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“Empathetic Response in the Autobiographical Video Game *That Dragon, Cancer*”

A common reply amongst autobiographical authors when asked why they write about themselves is one of empathy and sharing, a wish to allow another to experience their lives. Ishamel Beah, author of *A Long Way* Gone, writes, “…my core reason for writing would be to expose people to certain realities and hope to deepen their understanding of the other, of places that may seem far away” (Maran, 4). Kate Christensen, who wrote *Blue Plate Special* and *How to Cook a* Moose, says, “I’m hoping to give my readers connection, comfort, reassurance…” (Maran, 11). And Pearl Cleage, author of *Bourbon at the Border*, *A Song for Coretta*, and other memoirs, notes how she feels the genre connects human experience: “…I felt that they [her journals and memoirs] were valuable not only as a purely personal document of one life but as evidence that as Anaïs Nin said, one life, deeply examined, ripples out to touch all other lives” (Maran, 27).If a goal of autobiography is to allow readers to understand another person’s life, culture, psyche, or the space they live in, then video games are especially well positioned to achieve this goal. Psychologist Frans de Waal describes empathy as ““the capacity to (a) be affected by and share the emotional state of another, (b) assess the reasons for the other’s state, and (c) identify with the other, adopting his or her perspective” (281). Autobiographical books and film that deal with trauma and tragedy are certainly *capable* of eliciting empathy; I would argue, however, that the emotion these media more often cultivate is one of sympathy: “a feeling of sorrow or concern for someone based on the other’s emotional state or condition” (Gerdes, 233), particularly in the instance of a reader or viewer who is witnessing an experience outside of one they are familiar with (this is due to a lack of grounded cognition with the experience - more on this below). Video games, on the other hand, allow a player to role play *as* another individual, thus forcing an experiential moment upon a player, and in doing so, creating a sense of responsibility rarely found (if ever) in other media.

In 2016 Ryan and Amy Green published a point-and-click autobiographical video game called *That Dragon, Cancer*, which tells their story of living with and grieving for a child who has been diagnosed with terminal cancer. The player controls alternatively a virtual Ryan, Amy, or even Joel, the cancer-stricken child in question, as they relive the traumatic final year of Joel’s life through a series of vignettes divided into fourteen chapters. The player experiences the joys of spending time with Joel on the playground, the sorrows spent with him as he undergoes chemotherapy, and the ambiguous difficulties of explaining Joel’s illness to his brothers. The game depicts an autobiographical act in the making, a creative movement which the reader partakes in and which underscores the story’s themes of tragedy, trauma, community, and hope. These themes are not unusual to the genre; autobiographical “narrative[s] of trauma and survival range across many sites- genocides, abuse and incest, disability and human rights crises” (Smith & Watson, 219), as well as in more intimate locations of loss and recovery where authors write about domestic crises or personal trauma such as the loss of a loved one (e.g., Alisoun Bechdel’s *Fun Home* (2006) or Mary Karr’s *The Liar’s Club* (1995)). What separates *That Dragon, Cancer* from the hundreds (if not thousands) of other autobiographies concerning overcoming loss and dealing with adversity is that it is an autobiographical video game. This means that the text comes loaded with all the implications of traumatic autobiography, but also with all the considerations of what makes a game work: player-avatar interconnectivity, ludological considerations (what one diegetically does to play the game), and haptic considerations (what one does extra-diegetically to play the game) need to be mapped against traditional methods of autobiographical analysis of story, theme, image, and sound. In the interest of brevity, however, this paper will focus solely on the player-avatar relationship and how the tenuous connection between a player’s mind and a bit of code intended to look and act like a person creates an empathetic, autobiographical bond not found in other media.

*How Games Move Us*

In her 2016 book, *How Games Move Us*, Katherine Isbister makes a bold claim that video games are unique among artforms in that they create a sense of responsibility in the reader. She writes,

“This capacity to evoke actual feelings of guilt from a fictional experience is unique to games. A reader or filmgoer may feel many emotions when presented with horrific fictional acts on the page or screen, but responsibility and guilt are generally not among them. At most they may feel a sense of uneasy collusion. Conversely, a film viewer might feel joyful when the protagonist wins, but is not likely to feel a sense of personal responsibility and pride” (8-9).

Whether this property is unique to video games is debatable, but that it exists for the medium is undeniable. *That Dragon, Cancer* presents a paradigmatic example of this feeling of responsibility in one of its most emotionally wrenching chapters, “Dehydration.” In this chapter, the player (playing as Ryan Green) eventually becomes aware of the cries of four-year old Joel, who is in the hospital suffering from the pain of cancer, dehydration, and chemotherapy. Though Joel is never visible to the player, his anguish is evident through his voice. Presumably, it is the player’s job to calm him down, to get him to stop crying and to go back to sleep. Except nothing works. You can pace the room, you can mimic rocking him back to sleep, you can try to find a toy or a drink that will calm him down. But none of these options has any effect; Joel suffers no matter what you try to do. And while reading about this scene or watching it via film would certainly have a heartrending effect, it is when you the player feel like you *could* *do* something if you just knew what it was, like you *could help* if you just knew how to play the game – it is the suggestion that you could enact change that provides the feeling of responsibility that Isbister suggests. The player puts the onus of Joel’s anguish upon themselves, and when he or she fails to help the screaming child it is the player who feels guilt.

Part of the reason we feel this guilt, according to Isbister, is due to “grounded cognition.” Essentially, “our brains compare what we sense and experience in any given moment to our past experiences (whether ‘real’ or ‘mediated’ – that is, created by media) in order to come up with a set of emotional and cognitive responses that are ‘grounded’ in experience” (7-8). When applied to fiction specifically, our brains are functioning as if the experience were real, as if we were physically present at that moment. Grounded cognition theory, then, has some interesting implications when we consider video games. Though the moment is indeed mediated, it is simultaneously real. In “Dehydration,” when we are in the room with a screaming Joel, the experience is filtered through the monitor, through the graphics engine and headphones, and through the keyboard and the mouse, but the attempt to calm virtual Joel is in many ways very real. The player is engaging in an act; they move the mouse, they click the buttons, they may very well even speak out loud to Joel regardless of the knowledge that the game cannot register or understand these utterances. Further, the player is simultaneously his or her own self, attempting to calm the child, and also Ryan Green, whose thoughts and whispers of, “Shh, it’s okay Joel,” are both verbalized in game and written on the screen as floating text. When playing through this chapter, the brain is simultaneously managing both the real and mediated experience, navigating what the player is thinking and doing against what the virtual Ryan is thinking and doing; the mind blends these experiences into a single event in which the fictional becomes difficult to separate from the reality.

Anecdotally, the conflation of media with reality seems to be evident from the emotional attachment that readers or viewers impress upon their favorite fictional characters or worlds, a term dubbed “para-social interaction” by sociologists Donald Horton and R. Richard Wohl, who wrote about grounded cognition as it pertains to mass media: “One of the striking characteristics of the new mass media – radio, television, and the movies – is that they give the illusion of face-to-face relationship with the performer” (215). The two were writing in 1956, long before the advent of the modern video game, and because of this, they make the claim that “para-social relations may be governed by little or no sense of obligation, effort, or responsibility on the part of the spectator” (215). Video games, of course, do exactly this. Players are, in their minds, somehow responsible for their inability to get Joel to stop crying. In essence, video games combine the conventional para-social interaction Horton and Wohl describe when we experience a novel or watch a film with a sense of responsibility and consequence.

This is true both for the player and the avatar he or she controls, as well as for the non-player characters (NPCs) who inhabit the virtual space. Isbister suggests that “Interactions with NPCs move players beyond para-social feelings into consequential social experiences with accompanying social emotions and behaviors” (20). In other words, while it seems intuitive that a player would bond with the avatar he or she is controlling, Isbister suggests that Horton and Wohl’s argument that para-social relations have “little or no obligation, effort, or responsibility” is equally untrue of NPCs as it is of the player’s primary avatar. Players of video games have expressed being “wracked … with guilt” (Mullis, 2013) over the fate of a virtual character, or that NPCs may make a “noble-sacrifice” (Murray, 52-53), or that even that they, the player, can be romantically in love with an NPC, going so far as to marry them in real life (Lah, 2009). That video games take Horton and Wohl and add an additional layer of emotive and empathetic connection between player/reader and the autobiographical authors is evidence of the effectiveness of the medium. The conflation of reality with the medium a player is consuming is a trait generally not shared by other media (except, perhaps, in individual instances of psychosis), and yet not only does the mind jumble real-you with player-Ryan in *That Dragon Cancer*, but the confusion seems to be a defining characteristic of interactive medium.

For example, neuropsychology researchers have corroborated the idea that our brain has problems distinguishing between reality and media while playing games; in a study published in PLOS ONE in 2012, a group of scientists tested how the brain responded to interactive media versus passive media. The results found that “mesolimbic activation was significantly more pronounced in the active playgroup than in the passive exposure control group” and that “these findings suggest that IDG-induced activation of reward-related mesolimbic neural circuits stems primarily from *participatory engagement in gameplay* (interactivity), rather than *from the effects of vivid and dynamic sensory stimulation*” (Cole, et al, emphasis added). In layman’s terms, this study suggests that the brain’s response to events happening in a video game are more closely aligned to how a mind reacts if an event were actually occurring to the player rather than merely being watched. Or, as Isbister puts it, “To the human brain, playing a game is more like actually running a race than watching a film or reading a short story about a race” (3).

This verifies what this paper has been suggesting all along; video games (and other interactive media) act differently upon the brain than books, graphic novels, television, and film. To the brain, trying to rock baby Joel back to sleep in-game creates mental stress not all that different from what the brain would be feeling if the player were actually in the room. (Though I would suggest that the knowledge that the player can leave the room means that the emotional weight of the moment is significantly lessened for the player. There have not yet been enough studies performed to effectively demonstrate the level or intensity of brain activity while a player does something virtually to ascertain the truth of this statement one way or the other, however.) An example of the effectiveness with which video games tap into a player’s empathetic and emotional centers of the brain can be found simply by watching others interact with virtual Joel:

Ryan and Amy Green, in addition to creating *That Dragon, Cancer*, also made an autobiographical documentary about their experience called *Thank You for Playing*. The emotional impact of experiencing the suffering of a virtual character is evident in the film when the couple decides to bring their game to 2014’s PAX (Penny Arcade Expo) Prime event. In the film, they set up a table for convention attendees to sit down and play a then-unfinished version of the game. Their table consists of several monitors, some controllers, and, tellingly, a box of tissues. The camera pans in on the faces of the players who sit down to play, drawing attention to the red eyes and tears of every person who interacts with the booth (*Thank You*, 00:44:05-00:48:50). And while certainly any media is capable of creating para-social interaction between fiction and the reader, the swiftness with which this connection is established in *That Dragon, Cancer* is notable. PAX is not a place of quiet reflection; it is a sprawling building filled with flashy lights and all the noise that accompanies hundreds of booths set up to demonstrate the latest in digital technology. And yet, despite this distracting ambience and despite the relatively short amount of time that each player had with the game, a deep enough connection was created to bring players to tears. In short, even with the glamor and distraction of PAX, *That Dragon, Cancer* was able to trick the brain into thinking the players were there in the room with Joel, rocking him back and forth. This is an autobiographical experience unlike that of other media.

*Theory of Mind*

Of course, *That Dragon, Cancer* is less like Isbister’s “running a race” and more of an empathetic experience. What is it like to be Ryan or Amy Green? How does one cope with a terminally ill child? Perhaps one of the best ways to understand how the game accomplishes its autobiographical empathy is by employing Lisa Zunshine’s work on “Theory of Mind.” In her 2006 book, *Why We Read Fiction*, Zunshine posits that humans are natural “mind readers.” She writes that mind-reading “is a term used by cognitive psychologists, interchangeably with “Theory of Mind,” to describe our ability to explain people’s behavior in terms of their thoughts, feeling, beliefs, and desires. Thus, we engage in mind-reading when we ascribe to a person a certain mental state on the basis of her observable action” (Part 1, Section 2). In other words, we are capable of guessing why someone acts a particular way or why they perform a specific action precisely because of our grounded cognition. We have experienced something similar before and assume that the person whose mind we are reading are reacting similarly to ourselves. Mind reading, Zunshine argues, “makes literature as we know it possible.” She goes on to suggest that, “the very process of making sense of what we read appears to be grounded in our ability to invest the flimsy verbal constructions that we generously call ‘characters’ with a potential for a variety of thoughts, feelings, and desires and then to look for the ‘cues’ that would allow us to guess at their feelings and thus predict their actions” (Part 1, Section 2). This predictive capability is possible because the reader’s mind puts him or herself in the shoes of the fictional character and asks, “How would I react?” The immediately obvious difference between reading a fictional book and playing a game like *That Dragon, Cancer*, is that not only does the player guess at what it would be like to be that person, but virtually speaking, the player *literally is that person*. As with Horton and Wohl’s theory of para-sociality, the differences brought by interactive fiction complicates Zunshine’s theory.

In her essay, “Theory of Mind as a Pedagogical Tool,” Zunshine makes the claim that “third-level embedment – mental state within mental state within mental state- [is] the baseline for fiction … No fictional narrative can function on a lower level of ‘sociocognitive complexity’” (92). When playing *That Dragon, Cancer,* however, this complexity is significantly ramped up, a trait which, I would argue, is shared by all video games – though *That Dragon* is a particularly robust example of how tangled empathetic mind reading can become. Zunshine argues that the “baseline” of Theory of Mind lies in the triangulation of 1) The reader-author relationship, 2) The diegetic character’s wants, and 3) The motivation for those wants, which are inevitably rooted in their (the character’s) ability to read another character’s mind. The first instance of mind reading, that of the reader-author relationship, is taken for granted in many college literature and writing courses: essentially, it is the rhetorical situation. A text is composed for a particular kind of reader with a particular purpose in mind, whether that be entertainment, education, political argument, etc. The second instance of mind reading takes place the moment a character is introduced in a text; this is the instance of a reader’s “ability to invest the flimsy verbal constructions” with thoughts, feelings and emotions. Finally, the third instance of mind reading occurs because (at least in good fiction), characters have motives which are inevitably linked to their understanding of their own fictional world and those who inhabit it. Hamlet is reading Claudius’ mind when he chooses to act mad because he (Hamlet) thinks that he (Claudius) will not suspect a trap if he pretends to be insane. Zunshine naturally leaves room for additional mental states beyond these baselines (Theory of Mind, 93), and the example given above with Claudius could certainly be sliced into more discrete acts of mind-reading than I have listed here.

Video games, on the other hand, because they introduce the notion of player-as-fictional-character, possess additional levels of baseline mental embedment (which shares similarities with theatrical performances). In addition to the reader-author rhetorical situation, the player also becomes aware that they are embodying an avatar which either comes preloaded with a historical background and an established personality, or else is a tabula rasa upon which the player impresses his or her own persona. In both instances, a connection between the player’s chosen personality is embedded in the game’s interpretation of that personality. The player can choose to be either good or bad, concerned or indifferent, socially conscious or at unawares via their actions in the game. These choices can either conflict with or be in accord with the personality that their in-game avatar comes preloaded with. For example, a player could choose to simply stand there in the room and let Joel cry without attempting to console him while playing the chapter, “Dehydration.” When he or she does this, they are intuitively embedding a level of mind-reading. Why might a virtual Ryan choose to stand there? Maybe he’s exhausted, maybe he thinks if he doesn’t move then the baby will stop crying, maybe he’s just given up. A player’s understanding of what personality he or she wishes to embody and how that personality is played and interpreted in the game is, I argue, a foundational feature of video games and creates additional baselines of embedment for Zunshine’s Theory of Mind.

Consider the incredibly complex mind reading that goes on in *That Dragon, Cancer*’s, ninth chaper, “Joel the Baby Knight.” The scene begins with a voiced recording of Amy Green telling her children to go to bed. Her husband seconds the command with a more authoritative voice, but also one which seems to realize that this voice is not the norm; he cracks and almost laughs as he issues the order. When the children beg for a story, both parents sigh and seem reluctant, but acquiesce to the request. While we hear this exchange, the camera zooms in on an old arcade cabinet, and the player is greeted with a retro-style title screen informing him or her that they will be playing an arcade game called *That Dragon, Cancer*. The title screen of the zoomed-in arcade cabinet reflects the ghostly image of two boys in sitting in their bed, presumably watching the screen along with the player. Then, the family collectively creates and tells the story of Joel the Baby Knight and his fight against the terrible dragon, cancer. The allegory is blunt, naturally, because the children who are listening to the story are still very young and are trying to understand and cope with what is happening to their brother. As the family creates the tale, the player actually controls the arcade cabinet, leading Joel across a diorama-esque landscape in a simplistic version of an action side-scroller (like *Super Mario Bros.*, but with spears instead of fireballs). At the game’s conclusion, Joel (and by extension, the player) fights the dragon, ultimately learning that it is impossible to win.

The implied mind-reading relationships in this scene go well beyond Zunshine’s mandatory three:

1. The reader-author relationship
2. Ryan and Amy’s relationship to their kids
3. Ryan and Amy’s relationship to each other
4. The children’s relationship to each other
5. The player’s relationship to virtual Joel
6. The player’s relationship to Ryan and Amy

As a reader of *That Dragon, Cancer*, an analysis of the first four of these relationships does not differ significantly from the experience of reading a novel or watching a film. These represent Zunshine’s baseline mental embedments. The last two relationships, however, differentiate video games from a traditional text and it is where an autobiographical video game draws much of its emotional impact from. To briefly consider the first four, more traditional mental embedments:

**Reader-Author Relationship**: *That Dragon, Cancer* was authored by Ryan and Amy Green (with help from additional crew) with the supposition that a person who plays this game and interacts with this story is someone who has an interest in one or more of the following: autobiography, narratives of trauma, hope, grief, joy, or loss, stylized games, point-and-click games, or narratively-driven games. Perhaps it is an unfair assumption, but this is probably not a game for someone who wants to pick up a virtual chainsaw and murder zombies. The authors have a target audience and a specific story they want to tell in a very particular manner. Further, certain segments of the game make an assumption of ludological literacy, that is, portions of the game assume that the player is familiar with other game genres such as racing games and platforming games. Likewise, anyone who plays the game expects certain genre conventions from the authors. Even before a book is read or a game is played, the act of marketing a text creates a level of mental embedment.

An additional consideration when thinking about how the “Joel the Baby Knight” scene works with regards to the player’s relationship to the authors is that, ultimately, the work is an autobiographical text. As the player makes his or her way through the chapter, they understand that the bedtime story is one of the many that the Greens have fabricated in an effort to help their own understanding of what is happening, and that this scene has been repeated in their household in one form or another perhaps dozens of times. The player experiences what it is to be a parent who must perform the ritualistic tasks of taking care of children by putting them to bed, but also what it is to have to explain to those same children a concept that might be too difficult for them to grasp. This level of understanding is that same one that a reader might get from watching an autobiographical film or reading a book; this is not (yet) the activation of an empathetic mind, but is one of sympathy. I would suggest, however, that empathy could be activated via traditional texts or films provided the viewer or reader is cognitively grounded with the scene being witnessed. For example, I have never had the experience of explaining something difficult to a child nor of getting them to go to bed, thus my mind activates sympathetically. However, if I *had* had that experience, my mind could trigger empathetically.

**Ryan and Amy’s Relationship to Their Kids**: The parents think that the kids do not want to go to bed, and the kids feel that if they ask nicely enough, they can convince their parents to acquiesce and tell them a bedtime story. Even in this commonplace situation, Zunshine would argue that a number of mental states are already at play. If we borrow the pattern she establishes in “Theory of Mind as a Pedagogical Tool, we can apply this to “Joel the Baby Knight” to understand how the parent-child relationship works (and, by extension, the other relationships as well): “This pattern can be described as a triangulation of mental states: a representation of a mental state embedded within a mental state embedded within yet another mental state, as in, for instance, I *remember* (first mental state) how *strange it seemed to me* (second mental state) that he was *so nervous* (third mental state) about their impending meeting” (92). Or, in *That Dragon, Cancer*, the parents *think* (first mental state) that the kids *do not want* (second mental state) to go to bed, and the kids *feel* (third mental state) that if they ask nicely enough, they *can convince* (fourth mental state) their parents *to acquiesce* (fifth mental state) and tell them a bedtime story. Obviously, this gets confusing in a hurry, but the key takeaway is that this scene requires a reader to be highly attentive to a multitude of emotional states and, by extension, become emotionally invested themselves via grounded cognition; each time a reader mind-reads a character’s intentions, he or she mentally places his or herself in the shoes of that character for a brief moment in a kind of micro-empathy.

As the story of “Joel the Baby Knight” continues, the number of levels of mental embedment increase as well. Ryan and Amy decide to tell their kids[[1]](#footnote-1) a story that will help them to understand the trials that plague their brother. They suppose that their kids do not know exactly what is going on with Joel and they also suppose that the kids do want to know. Further, the parents assume that their kids want to hear an adventure story, which is why they choose the classical narrative of the knight versus the dragon. The children, in turn, allow the parents to guide the narrative, but occasionally impose their own creative impulses upon the story. The parents begin by describing the tale of “a very brave knight named Joel.” Immediately, one of the two brothers asks, “Joel the Baby Knight?” “Yes, Joel the Baby Knight,” Ryan responds, and this becomes the avatar’s official title thereafter. As the story continues, the children continue to exert their will upon the narrative. One asks, “Where does the dragon live?” to which Ryan answers hesitantly, “Umm… in the forest!” Later, the elder son suggests, “So, Joel has armor. Like, a shield and sword and stuff?” The younger brother chimes in, “Ooh! Or maybe a spear!” Each of these suggestions is visually represented in the game as the children suggest them, lending authority to their creative tangents. And while the children often seemed wrapped up in the creation of the knight versus the dragon narrative, they are not unaware of their parents’ didactic intentions. They occasionally ask about Joel’s real-life situation and appear to parse out what they think will happen, eventually suggesting, “Well, that dragon is going to kill Joel. Joel is going to lose.” Amy asks why he thinks this, and her son responds, “Because Joel is a baby. A baby can’t kill a dragon.”

Thus, Ryan and Amy make a number of assumptions about their children’s mental states: that they (the children) do not know what is happening, that they want to know, that they are stalling for bedtime, that they want to hear an adventure story, that they want to meaningfully participate in the telling of the story, that they can understand Joel’s mental state (to some extent), and, ultimately at the chapter’s end, that the children have an understanding of what will happen to Joel. The children, in turn, understand that they can persuade their parents, that their parents will allow them to participate in the creation of the story, that Joel is fighting, and that their parents are trying to teach them.

**Ryan and Amy’s Relationship to Each Other:** Similarly, Ryan and Amy Green’s mental relationship to each other is multifaceted. Each assumes that the other is equally invested in the telling of the story and, importantly, each assumes that they are telling their children the same story, i.e., that they are using the guise of a knight versus dragon narrative to explain Joel’s illness to their children. Both tacitly agree to do so, and both agree that their Christianity will be used as an intermediary to help explain their sons’ confusion with why Joel’s illness is happening or how they can find meaning in tragedy. Each agrees, without discussing it diegetically, to use grace as a tool to navigate the difficult questions that inevitably arise. Additionally, though it is not evident in this particular scene, the reader who has played the game up until this point is aware that the two have reacted to Joel’s illness differently, but have agreed to set aside their differences for the sake of this story and (presumably) for the sake of their children. Amy reacts to Joel’s cancer by leaning heavily on her religion, praying and hoping for a miracle. Ryan, on the other hand, is dragged down by a feeling of depression and hopelessness (the subsequent chapter following “Joel the Baby Knight” is called “Drowning” and explores Ryan’s depression in greater detail). And yet, Ryan seems to have set aside his depression for the sake of his children in the telling of this story. Amy understands the façade that Ryan puts on in the act of this narration.

To summarize the mental embedments between the couple without needlessly repeating what has already been said about Zunshine’s Theory of Mind: Ryan assumes that Amy will participate in the story, that she agrees on the purpose (didacticism) and the theme (grace), and that she is aware of his willingness to and ability to set aside his hopelessness for the purposes of the story. Amy, in turn, mirrors Ryan’s mental suppositions while also acknowledging his attempt to move past his depression.

**The Children’s Relationship to Each Other:** The children are oddly ethereal in “Joel the Baby Knight.” Their image is reflected in the monitor of the virtual arcade cabinet and yet they are never given names. However, even given their sparse dialogue, Zunshine’s notion that third- level embedment is the baseline for fiction holds true. The reader-author relationship still applies here, and additionally each brother assumes that the other wants to hear a story, and that each’s contribution is a worthy addition. At no point does one brother contradict the other’s creative inclusion (though to do so would still not change the number of mental embedments).

*Theory of Mind and Video Games*

The complexity of *That Dragon, Cancer*’s cognitive and emotional requirements is evident from the examples thus far, and yet none of the above significantly differs from what could be done via novel or film. The final two mind-reading relationships mentioned, however, are unique to interactive fiction, and to video games in particular. How a player understands their relationship to his or her in-game avatar and their relationship to the NPCs that populate a virtual world complicates Theory of Mind in a meaningful way. This complication, I argue, is chiefly responsible for why video games are such effective autobiographical empathizers. Though one could point to Isbister’s understanding that video games can create a feeling of responsibility in the reader (and thus is responsible for the strong empathetic attachment), I argue that the reason for this responsibility lies in Zunshine’s Theory of Mind.

**The Player’s Relationship to Virtual Joel:** The chapter, “Joel the Baby Knight,” is unusual in that it is one of the few instances of the game where the player is not controlling one of *That Dragon, Cancer*’s autobiographical authors, Ryan and Amy. Instead, the player is embodied by a virtual Joel Green, who himself is being represented in a game-within-the-game. The player’s relationship to this avatar is an instance of self-mental embedment. The player is simultaneously themself as well as another (virtual) person; they must navigate their personal mental state as well as that of the avatar, a balancing act that is inextricable from the media of video games.

A typical video game creates an expectation, a backstory of the avatar that the player will control:

“*Metal Gear Solid* offers a character (Solid Snake) that is so well developed that he is, though largely formed by the game’s designers, a magnet for player projections. *Animal Crossing* and *The Elder Scrolls III: Morrowind* offer, in different ways, blank-slate characters for which the player can build a deeply involving life or history” (Gee, 25).

This is often done diegetically, although historically it was not uncommon for a character’s bio-historical information to be explained via extra-diegetic means, e.g., instruction manuals or supplementary materials. As James Gee notes above, some games claim to offer the player a tabula rasa, a blank character upon which he or she can construct an identity of their choosing. And yet even these instances come loaded with the social/cultural/historical implications of the virtual world they inhabit. For example, in the fantasy world of *The Elder Scrolls* games’ Tamriel (reminiscent of J.R.R. Tolkein’s Middle Earth), the player is instructed that they are allowed to construct any character they so desire. However, the very act of existing in Tamriel and *The Elder Scrolls* game engine means that the character already has a backstory. They are a resident of this world; they can be one of ten races, each with their own history and culture; they can be master one of eighteen different occupations or skills; they can marry certain characters, own certain homes, and adopt certain children. In short, though the games claim to allow a character to be built according to the whims and personality of the player, there are limits to what a player may do or be, and because of that, there is necessarily a historical, cultural, social, and often political aspect to *any* character in a narratively-driven game. Thus, whether a player controls a fully-fleshed fictional character or a blank slate, they are still being asked to balance what they (the player) wants and thinks and desires versus what the fictional character presumably would want, think and desire.

When considering the avatar of Joel the Baby Knight, the player is at once him or herself, Joel, the child who is dying of cancer, and Joel, the fictional brave fighter battling the mighty dragon. When control is handed to the player and they begin to enact the story being told, there must necessarily be a balancing act of how much or how little the player chooses to embody Joel’s mindset. Does the player choose to be a sickly Joel who cannot fight and who merely runs from the monsters? Does the player choose to embody Joel the brave knight who slays all the fictional enemies the game throws his way? Does the player choose an extra-diegetic roleplay, ignoring any diegetic prompts to continue with the story and instead focus on getting a high score? Regardless of which version a player chooses to embody, there must necessarily be a decision made which also necessarily creates an additional layer of mental embedment. To reiterate, Zunshine claims that all fiction requires no less than three mental embedments; the choice to (or not to) embrace the historical/cultural/social context of the player’s avatar dictates that there are no less than four embedments when considering video games as a form of interactive fiction.

**The Player’s Relationship to Virtual Ryan and Amy:** As mentioned previously, “Joel the Baby Knight” is a rare chapter in that the player does not control either Ryan or Amy, but instead presents the couple as NPCs, which makes for an interesting experiment in whether and how a player chooses to accept and interpret their story. This works because before a player virtually embodies a character in a video game world, their avatar already exists and therefore already has established relationships with the other characters that inhabit that world. This is similar to Zunshine’s idea that characters have motives, and that those motives are generally attached to other characters. The difference in video games, however, is that the player may, as with their avatar, choose to embrace or reject the pre-established relationships between characters in a way that may contradict the overarching narrative of the game. If I am told diegetically that a particular NPC is my best friend, I have the option to treat them as such. But I can also try my best to ignore them, to be rude to them, or even to cause them some kind of harm. Like the player-avatar relationship outlined above, the player-NPC relationship requires an additional level of mind-reading, further complicating Zunshine’s theory.

When it comes to the relationship between player, Ryan, and Amy, the player must decide how much of the autobiographical relationship he or she wishes to uphold. In the telling of their story via video game, Ryan and Amy give the player the opportunity to diegetically change or alter their virtual relationship. Though the couple appear happily married, there is nothing stopping a player from walking away from Ryan whenever he is talking, closing the door on him, or otherwise acting rudely. The player very literally role plays with the autobiographical aspects of the couple’s life. The willingness to accept or reject the relationship between Ryan and Amy (or any NPC), takes Zunshine’s mental embedments a step further and bumps the minimum required in a video game to five.

To recap: Zunshine argues that fiction “works” because we, the reader are capable of projecting and understanding the mental states of even fictional characters. She argues that there are at minimum three levels of mental embedment at all times: the reader-author relationship, the character’s mental state, and the character’s motives or understanding of those who also inhabit his or her fictional world. I go on to suggest two more levels required when considering the autobiographical video game: the player-avatar relationship (how do I want to translate my avatar’s desires?) and the player-avatar-NPC relationship (how do I want to translate how my character interacts with those who also inhabit this fictional world?) In *That Dragon, Cancer*, the player understands the reader-author relationship between Ryan and Amy Green and the player (the player assumes genre conventions, they assume a targeted readership); the player understands Ryan and Amy’s mental states (this is how they cope with tragedy); the player understands their mental relationships to each other (they are trying to raise a family together, trying to get along, etc.); the player embodies either Ryan or Amy, and thus must navigate the mental dissonance of the player’s goals with what their avatar wants; and finally, the player must navigate the mental dissonance of the player’s understanding of Ryan and Amy’s relationship to the other characters in the game.

*Conclusion*

In summary, video games are an exceptionally potent form of media for the presentation of autobiography because they, at their core, create a feeling of responsibility in the player which ultimately leads to a greater level of empathetic connection than typically occurs with other forms of media. A fictional or autobiographical text can incite feelings of sorrow, sympathy, joy, rage, or melancholy directed toward a particular character or event, but rare is the narrative that implicates the reader as being responsible for these emotions.[[2]](#footnote-2) Video games such as *That Dragon, Cancer* accomplish this feeling of responsibility by inviting the player to role play as a specific character in a specific situation. Because our brains work via grounded cognition and because our brains have difficulty parsing what is happening in the real world versus what is happening in a fictional world when playing a video game, players create a mental and emotional attachment to both the player-controlled avatar as well as the NPC characters that populate the virtual world. This emotional bond is strengthened because although traditional forms of fiction do ask a reader to empathize with and predict the mental state of fictional characters, video games ask us to *be* that character, to predict what is ultimately our own mental state. It is easy to see how mental conflation occurs. The player predicts what the avatar is feeling, and yet the player *is* that avatar. It is little wonder *That Dragon, Cancer* is an emotionally compelling and empathetic tour de force. And yet its strength as a compelling autobiography cannot be separated from the medium in which the story is told. All video games possess the characteristics outlined in this paper, and as such, the medium is especially well situated for the purpose of empathetic understanding of reader to author. Ishmael Obeah’s desire “to expose people to certain realities and … deepen their understanding of the other” seems to fit right at home in the medium of video game.

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1. For whatever reason, the children are never identified by name. As the Greens have more than two sons it is impossible to know who is speaking. [↑](#footnote-ref-1)
2. Personally, I disagree with Isbister when she makes the claim that only video games achieve this. I think it is distinctly possible, particularly on the political level, for a traditional text to create a feeling of guilt in a reader. [↑](#footnote-ref-2)