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An “other” experience of videogames: analyzing the connections between videogames and the lived experience of chronic pain

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AN “OTHER” EXPERIENCE OF VIDEOGAMES:

ANALYZING THE CONNECTIONS BETWEEN VIDEOGAMES AND THE LIVED EXPERIENCE OF CHRONIC PAIN

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For the Other gamers, I see and hear you.

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Disability Terms and Language

Throughout this dissertation, I use both "people with disabilities" and "disabled people" to refer to individuals with disabilities. People-first language (people with disabilities) can be useful in highlighting the person, whereas identity-first language (disabled person) can be useful in highlighting an identity marker if the person so chooses. As it is ultimately up to the individual to define themselves (or avoid definition altogether) by whatever they are most comfortable with, I include both linguistic preferences throughout my writing. When contextually accurate, however, terminology is adjusted to fit the preferences of the whatever community is being discussed. I generally avoid language describing people with disabilities as suffering from, being afflicted with/by, or as victims of, their situation, as it is not my place to define how another articulates their experience. Additionally, when referring to those without disabilities I use "non-disabled" over "able-bodied" or "normal," unless actively trying to express the problematic binary the latter terms enforce.

I do, however, still engage with more provocative terms to articulate aspects of a marginalized identity in a biopolitical system, such as "Other" and references to the body as "flesh." In this regard, I attend to the conceptual model of biopolitics through the theory of debility and capacity as done by Jasbir K. Puar's (2017b) in *The Right to Maim: Debility, Capacity, and Disability*. Debility and capacity uncover and reconnect underdeveloped disability conversations by referencing bodies that may still be debilitated regardless of if they are socially recognized or identify as such, as well as "bodies [that] may well be disabled but also capacitated" (p. xv). As noted by Puar, this is not done to dilute or diffuse "the identity rubrics of disability by suggesting all bodies are disabled to some extent or another," but rather to "illuminate the possibilities and limits of disability imaginaries and economies" (pp. xv-xvi).

Abstract

In this dissertation I argue for the connections between the lived experience of chronic pain and videogames, exploring what interacts with and influences them. To answer this, I draw on cripistemology as I engage in autoethnography, close-reading and close-gameplay, restorying, mixed methods design, formal interviews, surveys, and inductive coding. I further argue for pushing back against the unhelpful binaries that define the "human" and a false idea of "universal" experience or ability, instead pointing to the intersectionality that better reflects the biopolitics of disability, including both debility and capacity. I engage with these methods in three specific projects that consider additional sub-questions to further tease out why videogames have impacted me so deeply and how this ties to my identity as a disabled woman. I further offer this dissertation to highlight the growing research of lived experience and disability in the field of game studies, providing empirical data that offers a foundational look of how I as a member of the chronic pain community think and feel about videogames, as well as how a small portion of the chronic pain community discusses videogames and the range of experiences this encompasses. In doing so, I unpack and argue on the relationship that exists between chronic pain and videogames, and further articulate why this matters.

In Chapter 1 I provide necessary history and information regarding my research to better articulate the findings as presented in the following chapters. In Chapter 2, I analyze my connection to *Animal Crossing: New Leaf (AC:NL)* (Nintendo EAD, 2012) and explore opportunities about genre and mechanics as reflections of my own daily lived experience with chronic pain, especially including my experience in a 2014 pain rehabilitation program. Through this process, I define the "slice of life" genre and argue that *AC:NL* is exemplary of its markers.

In Chapter 3 I provide a deep reading and analysis of Nintendo's GameCube release *Chibi-Robo!* (Skip Ltd. et al., 2005) to "restory" the titular main character to have chronic pain like my own. Through the lens of debility and capacitation machines, I map these ideas onto the biopsychosocial model to organize a thorough analysis of his restoried identity. In modding the game's narrative to reflect a lived experience of chronic pain like my own, I interweave fanfiction with deep reading and deep gameplay to unpack what representation I am looking for in videogames both narratively and mechanically. In this I further argue how this practice can be used to inform future game design.

Finally, in Chapter 4, I interview members of the chronic pain community to understand their perspective on the connections between their lived experience with chronic pain and videogames, as well as how additional factors of their identity impact those experiences. For this I engage in a mixed methods design to conduct a survey and formal interviews to offer foundational work on how the chronic pain community interacts with videogames. I offer this project to intersect current research in chronic pain and videogames (and its related technology) that focuses on games as tools for "curing" pain, and argue the importance of considering what embodiment people with chronic pain already have in videogames instead.

Ultimately, I argue for the necessity to complicate current design practices in human centered design (HCD) and game design. To do so, I highlight the lived experience of Othered identities to combat misguided notions of "universal" intent. In this, I analyze the inherent connections between videogames and disability, in this case chronic pain, through embodiment and lived experience. I center in on how my experience of chronic pain has impacted the way in which I engage and think about with videogames, and further, how my experiences align with that of the chronic pain community

1. Introduction

1.1 Designing for the Human

What does it mean to be human? How simple or complex should this answer be? "Human" is a concept often described as though it is conceptually universal and unchanging. While indeed definitions exist, such conventional and normative descriptions of "human" have historically led to those who do not fit being forgotten, ostracized, ridiculed, and dehumanized. Those outside such definitions of human are thus not considered human; instead, we become "Other," the "monsters" in society. As Jeffrey Jerome Cohen (1996) articulates in the introduction of the anthology titled *Monster Theory: Reading Culture*:

> The monster is difference made flesh, come to dwell among us. In its function as dialectical Other … the monster is an incorporation of the Outside, the Beyond—of all those loci that are rhetorically placed as distant and distinct but originate Within. Any kind of alterity can be inscribed across (constructed through) the monstrous body, but for the most part monstrous difference tends to be cultural, political, racial, economic, sexual. (p. 7)

Not all will define different as Other, and not all who do will see the marker as negative, but systems of oppression undeniably facilitate and incorporate Othering to mask and retain control (Cohen, 1996; Puar, 2017b). For it is we as Other, we "[harbingers] of category crisis," that break the impossible mold of one singular human identity. We ooze out of the gaping wound that was always destined to fail in containing the liquid of "being" within its rigid, artificial walls (Cohen, 1996, pp. 7-9). What it means to be human cannot be defined by strict boundaries as it is an ever-changing fluidity that ebbs and flows for every individual defined by the experiences we live.

By this consideration, then, what does "human" in Human Centered Design (HCD) refer to? Unfortunately, it often reflects such restrictive definitions that result in the same structurally

intended separation. In many designs centered around the conceptual human, we see offensively simple, idealistic overpromising rather than the purported point of connection. Take, for example, Don Norman's (2013) explanation of universal design in *The Design of Everyday Things.* Under the header "Designing for Special People" Norman begins by claiming that "There is no such thing as an average person. [which] poses a particular problem for the designer, who usually must come up with a single design for everyone" (p. 243). He goes on to say that "Designing for people with special needs is often called *inclusive* or *universal design.* … for it is often the case that everyone benefits" (p. 246). Beyond Norman's exclusion of the word "disability," instead opting for "special" reflecting a lack of interaction with both disability scholarship and the community, this understanding of universal design misses a crucial point in the meritocratic system of our society. Namely, when a design originally intended for a marginalized community is marketed as beneficial to all, those with higher social status will always take precedence (DeAnda and Straznickas, 2023; Puar, 2017b).

The distinct separation of those with disabilities from "everyone" in a paradoxical attempt to unify continues in other human centered fields, such as Human Computer Interaction (HCI). For example, in their textbook *Research Methods in Human-Computer Interaction*, Jonathan Lazar et al. (2017) offer a thorough chapter about recruiting participants with disabilities. They note that while including participants with disabilities can be "intensive," it is important as "research that leads to improved interface and design experiences for people with disabilities may eventually lead to interfaces that are better for the general population!" (p. 495). People with disabilities are once again positioned outside of the general population. In doing so, there comes an implication that to design for the Other is only worthwhile if it neoliberally benefits the strictly defined human.

I present this reflection not to shame optimistic designers in HCD and other human centered fields, but to highlight the necessity in designers confronting the normative biases perpetuated by, and for, oppressive structures. Failure to do so results in further Othering as designs with the intent to solve exclude any reference to the culture and biopolitics that necessitate them. We see a pertinent example of this in the simulations designed to recreate Othered experiences for those outside such experiences to choose to unauthentically exist within for a short period of time. Namely, I critique the design of disability simulations, as done by scholars before me like Cynthia Bennett and Daniela Rosner (2019), Ashley Flower et al. (2007), Michelle R. Nario-Redmond et al. (2017), and Tanya Titchkosky et al. (2019). Though I exemplify the design of disability simulations specifically, it must be noted that designs to facilitate such masquerades as the Other are not unique to disability nor disability simulations and have long been engaged in a multitude of ways for a multitude of Othered identities (hooks, 1992; Nakamura, 2002, 2020). As expressed by bell hooks (1992): "one desires a 'bit of the Other' to enhance the blank landscape of whiteness" (p. 29), and this desire leads to "The over-riding fear … that cultural, ethnic, and racial differences will be continually commodified and offered up as new dishes to enhance the white palate—that the Other will be eaten, consumed, and forgotten" (hooks, 1992, p. 39).

Despite a lack of empirical evidence and countless critiques, disability simulations still seek a taste of disability under the guise of universal results and fostering empathy (Flower et al., 2007; Kiger, 1992). As articulated by scholars like Bennett and Rosner (2019), empathy alone without context does not inherently allow designers to recognize the intersectionality that engages it. Rather, it can encourage a divide by positioning the designer as *empathizer* and the Other as the *empathized* (Bennett and Rosner, 2019). As Saidiya Hartman (1997) writes

regarding documentation of the Transatlantic slave trade, "it becomes clear that empathy is double-edged, for in making the other's suffering one's own, this suffering is occluded by the other's obliteration" (p. 20, as cited in Bennett and Rosner, 2019). Here we see a reflection of hook's (1992) articulation on the Other becoming consumed and forgotten. To consume the Other does not provide insight into the Othered experience. To combat this pitfall specifically in design, Bennett and Rosner (2019) argue "for letting go of empathy as an achievement—something to build, model, or reach within design" instead "[suggesting] that what it takes to 'be with' someone should come before what it takes to 'be like' someone" (p. 2). Disability simulations perpetuate the damaging pursuit of "being like" without any intent of "being with."

We see the damage of such practices of as designers deem an artificial taste equal to true Othered experience. For example, we see this in a design from a multidisciplinary team at HGA Architects and Engineers called "Empathy Effect," a virtual reality (VR) experience implemented to replicate how advanced age and its "ailments" impact movement (Risen, 2017). The result, as one of the lead designers Jonathan Bartling explained, "is a tool that he hopes will transform the way that architects and other designers think about the spaces they build—not just for an ideal user, but for all users. 'You can guess what a person's experience is,' he says, 'but seeing it with your own eyes is a profound experience'" (Risen, 2017). Here, not only does this simulation once again strangely separate the "disabled user" from the "ideal user," but actively excludes the Other in favor of feasted on a flawed reproduction of their experience.

Rather than leading to any "universal" position of understanding and design, these practices attempt to "be like" the Other through consumption and obliteration. In it, we see what Lisa Nakamura (2002) calls *identity tourism,* rather than connection. As Nakamura (2002) explains:

> Like tourists who become convinced that their travels have shown them real "native" life … identity tourists often [take] their virtual experiences as other-gendered and other-raced avatars as a kind of lived truth … [exemplifying] the consumption and commodification of racial difference. (p. 14)

In this dissertation, I join the many scholars in disability studies before me, like Alison Kafer (2013), Nario-Redmond et al. (2017), Bennett and Rosner (2019), and Titchkosky et al. (2019) to name a few, to argue against such loose attempts to foster empathy in design and, like them, ask that we highlight true lived experience instead. Rather than consume the Other, we must *be with* the Other. In further consideration of this, I bring Nirmala Erevelles's (2011a) reconstruction of "feminist poststructuralist Judith Butler's question: 'Which bodies matter, and which bodies are yet to emerge as critical matters of concern?'" wherein Erevelles instead asks: "Why do some bodies matter more than others?" (p. 6).

In the following chapters of this dissertation, I unpack my lived experience of disability and chronic pain through my passion for videogames and game design. I do so to push back against the identity tourism and consumption of disability in design and to reflect the ways our disabled, debilitated, and even capacitated bodies and experiences are necessary primary sources. I evoke Sharon Snyder and David Mitchell (2001) by engaging literature and art, in my case videogames and design, to narrate the experience of my chronic pain, and the chronic pain of others in Chapter 4. I offer my work to the growing collection of scholarship focused on sharing lived experience, and to the scholarship highlighting the validity of more accessible research methods to better engage with Othered identities outside the limited, and intentionally restrictive, bubble of academia. In all of this I argue that the lived experience of the Other, as shared by the Other, is a necessary combatant as we "harbingers of category crisis" complicate the damaging normativity of design. To provide a concrete and clear analysis, however, I must first offer brief background information on the fields and ideas with which I engage. I organize the following

information as such: Disability, Debility, and Capacity; Connecting Disability and Videogames; Organization; and Researcher Positionality.

1.2 Disability, Debility, and Capacity

In this section, I introduce the context necessary to understand disability as I engage with it throughout this dissertation. Before moving forward, it is important to recognize that current disability scholarship is a heavily Western European and North-American white-dominated field (Goodley et al., 2019). A stark example of this comes from Julie Livingston's (2006) account of debility in southeastern Botswana. Even when disability is recognized by the structural oppression that defines it, Euro-American concepts such as the "notion of individual selfhood, complete with an individually bounded body that is itself a social construct" are still deeply imbedded into disability scholarship (p. 113). This, as Livingston (2006) explains, makes even accurate translation of the word "disability" into other languages like Setswana difficult, hence Livingston's use of debility as the closest approximation instead. Both intentional and unintentional factors such as these further limits the inclusion of perspectives on disability and debility outside Euro-American culture regardless of similarities present (Livingston, 2006).

Additionally, any attempt at unpacking disability or its political economy without acknowledging its intersectionality would both be untrue to disability, and a disservice to previous scholarly work. While some influential disability scholars have only hinted at the interconnections between disability and other systems (Morris, 1991; Oliver, 1990; Russell, 2002; Thomas, 1999), others have unpacked specific examples of disability and its complex relationship with other factors such as race (Alexander, 2020; Erevelles, 2011a, 2011,b, 2014; Erevelles & Minear, 2010; Puar, 2017b;), education (Connor, 2007; Harry & Klingner, 2022),

feminism (Garland-Thomson, 1997; Morris, 1991; Smith & Hutchinson, 2004; Wendell, 1996), queer theory (Kafer, 2013; McRuer, 2006; Patsavas, 2014; Puar, 2017b), and so on. Thus, as Erevelles (2011a) argues in *Disability and Difference in Global Contexts:*

> [in weaving] together each of these different strands of scholarship [we can] situate disability as the central analytic, or more importantly, the ideological linchpin utilized to (re) constitute social difference along the axes of race, gender, and sexuality in dialectical relationship to the economic/social relations produced within the historical context of transnational capitalism. (p. 6)

Ultimately, then, when regarding disability scholarship it is necessary to consider how the homogeny of its history in a Western European and North-American white-dominated culture has impacted the theories it presents. In doing so, we must work to rectify the ways scholarship has failed to reflect on the biopolitics and intersectional assemblages of disability even when constraints may necessitate focus on specific elements or identity markers within a given discussion. To attend to this, I do not define disability by strict boundaries of what it is and what it is not. Much like the conceptualization of the human, disability is also "a fluid and labile fact of embodiment" (Bérubé, 2005, p. 570). Thus, I take my direction from Erevelles (2011a) in "shifting the tenor of the discussion from description to explanation" through her alteration of the question on *which* bodies matter to *why* some bodies matter more (p. 6), along with Jasbir K. Puar (2017b) and Snyder and Mitchell's (2015) reflections of the biopolitical systems at play to avoid description of what disability *is,* and instead offer explanation for how disability is *produced.*

The Medical and Social Models

To begin, I introduce the medical and social models often referenced in disability scholarship (see Table 1). The medical model of disability, often criticized for its root in

"histories of ableism," is a framework that claims impairments and or disabilities as the causes for the disadvantages a disabled person faces (Kafer, 2013). It highlights the non-disabled/disabled binary, pushing a non-disabled body achieved through medical intervention as the ideal for the disabled body. In this, it fails to reflect on debilitation and capacitation within its understanding of disability. As Erevelles (2011a) notes, however, the medical field acts as both "a daunting adversary yet a necessary ally" for many (p. 2). In this regard, while the medical model demands critique, not all medical intervention and treatments may always be seen as inherently the same.

Alternatively, the social model presents disability as a resulting construct from the social and physical barriers against those with impairments and disabilities (Terzi, 2004). It was introduced as a necessary combatant to the medical model wherein "theorists of the body sought to invert the traditional power dynamic of the medical gaze by situating the institution, in place of the body, as an object of scrutiny … the gazer became the gazed upon" (Snyder and Mitchell, 2001, p. 370). In this framework, the disadvantages disabled people face are attributed to social construction and systems of oppression. While favored in comparison to the medical model, it has often been critiqued for removing agency from people with disabilities by relegating us and our experiences to simply collateral of a social byproduct (Terzi, 2004). In many ways, the social model has also been utilized to highlight disability pride as a form of empowerment despite only some having the capacity to see and experience it as such (Puar, 2017b). While an important push back against the constraints of its predecessor, the original intent behind the social model has defined its lack of attendance toward the necessarily complex biopolitical web that is disability, debility, and capacity.

Table 1: A Comparison of the Medical Model vs. the Social Model of Disability

Medical Model	Social Model
- impairments and or disabilities are the causes for the disadvantages a disabled person faces. - Disabilities cause a person to be "broken" and should be cured, or "fixed"	- disability is a resulting construct from the social and physical barriers against people with impairments and disabilities. - the disadvantages a disabled person faces are attributed to social construction and the system of oppression

Debilitation, Biopolitics, and Neoliberalism

In understanding the oppressive structures that produce disability, Snyder and Mitchell's (2015) articulation of the biopolitics of disability, and Puar's (2017b) inclusion of debility and capacity becomes necessary. Puar (2017b) utilizes debility to uncover and reconnect underdeveloped disability conversations by referencing bodies that may still be debilitated regardless of if they are socially recognized or identify as such, as well as "bodies [that] may well be disabled but also capacitated" (p. xv). As noted, this is not done to dilute or diffuse "the identity rubrics of disability by suggesting all bodies are disabled to some extent or another," but rather to "illuminate the possibilities and limits of disability imaginaries and economies" (Puar, 2017b, pp. xv-xvi). Disability and debility are not opposing forces, but instead are both aspects of "an economy of injury that claims and promotes disability empowerment at the same time that it maintains the precarity of certain bodies and populations precisely through making them available for maiming" (p. xvii). Regarding, then, a combined consideration of Snyder and Mitchell's (2015) biopolitics of disability, and of debilitation, Puar (2017b) summarizes:

> The biopolitics of debilitation thus situates disability within formulations of risk, calculation, prognosis, and statistical probability, whereby disability is understood not as a phenomenological essence, identity, or a personal attribute, but as risk coding, as an embedded aspect of biopolitical population management. (pp. 72-73)

To further consider this idea of debility and capacity, I offer a passage from Snyder and Mitchell's (2001) article "Re-engaging the Body: Disability Studies and the Resistance to Embodiment." Here, they highlight an allegorical connection of the non-disabled/disabled binary in Lord Byron's final, unfinished play from 1822, *The Deformed Transformed.* In this example, they articulate Byron's critique of what they define as a "narrative prothesis."

> *The Deformed Transformed* (1822) tells the story of Arnold, who endures social derision for his multiple disabilities. The social context of Arnold's oppression is the primary subject matter of the drama. Arnold's initial critiques of social intolerance quickly give way to his own sense of his disabled body as grotesque. Byron's hero opts for suicide in order to escape his torment. Just as Arnold is about to impale himself, a "dark" Stranger arrives with an offer: the exchange of his disabled body for the apparently ideal—but actually flawed—body of the Greek war hero, Achilles. Arnold jumps at the opportunity, even though he believes that he must barter away his soul in exchange … After transforming the "deformed" Arnold's body into the shape of Achilles, the Stranger announces that he plans to accompany the protagonist while taking the form of his rejected body. The "deformed" body thus shadows the "ideal" body's pursuit of an unrestricted physical life … In the end, Arnold's acquisition of an "ideal" body gains him little more than an insufferable ego and an obliviousness to the existence of diverse bodily forms across human populations.

As Snyder and Mitchell (2001) explain, Byron's work reveals "the dependence of epistemological operations (and heroic traditions) on disabled bodies: the able body cannot solidify its own abilities in the absence of its binary Other" (p. 368). Simply put, there is no "able" body without first a "disabled" body. A narrative prothesis, then, points to the ways in which a non-disabled body becomes the goal and climax of countless stories and supposedly heroic journeys. Forming a new binary of "exceptional accident and triumphant rehabilitation" the narrative prosthesis acts as "a prosthetic to the operations of capitalism" (Puar, 2017b, pp. 85-86). By way of its prosthetic, capitalism pushes rehabilitation as the climax, a non-disabled body the aspiration, all while obscuring continued debilitation in a narrative that is normalized rather than concluded (Puar, 2017b, pp. 85-85). Debility, thus, acts both to disrupt and

supplement the non-disabled/disabled binary as the intended result in the biopolitical management of disability.

I provide this limited summarization of debilitation and biopolitics to contextualize the social structures at play as I share my lived experience of disability and chronic pain. I do so to highlight the reality that while all disability experiences are unique, biopolitical oppressive structures intentionally debilitate and capacitate. While indeed my lived experience is my own, it is important to provide this baseline understanding of how my situation may be more capacitated or debilitated than others. I do so not for the purposes of comparison, but rather for a deeper structure of understanding.

Lived Experience, Cripistemology, and Chronic Pain

Historically, through the medical model "the sole authorized narrative of illness [has been told by] the physician's account" (Morris, 2000, p. 251). This prescribes a narrative prosthesis that disregards the vast ways in which individuals experience disability. As I engage with the production and explanation of disability over description, I utilize my lived experience to expand and necessarily personalize my research. In this decision I gravitate towards the argument that "To narrate a phenomenology of the body requires an approach that can capture its defining elasticity—not as an established fact, but rather as a mutable, temporal, 'first-person' organism. Such is the domain of literature and art." (Snyder and Mitchell, 2001, p. 382). As Snyder and Mitchell (2001) further explicate, "It is in the performances and writings of disabled artists that disability studies has been able to return to a phenomenology of the body—not in the theoretical formulations of disability studies proper" (p. 382).

Thus, in this dissertation it is through the fluidity of lived experience that I navigate disability and engage with how it flows through the cracks of life, both guided by, and carrying with it, the debris of its biopolitical structure. By doing so, I draw on cripistemology, a term coined by Merri Johnson and Robert McRuer (2014) as a name to this exploration of "the critical, social, and personal position of disability" while also expanding "the focus from physical disability to the sometimes-elusive crip subjectivities informed by psychological, emotional, and other invisible or undocumented disabilities" (Johnson & McRuer, 2014, p. 134). Additional scholars have expanded upon the definition of cripistemology, such as Alyson "Aly" Patsavas (2014) who argues "for a queercrip understanding of pain as a fluid, relational, . . . and leaky experience that flows through, across, and between always-already connected bodies" (p. 213), along with "situating pain within discursive systems of power and privilege" (p. 205). It must also be noted that cripistemology comes from a combination of the words "crip" and "epistemology." The terms "crip" and "cripple" have historically negative, and in many cases painful, connotations (Rahman, 2019). While there have been efforts within the community to reclaim this terminology, not all are comfortable with it. While I engage with the term academically, that is not to say I am immune to the painful history of it, or what it evokes when used with the intent to harm. Regardless of the resulting decision, individuals should consider their use of the word "crip" or "cripple" prior to engaging with it even in academic contexts (Rahman, 2019).

For my research I specifically enlist my experience of full-body chronic pain as my main point of lived disability experience. As with my resistance in defining disability by irrelevant measures, I will not define chronic pain by any strict definition beyond the necessary guideline set to situate a timeline for "chronic" in Chapter 4. Pain, at its core, is a feedback system. Not

only are there multiple kinds of pain, but there are multiple reasons for why someone might be in pain, especially chronically. Comorbidities further complicate the conversation when the "source" or "cause" of the pain is unknown, though this also relies on the assumption that a catalyst to the pain can even be "separated" and "cured." As such, definitions of chronic pain are generally implemented to direct diagnosis and treatment, resulting in multiple medical sources having varying descriptions. While description is not the intent of my work, I do refer to The World Health Organization's (WHO) International Classification of Diseases (ICD-11) for their definition of "chronic pain" as pain persisting for at least three months (Treede et al., 2015). In this regard, I choose to define "chronic" rather than pain to provide a loose baseline as necessary in Chapter 4.

While some experiences of chronic pain may be attributed to a diagnosis, not all diagnoses are equally researched, nor do they all come with notable treatment options. Unfortunately, Western societal expectations of a proper diagnosis for legitimacy demands that many with chronic pain desperately search for an answer that very well may not exist, assuming they are even capacitated to do so (Morris, 2000, p. 71; Puar, 2017b). Despite this cultural and societal demand to "know what you have," in many cases, such as my own, "knowing what I have" does not necessarily result in better care. Even further, ever changing descriptions for diagnoses can result in a previous diagnosis no longer "fitting" an individual's experience. Thus, I choose instead to define chronic pain by the experience of it, rather than a description of what it must be.

1.3 Connecting Disability and Game Design

While much of my research focuses on discussion of disability, disability scholarship, and biopolitics, I narrate and analyze my lived experience of chronic pain through videogames. In my work, I both explore, and argue for, the connections between pain and videogames. My exploration echoes Bo Ruberg (2019) in *Video Games Have Always Been Queer,* wherein they express they do not want "simply to *do* queerness to games . . . but instead to argue that queer experiences can already be found operating within games" (p. 62). In my case, I connect disability to games through chronic pain, arguing that the two are more intertwined than previous scholarship has addressed. I do not simply want to *do* disability in games, but to explore how disability is already present in games, and how it operates. To better understand the context with which videogames and disability have often been discussed, as well as how I interweave the two, I must first provide a brief reflection of game scholarship.

Play, Videogames, and Embodiment

My position in the definition of videogames echoes my previous direction; rather, I am less interested in strictly defining what videogames *are*, and instead want to explore what videogames *do,* mechanically, culturally, experientially, and beyond. To best articulate my standing, however, it is necessary to briefly contextualize the scholarly direction historically taken in the effort to define play, games, and later, videogames.

Johan Huizinga's (1938) is one of the commonly cited scholars in the modern study of play, especially for his book *Homo Ludens*. In his work, Huizinga argues that "Play is older than culture" and that "animals have not waited for man to teach them their play," noting that play itself transcends being simply any physiological or psychological phenomenon. I offer Huizinga's (1938) formal definition of play in full below:

> a free activity standing quite consciously outside "ordinary" life as being "not serious", but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner. It promotes the formation of social groupings which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means. (p. 13)

He further adds that "the function of play" can be attributed as either "a contest for something or a representation of something" (p. 13). Other scholars have worked to expand upon Huizinga's ideas, such as Roger Caillois (1958) in *Man, Play and Games*. Here Caillois critiques Huizinga's definition as both "too broad and too narrow" instead defining play as the following: free, separate, uncertain, unproductive, governed by rules, and make-believe. Unlike Huizinga, however, Caillois (1958) categorizes types of play beyond "function" and rather into the "characteristics" of the games often created by them (see Figure 1).

	AGÔN (Competition)	ALEA (Chance)	MIMICRY (Simulation)	ILINX (Vertigo)
PAIDIA ↑	Racing, Wrestling, Etc. } not regulated	Counting-out rhymes	Children's initiations	Children "whirling"
Tumult	Athletics	Heads or tails	Games of illusion	Horseback riding
Agitation			Tag, Arms	Swinging
Immoderate laughter			Masks, Disguises	Waltzing
	Boxing, Billiards	Betting		Volador
Kite-flying	Fencing, Checkers	Roulette		Traveling carnivals
Solitaire	Football, Chess			Skiing
Patience				Mountain climbing
Crossword puzzles	Contests, Sports in general	Simple, complex, and continuing lotteries*	Theater Spectacles in general	Tightrope walking
↓ LUDUS				

N.B. In each vertical column games are classified in such an order that the *paidia* element is constantly decreasing while the *ludus* element is ever increasing.

* A simple lottery consists of the one basic drawing. In a complex lottery there are many possible combinations. A continuing lottery (e.g. Irish Sweepstakes) is one consisting of two or more stages, the winner of the first stage being granted the opportunity to participate in a second lottery. [From correspondence with Caillois. M.B.]

Figure 1. Caillois's Classification of Games

As noted by Mary Flanagan (2009) in *Critical Play: Radical Game Design,* we see clear themes in such scholarly attempts to define play:

> Most anthropologists and historians agree that play is central to human and animal life; is generally a voluntary act; offers pleasure in its own right (and by its own rules); is mentally or physically challenging; and is separated from reality, either through a sanctioned play space or through an agreed upon fantasy or rule set. (p. 5)

Understandably, these concepts become even more complex as videogames are introduced. Videogames have similarly undergone scholarly consideration regarding definition and identification, with some scholars such as David Golumbia (2009) pushing back against the assumption that all videogames are strictly games, and that all are interacted with through play, by default. In "Games without Play" Golumbia (2009) provides the example of *World of Warcraft* (*WoW)* (Blizzard Entertainment, 2004) to highlight this argument, asking how interaction with the game's structured, consequential world, that which is focused on individual gains and exists without demanding any suspension of social rules, truly qualifies as "play" given that it offers an experience, as Golumbia argues, nearly opposite its definition (p. 201). While an important conversation, I intentionally focus my argument on what videogames *do* beyond definitions of what they are, including whether they are all games that we play with by default or not. By this standpoint, I now shift away from broader definitions of play to instead relay more specific conversations of embodiment in videogames.

Countless scholars before me have considered the idea of embodiment as it exists within and through videogames (Farrow & Iacovides, 2012; Gee, 2008; Keogh, 2018; Klevjer, 2022; Pozo, 2018; Ruberg, 2019; Shaw, 2014; etc.). James Paul Gee (2008), for example, takes particular interest in cognition and mental processing within videogames. Gee explains that games can reveal much about human mental processing and problem solving and argues that in

some specific cases of gameplay a player's goals merge with their virtual avatar's goals and vice versa. In *A Play of Bodies: How We Perceive Videogames* Brendan Keogh (2018) further argues on embodiment as a presence within *all* gameplay expressing that "Videogame play is a complex interplay of actual and virtual worlds as perceived through a dually embodied player" (Keogh, 2018, p. 55). Rune Klevjer (2022) further defines this relationship between player and avatar as "a prosthetic" wherein simulation "acts as a mediator of the player's embodied interaction with the gameworld" (p. 22). As Klevjer explains, the "avatar becomes an extension of the player's own body" facilitated by "a process of learning and habituation" through technology and features of the game, resulting in "the player [incorporating] the computer game avatar as second nature, and the avatar [disciplining] the player's body" (p. 22). Embodiment both facilitated and experienced within videogames stretches a wide array of concepts and bodily responses, but at its core reflects the relationship between videogame and player. This idea, especially when paired with terms like "prosthetic," creates an interesting intersection of disability and videogames we can explore. In that regard, it is important to consider the design of these "prosthetics," especially given the extensive variation in bodies.

The Cultural and Physical (In)Accessibility of Games

Christopher A. Paul (2018) points to the meritocratic systems that have been built into most games as one aspect for the incredibly toxic and oppressive gaming culture of today. In much of the world's publicized culture, merit based on personal skill and growth is highly valued. This mindset, however, fails to recognize that all members of our society do not start on an equal playing field (DeAnda and Straznickas, 2023). To echo Puar (2017b), oppressive structures debilitate, making growth of particular skills impossible for some, meaning that to

assume individuals "just aren't working hard enough" when compared to a more privileged and/or capacitated person is unjust. We see this same meritocracy in the "get good" mentality of gaming culture. Rather than consider the unlevel playing field, many assume those who appear less efficient in a game are simply "not working hard enough." Furthermore, many of these same people approach games as though the sole purpose is to gain skills within them. These meritocratic viewpoints often destroy potential interest in games from less privileged identities.

David Parisi (2017) connects many of these ideas in gaming towards the discussion of disability and game interfaces. In discussing the biopolitical role of a gamer, Parisi (2017) quotes German media theorist Claus Pias's explanation that games reflect the compatibility of human and machine, and thus, humans must be able to function as a part of the machine to "pass." Parisi combats Pias's understanding with The AbleGamers' mission, and notes that they flip the script by saying, "it is not the player who fails . . . but, rather, the machine that fails the test of its compatibility with the player." This counterargument highlights the reality that most games are built from a normative model of human body ability. Thus, when considering the embodiment of player and avatar through the prosthesis of what the videogame provides, we must also factor in how the success of this prosthesis varies among players.

We see a clear combination of meritocracy, a normative model of human body ability, and prosthesis compatibility in the game playing community through the example of the "easy" vs. "hard" mode argument. Many with privileged and capacitated perspectives will argue that those who play on "easy mode" aren't "real" gamers and do not get the "full" game experience. Such an argument assumes the feasibility of a universal play experience that can only be achieved through *exceptional* compatibility with the system *by* the player. Those with such perspectives fail to recognize that if the game was designed with an "easy" mode, then that is

also a “correct” way to play. People of this perspective additionally do not consider that a game does not have to be played “correctly” to be embodied. Instead, these perspectives push “hard” mode as the singular “right” way to play, similarly feeding into the idea of what a gamer “should be.” For many, such binaries and toxic masculinity in gaming have impacted how they embody games even more than their compatibility with prosthetics. For example, in exploring how Othered players viewed representation, Adrienne Shaw (2014) found that “representation was not necessarily important to members of a marginalized group simply because they were members of marginalized groups” (p. 196). Instead, representation must offer “a diverse view of the world” rather than diversity for diversity’s sake (Shaw, 2014, p. 197).

While indeed certain designs will not be compatible for certain players, there is an interesting discussion to be had for the embodiment that occurs even when the prosthetic is not a perfect fit. By that account, I ask what other aspects of a design facilitate embodiment when technology fails to provide a seamless blend? To further explore this question, I offer the example of Nintendo and the games and systems the company designs.

Nintendo and Shigeru Miyamoto

To introduce Nintendo, and necessarily Shigeru Miyamoto, I offer a reflection of the gameplay in the iconic *Super Mario Bros.* (Miyamoto et al., 1985), as co-authored by Michael A. DeAnda and myself, Gracie Straznickas (2023):

> The first few seconds in *Super Mario Bros*., a well-known platformer video game designed by Shigeru Miyamoto, sets the expectations for gameplay. Practicing low-stakes tasks prepares players for future challenges, which test their ability to apply their skills. The gameplay embodies a meritocratic process where skill is developed from trial and error until players can pass the level. Smaller challenges teach players the game mechanics before increasing in difficulty, culminating in a major challenge that tests the player’s ability to apply their knowledge of gameplay to pass the level. (p. 27)

While not an entirely new concept, Miyamoto's inclusion of scaffolding, or the "learning process of building upon familiar concepts, either from learning environments or from lived experience," was part of what made, and continues to make, his designs so legendary (DeAnda & Straznickas, 2023). As Miyamoto continued to have a hand in some of the most influential videogame franchises of our time including *Super Mario* (Miyamoto et al., 1985-2021), *The Legend of Zelda* (Nintendo EAD et al., 1986-2023), and *Donkey Kong* (Miyamoto & Nintendo, 1981-2023), and further in the creation of the company's hardware and software, his design practices are not easily separated from the success of Nintendo (Dewinter, 2015).

As reflected by Jennifer Dewinter (2015) Miyamoto notes a few practices that guide his work: a connection to childhood and joy, "the influences of nature and the natural world, and a design to share a common feeling—*kyokan*—" creating closeness between designers and players, and players with the game experience (pp. 1-2). Whereas other designers often turn experiences into systems, Miyamoto argues that game systems should not only consider core mechanics, but also hardware (Dewinter, 2015, p. 58). As Miyamoto explains, "Nintendo's focus is to break down the barriers between [hard-core and casual gamers] and consider everyone just gamers" with the intent to "create games with a universal appeal" (Sayre, 2007). Notably, these words echo the impossibility and problematic nature of universal design I argue against at the start of this introduction. I do not intend to craft a hypocritical argument, and do not defend his position, but rather argue that Miyamoto and Nintendo's designs create such massive appeal not through the success of any attempt to reach all experiences, but rather accomplish it through highlighting embodiment, and by extension lived experience, above all else. The failed compatibility of technology to player that Parisi (2017) discusses may indeed impact a player's embodiment within a game, but I argue that Nintendo partially sutures some of this disconnect through its

design focus of both hardware and software. While perhaps not always the height of embodied experiences, there comes a consistency in this design practice. Consistent embodiment allows for lived experience to bleed into the game, making the game feel that much more personal for multiple players inducing a "universal" feel.

A direct example of this design practice is seen in Nintendo's systems and controllers, like the Wii and its remote. The Wii Remote, or colloquially known as the Wiimote, "translates somatic movements onto a video screen" (Millington, 2009, p. 623). In the series "Iwata Asks," then president of Nintendo, Satoru Iwata, interviewed integral members of the company, often for insights on design decisions (Nintendo, 2006-2013). In the "Iwata Asks" interview titled "Wii Remote," Iwata discusses the design of the Wii's controller with Genyo Takeda, Kenichiro Ashida, Akio Ikeda, and of course, Shigeru Miyamoto (Nintendo, 2006). Here, we get insight from general manager Ikeda that the controller was meant to be "usable by anyone, and that it shouldn't be seen as an enemy," and from industrial designer Ashida on how he had "never encountered ID [industrial design] so closely connected to software until [starting] at Nintendo" (Nintendo, 2006). Through the interview, Miyamoto provides insight on his thought process behind these factors. He reflects on his background as an industrial designer who "didn't make it," and how that changed his perspective on design. He notes that this is what led to his recommendation in hiring developers with a background in ID as they "actually use their hands to create things, and this gives them a firm creative grounding" (Nintendo, 2006). He goes on to say that when he began his work with Ashida on the Super Nintendo Entertainment System (SNES) and its controller, he was strongly considering what "Nintendo design" was. He details that that became a reoccurring theme up until the Wii where he felt they finally overcame the debate of whether hardware or software should come first.

In the example of the Wii Remote, Miyamoto and Nintendo were tasked with convincing players to try a new prosthetic notably different from that which provided the embodiment they were used to. Regardless of one's opinion on the success of the Wii or its controller, its design was driven by Miyamoto's considerations of both hardware and software, and ultimately a focus on embodiment. By that consideration, it is not necessarily surprising that the two games I gravitated towards for research on my lived experience and embodiment in videogames were both ones Miyamoto had a hand in.

1.4 Organization

Above, I introduced the conversation of binaries, whether it be that of the human/Other, good/bad, non-disabled/disabled, or even the hard-core/casual gamer. I have done so to highlight the results of such binaries like the narrative prosthesis, and further, to articulate my decision to explore *why* rather than to describe *what* regarding the bodies that matter less and, in this case, disability. I briefly unpacked the concepts surrounding the biopolitics of disability, including an articulation of debility and capacity and the intersectional assemblages surrounding it. I provided this background to situate the position of my research in lived experience, as well as to highlight why my focus on qualitative and narrative based study provides necessary input for my field. I articulated that beyond passion, my reason for narrating my lived experience of chronic pain through videogames comes from the art they offer and the embodiment they engage. With this focus on embodiment and game design, I covered Nintendo and Shigeru Miyamoto, as I argued their design practices highlight embodiment above all else.

In this dissertation, then, I argue for the connections between the lived experience of chronic pain and videogames, exploring what interacts with and influences them. To answer this,

I draw on cripistemology as I engage in autoethnography, close-reading and close-gameplay, restorying, mixed methods design, formal interviews, surveys, and inductive coding. I further argue for pushing back against the unhelpful binaries that define the "human" and a false idea of "universal" experience or ability, instead pointing to the intersectional assemblages that better reflect the biopolitics of disability, including both debility and capacity. I engage with these methods in three specific projects that consider additional sub-questions to further tease out why videogames have impacted me so deeply and how this ties to my identity as a disabled woman. The goal of this project is to add to and highlight the growing research of lived experience and disability in the field of game studies, providing empirical data that offers a foundational look of how I as a member of the chronic pain community think and feel about videogames, as well as how a small portion of the chronic pain community discusses videogames and the range of experiences this encompasses. In doing so, I unpack and argue on the relationship that exists between chronic pain and videogames, and further articulate why this matters.

To better understand my work as I engage with disability and game studies, I necessarily include other points of reason and ideas from various studies to better attend to the intersectional realities of disability. Specifically, I call upon additional conceptualizations and conversations of cisheteronormativity and socially constructed gender binaries along with questions of equality, equity, and normativity as done by scholars like Ruberg (2019), McRuer (2006), and Donna Haraway (2006). I consider additional discussions of race, especially in its intersectional connection to disability, as scholars like Erevelles (2011, 2014), Puar (2017b), and Ebony Thomas and Amy Stornaiuolo (2019) do. I look to conversations of embodiment, both of the internal self and of the presented self, and what intersections lie within those identities as inspired by scholars like Caél M. Keegan (2016, 2019), micha cárdenas (2022). I further take

into consideration media representation of the Other as discussed by scholars like Sherry Turkle (1995), Shaw (2015), and Amanda Phillips (2018), as well as the meritocratic systems imbued in our society and design as expressed in works like that of Puar, (2017b), and Paul (2018).

In Chapter 2, I consider my lived experience with chronic pain alongside my experience playing *Animal Crossing: New Leaf (AC:NL)* (Nintendo EAD, 2012) to note opportunities about genre and mechanics as reflections of my own daily lived experience. I offer an autoethnographic deep-dive into my experiences with playing *AC:NL* and going through a pain rehabilitation program in 2014. Through this, I further devise an understanding of the genre that *AC:NL* embodies, one that I call *slice of life*, and investigate why exploring the characteristics of said genre further expand upon my experience as a player. Throughout this process I argue on why *AC:NL* was the game I played most during some of the hardest years in managing my chronic pain. In this, I further articulate the defining aspects in examining the relationship between metagaming and lived experience.

In Chapter 3 I build on my previous chapter to explore an alternate consideration of embodiment regarding what happens when I immerse the game into my world. To do so, I offer a deep reading and gameplay analysis of Nintendo's 2006 GameCube release *Chibi-Robo!* (Skip Ltd. et al., 2005) to "restory" the titular main character to have chronic pain like my own. Through the lens of debility and capacitation machines, I map these ideas onto the biopsychosocial model to organize a thorough analysis of his restoried identity. I do so to offer a reflection of representation outside of the restrictive "good" and "bad" binary and instead ask what gameplay resonates with my lived experience and why. Throughout this process I argue for more research combining fanfiction and deep reading/gameplay into a restoried analysis based around aspects of our lived experience. By doing so we can better understand what future game

design might attend to while simultaneously highlighting the validity of more accessible research methods that expand and crack academia's intentionally restrictive walls.

In Chapter 4, I expand upon my previous work in self-exploration to provide foundational work in how a small portion of the chronic pain community considers videogames. Through mixed methods design, I interview and survey 16 participants with chronic pain to better understand their lived experience with videogames and pain. I explore if people with chronic pain gravitate towards specific gameplay experiences and why, including what factors of their lived experience impact this the most. In this I argue that the relationship between chronic pain and videogames is not unique to my experience and is relevant for multiple people in the chronic pain community. In this research I offer empirical data exploring the intimacies between chronic pain and videogames with the chronic pain community. As foundational work, I further argue what future work should address in more detail. Before moving on to Chapter 2, however, I offer my researcher positionality as a conclusion to this introduction to better situate my highly personal research.

1.5 Researcher Positionality

I conclude my introduction by reflecting on my position as a researcher to better inform the way readers interact with, and understand, my findings. I include several details of my lived experience, but only offer an overview of my perspective here, leaving other sections to provide more in-depth explanations of specific ideas when introduced. I share these aspects of my identity to best engage with cripistemology, and to address the barrier of nondisclosure common in disability studies, as noted by scholars like Corbett O'Toole (2013). Echoing this an idea, Patsavas (2014) further reflects on disclosure by clarifying that they cite such aspects of their

identity not to argue for identity-based categorization or static identity position, but rather to clarify what elements have impacted their privilege, biases, and influences as this is interwoven with their claims (p. 205). I follow this lead and offer my positionality to better situate my work and lived experience.

I am a white, disabled, queer, cisgender woman. I use she/her pronouns. I was born with full-body chronic pain that will likely last my entire life. As is, I have no concept of what being without chronic pain feels like. As my pain is necessarily inside my body, I can often "pass" as non-disabled to the untrained eye, that is, until I sometimes cannot. As an adult, I now have a reliable set of pain management tools, but growing up I struggled and on several occasions my pain left me bedridden for weeks to months. As my pain is a part of my daily life, it is my normal. To best manage it, I must plan ahead for everything I do. Though I have a collection of comorbidities that have also greatly impacted my life along with my chronic pain, I will only be sharing my experience with chronic pain in depth within this dissertation. With that said, I will additionally disclose that I am neurodivergent, which has greatly impacted my way of thinking and my perspective on the world along with my chronic pain.

My financial and familial security has undoubtably allowed me many privileges in how I have managed my disabilities thus far. I grew up as the youngest daughter in an upper-middle class family and lived in an affluent suburb with access to medical support and healthcare. My immediate family has always done their best to create a warm and loving environment for me to thrive in. Both of my parents completed high school and college, with my mom then going on to receive an additional degree. Traversing the medical field and the many battles it brings was not entirely new for my family, and my parents were incredibly supportive throughout the process despite the indescribable stress. That is not to say it wasn't difficult, but rather that my parents

have done whatever they can to provide me the aid I've needed throughout my childhood and even into my adulthood. My mom was, and still is, especially dedicated to helping me through the confusing and oppressive web that is the medical field and disability.

Through years of doctor visits and tests, I have been given many diagnoses. The doubt I have received from medical professionals, and unfortunately continue to receive from those outside my trusted circle, was deeply traumatic. I was often accused of "making it up" given that I "look fine," a concept surely familiar to many with chronic pain. My current diagnosis took an initial seven years of hard looking to find. Even with a diagnosis I have continued to receive doubt from medical professionals who are outside the team I have curated, which is partially because my diagnosis still lacks any definitive tests to prove with absolute genetic certainty that it is what I am dealing with. I have faced additional trauma in not being believed by other authorities in life, including educational professionals. Given these experiences, and the difficulty in offering my diagnosis with full, unchanging clarity, I direct my focus on my symptoms and lived experience of chronic pain, the explanation, rather than any direct diagnosis as a point of reference.

2. Not Just a Slice: *Animal Crossing* and a Life Ongoing

2.1 Introduction

Animal Crossing (Nintendo EPD et al., 2001-2020) has always been a part of my life. In 2002, I sat with a GameCube controller held tightly in my tiny fingers as I listened to my dad read me fast-paced text rattled off by a little cat named Rover on the television screen. The snow laden Christmas morning of 2005 was filled with shrieks of joy as my sister and I played *Animal Crossing: Wild World* (Nintendo EAD, 2005) on our Nintendo DSes. In 2008 I was swinging my Wii Remote and gripping at my Nunchuk in *Animal Crossing: City Folk* (Nintendo EAD, 2008) before finally picking up a Wii Classic Controller to plug in and use instead. In 2013 I got *Animal Crossing: New Leaf* (*AC:NL*) (Nintendo EAD, 2012) for the Nintendo 3DS and spent the entire summer decorating my town and collecting bugs and fish. In fall, I had to put my town away for high school. Little did I know, in a few months I would be bedridden after a complication from my then undiagnosed pain condition that resulted in a two weeklong migraine and following months of greatly impacted mobility. During my migraine and pain filled state I picked up my 3DS and opened *AC:NL* again. Playing it fulfilled a desperate wish for the everyday experiences that the pain had quickly stripped away. Walking through my town, relief washed over me as I engaged with a familiar virtual world that had continued to exist without me. Catching up with NPCs, getting my mail, checking on my flowers and shops, all distracted me while still offering a touch of my previous ordinary life I was missing.

In this chapter, I argue that there is a deep connection between playing *AC:NL* and learning to manage my chronic pain. I further express that this deep connection becomes necessary to reflect on in design. I engage autotheory through a cripistemological lens to define a genre and unpack my experience with *AC:NL* as a queer woman with chronic pain. I begin by

arguing that *AC:NL* belongs to a genre I call *slice of life* games characterized by three qualities: mundane activities, normativity, and ongoing existence. I utilize *AC:NL* as a genre marker, elaborating on each of these defining characteristics through close-reading, close gameplay, and excerpts from my previous pain journals to further establish vulnerability of the self as I seek to understand why *AC:NL* was so impactful.

Though I did not consciously recognize the connection at the time, the gameplay was nonetheless effective. Once my initial pain crises subsided, I began a quest to understand what occurred within my 570 hours of gameplay in *AC:NL* and why I keep returning to it. From the hegemonic perspective, or what Stephanie Boluk and Patrick LeMieux (2017) call the "standard metagame," these are paradoxical pleasures, but I argue that they make sense as part of an alternative style of play and embodiment that is connected to my experience of pain.

2.2 Disability Frameworks

As previously stated in Chapter 1, every disability experience is unique. As the medical and social models have limitations that fail to attend fully to the biopolitics of disability regarding debility and capacity, I instead focus on my chronic pain situatedness, or, in how my understanding of chronic pain has been shaped through lived experience. To do so I draw from my own experience in attending a pain rehabilitation program. Certainly, the conversation of "rehabilitation" and the biopolitical neoliberalism it often reflects can be charged. I must make clear that I express this experience not to uplift the practice as necessary or inherently positive but do so to reflect on my experience with chronic pain at that specific time while I simultaneously engaged with *AC:NL*. In 2014, I attended a pediatric pain rehabilitation program meant to help adolescents fulfill normative function with chronic pain and return to school and

life activities. Pain management was the main aspect of the program, highlighting tools we were to develop in order to adjust daily internal facets of pain, our expectations and mindset, as well as the external facets of physical ability and social barriers. The intention of the program was to develop these skills to better coexist with a society that expects all bodies to operate under the same "typical" state of physical ability. My program utilized the biopsychosocial method to address pain management.

As later discussed in more depth in Chapter 3, the biopsychosocial framework considers the intersecting aspects of biology, psychology, and social pain with the intent to better develop unique management for every individual. My pain journals, for example, required me to record my activities, feelings, and pain levels to discover connections between my pain and physical experiences, emotions, and events in my life. This helped me to develop meaning-making reflections. I then discussed these entries with a psychotherapist and other members of the pain rehabilitation program. These pain journals are the main reason I draw on my pain rehabilitation experience for this chapter, as they clearly situate the specifics of my pain and experience at the time. Additionally, it was during my three months in the pain management program that I returned to *AC:NL*. Thus, to illustrate the connections between my experience with *AC:NL* and pain management, I provide quotes from my own journal entries throughout the following discussion. This self-reflective analysis method offers an ethnographic look employed in several disability studies as well as human centered design practices (Dysvik & Furnes, 2018; Gaver, 1999; Patsavas, 2014; Williams, 2018).

It is important to remember that other experiences of disability and pain will not necessarily coincide with mine. However, as Elin Dysvik and Bodil Furnes (2018) note in their study of chronic pain, while each experience is unique, personal stories have the potential to

reveal a deeper truth about pain. In this respect, my own experience with chronic pain and its connection to *AC:NL* serves as an addition towards a deeper truth in both the experience and management of chronic pain.

2.3 Methods

As noted at the start of this chapter, this research engages an autotheoretical approach through a cripistemological lens to define a genre and unpack my experience with *AC:NL* as a queer woman with chronic pain. As this methodology was introduced in Chapter 1, I will instead articulate why it is suitable to specifically highlight the concept here.

As Patsavas does (2014), I engage with a cripistemology of pain as "a queercrip understanding of pain as a fluid, relational, . . . and leaky experience that flows through, across, and between always-already connected bodies" (p. 213). To complicate the damaging conception of disability as obtainable knowledge without experience, often leading to the question "What's it like?" being asked (Titchkosky et al., 2019), I assign the question of "What's it like" to genre definition and gameplay rather than chronic pain itself. While indeed my chronic pain is crucial to my research, it is expressed through my lived experience. I have no intention to simulate what my chronic pain must "be like," and rather provide this opportunity for others to "be with" me during my exploration. We cannot understand "what a disability is like," if we do not experience it ourselves, and even then our experience will be debilitated and capacitated in unique ways. We can, however, unpack how gameplay and embodiment are impacted by lived experiences, including the mechanics we seek out and the genres that pique our interest.

Close-reading as a method for videogames can become particularly complex when considering the multilayered experience games provides. While some scholars have argued that

as games are not texts, they "cannot be understood through media studies methods such as textual or ideological analysis" (Consalvo & Dutton, 2006). I, along with many other game scholars, like Mia Consalvo and Nathan Dutton (2006), Ruberg (2019), and Shaw (2014) to name a few, disagree on this notion. Though games are not texts in the traditional sense, they are an artistic intersection of multiple mediums. Therefore, studying a handful of those elements through their traditional means, such as close-reading a game's narrative has merit. Several studies, such as one by Jim Bizzocchi and Theresa Jean Tanenbaum (2012), have even shown such benefits of close-reading in games and how it can often reveal the complex techniques employed to interweave player choice and other elements such as story. While many scholars provide their own heuristics for discussing games, each method understandably focuses on unique specifics (Keogh, 2018; Upton, 2018). I argue for the benefit and continued practice in adapting outside methodologies for game scholarship. Given the cis-heteronormative masculine homogeny that already oversaturates game design as a whole, an inclusion of outside methodologies, especially ones that engage marginalized groups, will always be necessary even if different ways of discussing videogames become popularized. As noted in Chapter 1, this argument echoes Ruberg's (2019) elaboration that they do not want "simply to *do* queerness to games . . . but instead to argue that queer experiences can already be found operating within games—and specifically that [these experiences] can be found through analytical practices like close reading" (p. 62). Ruberg (2019) further articulates that a close-reading for videogames provides an opportunity to "destabilize dominant understandings of videogames even as those connotations are being 'willfully denied'" (p. 57). This concept aligns with my intent.

Beyond a push against dogma, however, I further bring genre into the conversation to shed light on ways in which Othered play experiences, such as those considered feminized and

"casual," are still overlooked in gaming culture despite increased popularity. Here we see a unique reflection that provides an intersection of self-presentation, feminization, and disability. Games that do not fit the normative expectations are themselves Othered, considered lesser along with those who play them. Examples of this point back to vivid childhood memories where liking games like *Animal Crossing* (Nintendo EPD et al., 2001-2020) and *Harvest Moon* (Marvelous et al., 1996-2022) led to me being ridiculed by other young "gamers" for not liking "real games." While one may argue that these were isolated experiences, that children can be cruel, children too are guided by the culture frames they are provided, and these experiences have continued into adulthood. Such toxic gaming culture becomes especially obvious when looking at games that *do* qualify as typically masculine genres such as "shooters," but still have feminized design and play experiences. The *Splatoon* series (Nintendo EAD et al., 2015-2022), for example, has long been ridiculed as not being a "real" shooter given that it is "designed to make it okay for players to not be able to perform as well as others," thus combating the meritocracy toxic gaming culture thrives on (Paul, 2018, p. 175). As a dramatic twist, however, the COVID-19 pandemic has seemingly drastically altered the play experiences people seek out. In this, perhaps we can see that when meritocracy is pressured by outside circumstances, sought after play experiences change even for those who benefit from these cisheteronormative oppressive systems. That is not to say this issue is no longer present, but rather that it offers a peek into how the genres and play experiences we seek are tied to our lived experiences rather than some predetermined way videogames should be universally designed, played, and discussed.

To better articulate this example and consumer shift, I offer recent statistics of the two mentioned series, *Animal Crossing* (Nintendo EPD et al., 2001-2020) and *Splatoon* (Nintendo

EAD et al., 2015-2022), that published new installments during the pandemic. It is important to note that while the *Splatoon* series does not fit into the genre I am defining within this chapter, as noted above, it does reflect a feminized play experience. *Animal Crossing*'s latest installment, *Animal Crossing: New Horizons (AC:NH)* (Nintendo EPD, 2020), broke records selling 11.77 million units worldwide in its first 11 days after launch (Carpenter, 2020). *Splatoon 3* (Nintendo EPD et al., 2022), which at the time of writing this was just released, is on track to destroy those records selling 3.45 million physical and digital copies in Japan alone in its first three days after launch (Nintendo, 2022). Comparatively, *Pokémon Sword* and *Pokémon Shield* (Game Freak et al., 2019) sold more than 6 million worldwide during its first week of sales (Carpenter, 2020). This frames both the *Animal Crossing* and *Splatoon* series as extremely popular and lucrative given they can keep up with the *Pokémon* series (Game Freak, 1996 - 2023), the highest grossing media franchise in the world (Dornieden, 2022).

In this chapter, I argue, that one way to attend to the treatment of historically Othered play experiences is to participate in the genre definition of one such category of games. I do so to thoroughly explore the wide range of experiences such games provide through an organized lens of genre. I utilize my own undefinable experience of chronic pain to explore genre markers with consistency but not restriction, and to expand upon the unique play experiences these games can provide. By utilizing qualitative understandings of this such as close-reading and autotheory, I simultaneously push back against the often quantitative and medicalized focus of research discussing chronic pain. To use Ruberg's (2019) words again, in my case, I do not want to simply *do* disability, but rather to argue that through a cripistemological understanding, we can see that disability has always impacted gameplay experiences, and as I discuss in Chapter 3, similarly has narratives that can already be found within games.

2.4 Slice of Life Games

The *Animal Crossing* series (Nintendo EPD et al., 2001-2020) is what I will call a *slice of life* game. This genre can be used as an umbrella term that covers several other well-known titles such as *Harvest Moon: Another Wonderful Life* (Marvelous Interactive, 2004), and *Chibi-Robo!* (Skip Ltd. et al., 2005), to lesser known titles like *Bernband* (van den Boogaart, 2014), and *One Night Stand* (Kinmoku, 2016). Given its range, slice of life games have several sub-genres utilized to further define the game mechanics offered. This includes social simulation games like *The Sims* (Electronic Arts, 2000-2019) or *Tomodachi Life* (Nintendo SPD7 et al., 2013), or farming games like *Stardew Valley* (ConcernedApe, 2016). My interest in utilizing *Animal Crossing: New Leaf* (Nintendo EAD, 2012) as my case study for the slice of life genre is due to its mismatch with the other generic categories used to group these games; *Animal Crossing* is neither a robust social simulation nor organized by the rhythms of crop harvests common to farming games. To develop a description of this genre however, it becomes important to determine the characteristics that do group these games together.

The term slice of life genre captures some of the alternate affordances of *AC:NL* that get overlooked in these games and highlights its connection to other liminal and feminized genres like the ambient narratives of walking simulators or the slow friendships of virtual pet games. The term slice of life has a varied history as a genre marker in different media and denotes "a realistic and detailed portrayal… of incidents typical of everyday life" ("slice of life," 1938). Originally translated from the French term *"tranche de vie"* it was used by playwright, Jean Jullien (Styan, 1983, p. 35). Jullien wrote that "a play should be a living segment of life," and slice of life meant "The scene was to be as if set in a room with its fourth wall removed"

(Dickinson, 1927, p. 123; Styan, 1983, p. 35). The slice of life gained popularity within the French naturalism movement greatly influenced by Emile Zola's work which rejects romanticism in favor of more realistic depictions of life. Although naturalism was deemed pessimistic at the time, the slice of life genre represents both the good and bad experiences of life.

More recently, slice of life has become a term in specifying genres of Japanese manga and anime. Motoko Tanaka (2014) discusses *nichijōkei*, or 'slice of daily life' fiction, and notes several common characteristics: a story set in real locations in contemporary Japan; simple plots and superficial conversations; and characters who are predominantly girls. Tanaka argues that these features help create a sense of realism. Yet, realism is a fraught term within videogames. Alexander R. Galloway (2006) expands on the concept of game "reality" by contrasting realism and realisticness. Realisticness, he notes, is a technical ideology that demands higher polygon counts and more detailed textures, whereas realism reflects "critically on the minutiae of everyday life, replete as it is with struggle, personal drama, and injustice" (Galloway, 2006, p. 75). Utilizing history and current definitions of slice of life, I argue that there are several common aesthetic qualities present in most slice of life games.

I utilized *AC:NL* as my case study to determine aspects present within the gameplay and mechanics. To do so, I conducted a close play session of the game where I catalogued every mechanic I encountered in a typical play session. I ended up noting 66 unique mechanics such as: talk, fish, shoot down balloons, listen for sound cues, shop, dress up, do tasks for neighbors, etc. Engaging in a sort of affinity diagraming, I broke these 66 mechanics into the following groups and named them to best represent the whole. The groups are: shopping, hobbies and tasks, social, mayoral duties, and decorating. I have provided each grouping with a few examples

of the mechanics that encompass them to better relay the differences between the groups below (see Table 2).

Table 2: *AC:NL* Mechanics Grouped with Examples.

GROUP	EXAMPLES OF MECHANICS
Shopping	clothes, haircuts, furniture, tools, gifts, house facades, etc.
Hobbies/Tasks	Gardening, fishing, bug hunting, making money, etc.
Social	Neighbors and NPCs
Mayoral Duties	Public works projects
Decorating	House, rooms, town, self, paths, etc.

In reviewing these condensed groups, I began the process of analyzing the exact gameplay experience *AC:NL* provided through these mechanics. It became clear through the narrowed list that three elements were heavily represented in the gameplay: the completion of several simple daily tasks, socialization with the characters and world, and the real-time based gameplay. From this I determined my three genre traits: *mundane activities, normativity, and ongoingness.*

For *AC:NL,* then, *mundane activities* include mechanics that specifically highlight mundane routine such as picking weeds, watering flowers, or simply walking. *Normativity* includes mechanics such as shopping, engaging with villagers, and what options the game offers to the player in such scenarios. Finally, *ongoingness* covers mechanics that are accessible through time passing, such as waiting a day for public's work's projects to be completed after paying them off, setting the in-game clock, or setting up when a villager will visit the player at their home. Below I provide a brief general description of each category outside of examples provided in *AC:NL* (see Table 3).

Table 3: Overview of the Slice of Life Genre Identifiers

Mundane Activities	Many of the game's mechanics reflect or embody boring tasks we prefer to ignore in our real world lives, things that are time consuming, regular, repeated, and unexciting; they can also be tasks that become mundane when reframed as such in the game world.
Normativity	How the game includes or navigates pre-existing normative expectations and beliefs. This usually includes NPC interaction and/or how the player is allowed to communicate or express themselves; sometimes even simply what the player can do. It is typically *how* these interactions occur that differentiates them from simply being mundane activities.
Ongoingness	Ongoingness refers to the never-ending nature of play and the game world's continued existence or loop. The passage of time is paradoxically important and ignored, capturing characters in a timeless setting. This might be shown by the inclusion of a real-world or in-game clock, or even in depicting how the game world changes depending on the player's actions.

Slice of life games offer a contained world that is a minor and deflated version of our own. Though they may showcase struggles among characters, they are not inherently structured by conflict and most conversation dwells on superficial topics. Though the game world and player may change, there is generally no overarching storyline causing dramatic shifts to mechanics. While the player has an active role in the world, the mechanics focus on mundane and everyday activities. At first glance and from the dominant way of playing videogames, these qualities seem antithetical to the pleasures of videogames. They eschew meaningful choice, limit player agency, lack a rich story, undermine power fantasies, and decenter the player's character. While slice of life games often have elements that fit traditional game structures, as in Ian Bogost's (2013) reading of *Animal Crossing* (Nintendo EAD et al., 2001) regarding accumulating items and paying off debt, they also make fundamentally different modes of play possible. Mundane activities, normativity, and ongoingness each offer minor fantasies and pleasures that resonate with my experience of chronic pain and, I believe, beyond. To further develop these ideas and the structure of the genre, I return to my time with *Animal Crossing:*

New Leaf (Nintendo EAD, 2012) and analyze the game's formal elements in tandem with my recollections and notes regarding my process of learning new ways to manage my pain.

2.5 Mundane Activities: a leisurely pace

The slice of life genre includes the minutiae of everyday life. Mundane activities are the boring tasks we prefer to ignore in our real world lives, things that are time consuming, regular, repeated, and unexciting; they can also be tasks that become mundane when reframed as such in the game world. In *AC:NL* some of these activities include: fishing, catching bugs, digging holes (see Figure 2), hitting rocks, gathering fruit, chopping trees, planting flowers, walking, and organizing your pockets. While fishing, for example, the player must stand patiently along the side of a river or at the shore of the vast sea while keeping their attention silently focused in order to react quickly when a fish bites. The player may also need to keep an eye on the time, season, weather, and fish silhouette if they are searching for a specific species. An even less dramatic example is how the player organizes their pockets. The game only gives the player 16 inventory slots and players must regularly rearrange their items, going back and forth in a process reminiscent of a tedious *Tetris* (Pajitnov, 1985). Most mundane activities are designed to slow the player down, something videogames often try to avoid. An important question for slice of life games, then, is to ask what value this slowness takes on.

Figure 2. Digging up a fossil in my town.

While many games have movement as a starting point that leads towards other forms of engagement, movement in *AC:NL* asks the player to play in a leisurely way. Slowness takes on value because it benefits the player through visual and mechanical rewards. Mechanically speaking, walking, a mundane activity on its own, leads players towards an array of options and new tasks. Whether it be a mark in the ground to indicate where to dig, a strange rock that wasn't there the day before, or the sound of a bug buzzing in the distance, players need to keep an eye on the state of their town in order to note day to day differences. The confined space of the village allows players to do an entire lap of their town, and the animals' homes further encourage random exploration.

In order to encourage slowness, running, instead of walking, through town has the direct negative consequence of eventually turning the grass to dirt. This outcome is frustrating to reverse, and leads some players to avoid running entirely (Medz, 2016). For others, the choice to walk has more to do with protecting carefully curated flowers as opposed to erosion. In either case, the choice to walk slows down the game. For players undeterred by the effects that running has on the plant life, it also results in the player's character occasionally tripping. This pauses their movement by forcing them to sit through an animation of the character standing back up

and making a bashful expression. Conversely, the game rewards slow movement with a rhythmic animation of slow swinging arms and the sound of the avatar's feet padding through lush grass.

Why then, do players enjoy a game that pressures them to move slowly when there are so many others that allow them to run and dash? Jordan Pruett (2019) offers one answer in explaining a similar outcome of *Stardew Valley*'s (ConcernedApe, 2016) success with millennials. The game uses mechanics and narrative to reflect values that are unattainable in the present despite cultural expectations that still venerate these values. For millennials, *Stardew Valley* allows an experience they cannot otherwise have. Slowly walking does not have the same class and generational connotations, but it activates a similar structure of fantasy for ordinariness. *AC:NL* similarly offered me a world where I could move without consequence of pain. This specific style of play in regard to my disability gave me the fantasy of *free movement*.

Pain Journaling

To offer insight into the concept of free movement, I introduce the term *catastrophizing*. Catastrophic thinking or catastrophizing in relation to chronic pain refers to the anxiety filled mental state caused by consistent body pain. The Pain Catastrophizing Scale (PCS), developed by Michael J.L. Sullivan et al. (1995), describes catastrophic thinking through three levels. Best represented in the PCS user manual, these three levels are as follows: rumination "(I can't stop thinking about how much it hurts)," magnification "(I worry that something serious may happen)", and helplessness "(It's awful and I feel that it overwhelms me)" (Sullivan, 2009, p. 4). Thinking catastrophically becomes the reality of movement for many with pain. To illustrate the connection between this concept and my experience, I reference a few entries from my pain journal below:

4/1/14: I'm scared to go dress shopping tomorrow it will hurt

4/2/14: Dress shopping will be hard

4/3/14: Dress shopping was hard.

Here I have documented a three-day fear process into something as simple as shopping for and trying on clothes. Some of my thoughts at the time were warranted, but the catastrophic perspective further fueled my internal anxiety about my abilities. This is where a connection to the fantasy of free movement offered in *AC:NL* becomes increasingly important. More explicitly, another entry from my pain journal reads:

3/30/14: moving my body sucks

This annoyance at basic movement is a theme throughout my journals, and though four words cannot express my experience in learning more chronic pain management, this entry reveals movement not only as a physical burden but as a mental one as well. Hyperfocusing on every movement often made the concept of general activity less appealing. Exploring space in a virtual world, and particularly walking, did not result in the same difficulties. What made *AC:NL* especially intriguing to me while I was bedridden was that my part in the game was not that of an athletic hero in a role I could never hope to achieve. Instead, I was on the same level as everyone else in the town and it was a level I began to feel was attainable in my own life. At the time of my pain journal, my goals were simple; I wanted to get a dress and to attend graduation. *AC:NL* simplified this activity, and allowed me to see my player character try on clothes quickly and easily. It was a fantasy of minor power I could not have otherwise accessed. It gave me the chance to experience the agency behind the act. More generally, the fantasy that *AC:NL* allowed me to indulge in was not one of saving the planet or winning a war, but of walking around and

enjoying the basic activities of life (see Figure 3). This fantasy invoked a more positive picture of my future by giving me the context to explore it. While the minutiae of daily life may be tiring when it is present, it is easy to start missing it when it is suddenly no longer possible. This alone made me a likely player to engage in all the mundane activities for myself, the beautification of my town and the good feelings of my neighbors being a happy byproduct.

Figure 3. Several locations in my town.

In reviewing the many mundane activities present to the player in *AC:NL*, I focused on the purposeful slowness expected in player movement. This leisurely pace highlights the experience of mundane tasks instead of erasing them or distracting the player's attention elsewhere. The focus on daily life, including common tasks, is crucial for the slice of life genre. With a lack of appreciation for the mundane, walking in most games generally focuses on getting the player to another task instead of being an activity in and of itself. Walking simulators such as

Bernband (van den Boogaart, 2014) demonstrate the concept of exploration without destination, much like in *AC:NL*. The ability to not only complete a mundane activity, but to be encouraged to do so and to enjoy it, was important in my pain management process and reflection. Slowness and the mundane offered me virtual interactions with daily life that I no longer had in my day-to-day.

2.6 Normativity: obligation in expectations

The slice of life genre in anime is often thought to give the feeling of "hanging out with your friends" according to several viewers (blautoothdmand, 2017; brightbier, 2014). Games have the unique ability to not only show this experience, but to allow the player to participate more actively within it. While the mundane aspects of the slice of life genre focus on player actions, this section of normativity will delve into the question of why a player may seek out games like *AC:NL* that present these societal and social norms.

Before I continue, I want to be clear that my exploration is about why normativity, both positive and negative, was useful in my pain filled state, regardless of what the content of those norms were. As I discussed in connection with chronic pain and disabilities, societal norms and expectations can cause direct and indirect harm. Anna Anthropy (2013) specifically notes the dangers of normativity regarding identity in *AC:NL*. She references the player character's only choice of pale, white skin and the enforced gender roles through confused comments from animals when the player dresses up in non-gender normative clothing. Anthropy explains that "positive" representation within the game comes more from the players deriving their own meaning than from purposeful inclusion by designers. The paradoxical enjoyment I felt from the

normative pressures in *AC:NL*, however, is part of what makes this genre interesting for my analysis.

Figure 4. Attending a birthday celebration (left) and getting coffee at The Roost (right).

Normativity in the *Animal Crossing* series (Nintendo EPD et al., 2001-2020) comes in many flavors: receiving letters, talking to NPCs, bargaining with neighbors, getting a haircut, returning lost items, hanging out with animal friends, and even going to concerts. Many social interactions, for example, begin with greetings and other pleasantries such as nicknames and catchphrases. Letters always include a greeting and farewell, something the player can edit but cannot remove. While some of these activities have a mundane quality to them, it is the inclusion of NPC interaction that sets them apart. It is also *how* these interactions occur that fully develops the concept of normativity in *AC:NL* and this is best shown through the player's cooperation in presented social values, obligation, and vulnerability.

When asked about what values a game like *AC:NL* upholds, producer Katsuya Eguchi comments that "everyone has different values … Your town becomes a reflection [of that]" (Nutt, 2013). While this may be true concerning the more tangible values within the game, there are inherent social values imbedded within NPC interactions (see Figure 5). *AC:NL* is not shy in forcing the player to abide by certain social rules. While there are opportunities to be rude in

conversation the choices in most scenarios force a level of cordial behavior. Ashley Brown and Björn Berg Marklund (2015) note that the process of selling an item in *AC:NL* takes more inputs than the average game, and that these inputs are focused around dialogue. They utilize this to reflect that interactions between players and NPCs are important in *AC:NL* (Brown & Marklund, 2015). Most of these extra dialogue screens imply an expected behavior that I will explore through examples of shop NPC interaction.

Figure 5. Maple offers me advice.

Every NPC that sells items in *AC:NL* has a standard greeting and farewell dialogue for interactions with the player. These range from “Welcome! Welcome!” to “Hello! Welcome to the handmade-fashion palace of the one and only Able Sisters!” Some NPCs focus on introducing their business while others simply say hello. Gracie, the haughty, high-fashion giraffe, however, lacks these pleasantries. Gracie is known within the series for being rude, impossible to get along with, and for putting down others based on poverty and appearance. In *AC:NL* she is less cruel, but still retains some of her past behaviors. Having her, someone even the villagers consider to be conceited, as the only product selling NPC without a greeting works

to further the player's expectation of particular social values in *AC:NL*. Through Gracie, the game critiques arrogance, narcissism, and superiority. This is further encouraged by the mundane activities implying cooperation among townspeople and further generating the point of cordial behavior among player and NPCs.

When visiting Harriet at Shampoodle, conversation is built into the actual process of choosing a hairstyle. Unless the player is aware of the specific inputs, Harriet ultimately is the one who decides the final look by offering strange choices such as, "Are you wanting to fit in at work and the business world? Or do you prefer more private occasions?" to decide the hairstyle. This works to create a bond between player and stylist through a loss of agency and forced dependency. When talking to Harriet afterwards, she has a range of comments, one of them being "I really think that hairstyle suits you perfectly, sugar!" If the player sits back in the haircut chair Harriet will sadly refuse the second offer of 3,000 Bells, the game's currency, and explain that she only accepts one request per day. She notes that, "if you change too much all at once, nobody will be able to tell it's you anymore." In this example, the player has no option to ask Harriet for a redo and is instead tasked to wait the day out in humiliation if they dislike the cut. While an NPC's opinion does not generally note the feel of the game, since Harriet is the only way the player can change their hairstyle, her opinions are more than just flavor text. By blocking the player's ability to have multiple haircuts in one day, Harriet demonstrates values that *AC:NL* upholds such as self-love, trust, and the returning notion of cooperation.

Unlike other *Animal Crossing* titles (Nintendo EPD et al., 2001-2020), *AC:NL* appoints the player to the status of mayor. While the responsibilities of a mayor may be more than that of a villager, there is little to differentiate the player's role from the rest of the neighborhood. In reference to *Animal Crossing: City Folk* (Nintendo EAD, 2008), John Murphy and José Zagal

(2011) explain that many of the interactions with neighbors indicate worldbuilding elements that don't involve the player. For instance, there are relationships between the NPCs that are referenced indirectly in conversation. They note that the *Animal Crossing* world doesn't consider the player as a main character, but rather as another participant in the neighborhood as a whole (Murphy & Zagal, 2011, p. 76). *AC:NL* continues this despite, but also through, the player's mayoral role. Animals will ask the player character for specific additions to the town, making their input crucial in unlocking more public works projects. In their suggestions, the animals hint at social obligations of a mayor that the player is meant to uphold. Whether the player chooses to engage in these public works projects or not does not change the gameplay. However, the NPCs come to expect it regardless. While mayoral duties can be ignored, the player cannot avoid the inescapable expectations *to give* and *to do* in order to build their relationships.

Neighbors asking the player to give them items or complete specific tasks for them is a classic mechanic in *Animal Crossing* (Nintendo EPD et al., 2001-2020). Much of the game's activities are centered around doing things for neighbors and spending time conversing with them (see Figure 6). A common request from villagers is to ask the player for a specific kind of bug or fish. Depending on the personality of the villager, the bug or fish they ask for could be easy or difficult to find. Sometimes villagers will ask the player for furniture that fits their specific needs and other times they will attempt to buy an item right out of the player's pocket, often boldly offering too low of a buying price. While in theory refusal of coded behavior should warrant easy response, the normativity generated among the friendships built with neighbors makes this more difficult.

Figure 6. Returning Maple's lost banana.

When neighbors ask for something, they are generally explicit in what they want and why they are asking the player. The player themselves cannot ask for specific items from villagers, so NPCs must return the favor for completed tasks in gifts of random Bells, shirts, and furniture instead. They gift items without knowing if the player wants them, sometimes telling the player to "toss" the item if they don't like it. In presenting these gifts without assured positive response, the NPCs demonstrate vulnerability which makes it difficult to turn them down. As Brené Brown (2012) reflects in her TEDx talk, "to invest in a relationship that may or may not work out" is a crucial example of vulnerability. The villagers in *AC:NL* approach the player with the goal of friendship, putting effort into it regardless of what the player feels. In commenting on how villager characters approach the player, Eguchi explains that "they all still default to loving the player character" despite different personality traits (Nutt, 2013). This default approach in connection to their vulnerability helps to explain why neighbors' requests are so hard to turn down. Even if the player does not abide by the normativity portrayed in the world of *AC:NL*, the game's mechanics inhibit knowledge on how refusal and acceptance of tasks actually induces

friendship number values. This lack of mechanical knowledge on how reactions truly impact relationships paired with the presented vulnerability in the NPCs can engage a level of guilt in the player for going against the game's normativity. Cooperation, in this regard, is the antidote to guilt by once again engaging the player in *AC:NL's* expected normativity.

Pain Journaling

Regardless of if the social expectations are good or bad, outside opinions are important for crafting performances of oneself and even generating a personal identity (McEwan, 2015). While the social norms that *AC:NL* forces on the player are small in comparison, feedback from my virtual town was important to me. While I didn't always agree with what my animal neighbors had to say, feeling my internal disagreement was important in understanding myself. This interaction with NPCs offered an opportunity for me to develop ideas surrounding my non-digital life situation including my out-of-game friends' expectations. As I noted in my pain journal:

> 3/26/14: I don't want people to be mad at me if I can't do something very well
>
> 3/27/14: I miss my friends I wonder if they miss me?
>
> 3/28/14: i think people are lying when they say i'm pretty
>
> 4/2/14: Is everyone disappointed in me?

When finally reunited with my friends, they appeared strained in an attempt to respond to my situation "correctly." They began treating me as stronger or more fragile than before by placing me either on a pedestal of strength or in a sugar-coated bundle of concern. While the support and concern were appreciated, the execution was misguided and hard to correct given the medical

model of pain infiltrating cultural understanding of disability. Furthermore, with them having good intentions, it felt uncomfortable to react negatively towards my friends' attempts at understanding my situation. While I would calmly adjust a friend's position now, at the time I lacked a proper approach to well-intentioned ignorance. This is where the alternative social world of *AC:NL* not having that same stigma of my disability was so powerful. My virtual neighbors still held their own opinions but had no frame of reference to react upon my disability. Some NPCs held me in higher regard than others, but none of these expectations were based upon my abilities. For example, the "Cranky" villager personality type I favored continued to be blunt and brutal in opinions as opposed to my out-of-game friends who were suddenly sugarcoating their words.

As I began to question several aspects of myself and how others in my life viewed me, *AC:NL* further allowed me insight into how I viewed myself and my worth. The vulnerability shown by the neighbor NPCs in asking me to complete tasks for them by extension caused me guilt when I was unable to match or respond appropriately. I found I held an inherent belief that if I was not of actionable value to those that I loved, I was not worth their time. This is where my fear of my high school friends forgetting me came from: the fear that if I was not doing things for them that I would be forgotten.

Interactions in *AC:NL* embodied daily interactions I could no longer partake in, as well as the social guilt I needed to feel in order to internally develop my self-worth beyond it. The obligations as presented in *AC:NL* are limited in comparison with out-of-game life but still offer unspoken expectations that feed into the guilt of not completing them. This is where it was important for me to experience normativity that didn't necessarily benefit me but was reminiscent of the world I was missing and one that I would need to re-enter soon. In this way,

AC:NL helped keep me prepared for the mental exercise of normativity that I would soon have to engage with on a permanent level again.

The inclusion of these social norms gives power to the slice of life genre. What *AC:NL* lacks in well-developed personalities it makes up for in consistency and expectations in social obligation. The eight basic neighbor personality types offer a promise of a daily in-game "return to normal" while still offering a sliver of realism that requires the player to encounter the normativity they are forced to endure in real life. Practicing cordial behavior while managing more complex issues like obligation and guilt prepared me for re-entry into the real world. Vulnerability, a positive quality, is present in the neighbors more than in real life relationships and creates conflict within the player over how they choose to respond. All of these elements factor into normativity and expected performances in society, and reached a particular part of my life that was missing during my pain filled state.

2.7 Ongoingness: unpausable reality

Ongoingness in slice of life videogames refers to the never-ending nature of play and the game world's continued existence. In the slice of life anime genre, this is sometimes shown through the "return to normal" end of an episode or skit. The passage of time is both important and ignored, capturing characters in a timeless setting. In response to a question regarding the long playtime of *AC:NL* Eguchi explains that "at a certain point it will end, but in the same way that life does, every day – to day, to day, to day – it keeps going" (Nutt, 2013). In *AC:NL*, ongoingness is best reflected through the inclusion of a real-world clock, dynamic weeds and flowers, NPCs' lives, changing seasons, holiday events, flower breeding, and even the character Isabelle and how she "fills in" for the player when they're gone. For my purposes I will be

focusing mostly around the addition of the real-world clock, and the NPCs' lives to ask what value a continuous world has to a particular player and playstyle.

Eguchi reflects that the intent behind the real-world connections in *AC:NL* helps create a parallel world, "a world that's kind of similar to your own but also different" (Nutt, 2013). The inclusion of months, seasons, and real-world time not only keeps the player tethered to their own out-of-game life experience but asks them to manage two unpausable worlds. Being occupied with real-world holidays, for example, can cause the player to miss virtual ones. Leaves, bushes, and grass change with the seasons as the weather switches from a rainy fall afternoon to a snowy winter's night. Seasonal changes in *AC:NL* bring not only visual change (see Figure 7), but mechanical change as different species of bugs and fish are available based on the time of year and day. Weekly events like a visit from K.K. Slider at 8:00 p.m. every Saturday night are utilized as a mechanic for the player obtaining music for their home, requiring them to note the time and participate if they hope to receive new songs. The real-time clock affects the player daily, determining when neighbors wake up and when stores open their doors. *AC:NL* expects a level of balance from players in their enjoyment of both their physical and virtual worlds.

Figure 7. Seasonal differences in my town as pictured outside The Roost.

In its unstoppable time, *AC:NL* resists being one contained gameplay experience that occurs over the span of a week and instead allows the player the opportunity to engage daily, to find balance. Given the many holidays, seasons, and special events, the full *AC:NL* experience cannot technically be had until at least one full real-time year has passed. In this way, enjoyment of the game cannot always be pinpointed towards one single event. Instead, *AC:NL* provides experience and meaning through its ongoingness, through the hours required to catch a rare bug, the days spent preparing for a holiday, or the months spent saving Bells to pay off a loan. The real-time clock offers more fulfillment in reaching long term goals, but also brings with it unstoppable change (see Figure 8). Animals will move, flowers will die, and furniture will go undusted as the town changes when the player is not engaging with it. Change is unavoidable in

AC:NL. Even if the player engages daily, the inclusion of independent NPCs engages realism in routine.

Figure 8. A snippet of my town's history.

In adjusting to an unpausable reality, NPCs utilize routine. As pointed out by Brown and Marklund (2015), the *Animal Crossing* series (Nintendo EPD et al., 2001-2020) does what it can to make NPCs break from the bounds of code and player control (p. 14). Murphy and Zagal (2011) confirm this, noting the reinforcement that NPCs appear to control their own lives as they mosey about the town following their own schedules (p. 76). *AC:NL* has eight neighbor personality types that allow for diversity in conversations and routines. "Snooty" villagers, for example, go to bed at around 2:00 a.m. whereas "jock" villagers go to bed at 12:00 a.m. The villagers will have different comments depending on the time and their routine. Even after the player has read every possible interaction, the animals continue to feel alive as they redecorate their homes, change their outfits, and stroll around the town independently.

NPC agency continues to be represented in how the villagers move in and out of town. The player often cannot stop an animal from moving. The process of who lives in the player's town, in regard to the initial launch of *AC:NL*, is random. Stopping an animal from moving out is only possible by way of directly intervening, catching the neighbor before they pack up to leave

and begging them to stay. In order to achieve this direct intervention, the player has to consistently play in the hopes that they may catch rumor of the villager's plan to move out. NPCs individually adjust to unstoppable time which in turn gives the player little option but to do the same. The game presents not only the necessity of balance, but how one must adjust to it through routine.

Pain Journaling

In dealing with my own physical pain, I was unable to help others with their problems. It weighed on me when my friends couldn't rely on me the same way they were used to, yet when they continued to uphold that expectation, I began to feel bitter and misunderstood. In one of my pain journals I wrote:

4/2/14: I don't want to deal with other people's problems anymore

AC:NL's unique form of ongoingness provided me with a friend that enjoyed my presence but didn't *need* me. My town cheered when their mayor returned but didn't close up shop when I left. The game continued on regardless of if I was playing or not. My animal friends would sometimes scold me for staying away for so long, always noting the exact number of months I was gone as if they'd been counting the days, their anger fading fast as it was replaced with joy. It offered me the unique playing ground to prioritize my own needs over the needs of my virtual world. In my practice of balance, I connected the routine required for pain management with the routines of my animal neighbors. Even with the inclusion of social obligations and normativity, neighbors are relatively quick in returning to the mundane tasks of their daily lives even after a miniature reunion with the player. In *AC:NL* I felt important to the community but not crucial for

its continued existence. Even now, all my many towns across the *Animal Crossing* series continue on without me.

NPC values bring normativity to mundane activities while ongoingness connects realism to NPC and world interactions. In its connection to real-world time, *AC:NL* removes player agency in a way reminiscent of our everyday lives. The NPCs further uphold realism in *AC:NL* with how they use routine to adjust to their unpausable reality. In presenting the NPCs with their own lives and schedules *AC:NL* better represents a life ongoing. In understanding pain management, I struggled to find balance between life and my own needs, so the opportunity to practice within a virtual world was useful. For my town in *AC:NL* to continue without me became a comfort that allowed me the opportunity to assess myself and my own existence from another frame of mind.

2.8 Conclusion

The slice of life genre in videogames offers a blend of mundane activities, normativity, and ongoingness. *AC:NL* (Nintendo EAD, 2012) demonstrates the genre through respect for a leisurely pace, social norms in NPC interactions, and an unbreakable connection to our out-of-game world, whether through code, text, or otherwise. When dealing with chronic pain management, these elements were crucial in both keeping me distracted and engaged: distracted in the sense that I was able to remove myself from my current situation into a fantasy, and engaged in the sense that I was also unable to fully immerse myself in the game considering all of its real-world connections. This balance between myself and *AC:NL*, between player and game, brings Keogh's (2018) quote to mind that "Videogame play is a complex interplay of actual and virtual worlds as perceived through a dually embodied player" (p. 55). In the case of

AC:NL and the slice of life genre, this concept holds an important truth within it. There are further connections towards pain management and the idea of body and mind connection. As Jennifer Bullington (2009) references in way of health, "I am my body, but when my body doesn't work, I experience a split between myself and my body, and my body is no longer me." In *AC:NL* the bond between the out-of-game world and digital town feeds off of the harmony achieved through balance. My play in *AC:NL* allowed a deeper balance between my internal self and my external body. The slice of life genre offers more realistic fantasies presented in a digestible way that videogames allow experience within. The opportunity for someone in my situation to experience something I physically could not, while being inserted into a familiar enough world gave me the opportunity to re-imagine my goals as more achievable and to never be shamed at their simplicity. *AC:NL* may only be a slice of life, but it just so happened to be the exact slice that I was missing.

Figure 9. Me with Fang (top) and Marina (bottom) in both *AC:NL* (left) and *AC:NH* (right).

I offer this expression of my lived experience to complicate preconceived notions of design and what makes a "good" gameplay experience. Rather, in arguing that my lived experience influences the gameplay I seek out, I highlight the necessity for game design to consider such factors and the benefits that come from designing against traditionally normative gameplay experiences. In this chapter, I explored how my embodiment of a character within a world like the one in *AC:NL* provided me with what I was currently missing in my life. In *AC:NL* I embodied the character to be more like what I missed, but in the next chapter, I explore what happens when I adjust the player character to embody me as I currently am. In this, I continue my autotheoretical approach as I provide a close-reading and close-gameplay of *Chibi-Robo!* (Skip Ltd. et al., 2005) wherein I restory him to be a character with chronic pain similar to my own.

3. Restorying a Robot's Identity: Chronic Pain in *Chibi-Robo!*

3.1 Introduction

Throughout my life I have asked the question of how to represent chronic pain in games. I often wondered if it was even possible to assign mechanics, that which can often be relatively rigid, to the fluidity of my chronic pain experience. During my undergraduate degree in game design, I recognized the two biggest hurdles to my query. The first being what Shaw (2015) articulates as "the paradox of arguing for the seriousness of representation in games in a way that is not dismissive of play" (p. 150); and the second, a consideration of Keegan's (2020) work reflecting a conversation of the good/bad binary in media representation of the Other. For a time I had given up on trying to find the answer. That is, until I considered that perhaps the answer was not to be found by creating something new from scratch, but instead in modifying pre-existing story, mechanics, and design to explore what kind of chronic pain gameplay experience I am looking for.

I began this process by examining more of my favorite childhood games, as my previous work in Chapter 2 validated the subconscious yet recognizable reasons I connected so deeply with certain experiences like *Animal Crossing: New Leaf* (Nintendo EAD, 2012). While countless games have impacted my life, *Chibi-Robo!* (Skip Ltd. et al., 2005) became the clear choice in this recollection. If only to solidify its rightful spot as the star of my research in this chapter, it was also the first game I ever purchased with my own money; the first game I spent money to *own*, rather than rent from Blockbuster. Back in the early 2000s, there simply wasn't the same access to gameplay footage and quick game reviews that now exist, making it hard to determine if a game would be enjoyable prior to playing it. Even further, it was often an unknown if more obscure games would ever be rentable. Buying *Chibi-Robo!* was a risk and was

one I took thanks to the art on the front of the box, and the additional sales pitch on the back (see Figure 10). Luckily, as soon as the game first loaded up and its funky intro music played, I knew I had made a good choice. I remember heavily identifying with the nonverbal main character Chibi-Robo almost immediately, regardless of the fact that he's a robot roughly 4 inches (10 cm) tall with limited ability to express himself. There was something about him that provided a source of comfort to my young self in a way I still feel even as an adult today.

Figure 10. The front and back artwork for the North American *Chibi-Robo!* box.

In this chapter I provide a deep reading and gameplay analysis of Nintendo's 2006 GameCube release *Chibi-Robo!* (Skip Ltd. et al., 2005) to "restory" the titular main character to have chronic pain similar to my own. Through the lens of debility and capacitation machines, I map these ideas onto the biopsychosocial model to organize a thorough analysis of his restoried

identity. In modding the game's narrative to reflect a lived experience of chronic pain like my own, I interweave fanfiction with deep reading and deep gameplay to unpack what representation I am looking for in videogames both narratively and mechanically. In utilizing a game not necessarily meant to embody disability, I additionally explore representation outside of the restrictive good/bad binary and instead ask what gameplay resonates with my lived experience and why. In doing so, I once again highlight Snyder and Mitchell (2001) by engaging videogames as my artform to best narrate the phenomenology of my chronic pain. I thus argue that restorying provides an accessible opportunity to share lived experience through the art of fanfiction, further reflecting on future videogame design practices.

3.2 Background

In this section I provide background information on restorying and the biopsychosocial model as these are the main methods I utilize in this chapter. As debilitation and capacitation are covered in chapter one, I do not reiterate them in detail below. With that said, I offer more on my use of these concepts when regarding lived experience in the following methods section. I conclude this section with a brief history on the development of *Chibi-Robo!* (Skip Ltd. et al., 2005) for context on its design.

Restorying

Storying refers to "the process by which stories are shaped and told over time" (Thomas & Stornaiuolo, 2016). The concept of storying is controlled by whoever has the power within a given society and time. Restorying, then, is a "pedagogical approach based on social constructivism that employs successive iterations of rewriting" and utilizes these rewrites as a

means for discussion (Slabon et al., 2014). As explained by Thomas and Stornaiuolo (2016) restorying can be described in six forms of change to a story: place, mode, perspective, metanarrative, time, and identity. Identity restorying, sometimes referred to as "bending," is where I will focus my analysis.

Restorying can be used in multiple ways, but Thomas and Stornaiuolo's (2016) emphasized a quote from Nigerian author Chinua Achebe who has explained that for marginalized and oppressed groups, restorying offers both better inclusivity and definition of self, "where [marginalized groups] are not victims of other people's accounts." Regarding diversity and restorying, this particular practice allows the resistance of a single story (Thomas & Stornaiuolo, 2016). It can also be argued that many marginalized and oppressed readers "have always had to read themselves into canons that excluded them" (Thomas & Stornaiuolo, 2016).

Though not necessarily the process by which I utilize it, it feels necessary to reflect that restorying has also been described in qualitative research to specifically reflect the process by which a researcher analyzes "the participants' stories, and then [restories] them into a framework that makes sense" (Creswell, 2007, p. 56). While indeed the idea of reworking and reorganizing a story remains consistent, this articulation does not highlight how fans themselves use the method, which is why I refer instead to Thomas and Stornaiuolo's (2016) aforementioned definition for my purposes.

Academic Properties of Restorying

While indeed restorying exemplifies a rich history of how those of us debilitated by oppressive systems have altered narratives to include us, it is important to specifically name its direct ties to Black history and culture. Thomas and Stornaiuolo (2019) explain that "Traditions

of Black storying extend deep into the African past" and have thus "became irrevocably entangled with Black embodiment" (¶2.2). Yet even so, Black scholarship continues to go underrepresented in fan studies.

In Rebecca Wanzo's (2015) call for "decades of Black scholarship" to be acknowledged by scholars when reflecting upon modern fan culture, Wanzo offers an example of such exclusion. Wanzo explains that in *Textual Poachers,* a foundational text in fan studies, Henry Jenkins argues for writing both as "an academic (who has access to certain theories of popular culture, certain bodies of critical and ethnographic literature) and as a fan (who has access to the particular knowledge and traditions of that community)" (1992, p. 5). Thus, scholars who use their fandom as research can be seen as "acafans" (Wanzo, 2015). One group of acafans who would not self-define by the name "are many black scholars of popular culture" who hold "an intimate knowledge of the black community that has often been essential in fields where black histories have not been addressed." Regardless of the obvious importance, however, "these works. . . are largely invisible in some of the most cited works in American fan studies" (Wanzo, 2015, ¶1.1 and ¶1.2). Given that "Even African American scholars trained in film and television studies are often excluded from scholarship about fandom" it becomes clear that this exclusion is not "solely attributed to disciplinary divides" (Wanzo, 2015, ¶1.2). Wanzo surmises that one of the reasons much of fan studies history has not properly attended to race might be because race "troubles some of the claims—and desires—at the heart of fan studies scholars" (2015). Therefore, it cannot go unsaid that while there are indeed positives to fan communities, some of those only remain so until "we recognize how often an investment in whiteness may be foundational to some groups of fans" (Wanzo, 2015).

I provide this background as the interconnectivity of Black history and culture within both disability and restorying is undeniable and cannot be excluded from the discussion. In looking to Black fan studies and Black scholarship, I intend that engagement with restorying and reflection of fan culture does not ignore necessary criticism and context simply because it "troubles" my claims. As previously noted, there is strong merit in studying fandom movements and behaviors as they express rich forms of culture and lived experience. Restorying has thus been considered for its academic properties in other fields as well. I engage further with several of these studies to reflect on the ways restorying has been used to highlight additional identities.

For example, in their study "Restorying the Self: An Exploration of Young Burn Survivors' Narratives of Resilience" Ursula Lau and Ashley van Niekerk (2011) argue that restorying as a methodology, in this case, implicitly critiques the "scientific gaze that has dominated conceptualizations of burn injury by affording burn survivors the opportunity to speak their personal truths through their narratives" (p. 1168). In being allowed the opportunity to craft their own story, "These young survivors offered significant insights into the transformative emotional and social pathways to an evolving identity able to bridge seemingly contradictory experiences of suffering and survival … [opening] up alternative avenues for meaning and hope" (2011, p. 1177). In a more abstract way, here restorying was used to counter the participants' internal narratives that have been strongly influenced and directed by the medical model and scientific gaze.

In another example, we see how restorying can also be effectively used to critique and unpack representation in media. In his three-part series "examining instances of 'bad' transgender popular culture" Keegan (2019, 2020a, 2020b) unpacks how "the demand for 'good' transgender representation is shifting the history and aesthetics of transgender media," offering a

different way in which academics might engage with these ideas. Though Keegan (2019, 2020a, 2020b) does not use the word "restorying," he deviates from what we can assume was the film's original intent to explore new ways of reading characters regarded as "bad" examples of trans experience. In his second part of the series, for example, he discusses *Silence of the Lambs* (Demme, 1991), specifically pointing to Buffalo Bill and Clarice Starling. In his read he asks the provocative questions of "What if *The Silence of the Lambs* isn't simply a story of transmisogynistic violence, but a story about how that violence figured in the process through which gay and lesbian identities secured national belonging?" (2020a). Through this he sets up the poetic dichotomy of Starling and Bill's connection "as a formal exploration of which kinds of queerness would be welcomed into national belonging and which would be marked as irredeemable" (Keegan, 2020a). He provides a compelling argument, then, that Starling is only able to find Bill because she too is a queer woman who understands the debilitation they face. Starling's success, and acceptance in society as a lesbian woman, in this case then, only comes at the expense of Bill, a trans woman left behind and marked "irredeemable" (Keegan, 2020a).

If disability can be situated as an "ideological linchpin utilized to (re)constitute social difference along the axes of race, gender, and sexuality" (Erevelles, 2011, p. 6), a restoried narrative highlighting disability and debility might reveal more on these reconstituted social differences. In the study conducted by Lau and van Niekerk (2011), for example, we see a narrative that pushes back against the medical model's perception of "victim" and survivor. Keegan's (2019, 2020a, 2020b) work, though not necessarily about disability, indeed includes the reality of debility. Here, debility cuts through the combined strands of womanhood and queer identity to reconstitute a social difference between the trans woman and the lesbian woman. Such explorations are yet another reason I engage restorying for my analysis.

The Biopsychosocial Model

In this chapter, I use a modified version of the biopsychosocial model to organize my analysis. Currently, the biopsychosocial model typically focuses on "how you live with, or respond to, symptoms or a disease," with the intent to provide a system more conducive with the social model as opposed to the medical model (Bevers et al., 2016). In the simplest words, the biopsychosocial model of today considers the biological, psychological, and social factors of illness or pain and how they interconnect to varying degrees.

The original biopsychosocial model gained popularity throughout the 70s and 80s after being conceptualized by George L. Engel in 1977 as an alternative way to assess illness (Bevers et al., 2016). Prior to this model, if a patient had pain that could not be explained through an obvious injury, they were referred for psychiatric care (Bevers et al., 2016). As this original model was intended for illness, it was adapted to better suit the model to pain, as done, for example, by John D. Loeser in 1982. Compared to Engel's model, Loeser's stems from nociception rather than physical problem (see Figure 11). For Loeser's theory, "nociceptors are

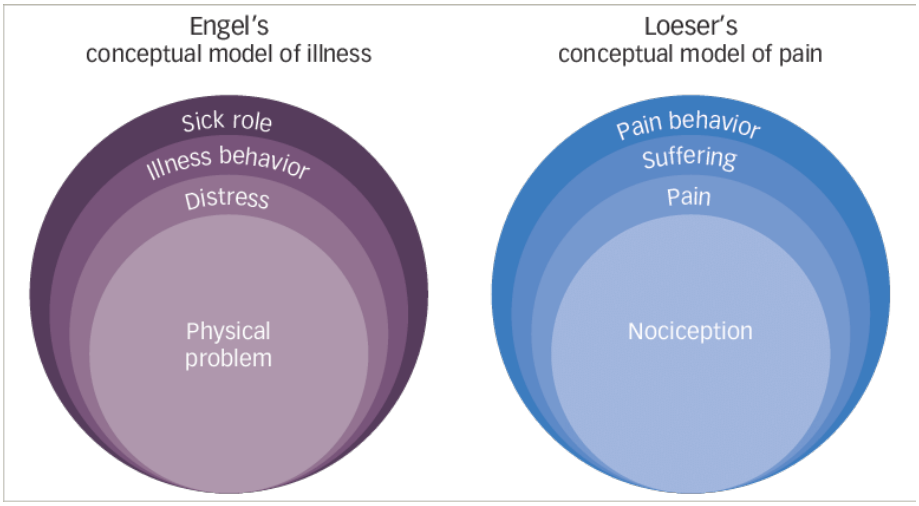

Figure 11. Engel vs. Loeser's Conceptual Models.

sensory nerve cells that respond to damage within the body" through nociception, and it is through the stimulation of these nerve cells that we receive a "sensory component (i.e., experiencing physical pain)" (Bevers et al., 2016, p. 99). Loeser's inclusion of sensory components and suffering changed the direction of the model, highlighting the patient and the emotional distress of pain more than Engel's model did.

In the pain rehabilitation program I attended in 2014, as noted in Chapter 2, the biopsychosocial model was utilized to evenly break up our day among activities that focused on biological, psychological, and social factors of pain management. For the biological aspect, we did physical therapy and various forms of guided exercise. To attend to the psychological, we had talk therapy, occupational therapy, journaling sessions, biofeedback therapy, and meditation. The social element was factored in throughout as we did nearly every activity as a group. However, we were also provided specific opportunities for social interaction like animal therapy and art therapy. The biopsychosocial model was also used as a way for us to discuss our pain, providing us a clear structure to speak to when articulating our experiences of chronic pain.

In offering brief background on this model, I am not arguing it as the only method available, nor am I arguing it as necessarily beneficial. Instead, I provide the baseline of how it attempts to attend to the multifaceted experience of pain. Whether it does so successfully or not is, in many ways, up to the individual. Despite its continued use, it has not gone without critique for its simplistic system. For example, one such critique and adjustment by Peter Stilwell and Katherine Harman (2019) argues that the artificial boundaries the current model sets between the biological, the social, and the psychological interrupt an understanding of embodiment and the phenomenological experience of pain (Stilwell & Harman, 2019). As I argue in the following section on methods, however, this separation benefits my purposes.

The Development of Chibi-Robo!

While we can assume *Chibi-Robo!* (Skip Ltd. et al., 2005) was not made with the intent to be canonically read as someone with chronic pain, it is worth briefly discussing some of the game's development to parse what *was* intended in its design, namely the player's connection to, and embodiment of, Chibi-Robo.

Chibi-Robo! (Skip Ltd. et al., 2005) was developed by Skip Ltd. (stylized as "skip Ltd.," "SKIP," or simply "Skip") a small company founded in 2000 by several former Square Enix developers like Kenichi Nishi and Keita Eto (SKIP Inc., 2016). *Chibi-Robo!* was the company's second game, and first international release, originally set to be published by Bandai as a point-and-click adventure game (Day, 2022). In the prototype of the game, Chibi-Robo lived with an inventor who he was later tasked with protecting from burglars similar to *Home Alone* (Columbus, 1990). In 2003, an early version of the game was announced by Bandai, though the project was mysteriously put on "indefinite hold" by 2004 (Day, 2022). It was then that Shigeru Miyamoto got involved and took over the production of *Chibi-Robo!* due to his love of the character design. With Miyamoto and Nintendo's involvement, the game's development was revived with one of Skip's founders, Kenichi Nishi, assigned as its director and Nintendo's Kensuke Tanabe as its producer.

Through Miyamoto and Tanabe's suggestion, *Chibi-Robo!* was changed from a point-and-click game to stick controls. As Nishi explains, Skip had several opportunities to show the game's progress to Miyamoto. In one meeting Miyamoto noted that "Chibi-Robo should be able to plug in and pull out his own power cord at power outlets in the wall," which set the development of Chibi-Robo's battery mechanic in motion (Day, 2022). In an interview with

Cubed[3], Tanabe further articulates that he also pushed for this change in mechanics "Because of [his] belief that creating a sense of identity between Chibi-Robo and the player would lead to the title's appeal more than anything else" (Riley, 2006).

Nishi's willingness to work with these suggestions was also thanks to the fact that they fit his intentions for the game to focus on "the adventure in daily life" (Hoffman, 2006, p. 33). To similarly suit this, Chibi-Robo was changed from the protector of an inventor to a mass-produced cleaning robot recently brought into a dysfunctional family. As Nishi explains, "If I made it too much of an epic fantasy, the world view would be different from the characters of the little robot, so I made an ordinary family the core of the story" (Day, 2022).

In an interview with Nintendo Power, Nishi further expressed his love of subverting expectations and how that played into *Chibi-Robo!'s* (Skip Ltd. et al., 2005) development, especially regarding why a game that, on its surface is zany and cute, covers darker topics like divorce, pollution, loss. As Nishi notes:

> If we only concentrate on cheerful fun, we'll lose depth. There's nothing surprising for people if the game looks cheerful and the experience is cheerful… Divorce is a very personal thing, and something that has less impact when we compare it to the end of the world. However, it is an extremely serious thing for people themselves. Instead of bringing in more-cataclysmic things to give more stimuli to players, I thought it was more effective to bring in more-ordinary things to enhance the adventure in daily life. (p. 33)

Through these interviews, we can understand that much consideration was put into how and why the player would connect with Chibi-Robo and the game's world. While Chibi-Robo may not go through the same struggles as an action hero, the difficulty he encounters is highly personal and, in many cases, mirrors aspects of the players' lives. The depth of this design decision becomes even more evident when reviewing the sound design of the game.

As noted by Nintendo Power, *Chibi-Robo!* (Skip Ltd. et al., 2005) "features exceptional sound design that blurs the lines between music and sound effects" (Hoffman, 2006, p. 30). In this interview, Hirofumi Taniguchi, the game's composer and sound designer, articulates that while creating the audio it was important to influence "people's emotions subconsciously through the environmental sounds rather than being straightforward." Taniguchi further explains that this was partially done by creating "unique sound patterns . . . for each character's sound effects and even for general sound effects" with the intent to make people smile. Taniguchi goes on to say that "All system sounds [such as menu-selection sounds] were created by voices. It is an effective way of differentiating the game from other games. I am very good at creating effect-like sounds with my mouth" (Hoffman, 2006, p. 30).

In this way, though Chibi-Robo is indeed a robot, most of his sound design is explicitly human. Taniguchi went on to say that "All of Chibi-Robo's action sounds were created by 'phrasing' (diving the synthetic musical sounds into phrases)" (Hoffman, 2006, p.30). The choice to use woodwind and brass instruments instead of electronic sounds in this phrasing was made to subvert expectations as "People naturally think of a robot generating electronic sounds, but Chibi's actions are not ordinary robotlike actions" (Hoffman, 2006, p. 30). Taniguchi instead chose specific situations to highlight more robotic sounds to differentiate them from others. The game's sound design and phrasing, thus, naturally blends into the differing day and night background music. When asked about how this was done, Taniguchi explains:

> The reason the background music does not have a melody is because Chibi's footsteps create a melody at random . . . the tempo of his footsteps matches the tempo of the music. When Chibi carries his plug . . . the tempo of the music becomes faster. All those sound-design choices are intended to be unobtrusive to the player. My goal is to create sounds and music that bring experiences and impressions that are somehow comforting to players. (Hoffman, 2006, p. 30)

Through this brief review of *Chibi-Robo!*'s (Skip Ltd. et al., 2005) development, we can note the designers' clear intent in the player forming a bond with Chibi-Robo. This was partially done through the game's controls, narrative, and sound design. It was necessary for players to move Chibi-Robo around with the control stick to further embody him, and for the narrative to mirror aspects of the player's own life, while the sound design worked to create a distinctly human feeling, despite Chibi-Robo's robotic nature.

3.3 Methods

As previously stated, in this chapter I engage several methods to analyze and restory Chibi-Robo. I offer this section below to clearly articulate the methods I am using and why they are suitable. I begin by detailing my use of lived experience, then my use of the biopsychosocial model, and finally, my use of restorying.

Lived Experience

Instead of discussing disability through a specific framework, much like in my previous chapter, I once again utilize my own experience in chronic pain as the standpoint of my research. In regarding my lived experience, I include the element of debilitation to better reflect the oppressive systems we are often trained to be desensitized to. Through this I can contextualize parts of my experience that are difficult to articulate otherwise. Though I restory Chibi-Robo as someone with my lived experience of chronic pain, I do so without changing his narrative to be identical to mine. In this way, reflecting on how Chibi-Robo is debilitated by his system fills in the gaps of the many differences in our narratives, still allowing us to share our lived experience of chronic pain but in our different contexts. While I have chosen to reflect on my own

experience for this research, I recognize that organization is still necessary. I offer the following section detailing my use of the biopsychosocial model to better articulate how I organize my analysis.

Biopsychosocial Method, Intersectionality, and Assemblage

As previously noted, sharing lived experience with chronic pain is crucial research. With that said, however, organizing it in a way that makes my analysis clear to readers outside of my experience is also beneficial. To do so, I utilize a modified version of the biopsychosocial model that is a combination of the one I was provided in my own pain rehabilitation program in 2014 and the current standard (Bevers et al., 2016; Megan & Tyler, 2021). This combination can be seen below (see Figure 12).

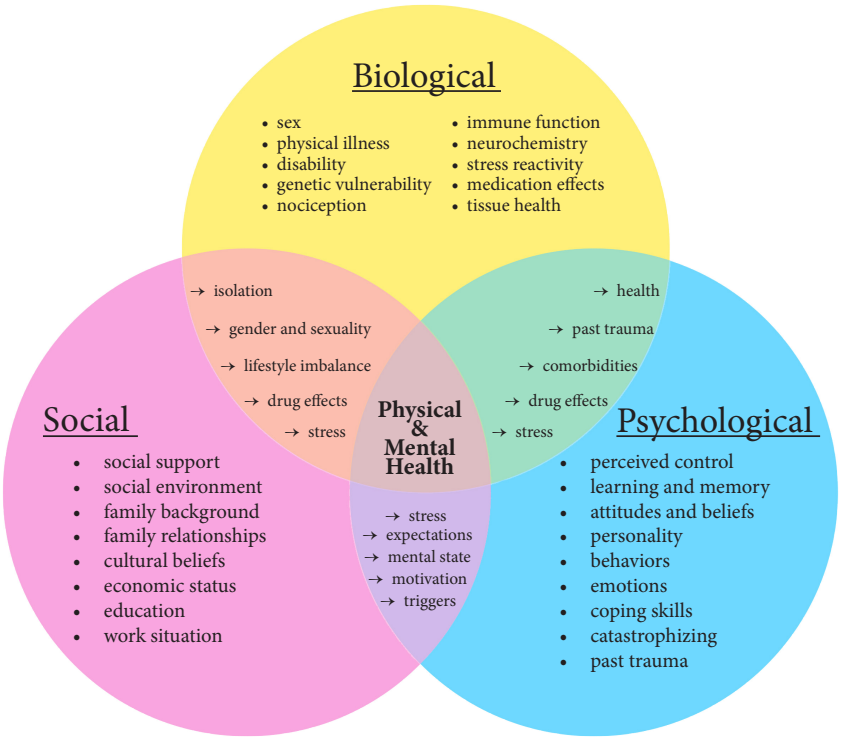

Figure 12. My modified biopsychosocial model.

While the biopsychosocial model has been critiqued due to its oversimplification of the experience and phenomenology of pain, and additional methodologies have been created to replace it (Stilwell & Harman, 2019), it has long since been the standard in pain management (Bevers et al., 2016). I would like to reiterate that I am not arguing the biopsychosocial model is the best or only method of pain management. I acknowledge that though it has benefitted me, it is not necessarily useful for all who encounter it. Additionally, as "being the standard" is not often a sound reason for an argument on its own, I instead argue my choice of this model as twofold. First, it is the model I have guided experience in, and one that I have used to articulate the interconnected experience of chronic pain to those struggling to comprehend it. Second, I use it to highlight the intersectional position I take, while supplementing it with assemblage theory. While the first point may be relatively understandable, I would like to elaborate on the second.

To this second point, I argue that the biopsychosocial model's oft critiqued artificial separation of the biological, social, and psychological factors of pain works to my benefit here. Afterall, it cannot be denied that this contrived attempt to separate the sum of our human parts has its own relevance beyond the discussion of its accuracy. In this separation, we might consider an intersectional position that requires the supplement of assemblage to complicate it. As articulated by Puar (2017a), "Intersectionality privileges naming, visuality, epistemology, representation, and meaning, while assemblage underscores feeling, tactility, ontology, affect, and information" (p. 215). In this way, we can think of assemblage as the necessary complication to intersectionality. To review chronic pain by its pieces has benefit in understanding, but the assumption that these separated parts are possible without complication of the whole feels incomplete. Therefore, while I take this separation of the facets of pain as it impacts life to

benefit my analysis, I simultaneously ask that it be viewed both as these defined parts and as its whole.

Even further, the consistent separation of self as evidenced in art and literature speaks to the value even in incorrect separations made to better understand the assemblage. To shut down these conceptualized separations due to their impossibility and inaccuracy disallows for further consideration to be made on *why* a separation was attempted, and further, how this separation, no matter how faulty, impacts our understanding of the whole. One pertinent example of this sort of exploration comes from Andrew Marvell's 1681 poem titled "A Dialogue between the Soul and Body." Here, the soul is lamenting its forced physical attachment to the body: "With bolts of Bones, that fetter'd stands / In Feet; and manacled in Hands" (p. 12). In this, the soul details its body as a prison. The body, though posed as the soul's opposite, feels similarly about its forced attachment as it is "A Body that could never rest, / Since this ill Spirit it possest" (Marvell, 1681, p. 13). To the body, the soul possesses it, directing it in ways it doesn't want to go. Through this back and forth, the body and the soul blame one another for their suffering as they bemoan over what it means to be human. Each want the other to leave, but both are also too stubborn to be the one to give in. Both feel a distinct ownership to the existence their combination creates. In this, their argument embodies a stubbornness to live almost *in spite of* suffering. As the soul says:

> I feel, that cannot feel, the pain. / And all my Care its self employes, / That to preserve, which me destroys: / Constrain'd not only to indure / Diseases, but, whats worse, the Cure: / And ready oft the Port to gain, / Am Shipwrackt into Health again. (p. 13)

While the soul holds a hatred for the body's ability to heal and unwillingness to die, the body concludes the poem by detailing resentment towards the emotions the soul makes it feel:

> The Pestilence of Love does heat: / Or Hatred's hidden Ulcer eat. / Joy's chearful Madness does perplex: / Or Sorrow's other Madness vex. / Which Knowledge forces me to know; / And Memory will not foregoe. (p. 14)

I provide this example as, in most cases, I advocate against a falsified medicalized separation of body and mind as it has historically hurt more than it has helped. However, in Marvell's (1681) poem, it is through this separation that we see the similarities neatly organized and expressed. We see the human as a sum of its parts that, while separated in voice, are intrinsically combined in a shared narrative. While certainly the boundaries within the biopsychosocial model are similarly artificial, my discussion of the concepts are not, and it is through this separation that I am able to articulate the elements in play and reflect on the assemblage as it exists.

Restorying

As previously mentioned, in my analysis I focus on restorying the titular Chibi-Robo through "bending" his identity to be that of someone with chronic pain similar to my own. I engage with restorying as it allows me to describe the process with which I am reading Chibi-Robo as a disabled person with chronic pain despite him not being officially described as such.

I engage with restorying for two main reasons. First, many game scholars have called for its use, though more often in concept and not often by name, in deep readings and analyses of games (Ruberg, 2019; Waern, 2011). Second, the historical use of restorying by the Black community, by people of color, and by countless Othered groups and identities, highlights what voices have gone unheard in media, and by extension, what voices *must* be heard to begin to break up the homogeny of game scholarship. In reference to my first point, I offer a quote from Ruberg (2019) as articulated in *Queer Game Studies*:

> One thing is clear, however: taking the time to construct a narrative and then play it out in a game has considerable potential as a tool for queer game analysis. In particular, it seems to have its greatest power when compared against an experience that might be considered the "expected" or "default" one. Just as queer media consumers are often asked to reinterpret a perceived social norm in queer terms, it is possible, and even enlightening, to apply this idea to game content as well. (pp.135-134)

I argue that what Ruberg (2019) calls for here is exactly what restorying can highlight, especially when uplifted as academically viable. In my use of restorying then, I queer my close-reading and game analysis to provide an alternative look to the "expected" or "accepted" reading of Chibi-Robo's narrative to instead recontextualize him as someone with chronic pain like my own. I look at his parts and their assemblage to uncover and unpack the debilitation he experiences and is forced to operate within the bounds of. I present my findings through the organization of the biopsychosocial model to both guide my analysis and to present various angles to his experience. Throughout this process I argue that by combining fanfiction with deep reading and gameplay into a restoried analysis focused on elements of our lived experience, we can better understand what future game design might attend to while simultaneously highlighting the validity of more accessible research methods that expand and crack academia's intentionally restrictive walls.

3.4 Analysis

Chibi-Robo! developed by Skip Ltd. (2005) and published by Nintendo for the GameCube, was released in North American in 2006. It stars Chibi-Robo, a high-tech cleaning robot from the in-game robotics company "Citrusoft," that stands roughly 4 inches (10cm) tall. As Chibi-Robo's pronouns were localized as "he," I refer to him as such. His name derives from the Japanese slang word "chibi," meaning small and short, that is sometimes used in an offensive way (Suzuki, 2016), and "robo" in reference to robot. The Chibi-Robo depicted in the game is only one of the reported million units sold and is tasked with the mission of collecting "Happy

Points" by helping his family, the Sandersons, by completing various household chores and cleaning up. During this process, he can also find other collectables, talk to NPCs, explore, collect "Moolah," and recycle "Scrap" (see Table 4).

Table 4. The Main Three In-Game Currencies of *Chibi-Robo!*

Happy Points		Points awarded for making others happy, whether it be by cleaning up a stain, helping them out with a task, or something else. They are used to increase Chibi-Robo's "Chibi-Ranking." Certain rankings are rewarded with bonus batteries from Citrusoft to increase Chibi-Robo's Watt capacity.
Moolah		Currency that Chibi-Robo can receive for completing a task, find around the house, or collect by unlocking Chibi-Doors. Moolah can be used to purchase upgrades and items from the Chibi-PC.
Scrap		Collectable material left behind after defeating a Spydor. Scrap can be recycled into the "Recyclotron" to eventually receive a Utilibot.

Each Chibi-Robo comes with a "Telly Vision," or simply "Telly," who acts as friend, assistant, manager, and translator to Chibi-Robo. Telly often appears in cutscenes to speak for Chibi-Robo. While meant to be a translator, Telly often includes his own opinions and plays it off as Chibi-Robo's idea as well regardless of if the two are in agreement, leading to comedic interactions. For a complete synopsis of the game's story please see Appendix A; for a table summary of all the characters each with a brief description see Appendix B; and for a summary of each of the game's largest side-plots see Appendix C.

In my analysis below, I refer to Chibi-Robo as someone with chronic pain similar to my own. From this point forward I discuss my restoried version of his identity without further reference to it being non-canonical. As I only bend Chibi-Robo's identity, the story beats, mechanics, characters, and gameplay discussed are otherwise true to the original game. To begin,

I review the biological factors of Chibi-Robo as someone with chronic pain, and then move on to the psychological, and finally, the social.

Biological: Energy Management and Overthrowing Oppressors

The biological aspects of the biopsychosocial model understandably refer mainly to biological traits, such as genetic makeup, neurochemistry, diagnosis, and more as shown below (see Figure 13). Given that Chibi-Robo is a robot and therefore not strictly human, when discussing the biological side of his pain I focus instead on two main factors: (1) the process of regaining and managing his energy supply called "Watts"; and (2) the body modifications he obtains throughout the game.

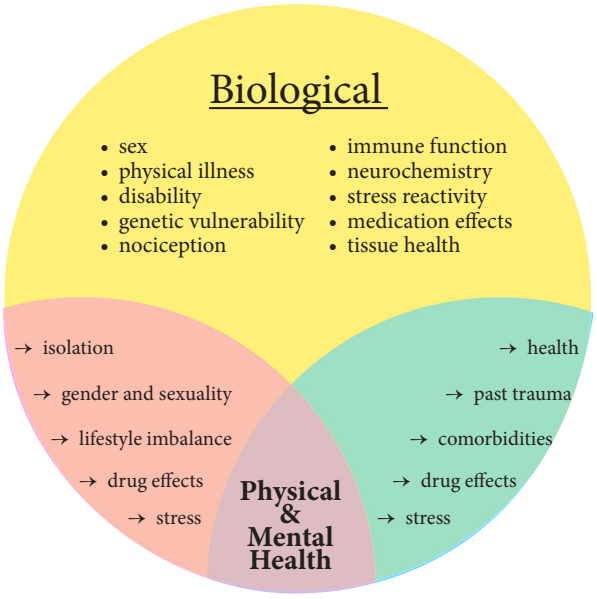

Figure 13. The biological factors in the biopsychosocial model.

The world that Chibi-Robo must operate within was not built for him. Due to his smaller size, he is forced to find unique ways to navigate this large world if he wants to reach new

locations (see Figure 14). Along with his small stature, however, is his limited battery charge. Chibi-Robo's days and nights always require cautious planning for outlet locations to make sure he properly manages his charge. While his main goal is to complete daily activities, such as cleaning and various tasks around the house, there is a consistent focus on his energy toll throughout the game. With each step he takes, an audio cue accompanies the visual representation of his Watts dropping down.

Figure 14. Exploring the house (left) and HUD Explanation (right) from the game's manual.

Joyce A. Lasseter (2009) has described the role of fatigue in many chronic conditions (p. 10). Lasseter references Barbara F. Piper et al. (1987) to explain that, unlike regular fatigue, chronic fatigue does not decrease with rest or sleep; it is constant. Understandably, managing chronic fatigue becomes a part of daily life that is then added on to additional management of any comorbidities (Lasseter, 2009, p. 12). Managing energy in *Chibi-Robo!* (Skip Ltd. et al., 2005) is required to play the game. Chibi-Robo's consistent need to manage his Watts reflects

his experience with chronic fatigue. He must work with, and around, his limited energy; he must set goals for his days and nights before they start and must plan accordingly to ensure he doesn't collapse.

Chibi-Robo's energy management is not only of his concern but is also important to his friend, assistant, and translator, Telly. For example, when Chibi-Robo is low on energy and has made it to an outlet and plugged-in just in the nick of time, Telly comments, "Whew that was close!" After plugging into an outlet, Telly will also update Chibi-Robo on how many times he has recharged, noting, "You've recharged [#] times!" This feature, while small, reflects progress in both fatigue management and time passed as Chibi-Robo continues through his daily activities. Regardless of how well the player manages Chibi-Robo's charge, the small robot will likely pass out at some point. In most cases, this happens when traversing especially strenuous areas such as the staircase. The game expects as much, rewarding the player with a special costume the first time Chibi-Robo collapses. This costume is called the "Trauma Suit" and covers Chibi-Robo in bandages and a cast (see Figure 15). In reviewing the Trauma Suit, as well as Telly's response to Chibi-Robo after he collapses, we can make implicit factors of Chibi-Robo's chronic pain experience much more direct.

Figure 15. Chibi-Robo's "Trauma Suit."

In having the "Trauma Suit" only obtainable through collapsing, Chibi-Robo is rewarded for meeting a "fail-condition." Rewarding the player for failing to economically manage energy consumption not only creates a space where failure is expected and encouraged, but also where proper management is a learned process that grows through practice. For myself, failure in my pain management can result in temporary but severe consequences to my physical abilities and mobility. While I do what I can to avoid this, it is something I also expect to happen in the fluidity of life and pain; I must plan for failure as much as I plan for success.

Chibi-Robo similarly plans for success while also fostering a healthy expectation of failure. The process of understanding and accepting chronic pain comes from practice and experience. Even when pain is excellently managed, there will inevitably be failure in the process. This element of learning effective pain management and failing flawlessly along the way is demonstrated throughout the game as Chibi-Robo advances and receives upgrades. Throughout the game Chibi-Robo mainly collects Happy Points, Moolah, and Scraps which are each used as a different sort of currency. With Happy-Points, for example, Chibi-Robo can increase his Chibi-Ranking. Predetermined rewards are given when Chibi-Robo's Chibi-Ranking reaches certain levels. Upon some of these levels, Citrusoft sends him bonus batters that increase his Watt capacity. An increase in Watt capacity means Chibi-Robo is able to hold a longer charge, and thus, travel further and do more with his time. With a better source of power and self, the potential and threat of collapse becomes less prevalent. In my case, nothing has ever offered me permanently better endurance, but the lessons I have learned have made it so I am never truly starting from the bottom even when I "fail." Like the lessons I have learned, Chibi-Robo's battery reflects growth from practice and experience.

Like Happy Points, Moolah and Scrap are used to purchase and unlock useful tools respectively. For my purposes, I will only discuss two types of upgrades: “Chibi-Gear” and “Utilibots.” Chibi-Robo can buy Chibi-Gear through the Chibi-PC with his collected Moolah, whereas Utilibots are provided after putting 300 Scrap into the “Recyclotron.” Items purchased with Moolah are instantly provided, and Utilibots awarded after collecting enough Scrap appear in set locations to help Chibi-Robo get around the house more easily.

Chibi-Robo finds several tools to use throughout the game, like a toothbrush for cleaning stains, or a spoon for digging dirt. Unlike the tools Chibi-Robo finds, Chibi-Gear are purchasable body modifications intended for specific use. There are three types of Chibi-Gear offered in the game (see Figure 16). Purchasing Chibi-Gear is essential to completing the game as it is necessary to complete certain tasks and reach various locations. The “Chibi-Coptor” allows Chibi-Robo to fall slowly from heights, avoiding the previously, often fatal, fall damage. With it, he can also hover, though doing so will drain quite a few Watts and without proper preparation can do more harm than good. The “Chibi-Blaster” is equally useful, allowing Chibi-Robo to finally fight back against the Spydorz. The Chibi-Blaster is often utilized for collectibles as well thanks to the range of its shot. Upgrading this weapon is necessary to beat the “final boss” of the game. Finally, there is the “Chibi-Radar,” which allows Chibi-Robo to find hidden items like Chibi-Doors, and to summon the Aliens when in the Backyard.

Figure 16. The Chibi-Coptor, Chibi-Blaster, and Chibi-Radar.

Utilibots, on the other hand, come in three set types: Ladder Utilibot, Warp Utilibot, and Bridge Utilibot (see Figure 17). When the player has recycled enough Scrap, the Recyclotron produces a predetermined type of Utilibot which Telly takes and places into a set location. Ladder Utilibots operate as ladders, Warp Utilibots allow Chibi-Robo to warp to set locations where another Warp Utilibot is placed, and Bridge Utilibots are, as the name implies, bridges. Though they do not become a part of his body like Chibi-Gear, Chibi-Robo must still plug into the Utilibots and provide some of his Watts for them to work.

Figure 17. The Utilibots as described in the game's manual.

Chibi-Gear allows Chibi-Robo the opportunity to temporarily alter his biology to suit his needs. Utilibots, though not an alteration to his specific biology, provide him quite literally with mobility-aids. In this, he finds alternatives to best maneuver around an environment that was not made for him and, in many ways, actively works against him. These tools aid him in completing

tasks he would not have been able to do otherwise in a world unwilling and unable to adjust for him. While I do not have a helicopter that I attach to my head, medication provides certain "alterations" that are necessary for my success in a society set to debilitate. Throughout my life I have utilized many treatments and medications along with items like back braces, shoe inserts, and mobility aids to help navigate my success. Like Chibi-Robo, these resources do not come free of charge or without side effects. In his case, both Chibi-Gear and Utilibots require Watts to work, demanding the trade of his precious charge for what they provide. These tools are created for his benefit, yet Chibi-Robo must still properly plan how and when to use them. While he can alter his body to suit his needs, these alterations are temporary and come at a physical cost.

Like medication and treatments, we can look at Chibi-Gear and Utilibots as positive in how they help Chibi-Robo navigate an unfair environment. However, it is worth considering *why* he even requires these for success. Here we see a clear connection to what Puar (2017b) calls "capacitation machines" (p xvii). DeAnda and Straznickas (2023) summarize capacitation machines as "processes of extracting value from bodies by maiming them to conform to a neoliberal system of production" (p. 28). If we consider that Chibi-Gear and Utilibots are also products of Citrusoft, the company that created Chibi-Robo, this connection becomes clear.

Citrusoft Robotics created Chibi-Robo as a "more efficient" model to their original Giga-Robo, which stood around 3'3" feet (100 cm) tall and required immense amounts of energy to operate. To avoid the same power issue, Citrusoft intentionally created Chibi-Robo to be roughly 4 inches (10 cm) tall to benefit the consumer with a comparably lower initial cost and lower energy requirements. Citrusoft "maimed" Chibi-Robo for the benefit of capitalistic gain. The company then created additional batteries, upgrades, Chibi-Gear, and Utilibots as helpful "add-ons" for Chibi-Robo that he is only able to receive or purchase by complying with the company's

currency system of Happy Points (something Chibi-Robo only gains by making others happy, never himself), Moolah, and Scrap. Despite the happy tone of the company's design, Citrusoft does not appear to value individual Chibi-Robos beyond collecting currency from them. This lack of care is evident when the Sanderson's Chibi-Robo defeats the "final boss" of the game, Queen Spydor, and saves his family, and likely many others, from literal death. In his success, however, he unintentionally causes a boom in Chibi-Robo sales. This, in turn, causes skyrocketing demands for power, resulting in panic and blame directed at the Chibi-Robos for the impact on global warming rather than Citrusoft as a company. There is no alternative narrative provided by the company to protect the Chibi-Robos, allowing them to take the fall and public hatred instead. A similar neglect is revealed to have happened with the previous Giga-Robo model as well, one that the company allowed to be hated and forgotten as they instead began work on the Chibi-Robo model.

The existence of Watt capacity, Chibi-Gear, Utilibots, and even the blame Chibi-Robo is faced with for excelling *despite* his oppressive system speaks to the ways that people with disabilities operate within a capacitation machine. Chibi-Robo provides a realistic look at the oppressive system in which a group cannot succeed without "enhancements" sold by the same oppressors who created the structure that requires them a normative body for success. In this I am not arguing that Chibi-Gear and Utilibots are entirely negative, but rather that the necessity for Chibi-Robo to operate within a capitalist system required for his success made by the same group who set him up to fail is an inescapable transaction with no relief. While understandably Citrusoft's use of Happy Points, Moolah, and Scrap seems, in some respects, a comparably more positive system, it still capacitates debilitation. It is actually through recognizing this connection, that we can better understand the ending of the game as a reflection of resisting the oppressor.

As described in the provided summary of the game's story (see Appendix A), in the conclusion of *Chibi-Robo!* the titular character successfully revives the Sanderson's lifeless Giga-Robo. This is a task Chibi-Robo has been chipping away at throughout the entirety of the game, from literally going back in time to find the code necessary to collect Giga-Robo's missing foot, to generating his own Watts with Moolah to charge Giga-Robo's empty battery. Though defeating the Queen Spydor sounds to be a fitting finale, the true ending of the game only comes from reviving Giga-Robo. When Chibi-Robo succeeds in this momentous task, Giga-Robo awakens and immediately picks Chibi-Robo up, placing him on his shoulder, as he walks them to the Backyard with his limited charge. Here, the aliens are waiting to grant his second wish. In the scene that follows, the aliens recount the story of how Giga-Robo heroically saved their UFO from crashing, and thus, was granted two wishes. The aliens had fulfilled his first at the time of their rescue: "I want to give soul to toys," but required more energy and unfortunately had to leave to gather it. When they returned to grant his second wish it was "too late," that is, until Chibi-Robo revived him. The aliens are finally able to fulfill Giga-Robo's second wish: "Give me body that does not need energy."

The scene plays out with Giga-Robo collapsing before soon standing once more, his battery empty but his body undeniably awake. Chibi-Robo plugs into Giga-Robo, and we see his Watts fully charging before rapidly decreasing in a terrifying display. Four blue skull and crossbones icons replace the Watt numbers as Chibi-Robo falls dead. After a sustained silence, he stands, the skull icon still present as he adjusts his head back into place. Lights begin to flash, and the skulls become an infinity (see Figure 18). With an infinite charge, Chibi-Robo no longer needs to worry about managing his Watts and can explore freely.

Figure 18. Chibi-Robo's death and rebirth (read left to right).

While certainly some could see this as Chibi-Robo "curing" his chronic pain, that deflates his journey by reconstructing it into a narrative prosthesis where a non-disabled body is framed as the ultimate goal. Not only would this render his story as less appealing, it also does not match Chibi-Robo's goals and personality as shown throughout the game. As established, Chibi-Robo's main operative is to collect Happy Points by doing tasks for others. Reviving Giga-Robo is arguably one of the few things Chibi-Robo does for his *own* happiness. Upon finding Giga-Robo's lifeless body in the Basement, Chibi-Robo chooses to plug into him of his own volition, frying a circuit and collapsing in the process (see Appendix A for more in-depth details).

The song "置き去りにされた記憶" (aptly translated as "Abandoned Memories") composed by Hirofumi Taniguchi (2005) plays over the slideshow of images that depict Giga-Robo's memories as they run through Chibi-Robo's fried brain (see Figure 19). The first few notes of the melody briefly echo a distorted version of the third movement motif of Chopin's *Piano Sonata No. 2* (commonly referred to as the Funeral March). The addition of the harmony's reverb being reversed creates an overwhelmingly somber tone that comes as a stark difference to the rest of the game's upbeat, playful, and funky soundtrack.

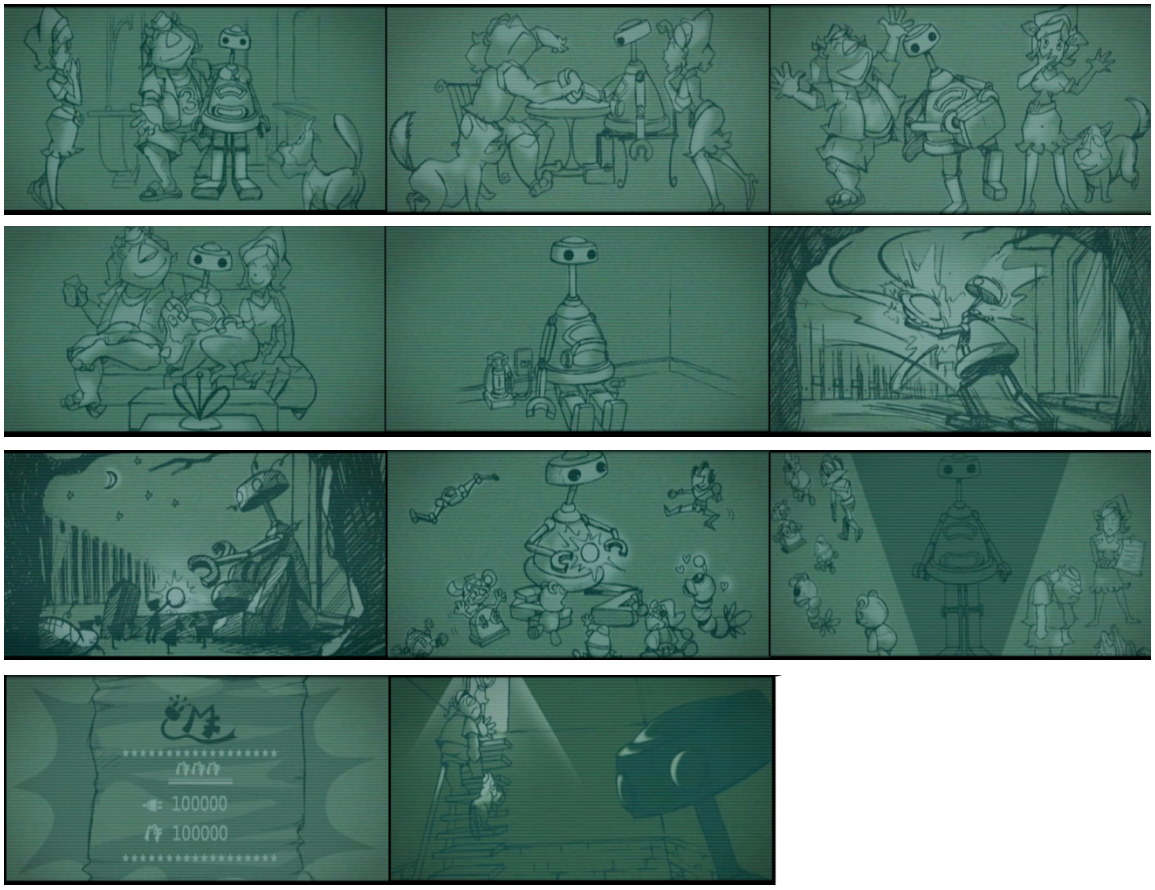

Figure 19. Compiled strips of Giga-Robo's slideshow of memories (read left to right).

When Chibi-Robo soon awakes from his collapse, Telly relays that this particular Giga-Robo is an old model, one who's high energy consumption eventually caused a decline in consumer interest. Captain Plankbeard, an old forgotten toy who emerged from the dark of the Basement during the commotion snaps at Telly for speaking so emotionlessly about Giga-Robo saying, "Ye think yer smart, but ye know NOTHIN' about him" defensively. Looking at Giga-Robo's empty battery, Captain Plankbeard wishfully notes how nice it would be to charge it up, but then speaks to Giga-Robo's motionless body, "And yet…that's not what ye want, is it, me colossal matey?" knowing well that Giga-Robo accepted his fate upon seeing the Sanderson's bills. At the end of this interaction, Chibi-Robo collects Giga-Robo's battery with the intent to

charge it himself. Without a solid plan of how to do so while honoring Giga-Robo's wishes, taking the battery is the first action Chibi-Robo does that is not only for himself, but potentially goes *against* the happiness of others. While Chibi-Robo later finds a way to charge the battery without additional funding from the Sanderson family, his initial hasty collection of it reveals an urgency he rarely displays. Chibi-Robo's drive to revive Giga-Robo shows his viewpoint and goals. His operative is to make others happy. His goal is not to "cure" his disabled body. Instead he goes out of his way to help someone like himself who was forgotten and left behind; to fight back against a fate he too will inevitably face in this capacitation machine he is forced to endure.

Chibi-Robo goes against all odds to revive Giga-Robo, a character failed by his creators, his family, and ultimately his society; a character who eerily shows the inevitable outcome of being "marked for death," left to rot forgotten in the Basement (Phillips, 2018). Chibi-Robo abides by the capacitation machine he was quite literally made to operate within only to reach his main goals. Chibi-Robo goes against all odds *not* to become an example of exceptionalism for oppressors to uphold, but to overthrow the capitation machine trapping himself and his loved ones, and to save Giga-Robo, a casualty of the same system.

In the credit images, we see the neighborhood's Chibi-Robos are coming to plug into the Sanderson's Giga-Robo, ultimately also giving all of them an infinite charge (see Figure 20). With this, Citrusoft can no longer gain funds through overly expensive electricity costs, nor can they further harm the environment in doing so. In this, the Sanderson's Chibi-Robo has single-handedly destroyed one of the main ways in which the Citrusoft bots were kept within a capacitation machine: their reliance on participation in a capitalist system due to their purposefully reduced Watts and functions.

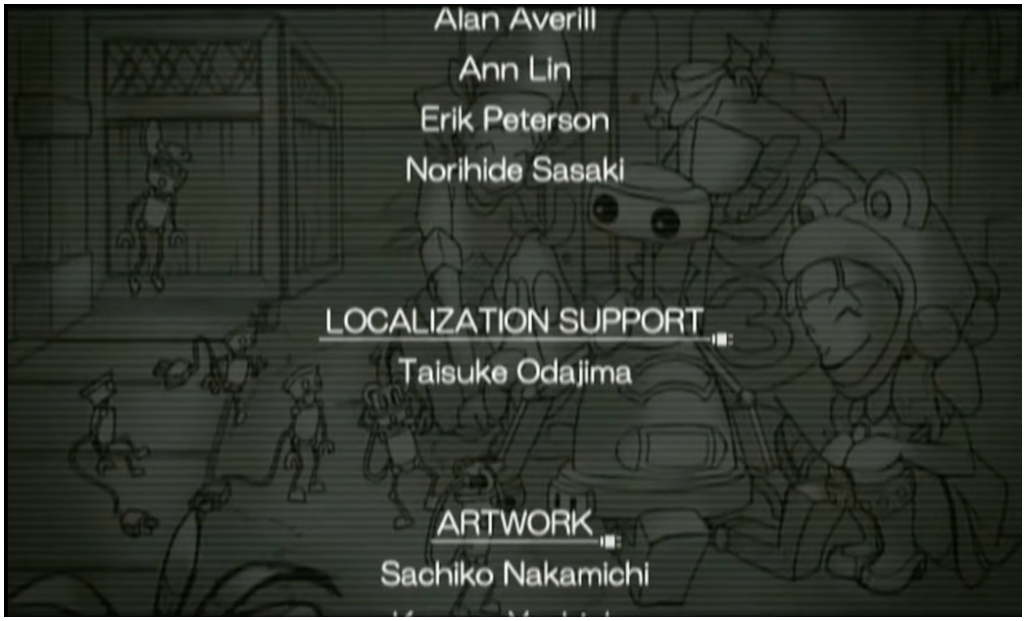

Figure 20. The neighborhood Chibi-Robos plug into Giga-Robo for infinite watts.

Regardless of his being a robot, or perhaps even because of this difference, Chibi-Robo's narrative presents an undeniably human experience. Through pacing, learning, and unavoidable failure, he must manage his Watts to avoid collapse. The inclusion of upgrades like Chibi-Gear and Utilibots reveals his experience as a disabled person operating within a capacitation machine. Throughout his journey, he destroys the very machine that holds his robotic self, and quite literally returns to life. Chibi-Robo provides a deep reflection of what it means to be someone with chronic pain, and the struggle that comes with operating in a society built against you.

Psychological: Distraction and Coping

As noted below (see Figure 21), the psychological aspects of the biopsychosocial model focus more so on emotions, trauma, and coping. For this section I mainly focus on Chibi-Robo's personality, emotions, coping skills, and motivations to highlight two distinct ideas: (1) Chibi-Robo's overuse of distraction as a pain coping mechanism; and (2) his decision to mask his feelings from others. Before offering examples, however, I must first reintroduce the concept of catastrophic thought as mentioned in Chapter 2.

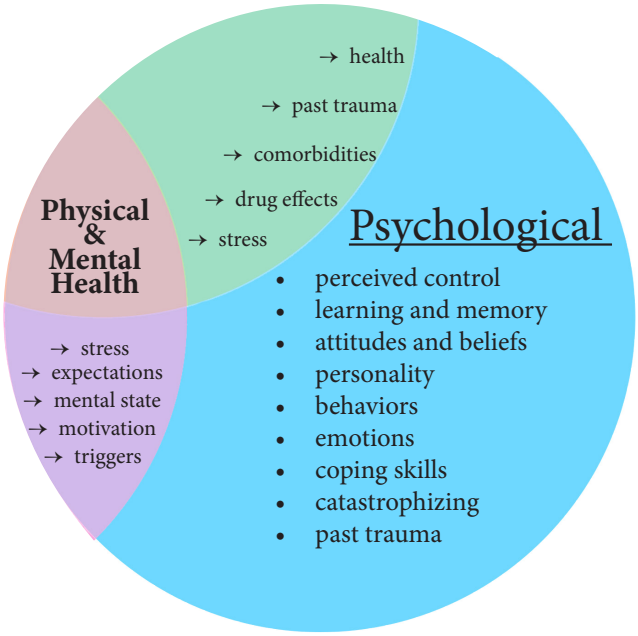

Figure 21. The psychological factors in the biopsychosocial model.

To think catastrophically about chronic pain is a common concept that refers to the process where one assumes a negative result in any situation regarding their pain (Beck, 1979). The Pain Catastrophizing Scale (PCS) determines three levels of thought: rumination, magnification, and helplessness (Sullivan, 2009, p. 4; Sullivan et al., 1995). Catastrophic thinking among those with chronic pain has the potential to hinder progress in every aspect of the

biopsychosocial (Thorn et al., 2004). Some suggested ways to rewrite this thinking pattern target a person's motivation to do something by including a more solid purpose and structure to a thought or activity (Thorn et al., 2004; Thornton et al., 2005).

Chibi-Robo presents no apparent apprehension or fear in completing his daily tasks. He cleans and walks freely; the melody he creates with his steps charming and bubbly even as he speeds up. When his Watts run low, however, an audio cue that sounds like crunching metal and discombobulated beeps plays with every step instead. Chibi-Robo's body blinks red, his discomfort obvious to anyone who sees him, but his expression does not change. While one might perceive his lack of fear in movement as indifference connected to his robotic nature, the narrative reveals that he has fears and worries of his own as shown through cutscenes, movement, and demeanor. For example, when he plugs into Giga-Robo and receives a power surge, his eyes squint and spin in circles as disjointed music plays and Telly panics in the background. By this, we see that Chibi-Robo's expression *does* change when something strange or painful is happening. Especially when that something is out of his control, like a power surge. Given this, Chibi-Robo's lack of reaction even when his Watts run low points to something other than simply his "robotic nature" as NPCs imply. Instead, it shows while he is clearly used to his pain, he chooses to ignore the signs from his body even in a dire situation.

Chibi-Robo has been tasked with collecting Happy Points, and while this may be his intended purpose, the audio cues and animations imply that he does in fact enjoy helping people regardless. Chibi-Robo's lack of fear in completing tasks and his ability to mask reveals that he is utilizing his hobby as a distraction from pain. In this, he "loses" himself in the tasks he enjoys, and this makes masking, as well as ignoring catastrophic thoughts and fears, much easier.

Distraction has always been a useful tool for my pain management, but studies in utilizing it as such come with conflict. Some have found that distraction can potentially cause more pain, though these studies tend to approach distraction as conversation or sudden noise during a strenuous task rather than a pre-planned activity with the intention of distracting from pain (Goubert et al., 2004; Van Damme et al., 2010). Others have articulated that distraction can cause more pain when overutilized. For example, in reference to the chronic pain caused by Ehlers-Danlos Syndrome Hypermobility type, Bradley Tinkle (2008) explains that while diversion therapy has its uses, "many use diversion to resume their normal activities even at the cost of more pain and eventual disability" (p. 37). By this account, Chibi-Robo's overuse of distraction as a method in battling not only pain but his catastrophic thinking contributes to his lapses in pain management. Returning to the concept of "motivation" as an expressed method by Beverly E. Thorn et al. (2004) and Marianne Thornton et al. (2005) for interrupting catastrophic thought, Chibi-Robo thus uses the motivation of his hobby to distract from negative thoughts, which allows him the ability to move freely without fear. The existence of the Trauma Suit and the expectation of failure in managing Watts, however, reveals that Chibi-Robo overworks himself beyond his abilities. We can further understand this when considering his intentional masking and why he is reluctant to share his concerns with others, instead managing through over-distraction.

Chibi-Robo cannot communicate orally, and thus, does so nonverbally. Though in the original Japanese game the symbols are "O" and "X," in the international release he communicates with a green exclamation point and a red "no entry" symbol that both pop out of his head, often used for yes and no respectively (see Figure 22). The booklet included with the game further notes that he uses these to "[convey] his feelings." Though these symbols offer the

most clarity in communication, he indicates other ideas through staring, comedic pauses and timing, squinting, actions, and various small body movements. His minimal reactions are pointed out by several characters and jokes are made about his robotic nature, discussing his vacant stare and mysterious air.

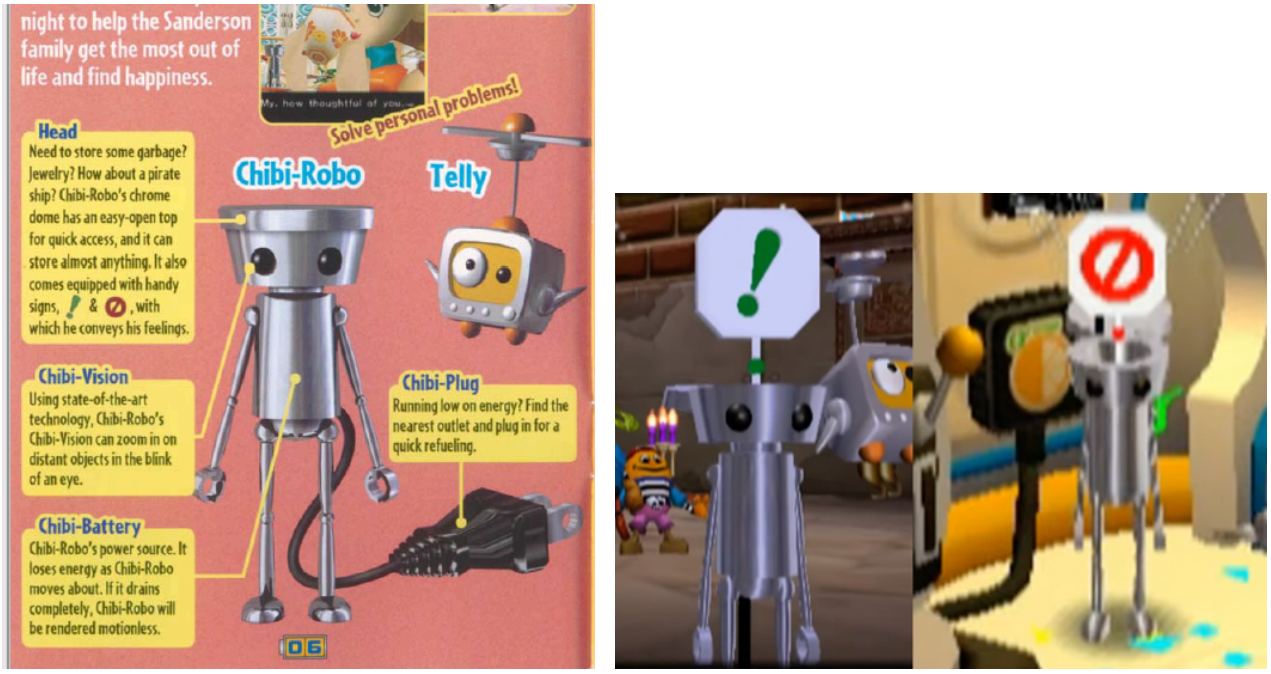

Figure 22. Chibi-Robo's functions (left) and his symbol communication (right).

Interestingly though, Chibi-Robo does not always rescind all rights of how he responds to the player. In some cases, rather than the typically offered two symbols, Chibi-Robo will suddenly restrict the player's choice to only one of the two. This occurs when Chibi-Robo firmly believes something, and the following choice is integral to his characterization. One example of this is seen in the Funky Phil and Dinah side-story (an in-depth summary of this is available in Appendix C). In this scenario, Chibi-Robo, unbeknownst to Funky Phil, has collected a seed that fell from him while dancing, planted it, and watered it with "Funky Sweat." From it, three small Funky Phil-esque babies, each individually called "Philly," are born. When Chibi-Robo brings

the Phillys to Funky Phil, they begin to call him “Pappy” and insist he is their father. Funky Phil is understandably confused, telling the small clones over and over that he is not their father. When he reprimands them too harshly, their flower faces fall, utterly dejected. Chibi-Robo then squints angrily, and the player is given the comical option between two “no entry” symbols (see Figure 23). Funky Phil reacts as if Chibi-Robo has yelled at him, and thus relents that though he is not the Phillys’ father, he will be their dance instructor and guide them in the ways of being funky.

Figure 23. A pre-determined response by Chibi-Robo.

When pairing this with the previously mentioned fact of the background music relying on Chibi-Robo’s steps to create its melody, we see two distinct examples that clearly define Chibi-Robo as someone with thoughts, feelings, and agency. While he may not communicate in the socially normative way, that doesn’t mean he does not communicate. I highlight this to further emphasize that the jokes made at Chibi-Robo’s robotic expense often fail to grasp the clear personality and emotions under his blank expression. While indeed many of these vacant stares

are partially related to his design, we must consider if he is choosing to conceal his feelings and why.

Research conducted by Ahmet Uysal and Qian Lu (2011) revealed a potential connection between self-concealment and chronic pain. Self-concealment in this study refers to "the tendency to hide negative or distressing personal information from others." Though self-concealment is often thought of as a quality of personality, Uysal and Lu (2011) assessed the potential of a deeper connection between it and those dealing with chronic pain. I absolutely self-conceal my pain. Sometimes I do so for safety and to "pass," but other times I do so because to articulate my experience to someone outside of it feels as though it would take more energy than I have to give. At this point in my life, I also mask unintentionally, not even recognizing how much energy I put into fitting normative expectations until I'm alone and can move and act freely.

Chibi-Robo self-conceals his pain, using distraction and motivation to ignore his fears and catastrophic thoughts often to his own detriment. With constant jokes at his lack of expression and normative communication, his decision to mask his feelings from others solidifies. He has thoughts, ideas, and a clear personality, but allows others to believe he doesn't. In this, Chibi-Robo presents a flawed, but incredibly realistic pain management experience wherein the psychological toll of chronic pain is ignored in favor of continuing normative behavior and masking emotions. Many of us will intentionally "hide" our chronic pain to avoid conflict, and those of us who cannot fully hide it may often attempt to pass as "less" disabled instead. As I co-authored with DeAnda in an article on passing in level design, disability, and queerness, we utilize passing to read level design and "engage with meritocratic thinking that protects and expands oppressive systems, especially when those systems target LGBTQ+ people,

people of color, and people with disabilities" (DeAnda & Straznickas, 2023, p. 27). In this article, we point to the way in which passing can be seen as "the practice by which people from underprivileged identities perform as more privileged social identities as a means of survival," with its history largely developed by queer and trans people of color as well as other debilitated communities (DeAnda & Straznickas, 2023, p. 30). Through our examples we argue that passing can be read as a capacitation machine as its "embodied method of survival in systems of white supremacy, capitalism, ableism, and cisheteronormativity … reveals how the system enforces certain behaviors, performances, and presentations of identity over others. Thus, passing becomes a way to train—develop the capacity—to perform in these strictures" (DeAnda & Straznickas, 2023, p. 29). Along with the conversation of passing ultimately comes the reality of masking and "piecing." Piecing as a concept is aptly articulated by Snyder and Mitchell (2010) in their article "Disability as Multitude:"

> We are now perpetual members of an audience encouraged to experience our bodies in pieces—as fractured terrains where the "bad" parts of ourselves are multiple. Whereas disabled people were trained to recognize their disabled parts as definitely inferior, late capitalism trains everyone to separate their good from bad—a form of alienation that feeds the market's penchant for "treating" our parts separately (p. 190-191)

In honor of the fluidity of chronic pain and the intersectional assemblage of the biopsychosocial model, I point to a previous example to best understand piecing in Chibi-Robo's context. As noted regarding Chibi-Robo's biology, he must purchase upgrades from the company that created him to enhance his abilities. The Chibi-Blaster attaches to his arm, the Chibi-Coptor to his head, both treated as separate extensions that make him more "exceptional" overall. In its gameplay, *Chibi-Robo!* (Skip Ltd. et al., 2005) requires these upgrades to be unlocked to continue the story, making it an expectation of all Chibi-Robos and of all players. There comes an expectation, then, not of perfection, but of constant improvement. An expectation of

responsibility in "policing [our] own well being (Mitchell & Snyder, 2010, p. 191). This standardization of the body only results in what is “really nothing but a move from a medical model based on an elusive average body to a therapy-based norm of an elusive average disabled body” (Mitchell & Snyder, 2010, p. 191).

Chibi-Robo’s chronic pain is imbedded within the sale’s pitch for his model, outing his disability to all who see him. Knowing he cannot pass as non-disabled he instead opts to pass as “less” disabled. Piecing and the standardization of the “average disabled body” highlights *why* Chibi-Robo feels a need to mask and pass in the first place. Chibi-Robo overworks himself, constantly utilizing his job and motivations to distract from his pain. He allows others to misunderstand him, as their assumption means that he is, in part, fulfilling his role in the performance. To not pass as the model example of disability means that your pieces will be scrutinized for improvement, your body targeted for neoliberal gains. To pass is to blend in and avoid that exposure, demand, and danger; to create a mirage that covers your pieces in a complete and expected, albeit murky, package. This package is lonely and not at all comfortable, but it is safe. Unfortunately, as Chibi-Robo’s reality reveals when he collapses from overwork, no performance can go on forever without breaking character.

To play a role (to act for survival) for so long undeniably wears the performer down over time. In this, finding social circles who understand aspects of the lived experience we must hide from others becomes necessary to regain strength. While Chibi-Robo must carefully navigate his fractured communication with Mr. and Mrs. Sanderson, it is with Jenny, Giga-Robo, and some of the household toys, that Chibi-Robo finds a safe space to recharge.

Social: Family Struggles and Support Groups

As seen below (see Figure 24), the social context of the biopsychosocial model for pain management speaks to things like social environment, family relationships, and social support. For my purposes, I will focus this discussion on the social aspects to Chibi-Robo's chronic pain to two areas: (1) his difficult familial relationship with the Sanderson parents; and (2) the support group he finds in Jenny, Giga-Robo, and many of the household toys.

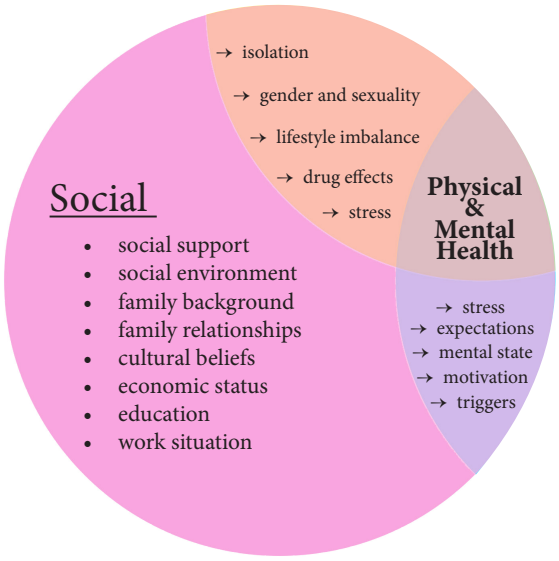

Figure 24. The social factors in the biopsychosocial model.

For a game that covers a wide array of topics, *Chibi-Robo!* (Skip Ltd. et al., 2005) is hardly centered around Chibi-Robo's struggles. In the game's depiction of the social, the plot generally ignores Chibi-Robo's disability and focuses more so on the stresses of others and how he interacts with them. Canon story elements within the game include, but are not limited to, divorce, childhood trauma, depression, drug addiction, anxiety, death, self-hatred, unrequited love, insecurity, unemployment, climate change, and aging. As a result, there is plenty to keep both the NPCs and the player occupied.

It is undeniable that living with someone with chronic pain can cause stress despite the pain itself being internal and often somewhat private (Keefe & France, 1999, p. 139). Several studies have made a clear connection between family stress and disability (Dempsey et al., 2008; Foxall et al., 1989; Nachshen et al., 2003). The Family Stress and Coping Interview (FSCI), for example, was conceptualized to analyze family stress in "parents of children with developmental disabilities" (Nachshen et al., 2003). Regardless of the nature of disability and debility, stress can integrate itself into the minutiae of everyday life, especially when navigating a system that deems certain bodies as less. To explore this fact of stress and unpack Chibi-Robo's social environment, however, I must first briefly introduce the main members of the Sanderson family (see Figure 25; for more in-depth character information on all NPCs please see Appendix B).

Figure 25: "Meet the Sandersons" from the game's manual.

Mr. Sanderson is presented as a lazy, childish man, who overspends money the family does not have on collectible toys. While there is truth to this, he loves his family and wants to make them happy. At the start of the game, he has recently become unemployed with the player led to believe he was fired, and thus, he mostly lays on the couch watching TV. Later, it is revealed he used to work at Citrusoft's rival company Macroware Robotics and actually developed the Spydorz to be friends with the Chibi-Robos. His company, however, took his invention and reprogrammed the Spydorz to attack Chibi-Robos instead to impact Citrusoft's sales. Mr. Sanderson quit upon learning this, though he kept that a secret from his family.

Mrs. Sanderson, given her husband's bad spending decisions, has had to become the voice of reason in her family. Her perfectionism, judgmental comments, and controlling nature all appear as coping mechanisms to deal with her insecurities and high anxiety. This is apparent in how she judges her family, namely disliking her daughter's "strange" behavior in pretending she's a frog, and her husband's supposed laziness. While she loves her family, she clearly values a normative familial structure and the lack of one makes her feel like a failure. While she is initially against the Chibi-Robo purchase, she is kind to Chibi-Robo himself and certainly doesn't blame him for it. She is especially thankful that he helps her with the cleaning and treats him as a sort of confidant throughout the game.

Jenny is the Sanderson's eight-year-old daughter who loves to draw. She likes Chibi-Robo from the start as he *was* introduced as her birthday present, despite Mrs. Sanderson calling Mr. Sanderson out for truthfully buying Chibi-Robo for himself. Regardless, throughout the game, Jenny and Chibi-Robo form a very close sibling bond. She has a vested interest in frogs, claiming to have been cursed by an evil frog wizard. According to this curse, she must always wear her frog hat, and can only speak in "ribbits" or "ribbitese."

From the beginning of the game, all is not well between Mr. and Mrs. Sanderson. The unrest in their relationship is a result of many years of mismanaged money and unemployment, both on Mr. Sanderson's part. That said, we learn through the 2019 translation of ベログ ("Belog"), or *Sophie's Blog*, the game's 2005 promotional blog written from the perspective of the Sanderson's dog Tao's chew toy, Sophie, of how Mr. and Mrs. Sanderson met. Sophie finds Mrs. Sanderson's old diary and reads excerpts from it revealing the story (*Sophie's Blog*, 2019; Nintendo, 2005): We learn that the two met in college when Mrs. Sanderson, or Helen, was a fan of Mr. Sanderson's, or George's, band "Rainbow Water." At the time, Helen was interested in the "handsome, talented, sexy" lead vocalist of the band, Adam (*Sophie's Blog*, 2019; Nintendo, 2005). She referred to George as "that dumb chubby drummer," her friend Karen had a crush on. When Adam and his groupies continued to mock Helen, however, she eventually ran away crying, bumping into George who gave her his towel for her tears. Later, when she wanted to return it, Karen immediately knew it belonged to George, so they went together. When Helen returned the towel with Karen watching from afar, however, George "turned red and started to sweat. He used the returned towel on the spot" before asking for her number (*Sophie's Blog*, 2019; Nintendo, 2005). This initially caused a rift between Helen and Karen, but it seemed to work out in the end.

Their origin story reveals that the two haven't changed much given that Mr. Sanderson is still a bumbling, foolish, sweetheart, and Mrs. Sanderson a responsible and loyal woman despite being exceptionally judgmental. What this proves, however, is that the stress and issues between the two are not new, meaning that the Sanderson's eight-year-old daughter Jenny has grown up around this behavior. We get a further look into what Jenny has had to deal with as Mr. and Mrs. Sanderson quickly involve Chibi-Robo in their marital issues. Mr. Sanderson often asks Chibi-

Robo for advice and additionally needs help in doing the housework he once left solely to his wife, who now refuses to do it due to his lying about overspending. These chores even include feeding their daughter Jenny, which Chibi-Robo must assist in as not to burn the meals. Mrs. Sanderson asks Chibi-Robo to find her husband's hidden toy receipts and even has him deliver her letter threatening divorce to her husband.

At the beginning of the game, it is Jenny's eighth birthday. Her mother gives her an elegant hat, an unspoken plea for her to take off her frog attire, and her father gives her a Chibi-Robo, though it is strongly implied he bought it more for himself. The growing turmoil between the Sanderson parents heightens with the new addition of Chibi-Robo to their family, which causes their electricity bills to skyrocket. Mr. Sanderson is shown to have a nasty habit of spending money the family does not have, especially on collectible toys, and hiding the receipts from his wife. Though this new stress is not inherently caused by Chibi-Robo, his awkward unchosen participation in the Sanderson's marital problems is evident throughout the game. This is only magnified by Jenny's similar discomfort at being stuck between quarreling adults. Through this uncomfortable shared experience, however, both Jenny and Chibi-Robo bond and accommodate one another to support each other and limit additional stress.

Throughout the game, we see Jenny struggling with her parents' marital issues. During the day, Chibi-Robo can find her drawing on paper, with the drawings often depicting how she is feeling about certain story beats. At night, on several occasions, Chibi-Robo can find Jenny crying alone (see Figure 26). In one example, Jenny is found crying in front of her mom's room after Mrs. Sanderson has locked herself inside and forced Mr. Sanderson to sleep on the couch. In this situation, as Chibi-Robo does not yet have the frog suit, Jenny will only properly respond to Chibi-Robo by talking through her bear, Sunshine. She shakes Sunshine around having him

say, “You came all the way up here because you heard Jenny crying, right? Jenny says thank you.” Chibi-Robo receives Happy Points from her for his concern.

Figure 26. Jenny crying alone at night (read left to right).

Various studies have brought forth data and discussion concerning the siblings of those with chronic illness or developmental disabilities. Due to the difficult nature of quantifying a lifetime experience, most studies focus on interviews and reflection by family members. Interestingly, many results show a lack of harmony in parental perception of their children’s relationship and actual sibling experience (Guite et al., 2004). As Kesha Morant Williams (2018) explained in her own experience as a sibling to someone with Lupus, she highlights narrative to demonstrate the multilevel bond formed between herself and her sister that is born from not only regular siblinghood but also through choice. In conclusion, Williams (2018) explained:

> The challenge of chronic illness is that it is chronic–it does not go away. It hides, it lurks, it rests; but it is still there teetering on the edge–leaving my sister and her support system in a space of liminality–neither here nor there. (p. 142)

The limbo felt by those who offer a support system to people with a chronic illness is difficult but can also create a deeper bond of understanding. While having chronic pain has certainly not been easy for myself or my family, I can say for certain that it has created a deep bond and sense of understanding. My sister and I have especially bonded with us both caring for one another given our differing comorbidities.

In *Chibi-Robo!* (Skip Ltd. et al., 2005), Jenny plays her part as a sibling to someone in pain. She does not mention Chibi-Robo's small size or his energy depletion. Instead, when Jenny sees Chibi-Robo, she casually places her palms on the floor for him to crawl up onto, making the transition easy for him without any need for dialogue. She always thanks him for his care, and often draws portraits of him. Similarly, Chibi-Robo happily accommodates Jenny's needs as well. Throughout the game, if spoken to directly, Jenny will only respond by saying "Ribbit." Given her parents' marital issues, however, it isn't hard to understand why Jenny has adapted this method as it helps her avoid any agency in her parents' fighting. Mrs. Sanderson dislikes Jenny's obsession with frogs, and even though Mr. Sanderson doesn't mind, neither parent attempts to communicate with Jenny in any form other than typical spoken language. Chibi-Robo, however, puts on a frog suit of his own and upon showing Jenny, she happily explains that because he is now a frog they can speak to one another normally as they're both speaking "Ribbitese." Instead of shaming Jenny for how she presents herself and copes, Chibi-Robo, someone often misunderstood himself, joins her in her world like she joins him in his.

In chronic pain management, expectation and reality play an important role in the social aspects of both the person with pain and those around them. When living with pain for an

extended period in which it becomes chronic, one's belief in their ability to manage pain, as well as how they view pain in general, can be influenced (Keefe & France, 1999, p. 138). In the pain rehabilitation program I attended, there was heavy focus not only on how we as people with disabilities view ourselves but also on how our families and loved ones needed to adjust how they spoke to us about our disabilities. In an "Information for Parents" document given by my pain rehabilitation program, there are several important notes for parents on approaching their child's chronic pain (Zolten & Long, 2006). This document details protocols such as "Use Minimal Attention: Don't ask your child about their pain/disability, but be willing to listen if the child discusses it" and "Limit discussions about pains and illness for all family members." In the recommended parent reading, *Conquering Your Child's Chronic Pain*, Lonnie K. Zeltzer and Christina Blackett Schlank (2005) have further detailed several "Golden Rules of Chronic Pain" for parents to follow. The rule of "Don't Ask Your Child If She Is In Pain" once again explains that when a parent asks whether their child is in pain, they can unintentionally break distraction methods and cause their child heightened awareness of said pain (p. 262). While once again not arguing this as the perfect methodology by any means, I still find truth in these lessons. When I am asked "how my pain is" without bringing it up myself, it feels strange to answer as I must single out what is otherwise normal to me. Even further, when someone else does something for me without me asking and says I should not do it "because it will hurt" me, I feel a loss of agency; a fear that those around me do not trust in my ability to manage my own pain.

Despite their good intentions, the Sanderson family is expectedly flawed, as both Mr. and Mrs. Sanderson often hyperfocus on Chibi-Robo's differences. In this way, *Chibi-Robo!* (Skip Ltd. et al., 2005) depicts a family not well versed in their loved one's disability, nor in how to manage their stress regarding it. Mrs. Sanderson especially unintentionally talks down to Chibi-

Robo, often referencing his disability multiple times in one exchange. While Mrs. Sanderson's character is presented as bitter, it is only truly towards her husband. While Chibi-Robo has caused her trouble via his high electricity costs, she approaches him kindly. Regardless of her kindness, however, her ignorance and anxiety result in an uncomfortable focus on his disability in almost every conversation. For example, after Chibi-Robo has taken the time to climb up to the kitchen counter, Mrs. Sanderson remarks, "You can climb all the way up here, huh? You're so small, but you're such a trooper!" While intended as supportive, I can say there is at least some truth to the idea that "Pain is worse when you are paying attention to it" (Revivo et al., 2019; Zeltzer & Blackett Schlank, 2005). Rather than greet him simply, she feels a need to highlight his differences; differences that are otherwise normal to him. In Mrs. Sanderson's focus on Chibi-Robo's distinct differences she defines him by his disability. As the story develops, Mrs. Sanderson continues to talk with Chibi-Robo this way. For example, when she has locked herself in her room after asking her husband for a divorce, Chibi-Robo is able to slip through a hole in the top of the door to visit her. Upon leaving, she offers him help back up towards his initial entrance and says, "Being so tiny must make things awfully hard for you … I know you're small, but do your best." While on the surface this comment once again seems encouraging, she defines him by his size implying that because of it he might not succeed in "doing his best" despite proving the contrary daily. Unsurprisingly, Mrs. Sanderson talks to Jenny with the same fixation on differences she does with Chibi-Robo, noting it as a consistent approach of hers.

It is not unusual for a parent without counseling and guidance on how to approach their child's disability and chronic pain to approach it "incorrectly." Additionally, the process of seeing and caring for a child in pain can be incredibly stressful. In their pamphlet Kristin Zolten and Nicholas Long (2006) include that in order for parents to help a child with chronic illness,

they must also look after their own mental health. This is presented as crucial as with any parent, their difficulties will likely impact their child's ability to cope and manage too. Mrs. Sanderson is not "bad" for her mistakes, she is stressed and ignorant, but clearly cares for both Chibi-Robo and Jenny. In this she reflects a realistic mother who is overly stressed both about her situation and what her children are going through. She does not have support from her husband and does what she can to cope. I do not defend the way she attends to this stress but certainly recognize the validity in it.

In navigating such complexities of being both misunderstood and loved in the same sentence, finding a group of individuals who better understand an aspect of your identity becomes important. Chibi-Robo certainly has this with Jenny, but by engaging with Giga-Robo and the living toys around the house he forms additional bonds with those outside his direct family. One of the most important aspects of my pain rehabilitation program was bonding with others dealing with similar experiences. In my program our group therapy, meditation, and exercise sessions allowed us to normalize our situations through shared experiences. While we were never pushed to share, we all formed a bond quickly through our similar struggles in chronic pain. It was an amazing experience to share something and be met with "I know right?!" instead of the typical "What do you mean?" I was used to. The normalcy these sessions created gave us all the unique opportunity to discuss our deeper feelings associated with pain without fear of being misunderstood.

As touched upon in the discussion of the biological aspects to Chibi-Robo's experience, I briefly mentioned that in saving the aliens from crashing, Giga-Robo's wish—"I want to give soul to toys"—was granted. Thus, the NPCs outside of the immediate Sanderson family that Chibi-Robo interacts with are the living toys within the household. Most of these interactions

happen at night as the toys, similar to *Toy Story* (Lasseter, 1995), must not be seen moving by humans. The side-stories regarding these toys have a wide range in the topics they cover, but each toy typically has something they are struggling with. Though the living toys don't share Chibi-Robo's, and by extension Giga-Robo's, experience with chronic pain, they highlight the importance in a support group of others who also deal with similar debilitation. Much like how Jenny and Chibi-Robo bond by existing within each other's worlds, the toys openly share their issues with Chibi-Robo and often tell him how happy they are to talk to someone who understands.

As the game requires the player to talk to the toys to complete it, Chibi-Robo undeniably gains something from chatting with the toys. As Vanitha Subramaniam et al. (1999) maintain, "Having a chronic pain condition can be a lonely experience" and many feel "lacking in support for dealing with their pain condition." Considering that Giga-Robo's first wish, the one more important to him than his own life, was to bring the toys in the Sanderson home to life, it stands to reason that creating a group of friends he could talk to at night was incredibly important to him. Chibi-Robo, thus, benefits from Giga-Robo's first wish by starting his life at the Sanderson home already with a group of likeminded individuals. Yet, as mentioned when discussing the psychological aspects of his situation, not all the toys provide an equal safe space for Chibi-Robo. This reveals that similar debilitation does not necessarily promise connection or safety. Regardless of intersectional markers, the assemblage of those parts impacts the experience.

The stress in Chibi-Robo's family is partially impacted by his disability but also consists of many other elements unrelated to it. Though he has a home and is loved, that doesn't mean he is seen as equal by all in the household. While this stress leads to more difficulty for Chibi-Robo it also allows a deep bond to form between him and Jenny as Othered siblings in a dysfunctional

home. While Mrs. Sanderson certainly cares for Chibi-Robo, her reflection of his disability reveals her ignorant perspective, failed coping, and the impact of normative societal expectations. As is necessary in a debilitating structure, Chibi-Robo finds a collection of individuals he can interface with that better understand the experience he is going through.

3.5 Conclusion

As chronic pain is a part of my existence, every avatar I embody inherently carries my lived experience. Approaching embodiment from this alternate perspective that aligns my identity with that of the avatar, in this case Chibi-Robo, before our intertwining allows me the opportunity to better understand our assemblage. Chibi-Robo comforted me as a child because he was debilitated in many of the same ways that I felt but could not articulate at the time. In many of the games I played then, and have played since, even where my pain is inherently embodied, therein lies a wish to escape the physical through the avatar as if that would break the never-ending feedback loop of pain. Yet, in this case, to escape into the avatar would not yield an experience all too different from my own.

Had I been asked what I wanted from a main character with chronic pain like my own in a game prior to this analysis, I might have said I didn't trust anyone to make one in a way that I related to. Yet, in looking back on this game from my childhood, I realize that my ideal protagonist with chronic pain has already been made. Though unintentional, and in some cases abstract, Chibi-Robo makes me feel seen as someone with chronic pain. I don't escape from my body through him, but instead exist with him as he exists with me. We both have chronic pain, but even we are not trying to "be like" each other, we are simply "being with." In reading Chibi-Robo as someone with chronic pain, I can further realize aspects about my experience I didn't

originally know if, and how, I wanted to see represented, like the fact that Chibi-Robo's situation can be argued as a capacitation machine.

There comes a certain bittersweet experience in being neither the Soul nor the Body and just being the assemblage. Any escape through Chibi-Robo yields only the same, but with it there comes a recognition that I am not alone. In this analysis I explore a way we can read the disability that has always existed in games. To not only explore embodiment but play with it by embodying not only the avatar, but embodying the avatar as an already embodied self, further complicating the blurry lines of where the player and the avatar both begin and end.

Game design practices would benefit from more reflections by Othered identities as we explore and restory the games we love, analyzing them beyond what normativity defines a play experience as and instead expressing what embodiment means for us. While *Chibi-Robo!* (Skip Ltd. et al., 2005) was not necessarily made to represent disability or chronic pain, the realistic notes to the game's story and characters in addition to its fantastical coat of paint embodies a unique way to design a character with chronic pain both mechanically and narratively. Rather than consider if it's good representation, I instead can conclude it's the representation that I like.

In Chapter 2, I discovered the benefits of embodying a character that could partake in factors I was currently missing in my life. In this I analyzed how my lived experience influenced what genre and mechanics I gravitate toward. In this chapter, I restoried Chibi-Robo's narrative to embody mine. Where I found release from my experience of pain in *AC:NL* (Nintendo EAD, 2012), in *Chibi-Robo!* (Skip Ltd. et al., 2005) I highlighted it instead, exploring the debilitation Chibi-Robo faces, as well as the capacitation machine he exists within. I now move forward into the final chapter of my to ask a portion of the chronic pain community what they think about, and how they experience, videogames. While I have argued for an interconnection between

videogames and chronic pain, other perspectives in this conversation are especially important considering the community has so often gone unheard.

4. Bonding, Comfort, and an Outlet for More:
Interviewing the Chronic Pain Community about Videogames

4.1 Introduction

As far back as I can remember, I have been playing videogames. Throughout my childhood, videogames were the most successful way to bond with my sister, as we are both neurodivergent people and didn't have as strong of a grasp on managing that in our relationship as kids. This is partially why I recognized the deep importance of the sibling bonding between Chibi-Robo and Jenny as presented in the previous Chapter 3.

Initially, my sister and I watched our parents play videogames, and even when we started playing on our own, we still needed their help for some of the levels in games like *Super Mario 64* (Nintendo EAD & Miyamoto, 1996) and *Banjo-Kazooie* (Rare, 1998). Being the younger sibling, I transitioned from watching my parents play to watching my sister when I struggled to successfully figure things out alone. We would sit side by side at the computer, both talking through what we thought was the next best move in our *Freddi Fish* (Humongous Entertainment, 1994-2013) and *Putt-Putt* (Humongous Entertainment, 1992-2013) games, to other games we never quite figured out like *Creatures* (Creature Labs & Simpson, 1996), or even the eerie *Riven* (Cyan, 1997). Other times we sat on the couch, playing games we picked up at Blockbuster like *Space Station Silicon Valley* (DMA Design et al., 1998), *Mischief Makers* (Treasure et al., 1997), and *Kirby 64: The Crystal Shards* (HAL Laboratory et al., 2000). When I wasn't playing videogames, I was thinking about them, drawing fanart, and pretending I was in one. I vividly recall one of the many times I drew Kirby as a child. I sat at the counter, working hard to capture

his majesty to show off to my sister and parents. Unlike Sonic and Tails, Kirby always looked *right* when I drew him, or so I felt at the time (see Figure 27).

Figure 27: One of my many childhood drawings of Kirby.

As I got older and was able to play games well enough by myself, my sister and I still shared consoles. We'd often have to schedule our play times when a new game came out so we each had a fair chance with it. When waiting for our turn, we'd watch the other play. Off the top of my head, I remember us creating elaborate schedules for when we could each play *Dragon Age: Origins* (BioWare et al., 2009), *Splatoon* (Nintendo EAD, 2015), and even *The Legend of Zelda: Breath of the Wild* (Nintendo EPD, 2017) when we were still sharing our first Nintendo Switch. Our bonding through videogames has certainly changed with technology, but it hasn't lessened. As we've aged, my sister became the one to watch me play more than me watching her. It was just at the start of 2022 that she watched me play through *Bloodborne* (FromSoftware et al., 2015), a game I had missed when it originally came out and thus played to rectify the situation before picking up *Elden Ring* (FromSoftware et al., 2022). I have no doubt videogames will continue to be an important part of our communication and relationship throughout the rest of our lives. Even now in our 20s we still abide by our long-held tradition that we each get the

opposite *Pokémon* (Game Freak, 1996-2023) game from one another so we can trade version exclusives. In my interviews with people with chronic pain, I found that each of them had a similar story regarding videogames and their youth. Many had early bonds solidified through videogames, with others finding in them an outlet for something they couldn't otherwise do or have reminiscent of how I discuss *Animal Crossing: New Leaf* (Nintendo EAD, 2012) in Chapter 2. For all my participants, simply the idea of videogames was comforting, though each had their own reasons as to why.

All chronic pain experiences are, as established, unique, so to find a consensus among the many for their interest in videogames is no easy task, even with consideration for the wide spectrum of response. Yet it has become increasingly necessary to do as videogames and their associated technology are being marketed to "cure" chronic pain. Such discussions of "curing" have been pushed as a focal point before research focused on embodiment and opinion for chronic pain and videogames has even begun. The approval from the FDA on marketing VR for chronic pain reduction, for example, has already resulted in countless articles proudly stating that VR can, or will, help reduce chronic pain (FDA, 2021; Godman, 2022). The information spread is misleading, as the FDA approval specifically points to the use of EaseVRx as a VR alternative way to learn cognitive behavioral therapy (CBT) and breathing techniques, which are previously proven methodologies in pain management, at home.

Given how expensive VR headsets can be, for advertisements to tout them as a solution in reducing daily pain reeks of snake oil, no matter how well-intentioned. I do not mean to imply VR games and experiences *can't* be useful in pain management or pain reduction, but rather that the *way* it has been flippantly promoted and sensationalized as such is careless and predatory. I must be clear that while I have not had an experience in pain reduction through VR, I am open to

the idea, and am happy for those who have found success with it. With that said, however, most articles that note the success of VR for pain management rarely, if ever, mention important aspects of these systems such as the average weight of the headsets being at least a pound like with the *Oculus*, and with some headsets, like the *Valve Index*, being nearly two pounds (Alsop, 2022; Black, 2020). Beyond ignoring such important factors, empirical evidence arguing for VR as a viable pain reliever is still relatively limited (Garrett et al., 2017; Keefe et al., 2012; Tong et al., 2016). Even further, the evidence that *does* exist is specifically about acute or short-term pain reduction rather than chronic pain. Results regarding chronic pain tend to be highly individualized, with generally short-term improvement (Garrett et al., 2017; Tong et al., 2016). In their study, Xin Tong et al. (2016) found that even if VR can indeed be used to distract from pain, its side effects often make the user feel worse with motion sickness, fatigue, and general discomfort from the headset being common factors. They further note that future work should also consider the comorbidities that often come with, or are aggravated by, chronic pain, such as anxiety and other struggles with sensory sensitivity (Tong et al., 2016). While this research is understandably in its infancy, and thus, could find fruitful evidence in the future, the current state of VR as a tool for chronic pain is minorly beneficial at best and charlatan at worst.

In this chapter, I explore how several people with chronic pain feel about videogames and videogame experiences. I do so as an intervention to the current direction of research in videogames and chronic pain to instead argue that connections between the two already exist and need not be forced through conversations of "curing." This study matters as this medical focus on "curing" through a medium as personal as videogames tramples unexplored conversations of the chronic pain community's current embodiment and consideration of videogames. The goal of this study, then, is to offer empirical qualitative data regarding the potential intimacies between

chronic pain and videogames as told by the chronic pain community themselves. In this I provide the beginning of a theoretical understanding of these relationships outside of forced notions of what "should" occur as decided by those who push videogames as only a tool.

I build upon my previous chapters regarding my lived experience and extend these ideas towards others in my community to better grasp experiences and ideas beyond my own. Though this foundational work was left intentionally vague in its conception, in uncovering more about my previous work I continue to argue that people with chronic pain gravitate towards specific gameplay experiences, seek out specific technology and design, and further, that people with chronic pain utilize videogames as a tool in their pain management whether intentionally or not.

I begin by detailing the methods I used within this study and its analysis. I follow this by presenting details on my resulting sample including intended size and a summary of resulting demographics. I then provide details on the recruitment and data analysis procedures taken, followed by relevant quantitative results. This is followed by the qualitative analysis of my interviews gathered from transcriptions and presented through connecting direct quotes and ideas as told by my participants. I conclude with a debrief on the project, its limitations, and what future work might address.

4.2 Methods

To explore the questions posed in this chapter, I designed a mixed methods project and conducted formal interviews with members of the chronic pain community followed by a post-interview survey to gather demographics. The script used for my interviews (see Appendix D), survey questions (see Appendix E), and flier (see Appendix F) can be found in the Appendices. I

used inductive coding to uncover themes during the analysis of my qualitative data, attaching the appropriate quantitative data to each participant's information when converging my findings.

All interviews were conducted digitally over a secure DePaul Zoom channel, excluding one that was necessarily conducted through a phone call. All consent forms were provided digitally through email prior to scheduling the interview. The interview took a maximum of 45 minutes, and the post-survey a maximum of 15 minutes. In this, I asked for an hour of my participant's time. Participants were compensated with $20 in the form of an electronic Amazon gift card through email after the completion of our interview and post-survey. While ideally participants would have been compensated with more, this project was entirely self-funded which restricted the amount I could offer.

Target Study Population and Recruitment

Inclusion criteria for this study required that all participants were 18 or older; currently have, or have previously had, pain that persisted chronically for three months or longer; and spoke and understood English (as to avoid any language barrier when obtaining research consent).

Participants were not required to provide any proof of chronic pain beyond their word, meaning that if a participant said they had chronic pain, they were regarded as a participant with chronic pain. While I recognize that some may feel there is a lack of consistency or "proof" in trusting self-identification, I took this approach as my personal experience with chronic pain has taught me that "proving" pain is an impossible task and that in the medical field, despite my very real pain, almost every test I took, be it genetic, X-Ray, MRI, or blood, was negative or inconsistent which led to me often being doubted. To be doubted constantly by multiple figures

upheld in society is an incredibly triggering experience that I did not want to put myself or any participants through. This was similarly why I did not include any quantitative measure of pain, such as what number participants defined their pain as between 1 and 10, and instead chose to code for participant self-reported pain data. In this, rather than an arbitrary number assigned without possible parameters, I was left with personal accounts of pain experience to review instead.

Exclusion criteria was defined as participants under 18, and those who did not have, or have never had, chronic pain. The decision to exclude children from this study was done with the intent to protect them. Children with chronic pain are vital members of this community and as I was once a child with chronic pain, I can personally recognize how necessary their perspectives and lived experiences are. However, as children cannot provide informed consent for research, it takes additional steps to ensure privacy and safety that I could not provide without impacting the research design for participants 18 years and older. I offer more insight into this when discussing the limitations of this project, as well as what future work should address. While this study was incredibly low risk for those 18 years and older to start, individuals educationally and or economically disadvantaged were not excluded from the criteria despite slightly higher risk. This decision was made as to remove such perspectives from my population would negatively impact my work as it would fail to consider debilitation and capacitation within the biopolitics of disability.

Given my inexperience with recruitment methodologies, several amendments were made throughout the project. Due to low response, new recruitment ideas and locations were amended. Ultimately, despite utilizing several avenues, the project did not reach its intended minimum number of participants (35) originally projected. Though the resulting sample is not as large or

racially diverse as projected, interviews conducted and data collected are still relevant and beneficial to the foundation of this work.

Data Collection and Analysis

All interview data was audio recorded and safely stored in a password protective hard drive kept in a secure location. Participants were reminded that they could stop the interview at any point, no questions asked. Participants were aware that I as the interviewer also have chronic pain. This information was provided in an effort to ensure a more comfortable environment given the reality that chronic pain is often misunderstood. Participants were asked to participate in a brief post-interview survey to gather demographic data. All interviews were transcribed and coded as elaborated on below.

Interviews were transcribed with Microsoft Office 365's online Word program through DePaul's secure server. As this project was self-funded, finding an affordable and secure transcription service was difficult. This service was chosen as it allows for 300 minutes of free audio transcription per month. The service additionally promises that "audio files are sent to Microsoft and used only to provide you with this service. When the transcription is done your audio and transcription results are not stored by our service" which was more transparent than many other affordable transcription services initially researched. As this project had over 600 minutes of audio, over the course of three months all interviews were eventually transcribed. As the program analyzes and transcribes the audio with AI, the results, while useful, were often incorrect. Given this, transcriptions where then re-edited and re-formatted while listening to the interviews over again several times.

Interview data was inductively coded for clusters of meaning to determine consistent themes across participants' shared experiences. Inductive coding is a data driven way of defining themes or "codes" during analysis. Rather than approach with any predetermined ideas of how to organize findings, researchers must look to the data to define themes that reoccur throughout the analysis. To best engage this method, I printed the transcribed interviews and physically highlighted for codes. After this initial pass, I utilized the program ATLAS.ti (ATLAS.ti Scientific Software Development GmbH, 1993-2023) to digitally record what I had found and then continued the remainder of the coding process within the program.

Quantitative data for this project was gathered parallel to the qualitative data and was concerned with variables that might interact with the connections between chronic pain and games, such as age, sex, race and ethnicity, sexual orientation, gender identity, socioeconomic status, consoles or systems owned, gameplay genres favored and disliked, and whether the participant was born with chronic pain or developed it later in life.

4.3 Quantitative Results

In this section I provide an overview of the resulting sample. (For more in-depth quantitative survey results please see Appendix G). I begin by providing details on the resulting sample size, their noted favored features, genres, and games. I follow this section with my analysis of the qualitative interview results and a discussion of the results.

Recruitment

Given the qualitative focus of this project, the intended sample size was projected as necessarily smaller prior to beginning recruitment. Recruitment was at first conducted only

within the Chicagoland area as planned, but as noted in was eventually adjusted to include nationwide recruitment. The intended minimum participant count was 35 participants to ensure that the sample was diverse in terms of race, ethnicity, gender, and sexual orientation. The goal was to achieve racial and ethnic diversity with an even spread (five) among participants within the following racial and ethnic groups (though overlap was expected): Asian American, Black or African American, Indigenous American or Alaskan Native, Native Hawaiian or Pacific Islander, Hispanic or Latino/a/x, and White/Caucasian. Participants were asked to check all that applied to them.

Regarding representation of LGBTQIA+ participants, my sample was to have a minimum of ten participants that fell within that spectrum, with an expectation that the remaining 25 would be split between men and women, with room for non-binary individuals as well. Numbers were derived from the Chicago Department of Public Health (2018) that states 7.8% of the Chicago population aged 18-44 identified as Lesbian, Gay, or Bi (LGB) in 2016-2017, and that of adults aged 45 and up, 6.2% identified as LGB (Chicago Department of Public Health, 2018). This project was always intended to have a larger sample of LGBTQIA+ participants. Participants were asked to check all that apply of the following options: straight/heterosexual, lesbian, gay, bisexual, queer, asexual, self-describe; female, male, intersex, non-binary/genderqueer, self-describe; Transgender, cisgender, agender, non-binary/genderqueer, genderfluid, self-describe.

Resulting Sample

The resulting sample was 16 participants total. Of these 16, 12 were female, three were male, and one participant was intersex. 11 of these participants identified as cisgender, one as transgender, and one as genderqueer/gender fluid. 12 of 16 were aged 25-34, making them the

majority. Half were heterosexual, with the remaining eight falling within the LGBTQIA+ spectrum. Half of my participants completed college and received a degree, five had an associate degree or had received a master's degree or higher, and three completed up to high school. All participants responded through advertisements, including the four participants I was familiar with prior to our interview. Three of these four were my peers from undergrad. Five of 16 were found through a mutual contact who shared my advertisement in their own community. I had no prior relationship to six out of 16 participants.

Participants were assigned pseudonyms to remain anonymous. I provide additional details about each participant when quoting their interviews in the following qualitative analysis. 14 of 16 participants had had their chronic pain for at least over five years with some recalling the exact number of years, and others not entirely sure beyond a general idea. Only one participant could recall having chronic pain in their earliest childhood memories like myself, with the rest having specific points in their lives when symptoms became more noticeable or were the result of an injury. Several participants had undergone surgery for their pain, with some having the severity of their symptoms lessen afterwards. How much each participant knew about their pain varied, with some providing diagnoses and others instead just describing symptoms. The following data briefly covers the additional quantitative data collected during the formal interview process that covers what participants generally gravitated towards in their videogame experiences. These responses cover the following: systems owned for gaming, mentioned game titles, and favored game features. Totals provided reflect the number of participants who mentioned a given topic at least once, rather than the amount of times one participant might have mentioned that topic during our interview.

Systems Owned for Gaming

The data below (see Table 5) reflects all mentions of companies and consoles by participants, including consoles from their past and ones they currently owned at the time of our interview. Totals provided reflect the number of participants who mentioned a given topic at least once without overlap. Any specific consoles or products mentioned are also noted.

Nintendo, Sony, and PCs took up an overwhelming number of mentions. Both PCs and Nintendo were the most mentioned systems used for gaming purposes. Nearly all participants owned either a PC in which they used to play games, and or a Nintendo console at one point in their lives. The Nintendo Wii and Nintendo Switch were by far the most popular consoles. Two participants noted having every Nintendo console line. This data is visually represented in the graph below (see Figure 28). Notably:

- 16 out of 16 participants had multiple ways to play games ranging from PCs, gaming consoles, smartphones, tablets, etc.
- 7 out of 16 participants specifically mentioned their smart phone or tablet when asked what consoles they owned. Those that did not mention smart phones, however, may still have a smart phone or tablet they use for games.
- 15 out of 16 participants recalled interacting with several gaming systems and consoles throughout their lives, though not all of them still had those consoles in their home.

And regarding company or product specific responses:

- 4 out of 16 participants mentioned having *all* of a company's gaming consoles/products (all PlayStation and Sony handhelds, all Nintendo systems including handhelds, all Xbox systems).
- 13 out of 16 participants mentioned owning a gaming PC (gaming, laptop, varied number of monitors and specs).
- 13 out of 16 participants mentioned owning Nintendo products.
- 11 out of 16 participants mentioned owning a Nintendo Switch specifically.
- 11 out of 16 participants mentioned owning Sony products.
- 7 out of 16 participants mentioned owning Microsoft products.
- 3 out of 16 specifically noted Steam.
- 3 out of 16 mentioned interacting with arcade cabinets. 1 out of 16 noted owning several.

Table 5. Consoles Owned by Participants

Brand/Company	Total	Specific Consoles/Products Mentioned	Total
Nintendo	13	“all” or “most” consoles	4
		“Nintendo” said generally	2
		Virtual Boy	1
		NES	5
		SNES	5
		N64	6
		GameCube	6
		Wii	10
		Wii U	3
		Switch	13
		Game & Watch	1
		Game Boy	7
		Game Boy Color	6
		Game Boy Advance	6
		DS	8
		DS Lite	5
		DSi	1
		3DS	6
Sony	11	“all” or “most” consoles	2
		“PlayStation” said generally	2
		PS1	3
		PS2	3
		PS3	5
		PS4	8
		PS5	4
		PSP	2
Microsoft Xbox	7	Xbox said generally	6
		Xbox 360	2
		Xbox Game Pass	1
Atari	3		
Sega	1	Genesis	1
		Dreamcast	1
PC	13	“PC” said generally	8
		Gaming laptop	2
		Gaming desktop	2
		Laptop	1
Smartphone and Tablets	7	Tablet	2
		Smartphone	8
Other	---	Steam	4
		Emulators	1
		Arcade cabinets	1

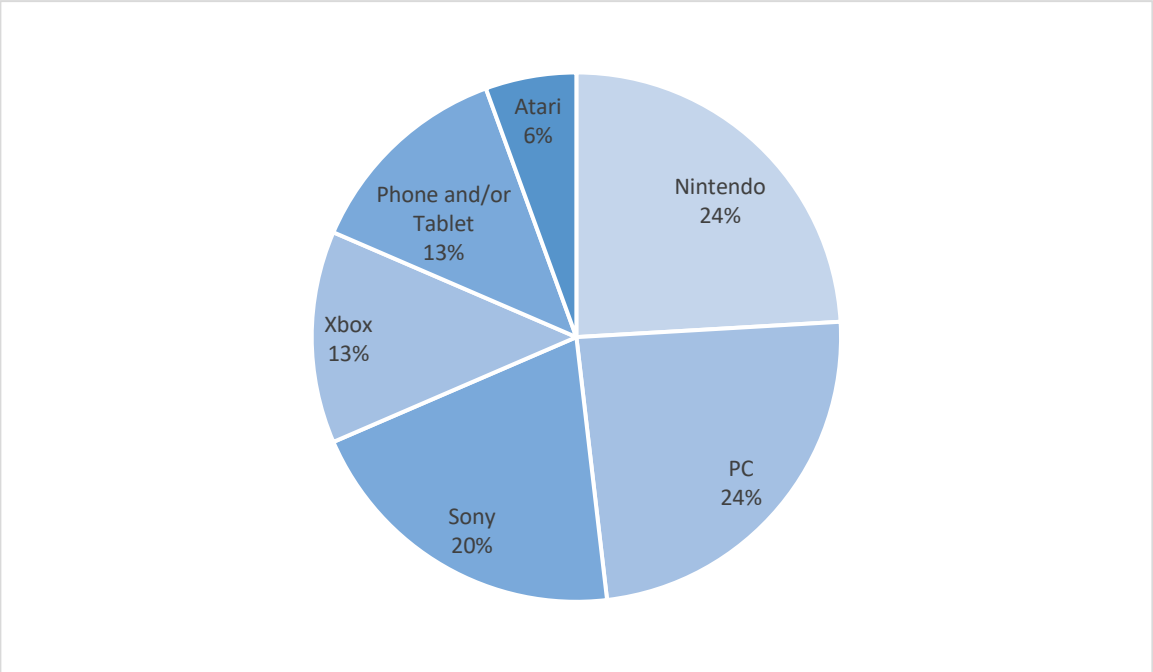

Figure 28. A graph depicting consoles owned by participants.

Mentioned Games

Participants mentioned several games throughout the 16 interviews. A brief overview of the game series mentioned per participant, with specific titles noted where applicable can be seen below (see Table 6) Data is presented from left to right as the following: [Title] the title of the series or game mentioned, [Specific Mentions] specific titles participants noted from any given series or franchise with the number of participants who said it in parentheses, and [Total] the total number of participants who mentioned the series or game at least once during our interview without overlap.

Table 6. Frequency of Game Titles Mentioned

Title	Total	Specific Mentions of Series and Titles
The Sims series	5	Series (5) *The Sims* (1) *The Sims 2* (1) *The Sims 3* (1) *The Sims 4* (1)
Pokémon series		Series (5) *Pokémon Gold* (1) *Pokémon Emerald* (1)
The Elder Scrolls series		Series (3) *The Elder Scrolls: Skyrim* (2)
Fallout series	4	Series (3) *Fallout: New Vegas* (3) *Fallout 76* (1)
Stardew Valley		
Animal Crossing series		
Minecraft	3	Series (3) “app store version” (1)
Super Smash Bros. series		Series (3) *Super Smash Bros. Ultimate* (1) *Super Smash Bros. Melee* (1) *Super Smash Bros. 64* (1)
Mario mainline series		Series (2) *Super Mario Bros.* (2) *Super Mario World* (1) *Super Mario Sunshine* (1)
Freddi Fish series		
Pong		
Bejeweled	2	Series (2) “for the Game Boy Color” (1)
The Legend of Zelda series		Series (1) *The Legend of Zelda: Breath of the Wild* (1)
Diablo series		Series (1) *Diablo II* (1)
Mario Kart series		Series (1) *Mario Kart: Double Dash* (1)
Dance Dance Revolution (DDR) franchise		
Final Fantasy franchise		
Myst		
Zoo Tycoon series		
Pajama Sam series		

The following titles were mentioned by one participant during their interview:
Among Us, Assassin's Creed: Valhalla, Asteroids, Banjo Kazooie and *Banjo Tooie, Barbie* PC games*, Call of Duty* series*, Candy Crush, Candy Show - Sweet Easter, Chivalry 2, Chrono Trigger, Club Penguin, Cookie Jam, Diner Dash, Dogz, Don't Nod, Donkey Kong Country, Doom, Dragon Quest, Food Fight, Gone Home, Guitar Hero, Harvest Moon/Story of Seasons* series*, Heretic, Lego Harry Potter* series*, Life is Strange* series*, Luigi's Mansion* series*, Mario Golf, Modern Warfare 2, Monster Hunter* series, *EverQuest, Nancy Drew* PC series*, Neon White, No Man's Sky, Overcooked, Pacman, Panda Mahjong, Pathfinder* series*, Pathfinder: Kingmaker, Persona* series*, Phasmaphobia, Pikmin* series*, Planet Zoo, Potion Craft, Red Dead Redemption* series*, Rock Band, Sonic the Hedgehog* series*, Space Invaders, Spiritfarer, Spyro* series*, Starwars: The Fallen Order, Stray, Tell Me Why, The Binding of Isaac, The Legend of Dragoon, Titanfall 2, Tony Hawk* series*, Township, Webkinz, Wii Fit, Words with Friends, Wildermyth, Winnie the Pooh Games, Wytchwood*

Features Favored

Favored features noted by a participant at least once during our interview can be seen below (see Table 7, Table 8, Table 9, and Table 10). Any consistent terms used by multiple participants were kept, but other similar concepts detailed by various terms were grouped together (ex: set design and scenery being combined). Of the features participants mentioned, each were able to be grouped into the following main categories: Art Direction; Story; Genre; and Gameplay. These topics and what participants liked most about them are elaborated on in the following section on qualitative analysis.

Table 7. Frequency of Favored Videogame Features: Art Direction

art (said generally)	5
style or aesthetic	3
overall ambiance	2
scenery	
music	
animation	1

Table 8. Frequency of Favored Videogame Features: Story

story (said generally)	8
characters	5
narrative	
a specifically customizable narrative	3
lore	2

Table 9. Frequency of Favored Videogame Features: Genre

"cozy"	2
RPG and JRPG	
first person shooters	1
platformers	
life simulation	

Table 10. Frequency of Favored Videogame Features: Gameplay

exploration/discovery	5
low risk	
open ended objectives	
relaxation	
immersion	4
co-op	3
competitive play	
fun factor	
replayability/ gameplay loop	
collectibles	2
open world	
roleplaying	1
customization	
grinding	
progression	
level design	
organization/inventory management	

4.4 Qualitative Analysis

In the analysis below, I offer direct quotes that highlight the themes uncovered through my data analysis. When quoted, participants are introduced by their pseudonym and any relevant information necessary for their dialogue. As all participants have chronic pain, their chronic pain symptoms are only discussed in detail when relevant to understanding their quote and experience. As an additional note: I unfortunately made the mistake of not asking my participants for their pronouns. While I asked for details on sex and gender in the post-interview survey, those are only a facet to this multidimensional assemblage of human identity. Given this mistake, in the circumstances without absolute certainty of pronouns through email correspondence or otherwise, participants are referred to with they/them neutral pronouns.

In coding the interview transcriptions, three main themes appeared consistently throughout participants' experiences. These categories are as follows: videogames as a form of bonding (51 coded quotes), videogames as immersion and comfort (56 coded quotes), and videogames as an outlet (29 coded quotes). Below I elaborate on each of these themes with relevant quotes from my participants. This section is followed by a convergence and discussion of these findings.

Videogames as a Form of Bonding

All 16 participants mentioned playing videogames with others at some point during our interview. How each participant did so was unique to their experiences, but across all interviews two distinct ideas were continuously brought up: (1) a family member or loved one acted as a catalyst to the participant's interest in gaming; or (2) the participant had experiencing bonding with others through videogames.

A Loved One as a Catalyst to the Participant's Interest in Gaming

In response to the question "When did you start playing videogames?" 15 out of 16 participants said they started playing videogames when they were young. 12 out of 16 participants specifically noted a family member or loved one as being the catalyst to their interest or introduction in videogames. Of these 12, six pointed to a guardian or guardians, three to a cousin or cousins, and the remaining three mentioned a sibling or siblings.

Though it is typical for children to be provided things of interest by their loved ones, the connection present was discussed as more than a byproduct of childhood enrichment. The way in which each participant recalled these memories, typically in connection to their first memory of playing videogames, offers a deeper look into this experience.

For Riley, this experience referred more to the many broken NESs received from their grandparents who were *big* into buying from garage sales. Riley ultimately learned how to scrap the broken systems for parts, eventually fixing and playing an NES, which led to them falling in love with the medium. For Zoe, she loved watching her brother play games and eventually started playing them with him, later gravitating towards games she picked for herself rather than relying on his collection. For others, like Gayle, however, this meant an emotional connection to games at a young age thanks to the ease in interaction it provided with her father. As Gayle explained:

> I have a lot of memories of videogames … I think I would credit my father with getting me into them, we got an old hand me down big box PC when I was a kid and so my dad ended up getting all of those classic games like *Doom* and *Heretic* and *Diablo*, oh and *Myst,* and so yeah … I was like real young so—those are like actually some of my best memories with my dad when I was a kid. He basically—he would play the games and I would sit next to him and watch him, like especially for things like *Myst*, because like, that would have been pretty much impossible—I just remember sitting there looking and

> … I don't know how much I actually helped, but he was actually very surprisingly engaging with me with the games.

Though Gayle did not divulge any specific details on her relationship with her father, the noted surprise at how engaging he was at that time potentially reveals a lack of that behavior from him otherwise. Without making any assumptions, we can, at the very least, conclude that there was at some point, whether it still exists or not, a bit of strain in Gayle's relationship with their father. Interestingly, Gayle was not my only participant who discussed a potentially strained parental relationship padded by videogames. In Morgan's case, though, this experience pre-dated widely available personal computers and home consoles. Now a woman in her late forties, Morgan explained to me that she was raised by her aunt and shared memories of a part of her childhood when her mother would show up to take her out to the arcade:

> If it was a divorced couple between her and my aunt … my mom was like that *dad* that'd pick you up and like do stuff with you like that—you know, like party stuff, and then like send you back home … Yeah, so we'd go to arcade.

Her ties to videogames were solidified early on with such important trips taking place at the arcade. As she got older though, she was exposed to more videogames at home too. Her aunt, she noted, also loved videogames, having bought an Atari for Morgan's cousins when they were teenagers. Morgan fondly told me of the gift she'd received for her eighth-grade graduation, an NES complete with *Super Mario Bros.* (Miyamoto et al., 1985)*:*

> I got that for eighth-grade graduation. Yeah, that was fun. And when I went back [to my aunt's house five years later, I found out] my aunt gave it to one of my nieces … it's like 'you gave my game away?' (said comically as though sobbing) Yeah, but that summer … we were directly across the sidewalk from the pool because we were in a townhouse. I didn't go there like all summer, I just stayed and played *Super Mario Brothers*.

Though Morgan was able to speak about the memory of her console being given away in a comical fashion now, there was clearly a sense of loss at the time it happened. As she recalled these memories in our interview, Morgan continued to refer to the NES as "hers" and *Super Mario Bros.* as "her game." That NES was still important to Morgan at the time, despite the five-year gap, enough so that she was upset that it had been given away and still remembers that feeling today. This reveals not only an attachment to the nostalgia, but also to the system that helped facilitate such fond memories.

For both Morgan and Gayle, a potentially strained parental relationship was padded by videogames, ultimately guiding interactions in a seemingly positive direction. This surely influenced the nostalgia and connection both have to videogames, potentially resulting in their continued gaming today. This made me curious as to how parents who showed gaming to their children viewed the relationship. I was lucky to have a few participants who were parents themselves, and through them I was able to better understand the parental side to this experience. Understandably, the following examples are without the previously alluded to strained parental relationships; regardless, videogames are still discussed as a bonding activity between parent and child.

Cheryl, a woman and mother in her late 50s to early 60s, shared more on the parental perspective of this experience. Though initially she claimed to not have much history with playing games, she later recalled loving Atari back in the day, noting that her family was the first on the block to have the home console versions of *Pong* (Atari, 1972) and *Asteroids* (Atari, 1979), a clear point of pride. Later in our interview, she further remembered that she and her husband played a lot of *Tetris* (Pajitnov, 1985) together when they first got married too. As Cheryl concluded:

> I've always played *some* [videogames], not, obviously, like my kids but … I played [games] with them as kids, so I could always keep up with them [back then].

Despite stating that she was not someone who played "videogames," Cheryl had years of lived experience showing otherwise, and had even instilled an interest in videogames for her children. One of her three children, she noted, went into game design as a career, further showing a clear vested interest in the field that was seemingly nurtured from an early age.

Another participant, Milly, a woman and mother in her late 30s to early 40s, offered another angle to the parental side of this bonding experience. Milly clearly stated that she sticks to her phone when it comes to games and isn't one to seek out many gaming experiences. She did say, however, that her husband is a "huge gamer," with multiple consoles and games. She went on to say that *he* has been engaging their kids in videogames. Wanting to know more about her unique view to this emerging pattern in my research, I asked a few follow up questions:

> Gracie: When your husband has the kids play games with him, are they watching him play, or are they also playing?

> Milly: They're also playing! So, he's got the five and the seven-year-old on the Switch, and they play some kind of *[Super] Mario* game. But then he also—I don't know if this is the Switch, it might be something else—where he plays this, umm, kind of *Lego Marvel* superhero game with them … my five-year-old boy in particular loves it, like *loves* it.

Milly's smile was big as she shared this story, indicating the joy she must see shared between her husband and kids when they play videogames together. Despite not considering herself a "gamer," she was not bitter or upset, as mothers are sometimes portrayed in media, about this bonding experience.

Playing Videogames Together and Multiplayer Experiences

Understandably, regardless of the catalyst that began the interest, all 16 participants also discussed the various bonds they have shared, or seen, with others throughout their gaming experiences. These bonds were mainly explained through different types of multiplayer experiences. The two most prevalent types among my participants were online multiplayer and couch co-op multiplayer.

Though all mentions of videogames as a form of bonding with others were brought up organically by participants themselves, recognizing the pattern early on, I began asking a few follow-up questions to any who listed several games with online multiplayer as their favorites. For example, several participants mentioned games *Stardew Valley* (ConcernedApe, 2016) and *Minecraft* (Mojang Studios et al., 2011-2023), so in those cases, I followed up by asking how my participant preferred to play it: single or multiplayer, or perhaps both. Alex, one of my participants in their late 20s to early 30s, was asked one of these follow-up questions. As Alex responded:

> Alex: … but anything that I like, *Stardew* or *Minecraft,* is just something that you can just jump in and like play a few hours of, and not like—feel the anxiety I guess? –Of like competitive sort of games. I was never really into those ones.
>
> Gracie: Do you play *Stardew* multiplayer, or do you play single player? Or both? (I specifically asked about *Stardew Valley* as Alex had been discussing that at length prior in the interview)
>
> Alex: Both! Both. Honestly, we have several multiplayer farms depending who joins; who's hosting. But I have a game that I've sunk like 300 hours into … just organizing everything.

For those who have not played *Stardew Valley* (ConcernedApe, 2016), or have never played it multiplayer, its online multiplayer system operates in a similar way that many modern

multiplayer servers work. One player "hosts" the world in which everyone else joins, meaning all save files are situated on the host's computer. In these cases, if the host is not playing that save file, others cannot play within the shared world. Given this restriction, many groups of friends, such as Alex's, combat this by having multiple hosts of multiple farms. Alex then followed up to say she'd been playing a lot of *Minecraft* (Mojang Studios et al., 2011-2023) recently, mainly because her little brother started a server. For Alex, the mechanics of these games are fun enough, but whenever provided with the option to join a server of her friends playing that game, she seemed especially eager to take it. The additional layer or multiplayer interaction appeared to add more for Alex's enjoyment.

Multiplayer doesn't always have to be in real-time on a joint server to be meaningful, however. There are plenty of asynchronous multiplayer experiences that create similar connection and enjoyment, even when one player may not be as invested in the gameplay as the other, like in Cheryl's case. As Cheryl told me:

> I play *Words with Friends* with my mother-in-law, because she will—if I don't play, she texts me and is like 'it's your turn!' (laughs) It's like, she's 85 she can do whatever she wants, so if she wants me to play, I'll play that one. So that's definitely the one I play religiously for her.

Though Cheryl did not appear to love the gameplay of *Words with Friends* (Zynga, 2009), when speaking about her mother-in-law in this way, she smiled fondly. Though this multiplayer experience is clearly different, it instils a bond through shared gameplay all the same. Interesting still, is that Cheryl was one of the few participants who spoke very nonchalantly about videogames. When asked why she played them she simply answered:

> [To] Pass time, something to do literally just because it's there, I think.

Understandably, multiplayer options can heavily impact a game's longevity, adding hours of play for those who want to experience a game's world together, whether for the first or hundredth time. Riley, as a scholar themselves, echoed these sentiments, especially when discussing why the *Call of Duty* franchise (Infinity Ward et al., 2003-2022) held such a special place in their heart:

> [With *Call of Duty*, there's] a lot of memories, both good and bad, and it's the perfect game to just like play with my friends when we don't know what we want to play … last night was weekly game night and it's like, "Well, what should we play?" and people were getting on late, and there's that time zone difference … and someone was like, "well, why don't we just get online and shoot things" and I was like "fantastic, we'll play, *Black Ops … Cold War"*—Yeah, it got to 11:30 last night and … someone's like "oh, it's 9:30 I should probably get dinner" and my husband, who's a teacher … He's like "Oh my God … I have to work in the morning. I have to get up" and I was like "oh Babe, we need to go, bye guys" (laughs)

We both laughed about this because I have had similar experiences. Ultimately though, what Riley's story shows, especially when paired with additional points like Alex's above, is that games offer a space for bonding to happen. Whether it be for someone like Cheryl who reportedly doesn't think too deeply about games, or Riley who lives and breathes them, games create a unique space for interaction. In this way, the gameplay itself takes a backseat, letting player connection serve as a method of bonding among friends and strangers alike.

That is not to say, however, that all multiplayer experiences are positive, especially when one plays with complete strangers. Riley had more to say regarding this aspect of the topic, given it is one of their common points of study. When asked why they played videogames Riley said:

> I can't imagine doing most anything else with my free time and with my research… at one point in my life somebody close to me said "find something that you can love enough to hate"… and videogames are the things I love enough to hate, because there's a lot to hate about videogame culture, especially the toxic culture that surrounds first-person shooters.

Riley then shared an example of this through a specific moment they experienced when playing *Call of Duty* (Infinity Ward et al., 2003-2022) semiprofessionally that clearly stuck with them throughout the years:

> So, this is the mid 2000s—but I went to a tournament and like, a gamer bro came up to me and he's like "ohh, are you here for like your boyfriend?" … And I was like, "No, I think I'm gonna play" and he's like "ohh really, do you know how to play?" … and I won that tournament. And he came up to me afterwards and … he's like, "Well I went easy on you because you're a girl," like, sure you did buddy … my identity online is very much more feminine [now] and I get like so many hate messages *still* from dudes on the internet and now they like to leave me voice messages, and I'm like "ah, perfect research" … Yeah, I think gaming culture can be better, I think gaming experiences can be better, and so it's the thing that I love to hate. And, I love it dearly—like, it is my favorite pastime.

Riley told me more about their journey in allowing their femininity to seep into their online persona, something that took time to feel safe doing. This is a fact other participants like Stephanie pointed to. When I asked about their multiplayer experiences, Stephanie simply said:

> I've tried a couple lobbies in different games and it's just not for me, like—there's some *weird* people.

Stephanie's comment softly sums up the difficulty Riley discussed that can come from gaming online as a more feminine identity. This reality absolutely factors into who plays in certain multiplayer spaces, and who avoids these spaces entirely. I have personally avoided many multiplayer spaces for this exact reason. Interestingly though, it was also Stephanie who was one of my few participants to mention engaging in videogames outside of playing them, specifically through watching content creators. As Stephanie said:

> Stephanie: But yeah, [I've been playing *Minecraft* more in the] past five months, especially because I saw some YouTube series where it's like the SMP [survival multiplayer] where they actually made elaborate stories, and that kind of drew me back

> into the game cause I was like "ok, you can do *this*," it's not just, you know, your standard vanilla *Minecraft.*
>
> Gracie: … Like you just mentioned, in your spare time, do you watch a lot of videogame content?
>
> Stephanie: Yes. A lot. A lot. (laughs) It's like—it's something nice. Unless it's a game I really want to pay attention to, I'll have [the videos] on in the background when I work. Especially like Twitch streams where it's like, they're just talking with their chat or with their friends, and it feels like there's someone else in the room while you're working. I got into it during the start of quarantine in 2020 because I literally lived alone, in a single bedroom apartment, and so I needed something—my family's three hours away—I need *something,* and then I found [this kind of content] and it was just like the perfect niche so—Never left.

Intriguing here is that Stephanie shows an interest in multiplayer gameplay, or in watching it at the very least, despite previously noting negative multiplayer experiences. When considering the previous points made by other participants, most of their multiplayer experiences are with people they already know. For Riley and Stephanie, the negative ones came from strangers. Thus, it's possible that if Stephanie had a multiplayer group they liked, they might play in these servers themselves. Yet, as discussed, finding a suitable multiplayer group as a more feminine person can often be a struggle.

Playing into this, it was one of my few male participants Rob who noted enjoying online spaces such as these, namely in the form of massively multiplayer online games (MMOs). As the name suggests, MMOs thrive when massive amounts of players are playing together, meaning most of these players are strangers to one another. Rob detailed one MMO they grew up with, *EverQuest* (Verant Interactive & 989 Studios, 1999), an early MMO considered the most successful of its kind prior to *World of Warcraft*'s (Blizzard Entertainment, 2004) release, as one of their all-time favorites:

> I played on a competitive player versus player—really aggressive—server for 14 years. For a lot of it, I was not a good person … but back then there wasn't any rules. No one knew what to do—and so we would kill people [in game] all the time and just sell their [digital] stuff on eBay [for tangible funds]. And we knew who it went to because we're the one that sold it to them. So, like a week later, we would just kill them [in game] again and take it back, and sell to this other guy, and do that over and over again … I was like 16 when I started playing that … So, a lot of my like, I don't know—thought process back then, and you know my friend groups and all that, were pretty heavily based on that. A lot of longtime friends that I have now I've met through that game.

Though much of Rob's self-reported toxic behavior was particularly thanks to a lack of defined social rules on the internet at the time, it's intriguing that Rob, who loves MMO spaces, was also the only participant who discussed *being* the toxic player, rather than *dealing* with toxic players. That is not at all to say that my other participants haven't been toxic players in their lives, but Rob's willingness to share it is intriguing.

There are several reasons for that willingness worth discussing. For one, Rob told me they were always an incredibly open book, and didn't hold back in talking about most things. Additionally, Rob was young at the time and has obviously grown up a lot as an adult in their late 30s to early 40s now, creating a distance between past and present. They also regret these actions, not thinking proudly of them even when holding a fondness for the nostalgia of the time. I mention all of that to also say, however, that Rob also presents with a masculine identity. My goal in pointing this out is not to make any sweeping statements about gender identity and online behavior, as that is not the crux of my current research, nor do I have enough data to make such a claim for my population. However, it is worth mentioning that many of my female and feminine presenting participants specifically noted men and more masculine practices as a barrier for their gaming.

Riley's points above elegantly reflect such a difficulty from the proverbial trenches, showing the direct ways in which men have impacted their experiences simply due to their

femininity. Other participants, like Storm, however, revealed ways in which this went beyond gaming interactions alone:

> So I am like the only girl in a family of boys, which doesn't seem important until you consider like—Appalachian [normativity]…so growing up, whenever videogames became really popular, my family—we probably had the very first iteration of the PlayStation 1, and I would play that and I *loved* it. Then, when my brother was born, it was sort of like "videogames are his thing, it's like a boy thing to do" and you know I "had books anyway." So as an adult and a teenager I was like "ok well I *do* like videogames so I should probably figure that out."

Though not specifically about multiplayer experiences or bonding with others through games, Storm's experience points to the reality that much of the toxic masculinity present within gaming spaces comes from patriarchal ideals and the mass marketing of videogames as "for boys." Though my limited research reveals different gaming experiences similar identities may seek out, it's important to remember that the barriers certain identities have faced vastly influence their accessibility to certain interests.

Playing games together with others online will always come with flaws, whether influenced by strangers, patriarchal societal structures and demands, or even by time and accessibility. As seen, most participants preferred multiplayer experiences with people they already knew, as it removed many of the unknowns that could potentially make the experience unpleasant. The accessibility and ease of online multiplayer games has allowed it to grow over the years, but that doesn't mean that in-person multiplayer gaming has necessarily died off.

Much like online multiplayer games, there are many kinds of couch co-op multiplayer experiences. There are games in which players work together, others where they compete, and even some not initially made with multiplayer in mind that result in "backseat gaming:" a reference to backseat driving that embodies a similar idea, one player is "driving" or controlling the game, while others are watching and engaging in the gameplay from the "backseat."

Backseat gaming as a term often holds negative connotations, but when all parties participating agree, it can add an exciting multiplayer layer to an otherwise single-player experience.

Abigail, a woman in her late 20s I met during undergrad, shared her love of couch co-op games with me. Regarding distinctly multiplayer games designed for these co-operative experiences, Abigail said:

> *Overcooked* [is one of my favorites], no matter how much my husband doesn't want to play with me because I've overplayed it with him (laughs) … [I like] the cooperative aspect of [videogames]. So, like, *Overcooked,* and those kinds of games. Or just kind of good "get-together" games, and just sit down and play with folks.

Abigail explained she was often the one willing to purchase what was necessary to facilitate multiplayer games after becoming used to doing so as a Dungeon Master (DM) buying campaign books for the Dungeons and Dragons (D&D) games she ran. Abigail's willingness to fund these cooperative experiences speaks to her love of them, but when it comes to cooperative games purchasing the necessary equipment is only half of the battle. The other half requires finding players.

Seeking a Player 2 has long been an issue for games, even being used in the marketing ploy that saved videogames when Nintendo wanted to bring the Famicom, later redesigned as the NES, to the American market in 1985 (D.Lo, 2018). After the recent videogame market crash of the time, investors were hesitant, and thus, Nintendo designed the Family Computer Robot, better known as R.O.B. (Robotic Operating Buddy) by his Western release, to bundle with the NES and sell as an electronic toy instead (D.Lo, 2018). R.O.B. was localized as "he" in American advertisements, despite being genderless and without pronouns in Japanese. In the American advertisements of the time, R.O.B. was touted as "the extraordinary video robot" with claims that "he helps you tackle even the toughest challenge" (gamesyouloved, 2015). In one of

the Japanese commercials, the Family Computer Robot is said to "also act as the second player with the exciting Gyro Set in Robot Gyro" (Satoshi Matrix, 2015), one of the two games specifically made for the toy and bundled with the NES set. While undeniably adorable, R.O.B. wasn't a very effective gaming partner. Regardless, R.O.B.'s inclusion garnered interest from kids that wanted to play with the toy, making for a successful Trojan Horse to get the NES into homes. My reasoning for mentioning R.O.B is that while certainly it was his futuristic appeal that had most interested in the toy, a functional companion to play videogames with was seen as worthwhile to consumers.

Understandably, a lot of couch co-op occurs between the people we live with or have easy access to. As a kid, my sister and I always played multiplayer games together, which was especially useful for the games that required it. Prior to online multiplayer becoming widespread and accessible, those without a "Player 2" often had to find unique ways to engage in multiplayer games. Ash was one of those players. As he told me:

> … So, because I'm an only child, and also my cousins lived far away and most of them are older, I tried to always seem mature to my cousins right? But because of that, when I entered school—let's say that comparing the mentality of [myself] to my classmates—I didn't really fit that well, because sometimes I'd be like "oh they're doing stupid stuff" or "they're being too immature," stuff like that … So yeah, I was basically spending my time with videogames…

As a man in his late 20s to early 30s, Ash grew up with a lot of the same games I did. I asked a follow-up question regarding multiplayer games, considering he had mentioned *Super Smash Bros.* (Sakurai et al., 1999-2018), a multiplayer fighting game, was one of his all-time favorites. As Ash explained:

> [I'd play] multiplayer games but against a CPU before online was a thing. Of course, when online became popular and the internet got to a level where you could actually do it in a more consumable way, yeah, I started playing more online stuff, but … the game that

> I played the most since the beginning has been *Super Smash Brothers* and I still play *Super Smash Brothers* so yeah … *Melee* and *Ultimate* are my favorite ones. *Melee* because, I mean, it was a huge hop from the more or less low physics of the 64, and just that jump from extreme, hard polygons to more defined visuals. Yeah, it was extremely insane, and also at that time I could spend more time with my cousins actually. So, we were playing a lot on holidays, vacations, weekends … You know, you do *Mario Kart* and then when someone would get extremely salty because the game was bullshit or whatever, we would just change to *Smash Bros* … and then with *Ultimate*, they added every character, every stage, everything basically. So, yeah I think that it's a masterpiece and what they accomplished is really, really formidable.

While Ash loves both entries in the series for their admirable design, part of his love for *Super Smash Bros. Melee* (Sakurai et al., 2001), a game released in 2001, comes from the nostalgia of it. Interestingly, Zoe said something very similar about *Melee* too. As Zoe explained:

> even though I have not played it in years and years probably—my favorite game would have to be *Super Smash Brothers Melee* … picking favorite games is very difficult for me … with *Melee*, a lot of [my love for it comes from] … my time playing it with good friends and we would just, you know, play for hours on end in college

Zoe continued, much like Ash did, to praise the game for its mechanics and design:

> But also, nothing else really plays quite like [*Melee*] once you get to the competitive level like, I don't want to say when you start taking it seriously, but … Yeah, it comes down—with *Melee*—to the way it moves like—You know, you think for a fighting game the fighting part would be the highlight and, I mean, the movement is part of that and the fighting is part of the movement, but there's no other game I've played, that's multiplayer at least, where the level of control you have over your own movement and how good it feels to move the character around quite comes up to it.

Zoe went on to tell me that at the time, her college had had a good *Super Smash Bros.* (Sakurai et al., 1999-2018) scene, typically focused on *Melee* (Sakurai et al., 2001), which made the experience more fun. Important to note about *Melee* is that it was for the Nintendo GameCube. Though other consoles at the time had online gaming, the GameCube was incredibly lacking in it, with full online play only offered for *Phantasy Star Online* (Sonic Team, 2000), and LAN capabilities only available for a handful of other games.

I have distinct memories from undergrad of seeing students carrying around a GameCube, and in some cases, even a heavy CRT TV for said GameCube, always for the purpose of playing *Melee* with others. Being around the same age as Zoe and Ash, I can say that *Melee* (Sakurai et al., 2001) is also one of my favorite *Super Smash Bros.* (Sakurai et al., 1999-2018) entries if only for the nostalgia. In that regard, it's possible that this game touched us so deeply due to our impressionable age and formative memories. Even further though, the technology of the time forced everyone to sit close to one another, with short controller wires restricting movement and wireless controllers that couldn't wander too far off. It created a sort of intimacy I haven't felt from other gaming systems since. When it came to *Melee*, everyone always wanted to play, which meant that we all huddled together, with four of us playing and the rest watching and waiting for their turn. A common occurrence for those waiting for their turn that still wanted to participate with different levels of backseat gaming too.

As previously noted, backseat gaming is not often used in a positive sense. That doesn't mean, however, that it isn't an integral part of co-op gameplay. Backseat gaming while watching my sister play videogames was how I first started to grasp videogame logic. When I was too young to understand what I was doing, spending hours wandering around Pallet Town in *Pokémon Yellow* (Game Freak, 1998) because I didn't know how to leave, I could instead watch my sister play, and could ask her to go check out an area I found interesting too. It allowed me a chance to explore a game without the difficulty of learning how to maneuver within it.

Hilda expressed a similar sort of experience they still had with their husband. As Hilda explained, though videogames have always been a part of their life, it was typically through PC and CD-ROM games and handhold console games. They noted that even now they typically preferred "cozy," low pressure games like *The Sims* series (Maxis, 2000-2023), *Animal*

Crossing: New Horizons (Nintendo EPD, 2020), and *Stardew Valley* (ConcernedApe, 2016). Given that, Hilda expressed that the way they have branched out into more "intense" games was through playing with their husband:

> I think the most intense game I played recently would be … *Fallen Order* like on—I guess what would be "story mode" or like—an easy mode. Because it gets too difficult and if my husband … convinces me to play on a harder mode, I'm usually passing him the controller when I get to the bosses. I'm like "I can't do it!" [it's too stressful] … I really like stories so I'll play through a story game, and that's more like what I'm interested in … [my husband and I] played *Breath of the Wild* and that was so annoying because I just wanted to know what happened in the story and he always wanted to do the side quests, and I'm like "these are fun, but, like, what happens!"

As Hilda implied, whenever they are willing to venture out into playing more intense games, their husband was typically present, if not the reason they're trying it out. Amazing here is how Hilda expressed their experience with a single-player game like *The Legend of Zelda: Breath of the Wild* (Nintendo EPD, 2017) using co-op language, even recalling the frustration they felt at their husband's differing goals. In this, we can see even games not designed for co-op can create a shared experiences that form a similar bond.

Based on what my participants shared, having someone to share gaming experiences with, whether in real-time or otherwise, impacted their enjoyment or even nostalgia of a game. At the end of every interview, I asked my participants what I didn't ask that they expected me to, or even what I should have asked that I did not. Pete clearly articulated an important element that came up from several participants throughout my interviews:

> I'm wondering about stuff like, how has like gaming affected your life outside of playing videogames, kind of? … cause I feel like for me it's like, videogame music is a big part of my life now. Just reading videogame journalism. And just like keeping up with like E3 and like every time they do a Nintendo Direct, and like watching like podcasts about videogames … I like that part of my life that came from videogames as well, so I feel like would be a good thing to ask.

What Pete revealed here, is the fact that many still engage with videogames outside of actually playing them, whether it be through videos, music, lore, or otherwise. Though obviously not the same as traditional multiplayer experiences, like any form of media, having discussions about our experiences heightens our enjoyment of the medium. For some, finding someone to discuss games and strategies with can be just as important as finding someone to play with. Pete's above point beautifully connected to a story he shared earlier in our interview exploring that exact reality:

> Did I tell you the story of how Luke [a mutual friend] and I met? It was high school … through the grapevine he learned I liked JRPGs—I was like just getting into them. He was like "you gotta play this game Pete, it's called *Chrono Trigger"*(he says this in a very solid impression of Luke) and I was like "alright Luke, yeah, whatever" … and then like a year later I heard about it again and I played it on the DS. I was like, "oh shit this is amazing." And he goes, "right, just like I told you."

They became good friends after that, sharing their love of videogames through the rest of high school, into college and beyond. Arguably, finding someone with similar interests can have importance in any relationship, yet the passion for videogames among 14 of my 16 participants proved a need for at least some discussion among peers. Whether it be through content creators like Stephanie mentioned previously, or in chasing someone down the hall like Luke did to Pete, having someone to share our love of videogames with is important. So important, in fact, that some relationships, like Riley's, were even partially built on it. Riley shared how their partner accidentally got them into the *Fallout* series (Bethesda Game Studios et al., 1997-2018) early on:

> So, before I got married, I was very much first-person shooters, like I was focused on *Call of Duty*, and I was focused on like my kill-death-ratio, so I didn't really play role-playing games. Then I got married and a couple of months later it was my husband's birthday and [he wanted] … the game of the year edition of *Fallout: New Vegas*, and it was only like $20, and I was like done, perfect, this is fantastic, so I got it for him and then I played it the most (laughs). [At one point] He's like "will you play caravan for me?" … and I'm like "yeah sure" And then he went to work, and I played like all of the

> casinos, I got all of the Caps from all the casinos, and he came back and he's like "What happened" I was like "I did gambling." And then he was like "you have to start your own game." So, I really, really got big into *Fallout.* And when *Fallout 76* came out, like, we were very excited. We cosplayed and went all out. Yeah, we're very, very nerdy around here. Like, we had a shrine to Bethesda like of artwork and—Our marriage is built on *Fallout*.

In the examples with Pete, Riley, and Hilda, each were introduced to new gaming experiences by either their partners, or in Pete's case, a peer. This resulted in bonding over these games for all parties involved. Though not strictly a couch co-op experience, there is something to be said for sharing a physical space with someone while engaging in a videogame. It can change our perspective of an experience. Pete shared another story prompted by my asking what his favorite game was:

> I think you've experienced how much we all … loved *Mario Sunshine.*

Pete was referring to the hours spent with our mutual friends and the resulting hunt for nostalgia in trying to 100% *Super Mario Sunshine* (Nintendo EAD, 2002). Interestingly, Pete then told me about how he had recently replayed the game again:

> I replayed it with the remake the *[Super Mario Collection]*, and I was like, "it's honestly not that great," (laughs) but I have so many like, just fond memories of it, it's just so comforting. Everything is like—everything's just a beach, so it's like I've always had like fond memories of that, and it always like—I can like play through that with my eyes closed. So that's probably always going to be my favorite. Yeah, and the GameCube era games—they're the best.

Many nostalgic games that we replay years later tend to show their age, taking away some of the magic our memories recall, but part of what made *Super Mario Sunshine* (Nintendo EAD, 2002) so special for Pete was not only the nostalgia of the game, but of the good times he had playing it with others. This echoes much of what Ash and Zoe pointed to about *Super Smash Bros.* (Sakurai et al., 1999-2018) as another GameCube era game.

Summary

For my participants, bonding with others was a natural part of the videogame experience with all 16 interviewees having a story about a shared gaming experience. For some, this kind of bonding originated in their youth and even kickstarted their long-lasting love of videogames as a medium. For Morgan and Gayle, games helped bridge a gap in their parental relationships making for easier interaction; while Cheryl and Milly shared experiences in being the parent that nurtures that early love of videogames. For my participants, bonding through videogames of course included game design specifically made for multiple players, but multiplayer as a *concept* came in several flavors for them. For some, multiplayer experiences were mostly online, with friends or strangers, or even a mix of the two. For others, multiplayer experiences were restricted to a shared space, often a couch, as players sit shoulder to shoulder and explore a gaming experience together. Some described single-player games as multiplayer experiences through the phenomenon of backseat gaming, or in engaging with a game despite not necessarily being the one holding the controller. In this, participants also shared the importance of sharing gaming experiences with others, and overall, in sharing a love of the medium with like-minded individuals.

Videogames as Immersion and Comfort

When asked questions about their game experiences and how they interacted with games, participants consistently brought up two distinct ideas: (1) that games were a form of relaxation, joy, and/or comfort; and (2) that games were a form of distraction or escape. While immersion

intersected both conversations, it was more heavily discussed in relation to the latter as expressed through the following ideas.

Relaxation, Joy, and Comfort

All 16 participants discussed games as an agreeable pastime, with 14 of these participants specifically using words like comfort, joy, fun, and or relaxation. Interestingly, the same 14 who referred to their experience with games by these specific words were also among the 15 who had been exposed to videogames since childhood. Understandably, there was some overlap in the discussion of what a game provides for participants, and the bond they have experienced with others through gaming. With that said, however the focus of this theme has much more to do with how participants described what gaming was for them, and why they participated in it. As Gayle explained, the reason for why she plays games is certainly multifaceted:

> I think that there are a lot of reasons [I play videogames], definitely it's a very layered thing. The most basic answer would be that it brings me joy, and I think that's for a lot of reasons: because it's the type of stimulation, or it's a type of way to wind down, depending on the game. And I think there's also just a vague nostalgic feel that comes along with it too, especially for me having been someone who was introduced to it as a kid, and like having those similar feelings prolonged throughout my life through this medium. I don't know. It's a good thing.

For Gayle, there was the overarching answer that videogames bring her joy, however, she detailed many reasons why she thought that might be. Whether because of the mental stimulation, relaxation, or even the nostalgia, she concluded that whatever it really was, it was a good thing. While most of my participants similarly aimed to unpack why games brought them comfort or joy, some participants, like Milly, felt the answer to be relatively simple:

> I think it's just as simple as I like it, and I like to play [*Candy Crush*] a little bit before I go to bed. And as much as I love to read, if I get in bed and read, I read like a page and I fall asleep. So, I kind of opt to go *Candy Crush.*

As Milly was one of my few participants who reportedly didn't play videogames often, many of her answers centered around *Candy Crush* (King, 2012), as it was her favorite game. While she reflected the enjoyment that came from playing the game, her reasoning didn't go beyond the simple fact that she liked it and that that was good enough. When I asked what kept her coming back to *Candy Crush* specifically, she said:

> I don't know, I think so many things. It's colorful, it feels fun and … I like the consistency of it, if that makes sense? … It's always the same, but it's different … I don't like things that, like, all of a sudden, it completely changes the script on me, you know? … Even if it gets more challenging or harder like—there's something similar about everything, and I like that.

While certainly someone's reason for playing games doesn't need to be any more complex than enjoyment, even in Milly's case, it seemed to go deeper than she believed. For her, the routine and convenience of the app was part of what made it so attractive and enjoyable to play. There are clear connections as to why Milly chose *Candy Crush* (King, 2012) above other games, and part of that is thanks to its colorful design, and gameplay consistency. It provides challenge and a task to complete, but doesn't require as much deep thinking, thus, allowing Milly's mind to "wind-down" as she noted wanting it to. Indeed, there is something to be said for consistent and almost "mindless" gameplay that several of my participants also referred to. As Morgan said:

> [playing games is] just something I can do to shut down, but I'm not shut down, and I can just—look at what I'm doing.

For Morgan, and many others, after a long day it was seen as beneficial to have a moment to "shut down." While there are many reasons for this, Storm offered one potential as to why videogames were so beneficial for her brain:

> I guess in terms of like the app stuff, it's just something that I can do without thinking about a lot … with like having a neurodivergent brain, I have to listen to a podcast or watch a show while I'm doing it … I have several different trains of thoughts and things going on, so for me it feels like everything has to be stimulated or I can't sit still, or I can't enjoy the time.

For Storm, then, videogames helped "shut down" her brain, as with supplementation of additional media, the many tracks of her mind were directed in a calming way. This connects to Milly's point of a book not being stimulating enough, but of a consistent game like *Candy Crush* (King, 2012) not being overwhelming either.

For these participants, having an opportunity to zone out while still being present provided comfort and overall relaxation. That's not to say, however, that this was the only way these players liked to engage with games. For example, Rob, a fan of 'mindless' gameplay, noted that the other side to that was their love of metagaming and nitpicking at gameplay mechanics. As Rob explained:

> … in *Monster Hunter*, I don't mind killing a monster 1000 times to get something, it's—I don't know, I can shut off my brain and I just kind of go autopilot … Yeah, I either get to turn off everything, and just mindlessly grind, or, I, you know, sit there and start nitpicking every single stat and how to build it and what I need, and just start math crafting, so it's generally one of those two sides of the coin.

It was especially intriguing to see that the two common play styles Rob noted are, in some respects, opposites of one another. Regardless, both fulfilled a sense of joy that made the activity comforting for them in different ways. In this way, we see a variation in what comfort means to

each player as an individual, but also in what they are seeking. Abigail had a realization to this point when detailing her favorite types of games. As Abigail said:

> I like the sort of more casual game, just cause it's easier to relax to—even though, like, I say that now—but I remember having like, entire notepads, and random notes of paper like writing down when what vegetables and fruits should be planted for like *Stardew*.

Though initially Abigail recalled *Stardew Valley* (ConcernedApe, 2016) as a relaxing experience, she laughed halfway through, realizing that wasn't always the case. She explained that in many ways, the experience wasn't necessarily what she would consider traditionally relaxing despite the overall effect being calming. In this case, we see how comfort drastically varies person to person, and even for an individual depending on the day.

Given this complexity, my participants offered several reasons as to why they found games comforting. As seen above, some found mindless play relaxing as it gave them something to zone out with while still providing a way to stay present. For others, the intense thinking necessary to accomplish certain goals centered their minds, giving clear direction. As Pete summed up when asked why he played videogames:

> It's fun. It's something to do. It's comforting. It's like—it's like a little moment I can have where I can just like, clear everything out and enter like— a world that isn't ours … It's just to have a little escape.

Distraction, Escape, and Immersion in Narrative

13 out of 16 participants specifically noted that playing videogames offered them a viable distraction that could be an escape or "break" from reality as they became immersed in another world. In this, many of my participants found said escape to be comforting. Each participant understandably had something unique they looked for in their gaming experiences. With that said, however, half of my participants specifically pointed to narrative as incredibly important.

Five of 16 included exploration and discovery, with several describing it as an extension of a good narrative, as worthwhile stories typically made them want to "find out more." While only five participants specifically used the word "immersion" in this discussion, 13 out of 16 alluded to it through similar language of getting "lost" in a different world.

Many of the quotes that defined this section were provided as answers to the following questions: "Do you have a favorite game or games?" with a follow up asking what features they looked for in a game; and "Why do you play videogames?" As half of my participants determined that story was important for their gaming experience, it's worth looking through the connective tissue between the responses.

Regarding narrative as an important element for both escape and gameplay immersion for my participants (see Table 6), *The Sims* series (Maxis, 2000-2023), the *Pokémon* franchise (Game Freak, 1996-2023), and *The Elder Scrolls* franchise (Bethesda Game Studios et al., 1994-2020) were each mentioned in five separate interviews. *Stardew Valley* (ConcernedApe, 2016), the *Animal Crossing* series (Nintendo EPD et al., 2001-2020), and the *Fallout* series (Bethesda Game Studios et al., 1997-2018) were each mentioned in four separate interviews respectively. Interestingly, each can be argued to have immersive worlds with a focus on narrative, further pointing to what my participants expressed seeking out for a beneficial escape. While most of these titles act as current staples to their genre, some might argue that *The Sims* series, and the *Animal Crossing* series do not have an extensive narrative. In this case, however, the question is not on the extent of the narrative, but in its ability to immerse the player, regardless of how simple or complex it is. As Gayle said in our interview when asked what they looked for in a game:

> … a story or characters that I can become attached to. So, like for example, *Animal Crossing* doesn't really have a story, but there's a lot of wholesome aspects to it that are

> like really appealing … so just like, I don't know, some sort of narrative, whether explicit or implicit that's there, that really draws me, I think.

Bella offered a similar point for *The Sims* series (Maxis, 2000-2023) while working out what it is they seek out in videogames. This led Bella to question how their favorite games—*Diablo II* (Blizzard North, 2000) and *The Sims* series —handled story in different ways that were both attractive to Bella as a player. As Bella explained:

> [In *The Sims*] it's more open-ended, but you kind of explore their world as well. Even though your sim dies eventually, but I just really like—I guess—immersing myself in these different worlds that really spark something in me. It's like, there's some sort of story because I think—this might be the connection—[with] *Diablo [II]*, I like the story, and it has a specific story, whereas in *The Sims* I can create my own story in my head, and it's a story I like as well.

Through this we see that narrative can mean different things to different people. For some, an implied narrative is enough, especially when padded with environments that fit its atmosphere filled with secrets that shed light on foggy details. For others, tools to create a more in-depth and personal narrative, such as with *The Sims* series (Maxis, 2000-2023), offers its own type of story that feels unique to each player. Certainty, there are a multitude of ways in which narrative can be represented in a game. Ultimately, for these participants narrative helped facilitate immersion, a crucial part of many of the examples of escapism provided. For Luna, while that escapism was indeed reliant on immersion, for her playing games was sometimes about escaping from her own body rather than something else:

> But I think I play also like for distraction, like taking myself out of myself, which I think I have since I was a kid … like a lot of why I might choose to turn on a gaming system [as opposed to a PC or different form of media] is like—dissociating from my body, I think, because I *do* have chronic pain and I'm in pain a lot, *a lot* of the time, and it's obviously a good way to take you out of yourself.

Interestingly, the disassociation from her body Luna articulated was later described as reliant on immersion first. As Luna later shared with me, after a surgery she had in 2020, she was bedridden and in that state of recovery where everything "felt much worse before it got better." In that time, she found a game that spoke to her. Though she forgot the title during our interview, the game is *Call of the Sea* (Out of the Blue Games, 2020). As Luna said:

> it's like set in the like the 1930s or 40s—and this woman goes to this island to find her husband, who went on an exploration and she has some kind of like skin condition … And nobody can figure out what's wrong with it and she's wearing gloves all the time and she gets to the island and it goes away. And she has like physical pain at home, but she's able to be really physically active on the island, and like as the game mechanic works, she walks faster and lighter on the island. It's very cool and she's solving all these puzzles and exploring like what happened here and where the husband disappeared to. And you know … I just found it—like almost in a cliche way—very, very soothing and empowering. It's like, I'm laying there totally physically incapacitated and the character's like 'I have arrived on this island and my entire body feels better and I can run up a hill,' and it was just so on the nose but then because you're actually playing it, there's like a weird connection.

Here we see the complexity of the escapism some of my participants referred to. Though I have not played the game, as Luna described *Call of the Sea* (Out of the Blue Games, 2020), Norah, the game's main character, experiences these new physical abilities along with the player as they arrive on the island together. All that Norah embodies is as new to her as it is to the player. In this case, both Norah and Luna disassociated from the pain they've always known into a new experience together. Each participant's lived experiences impacted what they wanted to escape and how. Luna's immersion was driven by narrative, with mechanics closely tied to the game's story. Though like Luna's point in being able to do something in a game we can't do currently in our life, Stephanie shared a different angle:

> I really enjoy open world games because I think I just love exploring things, especially if it's something I could never do in real life. So, like *Skyrim* was something years ago that I just—I have like 80 hours—so it's like—and most of that was not following the

> storyline at all—I was just wandering off in the horizon, doing whatever, and *Minecraft* is in the same vein … so one [reason for playing videogames] would be an escape from reality—I mean, I feel like that's a pretty common one—But also, I've always had like—once a year, or every other year—I get the itch to travel and go places I've never been in. And sometimes you just can't do that, whether it's financial, outside influences, work, whatever. And so sometimes that helps settle that itch, a little bit.

For Stephanie, while videogames provided them an escape from everyday life, they also offered an opportunity to do something Stephanie could not otherwise do. This was fitting, as Stephanie discussed how their chronic pain impacted their daily life in a similar way. The quote below covers several questions I asked about their chronic pain experience including how they managed their specific case, what it was like for them to do that, and how they felt about their experience as a whole. As Stephanie explained:

> So, managing pain, we'll start that one. [First, like I said, I'll avoid] light and sound or triggers. Sometimes, especially like at night, I need to distract myself from the pain … So, I will put on, like a YouTube video with like low screen light with a red tint and listen to it … Just basically anything I can to distract myself. Sometimes videogames, but usually—depending on like the severity and the cause, like, sometimes you know the computer just aggravates it, so it's not always an option.

Here, Stephanie pointed to an important concept regarding chronic pain and using videogames as distraction or escape. If the medium causes *more* pain, it certainly isn't as effective of an escape. Ash and Alex both said something similar, especially considering they both expressed having extensive pain in their wrists and hands that impacted their work. As Ash explained:

> the games that I play are limited to what I know I can play. If it's a game that requires mouse and keyboard; I cannot play it … but if there's a gamepad, yeah I can play, but … like, for example shooters, on PC, if you're using a gamepad, right, like you won't have the same performance as someone using a mouse … I gave up on shooters because of that. Of course people are competitive and you kind of want to win, like the point of playing is not to feel like you're being cheated on. Yeah, and I love *Smash* but I know I cannot play it for more than an hour because it's also a lot of quick input and mashing … and repetitive motions.

Ash went on to tell me about his ergonomic setup with a trackball mouse, a standing desk, a raised keyboard, and more. We both lamented over how prohibitively expensive these setups were, given that they are necessary for many with chronic pain. Ash explained that he had to manage his time well too, as overuse could lead to him not being able to use his hands for several days. Alex similarly mentioned a trackball mouse being necessary, having to buy an additional one for work too. This kind of pre-planning becomes necessary for most people with disabilities, especially chronic pain, and can often be hard for others to understand. As Stephanie shared when further detailing how they dealt with avoiding migraine triggers:

> … Yeah, [not going places that will trigger my pain is] a big one, and that one's usually the hardest for people I know to wrap their heads around … it's just a lot of pre planning [to avoid triggers] and then sometimes having to explain to people, "ok, I can't [go] because XYZ," but yeah, yeah a lot of pre planning. That and then the rare case of "I'm doing it anyway" and then I regret it for two days [after] … it's not that I don't want to hang out. There's give and take.

For Stephanie, and many others with chronic pain and chronic conditions, there is so much give and take and pre-planning that can easily be misunderstood by those who haven't dealt with something similar. Given Stephanie's easily triggered migraines, they expressed the importance in always doing what they could to avoid causing them, unfortunately limiting when and where they could travel, and what they could do. For them, however, as that has always been a part of their life, they made it clear that pity wasn't a useful response:

> [My chronic pain has] always been a part of my life, so it's just like—it's my normal. And, like, everybody always gives me a sad look when I say this, but it's my normal. It's my life … I'm still able to do the stuff I want to do, for the most part so … I mean, that's kind what one of the main strengths of the human race is that we adapt. That's what we do.

Hilda followed a similar line of thinking regarding the escapism of videogames, and even shared a similar closing point to Stephanie's. As Hilda told me:

> I'm also in like the same boat where I like gaming just for an escape, you know. Like if I can't hike a mountain, then I'll do it in *Minecraft* … There's certain things I can't do, so I guess I try to live that out through gaming … *Breath of the Wild* will make me feel like I all of a sudden know archery and I can slide down a hill on a shield type of thing, or paraglide, like, you know, through these beautiful gaming experiences I can live out things. But I guess you could say that anybody has that you know, even like somebody who's perfectly abled [and] just doesn't have the money to get out could say the exact same thing.

Like Stephanie, Hilda also went on to discuss the difficulty of explaining their needs to their friends, and the struggle of finding a balance between that give and take. Intriguing is that both shared that this was not a feeling necessarily exclusive to chronic pain and disability. To Stephanie's point, we are human and thus, we adapt, it's what we do; and to Hilda's, many feel a need to escape or explore new experiences regardless of their situation, and a collection of us find that outlet in videogames. In both cases, Stephanie and Hilda emphasized that despite their disabilities and chronic pain making things more difficult, they could still mostly do the things they wanted to. Whatever they couldn't do, they supplemented with escapism and videogames. As Hilda summed up:

> [When it was *really* bad and] I was bedridden and couldn't move, well *The Sims* was right there, so I didn't have to move. My sim could move for me … [it's like, if] I can't be social with my friends in real life—they might take a trip that I can't—I'll never be able to like, go paddleboarding, but like, we can play *Stardew* together. That's just as fun.

In this case, the escapism not only provided Hilda an experience of movement, much like how I discussed for myself in Chapter 2, but also provided that bonding that might have otherwise been impossible. To any who may view such a perspective as "sad," I join my participants in

expressing that while certainly there are complex emotions associated, the experience of immersion and escapism in videogames is more often than not freeing, rather than depressing.

Summary

All 16 of my participants enjoyed games, though to differing degrees and for differing reasons. Apps like *Candy Crush* (King, 2012) and *Township* (Playrix, 2012) on mobile devices provided players like Milly something to zone out to, and players like Cheryl simply something to do in her off time. The remaining 14 participants, however, had more to say regarding games as an escape from both the monotony of daily life and even from painful symptoms. Even those whose escapism was interrupted by limited playtime to manage symptoms, like Stephanie and Ash, still held games in high regard thanks to the comfort they provided. Over half of my participants highly valued narrative in gameplay, with several referring to similar titles for their impressive immersion and world building. For these participants, proper escapism could only come from strong gameplay immersion, typically through narrative methods. While in this case comfort and immersion intertwined to provide many forms of escapism, that is not the only outlet my participants discussed using videogames for.

Videogames as an Outlet

While all participants reflected upon bonding through games, and a majority noted the comfort and escapism provided by games, each also detailed how videogames provided outlets for other parts of their lives. In their unique experiences, each participant had different proverbial muscles they exercised through games. Though these outlets themselves are not necessarily connected, the fact that games were utilized in so many ways among my participants is worth

unpacking. Among every mentioned outlet for gaming, I defined three main groups. Below, I offer more details into how my participants used games as an outlet for: (1) creativity; (2) accomplishment and progress; and (3) expanding their minds.

An Outlet for Creativity

Half of my participants specifically mentioned using videogames as an outlet for creativity. While not all participants unpacked *why*, seven of these eight alluded, if not outright stated, that the stress of daily life was so tiring the only way they could enact their creativity was through the accessibility of videogames. Hilda articulated this idea in our interview:

> at the end of the day—when I've closed down After Effects and I feel like I still need to have that creative outlet, usually that comes through in gaming, so whether it's building a sim's house or a lot, or building a really cool castle in *Minecraft* … which is probably why I like cozy games because I like to chill with them, I don't wanna get worked up, you know, trying to defeat like 50 bosses or anything.

Hilda, a motion graphics animator, noted that while they engaged in creativity daily for work, they didn't often have the time or energy to explore personal creative endeavors in their free time. Thus, Hilda expressed using games like *The Sims* (Maxis, 2000-2023) or *Minecraft* (Mojang Studios et al., 2011-2023) or other sandbox and highly customizable game experiences to fulfil that need. In addition, Hilda also noted that, given how highly they value narrative, they enjoyed an opportunity to tell their own stories:

> I like feeling in control. I guess like, God Mode, I guess, like I get to do anything I want in *Planet Zoo*, but oddly enough, my favorite thing to do in [it] is like play campaign mode, which has a story mode, so I guess still within creating my own story—or, not creating my own story—but like following along to a story … I think it all goes back to wanting to tell a story at the end of the day with games.

For Hilda, narrative facilitated their immersion, a necessary element to their escapism, but also influenced their playstyle. Abigail brought up a similar point, noting that the narrative creative outlet of games helped scratch the D&D itch:

> I like being able to, you know, 'choose your own adventure,' [that] sort of situation. That's why I like D&D and like making up stories and that kind of thing.

As a game designer, Abigail does indeed work in a creative field too but, like Hilda, noted a need to exercise her own creativity elsewhere. More often than not, Abigail said she found that outlet in D&D, but when she couldn't find it there she turned to videogames. While many DMs work with official campaigns, adding their own twists here and there, as a DM Abigail crafted an entirely homebrew campaign, which means that it is self-made and cannot be found in any official rulebooks or campaigns. Given that D&D is a real-time, mostly analog, collaborative game with roleplaying and dice rolling, it is notoriously hard to schedule sessions for. Thus, Abigail said that whenever she cannot find a creative outlet in D&D, she finds it in videogames, especially ones heavily based on the same systems and mechanics.

Here, both Abigail and Hilda's playstyles were influenced by their love of narrative, something that also impacted their immersion. Other participants, like Stephanie and Rob, a Ph.D. student and retail manager respectively, shared this same sentiment on games as a creative outlet, though they did not mention narrative like Hilda and Abigail did. As Stephanie explained:

> I just like making stories in my head so that's another outlet, so I guess it's—yeah, more than anything, a creative outlet that I don't get to do at work … I'm working on my degree now, but I've determined after this that I'm not going to be in the lab anymore, I'm going to do a more creative twist on it … I've gotten more creative the past couple of years than the science-y, but it's like I'm kind of in this hole now so (shrugs).

For Stephanie, videogames indeed provided a creative outlet, but also have provided an outlet for self-discovery. Stephanie was not alone in this either, as Riley noted that through their own creative choices in gamertag and online identity, they too have found an outlet for self-discovery. As Riley explained:

> my gamertag for a long time was something masculine, and kind of neutral and just a singular German word … I just went through a German dictionary and just went, 'that one' and my bio said like 'das mädchen,'which is 'that girl,' And then I was like 'you know why, why am I doing this? I could be anybody I wanted to be, like, so why can't I be me?' and so I changed my gamertag—

Given that the rest of Riley's quote includes their current gamertag and the explanation of its origin, I will instead summarize the rest. Riley explained that the origin of the new gamertag was a combination of Russian words. In this combo, the name creates both fun alliteration and a reference to a classic cat meme, ultimately making for a fun-to-say name and a multilayered joke. While Riley initially hid their femininity online through the safety of another language, they told me that they now used another language to uphold both their femininity and personality.

An Outlet for Accomplishment and Progress

Seven of 16 participants highlighted their use of videogames as an outlet for feeling accomplished. There were several ways in which these participants articulated what progress in videogames made them feel this way. Among these perspectives there was a focus on three main ways in which participants felt accomplished through gameplay: narrative progression, scaffolding and mechanics, and social influence.

Pete noted that part of what he loved about games has to do with the sense of accomplishment they provide. In his case, he specifically noted the experience of progressing through a narrative:

> I think it's the sense of progression I really like about it … But the reason I think why I like games like those big JRPG's I like a lot, is the sense of like—I feel like I'm doing—I'm out saving the world. Killing God or whatever. I think just like, that progression—I just like knowing that the story is going somewhere.

Pete expressed the importance of an immersive narrative to feel this sense of progression. For comparison, Alex explained how her sense of accomplishment came from gameplay mechanics instead:

> [I've always been] attracted to the repetition in videogames more than anything else, like just having a task that I can do over and over again, and feel some sort of progress—I guess—and maybe I can't necessarily accomplish the same amount of stuff in real life, but I can do it in ten minutes in a videogame. So, like, it gives me that sense of accomplishment … When it's done you get a little achievement. … Yeah, sometimes I just need to finish something … and videogames are good for that.

While Pete found progression in narrative beats, and Alex found it through success in gameplay mechanics and repetition, both described a similar outcome. Regardless of how, both expressed using videogames as an outlet for the feeling of success and progress. Both were notably seeking a sense of purpose whether through narrative decisions or gameplay skills. Many, like Cheryl, turned to videogames to provide this sense of accomplishment especially at the start of the COVID-19 pandemic. As Cheryl explained:

> I think [playing *Township*] just started off as 'Pandemic something to do in my home that didn't involve going out' [thing], so it was actually building the town, but now that I've been playing so long, most of the building part is done … so it's just kind of like a progressive game, I guess, where I can set goals … I think it progressively gets easier the more times you try. The algorithm of it.

Cheryl couldn't name exactly *why* she continued to return to *Township* (Playrix, 2012) rather than another game, but the sense of progression and visual changes to the town certainly played a role. While playing the game at one point gave Cheryl something to do, it also made her feel as though she were *doing* something. Morgan similarly found a sense of accomplishment through this combination of visuals and mechanics, as best shown when they described the gameplay of *Candy Show – Sweet Easter* (Casual Candy Match, 2018) to me:

> [you] clear the squares and get rid of this many of these eggs and hearts and all this stuff, then you get to the next one it's like 'alright, what's—you know—what's next.' Sometimes I feel like life is a little like that. Cause it's like … you got the levels down and [then] they put something else in the mix.

For Morgan, the mechanics brought a feeling reminiscent of everyday life and the never-ending difficulties it supplies. In the game, however, these challenges were expressed as more concise with polished graphics and a quick feedback system that immediately let the player know of their success or failure.

Many participants mentioned using games as an outlet for accomplishment, whether by narrative or mechanical progression. Finding accomplishment in videogames can both impact, and be impacted by, our immersion. The process can influence our escapism in games, with repetitive mechanical success playing into "mindless" gameplay. Even further, however, as explained by Zoe, using videogames as an outlet for feeling accomplished can also impact our relationships and social standing. As Zoe said:

> Yeah, so [playing videogames] just became the hobby that I had as a child. I'd also play with Legos and go outside and things like that, but I'm also legally blind, which came to matter more and more in life as I got older … And I've always just been pretty physically weak … we didn't know why or anything, we were just like, 'you know that's how Zoe is,' but games are like the thing I could excel at even though. You know, I couldn't play soccer very well, I couldn't run fast for very long or anything like that, but I could kick someone's ass in *Smash*. And I'm trans, so, you know, it was the typical male bonding

> activity of "you have to do something competitive with each other," or something like that, and I was very good at games.

While on the surface this example shows videogames as an outlet for accomplishment, Zoe's example combines several aspects covered in this analysis making it worthwhile to focus in and pick apart the details. While videogames offered Zoe an accessible hobby, especially when her vision began impacting her life more, they also provided her an escape from herself and the opportunity to do things she couldn't do otherwise. Unable to participate in as many physical activities but still tasked to perform in normative male bonding activities, Zoe found success in being competitive in the virtual space instead. She clearly expressed pride in her skills, yet her gravitation toward *Super Smash Bros*. (Sakurai et al., 1999-2018) and *Melee* (Sakurai et al., 2001) goes deeper than that success. As Zoe later explained:

> in college I did my degree in English, Literature, and Writing. And I did my capstone project about *Gone Home*, but I approached it from the angle of play theory … with [Caillois] … From that angle, I think of *Melee* as a form of dance … And there's not a lot of games that are in that space … In *DDR* you Dance, in *Melee* you control someone dancing.

Knowing her limitations, Zoe was able to embody a player character and not only partake in social expectations but excel in them by kicking ass. While she could not *be* the dancer, she controlled the dancer, showing not necessarily disassociation from self, but her embodiment in the experience.

An Outlet for Learning and Expanding the Mind

Though less prevalent than the previous uses of videogames as outlets, six participants specifically stated that they used games for learning and expanding their minds. The extent to which each indicated this varied, with some like Stephanie who mentioned that they were

homeschooled, and their mom used educational games for their learning occasionally. Others, like Ash, however, discussed at length the ways in which videogames facilitated learning:

> A game is not only the entertainment part, there's the expressions, or the ideas, or message that the creators have, and also there's a lot of things that you can learn with videogames. I learned English thanks to videogames. I learned how to read math, and how to navigate in real life thanks to videogames … thanks to *Animal Crossing* I know many insects, I know many fish, even how to grow stuff. Yeah so, there is a lot more content than anyone can perceive at first sight. So, when I realized that, woah, of course you can not only play, but can also learn a new skill, a new language…

Ash went on to credit *Rock Band* (Harmonix, 2007) as his first introduction to drumming, taking focus on the complete kit it provided and how the game taught players how to keep a beat. Ash explained that this aspect to games was part of what excited him most about programming and game design. From his perspective, games provide many of us with more knowledge than we realize, whether the game is positioned as educational or not. Ash made another point about how games can teach us about others and ourselves too:

> the way you play a game, it can be a platformer, just your personality in a platformer—are you aggressive? Are you just going to get on? Are you detailed? Are you like slowly pacing yourself or are you just exploring everything? … there's a lot of expression that you can have regarding your game, and you're free about it, right?

Other participants provided examples of what Ash explained, though most were shared as learning about oneself rather than learning a specific skill. For Abigail, the story shared was a comical one. She had a bad experience with *The Sims* (Maxis, 2000-2023) as a kid, with the entire family all dying by accident. She noted that it taught her she could never be the "evil" character. For Luna, however, she found that she was engaging with a game even when she wasn't playing it. As she shared:

> I just like I find myself out in the world thinking about like how the *Life is Strange* games and all the ones in that universe reflect problems that I'm going through in really nuanced ways. And I mean just on the basic level of the first *Life is Strange* with the time reversal feature … I just often find moments in my life where I'm like, "this, is exactly the moment when you would use that," and like, "here's what would happen if I could rewind time," and it feels like not just fantastical but almost realist—like it merges with life experience so much.

While the idea of connecting with a piece of media may not seem significant to some, it's important to note Luna expressed only really playing games more consistently in 2020 after surgery. She even detailed that, despite loving games for their art and writing now, she had a lot of skepticism before exploring the medium more:

> I was very skeptical when my partner was like "let's get an Xbox," and I was like "what the hell am I going to play on an Xbox?" Like, I was deep in dissertation land where *of course* I like crappy media to distract … but also I had a level of expectation that like—I don't want to buy a thing where everything that I put in it is just like drivel—like it's gonna like waste my brain power and not put anything back in, because you know it's a fine balance between decadent distraction and then like, refilling your cup so you have some inspiration to keep working, and I wanted a good balance and I had absolutely no concept of like what games were available or what the game writing landscape was like at all. And I think we got Game Pass and I just scrolled through and just opened everything so that I could start to get a sense. And then realized, "oh, there are like actually well written things here," and like somebody who might write a book wrote one of these, and that made a huge difference in how I looked at videogames.

In a sense, playing games taught Luna how to expand her mind regarding media she wasn't familiar with. In another, games have continued to teach Luna about herself and have changed much of how she views the world.

Summary

Each participant noted different ways they used videogames as outlets for something missing in their lives. For some, videogames become a creative outlet, and for others they

become an outlet for success and feeling accomplished. In other cases, videogames can even be viewed as an outlet for learning and expanding our minds whether by design or not.

4.5 Conclusion

I conducted this project as an intervention to the current direction of research in videogames and chronic pain to instead argue that connections between the two already exist and need not be forced through conversations of "curing." The goal was, and is, to offer empirical qualitative data regarding the potential intimacies between chronic pain and videogames as told by the chronic pain community themselves. In this study, I provide the beginning of a theoretical understanding of these relationships outside of forced notions of what "should" occur as decided by those who push videogames as only a tool.

Though the resulting sample is smaller than intended, data saturation was met as consistent themes continued to be reflected among participants. In this, I found a more concrete exploration of my questions regarding if people with chronic pain have specific gameplay experiences and technology they gravitate towards, and if the community considers videogames in connection to their pain management. As this study was intentionally foundational and exploratory these results should be viewed as direction for future research. Below I present a brief discussion surrounding these findings grouped into the three following sections: Specific Gameplay Experiences, Genres, and Favored Technology; Videogames and Pain Management; Limitations and Future Work.

Specific Gameplay Experiences, Genres, and Favored Technology

Participants within my sample gravitated towards specific gaming experiences. Whether this connection was intrinsically related to their chronic pain, however, varied. For Ash, many of his gaming choices were indeed informed by his pain, whereas Abigail casually noted that she played "through" the pain, repeating the same painful routines despite knowing they would hurt her in the long run. The fact that Abigail's chronic pain symptoms were relatively newer as compared to other participants, however, could have influenced her perspective on the matter. For Zoe, competitive gaming experiences became the natural choice due to normative expectations of gender performance and her access to games through her brother. The range of games she played understandably widened as normative expectations changed and she had access to her own funds for purchasing games.

With that said, however, it is hard not to look at the games favored by my participants and see a clear connection to the "slice of life" genre I defined in Chapter 2. It would be remiss of me not to point out that four participants mentioned the *Animal Crossing* series (Nintendo EPD et al., 2001-2020), with Hilda having even bought a Nintendo Switch for the newest installment. Four participants also mentioned *Stardew Valley* (ConcernedApe, 2016) as one of their all-time favorite games, which further connects to points brought up in Chapter 2 in connection to Pruett's (2019) work. *The Sims* series (Maxis, 2000-2023) and *Pokémon* franchise (Game Freak, 1996-2023) were each mentioned by five participants.

Especially intriguing was when participants attempted to work out what features they favored and why. In many cases, a participant would mention something they liked in a game, such as a strong narrative, and then would double back after listing a series like *Animal Crossing,* as Gayle did, as their favorite. At first glance, *Animal Crossing* is not necessary a story heavy series by traditional standards, however, the way in which it incorporates narrative elements

manages to hit that target, albeit differently as I discussed in Chapter 2. This was what others like Bella and Hilda each individually concluded about titles they loved. For Bella, *The Sims 2* (Maxis Redwood Shores, 2004) provided story in its lore and world building, leaving the player to decide how to interact with the rest. For Hilda, the "story mode" in games like *Planet Zoo* (Frontier Developments, 2019) allowed world building with preset challenges to complete, further immersing the player within the game world and its story. Later, Hilda even came into conflict when contemplating if *Pokémon* (Game Freak, 1996 - 2023) was a "cozy game" considering it had fighting and battles in it. Hilda ultimately decided that the monotonous feel of the mechanics when paired with the aesthetics ultimately fit the idea of "cozy." For these participants, cozy didn't necessarily mean the content of the game itself was "cozy," but that the feeling of playing was overall warm and comforting.

As seen in the quantitative data collected on participant favored games, consoles, and genres (see Table 5, Table 6, Table 7, Table 8, Table 9, and Table 10), 13 separate participants mentioned Nintendo, and all 13 also mentioned the Nintendo Switch. Given my research similarly focuses on two Nintendo games, this adds to the argument I made for Nintendo design highlighting embodiment in play, thus reaching more players, facilitating the company's wide appeal. Several participants even mentioned scaffolding as an attractive gameplay feature, something many games have but Nintendo certainly excels in publishing. Many of the mentioned titles that weren't published by Nintendo still had a connection to them, such as *Stardew Valley*'s (ConcernedApe, 2016) creation being heavily inspired by the Nintendo published *Harvest Moon* and *Story of Seasons* games (Marvelous et al., 1996-2022). I was additionally intrigued by how popular the company's portable devices were among my participants. I've always loved the 3DS and the Switch for that reason, which has become increasingly important for my pain

management. I have almost exclusively played my Nintendo Switch in handheld mode since I bought my own in 2018 and stopped sharing with my sister. A few of my participants like Hilda and Luna mentioned something along these lines. While indeed portability impacts the technical and graphical capabilities of a console, interestingly, none of my participants mentioned computer specs as a necessity at all. Some, of course, specifically noted having a gaming PC like Riley and Stephanie, but even they did not highlight graphics as required for their immersion. The rest of my participants specifically discussed artistic aesthetic being most important once again without mention of highly rendered graphics. In most cases, story, lore, and artistic aesthetic as a combined trio were considered the necessities.

Ash and Alex provided detailed notes on ergonomic desk setups they required, especially as both deal with symptoms that aggressively target their wrists and hands as spots of intense pain. To utilize their hands for their job, they expressed that they had to limit how often they played games, and even *how* they played games. In that regard, the fact that 13 out of 16 participants noted using a PC for gaming could connect to the more customizable experience a PC typically offers. With different tools to plug in, players aren't necessarily limited to one type of controller. As Ash explained:

> I like how responsive and how the keys feel on the PlayStation controller, but where the analog things are placed, it's awful I can't use it either.

While certainly different controllers and add-ons do exist for consoles, they are not catered to by as wide of a market as PCs are regarding options for different needs.

Videogames and Pain Management

As noted in Chapter 3, distraction from pain is one way in which those of us with chronic pain may work to manage our symptoms. If, we consider then, how important narrative was for half of the participants, as well as the gameplay immersion it brings, we can see a point of interest in these players utilizing immersive gaming experiences as a form of distraction. While I cannot assume all participants engage with games in this way, Hilda, Luna, and Stephanie specifically noted that they did use games as a method of distraction from pain when applicable. As Luna said:

> In former years of [endometriosis, prior to surgery] I would have like especially one or two spots that would be like radiating, stabbing, throbbing for like three to six hours pain, that were just relentless, and I'd have to medicate heavily to get it under control and I would get into a bit of a stupor and play my videogames and get through that way.

While no sweeping statements can be made claiming that *all* participants utilize videogames specifically for pain management, it is especially notable that some, including myself, absolutely do and explicitly so. While of course we all play videogames for a multitude of reasons, as noted throughout these interviews, games provide ample distraction from pain in a way other media can't always do. Regardless of *what* participants used videogames for, even if it was simply for the joy of it, all participants noted that there was indeed a reason they played videogames. 14 participants all determined that they held a deep connection with videogames that went beyond simply media consumption.

Limitations and Future Work

The two largest limitations of this project were the COVID-19 pandemic occurring throughout it, and my lack of experience in conducting a project of this scale. Even when

lockdown restrictions were lifted, a member of my household was immunocompromised which further impacted my recruitment abilities. While conducting interviews digitally likely did not impact the content, the inability to interface directly with people hurt my ability to reach additional communities. Without facilitating that trust beforehand, it is understandable that several communities did not respond to participating in my research.

Additionally, due to my inexperience I excluded participants under 18 years of age from this study for their safety. While I stand by this decision, it limited the range of my research in understanding what a portion of the chronic pain community think about videogames. Future work should attend to this but including participants under 18 years of age with chronic pain. This is especially important given that many of my participants began loving games at a very young age. This study was also limited in funds as it was conducted out of pocket. This restricted the amount I could provide to my participants for their time, as well as what programs and services I could utilize. Future work might attend to this by engaging with foundations for funding.

Overall, future work should address additional foundational research from a more diverse sample's perspective that might yield opportunity to extrapolate concepts towards a general population. Future work should also address a more candid conversation among those with chronic pain who love videogames to discuss direct thoughts regarding the topic. Other work might take a more concrete look into teasing apart the notable gravitation toward "slice of life" or "cozy" games among those with chronic pain. In this case, it becomes important to consider what intersectionality assemblages might impact these results, such as generational or gender identity-based differences.

Conclusion

Despite the difficulties I ran into with this project, I was able to hear so many stories and perspectives from people I never would've known I shared this community with. In this, I was reminded of how important it is to have a community to share likeminded thoughts and feelings with. As I listened to my participants share their experiences, I for once didn't feel so alone with my chronic pain. I sat there as they noted something the general public might not experience, such as how badly it hurts to drive or struggling to walk on "bad days," and I would nod my head right along because "yeah, I totally get it."

When one participant began crying as she described a horrible experience in which she was promised academic support due to her pain flareups but was not provided it, instead left to painfully struggle through without help or understanding, I silently cried along with her. To hear her describe a story so like mine was heartbreaking. I knew a version of that struggle, and it isn't one I would wish on anyone. As we sat, feeling our similar trauma in different ways together, as she cried and then dried her tears, I shared my own story of when a teacher in school was convinced I was lying despite the fact that I was unable to walk and had medical documents to prove my disability. As my participant blew her nose, I told her of how this teacher tried to impact my ability to graduate, venomously telling me I "looked fine" when she demanded I come in physically to take a test, rather than send it with the homebound tutors that came to my house. I mentioned how my mom had to threaten lawyer intervention and that even *that* did not get my school to help until a member of their board coincidentally had someone in their life get diagnosed with the same condition. Only then did they believe me. By the end of my tale, my participant was laughing, and I laughed too. We laughed because both of our stories held an almost comically villainous teacher at the helm, one seemingly with a vendetta to stop a disabled

child from receiving help, or at the very least, dead-set on not having to change anything about their process for that child. When I had the "ok" that she wanted to continue, she answered the rest of my questions, and we left the interview still laughing and smiling in that strange yet familiar space of shared trauma that can only come from lived experience.

In this I express the necessity in talking to the Other directly. In hearing their story and lived experience to better understand how they interact with the world around them, in this case, videogames. I further push for more opportunities for Other to speak with Other, as it provides a more comfortable space of understanding that allows fruitful conversation to blossom. The similarities I shared with all of my participants and their stories was not surprising, as we have all been debilitated, and capacitated, by the same biopolitics of disability. Every participant had reviewed their relationship with videogames to varying degrees and each had something to say. Before deciding that technology should be a tool to facilitate medical intervention, we must consider what relationships already exist with that technology, and why taking a human, and by that I mean lived experience, centered approach.

5. Conclusion

In this dissertation I argue for the connections between the lived experience of chronic pain and videogames, exploring what interacts with and influences them. I argue the necessity in doing so to push back against misguided attempts at impossible "universal" design. I drew on cripistemology as I engaged in autoethnography, close-reading and close-gameplay, restorying, mixed methods design, formal interviews, surveys, and inductive coding. In all of this I further argue for pushing back against the unhelpful binaries that define the "human" and a false idea of "universal" experience or ability, instead pointing to the intersectional assemblages that better reflect the biopolitics of disability, necessarily including both debility and capacity. Herein I argue that a human centered approach is an approach of lived experience, not of defining the human by certain ability or identity.

I engaged with these concepts in three specific projects that considered additional sub-questions to further tease out why videogames have impacted me so deeply and how it is tied to my identity as a disabled woman. The goal of this project was to highlight the growing research of lived experience and disability in the field of game studies, providing empirical data that offers a foundational look of how I as a member of the chronic pain community think and feel about videogames, as well as how a small portion of the chronic pain community discusses videogames and the range of experiences this encompasses. To better understand my work as I engaged with disability and game studies, I necessarily included various additional ideas from other fields of study to better attend to the intersectional realities of disability. I explored different conceptualizations of cisheteronormativity and socially constructed gender binaries along with questions of equality, equity, and normativity. I considered additional discussions of

race, especially in its intersectional connection to disability. I looked to conversations of embodiment, both of the internal self and of the presented self, and what intersections lie within those identities while taking into consideration media representation of the Other and the meritocratic systems imbued in our society.

In Chapter 2, I consider my lived experience with chronic pain alongside my experience playing *Animal Crossing: New Leaf (AC:NL)* (Nintendo EAD, 2012) to note opportunities about genre and mechanics as reflections of my own daily lived experience. I offered an autoethnographic deep-dive into my experiences with playing *AC:NL* and going through a pain rehabilitation program in 2014. Through this, I further devised an understanding of the genre that *AC:NL* embodies, one that I call *slice of life*, and explored why determining the characteristics of said genre further expand upon my experience as a player. Throughout this process I considered the questions: (1) why was *AC:NL* the game I played most during some of the hardest years in managing my chronic pain; and (2) what are some of the defining aspects in examining the relationship between metagames and lived experience? In this exploration I reveal my experience of embodiment within a game, whereas in the following chapter I ask the game to embody me.

In Chapter 3, I question how embodiment further impacts my experience of games as someone with chronic pain, and utilize a method called "restorying" to articulate how reading the titular character from the GameCube game *Chibi-Robo!* (Skip Ltd. et al., 2005) as someone with chronic pain impacts my experience. In this autoethnographic approach I also provided a close reading and close gameplay of *Chibi-Robo!* to center and direct my goal in restorying. Restorying allows, usually Othered, individuals to adjust or reconfigure pre-existing media to include representation that better reflects their experience. In doing so, I further engaged with previous work from Shaw (2014) and Keegan (2019, 2020) to explore aspects of identification

over diversification. Throughout this process I argue that by combining fanfiction and deep reading/gameplay into a restoried analysis based around aspects of our lived experience, we can better understand what future game design might attend to while simultaneously highlighting the validity of more accessible research methods that expand and crack academia's intentionally restrictive walls.

In Chapter 4, I expanded upon my previous work in self-exploration to provide foundational work in how a small portion of the chronic pain community considers videogames. Through mixed methods design, I interviewed and surveyed 16 participants with chronic pain to better understand their lived experience with videogames and pain. I provide this work as an intervention in the current approach towards much of the research regarding videogames and chronic pain. In doing so, I provide a foundation for what future work should attend to. Through these conversations I aruge that what I explored in Chapter 2 and 3 is not necessarily unique to my experience, and that others with chronic pain have unique embodiment with videogames too.

Through these many approaches I uncovered how the slice of life genre in videogames offers a blend of mundane activities, normativity, and ongoingness. *AC:NL* demonstrates the genre through respect for a leisurely pace, social norms in NPC interactions, and an unbreakable connection to our real world, whether through code, text, or otherwise. In this I discovered why *AC:NL* kept me both distracted an engaged, a concept relayed by participants in Chapter 4 as well. Taking this exploration to Chapter 3, then, I looked into restorying as a process both in exploring lived experience, but in considering the opportunity to have a player character embody me, rather than the other way around. In doing so, restorying Chibi-Robo allowed me to complicate a dichotomy on what representation and narrative should be, and articulate what narrative furthered my embodiment of a game I already found comfort in. In my final project in

Chapter 4, I engaged with the chronic pain community by asking general and foundational questions regarding their experiences with both videogames and chronic pain. All participants detailed their own connections previously made regarding these two aspects of their lives, and each had individual experiences to share with some concepts and themes converging.

In my research I have dug through the intimacies of chronic pain and videogames. My wish is to further uplift qualitative research regarding lived experience with disability. I argue for this both as a combatant to the dogma imposed by binaries, but also to push back against the medical model and its institution. In my medical experience with chronic pain, I have often been asked to assign my pain with a number on a scale from "0 to 10," otherwise known as the NRS. I still question the purpose of this number, as it never influenced my treatment and often created a negative response from the doctor if they thought the number I chose to be "wrong." I push back against current normative determinations of certain ways to embody videogames as "wrong," in the same way I push back against those medical professionals who told me the way I felt or described my pain was "wrong."

The voices of those who have chronic pain are not considered nearly as much as they need to be in medical research and design aside from the numbered reflection of body abilities. I am looking for more to be able to share their lived experience from a personal perspective, and for that to be valued as important research equal to the numbers we record. As detailed by Patsavas (2014) regarding the experiences of those with disabilities and chronic pain:

> Our experiences have frequently been devalued and dismissed, particularly when it comes to pain…The dismissal of experience as a basis of knowledge is part of a politics that obstructs knowledge of/by/for disabled people, as systems of privilege facilitate biomedical knowledge about pain at the expense of experiential knowledge, not just by excluding but by devaluing that form of knowledge. (p. 206)

As a large portion of my interest rests with videogames, I used this dissertation to explore my identity both with chronic pain and videogames to offer the research I want to see more of. When including people with disabilities in the design process as they should be, we must also adjust how designs surrounding disability are discussed and categorized. While ideally the disability simulations discussed in Chapter 1 would be discontinued as a design practice entirely, it's concerning to think that as they continue, they might further be confused with designs made by people with disabilities expressing our experiences. An immersive, autobiographical experience, for example, could appear as a disability simulation to some, especially if presented in VR.

There is obviously an important difference between simulating disability and exploring a personal experience in disability that does not claim to speak for an entire group of people. I outline this concern due to a similar form of this self-expression discussed in videogame scholarship that is wrought with misunderstandings by a normative culture. Contained, personal experiences by queer artists are commonly categorized as "Empathy Games," regardless of the true design goal and audience (Pozo, 2018). As discussed in Chapter 1, such a focus on empathy is dangerous, as it often ignores necessary context. In this, such games are misjudged as a simulation that provides "understanding" of being like, rather than what they truly are as methods of "being with." In many cases, queer artists' wishes go unheard by a normative audience that claims the design as made for them (Pozo, 2018). Through a different situation, it is not hard to extrapolate this outcome into a guess at how a videogames regarding someone's experience of disability might be misconstrued by the public, if not already being done so.

All of this to say, in this exploration I confirmed, even if only for myself, that there are indeed connections between how I play videogames and my chronic pain. The genres and

mechanics I gravitate towards often highlight my embodiment. I can enter a mindless state of peaceful distraction in *Animal Crossing* (Nintendo EPD et al., 2001-2020) where I am overcome by both nostalgia and possibility; or I can enter a restoried world like *Chibi-Robo!* (Skip Ltd. et al., 2005) which embodies many of my current capabilities and feelings in a fun and exciting story regardless. As several participants said, there is a benefit to both escaping out of, and into, ourselves, especially when we have pain that both is a part of us while also hindering us. To return to Andrew Marvell's 1681 poem "A Dialogue between the Soul and Body," if I am a Soul and a Body, both of whom cannot escape or fully immerse with the other, the assemblage becomes clear whenever I play videogames. In this clarity I see an expanse of design that incorporates more Othered designers and experiences and does so not to benefit "everyone" by way of results, but to benefit the intended audience and complicate the oversimplified ideas of so many human centered conceptions.

APPENDICES A-G

APPENDIX A

A Summary of *Chibi-Robo!*

To better demonstrate my case study in *Chibi-Robo!* (Skip Ltd. et al., 2005) I offer a brief synopsis of the story below. The game consists of many cutscenes and triggered story elements ranging from conversations to mini-games. The narrative provided below only covers the general plot and main story beats. A table including the game's characters and a brief "about" for each of them can be found in Appendix B while a summary of the game's largest side-plots can be found in Appendix C. Understandably, the synopsis contains spoilers.

At the start of the game, the player, Chibi-Robo, is introduced to Mr. and Mrs. Sanderson as they celebrate their daughter Jenny's eighth birthday. As a gift, Mr. Sanderson has impulsively bought his daughter (though his wife speculates he bought it for himself) a Chibi-Robo that he cannot afford due to his unemployment. This brief introduction sets the scene of a rocky marriage, money troubles, and a struggling family. Throughout the game, Chibi-Robo maneuvers around the house, picking up trash and utilizing his small toothbrush-turned-mop to wipe up smudges of dirt and oil. Going about his daily activities, he eventually reaches the Basement where he finds a broken Giga-Robo (see Figure 29).

Figure 29. Chibi-Robo finds Giga-Robo's lifeless body in the Basement.

By plugging into him, Chibi-Robo sees some of Giga-Robo's memories represented by charming, yet somber, wordless drawings as seen below (see Figure 30). Through these images, we learn that before Jenny was born, Mr. and Mrs. Sanderson (and their dog Tao) owned a Giga-Robo, a giant robot much like Chibi-Robo though clearly larger in size. Chibi-Robo is shown the stress Giga-Robo's immense power consumption caused the Sandersons and how this troubled the large robot. Giga-Robo's kind nature is further developed when we see that he rescued an alien UFO from crashing which resulted in them granting him two wishes in gratitude. His first wish was to bring the toys in the Sanderson home to life to allow him company during the night. His second wish, one that went ungranted due to the aliens' lack of power at the time, was to no longer need energy to survive.

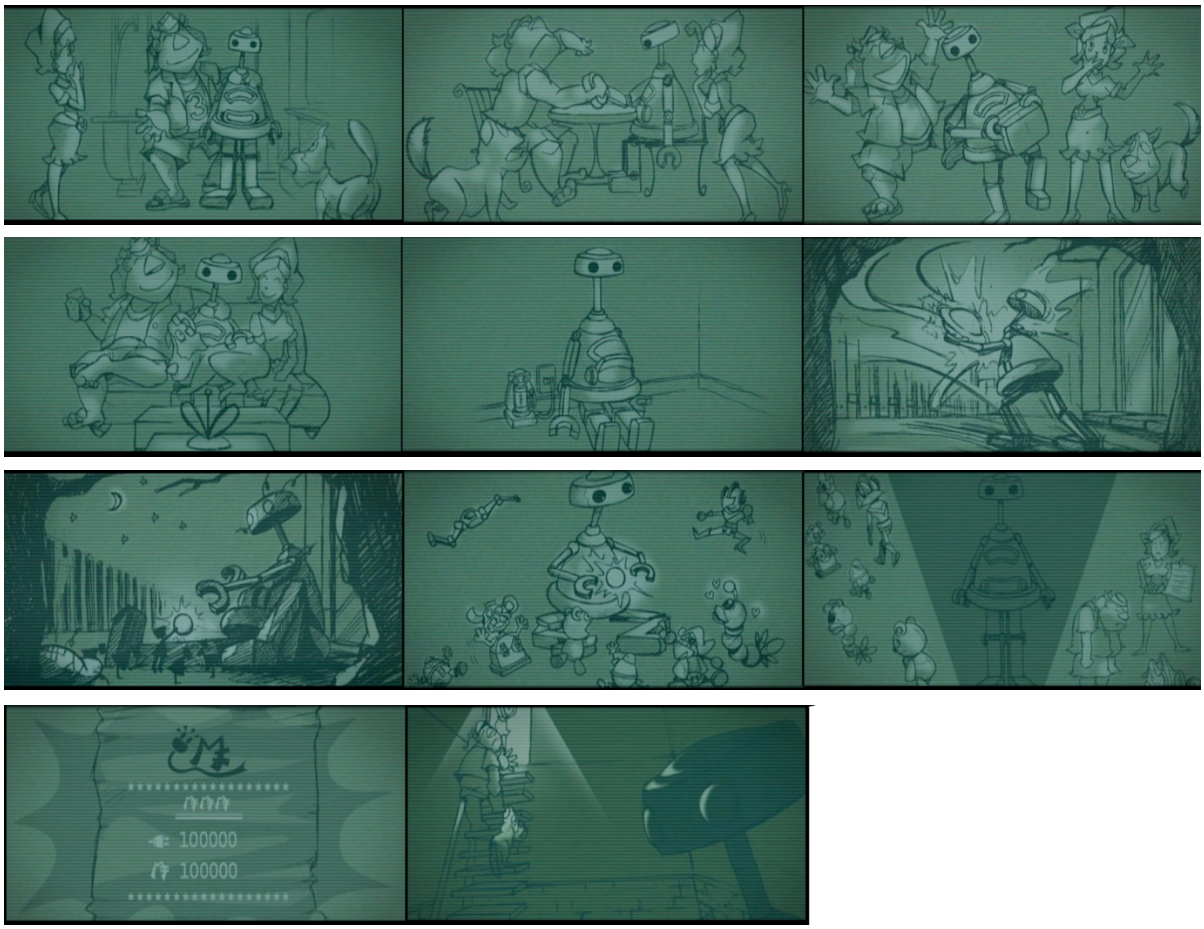

Figure 30. Compiled strips of Giga-Robo's slideshow of memories (read left to right).

During the day, Chibi-Robo experiences his family's troubles while he works on rebuilding Giga-Robo without utilizing any extra energy from the Sandersons. He does so by sacrificing his own additional power to fill Giga-Robo's old battery. As he walks around, he is sometimes attacked by small robots called Spydorz that, according to the news, have a goal in hurting all Chibi-Robos. At night, Chibi-Robo explores the Sanderson home, talking to toys and learning of their own struggles. To keep the story beats clear within this synopsis, I have provided details on the toy's side stories in Appendix C instead. Chibi-Robo balances cleaning the house, helping the Sandersons and toys, and rebuilding Giga-Robo all while keeping an eye on his own energy depletion.

The two key plot points of the Sanderson's marriage and Giga-Robo become increasingly important as the game goes on. Eventually, the Sanderson's marital problems result in Mrs. Sanderson asking for a divorce after learning that Mr. Sanderson has once again lied to her about an expensive purchase, which causes Mr. Sanderson to work in adjusting his behavior. As the family is distracted, Chibi-Robo is surprised by the aliens who have returned to give Giga-Robo his second wish. They become incredibly disheartened when they see Giga-Robo's state, feeling responsible for being "too late" in gathering the power to grant him his needs.

In his efforts to save Giga-Robo, Chibi-Robo utilizes the aliens' technology to go back in time to find the code for a locked suitcase that contains Giga-Robo's missing leg. Upon opening the suitcase in the present, he releases several dangerous robots, bigger Spydorz, that Mr. Sanderson had secretly kept inside. After several dramatic scenes, we learn that Mr. Sanderson quit his job after his company took his creation, the Spydorz, a small spider robot meant to *help* the Chibi-Robos with tasks, and reprogrammed them to attack Chibi-Robos instead. Mrs.

Sanderson, having believed her husband to have been fired, feels incredibly guilty for how she has been treating him. Chibi-Robo then must defeat the collection of large Spydorz to save his family and retrieve Giga-Robo's leg.

After the turmoil, Mr. and Mrs. Sanderson begin working on their marriage and communication. Despite the tense events, everything within the household goes back to normal after the Spydorz are defeated. Chibi-Robo takes this time to fully fix up Giga-Robo while continuing to help around the house.

At the end of the game, Chibi-Robo successfully brings Giga-Robo back to life and with his still limited charge, Giga-Robo takes Chibi-Robo with him to meet the waiting aliens in the yard. The aliens happily fulfill his final wish, to no longer need energy, and he then grants this power to the Sanderson's Chibi-Robo and eventually to all Chibi-Robos as shown in the ending credits. After the game is completed, the player can continue to clean and walk around the Sanderson home, now with Giga-Robo present as he enjoys his life, often found swinging in the backyard.

APPENDIX B

Chibi-Robo Character Summaries

Table 11. *Chibi-Robo!* Character Summaries

THE SANDERSONS	
Mr. Sanderson; George; Papa	"Bought Chibi-Robo more for himself than for Jenny, given his major obsession with toys and technology. He is currently unemployed and spends much of his time on the couch waiting for the Drake Redcrest show to come on" (cyricz42, 2006).
Mrs. Sanderson; Helen; Mama	"The voice of reason in the family, [she] first viewed Chibi-Robo as an extravagant purchase, but softened to his penchant for making her life easier with the cleaning. She's often worried about the direction her family's taken, with her husband's lax behavior and her daughter's odd demeanor. You can most often find her in the kitchen. She gives Chibi-Robo the nickname, 'Cheebo'" (cyricz42, 2006).
Jenny	"the cute eight-year-old daughter of the family. She loves to draw and can often be found doodling in the living room. She becomes incredibly fond of Chibi-Robo as the game progresses" (cyricz42, 2006). She also is obsessed with frogs, wearing a frog hat for nearly the entirety of the game and mostly speaking in only 'ribbits.'" If Chibi-Robo is wearing the "Frog-Suit" she will speak normally to him noting that frogs understand one another. If Chibi-Robo collects all of the frog rings and gives them to her, she will briefly take off her hat until she is "cursed again" to be a frog.
Tao	"The family dog. . . He can mostly be found growling, chewing, and just lying around" (cyricz42, 2006). If Chibi-Robo obtains the "Tao Suit" he can speak with Tao.
THE ROBOTS	
Giga-Robo	"The family's first robot. [Giga-Robo] used too much power to run and now is neglected and forgotten in the Basement. One of the game's main objectives is getting him up and running again" (cyricz42, 2006).
Chibi-Robo	"The main character of the game [who] wants nothing more than to be happy by making other people happy. He was bought by [Mr. Sanderson] as a present for Jenny's eighth birthday. While he cannot speak, his intentions are quite evident by his benevolent actions" (cyricz42, 2006).
Telly Vision	"Chibi-Robo's 'manager' is a small, floating television with a rather large collection of party-poppers stashed somewhere. He's on hand to provide support to Chibi-Robo and serve as a voice if the pair have something to say. He also dreams about becoming a singer and considers himself something of a ladies' man" (cyricz42, 2006).
THE TOYS, ANIMALS, ETC.	
Drake Redcrest	"A man of action, and JUSTICE! This incarnation of the cartoon icon Space Hunter Drake Redcrest is actually an action figure, but he still has all the panache of a Fighter for justice. He's most often found in the living room" (cyricz42, 2006).
Sophie	"This is Tao's chew toy. She's in the guise of a caterpillar, and has a MASSIVE crush on Drake Redcrest. She writes her innermost thoughts in her diary when she believes no one's looking. She can be in several places, but most often in the kitchen" (cyricz42, 2006).

Sarge and the Free Rangers	“These egg-shaped toy soldiers patrol the Foyer almost non-stop. Sarge is obsessed with training his platoon so they can defeat the most horrific of enemies: Tao” (cyricz42, 2006).
Captain Plankbeard	“This hand-carved wooden pirate frequents the Basement. Like most pirates, he wants to sail the seven seas and find buried treasure, but he'll need your help to get off the ground” (cyricz42, 2006).
The Great Peekoe	“This odd monkey-like porcelain statuette is a guru obsessed with soul cleansing. You can most often find him in the Basement early on, or possibly in the kitchen, focusing on his training. While in the Basement, you can play a game of chance where you can double your Moolah wagered, or get your wager back in Happy Points” (cyricz42, 2006).
Princess Pitts	A princess doll that lives in the castle in Jenny’s room. She is seen as incredibly beautiful, though she frightens rather easily. She desperately wants to know who has been leaving flowers for her.
Mort	A poetic mummy doll who is deeply in love with Princess Pitts. He fears telling her of his feelings due to his belief that he is too ugly to love, so instead he leaves flowers for her in front of her castle.
Sunshine	“Jenny's teddy bear. Early in the game, he doesn't leave Jenny's side, but later on, he'll be wandering around her room” (cyricz42, 2006). He is addicted to nectar and without it goes through withdrawal induced rage.
Dinah	Dinah is a southern accented Lego-style building block Dinosaur who has a bit of a crush on Funky Phil. She often goes on tangents about her old age, and though she isn’t very funky, her heart is in the right place.
Funky Phil	A toy dancing flower that shows his moves when music is turned on. “He lives in the Bedroom, and his only goal in life is being funky and dancing the night away” (cyricz42, 2006).
Phillys and Freaky Phil	Funky Phil’s protégés, as though they look like his babies, he insists he is not their father. They are born thanks to Chibi-Robo planting the seeds that fall from Funky Phil when he’s dancing, and by watering them with “Funky Sweat.” They love Funky Phil and dancing.
Fred and Freida the Frogs	Two frogs Chibi-Robo reunites by spraying them with water to rehydrate them. Upon first helping Freida, she awards Chibi-Robo with the Frog Suit to properly thank him before asking him to find her boyfriend, Fred.
The Bluebird	“Residing in the tree in the Backyard, this bird wants you to help him with his nourishment, or else he won't let you pass to the roof overhangs” (cyricz42, 2006).
Titan, Io, Ganymede, and Little Bang	“These visitors were saved once by Giga Robo, and they would like to repay the favor” (cyricz42, 2006). Their origins are a mystery, but they have the power to create time machines, and balls of light that can make wishes come true. They easily overheat and require Chibi-Robo to cool them down with water. They often complain about Earth’s air quality.

APPENDIX C

Chibi-Robo Side Stories

This section covers three of the more “in-depth” side-stories Chibi-Robo can interact with during the game. These side stories have cutscenes, dialogue, and typically take several in-game days to do, with some being locked until certain parts of the main story have been completed. Additionally, some stories have more satisfying conclusions where others are meant more as a reoccurring gag. Thus, some side-stories are more in-depth than others. I have provided a write up for three of the side-stories that result in gameplay differences below. The stories covered are on Dinah and Funky Phil, Sunshine the Bear, and Princess Pitts and Mort. Plotlines surrounding Sarge and the Free Rangers, and Captain Plankbeard, as well as several additional fetch quests for other NPCs including relevant minor cutscenes are not noted here.

Dinah and Funky Phil

To begin this story, Chibi-Robo must wear the “Frog Suit” and speak with the dehydrated frog, Fred, on the ground. Framed as his dramatic last words, Fred calls out to Freida, which unintentionally alerts Dinah to stomp out and roar. She jumps down menacingly and chases Chibi-Robo, sending Fred flying in the process. Telly Vision says his goodbyes to Chibi-Robo as he assumes they’re about to be killed by the Lego-style T-Rex. She chomps down on Chibi-Robo’s head, thinking he's a frog, only for all her teeth to fall out thanks to his metal body. She falls backwards crying about the pain, her dialogue revealing her signature southern accent. Chibi-Robo collects her teeth and gives them back to her to which she replies, “Thanks, Junior.” She reveals that due to her age, her eyes aren’t very good anymore, and so she mistook Chibi-Robo for a frog while he was in the Frog Suit. Now that she knows he’s a robot, she is incredibly friendly and tells Chibi-Robo they’ll see each other around.

Later, Chibi-Robo finds her looking at the window where she says Mrs. Sanderson trapped a mysterious toy up there, one who sits behind the blinds. She notes that he hasn't had food or water for three days and that "The way he's bein' neglected is criminal!" commenting on "how young and strong he is" and how "He's the picture o' gallantry." She wishes to open the blinds to help him out, so of course Chibi-Robo helps. In doing so, Chibi-Robo finds the toy, Funky Phil, stuck behind the blinds and reaching for the cord to pull them up. In this, Funky Phil is shown trying to sweet talk the cord into helping him, even though it is inanimate. Chibi-Robo quickly frees Funky Phil who is very grateful as Dinah watches from afar. She joins them on the window and greets Funky Phil, lamenting that if her arms were longer she could've helped. She is mostly just thankful to see Funky Phil free though, and asks him to dance some of the dust off "For old time's sake."

The scene cuts to Funky Phil, Dinah's energetic theme immediately cutting to silence as he stares before saying, "Well, ummmm…" It cuts back to Dinah, her music in full swing again as she gets mad, saying he ought to give a real answer. In her speech, she says "How you gonna find yerself a good little missus if ya ain't got no spunk? If worse comes to worse, I know a certain dineysaur who'd bite the bullet and marry ya!" It cuts back to Funky Phil the same as before, but this time he says nothing. When the scene returns to Dinah, she tries to play it all off as a joke. She then turns around and says an actual joke with a punchline before the scene fades to black.

It cuts back in with Funky Phil on a small stage in which he performs a delightful dance called "All Night Funky." At the end of this performance, Dinah turns to Chibi-Robo and tells him "If I was ten years younger, that boy'd be mine fer sure!" Chibi-Robo is given the option to

either agree or disagree with her. When the two look back, they see a seed has fallen off of Funky Phil.

Chibi-Robo must plant the seed and water it with "Funky Sweat" (gathered from Funky Phil). The seed grows into three tiny Funky Phil-esque toys, each called "Philly." When Chibi-Robo brings them over, Funky Phil is surprised to learn he has children, telling them he isn't their father even though they happily refer to him as "Pappy." When Funky Phil yells this at them, however, the Phillys become dejected and Chibi-Robo stares angrily. Funky Phil thus concludes that while he isn't their dad, he can still show them how to dance. The Phillys accept this happily. Upon noticing them, Dinah excitedly comes to see the babies, but Funky Phil pulls Chibi-Robo aside to essentially tell him that Dinah is too uncool and is throwing off his funk.

Later, Chibi-Robo retrieves the special music Funky Phil asked for and he dances once again, but this time with the Phillys. Dinah is so excited by the show and she desperately asks Chibi-Robo if he thinks there's anything she can do to help. She seems to come to her own conclusion and heads off. One final seed falls from Funky Phil during this performance, which Chibi-Robo then also plants. This seed grows another three Phillys, though the final third is a strange red color and thus is named Freaky Phil instead. Chibi-Robo goes to find Dinah who tells him she needs blocks.

Later, when Chibi-Robo talks to Funky Phil, he reveals he is worried about one of his "little buddies." When training the Phillys, Freaky Phil was struggling to keep up. Funky Phil was apparently too hard on Freaky Phil for this during rehearsal, so Chibi-Robo is tasked with finding him. When he does, however, Dinah calls him over quietly explaining that Freaky Phil went off to practice more by himself as not to cause problems for the others. She says she's "got a mess o' respect for [Freaky Phil]" as she herself doesn't know much about dancing. She

informs Chibi-Robo that Freaky Phil is struggling to execute the Drake Redcrest Pose, which Chibi-Robo can help to teach if he's wearing the "Drake Redcrest Suit." Before that, however, Dinah informs Chibi-Robo of Funky Phil's situation, noting that dancing with the Phillys has made him happier than anything. She laments that she wants to get Funky Phil and the Phillys out in the sun so they can really dance.

After Chibi-Robo's help in showing off the pose, Freaky Phil returns excitedly to the group only to find Funky Phil unmoving. Telly Vision assumes Funky Phil has died, but wonders how someone so funky could die. He confirms it to be true though and says they should stay with Dinah to keep her calm. The scene fades to black as white text appears "And so the grieving period began and continued into the night." When the scene returns, all the Phillys and Dinah are sleeping around the lifeless Funky Phil.

Later, Chibi-Robo gives Dinah all the blocks she needs. She thanks him and leaves. The next time he sees her, she has turned herself into a dump truck. With Chibi-Robo's help, she loads the Phillys onto her truck body and drives them outside to the backyard. A stage has been set up and the rest of the toys have arrived to see the show. Dinah wishes that Funky Phil could see the Phillys dance. The show begins and we see that Freaky Phil is the head dancer (see Figure 31). The babies do a great job. As the toys look up to the stars and hope Funky Phil can see this accomplishment from wherever he is, the alien's UFO flies overhead.

Figure 31. Funky Phil's protégé dance to honor his memory after his supposed death.

The next day, the Phillys and Dinah (who is in dinosaur form again) have once again gathered around Funky Phil's lifeless body which is now surrounded by bouquets of flowers provided by the Phillys. Dinah gives a speech to Funky Phil's body, telling him she's going to do her best to stop being sad and she's going to raise the Phillys herself. "So mosey on and rest in peace" she says tearfully. She sadly tells the babies that goodbyes are a part of life, and they must accept that Funky Phil is gone.

Freaky Phil, however, decides to lay down one last bouquet. The room turns pink with sounds reminiscent of the aliens and suddenly Funky Phil comes back to life. Funky Phil awakens and is weirded out by the bouquets, seemingly having no recollection of his death. Dinah is overjoyed and the Phillys celebrate. However, in this celebration, Dinah makes a

sudden realization. She asks Freaky Phil to press the button on Funky Phil's flowerpot. When he does, Funky Phil powers down. The babies do this several more times as it settles in that he never actually died; he was just powered down. Dinah is so shocked she falls backwards off the table. He asks if he did something wrong, to which Chibi-Robo can only reply with "Yes" or "Yes." As Funky Phil then begins to tell a story, the Phillys turn off his button again.

Sunshine the Bear:

When first introduced to Jenny's beloved bear Sunshine, it is revealed that he struggles with his addiction to nectar. Without it, he goes into a withdrawal induced rage that turns him into nearly an entirely different character, a different voice included (see Figure 32). In this state he typically threatens harm, and occasionally follows through with his threats. Later, when he has returned to his "old self" after eating nectar he explains: "You see, sometimes I black out and can't remember what happened." Sunshine plays a role in several NPC stories like the one involving Princess Pitts and Mort.

Sunshine is one of the few toys actually owned by Jenny rather than her father. He is protective of her and stays by her side, considering her more important than his addiction to nectar. For example, when at one point in the game, Jenny stays up at night watching alien signals on the TV. The signals seem to almost hypnotize her, making her entirely unaware of her surroundings. This provides the toys her in her room the opportunity to move freely without being noticed. Sunshine, however, stays by her side rather than go to get nectar. While he loves Jenny, he tells Chibi-Robo that he also thinks she's a bit weird.

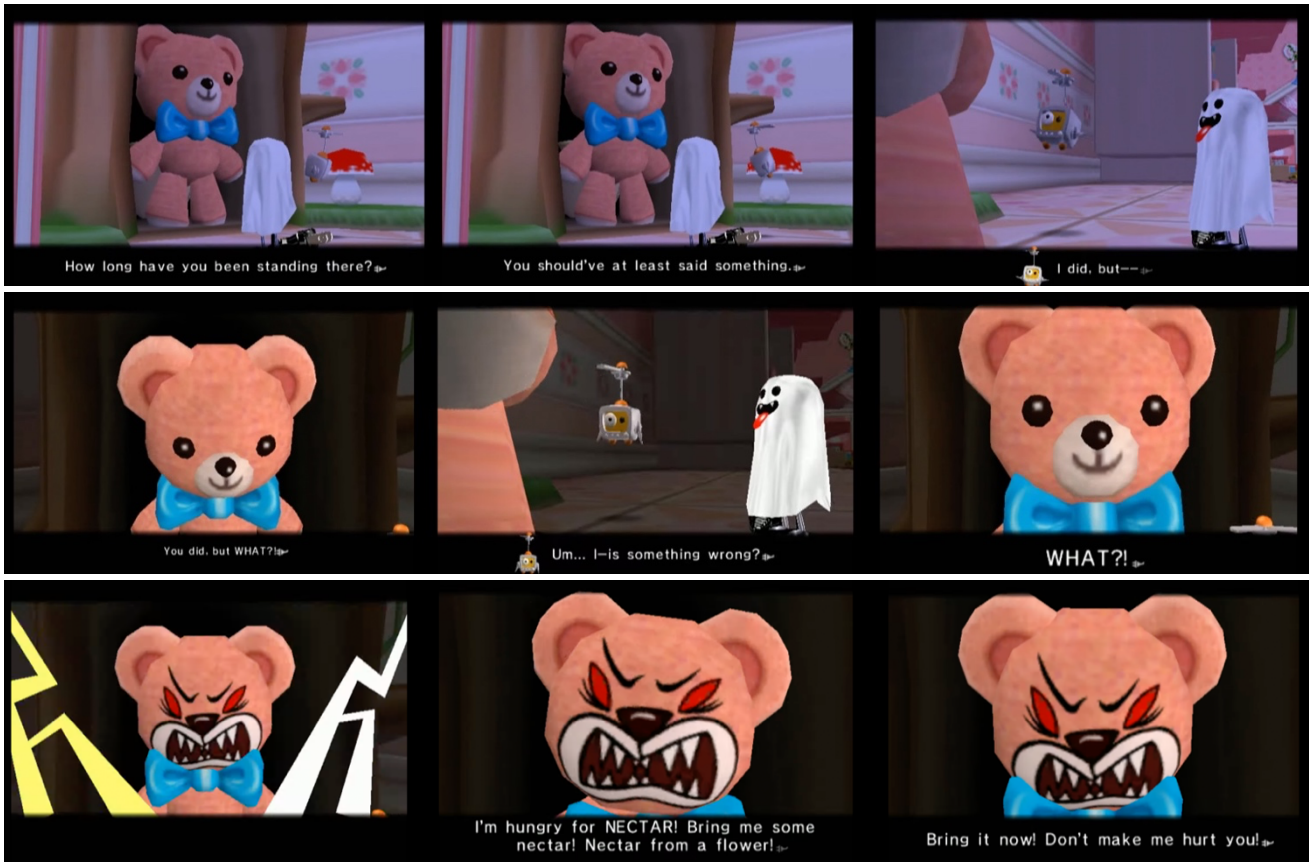

Figure 32: Chibi-Robo meets Sunshine the Bear (read left to right).

Princess Pitts and Mort

This story begins unfolding when Chibi-Robo enters Jenny's Room. Toys in the room note that Princess Pitts has not left her castle for some time. Upon finding Mort, a mummy toy that lives in a coffin-like box under Jenny's bed, Chibi-Robo is informed that Princess Pitts can't leave her castle because she has lost her red shoe. Mort asks Chibi-Robo to help her. Chibi-Robo agrees, but soon realizes he must also find a battery to replace the dead one in the Princess's Castle, as the bridge to her tower won't work without it, leaving her stuck regardless of the missing shoe.

When Princess Pitts is freed, she is incredibly grateful to Chibi-Robo, but wonders who has been leaving her the many dead flowers that rest in front of her castle. Mort can be seen in

the background, watching from under Jenny's bed near his coffin as Drake Redcrest appears with a beautiful, fresh flower in hand. Princess Pitts thanks him and excitedly asks if he was the one leaving her flowers to which he states, "Those filthy things? I THINK NOT!" Princess Pitts seems disappointed as she replies, "Oh, I see. But I like these 'filthy' flowers."

Later, Chibi-Robo comes upon a scene of Mort talking to the fresh flower that Chibi-Robo helped him grow. We also see that Princess Pitts, unbeknownst to Mort, is watching him from behind. Mort picks the flower up excitedly only for it to instantly die at his touch. He sighs, "I killed it. I made it hideous…like me." Princess Pitts surprises him but when he turns around, she screams "A monster!" due to being easily frightened. As is typical for her, she then faints and Mort quickly rolls away, dropping the flower as he leaves. Princess Pitts comes to only seconds later and finally realizes that Mort is the one who has been leaving her flowers.

The story concludes with Chibi-Robo visiting Mort only for the two of them to be interrupted by what seems like an earthquake. They rush out to find Sunshine in a nectar-withdrawal induced rage attacking Princess Pitt's castle. Drake Redcrest appears, ready to apprehend the bear, only for Sunshine to comically walk up to him and smack him across the room with one swipe. Sunshine then goes back to shaking the castle, continuing the threat of it falling apart.

Mort begins to panic at Princess Pitt's scream. Mort jumps into action, deciding that if it is for Princess Pitts, he must do whatever it takes. He asks Chibi-Robo to press the switch on his back, "I beg of you, hit the switch!" Chibi-Robo smacks the button with his blaster gun and Mort begins to shake. His eyes flash on and off as the sound of a heartbeat grows in volume until finally, he charges Sunshine. Mort thrusts his chest forward as a monstrous jack-in-the-box style pop-up springs out of his chest. This causes Sunshine to break out into an uncontrollable

laughter, saying “Oh man, you can’t BUY entertainment like that…!” after he finishes his giggles. Mort sighs, happy to have helped in calming Sunshine, but he remains somber as he says “I can only use that move once in a lifetime. The Super Miraculous Mort Surprise v2…The dreaded SMMSv2…” Having used his special move, he seems to finally decide to tell the Princess how he feels. He approaches her and once again thrusts his chest out, but this time a heart has replaced the pop-up that springs out. Princess Pitts, who had been passed out for most of this, awakens to see his heart and realizes he saved her castle from Sunshine. She excitedly says “I knew you would come to rescue me. Now I can finally ask you” as romantic music plays and the camera spins around them until it fades to white. When the scene fades back in, everything is the same except Mort is now standing on a child’s block so that he is the same height as Princess Pitts. Princess Pitts asks for the last time, “Mort…Were you the one who brought me flowers?” Though the cutscene ends there, the player can later find Mort and Princess Pitts under Jenny’s bed, standing by his coffin together.

Though the story seems to end there, when the player revives Giga-Robo they will see Mort and Princess Pitts during the cutscene where Giga-Robo carries Chibi-Robo outside to meet with the aliens. In this brief cameo, Mort and Princess Pitts are joined by a smaller Mort and Princess Pitts copy, implied to be their children (see Figure 33).

Figure 33: Princess Pitts, Mort, and their children.

APPENDIX D

Interview Script

INTERVIEW QUESTIONS: The Chronic Pain Community's Perspective on the Connections Between Chronic Pain and Videogames

Introduction Script:

Thank you for agreeing to participate in my research study.

Before we begin, I want to verify with you that you are have read, understood, and signed the provided consent form. [Wait for their response].

I also want to verify with you that you are okay with this being recorded for transcription purposes, and that recordings will be anonymized and kept on a password protected flash drive in a secure location even after the transcription is complete. Is that ok? [Wait for response].

Finally, I want to make sure that it was 100% clear from the consent form that I will be using the data gathered here for my dissertation and thus, for potential future publication as well. All information will of course be anonymized and not traceable back to you. Is that ok? If this is *not* ok with you please let me know and we can stop right here, no questions asked. [Wait for response].

Before we begin, do you have any questions? [Wait for response]. Ok, great, then let's get started!

----------**RECORDING BEGINS**----------

This interview is being audio-recorded for research purposes. If you wish for the recording to stop at any time during the interview, please let me know and I will stop the recording. Do you agree to being recorded? [Wait for response].

Recording starts now.

[BEGIN RECORDING.]

My name is Gracie Straznickas, I am here with [subject's name] via [platform or location] on [date, time.] (NOTE: this information will be removed from the file during the anonymizing process)

Thank you so much for joining me today. I'm going to start our interview by asking you a few questions about videogames, is that ok?

Interview Questions:

Videogames Questions:

1. What do you like to do in your free time?
    a. Optional: What, if any, are your favorite types of media and why?
2. Do you play videogames? (including phone game apps)

IF YES:

3. When did you start playing videogames?
4. Can you tell me what consoles or gaming systems you own?
    a. Examples: This would be something like a Nintendo Switch, PlayStation or Xbox, or even a PC or phone if you use that to play games.
5. Do you have a favorite game or games?
    a. What features of the games do you like?
    b. What keeps you coming back to this game?
    c. Why do you like to play these games?
6. Can you tell me about the last time you played a videogame?
7. Why do you play videogames?

IF NO:

8. Is there any particular reason as to why not?
    a. What, if anything, would a videogame need to offer to interest you?
9. Have you played a videogame at one point in your life?
    a. Could you tell me about that experience?
10. Does anyone in your household play games?
11. What is your perspective of videogames as a whole?

Chronic Pain

(all questions may be adjusted into past-tense for individuals who no longer experience chronic pain)

1. For about how long have you had chronic pain?
2. Can you describe your pain to me?

a. **For individuals who no longer have chronic pain:** Can you describe what your pain was like when you had it? Can you tell me more about what your life is like without it?

b. If they need additional prompting: You are free to describe it in whatever way suits you best, whether it be a metaphor, through terms like sharp or dull, or otherwise.

3. How, if at all, has your pain changed from when you first experienced it?
    a. For those who were born with chronic pain, how, if at all, does your experience with chronic pain as an adult differ from your experience as a child?
4. Do you talk about your chronic pain with others who have chronic pain?
    a. **IF YES:** Can you tell me about the last time you talked about your chronic pain with another person who has chronic pain?
    b. **IF NO:** Can you tell me a little more about why not?
5. What are your go to methods, if any, that you routinely use to manage your pain?
    a. Examples: Distraction, meditation, exercise, massage, medication, visualization, etc.
6. Have you ever received medical consultation or help for your chronic pain?
    a. **IF YES:** How do you feel about the experiences you have had?
    b. **IF NO:** Can you tell me a little more about why not?
7. How, if at all, has chronic pain impacted your life?
    a. If it hasn't, why do you think that is?

Closing:

8. Is there anything that I didn't ask that you feel like I should have?
    a. If yes, what?
9. Do you have any additional questions for me?

----------**INTERVIEW ENDS**----------

[RECORDING CONTINUES]

Survey Introduction Script:

That's all I had planned in terms of interview questions.

But, if you are comfortable doing so, I've got a short survey I would like you to fill out detailing some demographic information. This is mainly so I can see if there are any quantitative connections, which relates more to specific numbers and categories, among my participants and their experiences.

I have just sent you a link to the survey in our Zoom chat window, so if you're able to, could you click on that? I'll stay here with you as you answer the survey questions in case you have any concerns or questions of your own.

As always, you do not have to answer anything that you are not comfortable doing so. If you are comfortable answering some, but not all, of the questions that is completely fine. If you are not comfortable answering any of the questions, that is also completely fine, but please still submit your blank survey for my organization purposes.

After Survey Submission Script:

Well, that's all I had for you today. I want to just quickly express how thankful I am for you participating in this research. None of my work would be possible without these shared experiences and feelings of others in the chronic pain community, so you have my immense gratitude. It is incredibly exciting for me as someone with chronic pain to be able to do research with my own community to better understand any connections between us other research has yet to clarify.

I will be sending you your compensation later today, which is the $20 in the form of an electronic Amazon gift card. I will send it to the email you have been using to talk with me, however, if there is another email I should send it to, please let me know now.

Once again, thank you so much for your participation and I hope you have an absolutely amazing day. Please feel free to email me later if you have any additional questions or concerns!

APPENDIX E

Survey Questions

POST-INTERVIEW SURVEY

If you could open the link to this survey now and fill it out, I will stay on this call so that you may ask me any questions you may have. So long as you are comfortable doing so, please answer all questions to the best of your ability. If you are comfortable answering some, but not all, of the questions that is completely fine. If you are not comfortable answering any of the questions, that is also completely fine, but please still submit your blank survey for organization purposes.

Race and Ethnicity

Please check all that apply:

☐ Asian American	☐ Native Hawaiian or Pacific Islander
☐ Black or African American	☐ Hispanic or Latine/o/a/x
☐ Indigenous American or Alaskan Native	☐ White/Caucasian.
☐ Self-describe	

If self-describe is checked:

_____

_____

_____

Gender Identity and Sexual Orientation

Please check all that apply:

☐ straight/heterosexual ☐ lesbian ☐ gay ☐ bisexual ☐ queer ☐ asexual ☐ self-describe:	☐ Transgender ☐ Cisgender ☐ Agender ☐ non-binary/genderqueer ☐ genderfluid ☐ self-describe:	☐ female ☐ male ☐ intersex ☐ non-binary/genderqueer ☐ self-describe:

If self-describe is checked:

_____

_____

_____

Socioeconomic Status

1. What is the highest degree or level of education you have completed
   - ☐ Some high school
   - ☐ High school degree or equivalent (e.g. GED)
   - ☐ Some college, no degree
   - ☐ Associate degree (e.g. AA, AS)
   - ☐ Bachelor's degree (e.g. BA, BS)
   - ☐ Trade School/vocational degree
   - ☐ Master's degree (e.g. MA, MS, MEd)
   - ☐ Professional degree (e.g. MD, DDS, DVM)
   - ☐ Doctorate (e.g. PhD, EdD) or higher

2. What is your current occupation?

3. What is your yearly household income range

☐ Less than $20,000	☐ $75,000 to $99,999
☐ $20,000 to $34,999	☐ $100,000 to $149,999
☐ $35,000 to $49,999	☐ $150,000 to $199,999
☐ $50,000 to $74,999	☐ $200,000 or more

Thank you so much for your time and participation in this research, I greatly appreciate it. I really value your insight and experiences and would not be able to complete this work without your participation. I will email you your $20 compensation in the form of a digital amazon gift card today. Once again, thank you so much and please let me know if you have any questions, comments, or concerns!

APPENDIX F

Recruitment Flyer

DePAUL UNIVERSITY

LOOKING for VOLUNTEERS with CHRONIC PAIN

WHO:

- Must be 18 years or older
- Must currently have, or have had, chronic pain [defined as pain that currently has, or at one time had, persisted chronically for more than 3 months]

WHAT:

An interview that covers questions about your experience having chronic pain, and your opinions on videogames [console games, PC games, phone apps, and more!]. There is NO requirement to have played videogames, or to share diagnoses/medical information.

WHERE AND HOW LONG:

1 hour Zoom interview and survey conducted digitally

- Interview will last a max of 45 minutes
- Post-interview survey that will take a max of 15 minutes.

COMPENSATION:

Participants will be compensated with $20

[in the form of an electronic Amazon gift card through email after the completion of our interview]

HOW TO PARTICIPATE:

If you are interested in participating, have any questions, or would like more information, please contact me at gstrazni@depaul.edu

My name is Gracie Straznickas (she/her/hers) and I am a graduate student and Human Centered Design PhD candidate at DePaul University conducting research to explore and unpack the relationship between chronic pain and video games from the perspective of the chronic pain community.

I am also someone who personally experiences full-body chronic pain.

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Figure 34: Recruitment Flyer.

APPENDIX G

Demographics and Quantitative Data from Chapter 4

Demographics

Data is presented mainly by tables and graphs, with both included to benefit those of us who better understand results through visuals. Whenever not noted, results are determined from all 16 participants. Any results determined by less are noted.

Age Range

As seen below (see Table 12) participants were offered six age-ranges within the survey. twelve of 16 participants chose the 25-34 range, two out of 16 participants chose the 35-44 range, and two out of 16 participants each chose the 45-54 and 55-64 ranges respectively. The data is reflected visually below (see Figure 35) to better outline the skewed age range of my sample size. My data was likely skewed this way as I fit into the 25-34 age-range, and therefore, so do many of my contacts. These results are not unexpected given I conducted recruitment mainly through my personal channels as the foundations I contacted did not respond to my communications. Given that a wide range of those 65 and over have chronic pain, to not have that perspective within my data negatively impacts my findings.

Table 12. Sample Age Range

Age Range	# of participants	% out of 16
18-24	--	--
25-34	12	75.0%
35-44	2	12.5%
45-54	1	6.3%
55-64	1	6.3%
65 and over	--	--

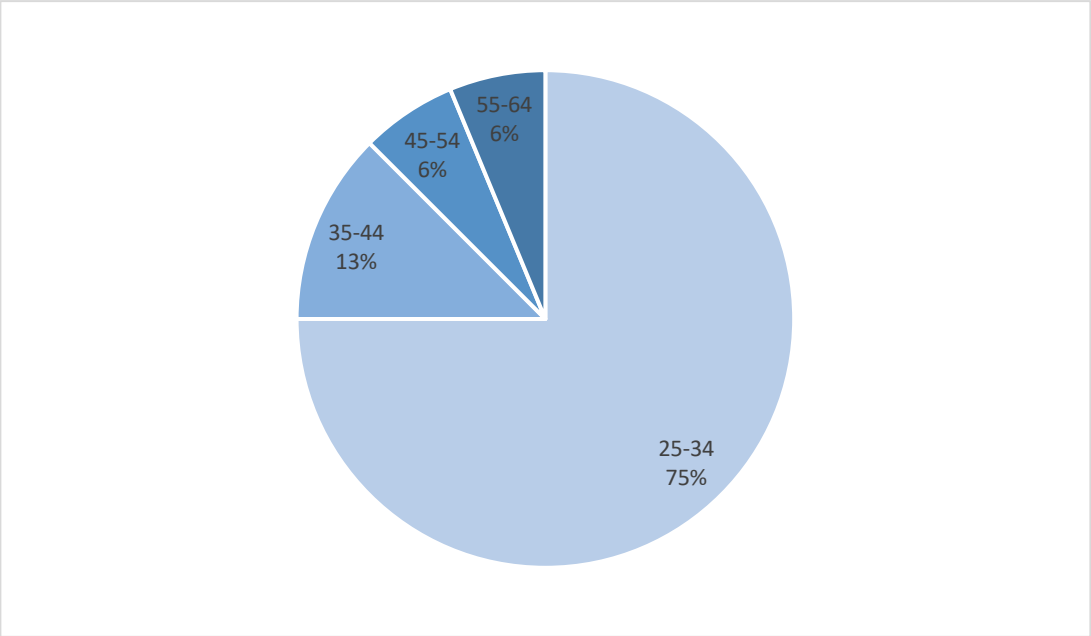

Figure 35. A graph of sample's age range.

Sexual Orientation and Gender Identity

I approached sexual orientation and gender identity in three separate questions throughout the post interview survey (1) sexual orientation; (2) gender identity part 1; and (3) gender identity part 2. In the first part of this section in the survey titled "Sexual Orientation," participants were given a range of seven options for sexual orientation: straight/heterosexual, lesbian, gay, bisexual, queer, asexual, and self-describe. Participants were asked to check all that apply, with no limitations on the number they could choose. The self-describe option brought up a box in which participants could type another answer or additional information. 15 out of 16 participants responded to this question. The data below reflects 16 data points from 15 responses: One participant left this section blank, while another participant identified as both lesbian and queer.

As detailed below (see Table 13), eight out of 15 participants identified as straight/heterosexual, two out of 15 participants identified as lesbian, one out of 15 participants

identified as bisexual, four out of 15 participants identified as queer, and one out of 15 participants identified as asexual.

As previously noted, my sample does not accurately reflect the population of those with chronic pain. That said, as a queer woman, I am happy to have a decent spread of sexual orientation among my sample size, with just under half belonging to the LGBTQIA+ (see Figure 36). Understandably, this spread still suffers from the same lack of diversity, especially regarding ethnicity and race, that my sample does.

Table 13. Sample Sexual Orientation

Straight/Heterosexual	8
Lesbian	2 (1.5)
Gay	--
Bisexual	1
Queer	4 (3.5)
Asexual	1
Self-Describe	--

Note: Data is based on 15 participants. Participants were asked to check all that apply. One participant identified as both lesbian and queer and one participant left sexual orientation blank.

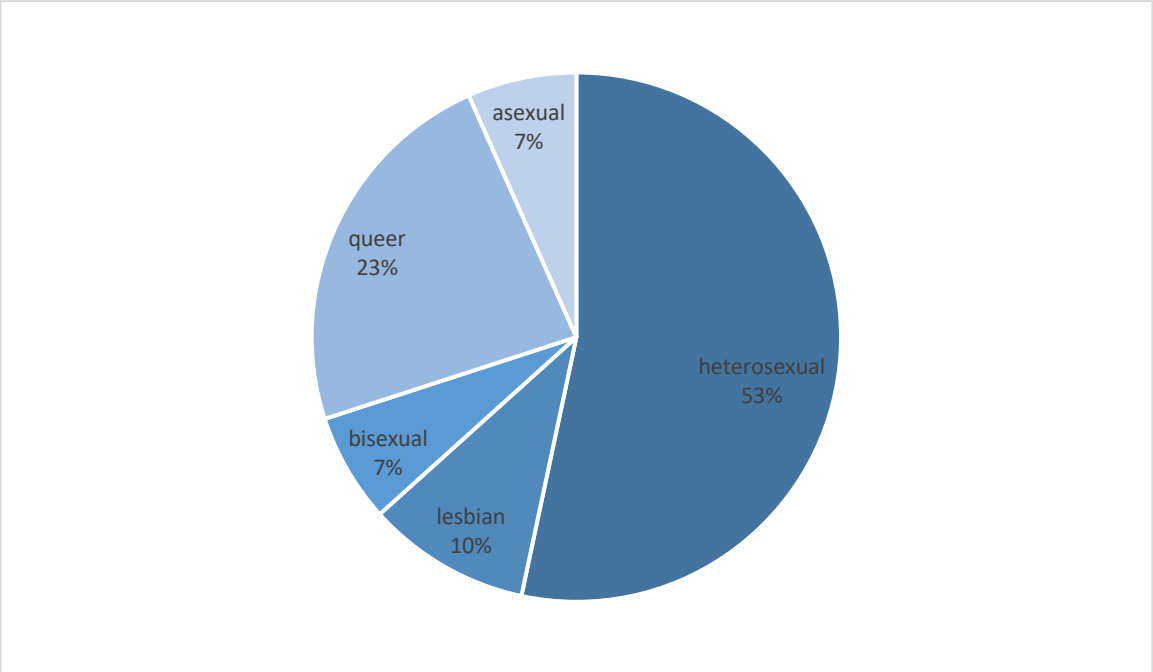

Figure 36. A graph of sample's sexual orientation.

For the next section of the survey titled "Gender Identity Part 1," participants were given a range of six options: transgender, cisgender, agender, non-binary/genderqueer, genderfluid, and self-describe. Participants were asked to check all that apply, with no limitations on the number they could choose. The self-describe option brought up a box in which participants could type another answer or additional information. 13 out of 16 participants responded to this question. As seen below (see Table 14) 1 out of 13 participants identified as transgender, 11 out of 13 participants identified as cisgender, and 1 out of 13 participants identified as non-binary/genderqueer. One participant selected an identity marker and self-described to offer more detail.

In the following section of the survey titled "Gender Identity Part 2," participants were given a range of five options: female, male, intersex, non-binary/genderqueer, and self-describe. Participants were asked to check all that apply, with no limitations on the number they could

choose. The self-describe option brought up a box in which participants could type another answer or additional information. 16 out of 16 participants responded to this question.

As seen below (see Table 15) 12 out of 16 participants identified as female, three out of 16 participants identified as male, and one out of 16 participants identified as intersex. One participant selected an identity marker and self-described to offer more detail. Refer to the image below (see Figure 37) for a visual representation of the spread of gender identity and sex within the sample.

Table 14. Sample Sex

Gender Identity Part 1	
Transgender	1
Cisgender	11
Agender	--
Non-Binary/Genderqueer	1
Genderfluid	--
Self-Describe	--

Note: One participant selected an identity marker and self-described to offer more detail.

Table 15. Sample Gender Identity

Gender Identity Part 2	
Female	12
Male	3
Intersex	1
Non-Binary/Genderqueer	--
Self-Describe	1

Note: One participant selected an identity marker and self-described to offer more detail.

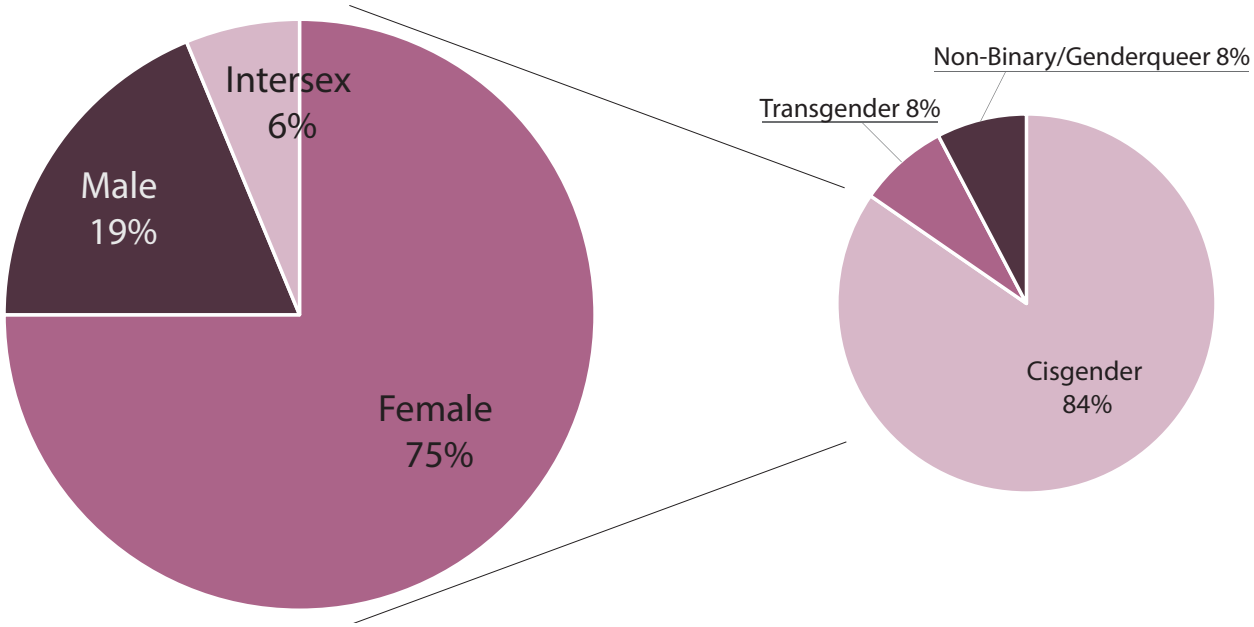

Figure 37. A graph of sample's gender identity and sex.

Race and Ethnicity

As seen below (see Table 16), my sample participants' race and ethnicity heavily skewed white/Caucasian with 13 of 16 fitting that category. Of the remaining three, one was Asian American, one black or African American, and one was Latino. Participants were offered the following choices for the survey and were asked to check all that applied: Asian American; Black of African American; Indigenous American or Alaskan Native; Native Hawaiian or Pacific Islander; Hispanic or Latine/o/a/x; White/Caucasian; and an opportunity to self-describe. A visual representation of these numbers can be seen below (see Figure 38).

Table 16. Sample Race and Ethnicity

Asian American	1
Black or African American	1
Indigenous American or Alaskan Native	--
Native Hawaiian or Pacific Islander	--
Hispanic or Latine/o/a/x	1
White/Caucasian	13
Self-Describe	1

Note: One participant self-described to offer more information.

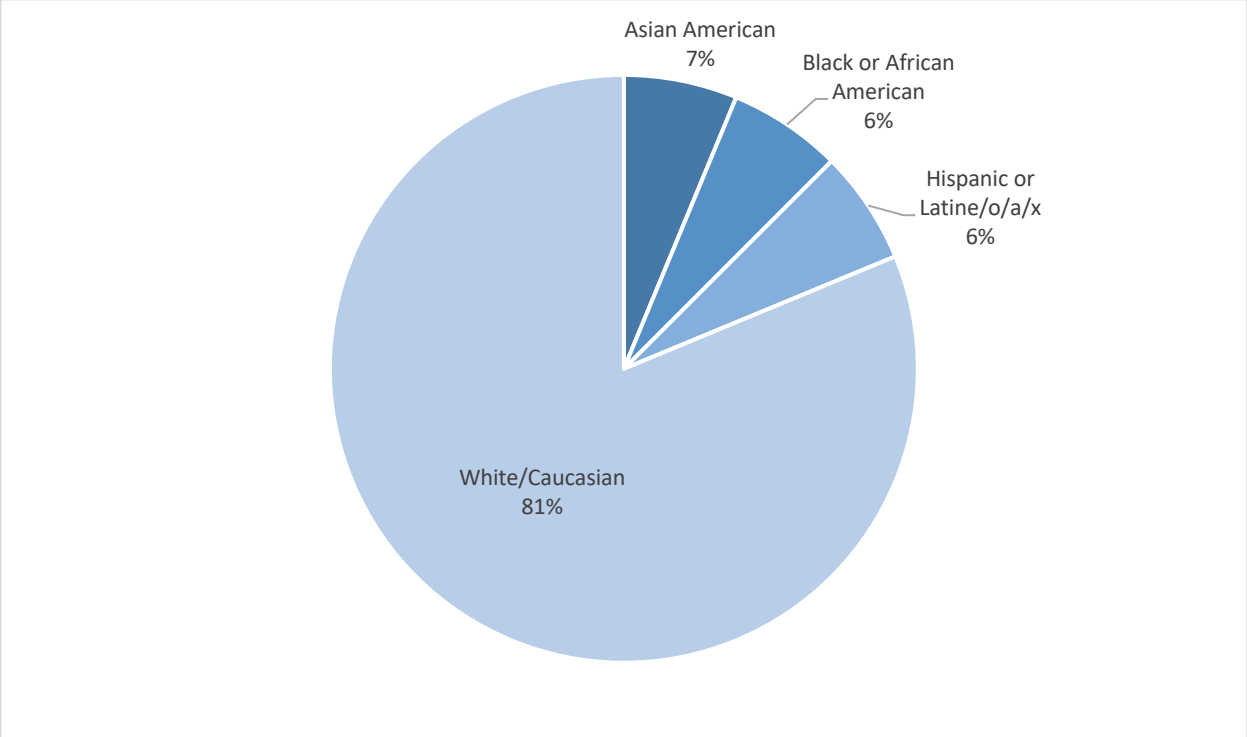

Figure 38. A graph of sample's race and ethnicity.

Socioeconomic Status

To determine socioeconomic status, participants were asked three main questions regarding first, their highest level of formal education completed (see Table 17; see Figure 39 and Figure 40); second, their occupation (see Table 18 and Table 19; see Figure 41 and **Error! Reference source not found.**), and finally, their annual household income (see Table 20; see Figure 43 and Figure 44). Each section below expands upon these concepts in the order they were asked.

Of the highest level of formal education completed, half of my participants had a Bachelor's degree, with two attending college but not receiving a degree, and one having an Associate degree. The remaining four consisted of three participants with Master's degrees, one with a professional degree, and one with a doctorate.

To compare my sample to the general USA population, I put these results up against those found in the 2021 USA census (U.S. Census Bureau, 2021). My sample percentages were out of 16 participants, while the 2021 USA census percentages were based on educational attainment by population 25 years and over, estimated at around 228,193,464 people. These results can be seen below (see Figure 40). As seen, my sample consists of nearly 30% more participants with a bachelor's degree than the average USA population, which ultimately reveals another inconsistency within my sample spread.

Table 17. Sample's Highest Level of Formal Education Completed

Some high school	--
High school degree or equivalent (e.g. GED)	--
Some college, no degree	2
Associate degree (e.g. AA, AS)	1
Bachelor's degree (e.g. BA, BS)	8
Trade School/vocational degree	--
Master's degree (e.g. MA, MS, MEd)	3
Professional degree (e.g. MD, DDS, DVM)	1
Doctorate (e.g. PhD, EdD) or higher	1

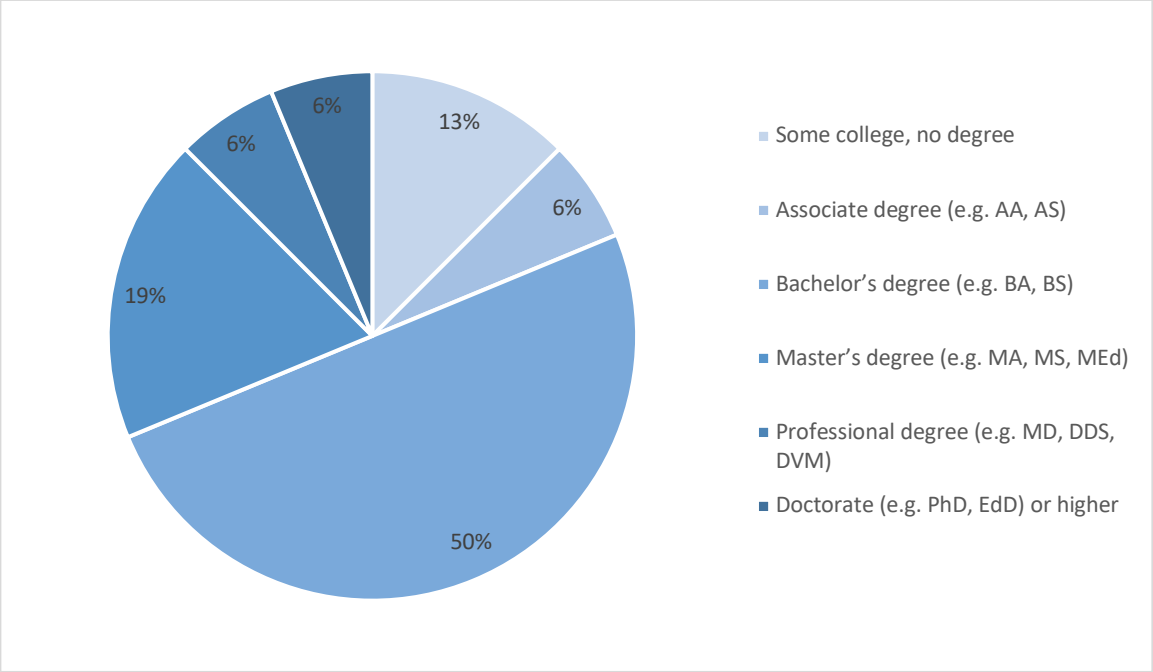

Figure 39. A graph of sample's highest level of formal education completed.

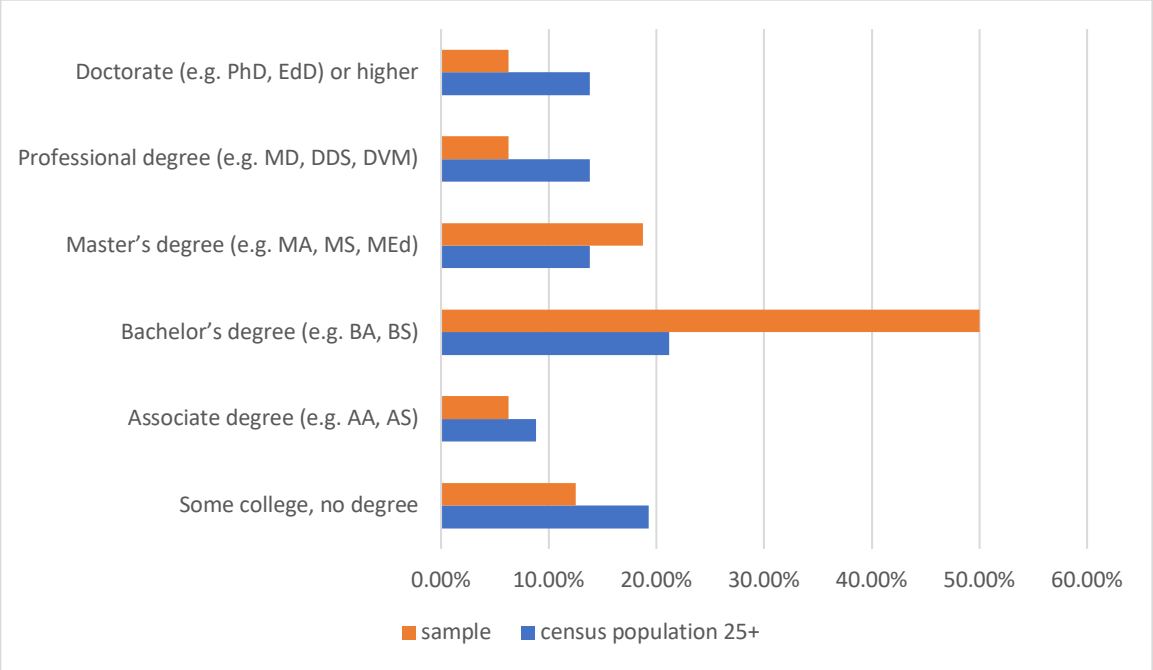

Figure 40. Sample vs. 2021 USA Census data on highest level of formal education completed.

Participants were given a blank space to indicate their occupation. While 13 of 16 participants indicated their occupation on the survey, occupational groups were utilized from the 2021 USA census to both allow for a decent comparison to be made, and for groups to be made across vastly differing occupations (U.S. Census Bureau, 2021).

Occupation codes were provided in Appendix 10 of the census documentation titled "Occupation Classification" (U.S. Census Bureau, 2021). Codes consist of five main occupation groups: Management, business, science, and arts occupations; Service occupations; Sales and office occupations; Natural resources, construction, and maintenance occupations; Production, transportation, and material moving occupations. Each group has a large list of sub-groupings that house a multitude of job titles and occupational fields. Only sample relevant sub-groupings were included. For "management, business, science, and arts" occupations these sub-groups were: Healthcare Practitioner and Technical occupations; computer and mathematical occupations; art, design, entertainment, sports, and media occupations; management occupations; business and financial operations occupations; education instruction, and library occupations. For sales and office occupations the only relevant sub-group was as follows: Office and administrative support occupations.

As seen below (see Table 18), 12 participants had management, business, science, and arts occupations and one participant had a sales and office occupation. As shown further (see Figure 41), sample data has nearly a 50% increase in comparison to the USA average of Management, business, science, and arts occupations. Sample percentages are out of 13 participants, and 2021 USA census percentages are taken from civilian employed population 16 years and over, estimated at 156,380,433 people.

As seen below (see Table 19) a majority of the 12 participants in the "management, business, science, and arts" occupational groupings were situated within the education instruction, and library occupations sub-group. Three were in the computer and mathematical occupational sub-group, two in art, design, entertainment, sports, and media occupations, with one participants within each remaining sub-group listed. The following graph (see Figure 42) only depicts percentages from the management, business, science, and art occupations sub-groups, thus, sample percentages are out of 12 participants, whereas 2021 USA census percentages are out of civilian employed population 16 years and over specifically employed in management, business, science, and arts occupations, estimated at around 65,992,543, or 42.2% of total civilian employed population 16 years and over. In this case, all sample percentages are much lower than the USA averages.

Table 18. Sample Occupation Groups

Management, business, science, and arts occupations	12
Service occupations	--
Sales and office occupations	1
Natural resources, construction, and maintenance occupations	--
Production, transportation, and material moving occupations	--

Note: Data is based on 13 participant responses, as three left this question blank.

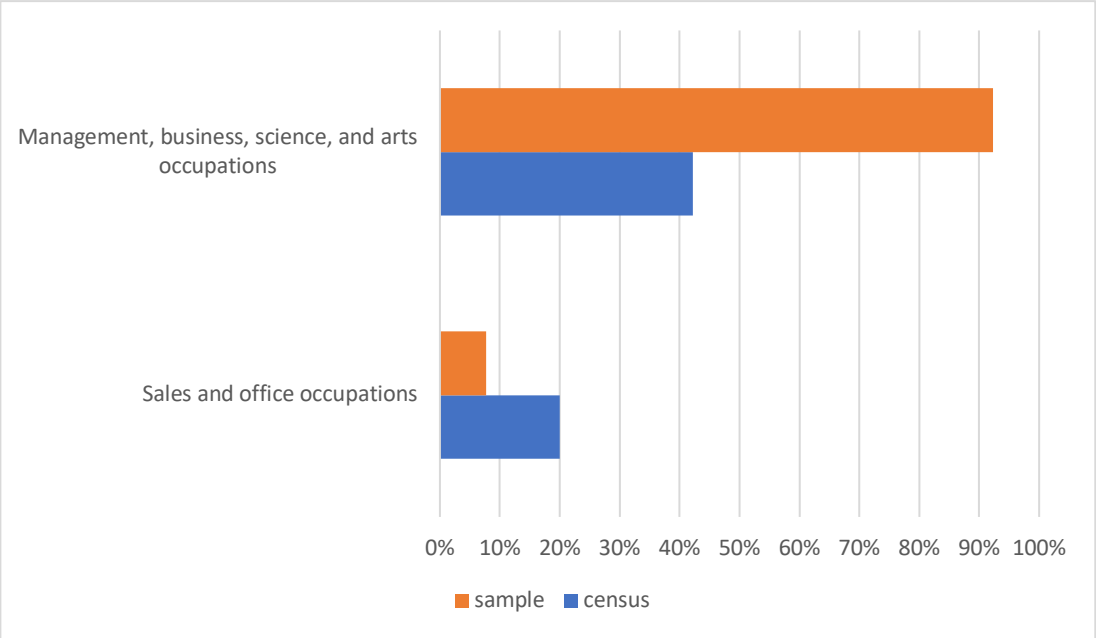

Figure 41. Sample vs. 2021 USA Census data on occupation group frequency.

Table 19. Sample Occupation Sub-Groups

Relevant Occupation Sub-Groups (does not include all census sub-groupings)*	
Management, business, science, and arts occupations	
Healthcare Practitioner and Technical occupations	1
Computer and mathematical occupations	3
Art, design, entertainment, sports, and media occupations	2
Management occupations	1
Business and financial operations occupations (retail)	1
Education instruction, and library occupations	4
Sales and office occupations	
Office and administrative support occupations	1

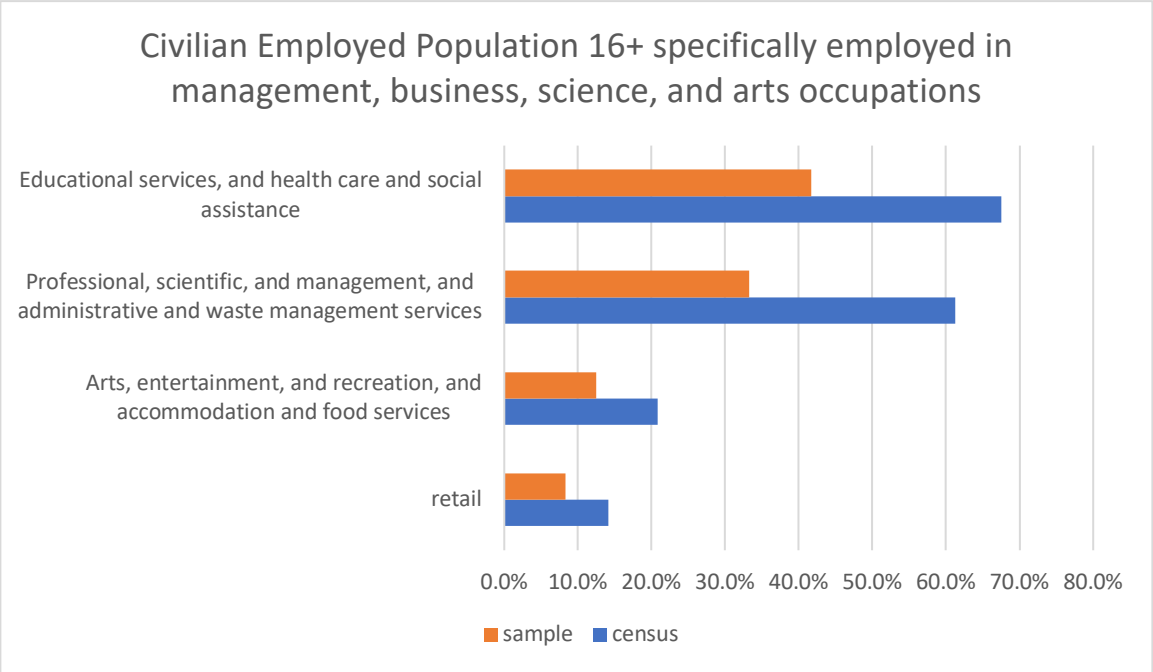

Figure 42. Sample vs. 2021 USA Census data on occupation sub-groups frequency.

For annual household income participants were provided eight options and could only choose one: Less than $20,000; $20,000 to $34,999; $35,000 to $49,999; $50,000 to $74,999; $75,000 to $99,999; $100,000 to $149,999; $150,000 to $199,999; and $200,000 or more. As seen below (see Table 20) of these options, four participants made an annual household income of less than $20,000, three made $20,000 to $34,999, three made $50,000 to $74,999, two made $75,000 to $99,999, and the remaining two each responded $100,000 to $149,999 and $200,000 or more respectively. This data is represented visually (see Figure 43) to better express the spread within my sample.

Data in the graph below (see Figure 44) reflects sample percentages out of 14, with 2021 USA census percentages out of 127,544,730 people. As the ranges I provided in my survey did not match the ranges of the 2021 USA census data I wanted to compare my sample to, I had to make several adjustments. Census data does not have less than 20,000 as a category, and instead has the following: Less than $10,000 (6%), $10,000 to $14,999 (3.9%), $15,000 to $24,999

(7.5%). To fit the range of my data, I added the values of the population the percentages reflect (7652683.8 + 4974244.47 + 9565854.75) and found the percentage of that from the census data sample size of 127, 544, 730 to get 17.4%. Furthermore, I used the census data for $25,000 to 34,999, which is 7.8% of the population, to compare to my data of $20,000 to $34,999 as it is the closest grouping.

Table 20. Sample Annual Household Income

Less than $20,000	4
$20,000 to $34,999	3
$35,000 to $49,999	--
$50,000 to $74,999	3
$75,000 to $99,999	2
$100,000 to $149,999	1
$150,000 to $199,999	--
$200,000 or more	1

Note: Data is based on 14 responses, as 2 participants left the section regarding annual household income blank

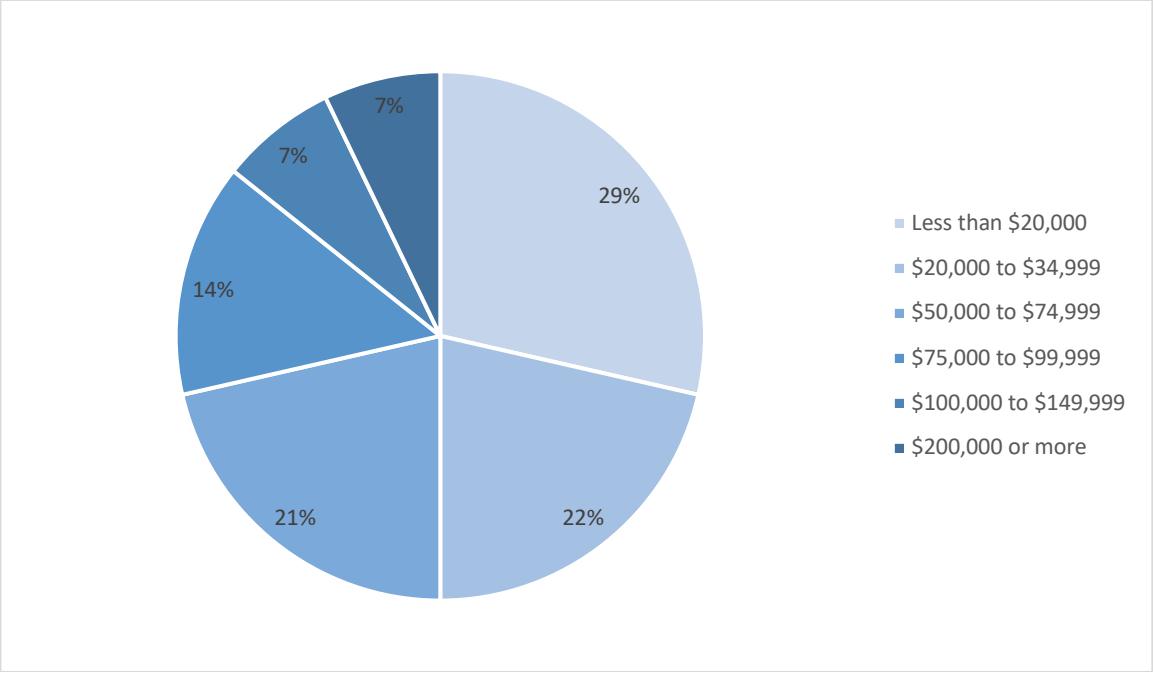

Figure 43. A graph of sample's annual household income.

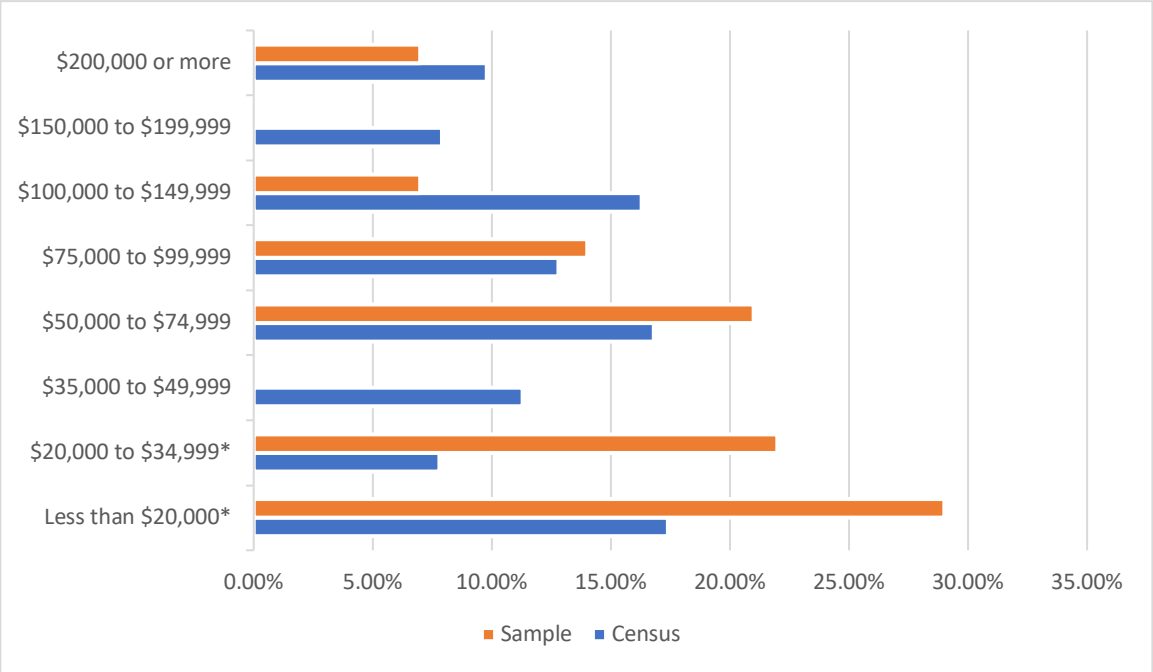

Figure 44. Sample vs. 2021 USA Census data on annual household income.

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