke about pivotal scenes, it wasn’t the scenes where Tidus fought, but emotional scenes where music played a key role.

Boat Scene and emotional identification. The first of these scenes takes place early on and helped participants understand Tidus’ behavior through dialogue and music. This scene, in particular, is when participants started talking about their connection to Tidus. During this scene, Beth said of Tidus, “I think he’s fun. I like him. I like his attitude.” John on the other hand, said “I felt like I Jilted Tidus a little quickly... Even though his cutscene antics were

frustrated face, his story is the one I was interested in (John, postgame).” The emotions elicited in this scene seemed to strengthen the participants' relationship with the controlled character. These emotions also seemed to be elicited from the music of this scene.

The music itself, though not noticeable by participants, even after they heard it again, was described as playful and interactive. John said, “That’s the music you listen to when you’re walking through a forest and it’s somewhat interactive with you searching but it's not droning ambient (John, post-game).” After it was revealed what scene, this took place in, he said “Now that I know what scene it’s in, I can’t see it in my head, but it makes sense. The playful plucking noises match with his ...annoyingness (John, postgame).” The music seemingly contextualized Tidus’ behavior. His behavior was annoying, but the music added an air of playfulness to it.

Later in this scene Tidus reveals that his father died 10 years previously. When asked about the track in the post-game interview, John said:

“It gets into an area where it’s very drum, epic building, so I feel like it’s a dramatic moment music. I don’t particularly feel saddened by it, but I feel like there’s a certain melancholy to it.”

After learning of it’s placement in the game, the revelation of Tidus’ father’s death and Yuna’s revelation that he might be alive, John said:

There’s that bit of melancholy. It’s interesting how, when you’re talking to her and you’re like “my dad died” and she says “Oh, but there’s this guy”, that’s probably that build into this different feeling. That makes sense (John, postgame)”

Once again, nuance seemed to be added through the music. The track mimicked the emotions of the conversation between Tidus and Yuna, adding nuance to the sadness of discovering Tidus’ father’s death and an emotional resolution and eliciting emotions in the player that match the controlled character.

The music throughout this whole scene seemed to mimic Tidus emotional state, giving the player context for his antics and nuancing the players' sadness to match Tidus', even though he has been aware of his father's death for years and the player just found out. This information was acknowledged in the post-game interview and was likely available to be incorporated in the creation of Tidus' character in this pivotal scene.

Summoning Scene and enjoyment-based identification. The second scene shows growth for many of the characters, not just Tidus. This scene was impactful for all the participants and, while they were unable to recall the music, they referenced it as reasons for their strong emotional responses. When speaking about the power of the music, participants also referenced their connection to specific characters in the same explanation. For instance, Beth described this scene by saying "That was so beautiful. The colors were really pulling. The music, I was trying to notice the music, since you mentioned it, was really beautiful. And it was the first time you really get to see Yuna do something, so it was a really cool moment to get to know her better Beth, post-game)." Mark, on the other hand spoke about the conversation between Tidus and Lulu before talking about the power of the music in this scene, saying:

"I really liked that scene. I think that was probably the best scene. The conversations with Lulu and Tidus, it I would have to re-watch it to fully absorb the scene cause it happened quickly in terms of me learning the characters still, it's the most notable scene that I probably watched but my brain was trying to keep up with what she was saying to understand the world, but I would say that was the coolest scene that we watched. I felt more during that scene, and I think the music played into but I wouldn't be able to name the exact melody. The biggest presence I get from that music is an emotive response to the music. Even the music in the beginning I couldn't tell you the exact tone but it causes, almost a feeling of nostalgia, oh this is a beautiful scene. It's not sad or happy, it's investment in what's going on (Mark, post-game)"

This increased enjoyment of the scene also seemed to be connected with characters. Mark specifically credited this scene for why he liked Lulu. When asked about his feelings towards her during the post-game interview, he said:

I was biased against her, but I really liked battling with her. Then, that cutscene at the end with her kinda protecting Yuna and talking to Tidus really her voice actor did a really good job and... I was more drawn to her after that. I think my initial was kind of against her, um, not really liking her as a character (Mark, postgame).

This possibly explains the sudden amelioration for Lulu's character during this scene. Both Mark and John disliked Lulu, though, like Tidus, liked her mechanically. However, they're responses to Lulu Shifted very positively very suddenly during this impactful scene. While music may not be the direct cause of this character shift, or any character shift, it does seem to add nuance to characters and increase the focus of players on character building scenes.

While this is one of the last scenes participants witnessed, (meaning participants would have spent more time with the characters by the time this scene occurred), participants spoke about this scene during the postgame interview, giving them a break in time from their experiences to their discussion.

NieR: Automata and character development

Sandy and Phillip had less to report about character development than the participants of FFX> Perhaps this is due to the open world nature of the game but neither spoke about a connection to 2B. While they both spoke about frustrations of 9Sn no mentions of music were related to identification with characters.

Phillip said "I Only know a little bit about the character (2B). I feel like there is so much more to learn about her strengths, but I definitely think that she's still the one in charge. 9s for the most part still feels pretty useless to me though, he did say he was gonna hack that last boss. But, playing 2b, I feel more connected to that character than 9s, 9s almost seems a bit annoying. Like that one instance that I was <doing a jumping puzzle> he got in my way and messed me up. That was pretty annoying. I wish he was a little more useful." Sandy seemed to have even less character development Than Phillip. However, Sandy seemingly replaced 2b with herself. She

continuously spoke as if it was her in the world with phrases like “quit bossing me around, dude” and “You did most of the work, but thanks.”

CHAPTER 5. DISCUSSION

Music, whatever its effects on these video game narratives, was hard to notice. It was so latent that even when the participants attempted to focus on it, they were unable to. Perhaps it was the interactivity, the act of controlling or making decisions for the in-game characters or co-creating the narrative that inhibited the ability to notice this non-diegetic music. Yet, there was a connection between the music itself and the scenes they were found in. While there was a disconnect between the memory of the music and the scene, the potential effect still remained.

Memory

As discussed above, a key finding was the participants' lack of explicit memory of the individual tracks. However, both transportation and identification are processes that involve an altered consciousness (Green & Brock, 2000; Cohen, 2001). As such, it is less surprising when the participants' focus was drawn away from the music as these processes have been known block outside influences. The lack of explicit memory of the music did not seem to impede the moments where participants talked about their feelings of transportation or identification. In fact, some participants even credited the music for being the source of these processes, even when the explicitness of the music was lost on them. This follows with current research on transportation and identification where these states alter the consciousness of the audience, causing them to focus on one thing (the narrative world or character) at the loss of something else (awareness or sense of self). Still, I believe it is important to analyze why the participants did not remember the music, even when prompted to do so.

Too Much Input

One potential reason could have been the amount of information the players were processing while playing the game. Players may have been experiencing cognitive overload while attempting to understand the narratives of the game. During the gameplay sessions, players interested in the story were tasked with, not only getting to know the characters in the game and the lore of the world, but the mechanics behind the controlled character and the mechanical rules of the world. The mind was not just busy comprehending the story but learning how to maneuver the world in order to experience and co-create the story.

The players were overwhelmed by the mechanics of both games, though, for different reasons. Players of FFX felt disconnected from the physical control of the game. Certain design choices made interacting with the game more difficult. For instance, Often, when leaving an area, the camera angle suddenly changed. And, unless the players expected it, the characters were sent running in the wrong direction. Because of this, players were forced to focus on walking directions as it could change at any time. Aside from this, they were also busy learning the combat system. They had to learn what each individual character did as well as what each ability was capable of. N:A was the same, though, the particularities of what the players were learning was different. This game had much more exploration, so players were forced to learn the layout of the area in much more detail, possibly missing the correct path to the boss if they did not. N:A also focused on one character with significantly less abilities than FFX, but its combat was much more action oriented. Players in this game were forced to learn how to react to incoming enemies with little chance for a break since a fight could happen at any time during the game. The participants spent a lot of time trying to understand how to maneuver through the

world mechanically, but they also spent time attempting to understand the narrative as they co-created it.

Another difference between these two games was the separation of gameplay states. Music was primarily noticed in FFX. This is perhaps due to the distinct nature of each of these game states. If a player is exploring, they are navigating the protagonist, Tidus, around a map. Once a battle starts, there is a visual “breaking of the screen” that transitions to a separate screen with new UI, controls, and music. Dialogue is mostly delivered through cutscenes, videos using in-game assets, or highly polished 3d rendering that is separate from the interactive nature of the remainder of the game. These definitive states of play led to different ways in which players interacted with the game and these varying levels of interaction seemed to correlate to if they were able to identify music in game or not. In N:A, different states of play (exploration, fighting, dialogue) all mix together. A player can be exploring, instantly switch to fighting an enemy, all while an NPC is communicating with the character. There is no transition visually, to the UI or to the music. For instance, players in FFX were able to report music during battle sequences whereas players of N:A did not have the same option as there is no distinct “battle” scene. And when a participant (Sandy) was able to identify the music, it was the participant who avoided one key aspect of the game, the embedded narrative.

While both games had strong embedded narratives that the players had to interpret, the act of co-creating these narratives also contributed to the cognitive overload players experienced. These were only a fraction of the full narratives, yet players still spent a lot of energy contextualizing the embedded parts of the narratives as well as the mechanical actions they were contributing to the creation of their emergent narratives. Players were responsible for a lot in their short time with these games. So, it’s possible the brain did not have the ability to keep the

information pertaining to the music as it was so busy learning other, arguably, more important information.

Video games are filled with different narrative descriptors (Salen & Zimmerman, 2004) and not all get to take center stage. As discussed above, music in particular takes a back seat in many of the production teams (Phillips, 2014), however, music's connection to transportation, identification and overall enjoyment of the game should not be underestimated, even with a lack of explicit memory.

Music Stored as Implicit Memory

It is possible that the brain was too full to store the memory of the music, but also possible the brain stored the music in an area where it could not be retrieved in its explicit form. The questions in the interview rely on the players self-reported experiences. They spoke about their experiences of their explicit memories of their play. However, it is possible that the music in these games is stored more implicitly than explicitly. There were many narrative descriptors that were part of the explicit memories. For instance, the visual themes and specificities of the character designs were both examples of things players were able to recall and discuss during the interview. On the other hand, players were completely unable to do so with music. Yet, there was evidence that the effects of music were involved in the understanding of the narrative, even if the music itself was not explicitly remembered.

This can be seen by how participants discussed the areas they explored in-game. While they were unable to identify whether there was music in these scenes at all, the way they explained their experiences in these scenes were almost identical to the experiences they felt when they heard the songs again, divorced from the scenes. Players explicitly reported a feeling of unease as they walked through the creepy carnival stage of N:A but did not report that this

feeling was due to the music. The same can be said for Tidus during his playful antics on the boat. While the scene was explicitly described as a pivotal scene where Tidus exhibited playful behavior to relieve his (and the player who was controlling him) stress, this playfulness was not attributed to the music. However, the explicit experiences the players described in these scenes, scenes where the participants didn't consciously register the music, were almost identical to the explicit description of the music when they later heard the tracks. These tracks are connected to the memory of these scenes in some way, just not as part of their explicit memory.

As part of the participants implicit memory, these tracks could be used in the creation of narrative as conceptualized by Miller. First, there must be a sequence of events and video game music has been shown to represent both ludic and narrative progression in game (Cook 2014). Second, there must be representation of characters. Not only does music represent characters through leitmotifs (Collins, 2008), much of the feelings for the characters mimicked the feelings evoked from the music, connecting character and music even further. Finally, there must be some recognizable form to the narrative. While this is the most abstract trait, it's also the most flexible. Many of the participants felt strong emotions from their play experience: emotions they used to co-create the story. In this way, music is likely a key part in that recognizable form of video game music.

Implications: Music as Vehicle for Transportation, Then, as a Part of the World

While these explanations begin to discuss the lack of explicit memory of music, they do not address the connection between the music and the scenes they exist in. This could be because of how it was analyzed. As a narrative descriptor, the music affects the narrative by being part of the narrative. In this way, the term non-diegetic truly may be misleading as the music is not outside of the narrative, but a part of it and are just as much a part of the understanding of the

world as the visuals, lore, mechanics, or UI. In which case, a player may not necessarily remember the explicitness of the music as their memory of the music would be incorporated into their memory of the narrative.

In these playthroughs, if music carried narrative information (themes, affective queues, etc.) then that information was given to the narrative itself. Players were not able to explicitly connect the creepiness of the carnival area to the music. But the explicit feelings evoked from experiencing that area was seemingly a result of all the narrative descriptors: the visuals of the smiling robots, the mechanics of a game where you fight for your life, and the musical track that utilized traditional carnival themes and altered them in a way to create a sense of unease. The feelings evoked from the music were utilized to create a richer narrative world. In this way, attempting to identify the music was like attempting to identify individual water droplets in the narrative ocean of each game. These narrative descriptors, even though they can be separate, work together to create one narrative.

Lulu as a character may also be an example of narrative descriptors working together to create a unified narrative, this time, a complex character. Lulu's gameplay mechanics generated interest in her as a character while the music helped subtly define characteristics of characters in-game and increased focus during key scenes.

Players also reported that the music had a direct effect on what they were allowed to focus on in the game world. The track, "city ruins", was calm and mysterious. This was an appropriate track, not only for the setting (which was, in fact, a ruined city) but for the story and mechanics. The mysterious song made players curious, the narrative was that 2b was searching for an entrance to the carnival, the gameplay had the player searching for an entrance. This allowed the players to open up their focus to the mysteries of the city and explore. Similarly, the

track to the final boss was also appropriate. Though, this time, it was focused on survival, narrowing the focus on the player character. The tracks in these areas add a definitive nuance that communicates to the player not just what to do, but where to focus their attention: 2B and her survival.

Perhaps this explains the feelings of transportation that were reported by the participants. Music is already shown to aid in focus in games by drowning out outside noises (Jørgensen, 2008). It acts as a vehicle for transportation but, once the player has arrived, it works to keep players there by altering their focus and increasing their understanding of the world by becoming a story element. The emotions and themes evoked from music become the emotions and themes of the narrative intertwined with the plot, visuals and dialogue. It is not simply the feelings of being removed from the outside that is aided by music, but the added emotions and themes that add to the fullness of the world and the richness of the characters, making it easier to stay.

Music is important in the co-construction of video game narratives. It alters the focus of the audience, gives emotional meaning to the scene and characters held within and helps in the adoption of the emotions exhibited by those characters. It does this for the embedded narrative as well as the emergent narrative, foreshadowing upcoming events, informing them of states of play, and giving meaning to player/character actions. The overall narrative is created when both of these separate narratives work together. In this way, understanding video game narratives requires understanding the music within that narrative.

Future Research

Future Research include the possible connection of music in games and latent emotions. There seems to be a connection to experiences with the music and the scenes they encompass but without the ability to notice these tracks within the scenes, working with a bio-scanner may be a

good alternative. It could allow for researchers to observe responses from participants that show physical signs of emotions, allowing for empirical evidence of this connection. If it is true that music is a part of the narrative, further analysis into the differences will be necessary. Many of the other narrative descriptors are more commonly associated with explicit memory due to the sense used (vision). Analyzing how players contextualize their actions and if music influences that contextualization is also important to understand. Many story-based games are very long with limited mechanics to make them simple to learn. Especially in games like FFX, the basic “attack” option was used the most. However, it is possible that the music’s added context changed the meaning of this repetitive act. More research into the effects of music in interactive media, specifically transportation into narrative worlds. There is research into immersion through music. However, there is very little done in this specific area of music and interactivity with a story involved. Also, if diegetic music in games is a part of the world, then the world would not be the same without it. Testing comprehension of video game narratives with different no music would be the next step. This research was done with games that designed the worlds with these tracks in mind. But, the question remains, are they integral to those worlds. Many game designers see music as an afterthought, or a tool to block out sounds of the world to increase immersion. Does the comprehension or enjoyment of the narrative become affected with the removal or alteration of this music. These two games were very similar in many ways, especially in the importance of the embedded story. But many games do not place that level of importance on the embedded narrative. What happens with other games, say RPGs that focus more on the emergent narrative. Specifically, does a focus on emergent allow for the noticing of music? Finally, if music is a true narrative descriptor, it is part of the narrative rather than a contributor

to it. More research would be necessary to see if this is actually true as many producers treat it as a helpful addition rather than a key feature.

Limitations

This Study, as an exploratory study, held many limitations. There were only five participants, and the choice of these participants were limited to those who had access to a computer using the Windows operating system and strong enough specifications to run either of these games. These participants were only given a section of the story to comprehend and were also given a limited amount of time to learn and engage both the story and mechanics. These participants did see a short video, detailing the narrative that the participants missed, however, as the narrative is meant to be interactive and experienced in full, it can be assumed the understanding of the narrative worlds were not as full as intended for a normal consumer of these media. Both games were also very similar in many respects and do not represent the wide possibilities of video game narratives, nor even the narratives in the most popular video games. It only aims to look at the possibility of music as a narrative contributor in an interactive medium.

This study aimed to examine music's effect on identification and transportation in interactive narrative. While both processes clearly happened throughout the gameplay interview, what this study truly found was the inability of the participants to explicitly link the music to the narrative or register the music at all.

Music did not seem to have direct impacts on transportation or identification. No participant was able to discuss the music much, if at all. Yet, their discussion of their experience in the world makes it difficult to believe their lack of explicit knowledge translated to a lack of effect on identification and transportation. In fact, it's possible the music was working double time in both of these processes: both creating sound to block out distractions and creating themes

and emotions for the players to use while they are transported or identifying with characters. Video game narratives can have complex narratives and music can play a key role in how players understand, interpret, and create those narratives.

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