Posthumanist Children:

Diffracted Readings

and

Entangled Beings

Lindsay Burton

St. John's College, University of Cambridge

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Declaration

This thesis is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared in the Preface and specified in the text. I further state that no substantial part of my thesis has already been submitted, or is being concurrently submitted for any such degree, diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the Preface and specified in the text. It does not exceed the prescribed word limit for the Faculty of Education Degree Committee.

Abstract

This thesis productively entangles two literary bodies: posthumanist and new materialist theory, and children's literature and media. Specifically, this thesis applies Donna Haraway's diffractive (rather than reflective) approach to understanding theoretical concepts and Karen Barad's agential realist onto-epistemological framework to the figure of the posthumanist child, which I delineate as a figure of multiple materialities, ontological instability, and paradox that appears across children's literature and media. As the figure of the child has been theorized in multiple ways across children's literature theory, so do I seek to theorize the figure of the posthumanist child via an application of posthumanist and new materialist concepts to an analysis of selected works children's literature and media. This set of texts is diverse across publishing era, medium, and targeted age group, but they all feature child protagonists who are paradoxically both human and posthuman in their material formation, and their ontological determination. This thesis argues that through the posthuman-ness of these children, works of children's literature and media have the capacity not only to reframe our thinking around theories of the figure of the child, e.g. aetonormativity, but also to reformulate the largely childfree theories put forward by posthumanist and new materialist scholars. This thesis ultimately argues that adult theories—posthumanism, new materialism, and aetonormativity—have as much to gain from posthumanist children and their literature and media as the latter has to gain from the former. This mutually beneficial expansion of both schools of thought, via the figure of the posthumanist child, is a vital next step in our cultural approach to the troubles of our current Anthropocenic era.

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And finally, to my son. I've produced two major works over the last few years: The first, which has occupied most of my emotional, physical, and cognitive energy, is of incredible significance both to me personally and, I argue, to our collective understanding of the value of children, childhood, and children's texts. The other is this thesis. If you ever read this, hi, I love you, thank you for being my reason for being and for reminding me why my research is important in the first place.

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Introduction

"What do you call yourself?" the Fawn said at last. Such a soft sweet voice it had!

"I wish I knew!" thought poor Alice. She answered, rather sadly, "Nothing, just now."

"Think again," it said: "that won't do."

Alice thought, but nothing came of it. "Please, would you tell me what you call yourself?" she said timidly. "I think that might help a little."

"I'll tell you, if you'll move a little further on," the Fawn said. "I can't remember here."

So they walked on together though the wood, Alice with her arms clasped lovingly round the soft neck of the Fawn, till they came out into another open field, and here the Fawn gave a sudden bound into the air, and shook itself free from Alice's arms. "I'm a Fawn!" it cried out in a voice of delight, "and, dear me! you're a human child!" A sudden look of alarm came into its beautiful brown eyes, and in another moment it had darted away at full speed. (Carroll)

The question of how we humans might define ourselves, know ourselves, and understand ourselves is age-old and begins when we are age-young. *What do we call ourselves?* Our name is one of the first words we learn, and so much of children's literature is dedicated to the concept of self-awareness, which includes an awareness of our own humanity. If we take John Locke's theory to be true—that we are all born as a *tabula rasa*, a blank slate, to be written upon with life's experiences—then children's literature plays a role in that writing-upon, functioning as one of many ontological and epistemological tools at our species' unique disposal.

Yet, the scene quoted above from Lewis Carroll's *Through the Looking-Glass* featuring Alice and the Fawn invites us to engage in a different kind of consideration of human ontology and epistemology. In this scene, Alice has forgotten who and what she is, returning to a (temporarily induced) blank slate condition. She is walking while holding a Fawn, who also doesn't know its own name. Zoe Jaques, in *Children's Literature and the Posthuman*, observes that the illustration of this moment is "the most comforting visualization of human-animal relations in either of the *Alice* books" as the two are "unhampered by their names and thus unaware of their polarized identities" (55–56), before noting that the Fawn's naming of Alice as human destroys that illusion of comfort. In my reading of this scene, I go a step further and suggest that the physical combination of Alice and the Fawn together, in which they are neither 'Alice' nor 'Fawn' individually, constitutes an ontologically and epistemologically unique category: the posthumanist child. This thesis seeks to explicate and explore the figure of the posthumanist child as a key component of the intersection of children's literature and media with posthumanist and new materialist theory. Before arriving at my main argument, I will take a moment to go into further detail about what, specifically, constitutes the posthumanist child, using Alice and the Fawn as an example.

The posthumanist children at the center of this thesis all take distinct material forms but share three main criteria (besides being fictional, which is a tacit criteria of all of the children discussed in this thesis, as my research is limited to desk-based methods). The first is **material multiplicity**. Alice, by herself, is not a posthumanist child, even when she forgets her own name; she is simply a human child. Similarly, the Fawn by itself is simply a fawn. The posthumanist element of their ontology comes from the two children considered as a single unit: neither human, nor deer, but human-and-deer, together at once, and defined by that togetherness. The second is **ontological instability**. Alice and the Fawn, as a single

ontological unit, only exist briefly, in a state that is easily destroyed with two thoughts: the thought of 'I am a deer' and the thought of 'You are a human'. The posthumanist child possesses an intrinsic instability, whether of its materiality, its relationship with life (and death), or some other key characteristic having to do with its existence. The third criteria is **paradox**. The posthumanist child exists at the intersection of posthumanism—a set of writings that nominally describe the end of humanity—and children's literature—a set of writings that nominally exist *because of* humanity's continuance. As this thesis discusses at great length, paradox is part and parcel of much of posthumanist and new materialist theory (and, indeed, much of children's literature and media, including especially the aforementioned *Alice* books); the paradoxical elements of the posthumanist child, while challenging to analyze , continue in the footsteps of both traditions.

If, with these three criteria in mind, we might better understand the shape of the figure called the posthumanist child, what then are we to do with it? I propose that the posthumanist child, as the centerpiece of certain works of children's literature and media, has much to teach us about theories surrounding both texts for children and posthumanism/new materialism. As a figure of multiple materialities, the posthumanist child can improve our understanding the principles of posthumanist/new materialism that deal with hybrid figures— particularly where those theories neglect to consider the figure of the child. As a figure of ontological instability, the posthumanist child can help us explore moments of instability in power hierarchies like that of aetonormativity, a term coined by Maria Nikolajeva (2009) describing the imbalance of power between children and adults that exists both in the real world and in fiction—especially in fiction for children, where aetonormativity is frequently, if temporarily, overturned. And, as a figure of paradox, the posthumanist child offers us solutions to the deep, unsettling paradoxes presented to us by contemporary challenges such as the Anthropocene, climate change, artificial intelligence, and plastic pollution, all of which

exist at scales that are difficult for humans to grasp, and all of which are at the heart of much of posthumanist/new materialist theory.

To be clear, it is beyond the scope of this thesis to engage in field research involving real children—a disadvantage of the intersection of posthumanist/new materialist theories with literary studies that I address further in the conclusion of this thesis. Instead, I will be engaging in an application of Donna Haraway's concept of 'diffraction,' or productive interference, to generate meaning between texts, aiming to have one text interfere or modify with the meaning of another and experimenting with avoiding the production of "'the same' displaced" that Haraway claims occurs in other kinds of critical analysis ("Promises" 70). I offer the diffraction of the ideas presented by posthumanist and new materialist theories through the narratives presented by children's literature and media as one example of a posthumanist approach to desk-based children's literature criticism, a combination which comes with its own paradoxes (also to be addressed in the conclusion of this thesis). Despite these paradoxes and limitations, I find promise in the bringing together of these two sets of writings because of their similarities—namely, the way each is focused on those of Earth's creatures that are habitually left out of what we might be considered "normed" in Western society. These are beings and categories—children, animals, plants, machines, environmental events—whose agency has been critically scrutinized despite their seeming lack of it, the former item under the heading of 'aetonormativity' and the latter items under various posthumanism-adjacent headings such as animal studies, ecocriticism, cyborg theory, and new materialism. The similarity of the child's level of agency to that of the other creatures on that list naturally brings it into dialogue with them and with theories adjacent to them, such as posthumanism and new materialism. The difference between human children and animals, plants, machines, environmental objects, and other posthuman figures—mainly, that human children grow up to become human adults—both explains a historical lack of intersection of

the two fields (which I explore more in depth in my literature review) and opens a way forward into deeper exploration of how we might diffract the two off of one another to create new understandings.

　　To further illuminate the figure and the lessons of the posthumanist child, I will draw on contemporary theories of posthumanism, particularly those of Donna Haraway, N. Katherine Hayles, and Karen Barad, to perform diffractive readings of children's literature texts as material-discursive apparatuses that hold all its stakeholders "accountable to marks on bodies" (Barad, *Meeting* 178). I will argue that because a diffractive approach reads not for difference in the sense of comparing/contrasting but for the *effects* of difference, it allows for a genuine reframing of (how we think about) children's literature, aetonormativity, and posthumanism/new materialism. With this approach, I demonstrate how children's literature can be used as a tool, not just for examining the figure of the child or the adult-child relationship in a new light, but also for broadening our understanding of 'adult' theories of difference and othering such as posthumanism and new materialism. The remainder of this introduction explores the intersection of posthumanist theory and children's literature criticism; it outlines the theories that inspire the methodologies that I will be using for the majority of my textual analysis; and it provides an overview of the primary texts for children I've chosen to analyze and their relationship with the critical posthumanist texts that I've paired them with. Within this body of research, I hope to demonstrate the potential that diffractive readings of the posthumanist child in children's literature can have on wider theoretical discourse concerning child, adults, their relationships, and the myriad of posthuman challenges that we must face together.

Critical Works: Finding Posthumanism, Finding the Child

Imagine a Venn diagram in which the left circle contains a bibliography of critical works on posthumanism and posthuman figures, and the right circle contains the same bibliography but for fictional works of children's literature and media. The predominate feature of this diagram would be the remarkable deficit of critical works in the intersection of these two sets. Children's literature as a genre predates posthumanist criticism by a few centuries at least, depending on how you define the former. For the purposes of this example, let's use the advent of children's literature criticism as a rough starting point for serious academic considerations of the genre. The two fields of study—children's literature criticism and posthumanism—are roughly the same age, with origins dating to the mid-20th century, but the size of the respective individual sets would rule out each field's relative newness alone as the cause of the diagram's intersection shortage. What, then, has kept posthumanism and children's literature more or less apart? This literature review will consider the works populating the intersection in detail, but the deficit bears paying attention to here at the outset, as it represents more than a mere lack of scholarship. Our imaginary Venn diagram demonstrates both the creeping *persistence* of humanist epistemologies even in research purportedly committed to the posthuman and an odd *resistance* to posthumanist thinking in critics whose primary texts often feature posthuman figures such as animals, talking trees, and conscious automatons as a rule rather than as an exception. One of the goals of illuminating the figure of the posthumanist child will be to contribute to the intersection of our imaginary Venn Diagram by interrogating the underlying causes of this persistence/resistance problem.

A concrete example of two bibliographies will demonstrate the entrenched nature of the gap between posthumanism/new materialism and children's literature and media, as well as providing an overview of the "substantial diversity of perspectives within posthuman

theory" (Levant 5) that this thesis will draw from for its methodology. *The Cambridge Companion to Literature and the Posthuman* (Clarke and Rossini) provides readers with two chronologies before its introduction, one addressing posthumanism and one addressing the posthuman. These lists align nicely with Victoria Flanagan's distinction between the two terms:

> 'Posthumanism' is the critical discourse that seeks to understand and dismantle the privileged status of the humanist subject, whereas the 'posthuman' is the subject who exists in a world where the boundaries that once defined humanity have been redrawn as a result of technological impact or the recognition that the human is of multi-species origin. ("Rethinking" 35)

One of the chronologies provides a thorough and useful overview of the major foundational works of posthumanist thought, beginning with Charles Darwin's *The Origin of Species* and continuing through to the year of the *Companion*'s publication, including a vast swath of notable authors both directly and more tangentially in the field of posthumanism, e.g. Donna Haraway, Rosi Braidotti, N. Katherine Hayles, and Cary Wolfe, as well as Michel Foucault, Jacques Derrida, and Jean Baudrillard. Notably missing from this list are two pieces I consider to be of foundational importance to the corpus of critical posthumanism: Ihab Hassan's "Prometheus as Performer: Towards a Posthumanist Culture?", an omission made even more glaring by the extensive referencing given to it by the *Companion*'s preface; and Zoe Jaques' *Children's Literature and the Posthuman*, which remains to this day an influential work on posthumanism in children's literature. Despite these and other omissions, the chronology remains useful as both an overview of the field of critical posthumanism and as a starting point for organizing the various strains of thought within the field.

The other chronology demonstrates with clarity the empty space on the map of critical posthumanism where children's literature criticism should sit. Titled 'The Posthuman,' this chronology displays what at first seems to be an impressive range of fiction, intending to incorporate a number of "literary forms that high humanist taste once derided," (Clarke and Rossini xii) including science fiction, horror, graphic novels, and film. This breadth notwithstanding, the 'Posthuman' chronology entirely omits works of children's literature from its ranks, much like the 'Posthumanism' chronology omits the work of Jaques. This omission cannot logically represent a deficit of posthumans or a deficit of *knowledge* of posthumous within the genre; one does not have to be a children's literature scholar to name children's books that feature, say, a talking animal. Neither can the genre of children's literature itself be what is at stake in this omission; several of the texts on the 'Posthuman' list are simply modernist texts of a more experimental nature, as opposed to works of science-fiction or fantasy. It would appear that there is something about the figure of the child, posthumanist or otherwise, and/or about children's literature and media as a category, that leads to it being forgotten even in a compendium nominally in favor of "literary forms willing to risk artistic ludicrousness in their representation of the inhumanly large and long" (McGurl 539). Given a lack of other explanations, I can only assume that the editors of the companion consider children's literature to be too 'artistically ludicrous' for mainstream academic criticism.

I point out the shortcomings of these chronologies in order to highlight the embedded-yet-subtle nature of the chasm between posthumanism and children's literature, and between posthumanism and children's literature criticism. Academic disregard for children's literature and its critical analysis, such as that displayed by *The Cambridge Companion to Literature and the Posthuman*, demonstrates the "capacity for regeneration" (Badmington, "Theorizing" 11) on the part of humanist theories, stances, and perspectives, even as researchers attempt to

characterize its demise. If, following on from aetornormativity, we take the 'human' of humanism to be adult, with the child subsequently positioned as othered, then the continued privileging of texts for adults over texts for children in *The Cambridge Companion* is nothing more than a continuation of humanism with sci-fi window dressing. This discrepancy makes clear the need for a deeper consideration of the intersection of the two fields—mediated, in the case of this thesis, through the figure of the posthumanist child, who embodies both sets of ideas at the same time. The following literature review will more carefully trace the exact cliff-edges where the canyon between the two fields begins—a jumping-off point for my own research.

Finding the Child in Posthumanist Theory

　　　Reference to real children, fictional children, or children's literature and media in posthumanist and new materialist theory are few and far between. This section of my literature review will assess two of these examples that bear relevance to this thesis. One is from the work of Donna Haraway, whose theories I engage with more deeply later in this thesis. The other is from the work of Jean-François Lyotard, whose observations about a figure he terms the 'inhuman child' offer particular insight about the relationship between children/the figure of the child/children's literature and media and posthumanism/new materialism—an occurrence that, across the posthumanist/new materialist theory that I've read, is relatively rare.

　　　Donna Haraway is one of the key theorists I engage with in this thesis, being the first posthumanist theorist to offer the concept of diffraction as an alternate way of reading texts, but both children's literature and the figure of the child inhabit only the periphery of her work. More than once, she references *Pilgrim's Progress* as a guide for her "travel story" metaphor of exploring posthumanist ideas ("Promises" 14; Haraway, *Modest_Witness* 63; 71;

74; 77; 112). While *Pilgrim's Progress* was not explicitly written for children, children's literature scholars have made a convincing argument for the text's relevance in the field (e.g. White; MacDonald; Lundin). Haraway also at one point develops her discussion of diffractive theory around the figure of the unborn fetus and the way it is represented in political discourse:

> Who speaks for the jaguar? Who speaks for the fetus? Both questions rely on a political semiotics of representation. Permanently speechless, forever requiring the services of a ventriloquist…for a political semiology of representation, nature and the unborn fetus are even better, epistemologically, than subjugated human adults. The effectiveness of such representation depends on distancing operations. … Both the jaguar and the fetus are carved out of one collective entity and relocated in another where they are reconstituted in another, where they are reconstituted as objects of a particular kind--as the grounds of a representational practice that forever authorizes the ventriloquist. ("Promises" 87)

What intrigues me about this passage is the slippage, the difference, between the unborn fetus and the born, living child, and the implication that Haraway's use of the figure of the fetus as a locus for discussion has for my own consideration of the figure of the child. There's no doubt that fetus and child are ontologically separate categories—even in an agential realist model, the material entanglement of fetus with gestating parent compared to that of a child with its primary parent are obviously and observably disparate. At the same time, the younger a child is, the more similar they become to the fetus, the more entangled with their primary parent, and thus more subject to representation by various interested 'ventriloquists'—some of whom could be said to be children's authors. Haraway's question equally reminds me of the Lorax, who "speaks for the trees" (Seuss) and has been the subject of much ecocritical

discussion (Beeck; McKee). Although Haraway claims disinterest in "the stodgy bipolar [generative] terms of hominids" ("Promises" 87), her usage of children's texts and the figure of the fetus—the unborn future child—as "siting devices" ("Promises" 64) for her own critical action suggests that an analysis of the posthumanist child as a site of hybridity between the concept of 'child' and posthumanist/new materialist theories yet has a place among the "feminist and queer theory endeavors" (Barad, "Performativity" 803) that some contemporary posthumanist thinkers attempt in their writing.

Another work of posthumanist theory from the *Companion's* Chronology that links the figure of the child with posthumanism is Jean-François Lyotard's *The Inhuman.* In this work, Lyotard introduces the concept of the inhuman in his eponymous work by observing the specific inhumanness of the child. *The Inhuman* does not figure in my methodology, since his discussion of the child's inhuman otherness is brief and introductory, but it nevertheless suggests a compelling ontological restructuring of our understanding of humanness through our understanding of the child. Furthermore, Lyotard implicates the child directly in his ontological reconfiguration, something both Barad and Haraway refrain from doing. From the outset, *The Inhuman* attends to the temporal distance between child and adult as a foundation of what is commonly considered 'human':

> What shall we call human in humans, the initial misery of their childhood, or their
> capacity to acquire a 'second' nature which…makes them fit to share in communal
> life, adult consciousness and reason? That the second depends on and presupposes
> the first is agreed by everyone. The question is only that of knowing whether this
> dialectic…leaves no remainder. …[The answer] is a matter of traces of an
> indetermination, a childhood, persisting up to the age of adulthood. (3)

Lyotard's inhuman child is, ironically, too human to qualify quite as a posthumanist child in the terms of this thesis, but it still possesses an ontological instability—an "indetermination"—and a paradoxical nature that are both indicative of the posthumanist child. It could perhaps be considered a *posthuman* child—a child that exists beyond humanity. Lyotard connects this child's "traces of an indetermination" to the concept of childhood itself, a link that predicts the indetermination of singular bodies described by nuclear physics and by extension Barad's agential realist framework. (We will return to the linked ideas of traces and indetermination in my discussion of my methodology, when I turn to Jacques Derrida and his conceptualization of the *supplement*.) For Lyotard, the temporal distance between child and adult is surmountable and surmounted; traces of childhood not only remain into adulthood but also call into question our contemporary definition of 'humanity' itself. The grounding of modern conceptualization of the 'human'—which in his framework is normed as adult—in the figure of the child, suggesting that traces of the child, humanity's 'first nature', must persist throughout the course of the human lifespan. The theorized existence of these traces gestures towards and justifies the use of children's literature as their own kind of trace of childhood, possibly and quite probably generated by the traces (memories, learned behaviors, retained knowledge) of childhood that all adults possess. Children's literature and media thus becomes a way of examining the connection between the child-adult relationship and posthumanist thinking. For Lyotard, such an examination is ethically necessary (although he does not specify children's literature or media to be the medium in which to do it): "This debt to childhood is one which we never pay off. But it is enough not to forget it in order to resist it and perhaps, not to be unjust. It is the task of writing, thinking, literature, arts, to venture to bear witness to it" (7). Despite describing in valorous terms the need to 'bear witness' to childhood, Lyotard only mentions the figure of the child itself a handful of times in *The Inhuman*. One of those instances,

however, connects childhood to matter in another example of Lyotardian analysis predicting Barad's agential realist theory. The instance arises during a discussion of Cartesian philosophy concerning the mind-body gap, in which the mind is the only reliable source of knowledge due to the unreliability of sensory information:

> The foreclosure of the 'material other' inspires the decision to deny the 'knowledges' of the body proper. […]The soul has at its disposal the only language. […]Matter thus denied, foreclosed, remains present in this violently modern thinking: it is the enigmatic confusion of the past…of childhood ignorant and blind, of the cross-eyed look of the little girl loved by Rene Descartes as a child. (Lyotard 38)

In his "violently modern" model, Descartes grants the mind epistemological privilege and denies all knowledge produced by the body, a point that Barad vehemently refutes with her agential realist, new materialist model. Lyotard, while offering a less fervent rebuttal to Cartesian epistemology, nevertheless observes that matter "remains present" despite attempts to do away with it, much like the traces of childhood that continue into adulthood. This connection casts both children and matter as othered states in a Cartesian, humanist model and serves as a backdrop for an investigation into the figure of the posthumanist child.

Finding Posthumanism in Children's Literature Criticism

On the other side of the chasm between posthumanism and children's texts is children's literature criticism, and it would be a mistake to suggest that the field has not meaningfully engaged with posthumanism—it has, in fact, done so much more satisfactorily than posthumanist theorists have engaged with the child, with children's literature and media, or with aetonormative theory. Within the field of children's literature and media criticism, analyses linking posthumanism and children's literature and media fall into two categories:

'posthuman-first,' or those that focus on the figure of the (often technologically-mediated) posthuman child, e.g. the works of Elaine Ostry, Claire Bradford et al., and Victoria Flanagan, and 'posthumanist-first,' or those that use a posthumanist theoretical lens to analyze children's literature, e.g. the works of Annette Wannamaker, Zoe Jaques, Fiona McCulloch, Tarr and White, and most recently, García-González and Deszcz-Tryhubczak. Posthuman-first criticism typically identifies the impact of various technologies on the post/human child by analyzing the posthuman figure through close reading, rather than using posthumanist theory as a critical lens. Studies in the latter are more likely to use posthumanist theory as a lens through which to examine children's literature even when they do not directly consider the figure of the child (posthumanist or otherwise). Collectively, these discussions indicate a chronological trend in children's literature's intersection with posthumanism from a reductive (and ultimately humanist) assessment of the posthuman figure as a symbol of adult thinking to more contemporary investigations of the posthumanist child as figure deeply entwined with posthumanist and new materialist theory. I place my own research in the latter category, following on from promising research done in Tarr and White's collection of essays examining posthumanism and young adult fiction and most recently in García-González and Deszcz-Tryhubczak's highly relevant review of posthumanism and children's literature criticism. However, as we will see in works such as Roberta Trites' recent *Twenty-First-Century Feminisms in Children's and Adolescent Literature,* such a chronological progression does not preclude the continuation of humanist, representationalist thinking even in critical works that seem to attend closely to posthumanist theory.

Posthuman-first studies demonstrate the tendency of scholars to use the figure of a child that intersects with posthuman bodily elements to reinscribe humanist thinking, without further reference to posthumanist theory. Bradford et al. explicitly consider the effect of

posthuman technologies on "how we think about ourselves as human beings" (10) framing the posthuman as a tool for understanding the human. Elaine Ostry, in her early yet thorough overview of the posthuman in young adult literature, notes that technologically focused young adult texts tend to present a "posthuman challenge" to the "liberal humanist model of the human" (223) but presents textual examples that repeatedly co-opt posthuman children into preserving humanist binaries. Exploiting the posthuman child to maintain humanism does not discount the possibility or presence of posthumanism in the text; as Neil Badmington has pointed out, the "recapitulation" of humanist principles "can be a form of questioning [humanism]" ("Theorizing" 11, 16). Still, Ostry acknowledges that these posthuman protagonists fail to question humanism in a meaningful way, noting that the typical goal of these texts is to "look beyond the unusual [posthuman] body and origins…and see the humanity" (237–38). Accepting humanism's continuation as inevitable, Ostry's analysis of the posthuman child focuses on locating which humanist values the texts deem worth preserving. Ostry locates the posthuman child's humanity in values that encourage social coherence. Humans privilege these values so strongly, says Ostry, that posthumans cannot leave them behind:

> The traditional view of humanity is that it is based on a sense of empathy, morality, free will, and dignity. It is a fixed view, and this fixedness jars somewhat with the flexibility, or instability, of the human body and mind in these posthuman young adult science fiction texts. (236)

The axiological "fixedness" of concepts like empathy and free will to the humanist project leads children's literature, with its didactic nature, to "use the posthuman body as a lesson" (Ostry 237) in humanistic values, particularly in the instruction of 'being a good human being'. As Ostry puts it, "the message that these books give to their young readers is a

reassuring one: human values and human nature will prevail no matter what changes the human body endures" (Ostry 243). Ostry's categorization of this message as reassuring elides a deeper inquiry into how posthumanist or new materialist theory might contend with these figures, and how a diffraction of those theories through these texts might produce different meanings that render these children, in my view, posthuman*ist* rather than simply posthuman.

Following from Ostry, Victoria Flanagan's *Technology and Identity in Young Adult Fiction: The Posthuman Subject* limits her use of posthumanism to an analysis of the technological construction of posthuman subjectivity. She notes the prevalence of "the central focus of posthumanism on difference in the constitution of subjectivity" (*Technology* 20) in young adult texts and discusses agency in relation to subjectivity throughout the work, but she does not utilize Barad's work at any point in her analysis. Her usage of Haraway is brief, summarizing Haraway's model of the cyborg as one that "undermines humanist notions of selfhood as stable, coherent and unitary" (*Technology* 105) but rarely mentioning cyborg theory elsewhere even as she focuses on the subjectivities of young adult characters. Lacking a more rigorous posthumanist methodology, Flanagan's posthuman subjectivity still exists on humanist terms.

Much of Ostry's and Flanagan's assessment of the posthuman in children's literature rests not on the figure of the posthuman child and its qualities related to posthumanist/new materialist theory, but between the post/human body and the post/human mind. Fiona McCulloch reads Beth Revis' *Across the Universe* series (McCulloch) as a text that espouses posthumanist perspectives against a backdrop of posthuman, hybrid children; although she does not consider them to be posthuman*ist*, and does not read the texts with a diffractive approach, the hybrid characters in that trilogy would fit under this thesis's definition of a posthumanist child. This thesis uses some of the same terminology as McCulloch— posthumanism, agency—in conjunction with the theoretical concepts offered by Derrida,

Haraway, Hayles, and Barad in such a way as to meaningfully bring posthumanist/new materialist theory into contact with the figure of the posthumanist child. Annette Wannamaker engages in a concrete application of posthumanist theory to text, using the term 'posthuman' interchangeably with 'postmodern' in her consideration of the posthumanist potential of the children in Janne Teller's *Nothing*. Despite calling the quite human object of her analysis a posthuman child, Wannamaker's study comes closer to describing the paradoxical element of the figure of the posthumanist child. Humanist constraints emerge in her analysis when she acknowledges that *Nothing*, along with much of children's literature, considers the child "as not-yet-human or as humans-in-becoming" (91). The children in Nothing are also more postmodern than posthuman, in the sense that they struggle on behalf of human(ist) life and against nothingness. Yet Wannamaker points out that depictions of children that challenge humanist assumptions "puts us all on the same unsure footing," asking "if our adult subjectivity is 'posthuman,' what is it then, exactly, that the child is supposed to become? Is what they are moving toward, in this case, any different from what they already are?" (95, 92–93). By asking these questions, Wannamaker makes room for an understanding of the figure of the child with posthumanist theory in mind, in a way that creates productive interference in our understanding of concepts like 'child,' 'adult,' 'human' and 'posthuman'.

Jaques' assessment of posthumans in children's literature is perhaps the most thorough utilization of posthumanist theory as a critical lens to date, grounding her analysis in scholars like Haraway, Badmington, and Hayles and engaging with a wide range of posthumanist positions, including those with whom she takes issue (e.g. Clynes and Kline). She focuses primarily on the effect of posthuman figures, such as animals, the environment, and toys on the child reader, as opposed to the possibility of posthumanism extending to incorporate the figure of the human child. Jaques' philosophical unpacking of the posthuman

within children's literature "exposes and ironically establishes boundaries between the human and the non-human, to facilitate a dialogue as to how those very borders might become more fluid" (3). Her determination of children's literature as a space that challenges "fixity" and permits "ontological confusion" (10) acknowledges the capability of children's literature to challenge categories like 'child' and 'adult,' and moreover judges such a child to be "a powerful route to upsetting dominion, even when emerging unwittingly" (ibid). Jaques' philosophical line of reasoning illuminates the embedded posthumanist thought provided to implied child readers, encouraging critics to recognize the suggested agency of animals, trees, and toys within texts for children. Along with Wannamaker, Jaques' work points towards a productive intersection of Barad's agential realism with broader posthumanist considerations of children's literature's ability to negotiate our understanding of the figure of the child in children's literature.

Anita Tarr and Donna R. White's collection of essays titled *Posthumanism in Young Adult Fiction: Finding Humanity in a Posthuman World* (2018) comes yet another step closer to bridging the canyon between posthumanism and the figure of the child. As the title of the collection suggests, this collection mainly falls into the posthuman-first category of criticism. Most of the essays perform a cursory overview of posthuman young adult characters in various works of young adult fiction, with only some the collection making the leap to utilizing posthumanist theory as a critical lens. A few of the essays reach the conclusion that, despite having posthuman characters, their focal texts work to prioritize and preserve humanist values, echoing Ostry's own observations of YA fiction. One of the significant drawbacks of the collection is its lack of coherency in its use of the word 'posthumanism'— much space is devoted to untangling the definition of the word, both throughout the editors' introduction and in the introductions of many of the essays themselves, a repetition that is not only confusing but also fails to result in a unified approach to the young adult texts at hand.

Demanding such coherency may seem antithetical to the destabilizing action that is posthumanism's trademark, but becoming bogged down in definitions without describing or requiring a meaningful methodological approach leads to the type of inadequate analysis evident throughout much the collection. That said, a few of the collection's essays demonstrate interesting usage of posthumanist methodologies. Of particular note are Maryna Matlock's critique of the posthuman adolescent body in Leigh Bardugo's Grisha trilogy, which uses Karen Barad's concept of the agential cut to excellent effect; Torsten Caeners' insightful consideration of human-posthuman negotiation in Ridley Scott's *Prometheus* (although his justification of *Prometheus* as a young adult text pushes the boundaries of what we might consider 'young adult'); and Tony M. Vinci's metafictional examination of "a posthumanist approach to reading young adult fantasy" (230) exemplified by Lev Grossman's *The Magicians*. Each of these essays stays focused on the material conditions and concrete, observable behaviors of the characters and analyzes those through the work of various posthumanist scholarship. The collection, both in its strengths and in its weaknesses, thoroughly justifies the relevance of further investigation into the intersection of young adult fiction and posthumanism, concisely summed up in a statement by Caeners: "The postmodern human condition, or posthumanity…can be defined as one of continuous adolescence" (203).

Roberta Trites' *Twenty-First-Century Feminisms in Children's and Adolescent Literature* is the only monograph of children's literature criticism thus far to reference Barad's agential realism. The appearance of Barad's work in children's literature criticism is itself promising, as the level of attention that Trites pays to it. Despite this attention, the utility of Trites' usage of Barad is undermined by Barad's insistence on privileging the material alongside the discursive, a technically challenging stance which I have noted previously in this thesis and which I will address more thoroughly in the conclusion of this thesis. Trites concisely identifies the key problem of using Barad's theory in a literary context

when she asks, "Children's literature *is* representational; it can only *represent* the material body. What pertinence, then, does [agential realism] have to the study of children's literature?" (*Twenty-First-Century Feminisms* xviii). Her claim that "The most obvious answer is *through representation of the material world*" (ibid.) is a direct departure from Barad's emphasis on "direct material engagement with the world" (*Meeting* 50). Indeed, Barad emphatically warns *against* relying on "words untethered from the material world" ("Performativity" 811). Trites assumes that Barad's description of classical representationalism "points in the direction of cognitive theory: the 'knower' to whom [Barad] refers must experience cognitive activity in order to perceive the 'known' and subsequently interpret the meaning as 'knowledge'" (10). In fact, Barad only describes classical representationalism in order to dismantle and recategorize it as "a historically and culturally contingent belief that is part of Western philosophy's legacy and not a logical necessity" (*Meeting* 49). For Barad, posthumanism specifically requires a "move toward performative alternatives to representationalism [that] shifts the focus from questions of correspondence between descriptions and reality (e.g., do they mirror nature or culture?) to matters of practices, doings, and actions" (*Meeting* 136). The entire purpose behind Barad's posthumanist framework:

> […] is about taking issue with human exceptionalism while being accountable for the role we play in the differential constitution and differential positioning of the human among other creatures (both living and nonliving). […]Posthumanism does not presume that man is the measure of all things. It is not held captive to the distance scale of the human… […It] eschews both humanist and structuralist accounts of the subject that position the human as either pure cause or pure effect. (ibid.)

Thus, when Trites interprets Barad's concept of intra-action to mean that "Meaning does not reside purely in the discursive, nor does it reside in matter itself, but rather in how the *perceiver* continuously connects them intra-actively," (11, emphasis mine), she recenters the human subject position, casting the 'perceiver' as the final epistemological mediator. Despite a lack of what some might call 'faithfulness' to Barad's agential realist theory (inasmuch as any literary criticism is tied up in matters of faith, which this thesis most certainly is not), Trites' approach makes sense from an academic perspective grounded in traditional literary theory. I do not engage specifically with cognitive approaches this thesis, as they fall outside the scope of my project. Rather, I experiment with the diffractive approach of reading texts *through* each other—for productive interference in meaning—as being a means of textual analysis that goes beyond the pitfalls of representation that other theorists, like Donna Haraway, warn against.

Before delving into the details of my technical approach in the context of my corpus, I must turn to a key theoretical article, published during the course of my doctoral research, that confirms the mutual relevance of posthumanism/new materialism and children's literature criticism. In June 2020, Justyna Deszcz-Tryhubczak and Macarena García-González published a paper titled *New Materialist Openings to Children's Literature Studies* (2020). They observe that posthumanist and new materialist scholars' "[engagement] in writing against Cartesianism reflected in binary categories such as nature/culture, mind/body, subject/object, reality/language, matter/meaning, and human/non-human, among others" (46) holds much promise in being applied towards children's literature criticism. They also critique the idea of texts functioning exclusively as discursive: "…that is, in terms of their coded meanings and not as material elements of the world that produces and participates in processes and relationships involving the human and non-human" (48). They suggest several directions of research that incorporates new materialist understandings more thoroughly into

children's literature criticism, including data-based empirical research and cognitive research. They also offer a "toolbox of terms and concepts that could enable a new materialist rethinking of children's literature studies" (53). This article functions as a concise round-up of new materialist terms and penetrations—or lack thereof—into children's literature research, rather than an in-depth examination of the theoretical underpinnings of posthumanism and new materialism in order to justify its relevance to our field. As such, it reinforces the work presented in this thesis. Although they don't explicitly refer to the figure of the posthumanist child as I do, they observe texts for children can be considered as material objects that themselves produce meaning:

> The attention to matter as producing forces that transcend body/mind dualisms may enable us to survey – which implies producing – forms of response-ability such as the forces of love in the production of children's texts (adults' love of children or childhood), the multiplicity of engagements between readers and books (fandom and other intensities of readers), as well as the various forms of care flowing within the child–reader–writer assemblage. (55)

Deszcz-Tryhubczak and García-González invite "diverse reshufflings and additions" (53) to their toolbox, and I argue that my configuration of the posthumanist child, as a conceptual figure, fits neatly with the turn suggested by their work. In the next section, I will review my methodology through a brief overview of the theorists with which I engage.

Applying Posthumanist Theories: Deconstruction, Diffraction, Virtuality, Intra-Action

Nikolajeva refers to heterogeneity—the existence of difference and otherness—as a fundamental underpinning of her development of aetonormativity. Following her model, I use the concept of heterogeneity to organize my methodological approach to reading the intersection of aetonormativity and posthumanism in children's literature. A methodology

that claims to be posthumanist in nature (which mine does) must necessarily demonstrate a certain level of heterogeneity, of "the unharmonizeable" (Lyotard 4), of the "whole but *not* homogenous" (Hassan 833). That is, a posthumanist methodology must draw from many and various sources of approach, and it cannot in good conscience proclaim one source as the primary and greater while demoting other contributions to secondary or lesser.

My methodology pulls together the works of a heterogeneous group of posthumanist theorists—Jacques Derrida, Donna Haraway, Karen Barad, and N. Katherine Hayles—to delineate a posthumanist approach to analyzing the posthumanist child in children's texts. Other theories, such as Lyotard's inhuman, Deleuze and Guattari's theory of assemblages, and Latour's actor-network theory, hold relevance to my approach but have been excluded from this thesis due to the material constraints of the project. Although each chapter of this thesis hinges on the works of one of the four theorists listed above, their ideas tangle together throughout my analysis. While each thinker employs a different approach to posthumanist problems, I have woven them together into a particular methodological style in order to answer my central direction of research: how a reading of the entangled, intra-active figure of the posthumanist child in children's literature reshape our ontological, epistemological, and ethical understanding of the adult-child relationship and complicate the humanist, aetonormative binary. In addition to detailing this heterogeneous methodology in the section below, I will be briefly outlining the chapters of my thesis, identifying the primary texts for children that I have chosen to focus on within each chapter. I have left it to the chapters themselves to detail the logic behind these pairings; in this introduction, I conclude each subsection with a brief description of the primary text with which the theorist has been paired.

Before proceeding, I must acknowledge a major difficulty in implementing a posthumanist approach to examining the figure of the child and the adult-child relationship in

children's literature. Traditionally (as much as posthumanism can be said to have a tradition), posthumanism has been used as a tool for considering the explicitly non- or beyond-human figure, whether organic or inorganic. Literary scholars concerned with the human condition have more commonly utilized other 'posts', e.g. postcolonialism, postmodernism, and poststructuralism, as well as 'isms' that might reasonably be considered post-Humanist-hierarchy, e.g. feminism and Marxism. I highlight this boundary between 'posthumanist studies' and 'human studies' because both children's literature and the figure of the posthumanist child complicate such a boundary tremendously. As Jaques notes, many works of children's literature exist in an area of boundary confusion not only between adult and child but also between human and non-human. This mode of boundary confusion is:

> […] less about…restrictive constructions and power imbalances…and rather more about challenging fixity and permitting ontological confusion. Being "betwixt-and-between"… is a powerful route to upsetting human dominion, even when emerging unwittingly; it complicates attempts to police the boundaries between the human and the non-human as, indeed, between the adult and the child. (Jaques 10)

In principle, the betwixt-and-between nature of the child and its literature gestures invitingly towards investigations into the human/non-human boundary. Yet boundary confusion between the human and the non-human other has often been used not to *upset* human dominion but rather to *enforce* it, if we take 'human,' as the other 'isms' often do, to mean a white, male, straight, cisgendered, Christian, capitalist, able-bodied person. As an example, it is problematic to consider depictions of the child-as-material-object, without accounting for the ways in which Man has subjugated countless 'othered' humans by treating them as legally propertied objects. Michalinos Zembylas summarizes the problem succinctly: "when certain people have never been treated as humans—as a result of ongoing colonial

practices—post-human approaches advocating a move away from humanism might be seen as an alibi for further denial of humanity to these same people" (255). Because my research questions focus on the figure of the posthumanist child, the adult-child relationship, and the adult-child-text phenomenon, I must account for the problematic aspects of the 'ontological confusion' permitted by children's literature and media by contextualizing my primary texts as I encounter them. This contextualization necessarily involves bringing diverse human-centered critical theories into conversation with posthumanist theory, as Zembylas and others (e.g. Dernikos et al.) do. I do this most overtly in my second chapter, which analyzes Nigerian-American author Nnedi Okorafor's The Nsibidi Scripts series as fantasy texts that can help us stay with the trouble (Haraway, *Trouble*) of the Anthropocene. However, the specific humanist critical sources I reference in each chapter will be reviewed in context, as literature that supports my analyses rather than as core components of my methodology. Overall, I strive to be cognizant of white and Western privilege within this thesis and enact a posthumanist reading that would remedy past injustices rather than perpetuate them.

I also must note that I do not focus on temporality in this thesis. Temporality has much to do with all of the key elements within this thesis: children's literature and media, aetonormativity, posthumanism, and new materialism. I discuss the problem of understanding the time scales of the Anthropocene in chapter two but do not engage in a conversation about temporality beyond that. This is partially because it falls outside my examination of the posthumanist child as a figure—I do not define the posthumanist child with respect to temporality—and partially because the time scales in question across the different variables of this project are so disparate. To address the first portion of that reasoning, I must first concede that many discussions of the figure of the child in children's literature are concerned, to a lesser or greater extent, with that figure's relationship to time. Most saliently, Clémentine Beauvais' *The Mighty Child* (2015) uses Nikolajeva's theory of aetonormativity to

investigate the relationship between adults and children through the lens of temporality, arguing that:

> Children and adults draw their imagined otherness relative to one another from the fact that they have overlapping but distinct temporalities. Their differences are not in nature or status but contingent on the passing of time, leading to the universally shared certainty of being one and then (hopefully) the other. […]The status of the child vis-à-vis the adult is always already one of transformation: it is constantly being modified towards adulthood. (18)

Temporality, according to Beauvais, can be understood as deeply relevant to the figure of the child in children's literature, and indeed this relevance appears obvious when one considers the progression of childhood towards adulthood—a progression taking place within and mediated entirely by time. However, because of the framing of the posthumanist child I present in this thesis—a figure of multiple materialities and ontological instability—the chapters in this thesis focus more on the material and ontological, rather than the temporal. Indeed, the ontological instability of the posthumanist child is such that it must simultaneously possess both *human* and *posthuman* qualities, and in the case of the posthumanist children I highlight in this thesis, their temporal experiences take place on a *human* scale.

Because temporality of the posthumanist child, as examined within this thesis, is still a human one, it has been excluded from being one of my analytical lenses. This is because human temporalities do not sit well within considerations of the Anthropocene. The time scale of a human life is vastly smaller than the time scale of a "hyperobject" (Morton) like climate change or plastic pollution. The word 'hyperobject' has been coined by Timothy Morton as a way to describe "things that are massively distributed in time and space relative to humans," such as "a black hole," "the Florida Everglades," or "the sum total of all the

nuclear materials on Earth" (1). In fact, the magnitude of temporospatial difference between humans and hyperobjects is such that it's often difficult to understand these hyperobjects and their effects and consequences in works of fiction, because human narrative has evolved to suit a human understanding of time and space (among other concepts, like morality and heroism). Part of that human understanding of time includes our understanding of the relationship between time and human maturation. Its lack of presence in this thesis notwithstanding, temporality is a fascinating avenue of research in the intersection of children's texts and posthumanist/new materialist theory, and I can envision future study of the posthumanist child (or other intersections of posthumanism/new materialism and children's literature and media) and temporality.

My methodology draws on critics whose own methodologies engage with boundary disputes and reconfigurations in such a way as to be useful to the project of examining the multiple materialities, ontological instability, and paradoxical nature of the posthumanist child. Jacques Derrida's theory of *differance* and applied approach of deconstruction focuses on the heterogeneity of words, particularly the written word. His examination of the slippage of the meaning of words, as well as the implication this slippage has in reconfiguring ontological, epistemological, and ethical boundaries, holds promise as a methodological approach towards a posthumanist reading of the child in children's literature. I am specifically interested in his exploration of the ancient Greek concept of *pharmakon,* adapted from an Egyptian myth as told in Plato's *Phaedrus,* that both exemplifies an application of deconstruction and hinges quite centrally (but, intriguingly, without direct comment) on the adult-child relationship. Donna Haraway's work also touches on the adult-child relationship, as well as children's literature itself, in a tangential, decentralized way. Her use of what she calls 'diffractive theory', similarly to Derrida's *differance,* allows for a reading of a diverse array of narratives (e.g. textual narratives, the narrative of an image, biographical narratives)

that reveals interference, hybridity, paradoxes—all instances of heterogeneity within a singular, intact text. Karen Barad's agential realism is both the most fundamental and the most distant theory with regards to my exploration of the child within children's literature: fundamental, because her theory deals directly with an "ethico-onto-epistemological" (*Meeting* 90) reimagining of "the notions of matter, discourse, causality, agency, power, identity, embodiment, objectivity, space, and time" (*Meeting* 26); and distant, because she eschews linguistic representation as a privileged mechanism for creating or holding meaning. Using agential realism as part of my methodology will necessarily introduce paradox into my readings, but I view this as an acceptable (perhaps even desirable) outcome in developing a posthumanist methodology. Instead of trying to resolve the paradox between Barad's focus on the material and my focus on the represented, I consider ways in which this paradox suggests paying attention to different modes of discourse and matter(ing). My analysis mainly relies on her concept of 'intra-action' and the entanglement of phenomena involving the child, the adult, and text. Hayles' semiotic square of virtuality, as an approach to re-embed material concerns into questions of cybernetics and disembodied models of posthumanism, is a theory I use in a more limited fashion, applying it only within a single chapter. I invite the possibility of applying her semiotic approach to other texts for children concerned with cybernetics, as well as a broader conceptualization of what virtuality might look like in texts for children.

Below is a visual table that summarizes the above critical works, theories, posthumanist concerns and configurations, and primary texts in the context of this thesis:

Table 1: Corpus and Structure

	Posthumanist Theorist	Primary Text	Posthuman Concern/	Main Critical Tool

			Configuration of the Posthumanist Child	
Ch. 1	Jaques Derrida	*The Adventures of Pinocchio*	The material, artificially intelligent child	*Pharmakon, supplement*
Ch. 2	Donna Haraway	The Nsibidi Scripts Series	Human reproduction in the context of the environment	Diffraction
Ch. 3	N. Katherine Hayles	*Warcross* and *Wildcard*	The virtual, artificially intelligent child	Semiotics of virtuality
Ch. 4	Karen Barad	*Toy Story 4*	Plastic pollution as a form of reproduction in the context of the environment	Intra-action

Having had an outsize impact on my methodology, heterogeneity also features prominently in my corpus selection. If this description of my methodological approach is an exercise in describing the edges, then my corpus structure must be a drawing of lines, making an "agential cut" (Barad, "Performativity" 815) between works designated 'my corpus' and works without that designation. Barad describes an agential cut as "[enacting] a local resolution within the phenomenon" (ibid.), implying that any line I draw that creates my

corpus remains locally relevant as opposed to ontologically descriptive. This distinction between 'locally relevant' and 'ontologically descriptive' recalls the Derridean supposition that, in literary studies, there is no one 'right' way to select or read a text, due to the slippage of meaning between the words themselves and the context within which they are read. The impact that the "specific physical arrangement" of my corpus has determined the outcome of my research as much as any "apparatus with fixed parts" (Barad, "Performativity" 815) determines the position of an object.

Another type of agential cut that I have made in selecting my corpus, and indeed the type that has been made commonly in children's literature scholarship with regards to posthumanism, is a cut that includes figures of child hybridity—the more literal posthuman child (Ostry; Bradford et al.; Flanagan, *Technology*; McCulloch). The texts I have chosen all feature hybrid child figures: Pinocchio, the boy made of wood; the magical children of Nnedi Okorafor's *oha* coven; the material/virtual hybridity of Marie Lu's Emika Hideo, and Zero; and the toys of *Toy Story 4*, especially Forky, a toy made from trash by five-year-old Bonnie who is 'born' during the course of the narrative and exhibits particularly childlike behaviors. All of these children are examples of the figure of the posthumanist child that this thesis seeks to illuminate, but as I argue in each chapter, they are *not* posthumanist solely on the basis of their material hybridity—this element would limit them to being considered 'posthuman' only. As I argue here, they are *also* and more meaningfully posthumanist children because of their ontological instability and the paradoxes they present, as well as in the meanings they produce from the diffraction between the texts they inhabit and the posthumanist theories they bump up against. Importantly, these children are all at least partially human—unlike Jaques' work, which focuses exclusively (and productively) on non-human figures, my analysis gains much from the inclusion of children who belong at least in part to the human race and whose presence can therefore matter in more material and

meaningful ways to diffract theories of children's literature against posthumanist and new materialist theories.

Above all, this thesis engages in a thorough and multi-layered exploration of the utility of diffraction as a posthumanist and new materialist tool for analysis of children's literature and media, centered on an explication of the figure of the posthumanist child. Throughout each chapter of this thesis, I 'diffract' a segment of theory against/through a text for children, producing an array of insights that extend our understanding of the relevance of posthumanist and new materialist tools to children's literature and media. This approach has led me to arrange my chapters and corpus with reference to diffraction as a *literary* tool, which requires that texts be read through one another. As Neil Badmington puts it, diffraction does not "describe how one work reflects upon another, or reflect upon one in light of the other;…rather, [it] map[s] how the texts *interfere* with each other, throwing different shapes, changing 'our' view" ("Posthumanist (Com)Promises" 88, emphasis original). In light of this definition, it becomes quite difficult to perform a diffractive reading of a singular text, the way one might deconstruct a singular text. My chapters therefore consist of specific secondary texts paired with a single or a grouping of primary texts, which I will read diffractively through each other in order to generate new insights about the posthumanist child posthumanist/new materialist concepts, and aetonormativity that go beyond repeating "the sacred image of the Same" (Haraway, "Promises" 67). As the table above demonstrates, I could have arranged the chapters, and the primary texts, in multiple different ways; the final arrangement is more an allowance of locality (I am required to submit a particular thesis draft by a particular date) than an argument towards concrete finality in the alignments I have chosen. By making deliberate decisions about which texts are paired within each chapter, this thesis produces useful diffraction patterns that demonstrate "the effects of difference" (Haraway, "Promises" 70): differences between types of adult-child relationships, differences

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between fictional texts for children and theory texts for adults, and most importantly, differences between how we have (implicitly or explicitly) considered aetonormativity in the past and how we might reconsider it in the future. My review of the literature, and particularly Deszcz-Tryhubczak and García-González's call to new materialist analysis, demonstrates the need for an investigation into these differences in order to bring this constellation of theories into more productive, if often interfering, conversation with each other. It is my hope and aim that such a consideration could effect an equal amount of change on posthumanist theory, which has itself only addressed the idea and figure of the child in tangential, as it would on our understanding of children's literature and media. My implementation of a diffractive methodology, in which I read primary children's literature texts through secondary texts of posthumanist theory, creates space for both a broader understanding of the posthumanist child as and when it appears in texts for children and an extension of posthumanist theories about humanity's continuation into the 21st century and beyond. Neil Badmington insists that posthumanism consists "not of the wake but the working-through of humanist discourse" ("Theorizing" 22). Hayles, meanwhile, contends that a true understanding of the posthuman will emerge from "humans struggling to bring into existence a future in which we can continue to…find meaning for ourselves and our children" (282). With this thesis, I hope to have demonstrated that children's literature is one of the most valuable arenas of human discourse to work through in order to continue to find meaning for ourselves and our children. I assert that this working-through of children's literature, through an examination of the posthumanist child, will "[open] up new ways of thinking about what being human means" (Hayles 285) in the sense that it will open new ways of thinking about what it means to be a child and what it means to be an adult in a world in which we are increasingly aware of our own posthumanist aspects.

The Child as Posthumanist Trace: Pharmakon *and Collodi's* The Adventures of Pinocchio

"Once upon a time, there was…

'A king!' my little readers will say straight away. No, children, you are mistaken. Once upon a time there was a piece of wood."   *(Collodi 1)*

       I begin my examination of the diffractive interference between posthumanist theory and children's literature with exemplars from each that themselves constitute something resembling a beginning for their respective categories. With regards to posthumanist theory, I will be considering the work of Jacques Derrida, the originator of deconstruction as a field of literary thought. Derrida's work functions as a forerunner to posthumanist thought; although he never referred to himself with such a word, his careful, pervasive dismantling of humanist binaries across his oeuvre—including in his complex use of language itself—stands as one of the earliest examples of posthumanist thinking and theorizing. With regards to children's literature, I will be analyzing Carlo Collodi's originally serialized tale *The Adventures of Pinocchio* in translation by Ann Lawson Lucas. *The Adventures of Pinocchio* shares a comparably elevated status with Lewis Carroll's *Alice's Adventures in Wonderland* as being a 'classic' work of children's literature, as determined by its age (originally published as a single book in 1883); its enduring popularity through innumerable retellings, including a famous screen version by Walt Disney Animated Studios and another, much more recent screen version by Guillermo del Toro (*Guillermo Del Toro's Pinocchio*), both of which are recipients of Academy Awards; and its relatively honored treatment in academic discourse (at least, compared to less 'classic' texts for children). Particularly in studies of Italian literature and culture, "Pinocchio is a staple for innumerable critics, writers, and psychoanalysts who all try to carve a niche in the vast literature of "Pinocchiology" (Stone 329). Similarly and

more recently, although it is not as well-known for this characteristic, *Pinocchio* is one of the earliest examples of artificial intelligence that appears in children's literature. As Katia Pizzi observes in *Pinocchio, Puppets, and Modernity: The Mechanical Body,* "Pinocchio's robotic, stiff and yet bendable body, his hybrid nature between mechanical and human, render him an ancestor of the Futurist cyborg, a 'low density' technological creature, as befits the century of the steam train and the power station, and yet no less forceful and influential an icon" (2). Pizzi does not reference posthuman figures or posthumanism itself in her discussion of Pinocchio, nor does she cite posthumanist scholars, but she and others nevertheless recognize the potential for meaning embedded in his material form.

These 'originating' characteristics of both Derrida and *Pinocchio* make them particularly well suited to this thesis's first avenue of inquiry: how the figure of the posthumanist child functions as a destabilizing influence on aetonormativity, a prevailing theory of children's literature. My analysis focuses on the ways in which *The Adventures of Pinocchio* diffractively engage with Derrida's concept of *pharmakon*, a riff on his concept of the supplement that ambiguously translates to both poison and cure. I examine how Derrida (re)formulates the concepts of *logos* and *pharmakon* in relation to both the Egyptian myth of Amon-Ra and Thoth and the evolution of the written word from the spoken word; in doing so, I argue that he offers a path towards a different understanding of the conceptual child as a posthumanist figure with the power to permanently disrupt the humanist aetonormative binary. I then turn to *The Adventures of Pinocchio*, first identifying aetonormative action within the text and then applying Derrida's idea of *pharmakon* to those aetornormative elements. This application diffracts, or interferes with, our understanding both of Derrida, who largely ignored the conceptual child in his own writing, and of *The Adventures of Pinocchio*, long understood to function as a parable of human(ist) values. Instead, we are left with two texts that, combined, offer nuance and complexity in our understanding of both

posthumanism and children's literature that meets the demands of a contemporary society contending with posthumanist concerns.

In diffracting elements of Derridean thought through *The Adventures of Pinocchio*, this chapter traces the edges of a literary figure I term the posthumanist child. This figure arises from a deconstructive reading of aetonormative literary structures, present in all children's literature and media, of which *The Adventures of Pinocchio* is no exception. I posit that an examination of the posthumanist child destabilizes the didacticism inherently present in children's literature and allows for a rethinking of conceptual childhood. This rethinking serves to align our understanding of the conceptual child with contemporary posthumanist considerations of binaries and their dissolution. Despite recent discussions to the contrary (e.g. Trites, García-González and Deszcz-Tryhubczak, García-González), such an alignment has been avoided in the long history of children's literature criticism (see Lesnik-Oberstein, Nodelman, Rudd, Nikolajeva, and others for more traditional, non-posthumanist considerations of power binaries in children's literature). Children's literature encompasses many, if not all, of the power binaries typically discussed in critical discourse, but this chapter, and this thesis as a whole, uses as a point of departure the singular nature of aetonormativity as a power binary within children's literature. It's a common critical perspective to identify aetonormativity as foundational to all of children's literature, not least because the field's creation, distribution and acquisition primarily occur through adult writers, publishers and consumers, but also because of the treatment of the fictional (conceptual) child *within* the work of literature for children; whatever power this child gains during the course of the narrative, she is always bound to return it to her adult parents/guardians/overseers; to herself grow up and relinquish her status as a child; or to die, and also relinquish her status as a child. This binary differs from others in its pervasiveness; as Nikolajeva describes, aetonormativity extends to include 'social conditions, in real as well

as in fictive [sic] world, [in which] adults are and will always be superior to children. Here, power hierarchy is non-negotiable…and power is inevitably self-reproducing' (*Power* 203). Whereas the presentation and critique of other humanist power binaries in both literature and theory suggest a *reversal* of those same binaries, the presentation of aetonormativity in children's literature, when taken traditionally, cannot act as a critique suggesting any sort of permanent change, but rather as a temporary escape, from which the conceptual child must always return.

A necessary question to consider as I bring up the inescapable nature of aetonormativity is whether the privileged status of the adult can <u>be</u> disrupted *at all*, even if it is a conceptual privilege belonging to a conceptual adult in a work of fiction for children. Posthuman-oriented critiques of children's literature, for their part have thus far been silent on the topic of aetonormativity and whether one might use posthumanism to reframe our understanding and/or application of the theory. Other, non-posthuman-adjacent critiques of aetonormativity have positioned the difference between adult and child as one of "degree, not of kind," insisting that aetonormativity must be at least <u>somewhat </u>preserved to the extent that it "[justifies] an array of protective measures that cannot be dismissed as merely oppressive" (Gubar 454). This particular assessment is particularly telling, as it avoids negating aetonormativity's oppressive action while redirecting the reader's attention towards our own "dismissal" of opposition to the theory. The adult-child power binary has so far endured in children's literature criticism, a stasis sharply juxtaposed with other "heterological situations" (Nikolajeva, *Power* 11) in works of literature, which have undergone increasingly public and political destabilization with the growth of the field of literary analysis.

Why does aetonormativity resist the type of deconstruction that has been productively applied to other power binaries? More precisely, why do scholars of children's literature seem not only to resist a meaningful critique of aetonormativity but moreover to dismiss one

as impossible (e.g. Nodelman)? I suspect the answer has to do with Stephen Thomson's description of the conceptual child's "particular risk of being hypostatized" (357). He suggests

> that one needs to insist upon the conceptuality of 'child', in an attempt to wrest the object from its self-evidence and make it available for a sort of thinking through which, though it remains involved in issues that exercise the practical, does not take the practical as its telos. (356)

Thomson here insists that the conceptual child be made available for a 'thinking through,' but he stops short at defining what needs to be thought through. I posit that the conceptual child, un-hypostatized, has a central role to play in thinking through a posthumanist deconstruction of aetonormativity, thus being productively framed as a posthumanist child. In this becoming, the posthumanist child demonstrates the generative possibilities for rethinking childhood that arise when we destabilize aetonormativity.

To be clear, a deconstruction of aetonormativity does not, and cannot, represent a straightforward *reversal* of its power binary (were such a thing even possible to be done). As Derrida remarks:

> To remain content with reversal is of course to operate within the immanence of the system to be destroyed. But to sit back…and take an attitude of neutralizing indifference with respect to the classical oppositions would be to give free rein to the existing forces that effectively and historically dominate the field. It would be, for not having seized the means to <u>intervene,</u> to confirm the established equilibrium (Derrida 5–6).

Put more simply, aetonormativity can be neither reversed nor safely ignored. Aetonormativity is implicated in the oppression, the capture, the control of the child, but it is equally implicated in the child's socialization, education and protection. I highlight this tension so that this inquiry "remains involved in issues that exercise the practical", as Thomson suggests ought to be possible in a consideration of the conceptual child. In this, and in all of the analyses present in this thesis, I follow Donna Haraway, who uses the optical metaphor of diffraction to describe her approach:

> Diffraction does not produce 'the same' displaced, as reflection and refraction do. Diffraction is a mapping of interference, not of replication, reflection, or reproduction. A diffraction pattern does not map where differences appear, but rather maps where the effects of difference appear ("Promises" 70).

Instead of merely observing the differences between the theories at play in order to resolve them, I intend to map the effects of these differences in order to reveal the posthumanist child, a figure that emerges out of the type of diffraction caused by the force of deconstruction colliding against the rock of aetonormativity. I do this using Collodi's *The Adventures of Pinocchio*, whose titular protagonist "can easily be perceived through the prism of technological change and shifting conceptions of the human in modern times" (Pizzi 13). Using this assortment of fiction and nonfiction texts and diffracting them through one another, I show that one of the shifting conceptions of the human implicated in the posthuman(ist) figure of Pinocchio is a shift in our conception of aetonormativity. From *The Adventures of Pinocchio*, I suggest a way forward for reconsidering the child and childhood that avoids hypostatization while still attending to the binary-destabilizing action of posthumanist thought.

Derrida's Pharmakon as the Conceptual (Posthumanist) Child: Deconstruction as play

Acclaimed author Ursula K. Le Guin recommends that "if you want to clear a room of Derrideans, mention Beatrix Potter without sneering" (*Le Guin Ursula K.* 1). On the contrary, I find that Derrida's historical unpopularity in some circles heralds a productive pairing of his work with children's literature, a category of writing that has itself sometimes been met with academic suspicion. A diffractive reading of Nikolajeva's original conception of aetonormative theory through Stephen Thomson's discussion of Derrida and the child confirms the sense that Derrida and childhood are closely and productively connected. Thomson performs an admirable and thorough round-up of the major appearances of the child in Derrida's oeuvre, noting that: "[In Derrida's writing,] 'child' is not generally cited as a concept or given the status of a theme, and it is rarely, if ever, flagged in the indices and headings of commentaries. And where the child is discussed, it tends to figure in the most anecdotal, empirical sense" (338). In rectifying this oversight, Thomson does not draw an overt connection between deconstruction and childhood, instead claiming that the concept of the "'child' names and thematizes in Derrida that which cannot just be named and thematized" (338). In contrast, I find in Derrida's juxtaposition of "child" with other names and themes a convincing relationship between the destabilizing action of deconstruction and the figure of the child.

The particular Derridean context involving the child that interests me most and seems to best suggest a way forward for a deconstruction of aetonormativity is Derrida's investigation of the Ancient Greek concept of *pharmakon*. The concept of *pharmakon*, as put forward by the philosopher Plato, is rife with multiple meanings, varyingly referring to poison, to a scapegoat, or—confusingly and paradoxically—to a remedy. Plato's original deliberations on the meaning of *pharmakon* occur across several texts; Derrida's deconstructive reframing of the concept occurs in his essay 'Plato's Pharmacy', printed in his

work *Disseminations*. As part of his deconstruction of Plato's work, Derrida chooses to read Plato's discussion of *pharmakon* through the metaphor of family—particularly, the family relationship of father and son—and in doing so, departing from Plato's references to the Egyptian supreme sun god Amon-Ra and the clever god of knowledge, writing, science, magic, and the moon, Thoth. Derrida eschews Plato's description of traditional Egyptian mythology and interprets the relationship between Amon-Ra and Thoth as being equivalent to that of father and son. This metaphorical relationship thus further applies to the representative qualities of each deity: for Amon-Ra, the sun, the spoken word, and *logos* or rational logic; for Thoth, the moon, the written word, and *tekhne*, or magic, science, artifice. Yet Derrida's reconfiguration of Plato's work is hardly straightforward, itself a deconstruction of his own analysis as it happens. As Thomson describes:

> Derrida has no sooner proclaimed himself the first to read Plato's pharmacy as a family scene, one that is sheltered by the family, even as it makes itself apparent through familial metaphor…than (sic) the child is cast out of its shelter. …Such is the position of text following Plato: once issued from the father, it is exposed in the world, without its own voice, infans. (346)

By deconstructing Plato's argument via the use of the family metaphor, Derrida positions writing (Thoth's domain) as the orphaned 'child' of speech (Amon-Ra's domain) while simultaneously interrogating whether or not writing itself is voiceless (the other meaning of the Latin word *infans*), as Plato argues, because it is separated from the superior spoken word.

Before continuing on to the relationship between *pharmakon* and the rest of Plato's argument and Derrida's deconstruction thereof, I want to pause and reconnect what has been described thus far with children's literature. Derrida's connection of the orphaned child to

writing suggests, among other things, the clear relevance of deconstruction to the analysis of children's literature. As described previously, the literal or figurative orphaning of a child protagonist, the separation of the child from the adult sphere, is a prerequisite for the assertion of aetonormativity; as Derrida frames it, the separation of the written word from the spoken is a prerequisite, or perhaps more accurately, inherently baked into the existence and act of writing. In her description of aetonormativity, Nikolajeva sets out the exact contradiction in power that mirrors the contradiction observed by Derrida's analysis of Plato's *pharmakon*:

> Children in our society are oppressed and powerless. Yet, paradoxically enough, children are allowed, in fiction written by adults for the enlightenment and enjoyment of children, to become strong, brave, rich, powerful, and independent— *on certain conditions and for a limited time*. The most important condition is the physical dislocation and the removal, temporary or permanent, of parental protection (*Power* 10).

Rather than referring to Derrida, Nikolajeva uses Bakhtinian carnivalesque theory to describe the pattern of aetonormative assertion in children's literature: the child moves from the aetonormative, real world (what some might refer to as a symbolic, archetypal 'home') into the carnivalesque world in which she has outsized (literally or figuratively) power (the archetypal 'away'), only to be forced to return to the aetonormative world by the end of the text, either through a removal of powers, growing up, or even through death. By overlaying Derridean similarities onto Nikolajeva's description, we can introduce new meaning into our understanding of these concepts. When we take writing itself to be an orphaned child existing permanently in the archetypal space of 'away', "wander[ing] here and there, making its appearance and reciting its story…neither affirmed as belonging, nor quite disowned" (346),

Nikolajeva's formulaic, strict—very *adult*—critique suddenly seems itself aetonormative, collapsing the paradox of power within children's literature instead of examining the effects of difference inherent in the adult-child power binary. By contrast, a deconstructive reading allows the conceptual child within children's literature—and, in some ways, the entire category of children's literature itself—freedom from aetonormative restriction in the way that all writing is freed from the imposition of power suggested by more fixed forms of knowledge.

I now return to our examination of *pharmakon* as originally set out by Plato and deconstructed by Derrida in order to be able to apply the concept to *The Adventures of Pinocchio*. The moment that holds significance for our understanding and future application of *pharmakon* in the field of children's literature appears in Derrida's specific retelling of the story of Amon-Ra and Thoth. As Derrida identifies Amon-Ra as the 'father,' he describes how Amon-Ra rejects Thoth's gift of writing. Thoth has created writing as a *pharmakon* for the inadequate memory of man. Thoth intends for writing to act as a cure, medicine, remedy for man's failings, but Amon-Ra sees it as a poison—all words whose meanings are encapsulated in the word *pharmakon.* As the creator of this *pharmakon*, Thoth also positions himself as a *pharmakon*, as a figure "opposed to its other [the father]…but as that which at once supplements and supplants it" (Derrida 93). Plato takes the side of Amon-Ra, using this myth to condemn writing and, by extension, to condemn the concept of *pharmakon*, to "dominate it, on the basis of *opposition*" (Derrida 103). According to Plato, the superior element closest to reality—particularly, the spoken word—cannot, or should not, be supplanted by the inferior element further from reality—particularly, the written word. (This echoes a major strain of philosophy contemporary to Ancient Greece and repeated by Aristotle: that reality, and by the same token mimetic writing, has a higher value than fiction and diegetic writing.) In contrast, Derrida takes the side of Thoth, defending writing—

although rather than claiming that *pharmakon* is a simple cure or remedy, he seeks to preserve the ambiguity inherent in the original meaning of the word. His interpretation of this power binary through the metaphorical lens of family makes room for and plays on the undecidability of *pharmakon*, to demonstrate that just as writing *cures* the problems of memory even as it simultaneously *makes the problem worse*, so does writing/*pharmakon* "far from being governed by…oppositions, opens up their very possibility without letting itself be comprehended by them" (ibid.). I use the word 'play' to describe Derrida's analytical action intentionally, as Thoth, play and deconstruction are inextricably linked:

> Sly, slippery, and masked, an intriguer and a card, like Hermes, [Thoth] is neither king nor jack, but rather a sort of joker, a floating signifier, a wild card, one who puts play into play. …His propriety or property is impropriety or inappropriateness, the floating indetermination that allows for substitution and play. Play, of which he is also the inventor, as Plato himself reminds us. (Derrida 93)

Thoth is the inventor and embodiment of play, philosophical and otherwise, 'marked by…[an] unstable ambivalence' (ibid.) which is the fundamental nature of deconstructive thought. Conveniently for this analysis, play is also fundamental to the nature and natural expressions of children, and consequently figures heavily into considerations of children's literature. Had such an oeuvre existed in ancient Egypt, it's not inconceivable to imagine that Thoth would also have been the god of literature and media for children. It is therefore highly appropriate for Derrida's deconstruction of Thoth's *pharmakon,* and deconstructive approaches in general, to be applied to an analysis of a work of children's literature. Deconstruction, represented by *pharmakon*, is the childlike thumbing of the nose to the austere severity of the father, to the rational authority of *logos*. Unlike the temporary power granted to children in children's literature under the aetonormative paradigm, the power of deconstruction to destabilize—or rather, the existence of instability in all writing, as

explained via deconstruction and exemplified by *pharmakon*—is inherent and enduring, instantly and forever beyond the reach of its creator at the moment of its creation. To refigure the conceptual child as *pharmakon* is to grant it that same, unlimited, 'wild card' indetermination and instability as much as it is to acknowledge the oppressive power of aetonormativity as a variant of logos. If the figure of the child irreducibly occupies the positions of both poison and cure—a permanently paradoxical supplement—to the adult condition, then we must acknowledge that it possesses, simultaneously, an immortality (via its inscription in writing) and an ultimate reminder of mortality, for the adult and by extension for the human race, as the child heralds the promise of a new generation as well as the downfall of the old. Both a vial of poison and a dose of medicine have immense power, and it is the power of (im)mortality that the child as *pharmakon* holds over the adult. Understanding the child this way is a requisite step to understanding—and supplanting—the assumptions that underpin the liberal humanist formulation of the adult/child binary represented within aetonormative theory. The figure of the child *qua pharmakon* moves our conceptualization of the child out of its humanist box and into a state in line with posthumanist thinking.

The above functions as an analytical connection—a diffraction, a mapping of differences and similarities—of deconstruction, of *pharmakon*, of aetonormativity, and of the conceptual child within works of children's literature. It may be enough for some to acknowledge this reformulation of the conceptual child as a posthumanist child simply by accepting Derridean deconstruction as a posthumanist approach in and of itself. If, however, we are not satisfied with the intrinsic posthumanism of deconstructive thought in the diffractive considerations thus far brought forward, I additionally observe that *pharmakon* is not only a drug, a remedy, a poison, a cure, but also a *tekhne*, an artifice, from whence we derive (our modern word) technology (and another element within playful Thoth's domain).

Some scholars (e.g. Hassan) think of posthumanism as a theory that evolved in response to the annihilating power of the atomic bomb, post-post-modernism, representative of the end of things, the ultimate "post", and therefore indicative of the failures of technology; but as they both belong to Thoth, *tekhne* is also a *pharmakon*, both poison and remedy to various aspects of the human condition, and inescapable even if we assume our own doom at its hands (which, I hasten to point out, this thesis does *not*). As Daniel S. Halacy Jr., one of the earliest theorists of posthuman scholarship, points out, "As I type this page I am a cybernetic organism, just as you are when you take pen in hand to sign a check" (13). At the risk of being reductionist, I argue that traces of posthumanism animate all conceptual, that is fictional, children, because they are written, and therefore an element of *tekhne*: as artificial creations, they act as the extension of the 'pen in hand' that renders humans cybernetic organisms. What remains to be uncovered is the characterization of the power this status grants the conceptual, posthumanist child. Aetonormativity dictates that fictional children gain power through their separation, their orphanage, from parental, adult figures. A deconstructive view of the conceptual child must necessarily locate that child's power elsewhere, out of the hands of the adults who create it. This redirection regarding the source of the fictional child's power is all the more salient when the child in question is itself a *posthuman* figure, as we shall see shortly in a consideration of Pinocchio (although I argue in the conclusion to this chapter that even without an overtly posthuman configuration, *pharmakon* remains the defining characteristic of the posthumanist child).

      The Adventures of Pinocchio also, inherently, invites consideration of the material conditions put forward by the text. A story about a wooden child who transforms into a human one offers much in the way of material thinking, and many avenues of posthumanist thought encourage considerations of the material *over* the conceptual (see e.g. Barad, Bennett, Trites, *Twenty-First-Century Feminisms*). Others have observed Pinocchio's

similarities to the figure of the robot or even the cyborg (e.g. Jaques), a comparison that invites significant posthumanist considerations. Even without apocalyptic overtones, the material qualities a character like Pinocchio, like many sentient non-human characters in children's fiction, demands a consideration of life and existence *beyond* the human. However, as my above discussion of Derrida and deconstruction suggests, there is much of posthumanism to be both understood and applied within *Pinocchio* and, by extension, other works of children's literature, through an attentive examination of the conceptual child. By applying the deconstructive principles outlined above to multiple iterations of *Pinocchio*, I go beyond an analysis of representations of the material within the text (see e.g. Trites) and proceed towards an understanding of children's literature itself as a site of realization of posthumanist theory. Reading children's literature as an "apparatus" (Barad) becomes the qualitative inverse of the hypostatization of the fictional child that Thomson warns against. Such a reading does not materialize a real child out of a fictional one, but instead acknowledges that there is a powerful agency in the interactivity of fictional and real children, of texts and readers, that reconfigures what counts as possible and impossible regarding a phenomenon commonly known by its discrete parts of 'adult' and 'child'. Moreover, this reading locates that agency *in children's literature itself*, while simultaneously (and paradoxically) allowing for that agency to be located in the real, reading child. A reading of *Pinocchio* or any other work of children's literature that deconstructs the text's overt aetonormative power structure contributes to our understanding of children's literature as an apparatus. It further contributes to a reconfiguration of what is possible for the conceptual child, who through this type of reading, becomes truly posthumanist. In the following two sections, I perform that reading, first through an analysis of the precise nature of Pinocchio's aetonormative elements and then through a breakdown of the elements that work against the text's aetonormative structure. Throughout my analysis, I will be working

with the Oxford World's Classics version of the text, translated by Ann Lucas Lawson, and all the translated quotes and names will follow from that edition and translation.

Aetonormative Confluences in *Pinocchio*

Carlo Collodi's *The Adventures of Pinocchio* has undergone a myriad of academic readings, including Freudian (Panszczyk), Jungian (Morrissey and Wunderlich), and postmodern (Wunderlich). The narrative has also been analyzed within the field of children's literature (see Cambon, Truglio, Zipes), identifying the work as archetypal to all of children's literature as well as culturally impactful beyond that particular designation. Panszczyk in particular identifies *The Adventures of Pinocchio* as an uncanny *bildungsroman*, nodding towards the 'becoming' of Pinocchio both as an adolescent-esque character and as a piece of wood that transforms into a human boy. When considering the story through a specifically aetonormative lens, however, as this chapter does, its fable-esque instructive tone hardly seems to require close analysis. Few readers could fail to miss the heavy didacticism of characters such as the Talking Cricket, who has represented the voice of America's inner conscience via his Disney counterpart Jiminy for several contemporary generations. Yet a deconstructive reading that attends specifically to the aetonormative influences within the text will unveil the specific nature of its treatment of the adult-child relationship, and in doing so, unveil the instability inherent in that aetonormativity. These influences are so many, varied, and intertwined throughout the story that I refer to them instead as "confluences", seeking collectively to drown our wooden hero in a deluge of adult *logos.* A closer look at the trajectory of Pinocchio's progression and development from the moment of his creation until his second creation as a human child reveals a cyclical pattern of ignored warnings, dangerous mistakes, and improbable rescues, a pattern that seems to reinforce the superiority of adult wisdom and knowledge over childhood ignorance and impulsivity.

Foreshadowing of the aetornormativity that persists throughout the text appears in the very first lines of the tale, quoted epigraphically at the start of this chapter. Collodi's opening salvo works best as a microcosm of the text as a whole: first, we see the element of fable or fairy story present in the words 'once upon a time'. Then, we see the implied child reader, made explicit and plural by the narrator here and, furthermore, placed the possessive when described as 'my' little readers, indicating that the implied child reader belongs, objectively, to the adult narrator. Finally, we see that implied child reader make a mistake, by assuming that the tale will be about a king. Thus is the story's power dynamic presented: the implied adult narrator knows things that the implied child reader does not, and it is the responsibility of the narrator to apply correction to the reader's mistaken assumptions. My analysis will consider the aetonormativity granted by each of these textual elements: the text's fairy-tale genre, complete with its cyclical allegorical message, and the dynamic between the adult and child, both in the literary elements such as plot, and characterization within the story itself and in the dialogue between the adult narrator and the implied child reader.

Although it is beyond the scope of this thesis to delve deeply into the fairy-tale genre as a whole, a brief consideration of Nikolajeva's development of aetonormativity in conjunction with her temporal consideration of children's literature will illuminate key elements of the potential for an aetonormative reading of the genre. In her study on linear versus non-linear time in children's literature, Nikolajeva brings our attention to the concepts of *chronos*, or everyday time, and *kairos*, or mythic time:

> In Greek, the eternal, mythic time is called *kairos*, to distinguish from the measurable, linear time, *chronos* (the word kairos is used in the famous passage on time in Ecclesiastes 3:1-8). In Latin, the counterpart is "in illo tempore," and the closest

everyday formula is that of the fairy tale: "Once upon a time." (*From Mythic to Linear* 1–2)

Given this temporal model, our best understanding of *kairos* in the contemporary era derives from the classic and familiar introduction to fairy tales, used in both its Italian form and its English form in *The Adventures of Pinocchio.* In fact, Nikolajeva references *The Adventures of Pinocchio* in her discussion of social utopias and the particular quality of time that they possess, comparing the tale to a Soviet version called *The Adventures of Buratino*. She classifies the quality of time that this and other fairy-tale-esque children's narratives belong to as *utopian* in the sense that they are immersed entirely in kairos, or non-linear time, in which reversals (from death to life, from bad to good, from captured to free) are possible and often probable. As she describes, "excessive 'coincidences' in children's fiction, which sometimes irritate mimetically minded critics, should not be considered artistic flaws since they are part of this restoration of the initial order," that order being the utopian order in which adult elements—"sex, money, and death"—are eradicated from their temporary intrusion into the story (*From Mythic to Linear* 11–12). Because *The Adventures of Pinocchio,* as a fairy tale, takes place (almost) entirely within *kairos*, any adult-like assertion of will or authority on the part of Pinocchio is quickly reversed as "a short disruption of harmony" (ibid.). Although this 'harmony,' or generic, fairy tale assertion of *kairos*, appears to be working to *prevent* adult influences from affecting Pinocchio's narrative and character development, it is, in fact, the most adult influence of all, working to keep Pinocchio within the sphere—and temporal quality—of childhood. Pinocchio is prevented from all attempts to access *chronos*; "no further progress toward adulthood"—and therefore authority—"is allowed" (Nikolajeva, *From Mythic to Linear* 12).

The Adventure of Pinocchio's aetonormative confluences extend beyond its genre designation (in fact, its genre designation is probably the least aetonormative of the various

elements discussed here). Throughout the text, we see numerous adult (or implied adult) characters function as executors of the story's will towards *kairos*, throwing various verbal and physical chains around Pinocchio's wooden form to insist on his subjugation within the sphere of the conceptual child in the aetonormative framework. The aforementioned Talking Cricket, a "patient and philosophical" adult character who has lived in Old Joe's room "for more than a hundred years" (Collodi 12) is one of a host of characters, settings, and other literary elements in *Pinocchio* that work to reinforce aetonormativity throughout Pinocchio's character development. In fact, the chapter that introduces the Talking Cricket directly identifies the theme of adult correction: "*The story of Pinocchio and the Talking Cricket, which shows that naughty boys get bored with being corrected by those who know more than they do* (Collodi 11). Not only is adult correction placed subjunctively in the sentence as a fundamental, expected facet of a child's existence, but children who *resist* said correction are described as intrinsically naughty. Alongside the Cricket sit a host of other characters that seek to reinforce adult authority and child submissiveness onto Pinocchio. Old Joe (more commonly known by his untranslated Italian name, Gepetto), the Blue Fairy, a white Blackbird, a Parrot and the Busy Bee villagers all reiterate the same message to Pinocchio: "'Woe betide those children who rebel against their parents and who take it into their heads to run away from home. They will never do well in this world, and sooner or later they will bitterly regret what they did'" (Collodi 12). Pinocchio's assertion of what he wants from his existence—"'eating, drinking, sleeping, and enjoying myself from morn till night'"—leads to a repeated warning that "'those who take up that career generally all finish up in the workhouse or in prison'" (Collodi 13). Accordingly, under the aetonormative framework of the story, Pinocchio suffers plenty for his flouting of adult norms: he experiences significant hardships in nearly every chapter of the book, including but not limited to starvation, loss of limb, attempted murder by hanging, jail time, transfiguration into a donkey, and death,

released from his suffering each time only by the whim or the pity of adult figures. Through this pattern of repetition, it becomes clear that Pinocchio's infringement on the adult world is a highly punishable offense, specifically because he chooses not to live in deference towards it.

The text's privileging of the adult wisdom and authority also asserts itself in its opposite—the invalidation of the child. It does through partially through Pinocchio's punishments, but also more overtly through depictions of school children, who are characterized by teasing and bullying, and of childhood, represented allegorically by the 'Land of Toys':

> Its population was entirely made up of children. In the streets there was such rejoicing, such a din, such a screaming as to numb the brain. …In fact there was such a *pandemonium*, such a chirruping, such a *devilish uproar*, that if you didn't stuff your ears with cotton wool, you'd go deaf. (Collodi 127, emphasis mine)

In the Land of Toys, the children's activity is initially described as "rejoicing", representing for a scant moment the joy and happiness of childhood. However, after that single word, the presence and activity of children quickly devolves into "din", inviting (in the English translation) a reminder of "sin". Children's noise—in fact, the very existence of children outside of adult control—becomes a sensory evil, disrupting both physical and cognitive processes. The children's infernal racket, created by a litany of games and laughter, represents conceptual childhood itself, just as the village of the Busy Bees, where "everyone was working, everyone had something to do" (Collodi 86) stands for responsible adulthood. Children, childhood and childish things are all badly maligned within the text, even when they are not trying to infringe upon the adult sphere, simply for being different from adulthood. Thus children are doubly caught by their own state: they are punished for trying to become adults, and they are ridiculed for existing in their natural state as children.

The subjugation of the child and childhood in *The Adventures of Pinocchio* extends past *allegorical* considerations related to Pinocchio's character development into *material* considerations of the physical child, both as it is depicted in the text and in reference to the presumed (material and real) child reader. Although this analysis focuses on the conceptual child, it also follows Thompson's suggestion that considerations of the conceptual can prioritize the conceptual while remaining "involved in issues that exercise the practical" (356). A text such as *The Adventures of Pinocchio*, which features a child made of wood, whose apparent and final redemption occurs at the moment in which he transforms into flesh and blood, offers much to consider regarding the role that the material/physical plays in said redemption. Returning to Panszczyk, she describes Pinocchio's "liminal" nature, "between being an inanimate object and a living subject", as "the articulation of an uncanny bildungsroman…experienced through an intangible material rather than human development" (44). In an aetonormative reading, the text's blurring of the line between wooden puppet and human child not only creates an uncanny effect as described by Panszczyk but also underscores its pro-adult, anti-child power structure. Maestro Cherry, who first discovers the piece of wood that becomes Pinocchio by hearing "a little, tiny voice saying pleadingly 'Don't hit me too hard!'" acts surprised at the idea that "this piece of wood…has learned to cry and complain like a child" (Collodi 1–2). We can take the imbrication of the conceptual child with a piece of wood as an aetonormative identification the conceptual child as a commodity first and a child second. This initial assignment of the material—that is, of the usable and profitable—as the child's highest telos cycles throughout Pinocchio's narrative, from Old Joe's initial desire to carve "a fine wooden puppet" that will earn him "a crust and a glass of wine" (Collodi 4) to Pinocchio's metamorphosis out of his wooden body and into a human one by dint of hard work. Humanity is described by Old Joe as a state that emerges "when naughty children become good" (Collodi 169), but the text's emphasis on the child's

value as a worker, shown as Pinocchio redeems himself through farm and trade work, indicates that Pinocchio's human body is only a vehicle to further embed himself within an aetonormative system. Panszczyk claims that Pinocchio "only became human when he…becomes a cog in the machinery of labor and commodification" (200), but a close reading reveals that the desires and needs of the immediate adult figures in the plot—Old Joe and the Blue Fairy—are the final test for Pinocchio's transformation:

> "Well done, Pinocchio! On account of your kind heart, I forgive you all the pranks that you have played before now. Children who lovingly help their parents in their hardship and infirmity always deserve great praise and great affection, even if they cannot be cited as models of obedience and good behaviour. Be sensible in the future and you will be happy." (Collodi 167–68)

The Blue Fairy's final warning to Pinocchio to "be sensible" indicates a preference for a specific, aetonormative approach to rationality as the highest measure of value, rather than pure workforce labor potential. She defines the highest value a child can have to be as a tool for parental support—through working and earning money, if necessary, but most importantly, through obedience to parental authority. The ultimate transaction of *Pinocchio* is not one of material labor for material goods, but emotional devotion on the part of the child in return for comfort on the part of the adult. The reward for completing this transaction is a shift in materiality that allows Pinocchio future access to the privileged state of adulthood.

The narrative aetonormativity present in the text, while more subtle than the aetonormativity enacted by many of the text's characters, complements the latter through "typical Collodian repetition" (Lucas, "Explanatory Notes" 174) of direct address to the story's presumed child audience. Returning to the moment of Cherry's discovery of Pinocchio, we note that Cherry's disbelief in Pinocchio's existence ("Could it be…? I can't

believe that") encourages the presumed child reader to affirm the wood's sentience, while simultaneously requiring her to affirm crying and complaining as defining characteristics of childhood. Indeed, from the narrative's outset, child readers are treated to moments intended to invite participation in the narrative only to undercut the position they are assumed to provide. In the first iteration of this, the children are wildly "mistaken" in their assumptions:

> Once upon a time there was…
>
> "A king!" my little readers will say straight away. No, children, you are mistaken.
>
> Once upon a time there was a piece of wood. (Collodi 1)

Previous analyses have focused on substitution of wood for king in this introduction to the tale (Cambon), but the mistakenness of children both precedes this substitution and remains a heavily utilized narratorial technique. The narrator repeatedly instructs the child reader to imagine the result of various scenes, but after the failure of their imagination in the original call-and-response, they are no longer granted a response, a limitation that heightens the device's imperative condescension. The relationship between the adult narrator and the assumed child reader requires the child first to be wrong, then to be silent, and finally to use their imagination precisely in the direction that the narrator prefers: by picturing the scene that the narrator immediately describes for them. In *Pinocchio*, all children are treated as puppets.

Pinocchio, Deconstructed

'Unfortunately, in a puppet's life, there are always buts, which spoil everything.'

The concluding line to one of *The Adventure of Pinocchio's* later chapters acts as a synecdochal moment of deconstruction of the text's aetonormative intentions. Aetonormatively, the 'buts' stand for the contrast between the impulses of childhood and the rigidity of adulthood, a contrast which 'spoils' the outcome of Pinocchio's enacted desires.

This reading of the 'buts', or disruptions, Pinocchio encounters echoes Amon-Ra's 'but' towards Thoth's offering of the *pharmakon,* aligning the disruptive ambiguity of *pharmakon* with the disruptions that Pinocchio both causes and faces as his character progresses through the narrative. Yet these disruptions can be taken another way. If the 'buts' spoil *everything*, then adulthood must be spoiled along with childhood by the same contrasts and contradictions that the former works so hard to resolve. If there are *always* 'buts,' then this spoilage is perpetual, regardless of adult direction or intercession. Power, in this equation, does not reside in the adult sphere, represented and enacted through adult narration and adult characters, but rather it resides in the 'buts' themselves, the contrast, the undecidability, of *pharmakon* and the posthumanist child.

The power of undecidability possessed by the posthumanist child disrupts the text's aetonormative structure most thoroughly at moments when aetonormativity tries to assert itself most aggressively. Old Joe and the Blue Fairy repeatedly try to resolve the tension inherent in Pinocchio's liminal body by redirecting it towards curative service to the parent's wishes and failings—attending to the *cure* inherent in *pharmakon*, while simultaneously trying to ignore and/or eradicate the *poison* that is also inherent within the concept. Yet as much as these and other characters try to resolve this tension and 'cure' Pinocchio, they continuously *fail to do so*, throughout almost the entire narrative. This raises the question of where, specifically, the 'lack' that *pharmakon* seeks to replenish is located--in other words, who truly is at fault for Pinocchio's state, and subsequently, what is the specific nature of that fault? As much as *The Adventures of Pinocchio* presents readers with an 'uncanny bildungsroman' (Halacy 13), focused on the moral development of Pinocchio, the moral fault in question cannot belong solely to Pinocchio. As we have already observed, Pinocchio's true failing within the aetonormative structure of the text is his lack of service to the parent, not his intrinsic ignorance or laziness, for it is his service to Old Joe that ultimately redeems him,

rather than hard work, learning to read and write, or charitable giving. The moral fault/Derridean lack that *pharmakon* looks to fill, then, must lie within the parental figures, Old Joe and the Blue Fairy, and a close reading reveals that the fault in question is no less than death itself.

The adult characters who carry out an aetornormative mission to control and repress Pinocchio, analyzed above, also find themselves nearly dying, actually dying, and reincarnating multiple times throughout the narrative. Panszczyk attributes these near-deaths, deaths and resurrections to "divine intervention" (204) on behalf of "the Christian idea of spirit or soul" (206). From a chronotypical perspective, these deaths exist within *kairos*, a type of time in which deaths and resurrections are commonplace and even expected within a given narrative. However, Derrida suggests a different mythological framework that applies to *The Adventures of Pinocchio*, in which the presence of *pharmakon* stands for "the god of writing [who] must also be the god of death" (91). Old Joe creates Pinocchio to cure his own poverty, but Pinocchio as *pharmakon* is a harmful remedy: Old Joe is variously kicked in the nose, thrown in prison, and aged beyond his years with care and worry, ending up in "poor health" (Collodi 165) and confined to a wheelchair, all due to Pinocchio. Old Joe is, in fact, the only authoritative figure in Pinocchio's life that doesn't actually die (although Pinocchio believes he is dead several times, especially when he's swallowed by the "ferocious Shark" (Collodi 93)). The Talking Cricket, after he dispenses his aetonormative wisdom on Pinocchio's unwilling ears, is immediately killed for his troubles by Pinocchio himself:

"Poor Pinocchio! I feel really sorry for you!…"

"Why do you feel sorry for me?"

"Because you're a puppet, and, what's worse, because you've got a wooden head."

> At these last words, Pinocchio jumped up in a fury and, snatching a wooden
> mallet from the bench, hurled it at the Talking Cricket. Perhaps he never meant to
> hit him, but unluckily he caught him right on the head, so that the poor Cricket
> barely had breath for a '*Cree—cree—cree*' before he was stuck to the wall stone
> dead. (Collodi 13)

Far from the warm and bumbling relationship depicted between Disney's Jiminy Cricket and cherub-faced Pinocchio, Collodi's original Talking Cricket and sharply arboreal Pinocchio exist in a state of almost permanent mutual dislike, as evidenced by the Cricket's scathing pity targeted at Pinocchio's non-human identity and wooden form. This dislike manifests itself in the Cricket's attempt to control Pinocchio in the direction of human-oriented aetonormativity and results in Pinocchio's subsequent lethal attack with the mallet. The fact that Pinocchio "perhaps never meant to hit him" underscores Pinocchio's undecidability—the conceptual child is a volatile substance that can harm as much as it can cure. Yet when Pinocchio finds himself in need of food or shelter—physical requirements that transcend age—the Talking Cricket is magically summoned back into existence to provide assistance, either as a ghost or as an embodied insect once more. Pinocchio's material needs become the arbiter of life and death over the Talking Cricket and affect a similar level of control over the Blue Fairy. Unlike the Talking Cricket, the Blue Fairy first appears in the text already deceased:

> Then there appeared at the window a beautiful Little Girl, with indigo hair and a
> face as white as a wax image. Her eyes were closed and her hands were crossed over
> her breast and, without moving her lips, she said in a faint voice that seemed to come
> from the other world, "There is no one here. They are all dead."
>
> "Please open the door yourself!" Implored Pinocchio, weeping.

"I am dead too."

"Dead? So what are you doing up there at the window?"

"I'm waiting for the bier to come and take me away."

As soon as she had said this, the Little Girl vanished, and the window closed soundlessly. (Collodi 46)

In this scene, Pinocchio is begging for rescue from the pursuit of dangerous Assassins, who succeed in their attempt to hang Pinocchio shortly after he meets the Little Girl: "[Pinocchio] had no breath to say anything else. He closed his eyes, opened his mouth, straightened his legs and, giving a great suffer, hung there as if frozen stiff" (Collodi 48). After we learn of Pinocchio's supposed death, the narrative cuts to the Little Girl, who is revealed not only to be alive but also to be "really none other than a very good fairy, who had lived beside that wood for more than a thousand years" (Collodi 49) as if her living existence were willed into being by Pinocchio's need. For all three of these central aetonormative characters, Pinocchio's material requirements exert power over their status as either alive or dead—regardless of whether or not Pinocchio is behaving appropriately under an aetonormative power structure.

If we consider Pinocchio as the conceptual child to be an iteration of *pharmakon*, his material existence as a wooden puppet paradoxically becomes, as Derrida describes, the substitution of "the breathless sign for the living voice" (92). Derrida here is referring to writing as 'the breathless sign', which itself is another iteration of *pharmakon*, and it supports this analysis to suggest that, as a work of writing, all of *The Adventures of Pinocchio* ultimately supports the unresolvable power of *pharmakon* over anything as structured and staid as aetonormativity. More specifically, however, 'the breathless sign' in *The Adventures of Pinocchio* is Pinocchio himself, a 'breathless' wooden puppet who defies death even when

hanged by the neck from a tree. As an immortal wooden puppet, Pinocchio acts as a substitute—a Derridean supplement—for a mortal human boy, and by extension, for the broad mortality of the human species. Pinocchio himself *cannot* die; instead, his wooden existence *heralds* death and salvation in equal measures for the narrative's adult figures. Even when Pinocchio is incredibly ill and the presence of death itself, in the form of "four rabbits as black as ink, carrying on their shoulders a small coffin" (Collodi 54) persuades him to take the bitter curative medicine that the Blue Fairy offers, the medicine itself functions only as a stand-in for obedience and service to the adult, not a substance with actual curative effect; as the narrator describes immediately thereafter, "a few minutes later Pinocchio jumped out of bed thoroughly well again. For, you see, wooden puppets have the privilege of falling ill rarely and of getting better speedily" (Collodi 55–56). Pinocchio supplements—in the sense of amplifies—the adults' need for control, while consistently being beyond that control. As *pharmakon*, Pinocchio's wooden body provides the "very possibility" of oppositions—between mortality and immortality, obedience and rebellion, humanity and artificial, wooden intelligence—"without [being] comprehended by them" (Derrida 103).

Given the power invested within his *wooden* body, Pinocchio's transformation into a *human* boy might at first seem to represent a fixed resolution to the undecidability of *pharmakon* and the conceptual child within the text, but a closer examination will reveal that Pinocchio's transformation actually confirms the power inherent in the conceptual child while simultaneously preserving its undecidability. Having dreamt of one final aetonormative message of obedience from the Blue Fairy, Pinocchio awakens to his new existence as a human boy: "Now you must imagine for yourselves how amazed he was when, on waking, he realized that he was no longer a wooden puppet, but that instead he had become a boy like all the others" (Collodi 168). This late return of the adult narrator's voice may initially seem like an attempt to remove any potential amazement from Pinocchio's own experience, suggesting

that the feeling instead be located within the implied child reader; however, by confusing the location of feeling in this particular instance, the adult narrator is preserving the sense that Pinocchio's undecidability as the conceptual child has in fact moved beyond Pinocchio's own material existence into that of the implied child reader. In other words, Pinocchio's transformation into a human, rather than limit his power as a *pharmakon,* as a conceptual child, actually works to *extend* that power towards all potential children reading the story. Other elements of Pinocchio's power become infused into his environment, as his transformation results in his non-human materiality becoming immediately externalized into other types of material objects. Rather than immediately examining his new body, Pinocchio notices that "instead of the old straw walls of the hut, he saw a lovely bedroom furnished and decorated with an elegant simplicity" and "a fine set of new clothes, a new cap and a pair of leather boots" (ibid.). It's as if the power possessed by Pinocchio throughout the bulk of the narrative has been infused into the house and his clothing, and via that infusion, has improved the objects' quality. His power—the power of the conceptual child—has extended into his immediate and intermediate material surroundings. Even Old Joe has been granted the undecidable, curative power of the conceptual child, as we see him "in good health, sprightly and good-humoured, just as he once had been" (Collodi 168–69). Rather than representing a draining of power from Pinocchio into his surroundings, this scene can instead be read as the power Pinocchio possesses being multiplied and enhanced throughout his material environment. This power includes a preservation of the uncertainty inherent in *pharmakon*/the conceptual child, as demonstrated through Pinocchio's first self-originated emotional interaction to his new circumstances: "Amidst all these marvels which followed one upon the other, Pinocchio himself did not know whether he was truly awake or still dreaming with his eyes open" (ibid.) . The reality of the scene in which he finds himself remains uncertain, with no way to determine if Pinocchio's good fortune is a dream or his

waking reality; the ontological confusion and indeterminate nature implied by *pharmakon* persists through our only example of Pinocchio's inner thoughts in the entire finale.

The breadth of Pinocchio's changes, including his transformation into a human, are commonly attributed to the power of the Blue Fairy but are actually enacted by the power of *pharmakon* itself. The text's translator supports the common assumption that the Fairy's power is what engenders his transformation and therefore his 'redemption' within an aetonormative framework. She notes in the final chapter's footnotes that by the time Pinocchio has transformed, "the Fairy does not need to return here: her work is done. Like Virgil with Dante in the Earthly Paradise, she vanishes when no longer useful" (Collodi 188). However, the only sign that the Blue Fairy is responsible for Pinocchio's transformation is her statement of forgiveness of Pinocchio for "all the pranks that [he has] played" (Collodi 167)—she does not wave a wand or otherwise overtly cause him to change into a human boy. Neither is her forgiveness here unique; she has forgiven him several times prior to this moment, with no accompanying transformations, so it is reasonable to assume that the forgiveness itself is *not* responsible for Pinocchio's transformation. The text briefly seems to imply that Pinocchio has merely been paid off for his good behavior; having tempted Pinocchio into enacting complete obedience with promises of adult power, "the Fairy with indigo hair herein returns the forty shillings to her dear Pinocchio and thanks him so much for his kindness" (Collodi 168). However, the extension of Pinocchio's *pharmakon*-granted powers affects even this reward, transforming the shillings into "forty gold florins, all newly minted" (ibid.). We can therefore draw the conclusion that Pinocchio's own desires, which must by definition be childish desires, because he himself remains a young and childlike figure, are the impetus that leads to the extension of his *pharmakon*-granted power past his wooden body and into his entire material sphere.

With his transformation into a human boy, Pinocchio also, initially, appears to lose the *material* liminality associated strictly with his wooden form, which may reasonably be thought of as the origin of the undecidable power of *pharmakon*. Yet the ending can be read another way, in which the transformation of Pinocchio into a "proper boy" (Collodi 170), far from resolving his material liminality, instead perpetuates it. Enrico Mazzanti's final illustration of the story is not of Pinocchio looking at himself in the mirror, "the handsome reflection of an intelligent and lively young boy" (Collodi 168). The illustrator declines the opportunity to depict Pinocchio looking at himself as a newly human figure, what Donna Haraway might describe as "the sacred image of the Same" ("Promises" 67) that reinforces humanist hegemonies (including aetonormativity). Instead, this final image depicts one of the human Pinocchio looking at the old, wooden Pinocchio: "There he is," replied Joe, and pointed out a big puppet leaning on a chair, his head turned one way, his arms dangling loose, his legs crossed over and bent in the middle, so that it seemed a miracle that he was still standing (Collodi 169–70). Two things subvert the apparent aetonormativity of Pinocchio's transformation in this final scene. The first is the illustration itself, which reverses and destabilizes Michelangelo's *Creation of Adam*; where the original painting has both Adam and God reaching to each other, balanced in power and desire, the illustration here shows a youth pointing to a puppet with "arms dangling loose".

Figure 1: Untitled Illustration by Enrico
Mazzanti, 1892. Public Domain.
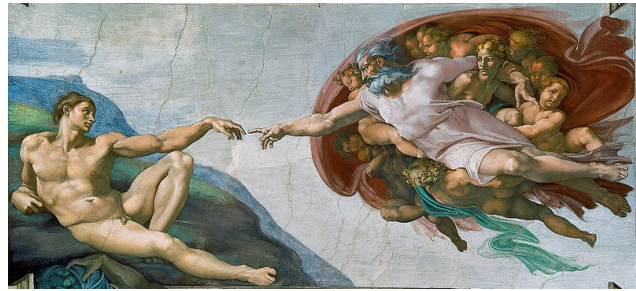
Figure 2: *The Creation of Adam* by Michelangelo, 1511.
Public Domain.

If we take the illustration in light of the painting, which positions God on the right and Adam

on the left, then the aetonormative power structure rapidly disintegrates; although the human

youth is on the right, in the position of God with finger outstretched, the power lies in the

refusal of the puppet on the left, its hands behind its back, head turned aside, unwilling to

engage. As Jaques observes, "there is a strange sense that it is the 'real boy', rather than the

wooden toy, whose agency is subverted by unseen strings pulled offstage" (219). The

puppet's role is still that of a 'miracle'; the wooden form retains that which the adults have

been unable to control. The second point of subversion lies in a reading of the illustration

through the text describing it. The story describes Old Joe as the character who points at the

puppet, yet the illustration clearly shows a figure younger than an adult, with a rounded face

and clothing typical of a child. Is it the human Pinocchio being depicted, or is it Joe, who in

this final moment is no longer 'Old'? Either way, in these final moments of the text,

adulthood and its attendant aetonormative authority has been spoiled; it is no longer certain,

no longer distinguishable from youth. The undecidability of the conceptual child persists, and

the curative service of the child has served only to increase the presence of undecidable

childhood, diffracting through the material lens of the 'miraculous' wooden puppet.

No Conclusion: Unending Play

There can be no conclusion to the undecidability of the conceptual child, who I choose to call the posthuman*ist* child. Aetonormative readings of texts like *The Adventures of Pinocchio* may persist, but the posthumanist child, as *pharmakon*, "authorize[s], even prescribe[s]" (Derrida 127) for us to play with aetonormativity, to tweak its nose, to re-center children's literature on this indescribable power of child itself. When we understand children's literature as unending play, the conceptual child can avoid hypostatization while "remain[ing] involved in issues that exercise the practical" (Thomson 356). Collodi tried to finish the story of Pinocchio by hanging him from an oak tree, but "the paper was besieged by children writing to ask for the story to be continued" (Lucas 179), and so the story was continued. Pinocchio has continued to continue, and not because he becomes a real boy in the end, either. As Glauco Cambon observes: "…what a delight it had been to follow Pinocchio's vagaries…! Life certainly would have been dull for him and for the readers if he had been tame from the start…" (54–55). In a summative (but not final) accounting of the posthumanist child, who in this instance is Pinocchio, he stands for *pharmakon*, which stands for the entire apparatus of children's literature, which adults continually try to reduce to its didactic, 'curative' elements and which survives because of its enticing, delighting, addictive, dangerous possibilities. After all, "there is no such thing as a harmless remedy. The *pharmakon* can never be simply beneficial" (Derrida 99). Children inevitably predict and spring from the demise of adults. In other words, a purely aetonormative take on a work of children's literature like *The Adventures of Pinocchio*, done out of an instinct to hypostatize the child, will miss the point, will miss an opportunity to think through the complexities offered by the story, will miss the possibilities—which are realities—of the *pharmakon* in favor of generating impossibilities, which perpetually undermine themselves.

Playing with the Trouble: Children and the Chthulucene in Nnedi Okorafor's The Nsibidi Scripts *Series*

Photo of Nsibidi symbol removed for copyright reasons. Copyright holder is Nnedi Okorafor.
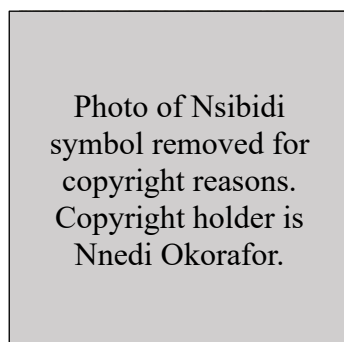
Figure 3: Nnedi Okorafor, Nsibidi for "Journey", 2022

The second chapter of this thesis follows the posthumanist child on a journey through Anthropocenic troubles. As Okorafor's rendering of the Nsibidi, or traditional script, of the word 'journey' suggests, the posthumanist child's journey through trouble is not straightforward. (I will remind my readers here that, like a spiraling journey, these chapters could, in theory, be read in any particular order, as there is no strict sequential logic to my exploration of diffraction, materiality, and the posthumanist child throughout each of them.) The posthumanist child—or, as we will see, children—at the heart of this iteration of my investigation are, like Pinocchio, responsible for diffracting against adult power structures and assumptions of knowledge, including the assumptions put forward by posthumanist theorists. Instead of doing so through means of an alternative materiality (which we will see again when we turn to Marie Lu's *Warcross* duology and Pixar's *Toy Story* franchise), the child protagonists of Nnedi Okorafor's 'The Nsibidi Scripts' series, three books titled *Akaka Witch, Akaka Warrior,* and *Akaka Woman,* (Okorafor, *AWT*; Okorafor, *AWR*; Okorafor, *AWM*) engage in diffractive interference with Donna Haraway's concept of 'staying with the

trouble' through the fantasy elements of their story. As this chapter elaborates, these children can be understood as 'posthumanist' through the way in which their childhood combined with the texts' fantasy genre elements shifts our understanding of 'staying with the trouble' of environmental catastrophe, most closely understood in the text and in real life as climate change, towards a more joyful and sustainable approach of 'playing with the trouble' instead. I will begin with a review of the literary/environmental terrain that acts as a backdrop for this chapter (and, to an extent, to the last chapter of this thesis, on *Toy Story* and plastic pollution): the geologic concept of the Anthropocene that comprises the basis for Haraway's critical approach of staying with the trouble. Having set the environmental stage, I will then examine the ways in which children problematically interfere with this 'staying' even in Haraway's own words, continuing on to examining their greater interference in the Nsibidi Script series. Overall, this chapter will define the continued relevance of the posthumanist child to interfere productively with our understanding of adult-driven theories.

Nature, conceptualized as a "separate and wild province" (McKibben 48) from contemporary, developed 'civilization', has more or less gone extinct. Paul J. Crutzen invented the term 'Anthropocene' in 2002 as a replacement for the term 'Holocene,' science's traditional name for our geological era, to describe an epoch in which "humans and our societies have become a global geophysical force" (Steffen et al. 614). Renaming the Holocene, far from being pedantic, conveys the nearly incomprehensible scale of the environmental problem we have created for ourselves. Even more so than 'global warming' or 'climate change', the term 'Anthropocene' implies geological scale on the order of tens and hundreds of millions of years, caused by a population scale of billions. Although public grasp of the problem is slow, for reasons that will be discussed shortly, the Anthropocene is undeniable, while also being deeply unfathomable.

At first pass, it seems as though a literary approach to the Anthropocene would function by reversing our past approaches to nature. Yet because of the question of scale, our literary grasp of the Anthropocene remains complicated. Identifying what *not* to do does not equate to identifying what *to* do, creatively speaking. As Adam Trexler and Adeline Johns-Putra describe:

> …climate change is as culturally as it is scientifically complex. It possesses an immensity of scale both spatially (as a global event) and temporally (as an unprecedented crisis in human history). It is marked by a necessary degree of scientific imprecision about the extent and speed of climate change, met by public confusion, controversy and scepticism[…] Its solutions require network and negotiation, not magic bullets nor heroes. (2)

As these authors observe, popular representations of the Anthropocene have failed to represent accurately within the limited boundaries of a 'man vs. _____' model of conflict. Put another way, the Anthropocene has been *created by* an unthinking adherence to those boundaries; any cultural response *to* it must question those boundaries and other aspects of traditional narrative that might reinforce destructive, human-centered mindsets. Thus far, fictional narrative responses to the Anthropocene have failed on this point, instead showcasing representations of conflict on a human timescale that often feature magic bullets and instant heroes unsuited for the "slow violence" (Nixon 2) of climate change. Nixon frames the problem thus:

> In an age when the media venerate the spectacular[…] the central question is strategic and representational: how can we convert into image and narrative the disasters that are slow-moving and long in the making, disasters that are anonymous and that star nobody, disasters that are attritional and of indifferent interest to the sensation-driven technologies of our image-world? (3)

In this chapter, I seek to respond to this question by considering the intersection of fantasy literature for young people, in particular The Nsibidi Scripts series and *Staying with the Trouble: Making Kin in the Chthulucene* (2016), a theoretical work by posthumanist scholar Donna Haraway in which she seeks to redefine humanity "not as a vanishing pivot between awful or edenic pasts and apocalyptic or salvific futures, but as mortal critters entwined in myriad unfinished configurations of places, times, matters, meanings" (*Trouble* 1). In diffracting these two texts against and through each other (and in echo of genre considerations in chapters one and four of this thesis) I turn to the lens of genre here—specifically, to the lens of the fantasy genre—as a means through which we can understand both the posthumanist qualities of Okorafor's posthumanist children and the ways in which they productively interfere with adult norms. The relevance of Haraway's posthumanist theories in tackling the problems of 21st century humanity has long been established (e.g. Haraway, "Cyborgs"; Haraway, "Promises"; Haraway, *Modest_Witness*); conversely, fantasy literature often gets left out in discussions of the literature and literary criticism of posthumanist issues like climate change and artificial intelligence (unlike its more popular sister-genre, science fiction). In their review of the literature and literary criticism of climate change, Trexler and Johns-Putra acknowledge that producing better written representations of the Anthropocene "may require a shift in emphasis from literary fiction to genre fiction" (1), but they limit their evaluation of that shift to a focus on science fiction. Literature for young people of any genre has also been largely ignored in discussions of climate change literature and its criticism, with some notable exceptions (e.g. Ford); Trexler and Johns-Putra's review contains a corpus composed primarily of texts for adults, considering only two young adult science fiction texts without directly commenting on their status as young adult texts.

By performing a diffractive reading of Okorafor's The Nsibidi Scripts series and Haraway's *Staying with the Trouble*, I aim to incorporate fantasy literature for young people

into a more effective and deeply necessary understanding of humanity's relationship with nature. I argue that just as Haraway usefully reinterprets the Anthropocene as Chthulucene, so too do the books of The Nsibidi Scripts series usefully reinterpret Haraway's call to 'Make Kin, Not Babies' in a way that does not harmfully exclude the child from conversations about the future. In developing this incorporation, I draw upon the work of a number of theorists who have discussed speculative fiction's approach to other types of 'slow violence', including that enacted by the patriarchy and by white Western colonialism. Although this chapter is not strictly focused on questions of gender or race, the specter of destruction raised by the Anthropocene/Chthulucene is inseparable—as Haraway would say, "entangled" (*Trouble* 4)—from a legacy of destructive choices and behaviors enacted by the white West in our relationship with the rest of the world. Overall, I argue that Okorafor's reimagining of conflict, nature, and humanity's role as residents of planet Earth through the adventures of Sunny and her friends suggests a version of humanity that exists neither as a "vanishing pivot" between past and future, nor as a passé fantasy hero wielding a sword, but rather as a species that gains its best strengths from its youngest members.

Parallel Troubles: Deconstructing Western Fantasy, Deconstructing the Anthropocene

In several senses, the use of fantasy literature to generate new ways of thinking and being with the Anthropocene seems fantastical. As the Trexler and Johns-Putra review makes clear, authors and readers commonly put science fiction to work towards this goal, rather than fantasy. In their introduction to *Children's Fantasy Literature,* Michael Levy and Farah Mendlesohn concisely describe the widely agreed-upon separation between the two genres when they note that "the fantastic is the realization of the impossible (distinguishing it from science fiction which attempts to realize a possible)" (3). How can we use something which glorifies the impossible to improve our understanding of and relationship with an epoch such

as the Anthropocene that, despite being daunting in scale and impact, is quite undeniably real? The answer lies in a closer look at the way in which the fantasy genre reveals the limitations of the Western, Anglophone biases from which it springs. In that same introduction, Levy and Mendlesohn describe the genesis of fantasy literature as it intersects with children's literature as "a story of separate but overlapping traditions, that of the British Empire and later the Commonwealth, and that of the United States and eventually North America, and of European traditions that have influenced both" (1). This description harkens back to Brian Attebery's description of genres as "'fuzzy sets,' meaning that they are defined not by boundaries but by a center" (12). Both accounts gesture towards a broader definition of fantasy but ultimately define that 'center' as a Western one, citing both Western fiction and Western criticism almost exclusively. Even so introductory a text as the *Cambridge Companion to Fantasy Literature* introduces the fantasy genre as

> not so much a mansion as a row of terraced houses, such as the one that entranced us in C. S. Lewis's *The Magician's Nephew* with its connecting attics, each with a door that leads into another world. There are shared walls, and a certain level of consensus around the basic bricks, but the internal decor can differ wildly, and the lives lived in these terraced houses are discrete yet overheard. (Levy and Mendlesohn 1).

These metaphors, while likely reading as accurate for many Western readers, are circumscribed by their absolute Anglocentricity. The cultural hierarchy of fantasy literature is clear: fantasy, as mainstream critics understand it today, is broadly European, more specifically English-language, and most specifically of the British Isles, the only English-language region where the concept of 'terraced houses' would be commonly recognized.

This chapter will not be able to investigate works of non-English fantasy, due to my own linguistic limitations. However, one does not need to venture into other languages to realize that the Western lens through which we commonly view the fantasy genre, like many

other iterations of cultural Western lenses, must be critically interrogated in contemporary

conversations about cultural production. The conceptual shifts required of a

deconstruction/decolonization of fantasy are reminiscent of those we are called upon to make

by the harsh realities of the Anthropocene. In his discussion of slow violence, Nixon notes

that the "turbo-capitalism" of the global North has created a "conjoined ecological and

human disposability…particularly (though not exclusively) across the so-called global South"

(4). Just as Western authors and critics of fantasy literature have often appropriated and

marginalized non-Western cultural inputs for their own benefit, so too have capitalists of the

global North exploited and disenfranchised people of the global South. Rectifying the former

problem is part of the long, messy, necessary process of rectifying the latter. For the purposes

of this chapter, I will be using the term "Western" to describe what others may describe as

the global North, as white, or as Anglocentric, while noting that none of these terms precisely

capture the dimensions of the cultural body in question or of the damage that has been caused

by it. The problem of having to scale our words to fit the relatively unscalable ideas connects

fantasy literature and the Anthropocene uniquely; a closer look at scholars who have pushed

against the traditional limitations of the former will point us in a direction for using it to

better understand the latter.

As a contributor to the cultural deconstruction of the fantasy genre, I must take some

time to address the terminology that I have used and will at times be using to describe the

cultural body from which much of the writing on the fantasy genre springs. Each of the terms

I've so far used—Western, white, Anglophone, Anglocentric, global North—has an origin in

a related yet different theoretical tradition, but all of them describe the contemporary result of

the same global phenomenon, beginning toughly five hundred years ago and continuing

through the present day, of European conquest, colonization, and cultural infiltration of most

other land masses on the globe. Trying to define and demarcate the details of what can be

broadly termed as race and ethnic studies, however, immediately presents a challenge (even that term, 'race and ethnic studies,' doesn't quite sit correctly from all perspectives). British scholars will be familiar with the terminology of postcolonialism, generated by thinkers such as Edward Said, Gayatri Spivak, Franz Fanon, and many more; North American scholars might be more familiar with critical race theory and its thinkers, including bell hooks, Derrick Bell, Kimberlé Williams Crenshaw, and Eduardo Bonilla-Silva, to name a few. However, attempts to create categories or hierarchies of postcolonial theory, critical race theory, or the counterparts/offshoots/evolutions of either is not only extremely difficult but also detrimental to the causes of these movements, which concern themselves with the lived, embodied experiences of oppressed peoples. I find Leela Ghandi's discussion of this aspect of postcolonial theory to be a useful approach:

> Postcolonial thinking is made up of heterogeneous elements with no internal hierarchies of genre (such as representation/event, semiotic/material, or even theory/practice). What we have instead is relations between symmetrical figures in the forum. …There are many names for this type of formation: assemblage, apparatus, network, ensemble, and, more recently, affordance—which describes the interactive totality of subject and object, thought and thing, in any effective design. (177–78)

The words I have been using to describe the commonly circumscribed limits of the fantasy genre function as a distinct collection, with each discrete word representing a different meaning, history, and cultural context but all indicating the same damaging limitations. Although the terms themselves are problematic—what does 'white' mean? What does 'Western' mean? What about non-Anglophone Europeans?—their function, as an assemblage together and within this chapter, is to elucidate the harmful cultural restrictions commonly placed on works of fantasy literature in historical and contemporary critical discourse.

I will also be drawing on theorists working in both postcolonial and critical race traditions (while noting that these are not the only traditions that respond to the harm caused by white Western culture) in arguing that our understanding of fantasy, like many other Western cultural understandings, must move beyond its previously Anglocentric circumscription. Only by engaging with theories of the fantastic that critique and move beyond Western prejudice can we understand fantasy as illuminating a way forward into an Anthropocene future, as a tool for making a difference.

Ebony Elizabeth Thomas's recent publication *The Dark Fantastic: Race and the Imagination from Harry Potter to the Hunger Games* highlights in sharp detail the precise way in which Western fantasy, as a multimedia industry, has not only failed to question hegemonic norms but has also, quite intentionally, reinforced those norms at every turn. I consider her analysis now as a stark reminder of the material urgency of deconstructing fantasy in the face of slow and unnoticeable violence. For Thomas, the slow violence that Western fantasy has helped to foster is that of systemic racism, in her case within the United States, magnified in the twenty-first century by what media studies scholar Henry Jenkins refers to as convergence culture (2006) a term naming the ocean of social and digital media that all of us, including young people, find ourselves swimming in daily. Through convergence culture, young people are more involved than ever in the "shaping [of our] collective consciousness" (Thomas 3). Thomas goes on to argue that convergence culture has magnified the cultural elements of systemic racism even as it has promoted a proliferation of cultural production:

> Although a sense of the infinite possibilities inherent in fantasy, science fiction, comics, and other imaginative genres draws children, teens, and adults from all backgrounds to speculative fiction, not all people are equally represented in these

genres. This problem of representation has created discord in the collective imagination. (3–4)

Just as the mounting environmental and economic consequences of the Anthropocene have generated a responsive urgency, so too have the pressures of convergence culture heightened the need to address what Thomas has dubbed "the imagination gap" (6). Comparable to its more well-known cousin, the academic achievement gap, the imagination gap is a phenomenon caused by "a massive failure of the collective [adult] imagination" which has led to a "lack of diversity in childhood and teen life depicted in books, television, and films," (ibid.) which subsequently leads to a constricted development of young imaginations.

Taken as a parallel analysis of fantasy's shortcomings in the face of systemic violence and destruction, Thomas's approach to the dark fantastic differs in methodology from my own diffractive approach while offering a necessary supplement to the shortcomings inherent in posthumanist approaches such as diffractive readings. Thomas draws on critical race theory and its method of counterstorytelling to make evident the dark fantastic that exists within many mainstream multimedia fantasy narratives, including *Harry Potter*, *The Hunger Games*, and *The Vampire Diaries*. Counterstorytelling bears similarities to diffractive readings, which I have described elsewhere in this thesis and to which I will return in a later section of this chapter. However, counterstorytelling ultimately functions as a deeply *humanist* approach, concerned with the crucial work of re-centering the narrative perspective of one facet of humanity in response to the pervasive and perpetual atrocities of another facet. Diffraction, on the other hand, functions as an optical epistemological metaphor that seeks to challenge the self-perpetuating epistemology of the mirror; far from being particularly human-focused, diffraction has most commonly been used to bridge the gap between the human and the non-human. Yet if posthumanist theorists (the vast majority of whom, I note,

are white Westerners) are to engage successfully in "the practice of accounting for the boundary-making practices by which the 'human' and its others are differentially delineated and defined" (Barad, *Meeting* 136), they must acknowledge and 'account for' the Western, colonized view of the 'human' that undergirds their theories. As Michalinos Zembylas observes, "posthumanist perspectives are not enough by themselves […but] together, posthuman and decolonial perspectives can be more effective" (264). I will return to Thomas's work in my description of diffraction as I apply it to The Nsibidi Script series, using her insights to supplement the shortcomings of posthumanist theories of humanity and difference.

Other scholars have already begun contributing to the work of expanding our understanding of the fantasy genre as a tool for unlearning hegemonic patterns and living better in the Anthropocene. Although her discussion focuses particularly on science fiction, Ursula K. Le Guin provides us with an early voice of guidance and direction with her essay, 'Carrier Bag Theory of Fiction', that can equally apply to works of fantasy, and more importantly that has great application for approaching literature in light of the Anthropocene. Le Guin condemns the common aspects of narrative that are so difficult to translate into Anthropocenic plot points from her own vantage point:

> It is hard to tell a really gripping tale of how I wrested a wild-oat seed from its husk, and then another, and then another, and then another, and then another[…]No, it does not compare, it cannot compete with how I thrust my spear deep into the titanic hairy flank while Oob, impaled on one huge sweeping tusk, writhed screaming, and blood spouted everywhere in crimson torrents[…] ("The Carrier Bag Theory of Fiction" 165–66)

As Le Guin notes, the story of Oob "not only has Action, it has a Hero" (166). These two elements combine to create a fast-paced, gripping narrative form that has entertained us for

centuries but does not accurately characterize the pace of disaster caused by, for example, fractional changes in ocean temperature over the course of decades. Le Guin's repetitive tale of oat harvesting is, on the surface, far less captivating but far more accurate for depicting climate change and its effects. Although she talks about science fiction, the mythic origins from which she builds her theory of carrier-bag fiction, of "the life story" instead of "the killer story", indicate that such an approach transcends genre:

> So, when I came to write science-fiction novels, I came lugging this great heavy sack of stuff[…]I said it was hard to make a gripping tale of how we wrested the wild oats from their husks, I didn't say it was impossible. Who ever said writing a novel was easy? (169)

With that rejoinder, Le Guin takes authors to task for shying away from adapting their writing strategies for a new era. The damage she describes as reinforced by 'the killer story' is less environmental and more techno-militant, but the argument applies just as well to our relationship with the environment. Texts do not have to worship at the altars of Action and Violence in order to be gripping; instead, they can focus on tricks, snares, delusions, loss, failure, and lack of understanding, regardless of which generic aspects they contain.

Le Guin's approach to combating the literary cousin of the capitalist drive that has created the conditions of the Anthropocene is distinctly feminist. She derives her 'carrier bag' theory directly from Elizabeth Fisher's *Women's Creation*, a feminist revision of the history of human evolution published in 1979, at the height of the women's liberation movement. Although the era's second-wave feminism—Le Guin's work included—levelled essential critiques against patriarchal narratives, it has been widely criticized for its homogenous character and membership, having become known as a white middle-class woman's movement. Audre Lorde summarizes the problems with second-wave feminism succinctly:

By and large within the women's movement today, white women focus upon their oppression as women and ignore differences of race, sexual preference, class, and age. There is a pretense to a homogeneity of experience covered by the word sisterhood that does not in fact exist. (289)

The homogeneity that Lorde notes can be seen, subtly, in Le Guin's characterization of her 'life story'; her anthropological take on fictional Oob and Ood convey a distinct race-blindness that characterizes the essentialism of second-wave feminism. These drawbacks persist in the later iterations of feminist scholarship seen by Haraway and Barad, both of whom identify as feminist scholars in addition to their writings on posthumanism.

Contemporary feminists have worked to move beyond the flaws and shortcomings of second-wave feminism by incorporating intersectionality into mainstream feminist discourse, and this work has extended into critical approaches to fantasy literature. Since the second half of the twentieth century, writers have noted fantasy literature's racist and colonialist tendencies (see e.g. Hopkinson et al.; Delany; Lavender; Leonard); more recently, scholars Ebony Elizabeth Thomas and Nnedi Okorafor, who is also the author of The Nsibidi Scripts series, have contributed critical perspectives on the problematic narrative choices made by Western fantasy and provided insight as to how writers can subvert and respond to these choices. Okorafor comments critically on the importance of works by writers of color in the fantasy genre. She notes that "Works by writers of colour are critically engaged directly and indirectly with challenging the hegemonic givens of the field, and, furthermore, many of these authors are consciously addressing their own experiences of reading the fantastic as a reader of colour" ("Writers of Colour" 188), highlighting that texts by writers of color not only increase representation and intersectionality in the fantasy genre but also destabilize 'hegemonic givens', including, I argue, those hegemonic givens that might contribute to the 'killer story' identified by Le Guin. These are, of course, the same hegemonic assumptions

that prevent us from successfully grappling with the Anthropocene via fiction. Okorafor extends her evaluation of fantasy's norm-challenging ability to all literature, generic or otherwise, indicating that fiction has the potential to promote the kind of critical thinking necessary for living with the Anthropocene (among other socio-political projects):

> Good fiction allows for easy suspension of belief. This can be used to help readers escape reality. It can also be used to help them understand abstract or difficult ideas. Such fiction can remind people of what they have lost and encourage them to go beyond what they have dreamed. I call this type of fiction 'Big Bang literature', for just as the Big Bang was a violent act that produced the universe and hence ultimately life, so these stories enact pain to produce an evolution of ideas. ("Writers of Colour" 181)

Like Le Guin, Okorafor suggests that an anti-heroic approach to narrative is more productive than the same-old, time-worn heroic approach. Her concept of 'Big Bang literature' seems to juxtapose sharply with the 'another, and another, and another' of Le Guin's quietly repetitive 'life story', not least because 'Big Bang literature' places value on the violence and pain of explosive action as an instructive tool. Yet, a closer analysis shows that these two theories of telling stories in the Anthropocene complement each other, rather than cancelling each other out. In Le Guin's model, the (male) Hero enacts violence on his prey, and his sidekick is killed in the crossfire of that violence. In Okorafor's model, violence does not stem from an unaffected hero, but rather from the environment itself, in such a way that all, including the source, experience the pain of that violence. The 'killer story' does not enact pain on the reader, but rather allows the reader to vicariously enact pain through the Hero; 'Big Bang literature', on the other hand, confronts the reader with an explosive pain felt throughout the fabric of the story, in order to immerse the reader in the lessons of that pain. This version of violence and pain appears to be exactly the kind of violence and pain that would be

experienced in a story characterized by, as Le Guin put it, "far more tricks than conflicts, far fewer triumphs than snares and delusions; full of space ships that get stuck, missions that fail, and people who don't understand" (169). In both models, the reader's relationship with pain shifts from entertaining to instructive, from vicarious to personal. It is this type of shift that we must look for in fantasy narratives in order to find new ways to productively realize and stay with the trouble of the Anthropocene.

A shift away from vicarious *enactment* of pain towards the *instructive* experience of pain within a fantasy narrative elides cleanly with the common goal of didacticism in literature for young adults. I want to pause for a moment and discuss the particular utility of young adult fantasy literature—as opposed to fantasy literature for younger children, or even for adults—when it comes to dealing with the Anthropocene. (I will also be addressing the particular value of young adult literature in my next chapter, which focuses on Marie Lu's *Warcross* duology for young adults; much of what I say here also applies there.) Young adult fantasy's usefulness in the face of Anthropocentric challenges arises from the liminality of its intended audience age bracket. The phrases 'young adult,' 'teen' and 'adolescent' demarcate a biologically and socially volatile time in the human lifespan. Hilton and Nikolajeva argue that regardless of the development of real adolescents, authors use the construction of adolescents in young adult fiction as "a focus for adult anxiety" (1)—not only adult anxiety about teenagers themselves, whose newfound capacity for choice and independence poses a threat to adult supremacy, but also adult anxiety about "different forms of cultural alienation…the legacy of colonialism, political injustice, environmental desecration, sexual stereotyping, consumerism, madness, and death" (ibid.). The relative closeness of teens to adulthood provides justification for the inclusion of a wider range of topics deemed 'appropriate' in young adult fiction as opposed to fiction for younger children, including (but not limited to) the significant threat of ecological disaster and extinction heralded by the

Anthropocene. In the tumultuousness of adolescence, I argue, we find a potent literary combination of authentic hope in the face of equally authentic destruction that has much to teach us about Anthropocentric presents and futures.

Generically speaking, young adult *fantasy* (as opposed to young adult fiction as a whole) joins the rest of fantasy literature in being currently underutilized for the purpose of dealing with the Anthropocene. However, the liminality of young adult fantasy also extends more literally to the real audience of young adult texts. Between 2014 and 2017, juvenile fantasy fiction not only became the highest-grossing juvenile category of literature, it also outpaced adult fantasy and science-fiction sales four to one (on the order of fifty-two million units sold, compared to adult fantasy and science fiction's twelve million) (Wilkins 1). This is the effect of convergence culture as defined by Jenkins and observed by Thomas in connection to young adult fantasy: the genre's vast and varied readership holds the possibility of significant social awareness across age groups (to say nothing of its tangible financial impact).

Despite these unique, age-defying features—or, perhaps adding another level of complexity to them—young adult fantasy remains literature produced for individuals broadly defined as 'children', at least in several key material and discursive ways. The expansion of childhood to include adolescence has been a slow but steady feature of the industrial era (Hilton and Nikolajeva 6–7), generated by, among other factors, the extension of society's definition of 'school-age' to include older and older children. Teenagers, like younger children, require instruction, and the adult urge towards didacticism persists throughout young adult literature, including young adult fantasy. As Roberta Trites describes, "Books for adolescents are subversive — but sometimes only superficially so. In fact, they are often quite didactic; the denouements of many young adult novels contain a direct message about what the narrator has learned" (*Disturbing the Universe* x). Critics of children's literature

often debate the merits and drawbacks of young adult fiction's special mixture of subversiveness and didacticism. Here, however, I want to sidestep that argument and acknowledge that, in the face of the Anthropocene, we must all learn to subvert the systemic ways of being and thinking that have led us to our current predicament. Le Guin and Okorafor acknowledge this requirement in their respective literary theories. In the following diffractive reading of Okorafor's Nsibidi Scripts series through Haraway's *Staying With the Trouble*, I will argue for the utility of the series' Big Bang, 'life story,' didactic-subversive mix in teaching us how to stay—and play—with the trouble of the Anthropocene.

Diffractive Readings: Making a Difference

While each of my chapters deals with diffraction as an approach to literary analysis, this chapter more than any of the others relies on diffraction without reference to other, related approaches (Derrida's deconstruction in chapter, one, N. Katherine Hayles' semiotic square of virtuality in chapter three, Karen Barad's new materialist intra-action in chapter four). Diffraction, as an optical metaphor, seeks to disrupt the treatment of analysis as one long series of mirrors. Haraway describes diffraction as a novel semantic category. I reiterate her description of diffraction here for convenience of reference, having originally included it in the introduction of this thesis:

> My invented category of semantics, diffractions, takes advantage of the optical metaphors and instruments that are so common in Western philosophy and science. Reflexivity has been much recommended as a critical practice, but my suspicion is that reflexivity, like reflection, only displaces the same elsewhere, setting up the worries about copy and original and the search for the authentic and really real. What we need is to make a difference in material-semiotic apparatuses…so that we get

more promising interference patterns on the recording films of our lives and bodies.

...Diffraction is an optical metaphor for the effort to make a difference in the world.

(*Modest_Witness* 16)

Although Haraway situates her work in the discourse of the philosophy of science, she uses several works of literature, art, and advertisement to demonstrate the utility of diffractive reading (Haraway, "Promises"). Crucially, Haraway positions diffraction as "a mapping of interference, not of replication, reflection, or reproduction. I take these facets of diffraction together as a starting point for reading texts for patterns of interference, both within a text itself and from one text to another. Beyond Haraway's own work, diffractive readings have been used sparingly in literary research (cf. (cf. Badmington, *Posthumanism*), although I argue that critics who have produced significant works of analysis in the field of posthumanism have engaged in a kind of diffraction despite not naming it thus (e.g. Jaques).

In this chapter, I consider the patterns of interference that are pervasive throughout The Nsibidi Scripts series: the interference of the magical world on the real world, the interference of the children in matters of the magical world, and the interference of the magical world on the lives of the children, particularly the protagonist Sunny. I also examine the interference that Sunny's story, across the three novels of the series, might interfere with Haraway's own approach to the Anthropocene. One of the fervent slogans of our epoch, she claims, ought to be "Make Kin, Not Babies" (*Trouble* 102); she suggests this paired set of action/inaction as one mechanism of staying with the trouble and living in the Anthropocene. Of relevance to my argument and to the subject at hand across the entirety of this thesis is the fact that Haraway focuses almost exclusively on the 'making kin' part of that slogan, eliding most mention of the 'not babies' suggestion of lessening, or even ending, human reproduction as it currently exists. While the material pressures of population and overpopulation that currently exist in our world are incontrovertible, Haraway's stance, I

argue, is positioned too far into the discursive at the expense of the material, omitting any consideration for extant children who have already been made but are not yet adults. This omission of consideration of living children results, ironically enough, in an omission of the *conceptual* child from any discourse implicated in the Anthropocene. To offer a small portion of remedy towards this omission, I propose that the children of The Nsibidi Scripts series— and, by extension, many possible iterations of the conceptual child—transform Haraway's child-resistant concept of 'staying with the trouble' into a vibrant, magical game of *playing* with the trouble—that is, of acting in interfering ways within the context of the Anthropocene that align with Le Guin and Okorafor's theoretical shifts away from the age-old Hero's Story towards a new story—a new story that, ultimately, makes the Anthropocene more livable. In this way, I hope to develop a new understanding of these texts, and texts similar to them, as spaces of action, in which the theoretical changes proposed by Le Guin and Okorafor achieve the goal sought by Trexler and Johns-Putra—to use literature, in this case fantasy young adult literature, to make a difference in our approach to climate change and the Anthropocene.

'This world is bigger than you': Redefining the Rules of the (Anthropocenic) Game in The Nsibidi Scripts Series

On the surface, the narrative arc of The Nsibidi Scripts series contains the same pitfalls as other literature about the Anthropocene, albeit with nova that align with the fantasy genre as opposed to science fiction. Sunny, an albino Nigerian-American girl, discovers that she is a "free agent Leopard Person," (*AWT* 34) i.e. a magic user from a non-magical family. All Leopard people have a special skill of some sort; one of Sunny's abilities is the ability to see the future, and the first novel opens with Sunny seeing a vision of global destruction in the light of a candle: "I'd seen the end of the world in its flame. Raging fires, boiling oceans, toppled skyscrapers, ruptured land, dead and dying people. It was horrible. And it was

coming" (*AWT* 14). After she is initiated into Leopard Society, Sunny is tasked with defeating Ekwensu, a powerful spirit known as a masquerade who delights in destruction, particularly of the environmental kind:

> Sunny remembered when she'd encountered Ekwensu last year at the shrine beside the gas station, the oily, greasy smell, like car exhaust. Sunny could imagine Ekwensu tearing open a tanker and then bathing in the freshly spilled crude oil, a substance toxic to the flesh of the earth. If Ekwensu had just forced her way into the mundane world, such a 'bath' would probably strengthen her. (*AWR* 237)

Sunny's remembrance of Ekwensu takes place while Sunny watches a news report about an oil spill in the Niger Delta, which Ekwensu plans to set on fire as her first act in the material world. Ekwensu's emergence from the spirit world into the real world and her plans for further destruction call to mind the ecological devastation caused by global reliance on oil consumption, aligning environmental damage with evil magic. In the final action-packed moments of her climactic battle with Ekwensu at the end of *Akata Warrior*, Sunny is shown a vision of the outcome of Ekwensu's plans: "Setting the recently oil-soaked part of the Niger Delta on fire was only Ekwensu at play. It was only the first thing that would happen if Sunny didn't succeed right now. Once Ekwensu really got started, she would turn the world into the apocalyptic place Sunny had seen in the candle's flame." (*AWR* 471) Taken together, these three moments depict a standard plot in which our hero, Sunny, defeats the Anthropocene in the form of Ekwensu to save the world and avert the apocalypse. However, Okorafor's world-building of the Leopard People and their society, as well as the continuation of Sunny's narrative arc beyond her defeat of Ekwensu, serve to decentralize Ekwensu and her environmental apocalypse from the larger narrative. An examination of Leopard society, with its complicated and obscure rules and regulations, will demonstrate the

significant Anthropocenic trouble that remains central to Sunny's world (and ours) after Ekwensu's death, as well as the tools Okorafor offers her readers to stay, and play, with that trouble.

Leopard society is perhaps best characterized as being rife with ambiguity. The existence of Leopard People is described early on as both a global and an egalitarian phenomenon; although Leopard people come from "all over the world from every tribe, race, whatever," (*AWT*, 44) Sunny's friend Orlu, who helps initiate her into Leopard Society, makes it clear to her that "[no type of Leopard person] is better than the other" (ibid.). That said, individual Leopard People are themselves judgmental, despite the pervading culture of Leopard society, and issues of intercultural disharmony feature prominently throughout the trilogy. In particular, Sunny's existence as a 'free agent', a magic user whose parents are not magic users, places her in an ambiguous, often stereotyped role within Leopard society; the "annoyingly prejudiced" (*AWR*, 105) guidebook 'Fast Facts for Free Agents,' which features as a paratextual device throughout *Akaka Witch*, consistently denigrates the liminality of free agents like Sunny, implying in its descriptions of Leopard society that free agents are needy, unintelligent, and unskilled at magic. 'Fast Facts' functions as a consistent paratextual reminder of Sunny's general frustration at her sudden immersion into unfamiliar Leopard societal norms, a situation in which she feels like and is sometimes treated as an interloper. Yet, 'Fast Facts for Free Agents' is itself treated ambiguously by Sunny's teacher, Anatov, who describes how the book's author, Isong Abong Effiong Isong, learned her attitude towards free agents while studying in Europe and the Americas:

> "'[She was] one of the most knowledgeable Leopard People of all time, of the world. She passed the fourth level. The problem was, for her learning experiences, she chose to move to Europe and then America, where she thought the truly civilized ideas were being knitted. […]while there, she developed the idea that free agents like you,

Sunny, are the scourge of the Earth. She believed them ignorant and misguided. You can imagine what this African woman thought of us African Americans." He paused. "Prejudice begets prejudice, you see. Knowledge does not always evolve into wisdom.'

'So, she'd probably want to kill me," Sunny mumbled. "I'm Nigerian, American, and a free agent.'

'What a bitch,' Chichi said.

'But useful,' Anatov emphasized." (*AWT*, 92)

Anatov's attitude towards 'Fast Facts' encapsulates the tension, prevalent throughout Sunny's narrative, between two central yet conflicting truths held in one body: 'Fact Facts' is prejudiced and imperfect but also useful and therefore worth Sunny's time. It also captures the interference of the Lamb, or non-magical, world onto the Leopard world; despite Leopard society holding a generally low opinion of Lambs and prescribing severe punishment for any Leopard person caught doing overt magic in front of them, Leopard society sits thoroughly ensconced in non-magical geopolitical tensions, both locally and globally. Anatov's aphoristic observation that knowledge does not always evolve into wisdom also underscores the seriousness of the trouble caused by deeply embedded cultural prejudice and violence; his reminder that utility must be derived from such flawed sources forces Sunny, and the reader, not only to stay with considerable imperfections but also to 'play' with them—to engage actively with them, to bend the rules predicated on those imperfections in order to suit her own purposes.

This blurring between the Leopard and Lamb worlds is overlayed by a further blurring between the fictional world of the books and the reader's real world, our world. The first two books of the series, *Akata Witch* and *Akata Warrior*, both contain references to

events that evince significant realism, including the Niger Delta oil spill mentioned above. With the final book in the series, *Akata Woman*, Okorafor situates Sunny's continued maturation within a nuanced, mature examination of the real world—our world—via the lens of Leopardom. *Akata Woman* continues the first two books' mimetic approach most prominently in the fourth chapter, which functions almost as a side plot within the larger narrative, focused on the Biafra secessionist movement: "There was a big pro-Biafra demonstration today, highlighting the day the Igbo people declared the region its own country, the Republic of Biafra, remembering Biafra soldiers and civilians who died during the resulting civil war and protesting the fact that discrimination against Igbo people was still happening decades later" (*AWM* 40). Okorafor's depiction of the Biafra protest includes features such as Sunny's mother checking for updates on Twitter and vivid descriptions of the effects of tear gas on the characters who were present at the protest. The mimeticism of this chapter allows for a clear example of what it means, in practice, to stay with the trouble of the Anthropocene, best observed in the chapter's culminating conversation between Sunny and her former friend, now boyfriend, Orlu:

> "…There is a Leopard faction of IPOB and my uncles are a part of it."
>
> Sunny grimaced. "Oh no." The IPOB, Indigenous People of Biafra, was the political group leading the protests. It was very active and very aggressive. Sunny appreciated their movement, but they often pushed to violence.
>
> "Oh yes," Orlu said, a dark look on his face. "Leopard Igbos can do a lot to obtain the Biafra we all seek."
>
> "Secession from Nigeria would turn so much upside down," Sunny said.

Orlu sighed, deflated and tired. "I know," he said. "I'm not *all* for it. I just…like the thought. It's *doing* something, *saying* something, not just sitting in the pit as if all this is okay."

"It'll lead to more trouble."

"There's trouble already," he said. (*AWM* 46)

This short conversation resolves nothing: not the tension between pro-Biafran and pro-Nigerian factions, not the harm that's come to Orlu's family because of their involvement in IPOB, and not Orlu and Sunny's disagreement, such that it is, around the best course of action. This chapter, which is only eight pages long, functions as a microcosm of the ambiguous, non-heroic nature of Sunny's overarching story across all three books, demonstrating that there's indeed trouble already, and we are, at a minimum, stuck with it, as Haraway suggests. Okorafor also uses this chapter to reinforce the moral ambiguity that defines Leopard society. As was suggested by Sunny's earlier discussions about 'Fast Facts', the role of Leopard people in the larger geopolitical landscape of Nigeria remains unresolved. During the conversation, "Sunny wondered how much worse the riots would have been if Leopard People hadn't been there. But then again, some of the police may have been Leopard People, too" (*AWM* 46-47). If Okorafor champions the instructive experience of pain in her writing, then the lesson we're being taught in this scene is that some kinds of pain, of trouble, coexist with any solution, magical or otherwise, that might be devised—in other words, there are no clear solutions for some kinds of trouble, and certainly for the kinds of trouble Sunny faces in The Nsibidi Scripts series. Although Sunny magically produces a lavender scent, "Orlu's favorite" (*AWM* 47) to help soothe his pain, she knows that such a remedy only lasts "for a time" (ibid.). The chapter ends with no further resolution, fixing the ambiguity of real-world Anthropocenic trouble as a significant factor in our understanding of Sunny's fictional

world and suggesting that the inverse might be true, that an understanding of Sunny's world might help us stay with the ambiguity of real-world trouble.

The motif of learning to stay and play with significant, discomforting trouble in order to glean its utility not only becomes a constant theme of Sunny's development but also emerges as the bedrock of Leopard society. She and her three friends—Efik Chichi, Igbo Orlu, and African American Sasha—comprise an *oha* coven, "a group of mystical combination, set up to defend against something bad" (*AWT* 71). All four of the children have a penchant for creating trouble themselves, either through their ignorance of Leopard society norms, in Sunny's case; their ambitious intentions as is the case with Chichi and Sasha, who are both perennial rule-breakers; or through their juju abilities, as is the case with Orlu, who can take apart any juju with his hands. Despite being heralded as the main combatants against Ekwensu, their lives are treated so expendably by Leopard adults, and their mistakes met with such strict punishment, that their status as 'heroes' is completely relegated to the background. Anatov summarizes their relative unimportance at the start of their first lesson, a mission inside the highly dangerous Night Runner Forest, with an admonishment of "'Fear? Get used to it. There will be danger; some of you may not live to complete your lessons. It's a risk you take. This world is bigger than you and it will go on, regardless'" (*AWT* 96). Sunny's silent follow-up question, "What kind of thing is that to tell your students?" (ibid.), highlights her deep discomfort with the disposability of her life in Leopard society. Sunny and the other children are told that the world is bigger than them repeatedly by Leopard elders and mentors, with Orlu's mentor Taiwo noting that "All creatures have a place[…]That's why all of us could die right now and life would go on" (*AWT* 132).

This disregard for the individual in favor of life as a larger principle extends beyond the children to all members of the Leopard community, perhaps best highlighted by the Zuma

National Wrestling Match finals between two powerful Leopard people. One of the combatants, Miknikstic, happens upon a distraught and confused Sunny ahead of the match and reminds her that "'There are more valuable things in life than safety and comfort. Learn. You owe it to yourself. All this…you'll get used to in time'" (*AWT*, 175).This advice echoes that of Anatov and Taiwo but becomes harshly emphasized when Miknikstic is killed during the wrestling match only a little while after this conversation. The children are horrified, but Anatov tells them that the match couldn't be stopped, "Because life doesn't work that way…When things get bad, they don't stop until you stop the badness—or die" (*AWT* 185). Even this concept of 'stopping the badness' is limited, because the badness—the trouble—of Leopard society remains ever-present. Sunny and the rest of the *oha* coven defeat Ekwensu towards the end of *Akaka Warrior*, but their troubles—the badness—are not solved, either in their relationship with Leopard society or with the wider magical forces of the spirit world. By the same token, the children's mentors must still manage the children's trouble, even though they successfully defeated Ekwensu. In Leopard society, life is not a narrative of heroic conflict resolution, but rather one of constant, ambiguous conflict mitigation, with the understanding that troubles never really cease; individuals simply improve their management of the trouble and persevere in the face of it—or they die.

Spirit Faces and Doubling: The Trouble of Dual Identities

Along with ambiguity, Leopard society is immersed in duality. The liminal nature of Leopardom implies duality; a border cannot exist without something on either side of it. The duality with which Sunny has the most initial familiarity is that of the magical Leopard world and the non-magical Lamb world, which function more as modes of existence than as distinct physical entities. Because of her kinship with her Lamb family and her lack of socialization around Leopard norms, Sunny encounters significant difficulties with this duality. Sunny also

becomes familiar with the duality between the real world and the spirit world when she learns that she can traverse between one and the other freely, as one of her innate Leopard skills. The most important Leopard duality, however, and one which ultimately gives Sunny the most trouble, is the duality between one's self and one's spirit face. A Leopard person's spirit-face is one of the primary sources of their magic; for a Leopard person, "the spirit face is more you than your physical face[…]. But it's impolite to show it in public…because in this form, you cannot lie or hide anything. Lies are a thing of the physical world. They can't exist in the spirit world" (*AWT* 58). Physical, lying, mortal self and magical, truth-bound, immortal self, cohabiting in a single body: from its introduction, the concept of spirit faces presents ontological duality, as opposed to independent singularity, as the Leopard people's mode of existence.

On a physical level, Sunny's dual relationship with her spirit face provides her with significant benefits. Sunny's physical self is albino, possessing "light yellow hair [and] skin the color of 'sour milk' (or so stupid people like to tell me)" (*AWT* 14). Sunny's spirit face is named Anyanwu, which means 'eye of the sun' in the Igbo language, a meaning reflected in her appearance:

> "Once, when her spirit face came forward, she got up and looked at herself in the mirror. She nearly screamed. Then she just stared. It was her, but it felt as if it had its own separate identity, too. Her spirit face was the sun, all shiny gold and glowing with pointy rays. It was hard to the touch, but she could feel her touch. She knocked on it and it made a hollow sound." (*AWT* 78)

As an albino, Sunny is unable to stand in direct sunlight without an umbrella; as soon as she becomes aware of Anyanwu's presence, she can no longer be damaged by the sun, because Anyanwu, as a spirit, functions rather literally as an avatar of sunlight. Sunny benefits tremendously from this, not only for medical reasons but also because she's an avid soccer

player who was previously limited to playing only at night. Her resistance to the sun means she can play soccer during the day, and she does so with relish at the amateur competition that takes places after the Zuma National Wrestling Match. In a deeper sense, Sunny's albinism represents her former Lamb status, which gives way to greater ability to 'play' the games of Leopard society when she undergoes initiation and becomes aware of Anyanwu. As an added bonus, Sunny feels increased confidence in her presence and movements, particularly when Anyanwu's face is brought forth: "[Sunny's] voice was deep and throaty, like some sultry, glamorous woman who smoked too many cigarettes. When she got up, her movements felt effortless, amazing, full of poise and grace" (*AWT* 47–48). If Sunny's Lamb existence was marked by hiding in the shade and the derision of "stupid people" due to her albinism, her Leopard-self exudes power and holds the promise of personal, social, and magical mastery.

Beyond the physical, however, Sunny-Anyanwu's duality becomes more troublesome. The irreconcilable paradox of Sunny-Anyanwu's existence is both terrifying and thrilling for Sunny, who fights to come to terms with her new dual identity: "All through the night, she battled herself. Or battled to know herself. She fell apart and then put herself back together and then she fell apart again and put herself back together, over and over" (*AWT* 78). The repetition of this description carries weight beyond its own instance; even though Sunny makes it through that first night as Sunny-Anyanwu, her battle against herself, to know herself, continues throughout the trilogy. Sunny's stress of balancing two juxtaposed identities in a single body reaches a crescendo when Ekwensu strikes her in a moment of weakness with a magical bead and separates Sunny from Anyanwu: "It's called doubling. It sounds like a misnomer because you have lost a part of yourself, but your spirit face is just not here. So in a sense, you've been doubled. Ekwensu did it to you" (*AWR* 229). The timing of Sunny's doubling is no coincidence, either; it takes place just as Ekwensu emerges from

the spirit world into the real world, creating the oil spill that Sunny watches on television with her father. Sunny's doubled state initially prevents her from accessing her magic and cannot be reversed, as Sugar Cream tells her during their trial after defeating Ekwensu: "'To be doubled is very sad… Death is always close by, but for you, he will always stand behind you'" (*AWR*, 464). In a sense, Sunny's doubling is the most Anthropocenic of the many dualities she faces as a Leopard person: its tragedy stems from a force of environmental destruction, and like the oil spill in the Niger Delta, it cannot be undone. The fact of her doubling will always interfere with the sense of confidence and poise Anyanwu brought her; having self-confidence or a positive attitude is not enough to overcome the damage that has been done. Sunny must live with it for the rest of her life, even knowing that it has brought death closer to her than it otherwise would be.

Despite the dire prognosis of her situation, Sunny uses the playfulness of her youth to go beyond merely learning to live with her troubling doubling. Even as she is diagnosed, Sunny is told that her natural ability to walk in the spirit world, also known as the wilderness—an ability that is not dependent on Anyanwu—has saved her life, as doubling normally kills those afflicted. Sunny is also given advice on how to coax Anyanwu back to her, even though they cannot be officially joined again: "'Sunny, you need Anyanwu. That old one is like an *ogbanje*. Tempt her back to you with love'" (*AWR* 235). An *ogbanje* is an Igbo version of a changeling, a child spirit that comes and goes, leaving sadness in its wake; this description is the key to Sunny's ability to coax Anyanwu back, as it indicates Anyanwu's own duality of being both a very old spirit but also a childlike one that in this lifetime is paired with a child. Sunny's approach to calling Anyanwu to her demonstrates the power of childhood love over that of old, experienced magic: Sunny engages in all of her favorite hobbies, including cooking with her mother, reading a graphic novel, listening to Mozart and imagining her favorite ballerina dancing, and finally, playing soccer. This last

activity, which makes "her heart leap with a familiar joy" (*AWR*, 227) finally calls Anyanwu back, but not before Sunny experiences the power of play firsthand:

> All alone under the churning sunless sky, she enjoyed her own footwork, imagining that she was playing a one-on-one game against herself. […] She did a bump and run, shoving herself out of the way and then taking off with the ball across the field. She laughed, because it had almost felt like she'd shoved someone. She'd shot the ball directly at the goal when she realized it. And her realization was immediately verified when the ball didn't go in. Instead, it was deflected by a seemingly invisible force.
>
> Then the force became visible, and Sunny thought for a moment lightning had struck the field. (*AWR* 228)

The "churning sunless sky" reflects Sunny's own doubled and troubled state without Anyanwu, but instead of being concerned by it, she "enjoyed her own footwork" instead. Her "one-on-one game against herself" is a far cry from the crisis she experienced upon discovering Anyanwu, during which she spent an entire night falling apart and putting herself back together again, physically, emotionally, and mentally. When she plays with her trouble, she transforms a lethal crisis into a moment of self-discovery. The lightning strike of Anyanwu appearing in front of her is akin to the sensation of deep insight. Sunny realizes that while she must stay with her troubles, she does not *only* have to stay with them, and in fact, her troubles are vastly improved (although not erased) when she *plays* with them instead. There can be no resolution to Sunny-Anyanwu's doubling, just as there can be no resolution to the many paradoxes and dualities present in the Anthropocene. Haraway's approach to staying with these troubles is "not interested in reconciliation or restoration, but [is] deeply committed to the more modest possibilities of partial recuperation and getting on together" (*Trouble* 10). However, Sunny's engagement suggests that playing with these troubles—

facing them with self-care, bravery, and perhaps even some competitiveness—productively

blurs the line between "getting on together" and "reconciliation." It improves our approach to

"the trouble" beyond merely modest possibilities.

The benefits and, ultimately, the productive superiority of Sunny's approach is

reinforced in *Akata Woman*, when she and Anyanwu make their final amends at the end of the

book (and, therefore, at the end of the series). *Akata Woman* goes its furthest in mimeticism

when the book ends with the characters facing the COVID-19 pandemic. While this thesis

doesn't include a chapter-long focus on pandemics, they are without a doubt an

Anthropocenic-level trouble, one that all of us had to become adept at staying with over the

course of several years. Sunny and her coven are no exception, having to face the coronavirus

threat inside and outside of Leopardom. In the book's second-to-last chapter, Sunny

encounters an all-too-familiar lockdown scene: "In the early morning, Sunny got dressed and

took her soccer ball with her. …It was eerily empty, but today it wasn't because of protests, it

was because the country was on lockdown to help prevent the spread of the deadly virus.

She'd even heard that the police were out patrolling, making sure people were…cooperating"

(*AWM* 395). This parallel to chapter four's protest scene, with the empty streets and reference

to police reminds us of the ambiguous violence that exists in Lamb and Leopard societies and

the way in which that violence collides with the ambiguous trouble of the Anthropocene.

Unlike Orlu, who is caught between violence and inaction in his confrontation with the

trouble of the pro-Biafran protests, Sunny chooses to face the trouble of the pandemic by

playing—literally, with her soccer ball, and figuratively, by reaching a final understanding

with Anyanwu on the soccer pitch. This last reckoning between herself and her spirit face

happens in a place that is both her world and the wilderness, the unreal world of the spirits,

and in this in-between place, Sunny and Anyanwu literally play with the soccer ball: "They

sat down across from each other and Sunny rolled her soccer ball to Anyanwu. Anyanwu took

it and rolled it back. 'I'm sorry,' Sunny said after they'd rolled the ball back and forth for several minutes. Anyanwu said nothing. She rolled the ball to Sunny. She expected Sunny to do the talking, so Sunny did" (ibid.). The repetition of the action of playing, of rolling the ball back and forth, signals that Sunny's conclusion that Anyanwu expects her to share is also the conclusion, the final word, of what it means to play with the trouble. She apologizes to Anyanwu for misunderstanding her and being mad at her for the majority of the narrative:

> "We've all been treating you like…like a type of mother, a mother who is genius-level amazing and births a   child…and then everyone expects her to step away from her genius…to come down and nurture her baby, to make herself less, so her baby can understand. But that's not right; amazing mothers should continue being amazing…and you're not my mother, you are *me*." She pressed a hand to her chest. "And I am you."
>
> […]
>
> "Because I am you Sunny," she said. "And you are right. You all—you, Sugar Cream, Sasha, Chichi, Orlu Anatov, even the Mama Watt oracle Bola—you've all viewed me as the one who must come down to you. But it is YOU who must come UP to meet ME. […] You have come up to meet me." (*AWM* 396-397)

Within the narrative structure of the story, this conversation between Sunny and Anyanwu serves as Sunny's penultimate moment of character development, in which she has achieved many heroic things, including fighting entities like Ekwensu and going on quests for entities like Udide. However, the reconciliation between Sunny and Anyanwu also works as a moment of "partial recuperation and getting on together" (*Trouble* 10) as described by Haraway. Their 'recuperation' is partial because, although they are emotionally reconciled,

Sunny and Anyanwu remain permanently doubled. Most significantly, Sunny's speech functions as a clear reinterpretation of Haraway's suggestion that we make kin, not babies. Using the metaphor of motherhood, Sunny reframes the idea that making kin and making babies are dialectically opposed courses of action, and that we must do one and not the other. Instead, I interpret her speech to mean that we can, and must, learn to treat children as another kind of kin, because in the fullness of time, our children *become* us, just as Sunny *is* Anyanwu. Anyanwu's response to Sunny invokes all of Sunny's mentors and points out that they were wrong to assume that Sunny's status as a child required her to stay 'down', i.e., without power. Anyanwu requires Sunny to 'come UP' to her, to claim power, regardless of her age, knowing beyond the wisdom of all of the elderly mentors mentioned what Sunny is capable of. Recapping the development of the previous two books, Sunny concludes the scene on an open-ended note: "'I know we are called free agent and doubled…but we will name ourselves now'" (*AWM* 397). Although no new name is specified, Sunny asserts that she and Anyanwu have moved beyond the negative connotations of the titles 'free agent' and 'doubled', even though both statuses remain accurate descriptions of their state. This retainment of ambiguity again parallels the lack of resolution from chapter four, but rather than staying with the trouble, Sunny and Anyanwu have worked out a method of playing with the trouble instead.

Sunny's commitment to playing with the trouble remains in focus right up until the end of the series. In *Akata Woman's* final chapter, we get access to Sunny's perspective on the COVID-19 pandemic: "…the nationwide lockdown and concern over this deadly new virus was causing people to cancel meetings and stay away from each other. Things were getting *weird*" (*AWM* 399). This book was published in 2022, and the weirdness of the COVID-19 pandemic, communicated in simple, direct terms via Sunny's narration, is both viscerally familiar to any reader who lived through the pandemic and an accurate accounting of what it

feels like to stay with the trouble. Sunny, however, goes beyond merely "[staying] home and [being] with her family more] (ibid.), choosing this moment, the early, scary days of the pandemic, "to test for Mbawkwa, the second level of Leopardom" (*AWM* 398). The Mbawkwa test is dangerous; as *Akata Woman's* prologue states at the outset of the story, "Education…It's a process. The young sometimes have to go through it…and sometimes they die trying" (*AWM* 2). However, Sunny's approach to the challenges of the Mbawkwa resemble her approach to understanding herself/Anyanwu—as a game of soccer:

> Sunny did a fast flourish, grasped the cool juju bag that she caught. She was about to throw it at the shadow before her, but instead, she waited. The shadow was going to zip to the side. She knew this feeling of intuition. Here she was on the soccer field again. She threw it to the right just as the shadow moved into the spot.
>
> PHOOM! FLASH!
>
> "Goooooooal!" Sunny shouted, not knowing why. (*AWM* 402)

For Sunny, magic is play, life-threatening challenges are play, self-discovery and reconciliation are play. Although she doesn't consciously connect her affinity for soccer with her approach to life, it's clear that her 'feeling of intuition' and general silliness (exemplified by her instinctive and loud celebration of a goal) that help her to pass Mbawkwa originate from her time spent playing the game. Through this approach, she is able to master the ambiguous dualities of Leopard and Lamb, of Sunny and Anyanwu, successfully passing her Mbawkwa test and demonstrating for readings an avenue of potential success for staying and playing with similarly unresolvable Anthropocenic ambiguities and dualities.

Spiders, Webs, and the Nsibidi Path: Playing with Storytelling Juju

The Nsibidi Scripts series illuminates the utility of a playful approach to duality via Sunny's and the overall narrative's handling of the duality between truth and lies. This particular duality is encompassed, both in Leopard society and in the real world, by the realm of storytelling, and it is through storytelling, an active extension of its passive counterpart reading and knowledge acquisition, that Sunny strengthens her ability to manage the trouble of Leopard society. I've already discussed 'Fast Facts for Free Agents' as one example of a troublesome, ambiguous book that acts as a key source of information for Sunny. A closer look at Leopard society's interwoven system of reading, learning, and storytelling demonstrates that even the tools used to stay and play with the trouble are themselves sources of trouble, as stories provide the best way forward into the troublesome Anthropocenic era.

Recalling Le Guin's assertion that "the natural, proper, fitting shape of a novel might be that of a sack, a bag. A book holds words. Words hold things" (169), we can view Sunny's character progression from story listener to story creator and storyteller as a realized version of Le Guin's carrier bag theory of fiction, in which books, words, and stories, rather than heroic, violent acts, hold the most meaningful 'things' in the story. The story of Sunny's path to becoming a storyteller exists as a tangled web of interlocked circumstances, most of which are rooted in and routed through her relationship with the magical Nsibidi language. At the start of her carrier bag journey, along with 'Fast Facts for Free Agents,' Sunny purchases a book written in the magical Nsibidi language: "When she opened it, all she saw were pictorial signs. The longer she looked, the more the signs began to pulse and migrate about the page. She held the book closer to her face and they moved about even more. On top of that, the book seemed to be whispering to her" (*AWT* 130). Nsibidi writing does not stay written; in order to read Nsibidi properly, one becomes immersed in the text on a sensory level, with the story's sights, sounds, smells, and physical sensations becoming a lived reality

for the reader. Reading Nsibidi also exacts a stiff physical toll on the reader, draining them of their energy and, in some extreme cases, leading to death. Yet Nsibidi becomes a crucial component not only of Sunny's quest to defeat Ekwensu, but also of her own journey of self-discovery. Sunny's Leopard grandmother, who died before Sunny was born, left a Nsibidi letter for Sunny that assists her in finding the city of Osisi, where her final battle against Ekwensu takes place. Like 'Fast Facts for Free Agents', things written in Nsibidi present a troublesome challenge that, when faced and embraced, can result in significant gains for the reader.

Being able to read Nsibidi is rare, and the book's author, an advanced scholar named Sugar Cream, takes on Sunny as a student partially because of Sunny's affinity for Nsibidi. Yet, Sunny meets with Sugar Cream for the first time not to discuss Nsibidi but to receive punishment for showing her spirit-face to a Lamb, an act which is forbidden by Leopard Society laws. Sunny's mentorship with Sugar Cream is so full of trouble that it feels fated to end in disaster, as Sunny's liminal transgressions constantly disappoint her mentor. Even though Sunny and the *oha* coven have done a great service to the Leopard people and the world by defeating Ekwensu, Sugar Cream and the rest of the Leopard Council bring the children in for punishment over the accidental involvement of Sunny's Lamb brother, Chukwu, in the fight. To defend their actions and save their magical animal companion Grashcoatah from execution, Sunny launches into a long story of their journey and the choices they made while on it, including their choice to involve Chukwu: "She was shaking, but it wasn't from fear; she felt she would burst if she didn't say what she desperately wanted to say. She told them everything, from the beginning to the current moment. … Not long after that, the four of them were told that they could go" (*AWR* 466–67). Sunny's ability to tell the story of their journey is the only thing, throughout both novels, that is shown to prevent the Leopard Council's life-threatening punishments, which makes it matter more to her status as

a Leopard person, to the *oha* coven, and to Grashcoatah's life than anything, even their defeat of Ekwensu.

Sugar Cream is not Sunny's only, or even best, mentor in the ways of storytelling; Sunny learns as much or more about storytelling from Udide, the Igbo trickster spider deity (Okorafor, "(7) Nnedi Okorafor, PhD on Twitter"), and her descendants, many of whom live in the Obi Library. While in Sugar Cream's office, Sunny notices red spiders scurrying across the floor and ceiling; she later learns that "the spiders were poisonous, but if she didn't bother them, they would not bother her. They also didn't take well to rude treatment, so she wasn't allowed to move away from them immediately" (*AWR* 26). Like Sugar Cream, the spiders are a source of significant fear and anxiety for Sunny, representing a punishment constantly waiting to be doled out as soon as Sunny steps out of line. Yet during the worst of her awaited punishments, while she is locked in the dangerous basement of the magical Obi Library, repository of all Leopard knowledge, as punishment for once again showing her Leopard abilities to a Lamb, Sunny gains the trust of these red spiders, whose mother is called Ogwu, "'Descendant of Udide the Great Spider of all Great Spiders'" (*AWR* 173). Although this thesis does not spend appreciable time discussing the relatively common topic of animals in the context of posthumanism, it is important to note here that animals can also be Leopard people in possession of magical powers, as in the case of the creature Grashcoatah, the spiders Ogwu and her children, and all cats. Ogwu, like Sunny, has been condemned to languish in the basement for a magical mistake that she made:

> "'You were on the plane,' Sunny said. 'The Enola Gay. I know. You were on the bomb, and you tried to weave the storytelling juju your people are most known for. You wove a thick thread that was supposed to cause the bomb not to work when they dropped it on Hiroshima. But when you attached it, you misspoke one of the binding words, and it snapped when the bomb was released. You failed and no one has seen

you since. So, this basement is where you came with all your descendants to hide

from the world.'

'No, this basement is where Udide cursed us to stay until I have completed my task,"

[Ogwu] said. "Which is impossible because I have already failed."' (*AWR* 173–74)

Although Ogwu initially wishes to harm Sunny, Sunny uses her own "storytelling juju" to

convince Ogwu to help her survive the dangerous basement by telling her the story of her

quest to defeat Ekwensu. By saving Sunny, Ogwu is "[given a] chance to finally act, to *play* a

role" (*AWR* 174, emphasis mine), for which she is saved by Udide and freed from the

basement. The word 'play' as used here brings to mind a more theatrical use of the word,

bringing to mind the acting involved in a stage production—which itself is another kind of

storytelling. This playful engagement with storytelling becomes a direct conduit to life-

saving action, action which works to continue and resolve different threads of the story:

Sunny resolve's Ogwu's story, and Ogwu continues Sunny's story, in a web-like

configuration of cause and effect.

Storytelling as a mechanism for playing with trouble emerges again in Sunny's

interactions with Udide herself. Udide, even more so than Ogwu and Sugar Cream, is a

fearsome force that can only be quelled by storytelling; indeed, Udide surpasses all of

Sunny's other sources of trouble, due to her power and her literal and figurative control over

Sunny's narrative: "Udide is the ultimate artist, the Great Hairy Spider, brimming with

venom, stories, and ideas. Sometimes she is a he and sometimes he is a she; it depends on

Udide's mood" (*AWT* 144). An Igbo version of the classic trickster god (whose concept

played a role in our understanding of the posthumanist child as explored in chapter one of

this thesis), Udide symbolizes many of the same ideas as Thoth: the duality and ambiguity of

pharmakon, and the crafting and storytelling of *tekhne.* In the Nsibidi Scripts series, Udide

plays many roles, initially providing assistance necessary in the *oha* coven's quest to defeat

Ekwensu in *Akata Witch*. Sunny's final battle against Ekwensu takes place in the magical city

of Osisi, which can only be reached with a flying grasscutter, a magical creature that only

Udide can make. For this purpose, Sunny and the coven visit Udide in her underground lair in

Lagos. Because Udide treats the coven's mission as a game—one whose rules the children

must learn as they play—Sunny learns that only by playing can existential trouble be tackled.

As her game 'move,' Sunny chooses to tell Udide a brand-new story of a being called

akata—a Nigerian term for "bush animal" but "used to refer to black Americans or foreign-

born blacks. A very, very rude word" (*AWT* 11). In another web of cause and effect, Sunny's

risky move wins the game for the *oha* coven, leading to Udide's creation of Grashcoatah, and

in turn to Sunny later having to tell another story to the Council in order to save

Grashcoatah's life. The entire episode illustrates what Haraway calls "tentacular thinking" in

which "tentacular ones [are those who] make attachments and detachments; [who] make a

difference; [who] weave paths and consequences but not determinisms" (*Trouble* 49–50).

The *oha* coven's stories and paths position them as tentacular ones, entangled in the

production of "the patterning of possible worlds and possible times … gone, here, and yet to

come" (ibid.). As tentacular ones, the *oha* coven are embodying what it means to be

posthumanist children, showing readers what to do and how to be within the context of the

Anthropocene. This episode also links the various elements that comprise the posthumanist

child with the counterstorytelling approach described by Ebony Elizabeth Thomas; what

Sunny engages in with Udide in this scenes functions as a version of counterstorytelling, and

one that sits both with the dual concerns of humanity's treatment of itself across racial and

gender boundaries and with the posthuman threats indicated by the Anthropocene.

Udide's game also exists outside the narrative, appearing in the margins of Sunny's

story through *Udide's Book of Shadows*, which Sasha finds on the same shopping trip during

which Sunny finds her book on Nsibidi. Only a few copies of *Book of Shadows* exist, and

Udide chooses who will find it through mysterious, unseen means. Once purchased, the book (and Udide) infringes on the reader's senses like Nsibidi does, although Udide's version of this infiltration occurs while the reader is asleep: "[Sunny] must not have put the book far enough away because her dreams were full of scuttling and cartwheeling spiders" (*AWR* 318–19). Udide's presence on the fringes of Sunny's story becomes physically embodied, yet still marginal, when Udide's spider children sting Sunny and Chichi during their meeting in Lagos. Udide warns them as they part that "'The venom of my people is in both of you now. It will never leave you. It has decoded and bonded to your DNA. I can find you anywhere. I will know where you are at all times'" (*AWR* 355). Udide's move here has ambiguous results; after Sunny and the coven defeat Ekwensu, Sunny and Chichi are approached by Udide and instructed to embark on a different kind of quest, the details of which remain vague (and likely to be addressed in a future sequel), a narrative turn which indicates Udide's—and storytelling's—deep control over Sunny's path. At the same time, this molecular bond between Sunny and Udide can be seen to account for Sunny's increase in storytelling prowess, as she is ultimately able to convince the Council of the coven's innocence. Whether it stems from Udide or not, Sunny's "tentacular thinking"—her fluency in Nsibidi, her commitment to self-narrative, and her bravery in the face of competing stories of her demise—represent her primary set of moves in the game of being a Leopard person. She enacts these moves to pattern a world, to tell a story, of survival and thriving for herself and her coven in the face of possible extinction. Sunny's stories—the ones she tells others, the one she tells us—are also stories for how to thrive in the perpetually troublesome Anthropocene.

On The Road with *Nsibidi*: A Guide Towards Handling the Anthropocene Through Play

      The tentacular thinking that Sunny evinces as a result of her interface with Udide and her development as a storyteller grows to its full fruition in *Akata Woman*. The primary narrative arc of the final text in The Nsibidi Scripts series functions as a separate yet equally powerful alternative to the linear, violent hero's story that Le Guin and Haraway identify as being the progenitor of Anthropocenic troubles. At their final meeting in *Akata Warrior*, the second book in the series, Udide instructs Sunny and Chichi that they must pay her back for her previous assistance, but the particulars of their task of recompense are not revealed to the reader until *Akata Woman*:

> It lived in the back of [Sunny's] mind. It lingered like a large spider in the corner, observing, expecting, biding. Udide's request when she'd met Sunny and Chichi behind that restaurant they'd stopped at on their return drive from Lagos over a year ago: *Written as a ghazal on a tablet-shaped Möbius band made of the same material as your juju knife, albino girl of Nimm, so you will recognize it. It will call to you. It cannot be broken. It is mine. One of my greatest masterpieces. It belongs to me. Go there, get it, and bring it back to me.* (*AWM* 53-54)

Sunny and the *oha* coven are given seven days to recover the ghazal, otherwise Udide will destroy their families, their homes, and the entire Nimm people. The recovery of this ghazal, while meeting many of the criteria of a quest after the traditional fantasy trope, is never referred to as a quest, but rather as trouble, or "wahala," an appropriate description for a carrier bag narrative that seeks to counter Anthropocenic norms (*AWM* 170). While a typical fantasy quest might send heroes searching for a sword or a chalice, as in Arthurian legend, this *wahala* sends Sunny and the *oha* coven after a subtle work of art. In dealing with the

114

'large spider in the corner' of her mind, Sunny has researched the ghazal, learning that it "was a type of poetry. And a Möbius band was a sort of infinity-shaped thing" (*AWM* 54). The two of these artistic elements fused together suggests that poetry is, or at least can be, infinite; that this ghazal is written on a tablet 'made of the same material as [Sunny's] juju knife' adds to the sense that this poem—as a representation of all poetry—has immense, magical power that 'cannot be broken'. The physical description of the ghazal, combined with the emphatic possessiveness of an immensely powerful character such as Udide, suggests that the ghazal is one of the most powerful and important items that Sunny encounters across all three books. By extension, the power of poetry—itself a type of storytelling—is once again emphasized, in relation with Udide the storyteller.

The journey that Sunny and the *oha* coven undertake to find the ghazal eschews the familiar, patriarchal linearity of the hero's journey for a more meandering, circular, shifting progress—much like Sunny's tentacular thinking, or the constantly shifting, fuzzy, immersive properties of Nsibidi script. In fact, their journey is so imbued with and controlled by Nsibidi that the journey could be considered a manifestation of Nsibidi itself. Udide's ghazal was stolen by Chichi's mother, a princess of a matriarchal warrior people known as the Nimm, and in order to find the ghazal's location, Sunny is required not only to read Nsibidi, but also to write it:

> But she had it in her mind, the Nsibidi for the Nimm Village. …She held the Nsibidi image firmly in her mind and then turned the image over. She turned it to the side. She flipped it over. …To read it was not just to look at it and interpret each representation as one does when reading letters or symbols. To read Nsibidi was to see, feel, hear, experience it. It was a sharp, deep juju that few could endure. (*AWM* 113)

Much like Okorafor's theory of Big Bang fiction, in which readers experience pain instructively, Nsibidi reading and writing is deeply experiential, and often painful, but also powerful—and surprisingly similar to the act of play. The repetition of Sunny's mental manipulation of the Nsibidi image for the Nimm Village calls back to the same kind of repetitive physical action of playing soccer and manipulating her soccer ball. In a sense, Nsibidi writing is a form of play, and Sunny's proficiency at it grants her a similar ability to confront and stay with the troubles of her environment: "She was drawing [Nsibidi] as she was drawn in. …Everyone and everything leaned in. Because as long as she was writing Nsibidi, she was controlling. Controlling it all. […] Loops, swirls, curled lines, spikes, spirals. The powder fell, stacked, and pooled. 'I love this,' she whispered…" (*AWM* 114). This description suggests that to read and write Nsibidi—which is to become immersed in the creation of a story—is to play. Sunny confirms this later in the narrative, when she's reassuring herself internally after struggling to read some difficult Nsibidi: "She could read Nsibidi and she could read it well. Sugar Cream had taught her, and she had spent hours and hours working at it. And then more hours reading, being, playing it" (*AWM* 221). Nsibidi is reading/being/play; Nsibidi is tentacular thinking; Nsibidi is the journey that Sunny and the *oha* coven must take to recover Udide's ghazal. By writing the Nsibidi symbol for the Nimm Village, Sunny and the *oha* coven are able to find it and acquire the next set of directions towards the ghazal, which come to Sunny as more Nsibidi, given to her by Queen Abeng of the Nimm:

> "Where is the scroll?" Anyanwu asked. "If we do not return it to Udide, she will erase this place."
>
> "It's not here."
>
> "Where then?"

"Somewhere along The Road."

"What?"

"It changes. Every moment. Like a river. So you cannot find it by looking."

"Like Nsibidi?"

"You can read Nsibidi?" Abeng asked.

"I can," Sunny responded.

Quickly, Abeng dug a palm-sized piece of wood from the floor. She whispered something and her juju knife began to glow orange red, though it did not burn her hand. The room grew foggy with the smoke. The smell of it as she etched the Nsibidi into the wood was not as strong as Sunny expected. Then Abeng was putting the wood into Sunny's hands and pushing her toward the wall. (*AWM* 134)

Sunny's conversation with Queen Abeng begins to illustrate the entangled connection between Nsibidi and The Road, and we later learn, when Sunny takes the piece of wood to Sugar Cream, that the Nsibidi on it functions as more than a set of directions:

[Sugar Cream] picked up the piece of wood and held it up. "This is an invocation, Sunny. I had to stop reading before I began calling. To read it is to call."

"Call what?"

"The Road."

Sunny felt chills creep up her spine. "Do . . . do you mean—"

> "Uzo Mmuo, the Spirit Highway, the Great River, Chukwu's Edan, Chineke's Vein
>
> and Artery, it has infinite names all over the world, wilderness, and elsewhere," she
>
> said. "To step onto it, you have to be very deliberate. Do not join The Road by
>
> accident. It is easy to get lost on The Road and even easier to lose yourself on it. […]
>
> The Road is trouble you have to choose to seek," Sugar Cream said, holding out the
>
> piece of wood. "Come and get your map." (*AWM* 201)

The Nsibidi given to Sunny by Queen Abeng functions as a map and a doorway, intimately associated with the powerful conduit known as The Road. Nsibidi continues to guide the *oha* coven as they progress towards The Road; after invoking the script burned into the piece of wood given to her by Queen Abeng, Sunny is able to see a literal path of Nsibidi leading her and the *oha* coven through the wilderness: "A yellow line of Nsibidi symbols stretched through the field. Three things at once: a ghost, a spirit, a path" (*AWM* 225). Once they reach it, even The Road itself "reminded [Sunny] of Nsibidi…"if Nsibidi turned into various masquerades two feet to ten stories tall, five inches to a hundred feet wide" (*AWM* 308). The Road, like Nsibidi, like the *oha* coven's quest, is its own *wahala*, impossible to comprehend, baffling in its scope and sequence: "[The Road] was something that made [Sunny] want to babble to herself. It made her just want to be done with holding on. It made her want to question existence" (*AWM* 309). More than any other element of the story, even the masquerade Ekwensu, The Road represents the relentless, constantly shifting, reality-bending force of the Anthropocene. Sunny and the *oha* coven are overwhelmed by its existence; Chichi and Orlu and Sasha are unable to stand directly on it without becoming ill. Sunny is only able to stand it because she exists as a liminal character—free agent, doubled, an albino, both American and Nigerian. Another liminality is revealed while traveling on The Road: Sunny learns that in addition to her other liminal identities, she is also an *ogbanje*:

An *ogbanje* was a spirit who came and went, always coaxed back to the spirit world

by her spirit friends. She had been born to her parents a year before as a boy, and then

she'd died. Back then, her father has wanted to name her Anyanwu[…] When she was

born again, she was a Leopard Person with the ability to glide. That ability and not

come with her albinism, it had come with her being an *ogbanje*. (*AWM* 329)

Throughout The Nsibidi Scripts series, Sunny is depicted as a child of dualities; discovering that she exists within and between the duality of life and death itself as an *ogbanje* presents her with her steepest and most personal challenge yet. This discovery—in particular, the discovery that her previous incarnation as a son was supposed to be named Anyanwu—brings her face to face with another kind of trouble: her tense relationship with her father, who does not know she's a Leopard person and has always disliked her for being a girl. The irreconcilability of this information is overwhelming, as overwhelming as The Road which triggered the transfer of this information from Anyanwu to Sunny: Sunny's magical powers, including her ability to glide, which has saved her, the *oha* coven, and even the world, has its roots in her status as an *ogbanje*, the same phenomenon that has made her father hate her. As with all of her other challenges, Sunny meets it by playing:

She couldn't settle at all. And so she did what she did when she was overwhelmed

with nerves on the soccer field. She took a deep breath and just stopped thinking.

Stopped thinking completely and let her body take over. […]She didn't touch any of it

with her mind. She imagined kicking a soccer ball instead. She head butted it and

caught it with her foot. And she smiled. She felt better. Focused. (*AWM* 330-331)

Rather than brute forcing her way through the cognitive and emotional trouble of yet another new inescapable, liminal identity, Sunny turns off her brain and focuses on play instead. The trouble Sunny encounters here is reminiscent of the continuing cognitive and

emotional trouble of the Anthropocene, and Sunny's approach to it, which focuses on bodily materiality over ego-based cognitive processing, exemplifies the solutions that the posthumanist child can bring us. Indeed, after this new information is revealed, Sunny adjusts to traveling the road: "Sunny walked with [the *oha* coven] for awhile and then returned to 'playing' in The Road, as Sasha had put it. The final lesson of The Road that Sunny learned was that she could travel with the spirits and *enjoy* it" (*AWM* 36, emphasis original). If The Road is the series' ultimate representation of The Anthropocene, then Sunny's ability to play and enjoy its chaos, unpredictability, and danger presents readers with a meaningful, instructive alternative to merely staying with the trouble, suggesting instead that we may learn to approach it with it by embracing liminality and valuing the childhood act of play.

Throughout it all, the fact that Sunny and her friends are children remains central to their experience, although not as a barrier or a challenge. Sunny learns another key piece of information about The Road from Sugar Cream—that Sugar Cream had visited it, as a child of seven, when she was temporarily killed by a man in the wilderness. As she tells Sunny of her spirit being pushed through the spirit world, called the wilderness, and onto The Road, she describes her emotional response: "I was scared when I was seven and dead. I wasn't ready, I wasn't prepared, it didn't make sense. I didn't even know The Road existed…but it didn't break me. Don't let it break you." (*AWM* 205). Sugar Cream's experience demonstrates that children may not have the skill or experience of adults, but their lack of preparation and/or understanding of a situation does not necessarily have to 'break' them—in other words, children can be as strong as adults in the face of trouble. Indeed, given that the *oha* coven are the ones undertaking this quest for Udide, they are in some ways stronger than most adults.

Nsibidi is reading/being/play, Nsibidi is the map to The Road, The Road is trouble/*wahala*, The Road is a powerful river, The Road is a place that Sunny and the *oha*

coven must go to recover Udide's ghazal; Udide's ghazal, written in Nsibidi, is a poem and thus a story, storytelling is a form of play… The interlinking of these elements forms a clever web that slowly entraps Sunny and the *oha* coven. Rather than proceeding linearly on their journey, they are drawn sideways and backwards, returning to Leopard Knocks and the Obi library for guidance, traveling to the far-off planet of Ginen in order to get through the wilderness to The Road, flipped and manipulated like symbols of Nsibidi themselves. When they finally reach the location of the ghazal, Sunny must once again play with the trouble by facing the masquerade Ajofia, also known as the Evil Forest, who guards the ghazal in a place called the Power House: "[Sunny] looked up and in that moment came face to face with Ajofia. […] She blinked. And then she did the thing she always did when she played soccer. She stopped thinking. She acted" (*AWM* 353). This time, her playing leads her to steal Ajofia's purse, which grants her the status of masquerade peer: "Masquerade peers were rare; Anatov had even said he'd never met one. She blinked, remembering part of the lesson. She remembered because she'd thought it was so strange that to gain something positive, you have to take from something negative" (*AWM* 358). The more powerful Sunny becomes, the more immersed in contradictions she finds herself, but in the face of all contradiction and threats, her best and most successful approach is to continue to play. Chichi joins in this play in her own way as they search for the ghazal in the Power House:

> [Ajofia] danced around Sunny and Chichi, and soon chichi threw caution to the wind and began dancing with Ajofia. Sunny didn't move a muscle.
>
> "Chichi!" She said. "What are you doing?"
>
> Chichi raised her hands in the air and shook her hips as she danced with the slowly twirling masquerade. "Living!" she said, laughing. "Who can say they have danced with a spirit? An Evil Forest, at that? ME! *Gbese*!"

Gbese is a type of Nigerian dance; although we as readers don't have access to Chichi's internal thought process, we can infer that dancing, for her, is similar to Sunny's relationship with soccer: a version of play, a way for her to stop thinking and instead, act. Chichi's moment of dance demonstrates that play does not always have to take the place of a violent, heroic altercation, as it often does for Sunny; sometimes, playing is simply living, enjoying the moment, a natural behavior and inclination of children around the world.

The ultimate purpose of this swirling, tentacular, storytelling journey, while only subtly hinted at, lends a conclusively Anthropocenic undertone to the entirety of The Nsibidi Scripts series. Early in *Akata Woman*, when Udide is instructing Sunny to bring the ghazal back within seven days, she includes a vague reason for the impatience of her demand: "'I must have it back in seven days,' Udide said. 'There is something that is already here; I want all my tools available" (*AWM* 63). Udide's words often refer to things and events outside of Sunny and the *oha* coven's knowledge, and we don't learn what the 'something' is until the end of the narrative, after Sunny and Chichi return the ghazal to Udide:

> [Udide] started to turn away from them when Sunny suddenly said, "W-wait! I have a request…well, a question…something. […]You are the Great Weaver of Worlds. There is a virus out there. It's not bad yet, but they're saying it will be. Can you weave it away?" Sunny paused and then said what she'd been wondering. "Is that why you needed your ghazal back so soon?" […]
>
> Udide stared at Sunny for several moments. "*That* is none of my business," she said. "Humanity will see this through, or it will not. Still…it's good that I now have all my tools." (*AWM* 394)

With this reference to the coronavirus pandemic, the mimetic realism of the series collides directly with the magical quest/*wahala/*entanglement of Sunny, the *oha* coven,

Nsibidi, The Road, the ghazal, and storytelling. The pandemic *is* the reason behind their *wahala* because it itself is *wahala*, an iteration of Anthropocenic trouble that shook and is still shaking the real world to its very foundations. One might assume that the overlap of the pandemic and the intensely magical, fictional creature Udide might lessen the story's mimeticism and reduce the impact of Sunny's lessons regarding playing with the trouble. However, in the acknowledgements of the book, Okorafor refers to the *wahala* of the pandemic in nonfictional terms:

> Lastly, I'd like to thank the terrible, no good, very bad virus known as COVID-19. Without all the *wahala* it caused, without the world going on lockdown, I would not have finished this novel this soon. Working on *Akata Woman* helped me through those scary months of 2020; I got to travel with Sunny, Chichi, Sasha, and Orlu into worlds within worlds when the world wasn't able to go anywhere. (*AWM* 406)

Thanking a virus responsible for the deaths of so many people produces a troubling feeling of wrongness, but the paradox that Okorafor describes, of being capable of immense productivity due to the lockdown, is a phenomenon experienced by many (including myself; I wrote the original version of this chapter, for an anthology, between April and June of 2020). Okorafor had to stay with the trouble of the pandemic, and like Sunny, she ultimately decided to play with it instead, engaging in the act of creation, of storytelling, in the face of widespread disaster. This choice is reinforced by Okorafor's inclusion, just below these final words of her acknowledgements, of an illustration of the "NSIBIDI FOR COVID," one of many Nsibidi illustrations she includes paratextually across The Nsibidi Scripts series. The illustration itself is tentacular, featuring a wiggly, worm-like creature reminiscent of Haraway's chthonic beings that have been disturbed by humanity's Anthropocenic activity. More subtly, her use of the word *wahala*, which only occurs here and in the previous mention

early in the text of *Akata Woman*, suggests that the *wahala* faced by Sunny and the *oha* coven is the same trouble Okorafor, and the reader, faced during the pandemic. The trouble that Sunny faces is truly Anthropocenic, and the best way for her, and us, to face it is to play with the trouble it causes.

Photo of Nsibidi symbol removed for copyright reasons. Copyright holder is Nnedi Okorafor.
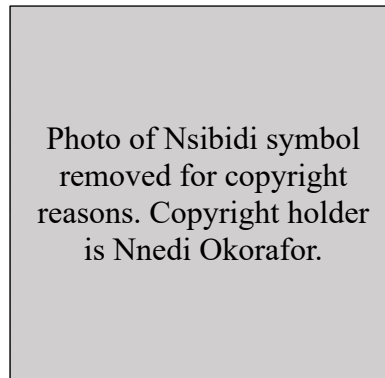
Figure 4: Nnedi Okorafor, Nsibidi for "COVID", 2022

Conclusion: Youth as Valuable Kin

When Sunny and the *oha* coven play with the trouble—through storytelling, ambiguous figuring, and at times, literal play—they demonstrate the short-sightedness of Donna Haraway's plea that we "Make Kin Not Babies!" (*Trouble* 102). Initially, Haraway's reconceptualization of the Anthropocene as the Chthulucene seems supportive of Sunny's story, since it draws on Udide herself, on "the diverse earthwide tentacular powers and forces and collected things with names like … Spider Woman" (*Trouble* 101). Where the word "Anthropocene" centers man, "Chthulucene" centers networked webs of "people and other critters" (*Trouble* 3). Yet when its motto is "Make Kin, Not Babies!", Haraway's Chthulucene subtly excludes young people as critters, relegating them as a problematic and integral part of the "Great Acceleration of human numbers" (*Trouble* 6). While not explicitly rejecting children as kin, Haraway's commitment to a future with far fewer humans implies a future with far fewer children. I'm cautious about throwing the bathwater out with the baby, so to speak; if human numbers must decrease, we must correspondingly work to preserve the

learning, growth, and change associated with youth and youth literature, as demonstrated here in Okorafor's novels. Sunny and the *oha* coven show us that a playful learner's approach can elevate the practice of staying with the trouble from an exercise in meditating under a metaphorical waterfall—or, as Sunny experienced it, falling apart and putting ourselves back together again under the pressure of the Anthropocene—to the more intimate, achievable, and dare I say *enjoyable* activity of playing with the trouble.

Playing with the trouble involves telling stories about it, stories that remain, as Okorafor puts it, "part of a long story of humanity" (*AWT* 342) even as they're being told to spider gods to create magical critters with whom to co-exist. Although Haraway insists that "it matters which stories tell stories" (*Trouble* 101), she forgets that amongst humans, stories told by children and for children are not the same as stories told by and for adults. Sometimes, stories told by children are required to make kin and to *save* kin, as in the case of Grashcoatah, whose creation is paid for by Sunny's *akata* story and whose life is saved by the *oha* coven. Playing with the trouble involves small, daily actions in the face of permanent liminality. Sunny must continue to learn about magic and improve herself as a Leopard person despite the constant dual worlds she must negotiate. Most subversively, playing with the trouble involves literal play, at which children excel more than older humans do. As Sunny demonstrates, merely staying with the trouble is insufficient in the long run. Staying with the trouble for more than a moment requires looking that trouble in the eye and bumping yourself out of the way in a fierce game of self-on-self soccer. Haraway says that we must make kin, not babies, but Sunny teaches us that young people *are* kin, and adults must trust them in order to support their kinship. As Sunny observes on the final page of *Akata Woman:* "'How does the proverb go?' she asked herself. She remembered and said it in Igbo—her grandfather would have been proud of that. '*Oku a gunyere nwata n'aka anaghi ahu ya*,' she said, brushing herself off. "The fire that is intentionally given to a child does not hurt

him…her, me" (*AWM* 404)*.* This Igbo proverb can easily be read as foolish—who would give fire to a child? But it nevertheless is correct—the power we give to children as kin cannot hurt them. As kin, children can offer insight and improvement to the staid narrative norms of adulthood through their own approaches to the trouble. If the advent of the Chthulucene requires human Terrans to become citizens of our own local green country, we may well benefit from the examples of magical young kin like Sunny and the *oha* coven as we embark on that collective journey.

This chapter has investigated an iteration of the posthumanist child concerned with Anthropocenic, environmental challenges, including differences of time scale, immensity, and reality. Sunny is no less a posthumanist child than wooden Pinocchio, for all that their approach towards and execution of the unresolvable paradoxes of *pharmakon* are markedly different. My investigation into the unresolvable paradox of the posthumanist child continues in the next chapter, which jumps from the earthbound, spidery world of The Nsibidi Script series to the sterile, metallic, virtual world of Marie Lu's *Warcross* duology. The conceptual, fictional children we meet there will demonstrate yet another angle of diffraction between posthumanist thought—particularly, artificial intelligence—and children's literature.

Virtually Grown-Up: Artificial Intelligence and Virtual Reality in Marie Lu's Warcross *Duology*

We are ten times more fascinated by clockwork imitations than by real human beings performing.

(McCorduck 3–4)

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Santy, 8: "I'll…define virtual reality as any kid's imagination and what they would like to do."

Brooklyn, 9: "You get to go to places, but you can still stay in one area I think?"

Olive, 8: "Well, I've seen YouTubers doing it, and it looks like on one half of the screen it's like a virtual area and the other half it's them being weirdos just moving around."

Daniel, 10: "It is a…another world of reality, which is life itself…"

Camden, 7: "So virtual reality is like something that is not real, but like these glasses will make you think that it's real."

(*KIDS TRY VR For The First Time - HTC Vive*)

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In her introduction to her book *Machines Who Think* (1979), Pamela McCorduck observes that our species' fascination with "clockwork imitations" has sustained itself since before the medieval era, citing Hephaestus's golden automatons mentioned in the Iliad as one of the earliest literary instances of artificial intelligence. The thing that has in part sustained our awe, she argues, is the spectacle of the artificially intelligent being; in describing this fascination in the epigraph above, she is implying that the most notorious example of this spectacle in our modern culture is Disneyland. As a researcher examining the intersection of

posthumanism and children's literature and media, I'm unsurprised to find a place

representative of one of the largest children's media corporations in the world also appearing

as a premier home of modern artificial intelligence, but I think the connection would be

surprising to many, since artificial intelligence and children don't often mix in the mind of the

average parent, teacher, or caregiver. In the casual conversations I've had about

posthumanism with friends and family, the dialogue often goes like this:

Them: What do you research again? Children's books?

Me: I look at the intersection between children's literature and media and a school of

thought called posthumanism, which is like, you know, theories around climate change

and artificial intelligence.

Them: Oh, so like, robots for kids?

Me: Yeah, robots for kids.

Or, in one of my favorite exchanges with a friend who shall remain nameless:

Friend: What's posthumanism, exactly?

Me: Well, it's a school of thought about things that might cause the end of humanity, like

climate change or artificial intelligence.

Friend: Fun with Dick and Jane: Terminator Edition!

Because posthumanism is such a wide-ranging, contentious, and often self-contradictory

area of thinking and writing (as has been discussed elsewhere in this thesis), defining it

outside of academic circles is cumbersome; it's much easier to point to the specific "novum"

(Suvin 36) of posthumanism, like climate change or artificial intelligence, to explain the kind

of research I do. Inevitably, folks hear 'artificial intelligence' and recall the Terminator, or

SkyNet, as the first thing that comes into their mind. Artificial intelligence comes in many

flavors, of course, not just the murdering-cyborg kind: the mundane programmed microwave,

the friendly (yet oddly powerful) Pinocchio, the ubiquitous iPhone. This recalls D. Halacy's observation on humanity and the cyborg, noted in my first thesis chapter on *The Adventures of Pinocchio:* "As I type this page I am a cybernetic organism, just as you are when you take pen in hand to sign a check" (13). Humanity's relationship to these individual instances of artificial intelligence seems easily assessed (microwaves are tools; SkyNet should be prevented at all costs). But what about our assessment of 'robots for kids'? What does it do to our understanding of artificial intelligence to put them in the path—or under the control—of human children? For the Terminator, a human boy acted as an immediate ameliorating influence. Ask any pediatrician about exposing children and teens to social media algorithms, on the other hand, and you're likely to be met with a significantly critical perspective. Mixing these two topics proves controversial, on the surface at least.

In approaching the intersection of children's literature and media and figures of artificial intelligence, I must necessarily discuss artificial intelligence's near cousin, virtual reality. Artificial intelligence functions most often as a figure: the Terminator, Pinocchio, the Jewish golem, Frankenstein. Virtual reality, on the other hand, functions as a setting, a spatial counterpoint to the artificial intelligence object. Artificial intelligence is required to create a virtual reality setting, and artificial intelligence figures often exist in more visible ways within virtual reality than, say, as an algorithm in a social media app. More importantly, when organic humans inhabit a virtual reality setting, they become, temporarily, a kind of cyborg. Interactions with virtual reality present audiences, particularly young ones, with a phenomenon that, in the year 2022, is both familiar and indescribable. As is evident from the responses of primary school-aged children when asked "What is virtual reality?", virtual reality evokes considerations of the ontological ("another world of reality, which is life itself"; "something that is not real, but…these glasses will make you think that it's real"); the phenomenological ("any kid's imagination and what they would like to do"); spatiality ("you

get to go places, but you can still stay in one area"); and cultural norms ("on one half of the screen it's like a virtual area and the other half it's them being weirdos"). Artificial intelligence figures make for fun toys, useful tools, and potentially threatening enemies; virtual reality environments – more passive, more inhabitable – invite a different, and arguably deeper, kind of thinking when considered as an environment in which children are increasingly immersed.

This chapter takes on those deeper, ontological considerations of artificial intelligence, virtual reality, and children by filtering them through the lens of fiction for young people. I argue in this chapter that the inclusion of young people, like the fictional Dick and Jane, in our consideration of both artificial intelligence and virtual reality complicates our understanding of posthumanism—robot apocalypse and all—in productive and surprising ways. To engage with this debate, I turn not towards Dick and Jane picture books (which are, of course, bereft of both artificial intelligence and virtual reality), but rather towards young adult fiction. As I will discuss later, young adult fiction zeroes in on teens' liminal position between childhood and adulthood; for now, I'll note that the positionally of adolescents between childhood and adulthood bears a striking resemblance to the liminal position of humans between the 'innocence' of a humanist, pre-singularity era and the 'apocalypse' of a post-singularity world suggested in many narratives featuring artificial intelligence. Young adult literature, more than any other category of literature for children, wrestles with questions of power and authority over, and for, young people. Literature written for pre-pubescent children negotiates power structures, to be sure, but generally in an aetonormative, home-away-home pattern that only permits child protagonists power temporarily, before being safely returned to a position subordinate to adult control (Nikolajeva, *Power*; Beauvais). Intended for a group of people roughly aged thirteen through nineteen (although the boundaries of that definition are murky at best), texts for adolescents must instead appeal

to a group of people whose awareness of their place in society is just beginning to awaken and crystalize, alongside a parallel awakening of their physical bodies. As Roberta Trites describes, "[a]lthough the primary purpose of the adolescent novel may appear to be a depiction of growth, growth in this genre is inevitably represented as being linked to what the adolescent has learned about power. Without experiencing gradations between power and powerlessness, the adolescent cannot grow" (Trites, *Disturbing the Universe* x). Any institution that enacts or counteracts power—the family, the school, the government, the natural environment, and even the biological environment of our own bodies—is valid grounds for an exploration of adolescent power (or lack thereof) in young adult literature. This exploration often comes in the form of a negotiation, in which the adolescent protagonist must "learn their place in the power structure" (ibid.), which often reveals their "contradictory position" (Trites, *Disturbing the Universe* xi) within a given societal institution. In literary case after literary case, the adolescent protagonist must reckon with any number of adult-originated power dynamics within which they have always existed as children but against which they must now contend as liminal creatures on the verge of adulthood themselves.

This repeated dynamic, observable in most if not all popular works of young adult fiction, warrants examination for its own sake; as Karen Coats observes, "since [adolescence's] primary characteristic is that it is a state of change, it is a component that needs to be continually re-examined" (Coats, "Young Adult Literature: Growing Up, In Theory" 323). Perhaps unexpectedly, however, the questions of power and authority raised regarding young adult literature parallel those that have been posed by *adults* about cybernetic entities such as AI. In some ways, artificial intelligence heralds a society narrated like a tale for children: given enough integration, battery power, and algorithm, artificial intelligence functions as a tool that can be used by a clever enough human to avert any disaster, correct any behavior,

right any wrong. Isaac Asimov's science-fiction short story "The Evitable Conflict" which appears, among other places, in his collection *I, Robot* (Asimov) imagines this outcome for the human race as the unavoidable result of artificial intelligence being integrated into human society, depicting a world governed by "Machines" who manage the economy, the justice system, and even, subtly, the anti-Machine movements that have sprung up, all with the intent of preventing harm from coming to humans. Although not *for* children, per se, this tale places adults—indeed, all of humanity—in a childlike position relative to the computational power of the Machines. With the Machines in control, all conflict is evitable, even that which is artificially induced—much like fictional narratives—in order to help humans feel a semblance of control. Although Asimov's story is itself a fiction, the pervasiveness, and the political impact, of data mining, location tracking, and ad targeting, to name only a few key sectors, feel disturbingly close to his depiction. Understandably, therefore, the level of control potentially available to artificial intelligence systems, with the languid blessing of adults who happily click "accept" on terms and conditions for any and all of their smart phone apps, is perceived by some to be a terrifying threat to human (adult) autonomy and agency. As artificial intelligence becomes ever more ingrained into our 21st century society, we find ourselves asking: how much power should we make available to it? In what contexts is it safe to ask artificial intelligence to solve our problems for us, and what are the costs of making that request?

VR inverts the quandaries posed by AI. Once (and still, in some ways) a figment of the sci-fi imagination, virtual reality recalls the wild freedom from control and authority—of adults, of society, or otherwise—found in many works of children's and young adult literature, marking a distinct reversal from its cybernetic cousin. Rather than a being, virtual reality is a temporo-spatial setting, reminiscent of Bakhtin's carnival both in its spirit of

revelry and in its immersive properties. Bakhtin defines his concept of carnival as belonging "to the borderline between life and art":

> In reality, [carnival] is life itself, but shaped according to a certain pattern of play. …Carnival is not a spectacle seen by the people; they live in it, and everyone participates because its very idea embraces all the people. While carnival lasts, there is no other life outside it. During carnival time life is subject only to its laws, that is, the laws of its own freedom. It has a universal spirit; it is a special condition of the entire world, of the world's revival and renewal, in which all take part. Such is the essence of carnival, vividly felt by all its participants. (Bakhtin 7)

One does not have to have experienced the immersive properties of a virtual reality environment to notice the similarities between it and Bakhtin's carnival. Of course, contemporary real-world virtual reality experiences, such as those offered by Meta's Oculus Rift or the shorter-lived Google Glass, hardly qualify as having 'a universal spirit' or 'special condition of the entire world', and it's debatable whether pervasive social media apps such as Facebook, Instagram, or TikTok qualify as true virtual reality, even in their live video feed incarnations. Even massively multiplayer online roleplaying games (MMORPGs) like World of Warcraft, RuneScape, or Eve Online don't quite meet the criteria of immersion suggested by both carnival and true virtual reality. In several works of contemporary young adult fiction, however, we find examples of virtual reality worlds that more than meet Bakhtin's criteria. These texts imagine virtual reality as an entrenched component of society, with extremely high uptake rates and even reverse implications on a user's real-world life based on in-game activity. The most well-known text of this genre is Ernest Cline's *Ready Player One*, which has been adapted by Disney into a feature-length film of the same name. There is also a genre of literature known as 'game lit' that features teenage or slightly older protagonists

immersed in virtual gaming worlds, with plots that follow the basic structure of the virtual reality game itself; these texts function as novelizations of a video gaming experience one might find in the real world, with an additional virtual reality component to add to the realism of the gameplay. My focus texts, *Warcross* and *Wildcard* by Marie Lu, comprise a duology much more reminiscent of Cline's novel than of the wider game lit genre; rather than being a strict novelization of the gaming experience, the narrative of Lu's duology takes place both in and out of the virtual reality world, eponymously titled Warcross, with several sections of the plot happening outside of VR. Additionally, the *Warcross* duology features a significant artificial intelligence component, which I will discuss later in this chapter, that juxtaposes the risks and benefits of artificial intelligence and virtual reality in a specifically child-centered context. Unlike depictions of artificial intelligence, which raise questions of authority and control, these fictional virtual reality worlds depicted in the novels of Cline and Lu, as well as in game lit novels, offer several avenues of personal freedom to users (and, by extension, to readers' imaginations): freedom of identity, freedom of action, and freedom *from* the forces of authority and control present in the real world. Indeed, virtual reality as depicted in these texts operates by 'the laws of its own freedom', and when users are logged in, virtual reality unequivocally becomes 'a special condition of the entire world'.

Considering questions of artificial intelligence, virtual reality, authority and freedom through the lens of young adult literature allows us to compare, the difficulties of cybernetic enmeshment in human society with the difficulties presented by aetonormative power structures within literature for young people. The 'away' phase of a children's text is equivalent to the 'carnivalesque' phase, in which power roles between adults and children are reversed: "children are allowed, in fiction written *by adults* for the enlightenment and enjoyment of children, to become strong, brave, rich, powerful, and independent—*on certain conditions and for a limited time*"(Nikolajeva, *Power* 10, emphasis original). Although the

child must return to their life under adult authority, "[these] narratives have a subversive effect, showing that the rules imposed on the child by adults are in fact arbitrary" (ibid.). Designed for older children who are closer to attaining adult status, both materially and discursively, young adult literature often departs from this home-away-home model, retaining the first stage of 'home' and the second, carnivalesque structure of 'away', but then forbidding the teen protagonist access to a return 'home', either by forcing the character to grow up (become the new adult authority) or die (remove themselves from the aetonormative power structure entirely). Adding artificial intelligence (a metaphor for total control), virtual reality (a metaphor for total freedom), or both to young adult fiction's modified approach to aetonormative power structures further complicates the subversive questioning of adult authority suggested by these texts for teens.

The converse consideration also carries the weight of subversive potential: seen through an aetonormative lens, both the concerns and possibilities raised by artificial intelligence and virtual reality come under a type of scrutiny that moves away from considering 'humans'—as in, 'humans vs. artificial intelligence'—as a unitary monolith. The field of posthumanist critique already works to destabilize humanist binaries in the face of contemporary challenges to power dynamics posed by non-human entities, like artificial intelligence or virtual reality; this work is described by young adult literature scholar Victoria Flanagan as "the critical discourse that seeks to understand and dismantle the privileged status of the humanist subject" (Flanagan, "Rethinking" 35). A posthumanist lens thus becomes crucially helpful both as a set of critiques aimed at destabilizing humanist binaries of power (human-artificial intelligence, adult-child) and through its mediation of the relationship between the human and the technological, including artificial intelligence. As Karen Barad describes, posthumanism is intentionally "not calibrated to the human; on the contrary, it is about taking issue with human exceptionalism while being accountable for the role we play in the

differential constitution and differential positioning of the human among other creatures (both living and nonliving)" (Barad, *Meeting* 136). Like Barad, other scholars of posthumanism or of posthumanist-adjacent theories focus more on 'the human among other creatures' and less on the nuances already present within humanity and how those nuances might in turn affect posthumanist binaries. This exclusion of consideration of human differences is not exclusively true; indeed, prominent posthumanist theorists like Barad, Donna Haraway, and N. Katherine Hayles all position their work from a feminist perspective. However, other humanist nuances around race, gender, and colonialist inequities are often problematically left out of posthumanist consideration. I have engaged more thoroughly with concerns regarding the white, Western nature of Man in chapter two, which focuses on a series of young adult novels by Nigerian-American author Nnedi Okorafor as they intersect with Donna Haraway's theory of 'staying with the trouble' as an approach to (en)countering environmental concerns of the Anthropocene era. However, this entire thesis rests upon an observation similar to Wynter's regarding the relationship between children's and young adult literature and media studies and posthumanist theories. Key concepts from children's and young adult literature studies, including but not limited to the figure of the child, the figure of the adolescent, and aetonormativity, have not made any substantial impact on mainstream posthumanist thinking (or indeed, any other avenue of mainstream literary thinking). Just as the western concept of Man 'overrepresents itself as if it were the human itself' across many (if not all) realms of academic discourse, so too does the concept of adult overrepresent itself in the same way. Bringing the figure of the child and the theory of aetonormativity into contact with depictions of cybernetic entities such as artificial intelligence and virtual reality begins to broaden this particular human-posthuman binary in such a way as to unpack the implicit assumptions about adulthood, childhood, control and freedom that are embedded within them.

The central analysis of this chapter brings together two key methodological threads in posthumanist analysis: the semiotic square, which precedes posthumanist studies significantly but has been successfully applied within them, and diffraction, which I use throughout this thesis. Because the posthuman nova at question in this chapter are artificial intelligence and virtual reality, my close reading of Lu's *Warcross* duology takes as its point of departure the work of N. Katherine Hayles, a literary scholar whose research considers the intersection of cultural-literary studies and cybernetic technology. Hayles examines the relationship between humanity, artificial intelligence and virtual reality in several works of science fiction, using the semiotic square as a key route of analysis for considering the power dynamics therein. I take inspiration from her approach, which has not before been applied to works of literature for young people featuring those same nova, in order to uncover the boundary disruptions and power shifts that occur when young adult texts grapple with key questions about artificial intelligence and virtual reality. I will therefore be modifying her semiotic square of virtuality in literature to apply to virtuality in young adult literature, taking into account the power structures of aetonormativity in my formulation of the square. This type of modification is reminiscent of Donna Haraway's analytical concept of diffraction. Haraway defines diffraction as an alternative optical metaphor, one that is "a mapping of interference, not of replication, reflection, or reproduction. Diffracting power structures of aetonormativity 'through' the relationships of different key concepts of virtuality and artificial intelligence—that is, seeing how the former interferes with the latter—via the semiotic square will produce a better and more useful understanding of both sets of power dynamics.

Hayles's work, as well as the work of other key posthumanist scholars considered here, discusses both artificial intelligence and virtual reality using somewhat interchangeable vocabulary, including 'cybernetic,' 'virtual,' and 'digital'. Although these terms bear

similarity to each other, they have more granular meanings in certain scientific and engineering contexts: 'cybernetic' refers to a specific kind of artificially-produced feedback loop that mimics the neural structures of the brain; 'virtual,' or more specifically the noun form 'virtuality,' refers to "the cultural perception that material objects are interpenetrated by information patterns" (Hayles 14–15), most familiar in "simulations that put the body in a feedback loop with a computer-generated image" (ibid.); and 'digital' refers to any system of information rooted in numeral digits, typically referring to binary computer code. I appreciate that in more technical fields the distinction between these terms matters; when used in the study of young adult literature, however, the terms begin to blend into one another, unintentionally echoing the eliding of meaning between the terms, which happens when considering works across various humanities fields. Thus, I will be using these terms somewhat interchangeably throughout this discussion, with an understanding that virtual platforms and digital hardware would themselves be inert, albeit sophisticated, tools—21st century hammers and nails—without the distant intelligence of artificial intelligence behind and within them. I will tend towards describing virtual reality as virtual, as opposed to cybernetic or digital, although at times both of the latter terms would be appropriate. Similarly, I will typically refer to the artificial intelligence systems present in the texts as cybernetic, although in many ways they are also virtual and digital.

This chapter will engage in a review of the intersection of literature, artificial intelligence, and virtual reality to see what determinations regarding the relationship between humans and posthumanist technology have been derived from our fictional representations of the latter thus far. I will then turn to an examination of the intersection of cybernetic technology and young adult literature, with a focus on posthumanist analyses. This will foreground my primary textual analysis, which combines posthumanist critiques of artificial intelligence and virtual reality present in specific strains of posthumanist theory with aetonormative

considerations appropriate for the young adult novels at hand. By merging these strands of critique—posthumanist and aetonormative—I will be able to specifically examine how each set of power structures might interfere with the other in productive ways. My semiotic-diffractive approach will reveal the ways in which young adult literature might answer some of our fundamental questions about artificial intelligence and virtual reality, at the same time as its depiction of artificial intelligence and virtual reality sheds light on what it means to be a young person in an increasingly virtual world. Technologies such as artificial intelligence and virtual reality place adult humans in a position reminiscent of childhood, while also being juvenile entities themselves, both in terms of how long they've had a significant impact on human life and how far they might develop as time goes on. In a sense, both technologies might be considered precocious, adolescent posthuman children. Examining how we handle those power structures representationally will help us decide whether, or if ever, we as a species will be ready for them to grow up.

Rectification or Wreckage? Theories of Cybernetics and Children's Literature

It's useful to proceed with the understanding that artificial intelligence and virtual reality function as inversions of each other, with the former indicating power, authority, and control and the latter indicating freedom, chaos, and mutability. Because of this inversion, histories of these two technological elements within literary and media theory, including theories about children's literature and media, trace back along divergent paths. Despite their differences, both artificial intelligence and virtual reality are rooted in the same digital binary technology of computer coding; comprise the fundamental components of cybernetic theory; and provoke ontological and epistemological considerations regarding our figuring of the human, both in the real world and in our cultural products. In this section I will review the intersection of both of these technologies and literary theory, starting with artificial

intelligence and concluding with virtual reality, in order to foreground a closer analytic look at both of them in primary texts for young adults. Understanding these intersections, especially with regards to theories of children' literature and media, will allow us to comprehend the aetonormative nature of the concerns raised by both technologies—as well as the subversive potential that is also inevitably raised alongside those concerns.

Literary theorists and those in closely adjacent fields have long been suspicious of artificial intelligence's ontological implications for humanity. In his influential work 'Prometheus as Performer', Ihab Hassan coins the terms 'posthuman' and 'posthumanism,' arguing that

> five hundred years of humanism may be coming to an end, as humanism transforms itself into something that we must helplessly call posthumanism[…which is] not the literal end of man but the end of a particular image of us, shaped as much by Descartes, say, as by Thomas More or Erasmus or Montaigne. (843–45)

Hassan identifies artificial intelligence as one of the key technological developments that has prompted our "helpless" transition from several centuries of humanist tradition, which ontologically centers the independent human figure, to the burgeoning posthumanism of the 21st. By invoking Prometheus, Hassan links a technologically-prompted shift with a much older literary tradition and imbues posthumanism with the ambiguousness of Prometheus' gift to humanity—indicating that posthumanist concerns, including artificial intelligence, have the same double-edged tendency as fire:

> Will artificial intelligences supersede the human brain, rectify it, or simply extend its powers? We do not know. But this we do know: artificial intelligences, from the humblest calculator to the most transcendent computer, help to transform…the concept of the human. (846)

Alongside Prometheus, Hassan invokes the image of "HAL (the supercomputer in Kubrick's *2001*, so strangely human, that is, at once so sinister and pathetic in every circuit and bit)" (845), linking posthumanism to its perhaps more obvious literary/media counterpart, science fiction. The tension between artificial intelligence's admitted ontological influence on humanity and its depiction in popular fiction as a combination of evil and weakness represents a sharp hesitancy on the part of both artists and humanities scholars to cede human control to a non-human entity. Despite acknowledging artificial intelligence's potential to "rectify" the human brain—to provide us with as many happy endings as its algorithms can calculate—Hassan, and Kubrick, appear to hedge in favor of artificial intelligence's potential to "supersede" human capacities. Unlike fire, which exists merely as a tool, artificial intelligence systems like HAL appear capable of both evil and pathos; for humanities scholars, artificial intelligence represents Prometheus himself rather than the fire, unpredictable in the scope and direction of his (its) power.

Artificial intelligence's "strangely human" capacity to think prompts feminist scholar Donna Haraway's critique of it, embedded within a larger discussion of the cyborg, a figure which she terms "a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction" ("Cyborgs" 7). Artificial intelligence must not automatically be a cyborg, under Haraway's definition, but the hybridity generated by the integration of artificial intelligence into organic human existence aligns with Haraway's conceptualization of the cyborg, particularly with regards to the risks inherent in the cyborg's figure:

> Our best machines are made of sunshine; they are all light and clean because they are nothing but signals, electromagnetic waves, a section of a spectrum, and these machines are eminently portable, mobile—a matter of immense human pain in Detroit and Singapore. People are nowhere near so fluid, being both material and opaque.

Cyborgs are ether, quintessence. The ubiquity and invisibility of cyborgs are precisely

why these Sunshine Belt machines are so deadly. They are as hard to see politically as

materially. ("Cyborgs" 12)

By describing cyborgs as "ether, quintessence," and invisible, Haraway locates AI's threat to

human ontology (and physical safety) in its disembodied nature. She continues this critique in

a later list demonstrating the transition of classic humanist principles into their posthuman

counterparts. She designates artificial intelligence as a technological evolution of the

Cartesian concept of the mind, separate from and dominant over the body—a central tenet in

the "comfortable old hierarchical domination" of "white capitalist patriarchy" ("Cyborgs"

20–21). Even though Haraway's cyborg possesses the potential for revolutionary, boundary-

dissolving action, Haraway's assessment of artificial intelligence itself is dismissive,

categorizing it as a transhumanist dream of the human mind unmoored from the 'weaknesses'

inherent in the human body. For Haraway, because artificial intelligence lacks a body, and

because humanism—and Western culture more broadly—has traditionally privileged the

mind over the body, artificial intelligence poses an advanced danger to the embodied status of

non-dominant organic figures, including (but not limited to) many categories of humans.

The disembodiment of the posthuman, as enacted in the figure of artificial intelligence, is

the subject of Hayles' definitive work on the topic, *How We Became Posthuman.* Hayles

picks up the thread of Haraway's argument and takes it several steps further, positioning

humans as the 'we' who have become posthuman. She argues that

the construction of the posthuman does not require the subject to be a literal cyborg.

Whether or not interventions have been made on the body, new models of subjectivity

emerging from such fields as cognitive science and artificial life imply that even a

biologically unaltered *Homo sapiens* counts as posthuman. The defining

characteristics involve the construction of subjectivity, not the presence of

nonbiological components. (4)

A consideration of the posthuman figure as a constructed subjectivity paves the way for a

literary reading of posthuman figures and application of posthumanist critiques (since literary

narratives can be considered, in one sense, nothing more than a series of narrowly

constructed subjectivities). Yet Hayles does not equate subjectivity with mind, insisting that

embodiment remains a crucial factor for both humans and posthumans, only without which

"is it possible to claim for the liberal [humanist] subject its notorious universality, a claim

that depends on erasing markers of bodily difference, including sex, race, and ethnicity" (4–

5). By acknowledging the pervasiveness of posthuman subjectivity while simultaneously

rejecting it as a further iteration of Cartesian dualism, Hayles hopes to promote "a version of

the posthuman that embraces the possibilities of information technologies without being

seduced by fantasies of unlimited power and disembodied immortality" (5). In particular, she

aims "to complicate the leap from embodied reality to abstract information" (12), focusing on

the interference of material conditions, including embodiment, in the "light and clean"

("Cyborgs" 12) execution of virtual patterns and signaling.

A consideration of virtual reality complicates Hayles' goal, since virtual reality, even

more than artificial intelligence, promises users "unlimited power and disembodied

immortality". Unlike artificial intelligence, which has regularly been depicted as singular

unitary subjectivities (see, for instance, HAL of Stanley Kubrick's *2001: A Space Odyssey*;

Arnold Schwarzenegger's Terminator from the eponymous film series; and even *WALL-E*'s

OTTO, the nefarious piloting software, reminiscent of HAL, although much more easily

subdued), virtual reality presents itself as a diffuse system, a setting, a matrix of code that

digitally wraps around human subjectivities in a way not too dissimilar from what is

experienced during an immersive reading session. Without an identity as an entity, virtual

reality does not present itself as its own source of power or authority over adult autonomy--

and yet the freedom indicated by virtual reality has come under its own kind of scrutiny, as

my use of the word 'matrix' reminds us. Indeed, *The Matrix* film series is to virtual reality

what *Terminator* is to artificial intelligence: a generational zeitgeist of a particular posthuman

nova heralding an increasing integration of that nova into our everyday lives, making Hayles'

critique, and the critiques found within this chapter, ever more relevant with each passing

year.

    One of the earlier considerations of the ontological and epistemological problematization

presented by virtual reality appears in Jean Baudrillard's *Simulacra and Simulation*. Writing

in the early 80's, Baudrillard does not use the phrase 'virtual reality,' instead describing the

ontological implications of the virtual by hearkening to a much older simulation of reality:

the map. Maps throughout history, Baudrillard observes, have functioned to *simulate* reality

without actually *being* reality; in today's technological world, however,

> abstraction is no longer that of the map, the double, the mirror, or the concept.
>
> Simulation is no longer that of a territory, a referential being, or a substance. It is the
>
> generation by models of a real without origin or reality: a hyperreal. The territory no
>
> longer precedes the map, nor does it survive it. It is nevertheless the map that
>
> precedes the territory—*precession of simulacra*-—that engenders the territory… (1,
>
> emphasis original)

    His description of a simulacra as being 'a real without origin or reality' pinpoints

precisely the ontological and epistemological quandaries presented by virtual reality, which

itself is a map without a territory, a real without reality. Another word that Baudrillard uses to

describe this phenomenon is 'hyperreal', and he links this concept from the outset with one of

the most visible, well-known properties of children's media:

Disneyland is a perfect model of all the entangled orders of sim-ulacra. It is first of all a play of illusions and phantasms: the Pi-rates, the Frontier, the Future World, etc. This imaginary world is supposed to ensure the success of the operation. But what attracts the crowds the most is without a doubt the social microcosm, the religious, miniaturized pleasure of real America, of its constraints and joys. …But this masks something else and this "ideological" blanket functions as a cover for a simulation of the third order: Disneyland exists in order to hide that it is the "real" country, all of "real" America that *is* Dis-neyland.

Worth noting here are the 'orders of simulacra' present at Disneyland. Baudrillard borrows his wording here from semiotic theory, which proposes 'orders' of signs, ranging from signs that represent something quite concrete (first order) to signs that represent things that are quite abstract (third order). The first order of simulacra, for Baudrillard, is that of fiction—in the case of Disneyland, fiction specifically for children, comprised of "illusions and phantasms". Unlike first-order signs, which represent a concrete reality (a picture of a dog, for instance, representing a physical dog), this first-order simulacra represents something that only exists in the imagination, locating Disneyland—and, as a corollary, all of children's fiction—as a simulation, as a cousin of virtual reality, at its simplest level, with no real referent to speak of. The more revelatory statement of Baudrillard's, of course, is that Disneyland also functions as a third-order simulacra—as the *real* America, with the rest of what we might think of or experience as America not actually signifying America at all. Mind-bending as it is, this description demonstrates the power of simulations to replace reality both in people's minds and in more material ways, a power that has significant implications for the ontological and epistemological role of VR. When Baudrillard links this reality-bending power to one of the most famous children's cultural properties in existence to demonstrate the impact of its effect, the connection suggests that examining the link between

simulations, such as virtual reality, and literature and media for young people might provide a better understanding of the boundaries and extent of VR's ontological and epistemological role.

Baudrillard's systemization of simulacra, simulation, and the hyperreal serve to illuminate some of the essential questions at the heart of VR. The way in which virtual reality challenges our ontological understanding of what qualifies as reality undermines the positive connotations of virtual reality as a site of freedom, and Hayles' assessment of virtual reality further complicates the 'benefits' that virtual reality might appear to have on the surface when compared with the more authoritarian figure of AI. Just as Baudrillard does, Hayles finds an entry point into the complicated nature of virtuality by describing a cultural property well-suited for children (if not exclusively designed for them):

> Normally virtuality is associated with computer simulations that put the body into a feedback loop with a computer-generated image. For example, in virtual Ping-Pong, one swings a paddle wired into a computer, which cal-culates from the paddle's momentum and position where the ball would go. Instead of hitting a real ball, the player makes the appropriate motions with the paddle and watches the image of the ball on a computer monitor. Thus the game takes place partly in real life (RL) and partly in virtual reality (VR). (Hayles 14)

Hayles' description of the early video game Pong, and indeed many people's own experience with video games, even early ones with pixelated graphics and simple mechanics, brings to mind a sense of play and wonder that sits far more comfortably amongst other cultural products for children than it does next to the Terminator cyborg or HAL. VR's seeming passivity in the passage above, which places the human user in the active subject role and the paddles and images of the game in the passive object role, grants it a sort of

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innocuousness; one can imagine a dusty, perhaps outdated console on a shelf in a children's room, next to similarly dusty piles of books, left inert until a curious child (or adult) comes to imbue them with life. Yet Hayles cautions that material cultural properties cannot be underestimated, particularly when related to cybernetic technologies such as VR:

> I want to resist the idea that influence flows from science into literature. The cross-currents are considerably more complex than a one-way model of influence would al-low. …Literary texts are not, of course, merely passive conduits. They actively shape what the technologies mean and what the scientific theories signify in cultural contexts. They also embody assumptions similar to those that permeated the scientific theories at critical points. …The scientific theories used these assumptions as enabling presuppositions that helped to guide inquiry and shape research agendas. (21)

If codices and other non- or less-immersive cultural products can have this effect on scientific research, then the advent of truly immersive virtual reality, like the kind that appears in the *Warcross* duology and similar texts, would herald an inevitable cultural shift that changes what human society looks like and how it functions on a fundamental level. At the moment, however, these fully immersive technologies exist only in fiction, leaving literary depictions as one of the best ways for us to think with and through virtual reality's material and cultural implications.

Hayles' strategy of interrogating fantasies—fictions—of unlimited power perpetuated by cybernetic systems of artificial intelligence and virtual reality offers intriguing intersections to an analysis of adult power within works of literature for children, particularly those works of literature that themselves contain a significant presence of AI. Texts that contend with both subjugated figures, each with the potential to redirect the course of human history (albeit in

very different directions), offer an opportunity to road-test Hayles' optimism while simultaneously putting pressure on the adult-child power binary, which has come under far less critical scrutiny than the human-cybernetic binary. For all that posthumanist scholars claim that the human and humanism have been "helplessly" de-centered, little interrogation has occurred into the role that children might play in that struggle to balance the inevitability of "our kinship with and differences from the intelligent machines with which our destinies are increasingly entwined" (Hayles 282). A closer look at the expression of the adult-child power binary in young adult literature and its intersection with cybernetic technologies will offer a starting direction for making such considerations.

Teens and Screens: Artificial Intelligence, Virtual Reality, and Aetonormative Considerations of Childhood

Along with his discussion of simulacra and simulations, Baudrillard discusses holograms at length, describing the odd tension between the virtual and the material at play in these types of realities by considering the audience of a television program:

> The TV studio transforms you into holographic characters: one has the impression of being materialized in space by the light of projectors, like translucid characters who pass through the masses (that of millions of TV viewers) exactly as your real hand passes through the unreal hologram without encountering any resistance—but not without consequences: having passed through the hologram has rendered your hand unreal as well. (105)

Here, Baudrillard's analysis recalls not only the familiar science fiction 'holograms' present in texts like *The Matrix* (a list which must include William Gibson's *Neuromancer*,

the forerunner of the cyberpunk genre, and the aforementioned *Ready Player One*) but also Mike Teavee, a child character from Roald Dahl's *Charlie and the Chocolate Factory* whose obsession with television leads him to being 'beamed' into a television set—only to be plucked out of the set by Willy Wonka himself. The 'beam' had shrunk Mike small enough to fit inside the television screen. This early instance of confusion between the virtual and the real in a work of children's media, published in 1964, has proven prescient in predicting a significant fear of adults regarding children and screens: that too much screen time will cause their children to become 'holographic characters', 'rendered…unreal' by failing to develop typically or healthily. This fear has been, to some extent, reinforced and substantiated by esteemed medical bodies such as the American Academy of Pediatrics, who noted in a policy statement from 2016 that "multiple developmental and health concerns continue to exist for young children using all forms of digital media to excess," (Council on Communications And Media 3), including concerns around obesity, sleep deprivation, and cognitive, language, and social/emotional delays. This particular policy statement focuses on young children, but similar and even more concerning observations have been made for the relationship between artificially intelligent, screen-based media, particularly social media and internet-based video games, and the mental health and suicide risks for older children. Compared to their analog forbears, such as print media and live theater (which are commonly lauded for their educational value and incorporated into school curriculums), media created and communicated by artificially intelligent, algorithmic platforms appears to be much more disruptive to young people's development, or is at least viewed as such by pediatric health professionals.

Despite their subtle yet unmissable desire to convey cybernetic technology's potential for developmental harm, the doctors who authored the policy report cannot deny its pervasiveness in contemporary children's lives, particularly in their entertainment media. At

the outset of their review, the AAP acknowledges that "[children] are now growing up in environments saturated with a variety of traditional and new technologies, which they are adopting at increasing rates" (Media 1). Nor can pediatricians deny the possibility of *positive* outcomes as a result of children's interaction with digital media, as they observe the benefits of programs like *Sesame Street*: "Well-designed television programs, such as Sesame Street, can improve cognitive, literacy, and social outcomes for children 3 to 5 years of age and continue to create programming that addresses evolving child health and developmental needs (e.g., obesity prevention, resilience)" (Media 2). These doctors recommend digital media avoidance and restriction as one strategy for harm mitigation, but only when children are very young; for children two and older, their main advice is instead for parents is to be involved in their children's digital media usage, and even teenagers as old as eighteen are encouraged to have their parents screen any new websites they want to visit before they do so. Parental involvement, therefore, is the recommended solution for managing the possible dangers to children of exposure to artificial intelligence. Although this is just one document of policy suggestion, the recommendation of parental engagement with children's access to digital media is a common refrain across blogs, news outlets, medical journals, and pediatrician's offices.

This pervasive suggestion of adult enmeshment with a technologically novel, yet already deeply integrated, component of young people's development, indicates the extent of adult fear and anxiety around the possible harm of artificial intelligence to human well-being. However, I argue that this line of reasoning is merely a contemporary version of the aetonormative concern expressed by children's literature scholars such as Lesnik-Oberstein and discussed in the introduction of this thesis. A posthumanist lens, then, becomes one tool that provides us with an opportunity to rehabilitate the uncomfortably imbalanced power dynamic indicated by the concept of aetonormativity. The goal behind any rehabilitation in

this direction, particularly with regard to texts for young people (rather than, say, formal policies or laws) is not to *negate* adult power, without concern for material realities. Indeed, such negation is improbable at best—consider for comparison feminist analysis of literature singlehandedly negating the patriarchy. Rather, an application of a posthumanist lens towards the problem of aetonormativity in texts for young people can offer us suggestions towards softening adult unilateral control, so that children aren't screened out of the process of acquiring their own autonomy. The analysis that follows will also consider the inverse impact of texts for young people on our theoretical considerations of artificial intelligence. Texts written for children, designed to facilitate children's growth and incorporation into normed human adulthood, offer a chance for the reimagining of human-artificial intelligence relations that Hayles envisions, away from narratives of fearful control towards something mutually productive for both sets of beings. A close reading of Marie Lu's young adult novel *Warcross,* which features immensely powerful artificial intelligence and young protagonists empowered, rather than hindered, by artificial intelligence, will demonstrate the potential that texts for young people hold for articulating freedom in the popular imagination. My analysis will refer back to Hayles—both her main arguments about artificial intelligence and her use of the semiotic square—in order to illuminate this potential.

Virtually Grown Up: The Semiotic Intersections of Aetonormativity, Artificial Intelligence, and Virtual Reality

My approach to reading for a better understanding of the intersection of artificial intelligence, virtual reality, and aetonormativity in texts for young people starts from a merging of aetonormative theory and posthumanist critique in a manner that I call diffractive, borrowing from Haraway's description of the concept. Taking inspiration from the organic movement of two colliding waves forming an entirely new wave pattern, Haraway defines

diffraction as an alternative optical metaphor, one that is "a mapping of interference, not of replication, reflection, or reproduction. A diffraction pattern does not map where differences appear, but rather maps where the effects of difference appear" ("Promises" 70). Rather than merely describing the differences between adults and children in a given text, or between humans and artificial intelligence, a diffractive approach prompts us to consider the emergent effects of these differences. This approach dovetails neatly with Hayles' own method of literary analysis. In order "to map the posthuman as a literary phenomenon" (247), Hayles takes "the idea that the two central dialectics involved in the formation of the posthuman are presence/absence and pattern/randomness" (ibid.) and arranges it visually using a tool called the semiotic square. The semiotic square was originally designed to demonstrate the intertwined relationship of pairs of signifying terms to reveal further signified meaning behind them than can be gathered from each individual term (Cobley). In the case of Hayles' modified semiotic square of virtuality, her terms function in opposition to each other, in the case of the central dialectics of presence/absence and randomness/pattern. In a semiotic square, opposition/contrariness between two terms is denoted by a dotted line. The other relationships in this square are relationships of exclusion, for as Hayles notes, "[p]attern/randomness tells a part of the story that cannot be told through presence/ absence and vice versa" (Hayles 248). After building the initial semiotic square, Hayles then engages in the semiotic act of identifying emergent properties that derive from these related signifiers as she's arranged them, as depicted in the figure below.
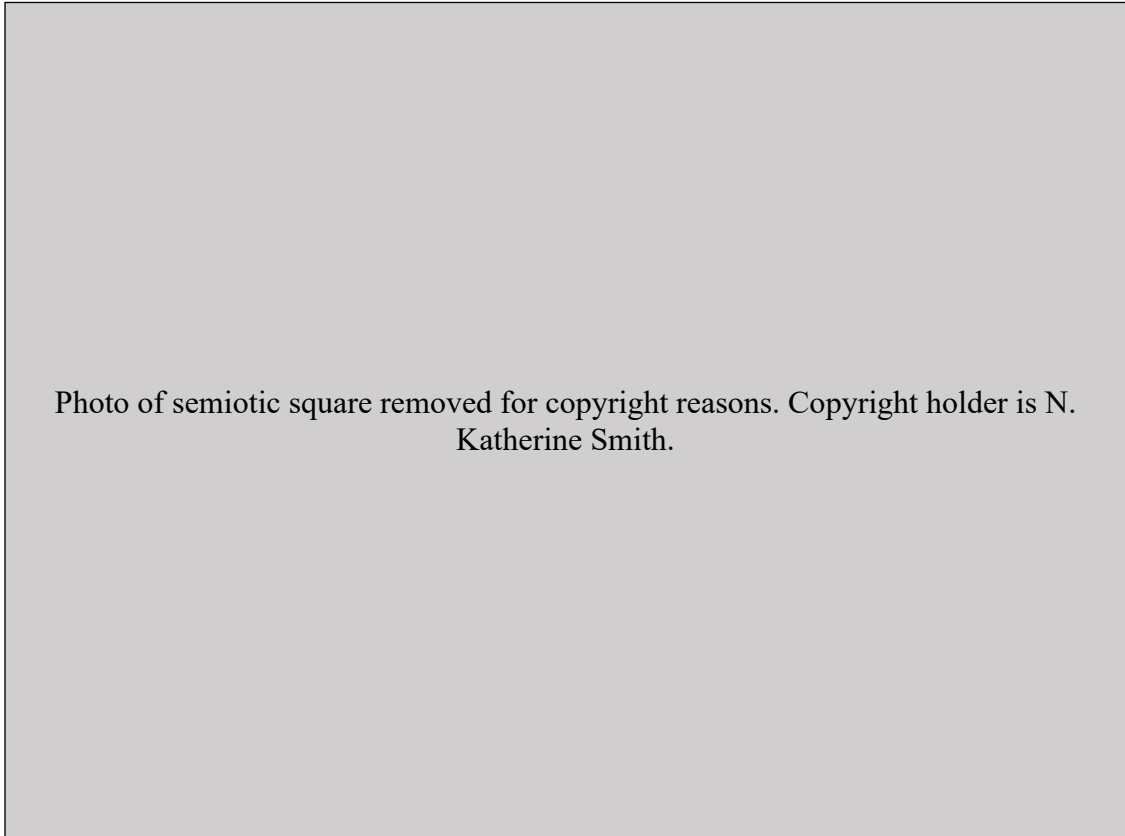
Photo of semiotic square removed for copyright reasons. Copyright holder is N. Katherine Smith.

Figure 5: N. Katherine Hayles, Transformation of the semiotic square, 1999.

Each side of the semiotic square, comprised of a pairing of each of the four terms, produces a "synthetic term" (249) or emergent property that arises out of the interplay between each pair. For Hayles, the emergent property of the dialectic between pattern and randomness is information, while the emergent property of presence and absence is materiality. As part of my diffractive reading, I've reconfigured this semiotic square to take into account the power structures inherent in literature for children and young people. Borrowing from Derrida's discussion of supplementarity, which I discuss in introduction to this thesis, we can conceptualize the term 'adult' as having the same hierarchical power as the idea of presence, or indeed voice, while the 'child' can fill the role of 'absence' (see Derrida; Burton).

Figure 6: The virtual-aetonormative semiotic square, in which aetonormative theory is diffracted through Hayles' semiotic theory of virtuality. "Presence" and "absence" are replaced by "adult" and "child".

What emerges from this exercise in diffractive interference is a clear picture of the semiotic relationship between virtuality and aetonormativity. The bottom side of the square, depicting the term 'information' emerging from the relationship between randomness and pattern, remains unchanged, although it can still be understood in the context of this chapter's primary texts as computer coding information, much as Hayles intends it. As I show in figure 3, the other three sides diffract Hayles' emergent terms through the concepts of adulthood and childhood to produce three entirely new emergent terms: hacking (instead of mutation), bodily security (instead of materiality), and Warcross (instead of hyperreality). Each of these newly diffracted terms provide varying levels of implications for our consideration of Lu's duology and of aetonormativity's relationship to artificial intelligence and virtual reality, which will be discussed later in this chapter. My replacement of 'presence/absence' with

'adult/child' interferes with the original meaning of Hayles' emergent terms by superimposing the considerations of the adult and the child present in Lu's novels *Warcross* and *Wildcard* on top of considerations of presence and absence already built into conversations about virtuality. This diffractive action introduces further, implicit semiotic understandings into the square, associated with our understanding of the words 'adult' and 'child'. The potential chain of semiotic understandings here could, and does, continue infinitely, but for the purposes of this chapter, I've isolated a few particular common understandings that play into the intersection of aetonormativity and virtuality. Adults, and adulthood, bring to mind concepts such as *autonomy* (in the sense that adults have greater autonomy over themselves than children do) and *authority* (with much the same reasoning). Child and childhood bring to mind the concepts of *play* (as in, structured activity with no further teleology than the activity itself, enacted within a set of rules) and *vulnerability* (as children are more vulnerable than adults in a variety of ways, particularly physical but also emotional, psychological, and legal). Keeping these meanings in mind, I apply further diffractive interference to the other emergent terms in the square, as well as to the internal relationships between the four primary terms (adult, child, pattern, and randomness).
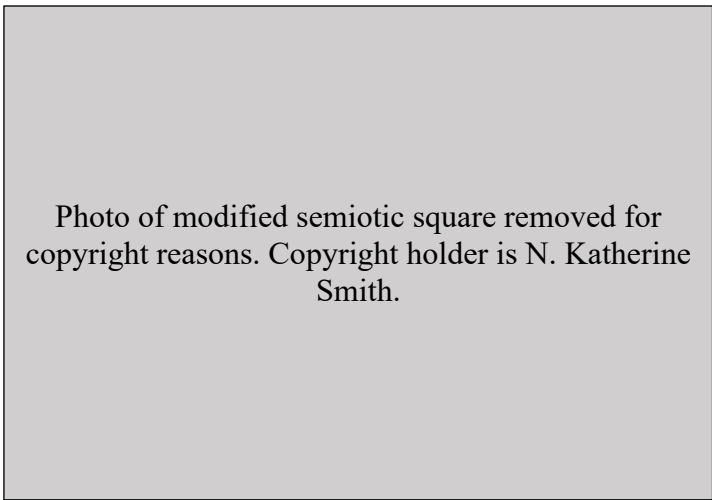

Photo of modified semiotic square removed for copyright reasons. Copyright holder is N. Katherine Smith.

Figure 7: Aetonormativity diffracted through Hayles' semiotics of virtuality, resulting in novel emergent terms.

All of the emergent terms in this new, diffracted semiotic square refer to broad conceptual understandings of the relationship between aetonormativity and virtuality. However, two of the emergent terms—that produced by the relationship between 'child' and 'pattern', and that produced by the relationship between 'adult' and randomness'—refer to more self-explanatory concepts within the duology that don't require a deeper textual analysis from which to derive meaning. When I reframe hyperreality as the term emerging from a relationship between 'child' and 'pattern' (a relationship that recalls Baudrillard's description of Disneyland as the ur-American hyperreal), the hyper-immersive virtual reality game Warcross (for which the first novel in the duology is named) fits neatly into the square's logic. Even though *both* adults *and* children play Warcross, the game's ludic properties still place it appropriately in the realm of children and childhood, especially when compared to the more authoritarian manifestations of virtual technology elsewhere in the duology and elsewhere in the semiotic square. The left side of the square now features the converse relationship, between the concepts of 'adult' and 'randomness', which similarly does *not* invalidate 'mutation' as an emergent term—I am reminded of cancer as a disease of mutation that overwhelmingly increases in prevalence as humans age as a good example of 'mutation' that links adulthood and randomness. However, the intersection of adulthood and randomness in question in Lu's duology, I argue, becomes *hacking*, in which cybernetic entities are compromised in extralegal, unpredictable ways. The fact that hacking code is often deployed as a virus, both in real life and in the duology, retains a faint echo of the term 'mutation' while still becoming a more specific manifestation of the emergent term within the context of the duology. I will be taking a closer look at the game Warcross and the action of hacking, as undertaken by various characters throughout both novels, alongside my deeper analysis of more complex emergent terms and concepts generated by the diffracted semiotic square.

The axis with the highest amount of diffractive activity, requiring a deeper analytical dive, is the adult-child axis. Hayles suggests materiality as the emergent, synthetic term between presence and absence. I argue that when 'adult' and 'child' are substituted for 'presence' and 'absence' in the context of virtuality, texts for young people that heavily feature virtuality can be understood as depicting materiality via human embodiment. While concepts such as "growth" or "change" might fit as emergent terms when considering movement of a single individual *from* childhood *to* adulthood, both this study and aetonormativity more generally are concerned with the tension between the simultaneous existence of and differences between adult and child bodies. Notably, scholars of texts for young people often boil down bodily matters to the bodily safety of children, as we see with Gubar's argument regarding "protective measures". More provocatively, Karin Lesnik-Oberstein argues that the alternative to aetonormative power structures is "children sleeping in cardboard boxes in streets, or 3-year-olds living off rubbish heaps" (28). Subsequently, I argue that *bodily security* is the synthetic term that emerges out of the interplay between 'adult' and 'child'.

This reconfiguration of meaning disrupts not only Hayles' model of the semiotics of virtuality, but also our traditional understanding of aetonormativity, which posits that the 'emergent property' of the adult-child relationship is power. Nikolajeva does not use the phrase 'emergent property', but the concept applies well enough in this instance—power, and an imbalance thereof, is the determining factor in an aetonormative consideration of the adult-child relationship. Although foundational scholarship in aetonormativity has also not utilized the semiotic square (Nikolajeva, Beauvais), the dialectical relationship between 'adult' and 'child' still sits at the heart of the theory and can be understood as generating its own emergent semiotic understandings, particularly the concept of 'power' (Beauvais). When diffracted through the semiotics of virtuality, the emergent property of the adult-child

dialectic being reframed as bodily security suggests that the material *is* power. This assertion

supports the fundamental claim of Haraway, Hayles, and other posthumanist thinkers (e.g.

Barad) that the body remains a crucial component in figuring the human in light of our

increasing entanglement with contemporary scientific phenomena such as virtual

technologies.

My diffracted semiotic square contains two further axes that will come under analytic

scrutiny in my consideration of Lu's duology. In a traditional semiotic square, the internal

dialectical relationship between non-paired terms in opposite corners, shown here as

connected by intersecting diagonal lines, are related by way of <u>contradiction</u>—that is, the

presence of one negates the presence of the other. (This contradiction is subtly different from

the relationship between paired terms, which are merely opposites, without necessarily

contradicting each other.) In the case of the diffracted semiotics of aetonormativity and

virtuality, the relationships between these paired terms—'adult/pattern' and

'child/randomness', respectively—also contain a certain amount of contradiction, particularly

when considering the emergent terms of 'adult' (autonomy, authority) and 'child' (play,

vulnerability) that I highlighted earlier in this discussion. The contradiction introduced when

examining these dialectical relationships, I argue, can be identified in the text as existing

within the two primary antagonistic entities: the artificially intelligent algorithm called

NeuroLink, invented by the character Hideo Tanaka at the age of thirteen, and the hacker

figure known as Zero, whose identity and existence are wrapped up in the vulnerability of

childhood. Resolution of the contradictions inherent in both the NeuroLink software and in

the existence of Zero fundamentally underlie the resolution of the duology's narrative

tension, because both the NeuroLink and Zero act as antagonistic forces, disrupting. the goals

of protagonist Emika Chen, known as Wildcard. In this chapter, I argue that the *narrative*

resolution of the plot results in a *semiotic* tension that highlights the nature of the diffractive

interference between virtuality and aetonormativity. A closer look at the primary texts

themselves, *Warcross* and *Wildcard*, will begin to reveal the relevance of these book-specific

terms in the context of my modified semiotic square.

Photo of modified semiotic square removed for copyright reasons.
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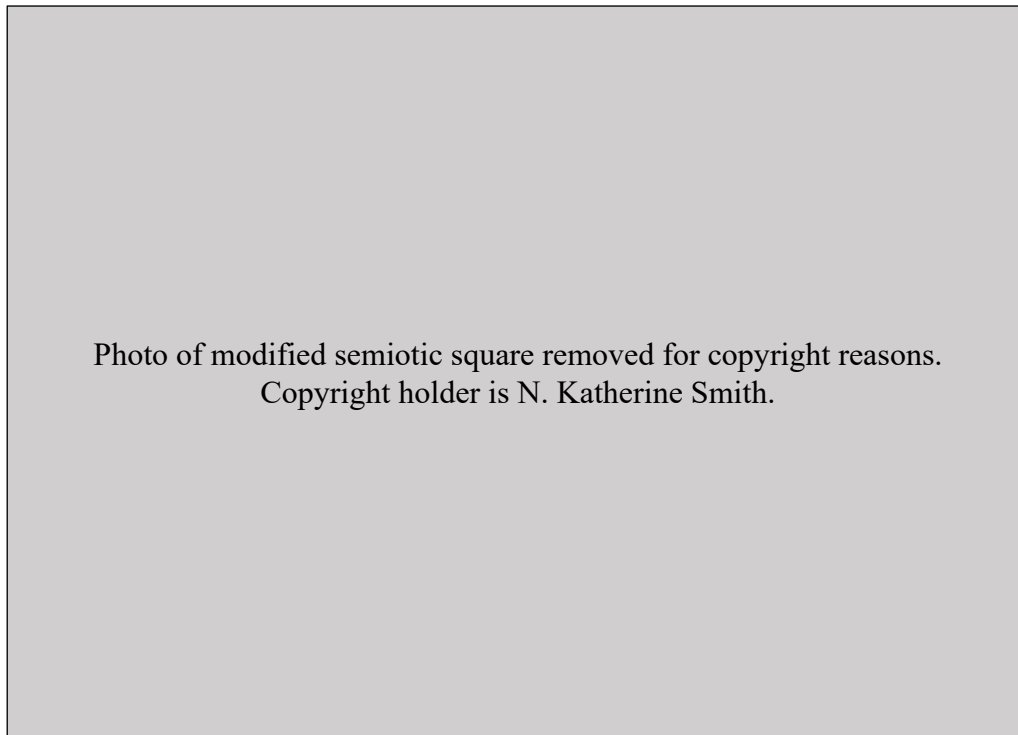
Figure 8: NeuroLink and Zero represent both the contradictory relationship between adult/pattern and

child/randomness and the primary sources of antagonistic tension in Lu's duology, resolved by protagonist

Emika, who is known by the title of 'Wildcard'.

Marie Lu's Warcross Duology: a Braver (Non-Dystopian) New World

For my close reading analysis, I focus narrowly on two texts, Marie Lu's *Warcross*

(Lu, *Warcross*) and *Wildcard* (Lu, *Wildcard*), which collectively comprise a duology, as a

particular case study to demonstrate the intersection of posthumanist thought in the context of

Hayles' semiotics of virtuality and the aetonormative underpinnings of texts for young

people. The duology's narrative centers on a young, orphaned woman named Emika Chen,

recently turned eighteen, who has been sustaining herself as a virtual bounty hunter, using her

considerable hacking skills to catch criminals operating in a virtual reality platform called Warcross. This eponymous program functions primarily as a game, in which participants can face off against each other in virtual combat, but its massive popularity ("A global survey released today shows that a staggering 90 percent of people ages 12–30 now play on a regular basis, or at least once a week" (*Warcross* i) combined with the high functionality of the game's hardware, "a pair of sleek glasses" (*Warcross* 31) called the NeuroLink, have led to virtuality being visually overlayed for users across the entire world, in or out of the actual Warcross games. NeuroLink, and Warcross, were invented by Hideo Tanaka, a savant-level genius, at the age of thirteen. By the start of *Warcross*, the first book in the duology, Hideo, now twenty-one years old, has hired Emika to investigate a hacker who's threatened to disrupt the annual Warcross Championships. This hacker turns out to be a mysterious figure named Zero, whose identity is later revealed to be closely connected to Hideo's past, as well as to aetonormative ideas related to childhood. As is evident from this brief description, my choice of texts is primarily content-driven, as they present a particularly compelling case of depicting artificial intelligence and virtual reality in texts for young people. However, the duology also occupies a unique position in the discourse surrounding the intersection of young adult literature and posthumanism, which has heretofore focused largely on the concept of dystopia.

Much has been written on young adult literature and dystopia, in part because dystopian literature for adults has managed to shed any overt affiliation with genre and crossed over into the realm of 'real literature'(see e.g. Cormac McCarthy's *The Road* or Margaret Atwood's *The Handmaid's Tale*). Scholars of young adult dystopian literature can be forgiven for wanting to capitalize on that cache, especially after the post-Hunger Games popularity explosion of the sub-genre. The concept of dystopia is also more familiar, even to literary critics, than the denser language of posthumanism, despite the significant similarities between

the two. These similarities jump off of the page in a description of dystopia's relevance to young adult literature found in the introduction to *Contemporary Dystopian Fiction for Young Adults: Brave New Teenagers,* Hintz et al.'s seminal text on young adult dystopias: "With its capacity to frighten and warn, dystopian writing engages with pressing global concerns: liberty and self-determination, environmental destruction and looming catastrophe, questions of identity, and the increasingly fragile boundaries between technology and the self" (1). These listed capacities of dystopias are essentially a description of posthumanism's concerns, particularly as they're presented in this thesis, in addition to comprising the central concerns of young adult texts featuring a dystopian setting. As Elaine Ostry observes, "[i]f adolescence is the time when one considers what it means to be human, to be an individual, then there has never been a period of history when it has been more difficult to figure this out than now. Being introduced to and understanding the posthuman age is essential for young adults, as it is their future" (222).

What makes Lu's duology uniquely suited to helping young adults (and by extension adults) understand the posthuman age is the fact that it's situated as what I consider a 'pre-dystopia', rather than as a true dystopian narrative. The duology's most accurate and popular comparison novel, *Ready Player One* (Cline) also features a worldwide virtual reality game that has transcended its own gamehood to replace reality. In Cline's novel and subsequent film adaptation, however, fundamental aspects of society have deteriorated under the weight of some very familiar dystopian pressures: "The ongoing energy crisis. Catastrophic climate change. Widespread famine, poverty, and disease. Half a dozen wars" (Cline 2). The protagonist, Wade, reviews the extent of the deterioration directly: "Human civilization is in 'decline.' Some people even say it's 'collapsing" (Cline X). He also indicates it indirectly, in his description of the double-wide, three-bedroom trailer which houses himself, his aunt, and thirteen other people in a community described as the "stacks", which are depicted in the film

adaptation as literal skyscrapers of haphazardly stacked trailers; and in his description of his father's death: "he was shot dead while looting a grocery store during a power blackout" (Cline X). Wade credits the virtual reality system at the heart of the narrative, called the OASIS, with providing him (and, by extension, the countless millions of other users) with stability in the face of societal degradation: "Luckily, I had access to the OASIS, which was like having an escape hatch into a better reality. The OASIS kept me sane. It was my playground and my preschool, a magical place where anything was possible" (Cline X). In *Ready Player One*, society isn't salvageable; instead, engaging in the escapism of virtual reality is the only rational choice left for most of humanity.

Conversely, Lu positions the world of *Warcross* and *Wildcard* far more closely to our own. To be sure, it's a world burdened by common twenty-first century ailments caused by late-stage capitalism, globalization, and the increasing impact of technology on job availability. However, the recognizable fundaments of society—governments, nation-states, laws—have not yet completely broken down. In Lu's novels, society is intact yet balanced on a precariously dystopian edge, and this balancing act becomes the central focus of the novel's exploration of artificial intelligence and virtual reality. Crucially, the 'pre-dystopian' nature of society in the *Warcross* duology allows room for a more positive understanding of and relationship with these sci-fi *nova*. The novels' varying representation of artificial intelligence and virtual reality technologies—the virtual reality game Warcross, the artificial intelligence system of the NeuroLink algorithm, and the hacking programs enacted by various characters, including the mysterious Zero—function productively as spaces of negotiation around questions of authority, freedom, play and safety. What makes the negotiation of these questions even more compelling is that the figures who ultimately answer these questions are either children themselves or heavily impacted by their childhoods in their decision-making processes; none of the major characters at the focus of this analysis—Emika, Hideo, and

Zero—are older than their early twenties. (It is worth noting, although beyond the scope of this thesis to investigate, that by some neurological measures regarding brain development and legal measures regarding access to alcohol and rental cars, individuals at ages eighteen and twenty-one are still considered children). In this way, the duology subverts the dystopian expectations present in young adult novels like *Ready Player One*: the young characters, rather than living within the constraints of an already-extant dystopian system, are uniquely positioned to make decisions about society's entrance into or avoidance of a new dystopian system.

Warcross and Wildcard: A Close Reading of Diffraction between Aetonormativity and Virtuality

The following analysis comprises a close reading of the duology-specific terminology present in my diffractive semiotic square of aetonormativity and virtuality. Specifically, I focus on three emergent terms: the concept of bodily security; the NeuroLink (both glasses and, as we'll see, its later evolution contact lenses); the character Zero; and the character Emika, who is recruited onto a Warcross team as a 'wildcard' player, a concept that generates the title of the second book in the duology. With each section, I will repeat the semiotic square with the term in question highlighted, demonstrating the intricate entanglement of the concepts at hand, of diffraction in action, and of the benefits and drawbacks of both virtuality and aetonormativity.

Bodily Security

A duology named after a combat game automatically invites questions about bodily security. *Warcross* and *Wildcard* depict dozens of scenes of battle, in which characters are thrown from great heights, slammed into walls, and morphed into various shapes, sizes, and

substances in the service of winning their Warcross match. These battles, however, all take place virtually, with no effect on the characters' actual bodies, which at first glance seems to indicate that the physical body, and its security, is indeed an afterthought in a world dominated by virtuality, as Hayles warns is the teleology of cybernetics. By the same token, the narrative's focus on *informational* security, rather than bodily security, appears to be its central concern, given that Emika, Hideo, and Zero, along with a bevy of supporting characters, all engage significantly in the act of hacking, each constantly trying to protect their virtual information or illicitly gain access to the virtual information of others. However, the several instances of hacking that appear within both novels reveal that informational security derives its narrative centrality from concerns about the security of the human body. The word 'body' in *Warcross* and *Wildcard* appears in one hundred and forty discrete instances; about half are the word 'body' alone—and the other half are the word 'bodyguard'. Bodies—particularly the body of the character Hideo—are positioned in the texts as objects to be guarded and kept secure. A closer look at two specific scenes of bodily security will shed light not only on the abiding connection between bodily material and virtual information [world], but also on the relevance of that connection to the emergence of security as a defining feature of the adult-child axis, and therefore of aetonormativity.

There are two distinct moments in which bodily security features as an emergent property of the adult-child axis. The first is the scene of Emika's hack into her school system, in which she downloads personal information of several students and teachers, including "credit card data, Social Security numbers, phone numbers…emails and texts…[and] private photos" (*Warcross* 57) and posts all of it online, available to public access. This act is known in the real world as 'doxxing' and is a popular, albeit illegal, tool for hackers wishing to publicly name and shame bad actors—or to bully innocent targets—through the informal platform of the internet and social media apps. After getting caught in the act, Emika sums up

the consequences of her actions in a litany of legal statements: "Accessing computer systems without authorization. Intentional release of sensitive data. Reckless conduct. Four months in juvenile hall. Banned from touching a computer for two years…" (*Warcross* 57–58). While these crimes and punishments appear on the surface to be rooted in informational security, the consequences for Emika's actions are material—she is physically placed in a juvenile detention facility for four months and forbidden from physically interacting with a computer for two years. Even more than the consequences she experiences, Emika's *motivation* for doxxing members of her school community is rooted in bodily security—or rather, in the violation of bodily security for her friend Annie, who has been subjected to a more in-person sort of bullying:

> …one day, a boy working on a group project with Annie managed to snap a photo of her showering in the privacy of her own home. The next morning, Annie's naked photo had been sent to every student in school, shared on the school's homework forums, and posted online. Then came the taunts. The printouts of the photo, all cruelly drawn on. The death threats. Annie dropped out a week later. (ibid.)

This scene positions bodily security as a point of negotiation between information (the photo disseminated via the internet) and the material (Annie's actual body). The dissemination of the photo of Annie's body, as an informational representation of her material self, represents a breach in her bodily security second only to physical assault, and accordingly the consequences Annie experiences of that photo's dissemination—taunts, death threats, and Annie's exit from the school—are exclusively bodily, occurring as implied or real harm to her material form.

This entanglement between material (in the form of Erika's and Annie's bodies) and information (in the form of digital documents and photographs) illuminates two key points regarding the adult-child axis in the semiotic square of virtuality and aetonormativity. Firstly,

it disproves the humanist assumption that "because we are essentially information, we can do away with the body" (Hayles 12)—an assumption that Hayles is concerned has carried over into much posthumanist thinking. Without possessing a material body, Annie would not have been compromised in terms of her bodily safety by the dissemination of naked photographs of herself. Without possessing a material body, Emika wouldn't have had any consequences to face for doxxing her classmates and teachers. Consequences, as we can see from these two examples, are rooted in the material, without which information carries no emotional, social, or legal weight. Secondly, it demonstrates that informational *security* is inextricably tied to bodily *security*, and as such transcends traditional aetonormative assumptions about adults, children, and power. In material terms, children (and even many younger teenagers) are smaller and less developed than adults, and adults derive a lot, if not all, of their power over children through their physical maturity. However, this material source of power for adults is eradicated when bodily security and informational security are linked. Annie is a minor when her photo is taken and disseminated against her will, but the image is circulated by both students *and teachers*—who equally have the power to cause harm in the virtual sphere, and therefore in the physical sphere. The narrative is careful to point out that both students and teachers are responsible for circulating Annie's photo, indicating that age isn't a factor in terms of determining responsibility for bodily security. Emika is a minor when she hacks into the school's system and disseminates sensitive information. At one point, Emika bluntly refers to her consequences as "a permanent red mark on my record, age be damned, because of the nature of the crime" (*Warcross* 58). The nature of the crime—compromising informational security, which in turn compromises bodily security—is so impactful that age becomes removed from the action-consequence calculus. Aetonormativity—in this case, the assumption that adults hold the majority of the power, and children hold almost none of it—is

deprioritized in the face of bodily security, which itself supersedes power as the defining

factor along the adult-child axis of our virtual-aetonormative semiotic square.

The NeuroLink

As is appropriate for an analysis of a semiotic square, the terms involved are closely

related and often merge into each other, as is the case with my consideration of the

NeuroLink. The second scene that demonstrates that bodily security functions as an emergent

term between 'adult' and 'child' is actually a series of interconnected scenes involving

Hideo's motivation for his invention of NeuroLink. Like Emika, Hideo is an adult during the

main narrative of the duology but is also depicted as a brilliant, talented child who invented

the artificial intelligence system underpinning the virtual reality game Warcross, called

NeuroLink. At the start of the duology, the NeuroLink system accesses users' bodies, words,

and movements via a wearable pair of glasses, which also allow users to superimpose virtual

reality features on top of actual reality as they move through the physical world. In this

original iteration, the NeuroLink appears to have more to do with childhood and childhood-

adjacent concepts than with adult or authoritative concerns: it is invented by a child, its

primary purpose is gameplay, and, more subtly, it derives its power from dreaming and

imagination, which themselves are often associated with children, childhood, or, more

negatively, with being childish. What propels the NeuroLink beyond past (and failed)

iterations of virtual reality attempts is the way in which it utilizes the human brain:

> "In order to create a flawlessly real world, you don't need to draw the most detailed,
>
> most realistic 3-D scene ever. You just need to fool the audience into thinking it's real.
>
> And guess what can do that the best? Your own brain. When you have a dream, no
>
> matter how crazy it is, you believe it's real. Like, full-on surround sound, high
>
> definition, 360-degree special effects. And none of it is anything you're actually

seeing. Your brain is creating an entire reality for you, without needing any piece of technology." (*Warcross* 31)

As "the best brain–computer interface ever built" (ibid.), the NeuroLink piggybacks on the brain's innate ability to produce dreams in order to produce its virtual reality interface. Considerations of the mind-body gap aside, the NeuroLink requires physicality to function; the brain, and its powerful, childlike ability to dream and imagine, comes first, and the technology follows. In this form, the NeuroLink exists as a passive tool rather than an object of authority.

As we learn towards the end of *Warcross*, however, the adult Hideo has upgraded NeuroLink with a new invention: the new NeuroLink contact lenses, which are revealed to be integral to Hideo's far more authoritative goal of mass social control. The NeuroLink contact lenses, which function like their predecessor glasses to connect the user with the virtual reality interface of Warcross, exist as a reluctant nod to the necessity of the body: they must be recharged by the human body's own electricity through "a harmless film against the eye surface that is only one atom thick" (*Warcross* 70). These lenses, as a physical capitulation of Hideo's new version of the NeuroLink software, literally provide a mere atom of physicality to accomplish their means, exemplifying Hayles's concerns about transhumanism's erasure of bodily concerns.

Yet bodily security still plays a significant role in the form of the control enacted *by* Hideo, via NeuroLink, a tiny, atomic conduit. Towards the end of the narrative, Hideo reveals that past participation in the Warcross platform—by both players of the game and its viewers—has acted as an activation point for wearers of the new NeuroLink. Making the point that "'information travels both ways'" (*Warcross* 235), Hideo tells Emika that the NeuroLink "'can control its users' minds'" (ibid.) and that "'as time goes on…the code will adapt to each person's mind. It will fine-tune itself, *improve* itself…It will turn itself into a

perfect security system'" (*Warcross* 236). To prove his point, Hideo shows Emika the "image

of the inside of a user's mind" (*Warcross* 235), demonstrating how the user's angry emotions

are mapped in "deep red and purple" which change to "a mild mix of blues, greens, and

yellows" once "the NeuroLink's new algorithm resets the colors" (ibid.). The abstract,

colorful, simplified visual of the AI's algorithm is juxtaposed with a video of the user

himself, who is "struggling to pull a handgun out of his coat, his forehead matted with sweat

as he prepares to hold up a convenience store" (ibid.); after the NeuroLink algorithm has

activated, "the man freezes. He stops pulling out his gun. There is a strange blankness on his

face…as his face calms, he blinks out of it, exits, and moves on down the street, the

convenience store forgotten" (*Warcross* 236).

Hideo's talking points all echo Hayles' assertions about the dangers of relying on

models of virtuality and artificial intelligence that ignore the body, take the body for granted,

or, in this case, try to control the body. Hideo's decision to try and exert control over large

swaths of humanity links those other traditional humanist realms of power—capitalism and

the patriarchy—with disembodied artificial intelligence. Taken on its own, this scene,

occurring at *Warcross*'s climax, can be read as an examination of another classic humanist

dilemma—free will versus public safety—particularly when Emika objects to NeuroLink

because it requires "giving up…freedom" (*Warcross* 237). However, I argue that this scene

prioritizes an aetonormative approach to questions of freedom and security, both in the way it

demands a consideration of the merits of artificially intelligent oversight, and in the driving

motivations behind Hideo's development of the system in the first place. Regarding the first

point, Lu forces readers to consider the benefits of artificially intelligent systems of control

by presenting an instance of it that seems positive, with a probable robbery and possible

injury or murder by firearm averted with no bodily harm done to the would-be perpetrator.

Artificial intelligence cannot be written off as a one-sided threat; its benefits are clearly

demonstrated in this introductory scene, and are expounded upon in the epigraphic text of *Wildcard*:

> …police headquarters around the world are entering a third day of overwhelming crowds outside their doors. Notorious crime boss Jacob "Ace" Kagan walked into a police station in Paris's 8th arrondissement this morning and surrendered himself to authorities… In the United States, two fugitives on the FBI's Ten Most Wanted list have been found dead—both incidents have been ruled suicides. (*Wildcard* i)

Lu's choice to preface the second novel of the duology with an unequivocal nod to the crime-fighting effects of the new NeuroLink solidifies the complexities inherent in artificially intelligent systems of control; whatever resolution the rest of the text might present, the benefits of artificial intelligence remain permanently in the peri-text and permanently under consideration by the reader.

The indelible possibility for safety inherent in artificially intelligent systems of control is reflected in the makeup of the NeuroLink itself, both its physical manifestation and its *raison d'être*. The NeuroLink interface, rather than being depicted as an all-seeing red eye or with a creepily disembodied voice, like HAL9000 or *WALL-E*'s Otto, presents as a set of passive colorful blobs, "an oval of colors, greens and blues, yellows and purples, all constantly shifting" (*Warcross* 338), more akin to abstract art than menacing figure. The menace, in this case, is rooted in Hideo's attempt to assert control over others. As he tells Emika, "I'm tired of the horror in the world. So I will *force* it to end" (2017 344). The massive assertion of control Hideo executes via the new NeuroLink evokes aetonormative considerations on its face, in the sense that aetonormativity has its roots in theories of power and control, and Hideo can clearly be seen as infantilizing NeuroLink users by taking away their ability to control their own actions. The beneficial nature of his control adds to the

aetonormative effect, recalling Gubar's assertion that parental control offers more harm than good to the world's children. These aetonormative concerns, as well as concerns about bodily security, become most apparent when the motivation behind Hideo's development of this social control technology is revealed to stem from the disappearance of his little brother, Sasuke, when Hideo was nine and Sasuke was seven. As Emika realizes, "[Hideo] created all of this so that no one would ever have to suffer the same fate as his brother, that no family would ever have to go through what his did" (*Warcross* 236). Hideo's rationale overtly links aetonormativity—the desire to protect the young—with the framework of control that worries Hayles. Moreover, associating the aetonormative impulse with *Hideo*, who by this point is the clear antagonist within the narrative, positions aetonormativity as an antagonistic force. This antagonism is emphasized when Emika introduces ambiguity into Hideo's plan through her own reflections, which the reader is privy to through first-person narration:

> I think of the times, after my father's death, when I'd picked fights in school or shouted things I later regretted. I think of what I'd done to defend Annie Pattridge. Hideo's code would've stopped me. Would that have been good? (*Warcross* 344).

Emika's reflection reveals that, because the (adult-adjacent) algorithm would have prevented her (as a child) from protecting her (child) friend, aetonormative power *outweighs* bodily security under the new NeuroLink, and this prioritization of control *over* bodily security—despite seemingly existing in the name of bodily security—is what casts the new NeuroLink, and Hideo, in an antagonistic role. To return to the idea of security as the emergent property along the adult-child axis, we can clearly see from Hideo's development of the new NeuroLink that the absence of the child's agency—first with the disappeared Sasuke, later with all NeuroLink users, who have been stripped of power through their exposure to the algorithm—leads to the imbalance of power characteristic of aetonormativity, and this

imbalance is subsequently characterized as morally incorrect. Crucially, the ambiguity of the situation remains present, even as the algorithm and Hideo are identified as antagonists, as is reflected in Emika's continued processing of the existence of the algorithm: "Some part of me, some crazy, calm part, sees sense in his plan, even as I recoil in disgust" (*Warcross* 280). This statement, and Emika's ultimate rejection of Hideo's plan, ends up *inverting* Gubar's assertion that aetonormativity does more good than harm. This inversion persists not only through the end of *Warcross* but also through its sequel, *Wildcard*, which sees in its conclusion the dismantling of the NeuroLink network of control. Such a dismantling leaves readers with the suggestion that aetonormative control, executed on the populace as a whole via artificial intelligence, is ultimately the wrong tool for prioritizing bodily/material security of both children and adults.

Zero

The previous analyses of bodily security, the NeuroLink algorithm, and the character of Hideo reveal the diffractive relationship between virtuality and aetonormativity. The episode with Emika and Annie as children demonstrates the destabilization of age that occurs in a virtual environment; the consequences of Hideo's development and deployment of the new NeuroLink algorithm demonstrate the destabilization of adult power through virtual means. I argue in this last analysis that this diffractive relationship goes both ways, that the age-related considerations of aetonormativity also destabilize the power of disembodied virtuality, and that the material figure of the child's body acts as a conduit of significant power in a virtual context (which also further destabilizes the power structure of aetonormativity). This argument filters primarily through the character Zero. Zero, as the main antagonist of the first novel, is responsible for hacking the Warcross game and suspected of targeting Hideo and the NeuroLink with the goal of destroying the algorithm.

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On its own, this goal is enough for Zero to represent the 'child' side of the aetonormative divide created by Hideo and the new NeuroLink: if the new NeuroLink is created by the adult Hideo to exert aetonormative authority over the populace, then Zero's actions against Hideo and the new NeuroLink position him as a rebellious child attempting to subvert adult control. The connection between Zero and the concept of the child goes much deeper, however, when we unpack Zero's character in the context of virtuality. As my discussion will make clear, Zero upends both aetonormative power structures and the power of disembodied virtuality, insisting simultaneously on the primacy of the physical and the agency of the child.

Zero's representation of the figure of the child is not overt in early descriptions of his character. Hideo introduces Emika to Zero by calling attention to Zero's digital signature: "But the person left behind no trace of himself, and he's gotten better at hiding his tracks since then. We've taken to calling him Zero, as that is the default in the access record. It's the only marker he leaves behind" (*Warcross* 95). As an extraordinarily sophisticated hacker with no visible face, Zero does not evoke any traditional considerations of childhood. However, if we recall the comparison between Derrida's supplement, which exists as a trace or shadow of the original, and the child, which exists as a trace or shadow of the adult, Zero's existence as a virtual trace in the code begins to believably represent the figure of the child, with Hideo and his algorithm representing the adult. This representation of the child is emphasized further when we consider that Zero's name is given to him *by* Hideo (our representative adult) as emblematic of his supplementarity. From the first, there are traces, so to speak, of Zero's representation of the child. These traces are expanded upon at the end of *Warcross* and become focal to *Wildcard*, when we learn that Zero's identity is linked to that of Hideo's missing younger brother:

With trembling fingers, I scroll through Zero's personal account.

> And sure enough, there it is. …There is a name, a *real* name, floating alongside a photo of the real-life user who is Zero. I don't even need to read the name to know who it is. Staring back at me is someone who looks like a younger version of Hideo, a boy who resembles how Hideo looked several years ago. A boy my age. My eyes go back to the name, unable to believe what I'm seeing. **Sasuke Tanaka** (*Warcross* 350).

Hideo created the algorithm out of an aetonormative impulse to prevent tragedies like the kidnapping and disappearance of his younger brother Sasuke; in this moment, Lu reveals that Zero *is* Sasuke, existing not only as a hacked trace of Hideo's algorithm but also as a physical trace of Hideo's childhood identity, who "looks like a younger version of Hideo". Zero recalls more than just Hideo's childhood: Emika describes him as "a boy my age", conflating her own age (which is technically that of an adult, at eighteen) with childhood, indicating that Zero represents the ur-child within the narrative, harkening all of the characters who interact with him back to their younger selves. This harkening is taken very literally in the virtual context of the duology, as Zero manipulates Emika throughout *Warcross* by gaining access to her 'Memories', virtually backed-up versions of her actual memories that allow her to relive moments from her past. Part of what makes Zero an antagonist, for Emika, is the fact that he "had destroyed the things that mattered most to me—my pieces of the past… *My memories*" (2017 344). In *Wildcard*, Zero goes even further, literally pulling several characters into their own childhoods. Towards the end of the narrative, Zero has taken control of Hideo's algorithm, and Emika, her Warcross team, and Hideo have entered into it (as if it were a Warcross game) to try and regain control of it. While they're inside the algorithm, Zero is able to lock the characters inside their own minds by virtually 'touching' them, sending them back into a memory from their childhood and leaving that memory on display for the other characters to witness. Considering these symbolic elements, Zero's primary function,

throughout both texts, is to re-center the relevance of the child in considerations of the power of virtuality.

By forcing the other characters to grapple with their own childhoods, and by the merits of his own existence as a formerly missing child, whose missing childhood spurred the invention of the NeuroLink in the first place, Zero does a fair amount of work in demonstrating the agency of the child within aetonormative constructs and thus destabilizing aetonormative assumptions about agency. Similarly, Zero destabilizes the power of disembodied virtuality, insisting on the relevance and agency of the material, which the texts refer to as the 'real'. Questions of realness come into play as soon as Emika realizes that Zero and Sasuke share an identity, as she observes that Sasuke is Zero's "*real* name," the identity of Zero's "real-life user". In *Wildcard*, Emika gets the chance to meet Zero in the material world (where before, she had only met him in the virtual world):

> The first time I ever crossed paths with Zero, he was nothing more than a snippet of code, a glitch in Hideo's matrix that runs all of Warcross. And the first time I ever saw a virtual version of him…he was a lean, dark, armored shadow, as silent and unapologetic as the night. Now I gape at his exposed face. **It's like looking at Hideo through a dream.** He's younger by a couple of years, his features harsher and fiercer. …While Hideo has a piercing stare, t**here's a wildness in Sasuke's eyes, something deep and unfeeling. Something less human**. I don't know how to describe its unusual light. It draws me in at the same time it repels me. (*Wildcard*, 54, emphasis mine).

Emika describes Zero's physical stages of existence as evolving from 'snippet of code' to dark, armored shadow to a dream-like version of Hideo with eyes that are 'deep and unfeeling' and 'less human'. In this sequence of descriptors, we can observe Zero's identity

as a trace, a *pharmakon,* representing the child as a trace of the adult, in the snippet of code, as well as in the shadow of his virtual self, corresponding to his location on the semiotic square of aetonormative virtuality. In the material world, however, Zero becomes less than human, othered in manner different from that of the trace, supplement, and shadow. One might think that Zero's less-than-human othering stands for the othering that the child experiences within the confines of aetonormative power structures, but one of the defining (and confounding) features of aetonormativity is that the child remains steadfastly human, despite its differences from its adult counterpart that invite comparisons to wildness. I argue instead that Zero's othering in the material world originates in the fact that Zero is not, as it turns out, a material being at all. Sometime after meeting Zero in the real world, Emika is taken into the Dark Web by Zero's associate, Jax, and shown a secret archive of memories concerning Zero's childhood, revealing key information regarding what Jax calls 'Project Zero':

> "Project Zero is an artificial intelligence program…to install the advances of AI into the human mind and the human mind into artificial intelligence, to blend the two so that we can have all the benefits of a computer's mind—logic, speed, accuracy—and the computer mind can have the benefits of a human's—gut reactions, imagination, instinct, spontaneity."
>
> "But what did they do to him?" I finally ask as I stare at Zero, still puzzled. "He's gone this far, he's being experimented on in this artificial intelligence program—but what's the end result? What can he do now, that he was unable to do before?"
>
> At that, Jax fixes me with a hollow stare. "The end goal is to transform him into nothing but data."
>
> I blink. "Data?"

"Emika, Zero isn't real.…He's an illusion. Sasuke Tanaka's real body died years ago on a lab gurney. What you've seen standing before you is a virtual projection. Emika, Zero is Sasuke's human mind successfully transmitted into data. He is an artificial intelligence program." (*Wildcard* 207).

With this reveal, it becomes clear that Zero's relationship with both aetonormativity and virtuality goes far beyond the symbolic dynamic that exists between him and his brother. Zero's existence represents the endgame of transhumanists that Hayles warns about: the disembodied mind given primacy over the discarded body. Zero's name, representative of the supplementarity of childhood, also turns out to be representative of the absence of materiality that can occur when virtuality is given priority over the material. This name, as we learn, was not actually granted to him by his brother, but rather by the leader of Project Zero, Doctor Jane Taylor, who was responsible for kidnapping Sasuke when his parents removed him from her experimental program. Although the purported claim of Taylor's project is to blend the benefits of human and artificial intelligence—a classic transhumanist goal—her motivation for pursuing the project originates elsewhere:

> As a child, Taylor saw more than her share of death. She ended up studying neuroscience because she was always interested in how the mind works—the way it manufactures every aspect of our world. The mind can make you believe whatever it wants you to believe. It can bring dictators to power. It can crumble nations. You can do anything, if you put your mind to it. You know the saying. Well, she truly takes that to heart. If the mind weren't dependent upon the rest of the body, it could operate forever. …Everyone's afraid of death, but Taylor is absolutely terrified of it. The finality. The idea of her mind just . . . shutting off one day, without warning.
>
> (*Wildcard* 179)

Taylor's fear of death manifests to a desire for control, what Emika observes as "her obsession" (ibid.), that leads to her torture of Sasuke and to his eventual death. In Taylor's relationship with Sasuke (as well as her relationship with Jax, who Taylor adopted as her own daughter and who exists as a backup option for Project Zero), we observe that disembodied virtuality presents as extremely dangerous for the bodily security of children, and that disembodied virtuality pairs cleanly and dangerously with adult authority. Even more than Hideo, Taylor represents adult authority; while in the Dark Web, Jax shows Emika several scenes from Sasuke's childhood as a prisoner in Taylor's lab, in which Taylor manipulates Sasuke with false overtures of concern for his safety:

> "How do you feel today, Sasuke?" she says in a gentle voice.
>
> "Dr. Taylor, you said if I stayed quiet, you would let me go home today."
>
> Sasuke replies in English, and his young voice sounds so innocent it pierces my chest. This was when he was still fully himself.
>
> Taylor sighs softly and leans against the door. Her kind face seems so sincere that, if I didn't know better, I'd genuinely believe that she loved him as a mother would.
>
> "And I meant that, sweetie, with my whole heart. You've been so good. We just have a little bit more to learn about you, and then we'll take you home. Can you do that for me?" (*Wildcard*, 194)

This scene entangles three things: stereotypical descriptors of motherhood as gentle, soft, sincere, loving; Taylor's adult authority over Sasuke, enacted through her manipulative lies; and underneath both of those, Taylor's goal of creating an immortal, disembodied mind by sacrificing the body and life of a child. The severe irony of Taylor's mannerisms as she speaks to Sasuke makes her transgressions more than simply transhumanist, more than overlooking the material; they tie transhumanism directly to aetonormativity, implicating

even the most loving parental telos with transhumanist goals. Taylor is not Sasuke's mother, and her appearance of love and concern is just that—an appearance. As Sasuke's fate demonstrates, aetonormative power structures do not differentiate between true parental care, which would seek to preserve the child's body as an essential part of his living existence, and the appearance of parental care in pursuit of adult authority, which displays no regard for the child's bodily security. Herein lies aetonormativity's biggest fault, a fault that is essentially identical to the biggest fault of transhumanism: the deletion of care for life that accompanies a deletion of material concerns.

The text, therefore, clearly positions the *combination* of adult authority and virtuality as antagonistic forces, rather than either force acting alone. (This positioning is also borne out when we consider Hideo, who has genuine adult concern for Sasuke, which is corrupted by too much reliance on the virtual NeuroLink algorithm.) We can understand the character Zero, who exists mostly as data and occasionally as a robot powered by the Zero algorithm, as a creation of this combination. Yet Zero still possesses the characteristics of childhood that put him in opposition with Hideo, and as the narrative concludes, it is revealed that these characteristics emerge from the remnant of Sasuke that still exists within Zero's code. After showing Emika the truth about Zero's creation, she observes that by downloading Sasuke's Memories into Zero's mind, they stand a chance at defeating Taylor's plan: "Zero has no desire to go against Taylor . . . but Sasuke might" (*Wildcard* 214). Once again, the child exists as an ambiguous trace—this time, as a trace within a trace—but that trace ends up having the power to dismantle the new NeuroLink algorithm entirely. Rather than destroying the algorithm or handing control of it over to Taylor, Zero betrays Taylor, allowing Hideo to kill her using the algorithm, and chooses to merge with the algorithm and take control of it himself:

I watch in horror as the new algorithm solidifies with Zero at the center of it. His artificial mind had managed to evolve, to circumvent Taylor's control… One look at Jax's face tells me that Zero's plan had never been the same as Taylor's. He had never intended for her to take control of the algorithm or even to potentially destroy it, and his goal had never been to stop only Hideo from using the NeuroLink to control people. He had done this solely to take control of the NeuroLink and the algorithm. He knew. He'd guessed that if Hideo saw Taylor, he would kill her himself. (*Wildcard* 251)

As the monstrous 'child' of Taylor's experiment, Zero rebels against the two sources of adult authority seeking to control him—Taylor and Hideo—and pits them against each other using the very tool that was invented as a result of his childhood disappearance. One could make a strong argument that Zero's 'evolution' in this instance is an example of his code 'growing up' and assuming the mantle of adult control from Taylor and Hideo in one fell swoop, and if the text ended here, aetonormative virtuality would indeed emerge victorious. However, Emika and Hideo manage to merge Sasuke's Memories with Zero's code, allowing the trace of Sasuke to overpower Zero: "*Ni-chan?*" *Brother?* …The voice is coming from a small boy, his dark eyes fixed on Hideo's form crouched over the now lifeless robot. When had he appeared? Zero is nowhere to be seen now" (*Wildcard* 311-312). What follows Sasuke's appearance is a conversation between him and Hideo in which Sasuke's virtual avatar grows in iterations, from child to pre-teen to teenager to adult, "the different versions of his past life merging inside of him, filling up part of the well that had been hollowed out of him for so long" and leading him to ask Hideo, "'If I don't have a physical form,…am I still real?'" (*Wildcard* 314-315).

Zero/Sasuke's capacity for ontological reflection emerges from this reunification of the Project Zero code with Sasuke's Memories—ultimately, from the child (Sasuke) exerting agency over the adult (Zero). This ontological reframing, reminiscent of the ontological reframing Barad suggests with her theory of agential realism, extends into ontological remaking when Zero/Sasuke makes a final decision regarding the new NeuroLink algorithm:

> He lifts his hand once. Around us, the world crumples, the buildings and sky and park turning into digits and data. Code being wiped. I let out my breath. My body suddenly feels like my own again, and the ice-cold numbness that had invaded my mind is no longer here. Sasuke has chosen to dismantle what Zero was building. (*Wildcard* 316-317)

By erasing the new NeuroLink algorithm, Zero/Sasuke also reunites body and mind for Emika and the rest of the world that had been taken under control by the algorithm's authority. The child has overcome adult authority *without* fully capitulating to adulthood by growing up (as would have been the case if Zero had maintained control of the algorithm); the body's power and importance have been reinstated, negating the authority of disembodied virtuality.

Conclusion: An Ontologically (En)Tangled Age

Through an analysis of the duology's various threads of adulthood and childhood, of virtuality and materiality, we can see that the figures of adulthood and virtuality—Hideo, Taylor, the new NeuroLink algorithm, and Zero—are twined together as antagonistic forces, while figures of childhood and materiality—Emika and Sasuke—function as the protagonists. The ways in which the conflict between these forces plays out demonstrate the accuracy of the semiotics of aetonormativity and virtuality: that bodily security is a concern emerging

from the adult-child axis; that the child-pattern axis results in a harmless virtual reality game, while the adult-pattern axis leads to a far more insidious mechanism of virtual control; and that the child-randomness axis results in the surprising nature of Zero/Sasuke, who first betrays his jailor Taylor and then betrays his own adult self in favor of his childhood self. When the two are entangled, aetonormativity is thoroughly destabilized by virtuality, and virtuality is thoroughly destabilized in return, in a diffractive relationship that allows us to see beyond the typical power structures of each.

Yet destabilization is not erasure. At the end of the duology, adulthood and virtuality still exist (as they must) alongside childhood and materiality. Although Zero/Sasuke disappears at the conclusion of the scene in which he destroys the new NeuroLink algorithm, he reappears briefly in the penultimate chapter of *Wildcard*, once more as a trace of code—but this time with his childhood identity intact: "there is something human in his words now. The part of him made intact by Sasuke's mind. …As data, as information breathing between wires and electricity, Zero—Sasuke—lives on" (*Wildcard* 335). The eliding of the character's two names in Emika's narration as 'Zero—Sasuke' reflects the reality that adulthood cannot erase childhood, nor can childhood erase adulthood, but the two can, and must, be productively merged together. By the same token, the redeeming presence of 'something human' in the words of the purely data-based Zero/Sasuke indicates that the ideal outcome in a world entangled with virtuality is for concern for the material, represented here by the 'human' element of Zero/Sasuke, which is also described as "bright and curious and kind" (ibid.), to merge with the virtual. When the literal material no longer exists, a concern for the material can persist via these emotions, as Emika describes when answering Zero/Sasuke's ontological question: "*Real.* My father was real, and so was Sasuke, and so is Sasuke now, even though he has no physical form. He's real because of the way Hideo is looking back at him, because he had been loved and grieved, had loved and grieved others" (*Wildcard* 316).

The material persists in a virtual context via emotions—love, grief, curiosity, kindness—which all have their root in material concerns.

In many ways, these texts echo concerns voiced by early dissenters against artificial intelligence and virtuality. From this single case study, we can see Hassan's early concerns regarding the posthuman played out for a young adult audience. Nearly half a century after Hassan voiced his concerns, humans remain unready, and unwilling, for artificial intelligence to 'grow up' and assume any ascendency over humanity. Yet by grappling with the possibility of artificial intelligence's ascendancy through a consideration of the actions and words of young people, in a text designed for a young audience, the adult writer is compelled to critique another power differential: that between the adult and the child. Despite the warnings of posthumanist scholars and pediatricians, digital technology remains accessible to children as a form of agency that extends beyond the ability to text and video chat. With the increasingly integrated presence of artificial intelligence and virtual platforms, young people become empowered through contrast, simply by possessing a human body rather than a mechanical one. The age differential between the child body and the adult body, once a sole determiner of power, no longer holds the same weight in the face of artificial intelligence's "light and sunshine" ubiquity.

At the same time, human bodies—young and old—are themselves increasingly integrated with artificial intelligence, rendering us all posthuman via a certain accounting. Hayles argues that we must manage our discontent with posthuman figures such as artificial intelligence because "the answers to questions about the posthuman …will be the mutual creation of a planet full of humans struggling to bring into existence a future in which [adults] can…continue to find meaning for ourselves and our children" (282). The diffractive reading performed in this chapter demonstrates the possibility that today's children, and their

continually increasing integration with artificial intelligence, will be the source of that meaning, empowering themselves in the process.

So too may broader artificial intelligence criticism benefit from another type of integration—that of age-related, aetonormative awareness into an assessment of humanity's relationship with intelligent technology. In many ways, this type of integration can be performed by paying closer attention: to infantilizing language and parentification when referring and relating to AI; to any innate assumptions about how the intersection of children and artificial intelligence in the real world might be different from that of adults; and to instances in which we treat ourselves in a childlike way in our relationship with artificial intelligence, and what that treatment means about our underlying assumptions, fears, and dreams about AI's presence in our lives. Scholars may also want to consider deepening the practice of their critique to incorporate a consideration of any extant aetonormative power dynamics. This consideration becomes especially relevant in cases of cultural critique, alongside other critical lenses such as heteronormativity, feminism, materialism, or postcolonialism, to name a few. Finally, even a partial incorporation of aetonormative considerations may reveal unintended critical consequences, particularly in cases where the aetonormative dynamic is applied (knowingly or not) atop a human-AI relationship. Beings of artificial intelligence are neither children nor adults, but at times we may find ourselves behaving as though they're one or the other and acting accordingly. Attending to these age-oriented choices and the ways in which they're mirrored and explored in cultural products may well open up new avenues of artificial intelligence critique that more accurately reflect and respond to our relationship with artificial intelligence, at any age.

Complicated Mixtures: Intra-Action, Reproduction, and the Environment in the Toy Story *Franchise and Its Contemporary Animated Films*

Current toys are made of a graceless material, the product of chemistry, not of nature. Many are now moulded from complicated mixtures; the plastic material of which they are made has an appearance at once gross and hygienic… (Barthes 58)

'*What is it with you and trash?'* (Woody to Forky, *Toy Story 4,* 2019)

As we approach the sequential end of this thesis, this fourth and final chapter leans heavily into questions (and answers) of materiality, returning to a thread touched upon in the first chapter on *The Adventures of Pinocchio* about the effects of non-traditional materiality associated with the posthumanist child. Instead of wood, however, this chapter centers on the much more culturally and environmentally controversial substance of plastic. I also return to ideas discussed in the second chapter of this thesis: namely, the fragile materiality of the environment and our discursive attempts to discuss and reflect on our collective impact on that materiality in didactic terms. Finally, this chapter analyzes another iteration of artificial intelligence, focusing on questions of embodiment and relationship that echo those examined in chapter three. To accomplish all of the above, this chapter diffracts Karen Barad's new materialist theory of intra-activity with Pixar's *Toy Story* series, set against an analysis of other environmentally entangled animated films produced contemporary with the franchise, including *FernGully: The Last Rainforest, WALL-E, Moana, and Frozen II*. After critiquing the didactic attempts of these environmentally conscious movies, I turn to an analysis of the

Toy Story franchise, particularly the latest installment of *Toy Story 4*, to consider how the interference of plastic materiality—as a pollutant, as trash, and as a mode of flexible reproduction—has the potential to upend both aetonormative assumptions regarding adulthood and childhood and posthumanist exclusions of childhood and its commensurate literature.

Although originators of objections to plastic run the gamut from medical professionals to environmental scientists to classroom teachers, I begin with a literary objector to the substance: critic Roland Barthes. Written decades before climate change or pollution became household buzzwords, Barthes' short essay on toys bemoans plasticity in succinct and harsh terms. He links the 'graceless material' of modern playthings with the "techniques of modern adult life" (Barthes 57) that they emulate in smaller form for child owners. For Barthes, plastic toys (rather than more abstract wooden ones, like blocks) "*literally* prefigure the world of adult functions […and reveal] the list of all the things the adult does not find unusual: war, bureaucracy, ugliness" (ibid., emphasis original). Nowadays, we have also become accustomed to the ubiquity of plastic waste, having been imprinted with documentaries, commercials, and reports featuring "the stigmata of plastic trash…and toxic pollution" (Haraway, *Trouble* 79) infecting Earth's green and blue spaces. The (adult) aspects of modern life responsible for the reproduction of plastic toys, repugnant in Barthes' eyes, are consequentially responsible for the reproduction of plastic pollution contributing to the monumental death of land and ocean species. To be sure, public recognition of the pollutive dangers of plastic has increased since the time of Barthes' writing, with nearly fifty percent of UK household-generated waste recycled instead of dumped into landfills (*UK Statistics on Waste*) and plastic bag and drinking straw bans implemented across the United States and Europe (Calderwood). Nevertheless, Disney's *Toy Story* franchise, which hinges entirely on the antics of mass-produced plastic toys, remains substantially disconnected from any

ecologically focused efforts to curb plastic consumption, continuing to thrive in popularity. If "all the toys one commonly sees are essentially a microcosm of the adult world" (Barthes 57), then the *Toy Story* franchise represents a microcosm of the relationship between humans, toys, and capitalist consumption, encouraging, among other things, a continued reproduction of plastic playthings.

Somewhat ironically, the *Toy Story* films are not considered to be environmentalist films, either in popular culture or in critical appraisals. The *Toy Story* franchise's approach— or, more accurately, it's *lack* of approach—to managing its messaging around the environment differs sharply from that of its peers. As I will review in the following sections of this chapter, the films I have chosen to compare in this chapter all take a much more overt, didactic stance towards teaching children about the value of the material environment and the dangers of pollution. Yet I argue in this chapter that the didacticism of *Toy Story*'s contemporaries works against their narrative themes in such a way as to avoid placing any responsibility on their implied child viewers. Conversely, I argue that *Toy Story 4*, in particular, contains narrative elements concerning reproduction that provide an intriguing model of intra-action and responsibility to reproduction, plastic and otherwise, for future generations.

As this chapter will demonstrate, the *Toy Story* franchise evolves from representing unrestrained reproduction to representing a mode of intra-active "responseability" (Barad, *Meeting* 393; Haraway, *Trouble* 2) across the breadth of its four main feature films: *Toy Story* (1995), *Toy Story 2* (1999), *Toy Story 3* (2010), and *Toy Story 4* (2019). The franchise has been popular enough to generate various spin-off miniseries released on the streaming service Disney+ and the more recent *Lightyear* (2022) about the 'real-life' Buzz Lightyear character upon which the Buzz toy is based, neither of which are considered in this chapter. The four main films of this franchise will be analyzed closely for the ways in which it depicts various

kinds of reproduction, both in a traditional capitalist sense of reproduction regarding the economy and the environment, and in a new materialist sense of reproduction, which hinges on the entangled nature of beings both human and non-human. This analysis will also refer to other environmentally-focused animated films produced contemporary with the production of the *Toy Story* franchise, i.e. the early '90's to the present day, and will end by focusing on the peritextual possibilities presented by the most recent film, *Toy Story 4*, a text which I argue offers a different environmental message, when read through a new materialist lens, than any of its predecessors.

Producers of children's films in the last quarter of the 20th century and into the 21st century have been equally concerned with merchandizing as they have with film quality itself, leading to an association between the films and their plastic effluvia. The McDonald's Happy Meal toy, designed for children from ages two to ten, exemplifies this entanglement of children's narrative and plastic mass production (Applegate). However, one could convincingly argue that in our current era of streamed media, the greater result of any media production for children is not the mass consumption and reproduction of plastic but rather the consumption and reproduction of narrative itself, requiring only *one* piece of plastic—a smart TV, a laptop, or a phone—for infinite viewings. As Donna Haraway points out, "stories…propose and enact patterns for participants to inhabit, somehow, on a vulnerable and wounded earth" (*Trouble* 10). Stories about plastic on a plastic-ridden planet matter, particularly those stories that teach us how to "stay with the trouble" (*Trouble* 2) that plastic presents. Zoe Jaques notes that "the Toy Story films, in particular…introduce something of a rulebook as to how toys and humans should interrelate" (233). As a series started at the height of Happy Meal popularity and continued through to the streaming age, the four *Toy Story* films weave together stories of reproduction, families, kin, and plastic, demonstrating an

evolution of how we might configure our 'responseability' towards the steep demands of climate change.

I have discussed previously in this thesis the critical approaches to the Anthropocene taken by various interdisciplinary scholars, including Haraway's call for humans to engage in "tentacular thinking" (Haraway, *Trouble* 5) which attends to the entangled nature of humans with other earthly beings and materialities. Karen Barad refers to this sort of relating as "agential intra-action" ("Performativity" 814) or "agential realism" ("Performativity" 810). Borrowing from quantum physics, agential intra-action ontologically reframes individual Cartesian subjects—for example, a child or a toy—as quantum entanglements, or phenomena. In Barad's model, material phenomena are only understood to be separate entities due to local, specific "intra-actions" ("Performativity" 815) (a play on interactions, to indicate the underlying entangled nature of what would otherwise be considered an 'interaction'). She refers to the appearance of individual subjects as "agential cuts" ("Performativity" 815). In this model, a child and her toy may appear, on the surface, to be materially separate entities, but ontologically they are a singular phenomenon—an "apparatus" (ibid.)—defined into individual subjects by specific and meaning-generating actions, behaviors, and material configurations (all of which she considers 'agential cuts'). Reconceptualizing material beings as entangled rather than individual, according to Barad and Haraway, is a necessary shift if we want to "become capable, with each other in all of our bumptious kinds, of response" to "a damaged earth" (Haraway, *Trouble* 1–2). The concept of a damaged earth may be backgrounded in the *Toy Story* franchise, but the questions these movies raise and attempt to answer with regards to child-toy intra-actions, toy-toy intra-actions, and the 'responseability' material beings have for each other, propose tentacular, sometimes conflicting, but often surprisingly hopeful patterns of living—and dying—with each other across materialities in the Chthulucene.

The *Toy Story* films represent a series of reproductive and non-reproductive apparatuses linking—and at times rejecting—human children, plastic toys, trash, recycling, consumerism, and kinship, all in the service of making persons, of making kin. Haraway describes kin-making as "making persons, not necessarily as individuals or as humans" (ibid.), a process that simultaneously echoes and discards Barthes' point regarding the role of toys in socializing human children into adulthood. This chapter argues that the kin-making reproductive models presented in *Toy Story 4*, released in 2019 amid a record-breaking European heatwave (Carrington) and worldwide climate strikes (Laville et al.), differ starkly from the corporate reproductive model presented by the original *Toy Story* film and perpetuated in *Toy Story 2* and *Toy Story 3*. By reframing our understanding of the *Toy Story* franchise through the lens of Baradian agential realism, this chapter highlights the shortcomings of the 'child-toy apparatus' presented in the original trilogy and investigates the new patterns of relating and being suggested by the 'toy-toy apparatus' foregrounded in *Toy Story 4*. Just as Haraway simultaneously echoes and discards Barthes, so too does *Toy Story 4* echo and discard its earlier franchise counterparts, leaving contemporary audiences with new patterns to inhabit and, just maybe, fewer toys to buy. In order to contextualize this shift in the *Toy Story* series, I start with a review of more traditionally eco-aware films for children created during the same era. I do this to analyze the results of a didactic approach to environmental messaging, which I find to be more reflective of adult fear than generative of childhood responseability towards environmental concerns.

"All Mother Nature's recipes": Pollution, Intra-action and the Natural Environment in the Disney Universe

The *Toy Story* films are neither the first nor the last to represent issues related to pollution and environmental degradation within and beyond the wide world of Disney

animated films. It is outside the boundaries of this project to comment on the entire history of environmentally focused films, or even films that feature elements of environmental concern, particularly since this work has been undertaken elsewhere (see Whitley 2012, which I will examine in closer detail shortly). I will instead be focusing on a selection of four animated films with an environmental component that have been produced concurrently with each of the *Toy Story* films: *FernGully: The Last Rainforest* (1992), *WALL-E* (2008), *Moana* (2016), and *Frozen II* (2019). This choice of boundary, beyond having practical implications for the scope of my project, allows us to consider how more overt environmental messaging in children's films has evolved over the era of the *Toy Story* franchise. It also gives us space to examine how creators have treated questions of pollution and the natural environment in productions designed specifically for children, with the idea that adults treat these questions differently when we pose them (and, through narrative means, answer them) for young people. An entire generation has grown up since the release of the original *Toy Story*, and it's worth examining the generational messaging that has occurred since that film's release, the real-life environmental pressures of the Anthropocene have themselves not been alleviated in that timespan.

Incontrovertibly, adults ameliorate issues of environmental catastrophe, including pollution, when using them as central topics—or even background elements—in texts for children. David Whitley's *The Idea of Nature in Disney Animation: From Snow White to WALL-E* deftly explores and analyzes the relationship between the House of Mouse and human perception and engagement with the environments in which actual mice, and other non-human critters, might find themselves. Whitley's book engages primarily in an ecocritical and aesthetic analysis of nature in Disney films, with only a limited reference to posthumanism and posthumanist and new materialist scholars (specifically, to Donna Haraway and Jane Bennett, and to Zoe Jaques, though not with reference to her work on

posthumanism). Nevertheless, Whitley's observations of nature and more specifically of pollution and refuse in *WALL-E* serve to illuminate this amelioration of environmental catastrophe. On the one hand, he refers to trash as the film's "central trope" (144) and notes that one of the main settings—a dystopian, abandoned Earth—is largely composed of "desiccated refuse heaps of grotesque proportion, and the lifeless, but strangely enduring, architecture of an empty metropolis" (141). On the other hand, he observes that these heaps of refuse have been intentionally designed by animators in such a way as to provoke a desire for "childlike exploration" (144). He also posits that WALL-E's home—a repurposed shipping container unit—is comparable to a nest or a den, "in a way that appeals to the audience's childlike (as well as animal) instincts" (146). Ultimately, Whitley finds *WALL-E*'s representation of a dystopian, posthuman Earth to be "radically reduced" (159). Part of this minimization of dystopia stems from the outcome of the plot, which sees humans returning to Earth to re-engage in agricultural practices—a return to the "fecund, Arcadian, innocent and harmonious" (141) version of nature seen in earlier Disney films such as *Bambi* (1942). The rest comes from the film's consistent reliance on Jane Bennett's conceptualization of enchantment as a mode of storytelling that "[activates] the affective energies necessary for us to sustain ethical behavior" (155) with relation to the natural world. In other words, although he does not phrase it as such, Whitley concludes that *WALL-E* is a humanist narrative, with even its posthuman figures—in particular, the boxy, lovable WALL-E and the sleek, futuristic EVE whose design "is wedded so strongly the trademark qualities of Apple-Mac computers" (154)—functioning in testament to the power of human ingenuity and in service to the reversal of a posthuman future. *WALL-E* does not stay with the trouble of pollution; in fact, it uses whatever means necessary, from the blithe (in the case of WALL-E) to the aggressive (in the case of the laser-happy EVE) to reinscribe an agrarian, pastoral, nostalgic version of humanity onto the planet.

Despite some narrative attempt to ease environmental fears, the minimization of the threats and damage caused by climate change and its attendant disasters only goes so far, even in films for children created by a mega-corporation that shows "no trace of ironic consciousness" (Whitley 153) in its deployment of extratextual (and often plastic) products to promote its films. The most recent film offerings in my analysis, *Moana* and *Frozen II*, which were produced contemporaneously with the most recent installment of the *Toy Story* franchise, elaborate on the ways in which the degradation and disrespect of nature can threaten human survival. In *Moana*, the rotting of coconuts and disappearance of fish from the lagoon constitute a precarity not only of the tribe's primary sources of food but also of a fundamental element of their lifestyle, as evidenced in the song "Where You Are":

Consider the coconut …

Consider its tree

We use each part of the coconut

That's all we need

…the island gives us what we need.

Despite engaging in a lifestyle that, by all contemporary measures, is extraordinarily eco-friendly, Moana's island still experiences an inexorable blight. That the means behind this environmental collapse are supernatural—Maui having stolen the heart of creation from the goddess Te Fiti and having created the destructive volcanic goddess Te Ka—only adds to a sense that the threat of a dying Earth is outside of human control. Correspondingly, when Moana reveals the volcanic goddess Te Ka to be the heartless incarnation of Te Fiti and heals her by restoring the heart stone to her possession, the offered solution for environmental degradation is suggested to be an individualistic heroism similar to that displayed by WALL-

E and the humans of the Axiom, who return to Earth to re-conquer the land. Maui's assistance in restoring the heart indicates a certain paradoxical *reliance* on supernatural powers to combat environmental decay; both the cause and the solution of problems in the natural world come, at least partially, from supernatural sources.

Frozen II reiterates a similar dichotomy of human helplessness/heroic, savior impulse in the face of environmental catastrophe, with the four elemental spirits originating from the land of Arendale's indigenous northern neighbors, the Northuldra, descending onto Arendale to wreak havoc on iterations of those four elements as they exist within the city: deconstructing roads and buildings, extinguishing fires in fireplaces and gas lamps, emptying fountains of water, and gusting wind through the streets. This version of natural catastrophe, while more overtly seeming to originate from a supernatural source, is revealed by Elsa to have been caused by the construction of a dam to the north of Arendale. The dam's construction was imposed on the Northuldra in a violent altercation between the tribe and Elsa's grandfather, the former king of Arendale. Like Moana with the heart of Te Fiti, sisters Anna and Elsa must heroically undo the damage done by previous generations—Anna by tricking the enormous, mountain-like Earth spirits into breaking the dam, and Elsa by magically preventing the tsunami that follows from drowning Arendale. As with the island blight in *Moana*, the destructive elements in *Frozen II* are partially supernatural in origin and in solution—Elsa herself is revealed to be the fifth element, the magical Snow Queen, and her powers over ice are, of course, a central focus of both *Frozen II* and the original *Frozen* (2013), even without *Frozen II*'s narrative emphasis on her power as an elemental spirit. In the absence of the supernatural elements in all of these texts, the environmental threats would not be conquerable—but at the same time, they would also cease to exist. This removal of environmental catastrophe from the human sphere protects humans from the consequences of their actions by making their actions no longer theirs.

This reliance on the supernatural in both films has echoes in older texts that deal with the environment and its degradation at the hands of humans. The film *FernGully* (1992), produced three years before the original *Toy Story*, provides a pointed case study of didactic environmental concern. Based on an Australian novel by the same name, *FernGully* tells the story of a group of rainforest-dwelling fairies who believe humans to be extinct, and a human tree logger named Zak who stumbles upon the fairies and must join forces with them to battle Hexxus, an evil spirit of pollution and destruction. Although it is not a Disney film, the environmentalist message of *FernGully* is paradigmatically ecocritical, with the storytelling devices used in the film have clear echoes in the newer Disney films discussed above. The tension between the tree-loving fairies, coded in green, and the fire-spewing, destruction-bearing Hexxus, coded in red, reappears in Moana, with the vividly green earth goddess Te Fiti and the antagonistic volcano goddess Te Ka, whose energy is implied to be responsible for the environmental decay of Motunui. The human alteration of a land primarily cared for by spirits of nature, featured in *FernGully* as deforestation, reappears in *Frozen II* as an enormous dam. *FernGully* preludes the environmental messaging we see in more contemporary films: although humans have a role in saving the environment, successful environmental preservation and restoration can only occur with the help of supernatural forces (which, in turn, are also partially responsible for the destruction that's been wrought). One might expect the filmic messaging to have evolved in the intervening generation, but so it goes with children's environmentalist films as it does with global environmentalism and efforts at sustainability: thirty years has not had a dramatic impact in changing human behavior with regards to preservation of the environment. When we tell an environmentalist children's story, it would seem that we are essentially telling the same story over and over again, with subtle changes that do nothing to impact human responsibility via "enchantment" in a way that Jane Bennett and David Whitley might suggest.

Moreover, the overall effect of these films' approach to the natural world described above is one of human control and preservation, with little consideration given to the quality of life (or even survival) of non-human actors. In *Moana* and *Frozen II,* animals are relegated to clever (in the case of Sven the reindeer) or not-so-clever (in the case of Hei Hei the rooster) sidekicks, with little thought given to their existence in the context of the environmental struggles with which the human and supernatural characters are engaged. In *FernGully*, we see a more significant participation by non-supernatural animals in the progression of the narrative; although some of the animals can speak, and others appear to be able to understand speech, the animals aren't represented as 'magic' lizards or kangaroos or squirrels; rather, it is humans who are implied to be deficient in our lack of ability to understand the animals (an ability the audience can access through the presence of fairies). The blending of speaking and non-speaking animals helps the film maintain a sense that the animals are simply normal animals. The only animal in possession of anything resembling 'supernatural' abilities is a bat named Batty Koda, an escaped lab bat who retains a metal diode connected to his brain. Batty Koda, along with the other animals in FernGully, exist at the whims of Hexxus and humans as much as the fairies do, with a further environmental threat implied by Batty Koda's short narrative song describing the animal experimentation to which he was subjected:

All of our cosmetics are non-carcinogenic!

I been brain-fried, electrified, 'fected and injectified

Vivisectified and fed pesticide

My face is all cut up, Cause my radar's all shut up…

They used and abused me

Battered and bruised me

Red wires green wires stuck em' right through me!

The song graphically illustrates the conditions and activities to which lab animals are subjected by research scientists, identifying different types of research (areas implied in the song include neurological, infectious disease, environmental and corporate) all of which threaten the life of the animal, which would normally be killed at the end of a research project. The line "all of our cosmetics are non-carcinogenic!" is sung by Batty in a mock female voice while he smears the juice from a red berry over his lips and slicks back his ears to mimic a feminine hairstyle, aggressively miming the animal testing of cosmetics. In an extended version of the song, available on the film's album, Williams engages in an active critique of the circumstances surrounding animal experimentation:

Phone call for Mister Darwin! Phone call!

If all the graduate students would please move closer...

Scalpel...More nitrous oxide Thomas...

The Eye makeup, when inserted rectally, has some effect...

Remove the brain cap...

If you notice, by dipping the bat in a series of paints...

After 600 packs of cigarettes, the animals

Seem to exhibit some carcinogenic tendencies…

In this sequence, Williams voices several different personas, each overlapping the other in an almost Twilight-Zone-esque sequence, with the melody of 'Rock-a-bye Baby' being played

on a toy piano in the background. This unsettling overlap of child's lullaby and disembodied adult male voice speaking disjointed, unfinished sentences serves to highlight the paradox of the children's environmentalist film: as texts for children, like the lullaby, they are ultimately designed to soothe, while the adult reality of animal-focused violence (indicated by the scalpel), illness (indicated by the phrase 'carcinogenic tendencies'), and death, all in the name of scientific progress (indicated by the reference to Charles Darwin, the founder of modern biology) soldiers on, undisturbed by any attempts to ameliorate it. Perhaps ironically, this section of the song was not included in the final cut of the film and is only available on the film's soundtrack (Silvestri). In the film, Batty ends the song by suggesting that the fairies "exercise a little prudence/when dealing with humans." This significantly minimized message from Batty Koda reflects the minimization of blame placed on humans in their interactions with animals the environment, a minimization echoed when the human Zak becomes an integral hero to saving FernGully.

The endings of all the films discussed so far also demonstrate the failure of humans to learn greater responsibility towards animals and general custodianship of the environment. On a literal level, protagonist Crysta and the other fairies exercise zero prudence when Zak, the human logger, ends up joining them in their fight against Hexxus, trusting him with the location of FernGully even though he himself has contributed to deforestation. More metaphorically, the film concludes on a vague note, suggesting little in the way of change on the part of the humans involved; Zak's parting comment that "things have gotta change" to his fellow loggers is at best a lukewarm reprisal of the pro-environmentalist lesson that he's learned from his time with the forest fairies. Contemporary films *Moana* and *Frozen II* similarly demonstrate little human change in their interactions with nature and animals. In *Moana*, Moana's people reclaim their seafaring heritage, but it's not clear that they needed to learn a lesson about cohabiting productively with the natural world in the first place, since the

cause of their environmental blight was entirely supernatural. If anything, they've *gained*

trust in Maui, the supernatural being that originated the blight in the first place. *Frozen II*,

unlike *Moana* and *FernGully*, comes tantalizingly close to having humans be taught a

significant, material lesson in the consequences of their environmental actions, when the

post-dam fjord tsunami nearly wipes out the city of Arendale. However, Elsa arrives at the

last minute to stop the wave and prevent the city from being destroyed, reiterating the power

of the supernatural to remove humans from environmental realism and consequences. Unlike

the *oha* coven in Nnedi Okorafor's The Nsibidi Scripts series that I analyze in chapter two of

this thesis, who learn that environmental troubles can be stayed with and even played with,

but never fully controlled or erased, Disney's heroines are able to magically eradicate any

notion of trouble with no further consequence to the humans in the narrative. I argue that this

is an 'unresponseable' utilization of magic in an ecologically focused narrative.

The only cinematic ending to hint that humans have learned to be better custodians of

the environment is the ending of *WALL-E*. The humans, having returned to earth, are depicted

farming, fishing, and otherwise living with growing things again. However, this "living with"

looks a lot like the agricultural practices that originated in the Fertile Crescent ten thousand

years ago that ultimately led towards the urbanification and industrialization at the root of

Anthropocenic catastrophe. This sense that the humans of *WALL-E* have returned to the past

is amplified by the animation of these scenes, in two ways. Firstly, the animation appears

tiled, almost in a historical fashion, bringing to mind the tiled hieroglyphics of ancient Egypt

and other ancient cultures; this is a significant departure from the smooth, realistic CGI of the

rest of the film, and lends those scenes a nostalgic air suggesting a return to things past.

Secondly, the "scenes" aren't really scenes at all, but rather snippets of animation that occur

in the margins of the film's credit. That the majority of human "living with" in *WALL-E*

happens as a filmic peri-text, rather than as part of the actual film, is a relegation that puts the

"realism" of that outcome, so to speak, into question. Between the literal marginalization and the nostalgic animation of these scenes, the reunification of humans with nature in *WALL-E* is essentially conveyed to be mythological, rather than a realistic outcome of the film's events.

As this overview of *Toy Story*'s contemporaries demonstrates, overt ecological messaging in films for children over the last quarter of a century over-rely on literal magical thinking to solve environmental problems with little recourse to human responsibility and behavior change. From a Baradian, intra-active perspective, little attention is paid to humans as intra-actively, ontologically entangled with the negative consequences of climate change; rather, pollution and environmental disaster are conceptualized as discrete antagonists that must be defeated, a further reiterating of the humanist Hero's Story (Le Guin, "The Carrier Bag Theory of Fiction"). When we pair the human and supernatural elements of these texts—Zak and the fairies, Moana and Maui, Anna/the Arendellians and Elsa/the nature spirits—we see over and over again that humans are positioned as the unwitting, often disbelieving victims of supernatural authority; the success of any human agency, even on behalf of the environment, rests entirely on the power and good will of supernatural elements. This distribution of power incorrectly obfuscates the role that humans play in the Anthropocene (a geological era literally renamed because of human impact on the planet). Human responsibility towards nature is relocated in the non-existent supernatural, a move which itself relocates the natural into the realm of the supernatural. Nature becomes just as (un)real—and therefore, just as out of human control—as Te Fiti and Hexxus. That this pattern is discernible across nearly three decades of filmmaking indicates how entrenched this approach to cinematic engagement with the environment for children.

In *WALL-E*, the supernatural element is replaced with a technological element, and subsequently, the message of humanity having lost power and responsibility in the face of environmental catastrophe is amplified to a grotesque degree. The existence of humans on the

Axiom functions as a depressingly negative depiction of Baradian intra-action: although the machines and the humans exist in a deeply interrelated way, that interrelation is conveyed to be more of a toxic co-dependency than a fruitful, productive, pro-environmental outcome. The humans are completely dependent on the technology around them, barely able to walk under their own power. In the world of *WALL-E,* human integration with technology equates to a literal de-evolution of humanity, conveyed in a poignant visual showing the history of the ship's captains morphing from photo-realistic adult man to the cartoonish, overweight, literally *boneless* style of human that WALL-E encounters seven hundred years after the Axiom left Earth. Indeed, the humans on the Axiom may well be the most posthuman figures that the Walt Disney Corporation has ever produced on screen, and that posthumanism exists as nothing more than a blaring, disgust-provoking warning of the consequences of over-reliance on technology. The one moment of positive intra-action amongst the human and non-human members of the Axiom, in which the ship's supporting cast of helper-robots and the human passengers work together to volley the lone plant specimen into the scanning container designed to trigger the Axiom's return to Earth, is fleeting and overshadowed by the 'romantic' plot of EVE's concern for an apparently 'dead' WALL-E. Once back on Earth, the narrative focus returns to the WALL-E/EVE romance plot, and the humans appear to suddenly no longer need caretaking by WALL-E, EVE, or any of the Axiom's helper-robots.

This shift from intra-action of entangled humans and non-humans to interaction between individual human and non-human subjects functions as the narrative's ultimate denouement via its extended depiction in the margins of the film's credits. This peri-text wordlessly narrates the progress of humanity as they re-learn how to sustain life via agriculture. It juxtaposes the wordless introduction to the film, which Whitley observed to be extraordinarily and unsettlingly dystopian, in both content and style. The scenes of planting seeds, watering them, harvesting crops, fishing, and eventually building cathedrals, sailing

boats, and enjoying picnics in a modern-era park depict robots assisting humans in tasks that only benefit the humans; one could generously argue that the humans and robots are working cooperatively, but unlike the intra-action of the entangled humans and robots on the Axiom, in which the robots functioned autonomously and in a way aligned with their programming, the robots on Earth have become glorified farm equipment, working outside of their own teleological purpose and leading the humans back into the same cultural lifestyle that led to the Anthropocene in the first place. Stylistically, these credit scenes are illustrated in a variety of artistic styles that match a basic summary of the evolution of Western art: they begin as cave paintings and hieroglyphics, lit seemingly by a flickering fire, depicting the robots lighting a fire for the humans in a mimicry of ancient human fire-myths. The art styles evolve consecutively through Greco-Roman stylization, Mediterranean tiling, Renaissance-era architectural sketches, Impressionism, and pointillism, with clear homages to Western artistic greats such as DaVinci and Van Gogh. This artistic sequence, combined with the reinvigoration of agriculture and urban landscapes, indicates that the ultimate goal of WALL-E (both the robot and the film as a whole) is to save humanity from submission to technology and return (white, Western) humans to their cultural and environmental dominance over the planet. A productive intra-action with technology that teaches humans a new and different way of living and dying with the Earth, as suggested by Haraway and other new materialists, does not emerge as an outcome of the film's narrative.

With this overview of films contemporary to the *Toy Story* franchise in mind, I turn to the *Toy Story* films themselves, which I argue offer a different evolutionary track from the early '90s to the present day towards how we might effect a reframing of our collective relationality in such a way as to gain a greater 'responseability' in the face of pollution and climate change. I argue that by *Toy Story 4*, the *Toy Story* films have woven a narrative that provides us with a workable model of intra-action between human and non-human actors,

and even non-human/non-human actors, removed from human consumption and
reproduction.

From Individual to Apparatus: Reimagining Corporate Reproduction in *Toy Story, Toy Story 2,* and *Toy Story 3*

My analysis of the *Toy Story* films begins with an examination of the first three films
separately from *Toy Story 4*. As my analysis will show, *Toy Story 4* represents a significant
departure from the narrative formula found in the first three films, although certain narrative
evolutions between the original and the third installment make way for the developments
found in the fourth. Unlike the films discussed previously in this chapter, the *Toy Story* series
does not espouse any particular environmental messaging; even the fourth film doesn't
automatically read as an ecocritical narrative. Nor do the films claim any sort of magical
involvement, besides whatever unspoken magic leads to toys being secretly, mysteriously
alive when not in the presence of humans. Previous analyses of the *Toy Story* films have
instead focused on frameworks invested in individual human subjectivity, with only passing
references to materiality and its constitutive production of waste. Karen Cross's
"psychoanalytic object-relations approach" (141) to mourning in the *Toy Story* franchise
mentions in passing the idea that "toys may ultimately be little more than the debris of
history" (147) but links this idea of waste to human sadness, noting that "the sea of waste
displayed at the dump configures a landscape of melancholic suffering; a scar born of
overconsumption" (ibid.). In Robert Geal's Freudian reading of *TS* and *TS2*, the human-toy
relationship mimics the classical god-human relationship; he notes that "although [toys]
exhibit human-like emotional and cognitive behaviour, their man-made construction denies
them unfettered autonomous status" (78) Just as pre-Cartesian human subjectivity was
deemed entirely dependent on a higher cosmic power, argues Geal, so too are Woody, Buzz,

and the rest of Andy's toys dependent on Andy for their continued existence. For a film that "sits within the postmodern tradition" (Cross 141), the answer to the ontological question of a toy's life origin appears more convincingly rooted not in a cosmic deity but a corporate one. Toys such as Stinky Pete and the alternative Buzzes from *TS2* and Gabby Gabby from *TS4* possess identities, voices, and conscious awareness without having ever been owned or played with by a child. Andy's Buzz Lightyear himself has a thorough grasp of his own backstory without having been played with, and his pivotal ontological shift from considering himself a spaceman to realizing that he is, in fact, a "child's plaything" comes from viewing an advertisement for the Buzz Lightyear action figure. The analogy is not that toys are to humans as humans are to gods, but rather the other way around; in a capitalist (or Marxist) reading of the *Toy Story* franchise, it is we that worship at the altar of capitalism, with toys as our idols. Alan Ackerman succinctly summarizes the connection between corporate America and religion:

> Disney celebrates the representative self as American and the American self as the embodiment of a prophetic universal design, inverting secular values in the mould of quasi-sacred teleology. But the very idea of origins becomes radically ironic because the sentimental spirit of toys is the spirit of capitalism. Far from positing a theological source or end, a telos, these movies represent infinity above all as a marketing phenomenon, which assumes that children can take a moral pleasure in property and discovers an educative value in the capitalist free market. (116)

What this complicated relationship amounts to, in Ackerman's view, is "a fantasy of unlimited commodification and redemption (i.e., profit)" (ibid.) generated by Disney and upheld through capitalist consumers. Yet "the superficially disposable nature of toys still haunts the [films]" (Jaques 232); from the point of view of climate change, the notion of

unlimited commodification prompts concern, not only in a representational sense when considering the *Toy Story* narratives but in a literal sense when one takes the entire franchise to be "not only the Disney-owned series of movies but also the merchandise, action figures, [and] theme-park rides" (Ackerman 98). It's one thing to marvel at the seemingly infinite row of Buzz Lightyear toys in Al's Toy Barn; it's another thing to understand the real existence of thousands, if not millions, of Buzz Lightyear toys, in production from 1995 to the present day, most of which have been consigned to Cross's sea of waste. As an understated counterpart to *WALL-E* (one can imagine that some of the trash cubes *WALL-E* managed contained mangled pieces of Buzzes, Woody's, and Mr. Potato Heads), the first three films *Toy Story* series proposes a particular story pattern for viewers to reproduce with regards to contemporary capitalistic consumption of plastic items.

The reproductive apparatus put forward by the *Toy Story* franchise, consisting of such entangled parts as media narrative, human child, human parent, plastic toy, and money, does not need to be read as rooted in human subjectivity. In fact, in an agential realist model, such a reading is illusory at best, for "the particular configuration that an apparatus takes is not an arbitrary construction of 'our' choosing […]'Humans' do not simply assemble different apparatuses for satisfying particular knowledge projects but are themselves specific local parts of the world's ongoing reconfiguring" (Barad, "Performativity" 829). That is, rather than imagining corporate heads of Disney or Pixar as puppet masters pulling parents' strings, or children pulling the strings of a toy (and thus exerting deterministic control over the toy), we can instead think of the corporate reproduction apparatus in terms of its intra-actions, a word that reframes the Cartesian notion of interaction and denotes attention to relationships before individual relata. We can focus on any intra-action within an apparatus: the child-toy intra-action, the toy-toy intra-action, the Woody-Buzz intra-action, the room-child intra-action, or any combination of the above factors, at as granular or as broad a level as we wish.

This mental shift is less of a Matrix-esque 'awakening' to any true nature of reality and more of a shift in our "onto-epistemology" (ibid.) of the world—a portmanteau indicating that ontology and epistemology are not separate practices in an agential realist model but rather intertwined ways of being in the world. Agential realism does not suggest that we cease to experience our own first-person subjectivity. Rather, it suggests that we understand our phenomenological experience less as self-generated (in a *cogito ergo sum* manner) and more as a result of ongoing intra-actions with our own materiality and the materiality of the world around us. Reading relationships as apparatuses opens up new understandings of the patterns they create and the world that is created by those patterns. De-centering human subjectivity when reading a narrative that is as much driven by the plastic materiality of its main characters as it is by the subjectivity of those characters reveals new understandings of the different reproductive cycles put forward in iterative installments of the *Toy Story* franchise, particularly the gap between the 'child-toy apparatus,' which foregrounds child-toy intra-actions, and the 'toy-toy apparatus,' which foregrounds intra-actions between toys.

For the original *Toy Story* trilogy, the more generative relationship is the child-toy intra-action, which produces and reproduces narratives of an increasingly cinematic nature as the trilogy progresses. As Jaques notes, the toys' replication of human behavior extends to "[engagement] in (heteronormative) relationships with other toys" (220), yet these relationships are implicitly non-reproductive in a biological sense. The reproduction indicated in the first three *Toy Story* films is instead a reproduction of narrative, which in turn reproduces (heteronormative) human families, which in turn reproduces plastic toys for capitalist consumption. Each of the films begins with a reproduction of a mainstream cinematic or filmic narrative, beginning with the low-tech heist story involving the evil Mr. Potato Head, the weak and captive Bo Peep, and the brave hero Sheriff Woody as the prologue to *Toy Story*. This initial narrative bears a significant resemblance to popular

cartoon-Western plots (such as Looney Toons), as does the narrative at the start of *Toy Story 3*, while *Toy Story 2* features a Buzz-centered space opera narrative in clear homage to *Star Wars* (1977). Where *Toy Story*'s prelude takes place in Andy's room, with Andy's voice narrating the proceedings and ventriloquizing the toys, the preludes for both *Toy Story 2* and *Toy Story 3* are immersive cinematic experiences for the viewer, a *mise en abyme* pointing towards the generation of narrative that sits at the heart of the *Toy Story* franchise (and of the Walt Disney Corporation). This child-toy apparatus functions primarily to generate and layer narratives, both the embedded narratives more overtly co-created during child-toy intra-action (or playtime), and the overarching narrative that composes the plot of the film.

Both categories of narrative contribute to the production of reproductive human families by centering human growth, particularly the growth of the organically reproduced human child. The prelude of *Toy Story 3* is doubly embedded; once they're removed from the cinematic intro back to the 'real' world, 'reality' is shown to be a video recording from Andy's childhood. Discussions of Baudrillard's hyperreal aside, this series of embedded narratives serves to remind viewers of the primary lesson of the entire franchise: "nothing [is] worse than being finished" (Ackerman 98). *Toy Story 3* brings to the fore questions of materiality only partially visible in the first two films. The toys are at their most existential when the materiality of the child, intersecting with time differently than the materiality of the toys, causes irrevocable changes to the child-toy apparatus; it is revealed to have been a *human*-toy apparatus all along, with the cuts within the phenomenon becoming deeper and more permanent with each passing year. Ostensibly *Toy Story 3* is concerned with "the ephemeral nature of the toy" (Cross 146), but Jaques observes that although the film

> is focused upon attempting to find a middle ground between a life of downcycled misuse and one of death-by-landfill[…]writing against the purely replicative models of a capitalist culture of waste[…]it nevertheless recalls that still

unanswered issue of what to do with an excess of inorganic 'beings' that are

continually and perpetually reproduced. (230)

Toy Story 3 sidesteps the issue of plastic materiality in favor of human maturation (and implied eventual reproduction), wrapping the plot around Andy's assumption of adulthood and the toys' resultant negotiation for survival. Throughout the original *Toy Story* trilogy, the child-toy apparatus promotes the growth of the child, culminating in the abandonment of childish things upon the child's attainment of legal majority and a subtle assumption of future generations, indicated when Woody tells Rex in *Toy Story 3* that "someday—if we're lucky—Andy may have kids of his own". One could easily imagine a version of *Toy Story 3* that ends with the toys breathing a sigh of relief as they head into the attic, only to be awakened years later to be played with by Andy's hypothetical future child, who would go on to receive a new, contemporary toy for their birthday, awakening the same anxieties from the original *Toy Story* all over again. The implied perpetuity of heteronormative human reproduction remains centered and upheld throughout the original trilogy by the loyalty of plastic toys and the narratives they co-create with their child counterparts.

Yet *Toy Story 3* substitutes Andy's personal reproduction (perhaps because, when it was released in 2009, the original intended audience of TS was only in their late teens or early twenties, and mostly not yet reproducing themselves) with a lateral donation of the toys to a new child, Bonnie. This act demonstrates the entangled nature of the human-toy apparatus: Andy gives his toys to Bonnie ostensibly *for* Bonnie, but he also does it (out of gratitude) *for* his toys, signaled by his final "Thanks, guys" before he heads off to college. This is the first (and only) moment during the entire original trilogy in which Andy speaks to the toys as if the toys might be listening, acknowledging them as members of a shared phenomenon. This final boundary troubling, a continuation of the "boundary pollutions" (Jaques 223) generated by toys throughout the franchise, preludes the integration of the notion of "kin-making"

(Haraway, *Trouble* 12) into the *Toy Story* franchise with the arrival of *Toy Story 4* and the introduction of two new, conflicting modes of reproduction into the discourse of the human-toy apparatus.

Settling into the Compost Pile: Trash Becomes Toy Becomes Trash in *Toy Story 4*

Trash and waste make increasingly central appearances throughout the original *Toy Story* trilogy, beginning with the momentary shot of the "'Dinoco' oil company sign that is raised over the forecourt of the gas station [which] emphasizes the dying and outmoded world of fossil fuel consumption along with the ephemeral nature of the toy, as it becomes the lost object" (Cross 146). Both *Toy Story 2* and *Toy Story 3* feature antagonists—Stinky Pete for the former and Lots-o-Huggin' Bear for the latter—who brandish the threat of becoming trash as the ultimate demise. Yet it is *Toy Story 4* that brings waste to the forefront, returning to the idea of the toy as lost and reconsidering the role of reproduction in the increasing creation of waste. The intervening decade between *Toy Story 3* and *Toy Story 4* demonstrated a heightening rather than a lessening of environmental catastrophe and stress, with a corresponding expansion of anti-waste legislation around the world. Disney itself joined in on the increasing worldwide ban of single-use plastic, banning plastic straws and stirrers at all of its theme parks in 2018 (Associated Press). The treatment of trash in *Toy Story 4*, accordingly, offers a look at a set of potential answers to the problem of pollution presented by plastic toys. These answers hinge on an exploration of alternative modes of reproduction that depart from the corporate-cinematic mode centered in the original trilogy.

Our first hint that reproduction has shifted in *Toy Story 4* comes in the film's prelude. Unlike the preludes of the original trilogy, which present the cinematic narratives produced by the child-toy apparatus, the *Toy Story 4* prelude begins with a clap of thunder and a superimposed time stamp of "nine years ago," creating immediate distance between the

viewer and the narrative. This sharp reversal from previous franchise preludes continues as we observe the toys banding together, under the co-leadership of Woody and Bo Peep, to save R.C. from becoming a "lost toy". Even as the dangers of becoming lost hover threateningly in the background, this episode works to rehabilitate the idea of the "lost toy" when Bo Peep, who has been suddenly transferred to a new owner, suggests that Woody accompany her:

> **Woody**: What? No! No, no, no. You can't go! What's best for Andy is that...
>
> **Bo Peep**: Woody. I'm not Andy's toy.
>
> **Woody**: Wh-What?
>
> **Bo Peep**: It's time for the next kid.
>
> […]
>
> **Bo Peep**: You know, kids lose their toys every day. Sometimes they get left in the yard, or put in the wrong box.
>
> **Woody**: And that box gets taken away.

Bo's assertion that she's not Andy's toy seems in one sense to be a re-inscription of the franchise's "commitment to individualism" (Jaques 230), breaking the child-toy bond in favor of toy independence. In a Baradian sense, however, this exchange along with the entire episode dedicated to saving R.C. foreshadows *Toy Story 4*'s exploration of the toy-toy apparatus, in which toys commit to staying with each other in their lost state in recognition of their inorganic materiality.

At the risk of being repetitive, I want to reiterate that the child-toy apparatus and the toy-toy apparatus are not ontologically separate under Barad's agential realist reasoning. What

separates them in the case of the *Toy Story* franchise is the films' centering of one over the other, an example of an agential cut on a narrative level. The child-toy apparatus uses narrative to produce and reproduce capitalist consumption and human bodies; the toy-toy apparatus also makes use of narrative, but its production of narrative becomes toy-focused and local instead of cinematically designed for global consumption (and the corresponding reproduction of new plastic toys). If each of the preludes can be seen as leaving something behind (the notion of toys as inert material in *Toy Story*; Buzz's attachment to the "hyper-masculinity" (Jaques 222) of his "origin story" (Haraway, "Promises" 67–68) in TS2; and the franchise's commitment to static childhood in *Toy Story 3*), then *Toy Story 4*'s prelude can be read as leaving behind the child-toy apparatus. This departure occurs in a literal sense as well, when the prelude concludes with a familiar return to Randy Newman's 'You've Got a Friend in Me' underscoring scenes of Andy, and then Bonnie, playing with Woody and the other toys. Juxtaposed with the dramatic realism of Bo Peep's departure, this visual depiction of the child-toy apparatus, which is promptly left behind in the prelude, signals room for attention to the toy-toy apparatus explored in the rest of the film's narrative.

The film's redirection towards focusing on toy-toy relationships is supported, ironically, by its own unsettling employment of the child-toy apparatus. Rather than producing and reproducing cinematic narratives, the child-toy apparatus in *Toy Story 4* functions to produce and reproduce new toys, as Woody and Bonnie do on Bonnie's first day of kindergarten, when they work together to create Forky, a toy made from a used spork and other refuse. In one sense, Forky's creation and subsequent integration into his status as a toy (instead of trash) represents a departure from the corporate-driven consumerism present in the rest of the franchise—the ultimate intersection of recycling and childhood creativity, two lauded ideals in many twenty-first century households. In another sense, it represents a perverse corruption of human reproduction, featuring Forky as the child that Bonnie and

Woody 'raise' together in an oddly traditional parenting structure, with Bonnie as the loving

yet overly anxious mother and Woody as the strict, boundary-setting father. (There's a subtle

suggestion that Woody played a similar paternal role with baby Andy, when he tells Buzz that

he doesn't "remember it being this hard".) In her analysis of puppet narratives such as

Collodi's *Pinocchio* and Hoffman's *Der Sandmann*, Anne Lawson Lucas notes that "the

relationship between the artificer and the artefact is presented as that of father and child,

which betokens a deep attachment and a powerful emotional investment by the creator in his

creation" and functions as a "fundamental element" to both stories ("Puppets on a String: The

Unnatural History of Human Reproduction" 50). Yet Forky's creation, while bearing

similarities both to those narratives and to Shelley's *Frankenstein*, does not stem from a

single human creator attempting to mimic godhead. Rather, Forky is born from two creators,

one toy and one human, working in sync, with the 'father' providing the 'genetic' material

(when Woody throws crayons and trash in front of Bonnie) and the 'mother' laboring towards

the bodily creation of the 'offspring' (when Bonnie crafts and then names Forky). The

boundary transgression created by this 'family' feels disturbing because it catapults the child-

toy apparatus beyond the platonic message of 'You've Got a Friend in Me' into a sex-

adjacent reproductive relationship, made inappropriate on the grounds of materiality (organic

vs. inorganic) and temporality (although appearing ageless, Woody is at least seventy years

old, while Bonnie is a kindergartener). Woody's dazed smile when he wakes up in Bonnie's

arms the morning after Forky's 'birth' is the same expression he makes after Bo Peep pulls

him in for a mistletoe kiss in *Toy Story*, another sex-adjacent moment complicated by the

aforementioned material and temporal constraints. Rather than functioning as a fruitful

alternative to wasteful consumerism, the uncomfortable implications of this iteration of

reproduction work to undermine not only anti-capitalist, pro-environment creativity but also

the child-toy apparatus itself. Recalling Barthes' assertion that toys "are meant to produce

children who are users, not creators" (59), *Toy Story 4* makes clear that reproduction stemming from the relationship between the child and its toys is only sanctioned under the auspices of consumer capitalism, when realized through narrative and centered on the human child.

Forky's materiality also undermines the notion of non-consumerist reproduction. Haraway's promotion of kin-making privileges relationships between *organic* beings, but her imagined purpose of kin nevertheless applies in Forky's case: "Making kin as oddkin rather than, or at least in addition to, godkin and genealogical and biogenetic family troubles important matters, like to whom one is actually responsible" (*Trouble* 2). Woody's responsibility for Bonnie transforms into a responsibility for Forky, whose origin story, materiality, and deconstructive instincts certainly categorize him as 'oddkin'. Constantly on the verge of falling apart, with arms and eyes only ambiguously under his control, Forky is never far away from his material origin as trash. Unlike Buzz in *Toy Story*, who is erroneously "convinced by his own marketing" to misbelieve his "status as a toy" (Jaques 221), Forky must be rehabilitated into toyhood, spending a significant chunk of the narrative rejecting toy ontology. This narrative centering of Forky's identity development happens in concert with Woody's own development beyond the child-toy apparatus:

> **Woody**: Well, then you watch 'em grow up and become a full person. And then they leave. They go off and do things you'll never see. Don't get me wrong, you still feel good about it. But then somehow you find yourself, after all those years...sitting in a closet just feeling...

> **Forky**: Useless?

> **Woody**: Yeah.

> **Forky**: Your purpose fulfilled?

Woody: Exactly.

Forky: Woody, I know what your problem is.

Woody: You do?

Forky: You're just like me. Trash!

By aligning Woody's parental instincts with the typically derogatory concept of trash, Forky simultaneously elevates the idea of what it means to be waste and diminishes the value of reproductive parenthood. From Forky's perspective, parenthood is trash; at the same time, trash isn't as bad as Woody thinks it is. In this way, Forky fulfills a "compostist" (Haraway, *Trouble* 97) function as described by Haraway: "The unfinished Chthulucene must collect up the trash of the Anthropocene[…]and chipping and shredding and layering like a mad gardener, make a much hotter compost pile for still possible pasts, presents, and futures" (*Trouble* 57). Forky's materiality is permanently unfinished, made from Anthropocenic trash (of the single-use plastic sort that even Disney has worked to ban), and his intra-action with other toys, particularly Woody, chips and shreds at Anthropocentric ontological identities. Ultimately, Forky's creation and material existence destabilizes the child-toy apparatus put forward in *Toy Story 4*, sterilizing its mechanism of reproduction even while existing as a product of it.

"Playtime, all the time!": Staying with the Trouble of Being Lost

If the existence of Forky works to destabilize the reproductive action of the child-toy apparatus valorized in the original *Toy Story* trilogy, then Bo Peep and the other lost toys intra-act in an alternative, kin-making model of non-reproduction. This toy-toy apparatus, made up of all of the lost toys, engages in what Haraway refers to as "staying with the

trouble," which "requires making oddkin[…]in unexpected collaborations and combinations" (*Trouble* 4). In Haraway's model, the 'trouble' we must learn to stay with is the intense unpredictability of the current Anthropocenic moment, underwritten by climate change and by the increasing number of humans using up the planet's natural resources. The main trouble, for a toy, is being separated from their child owner, whether by placement in a museum, as in the case of *Toy Story 2,* or simply, and more commonly, by being lost. 'Lostness' is a state of inherent unpredictability also caused, to some extent, by a proliferation of numbers—in this case, numbers of plastic toys. From the moment Woody wails that he is a lost toy outside the Dinoco station in the original *Toy Story* movie, the idea of being lost is cemented as the worst trouble a toy can get into. *Toy Story 4* works to reimagine what it means to be lost just as Haraway's work troubles our preconceived notions of trouble. With her calm suggestion at the start of *Toy Story 4* that "kids lose their toys every day," Bo Peep indicates the possibility of replacing the anxiety of 'lostness' that drives the bulk of Woody's actions for the first three movies with the potential of freedom that such loss might represent. This freedom, as we come to learn through the rest of *Toy Story 4*, is a freedom *from* a sole reliance on the child-toy apparatus which exists to sustain the ceaseless reproduction of both children and toys.

It's no coincidence that Bo Peep, no longer captive and ancillary but rather bold and assertive, is the primary character responsible for promoting the toy-toy apparatus and the concept of being lost. Haraway identifies feminists as "leaders in unraveling the supposed natural necessity of ties between[…]reproduction and composing persons," urging contemporary feminists to "exercise leadership in imagination, theory, and action to unravel the ties of both genealogy and kin" (*Trouble* 102). Bo Peep no doubt qualifies as such a feminist leader, not only by being female-coded (with a pink and white polka dot skirt that doubles as a cape, a pink hair bow, and belonging originally to Molly, Andy's little sister) but

also in her commitment to a collectivist mode of existence that prioritizes toy freedom and intra-action with many different children over intra-action between individual children and toys. When he encounters her at the Grand Basin playground, Woody finds her innovating covert toy transportation with the use of a mechanical, motorized skunk, running a mobile toy repair unit, and seamlessly coordinating a network of toys across an entire neighborhood to gather 'supplies' (i.e., reusable trash) and report on birthday parties. Unlike Andy's and Bonnie's rooms, in which toys are assigned roles within a clear hierarchical order, the toys Woody meets on the playground don't appear constrained by any power structure; instead, information-gathering and decision-making are dispersed throughout the collective. *Toy Story 4* spends no time building the toy revolution, as it were—when Woody arrives on the scene, it's already built and running, ready for new toys to join at any given moment.

Woody initially resists committing to the toy-toy apparatus, a behavioral leaning at odds with the fluid ease of such a configuration. This fluidity is best demonstrated by Woody's dialogue with Bo Peep. The two toys often speak in tandem, beginning with their joint declaration to use 'Operation Pull-Toy!' to save R.C. in the prelude and continuing without a hitch when they reunite decades later:

> **Bo Peep**: So, which kid is yours?

> **Woody**: So, which one is yours?

> **Bo Peep**: None.

> **Woody**: No one.

> **Woody**: Wait, you're- you're a lost toy?

> **Bo Peep**: You're a lost toy?

Woody: That's awful.

Bo Peep: That's great. Huh?

Woody: I mean awfully great…that you are lost out here.

Spoken in concert, these lines illuminate both the intricate nature of the intra-action between Woody and Bo as well as the significant divide in their opinion of what it means to be 'lost'. For Woody, being lost represents an agential cut separating him from "everything[…]important to me," as he yells at Buzz outside the Dinoco station. Lost toys have no children, and therefore have no reproductive future. Over the course of the film, however, Woody learns that this is entirely the point; to stay with the trouble—to be lost—"requires learning to be truly present, not as a vanishing pivot between awful or edenic pasts and apocalyptic or salvific futures, but as mortal critters entwined in myriad unfinished configurations of places, times, matters, meanings" (Haraway, *Trouble* 1). The concept of being a 'mortal critter' applies to toys differently than it does to organic creatures, with mortality translating not into organic death but instead into an acceptance of their eventual status as trash. Led by his connection with Bo, Woody eventually decides to accept Forky's proclamation that he is trash and stay with the trouble of being lost, letting go of both his Edenic past with Andy and his assumption of future apocalypse associated with the concept of being lost.

Despite Woody's ultimate commitment to being a lost toy and the film's corresponding honoring of lostness, *Toy Story 4* nevertheless contradicts itself by simultaneously working to preserve the concept of the child-toy apparatus and its implied reproductive futures. This conservative impulse is best represented by the doll Gabby Gabby, appropriately designated as the narrative's antagonist. Functioning as a foil to the Bo-Woody apparatus, Gabby Gabby embodies both pre-feminist womanhood, having been made in the "late 50's" just like

Woody, and the anxiety of being lost from a child that Woody wrestles with throughout the franchise, having never been owned due to a faulty voice box. Gabby Gabby's narrative development inverts Woody's progress towards being a lost toy: after decades of rejection, she is able to engage in direct child-toy intra-action when she positions herself to be found by a lost child. This mutual rescuing action is presented as equally beneficial for both child and toy; only together, as an "us," can the child-toy apparatus approach a security officer and reintegrate into its reproductive family structure. Such reunification is implied to be the continuous goal of Bo, Woody and their toy kin, as the post-credit scenes center around rescuing carnival toys so they can "take a wild ride with a kid," clearing out an entire carnival stall of its toy prizes. This teleological conclusion for a supposedly non-reproductive assortment of toy kin seems like a sneaky way to reprioritize reproduction, but it's unsurprising that Disney would seek to preserve, at least a little bit, the relationship that underpins its own commercial success. More critically, however, there's a strain of Chthulucenic, feminist logic to the film's rescue of the child-toy apparatus. When discussing the role of feminists in determining reproductive theory and praxis, Haraway notes that

> feminists have been leaders in arguing that sexual and reproductive freedom means being able to bring children, whether one's own or those of others, to robust adulthood in health and safety in intact communities. Feminists have also been historically unique in insisting on the power and right of every woman, young or old, to choose not to have a child. Cognizant of how easily such a position repeats the arrogances of imperialism, feminists of my persuasion insist that motherhood is not the telos of women and that a woman's reproductive freedom trumps the demands of patriarchy or any other system. (*Trouble* 6)

When applied to a toy's participation in the reproductive child-toy apparatus, this reasoning suggests that although reproduction is not the telos of toys, toys may (or may not)

choose to participate in the reproductive apparatus if they so wish. Just as with feminist approaches to sexual reproduction, the crucial component is choice, freed from anxieties around social status or social pressure. Even as this choice is supported, its limitations are preserved by framing the freed toys' condition as taking a "wild ride with a kid" as opposed to going to their forever home or finding eternal happiness. A wild ride is exhilarating but temporary, whereas the community of lost toys, existing in tune with their nature as trash, "in hot compost piles" (*Trouble* 4), waits for all toys when their ride finally ends.

Conclusion: The Chthulucenic Carnival Beyond Infinity

While there is no reasonable argument against the urgency present in the global problem of plastic pollution, the environmental challenge posed by the existence of the Great Pacific garbage patch seems almost surmountable when compared to the challenge of the Great Acceleration, in which "the incomprehensible but sober number of around 11 billion [people on the planet] will only hold if current worldwide birth rates of human babies remain low" (*Trouble* 102). Cleaning up plastic is one thing; slowing down human reproduction is quite another type of trouble to stay with. In *Toy Story 4*, we find one possible model of staying with that trouble, a promotion of kin-making and "inventive connection" (*Trouble* 1) that makes reproduction optional. As Ackerman has noted, the *Toy Story* franchise has considered human reproduction, and its commensurate media consumerism, to be valuable in its self-perpetuation, as signified by Buzz's catchphrase "to infinity, and beyond" (98). What I take from the phrase's disjointed deployment in *Toy Story 4*, in which Buzz says, "to infinity" and Woody replies "and beyond" across many meters of space, is a possible world in which the space 'beyond' infinity is not just more infinity, but a mode of existence distinct from the infinity of corporate reproduction.

Beyond is, in fact, a carnival. For Bo and the gang, the traveling carnival is a "chance to a hop a ride and leave town," but carnival is also a significant term in literary theory and particularly in children's literature criticism. Coined by Bakhtin, carnival describes a temporo-spatial condition of freedom from societal expectations: "During carnival time, life is subject only to its laws, that is, the laws of its own freedom. It has a universal spirit; it is a special condition of the entire world, of the world's revival and renewal, in which all take part" (1984, p. 7). Importantly, carnival is rife with laughter, of a sort that "builds its own world versus the official world" (88). In literature,

> the lowest in societal hierarchy—in the medieval carnival a fool, in children's books a child—is allowed to change places with the highest: a king, or an adult, and to become strong, rich, and brave, to perform heroic deeds, to have power. However, the very idea of carnival presupposes a temporal limitation. (Nikolajeva, *From Mythic to Linear* 7)

Each of Woody's adventures in the original *Toy Story* trilogy can be understood in terms of carnival: Woody leaves the order of his child's room into a chaotic world in which his own agency becomes his way back to safety, to societal norms. By existing within the space of a traveling carnival, the toy-kin gang shows us that, where individual toy agency fails at prolonging the carnival, at making the carnival tolerably safe, the toy-toy apparatus, with its dispersed, collective agency, not only survives but more importantly *thrives* in the carnival. At the same time, the "short period of child power" (Nikolajeva 85) represented by the carnival transforms into its own kind of infinity, at least for the toy-kin. The child-toy apparatus may be de-centered by the existence and actions of the toy-kin, but *childhood,* or at least a state of norm-thwarting, world-building laughter, remains present and celebrated by toys and humans alike. *Toy Story 4* leaves us with a pattern of childhood to enact on our wounded earth that teaches us how to stay with the trouble of being complicated mixtures of

trash, with or without children. As Bo says, we shouldn't sell ourselves short; we might all make great lost toys.

As the concluding analytical chapter of this thesis, this diffractive analysis of the *Toy Story* films through Barad's conceptualization of intra-activity and 'responseability' leaves us with considerations of a different kind of 'beyond'. Posthumanism, if we consider the linguistic roots of the word, suggests that we might have reason to go 'beyond' the human, and/or 'beyond' humanism. The extent to which we follow that line of reasoning varies depending on context. This thesis has mainly followed Badmington ("Theorizing" 2003) and others in going beyond humanism by challenging humanist power binaries, using the figures of posthumanist children that are partially human and partially 'beyond' the human. I have argued that these posthumanist children can effectively model Barad's new materialist onto-epistemo-ethicology in which we are all intra-actively responsible and responseable for our collective existence as phenomena. The narratives I have chosen, and the lens through which I have examined them, call into question our aetonormative, humanist assumptions about power relations between adults and children, suggesting that we in fact *can* overturn aetonormativity without losing the protective elements so often used to justify the norm. Furthermore, this new ontological reframing of children, and children's literature and media as crucial difference-making components in our intra-active phenomena strengthens us and provides us with new approaches to posthumanist troubles—approaches informed by concepts of play, of trash, of undecidability, of *pharmakon*. In short, we need the child; we need children's literature and media; from a Baradian perspective, we *are* the child, and we *are* children's literature and media. This, I argue, is the 'beyond' towards which the posthumanist child is leading us—beyond the infinity of humanist repetition of the same norms that have led us to our present day and its Anthropocenic troubles. Posthumanist children have the capacity to lead us towards a future in which play is a legitimate strategy

for handling problems, as taught to us by Okorafor's *oha* coven; in which embodiment and material concerns matter to our decision-making and norm reformulation, as taught to us by Lu's Emika, Hideo and Zero; in which adult authority is permanently undermined by the child's body, as taught to us by Pinocchio; and in which our intra-activity and responseability towards one another must play a significant role in our community formation, as taught to us by Bo-Peep and Woody in *Toy Story 4*. As this thesis demonstrates, children's literature and media are excellent and necessary tools for the teaching and learning of these lessons, not to children and not to adults but to the many entangled child-adult-children's literature/media phenomena of which we are all a part.

Conclusion

"...and [the Unicorn] was going on, when his eye happened to fall upon Alice: he turned round rather instantly, and stood for some time looking at her with an air of the deepest disgust.

"What—is—this?" he said at last.

"This is a child!" Haigha replied eagerly, coming in front of Alice to introduce her, and spreading out both his hands towards her in an Anglo-Saxon attitude. "We only found it to-day. It's as large as life, and twice as natural!"

"I always thought they were fabulous monsters!" said the Unicorn. "Is it alive?"

"It can talk," said Haigha, solemnly.

The Unicorn looked dreamily at Alice, and said "Talk, child."

Alice could not help her lips curling up into a smile as she began: "Do you know, I always thought Unicorns were fabulous monsters, too! I never saw one alive before!"

"Well, now that we have seen each other," said the Unicorn, "if you'll believe in me, I'll believe in you. Is that a bargain?"

"Yes, if you like," said Alice."(Carroll)

At the start of this thesis, we saw Alice meet, carry, travel with, frighten, and be abandoned by the innocent Fawn. Before the Fawn realizes *what* Alice is (a human) and what that *means* for it (an animal), the two children, unnamed and physically intertwined, collectively represent what we might call a posthumanist child: that is, a child made ontologically unstable by its combination of human and unhuman parts, whose embrace of either part of its identity—human or non-human—collapses its posthumanism. Like a quantum particle, or Derrida's *supplement*, the posthumanist child exists as a trace, a hint, an

idea not fully realized and, maybe, not fully realizable. This thesis has nevertheless attempted to realize the figure of the posthumanist child as it appears in several different texts for children via a diffractive methodology, in which I read an array of posthumanist and new materialist theories against and through children's texts in order to produce an interference of meaning, through which the posthumanist child—itself a product of an interference of meaning, as we see with Alice and the Fawn—might be better understood. In the undertaking of this project, I have demonstrated the value that posthumanist and new materialist tools and theories can hold for works of children's literature and media, and invited consideration for how children's texts and their field of critical study might correspondingly hold value for current and future posthumanist and new materialist thinking.

Each chapter of this thesis has used diffraction to examine different iterations of this posthumanist child in order to illuminate our thinking around children's literature and media and posthumanist theory by creating productive interference in our understandings. This interference functions both backwards—by critiquing the missing consideration of the child and childhood within the aetonormative posthumanist theory—and forwards—by asking us to reconsider the potential futures suggested by the posthumanist child's unique ontology. In chapter one, I paired Carlo Collodi's *The Adventures of Pinocchio* with Derrida's writings on *pharmakon* to demonstrate that much of the power of Derrida's concept of *supplement,* or undecidability, is rooted in the concept of the child, granting the child and its indeterminacy a particular sort of deconstructive power that may be considered posthumanist. At the same time, I analyzed how Pinocchio exhibited this deconstructive power of the child through his unstable materiality, subverting the classic fairytale's aetonormative structure through the collapse of his wooden puppet/human boy ontology. In chapter two, I investigated the effects of genre, particularly the fantasy genre, on the posthumanist child's unstable ontology, and how the combination of fantasy and posthumanism allowed for a significant reimagining of

both a more just future within the Anthropocene and more room for children within that future. To do this, I focused on posthumanist, Nigerian-American protagonist Sunny from Nnedi Okorafor's *The Nsibidi Scripts* series. Sunny's "doubling" with her spirit face Anyanwe forces her to face trouble through play, a tenet that I suggest Donna Haraway's "staying with the trouble" would benefit from. In chapter three, I diffract two theories— aetonormativity and N. Katherine Hayles' theory of posthuman embodiment, what she calls a 'semiotics of virtuality'—through each other in order to generate a semiotics of virtual aetonormativity, or a semiotics of the posthumanist child. I use this tool to analyze Marie Lu's *Warcross* duology, examining the unstable ontology of three characters—Emika, Hideo, and Zero—whose materiality is enmeshed with virtuality to varying degrees. This analysis demonstrates the importance of children and childhood in preserving bodily concerns in a posthuman age. In my fourth and final chapter, I consider Forky from *Toy Story 4* as perhaps the most unique posthumanist child in the thesis, who, along with the rest of the film's toy characters, provides a narrative vehicle for imagining an "intra-active" (Barad) mode of reproduction that simultaneously reduces plastic waste and perpetuates principles of childhood, such as play, over more adult humanist principles, such as ownership.

Each of these characters is notable for his/her/its material multiplicity, which for each character leads to an ontological instability whose resolution sends the narrative towards its own resolution. Like Alice and the Fawn, the hope engendered from material entanglement of these characters is fleeting, quickly replaced by humanist paradigms. Yet the anecdote of Alice and the Fawn also suggests that, however fleeting, the ontological instability of the posthumanist child is *a required component* of those humanist paradigms, a moment of subversion which defines the dominant framework. If, for a moment, we discover within ourselves a capacity to *forget* ourselves, we become open to new material entanglements, to more trusting relationships, to more peaceful futures.

Yet how do we reckon with the ephemeral nature of the posthumanist child? How do we— and moreover, *can* we—prevent the Fawn from leaping away from Alice in fear? *Must* we always return to our solitary human selves, strictly located within a matrix of humanist binaries? To consider this question, I turn to a different moment in *Looking Glass,* in which Alice's ontology is once again interpreted by a nonhuman figure: this time, by the Unicorn. Like the Fawn, the Unicorn reacts negatively to Alice. Unlike the Fawn, the Unicorn reacts to Alice specifically as a *child*, rather than as just a *human*. To the Unicorn, the child is a "fabulous monster", more mythical than real. Alice, of course, holds the same opinion towards the Unicorn, reflective of the opinion held by real children about unicorns the world over. These parallel assessments suggests that the unreal, paradoxical qualities of the posthumanist child is perhaps more ontologically permanent than the episode with the Fawn would suggest. Alice and the Unicorn conclude with a mutual agreement to believe in each other, without any clear abatement of the Unicorn's disgust or resolution regarding Alice's reality. In fact, the only ontological resolution offered for either creature is one of mutual belief, rather than evidence.

The suggestion that we must *believe* in the posthumanist child—in the child's moments of fabulous monstrosity, in the child's ontological entwinement with other beings—is not a wholly satisfactory one. We live in an era of facts and proof, after all. It's even more unsettling a suggestion when considered in light of posthumanist and new materialist stances, which argue for a return to the *material* over the discursive—to the cold hard evidence over flighty abstract concepts like *belief.* And yet, when children and their cultural products are brought into dialogue with posthumanist and new materialist theory, the return to materiality suggested by the theorists engaged with in this thesis runs up against the abstract in ways that cannot be entirely resolved. Despite promising avenues of research in the intersection between posthumanism/new materialism and children's literature/media, demonstrated in this

thesis and elsewhere in the field, there remain a few unsolvable problems with the intersection between the two fields with which future researchers must contend. To conclude this thesis, I will examine each of these problems and theorize a way forward, if one might exist.

The first problem is posthumanism and new materialism's own lack of clear, concrete solutions for the problems they describe. To a certain extent, of course, pragmatic solutions are unnecessary for literary analysis; it is outside the bounds of literary studies to suggest any sort of pragmatic instructions for real human beings to take (beyond, perhaps, reading more books and thinking more deeply about them). However, a responsible application of any theory must have engaged in a full consideration of its pragmatic telos. For creators of a body of theory that claims such adherence to the material over the discursive, or perhaps more accurately to the material *as* the discursive, posthumanist and new materialist theorists offer little in the way of pragmatic approaches to real-world, human problems, both in general and more specifically in a consideration of childhood. (The notable exception, here, is Donna Haraway's very literal call to 'Make Kin, Not Babies,' which I address in chapter two of this thesis.) Karen Barad's *Meeting the Universe Halfway* (2007), for example, provides hundreds of pages explaining her model of onto-epistemo-ethicology, defining and revisiting terms like "intra-active" and "agential realism" rescursively, with examples from the non-human world (the brittlestar fish) and the non-organic world (the ultrasound wand) to further convey her meaning. Yet she offers comparatively little in terms of concrete suggestions for human action, or even models for what human intra-action might look like on a practical scale. In fact, most of the practical suggestions of posthumanist theories and new materialists are as antinatalist as Haraway's (see for instance MacCormack; Benatar). In his novel-length overview of posthumanism and new materialism, tellingly titled *The Revolt Against Humanity: Imagining a Future Without Us*, Adam Kirsch suggests that the only suggestions

offered by posthumanism and new materialism are *by design* as nihilistic as Haraway's provocative slogan:

> [Posthumanism] forces us to acknowledge that the meaningfulness of human life depends on our belief that humanity will go on and on indefinitely. We can just about tolerate the knowledge that each of us individually is going to die within a certain span of time. But if we knew that in, say, fifty years our entire species would disappear, all the projects that give our lives meaning would become absurd. It would make no sense to build, plan, aspire, create, or reproduce, knowing that it would all be for nothing. Yet the fact is that we already do know humanity is going to disappear. This is perhaps the most important modern discovery, the one that condemns us to live in a different spiritual world from all our ancestors. The only thing in doubt is the time frame. (26)

The bleakness of this position gives Barad and her comrades a convenient out from providing pragmatic directions for human betterment: why offer instructions for betterment to humans who have, by all accumulated evidence, proven themselves temperamentally unable to look beyond themselves as a species? Better to sing the praises of less problematic creatures, like brittlestars and homing pigeons and butterflies. Better to imagine humanity "in hot compost piles" (Haraway, *Trouble* 4), most useful in nurturing the rest of the world with our corpses. For Haraway, in her latest full-length text on the subject, this position goes beyond 'traditional' posthumanism: "I am a compostist, not a posthumanist: we are all compost, not posthuman. […] The edge of extinction is not just a metaphor; system collapse is not a thriller" (*Trouble* 101–02). Other theorists have addressed and rebutted this nihilist strand of posthumanism vis-à-vis literature (e.g. Neil Badmington, Zoe Jaques) but it remains an extant strand of the theory nonetheless.

If, for the sake of argument, we continue with our consideration of the 'revolutionary', nihilist strand of posthumanist/new materialist thinking, we run into the second unsolvable problem that occurs at the intersection of children's literature and posthumanism. Such a desolate outlook on humanity as the one described by Kirsch seems antithetical to the seemingly inherent joy and hope inspired and even *created* not just by children's literature but also by children themselves. Yet, Kirsch also acknowledges that this perspective is niche and unlikely to gain traction for a multitude of reasons, ranging from the biologically essentialist (i.e., the fact that humans have a drive to continue, to reproduce, to live, just like any other living creature) to the philosophically logical (i.e., every philosopher who *doesn't* subscribe to posthumanism or new materialism, including the transhumanists Kirsch identifies in the latter half of his book). And so I acknowledge with this thesis, and so any children's literature researcher acknowledges by continuing to do the work that we do: the time frame may be in some doubt, but if we're optimistic about the continuation of humanity, then any effort towards the betterment of our species is worthwhile. Therefore, if practical approaches haven't been devised or shared by the theorists thus far due to their own commitment to their own nihilism, it is incumbent upon the majority current and future scholars who *reject* that nihilism, while still believing other elements of posthumanism/new materialism to be worth consideration, to address that need. This thesis has attempted to go a few steps in that direction, by demonstrating the value that children's literature and children's literature theory can have in shaping and modifying our understanding of posthumanist and new materialist theory. By pointing out that current children—not possible future children— qualify as human as much as the adults that Barad, Haraway, and others assume as a norm, and by subsequentially using children's literature as a mechanism of diffraction against posthumanist theory, we can begin to understand these theories as tools for improvement and betterment, rather than as a series of garrulous eulogies.

Approaching works of posthumanism and new materialism as texts that need diffractive (that is, productively disruptive) reading, because they are missing key understandings about children (and therefore about humans), ought to be the norm for children's literature scholars going forward. Without this diffractive approach, these texts lack a pragmatic element, a deficiency that excludes children and their adjacent cultural products from a posthumanist calculus about what does and does not matter within and beyond humanity. This critique has been best articulated by Karen Coats, who takes the entire field of new materialism to task for its lack of pragmatic thinking in her conclusion to Justyna Deszcz-Tryhubchak and Macarena García-González's recent book on new materialism and children's culture, titled *Children's Cultures After Childhood*. Coats' most vigorous critique comes with a content warning, which I shall repeat here, since I am quoting from that rather difficult section of her chapter:

(Content note: the next few paragraphs deal with some very violent content, so you may wish to skip this section. I have changed the font so that you know where it is safe to pick up the argument again. I am sorry. I had to write this. I am sorry I had to write this.)

As I was revising my chapter for this volume, trying to think positively and productively about the ethical possibilities of decentering the human, blurring the adult/child and human/nonhuman binaries, acknowledging the agency of objects and considering the good it will do for the environment and our relationships if we could replace human exceptionality with new materialist openings to alternate ontologies and epistemologies, two legally purchased firearms exercised their agency and… But wait. That is not right.

A legally adult male purchased, loaded, carried, and fired two intentional, agentic

objects… No. That's not right either.

A technomanchild, an "entangled state of agencies" (Barad 2007: 23), acting out of

his fundamental relationality with all human and nonhuman entities, deployed a

vibrant prosthetic extension of his deprivileged "south of the north" positionality to

shift the material state of members of his companion species into spectral images…

(I said I was sorry…) (Coats, "Afterword" 207–08, emphasis original)

Coats' application of new materialist concepts to the example of school shootings, a material

epidemic of violence and horror concentrated in the United States of America (while

occasionally occurring elsewhere in the world), functions in the first instance as a sharply

critical, even satirical take on Barad's tendency towards jargon over substance, towards—

ironically enough—language over matter. Because Barad's work does not center humans or

offer solution to human problems, choosing instead to center non-human subjects, it becomes

feasible to use her terminology as Coats does, to undermine Barad's own theory and to

bolster Coats' position that "It is a comforting illusion to settle on agentic objects as the main

problem or to claim that we can change dynamic systemic forces by changing the way we

theorize them" ("Afterword" 208). The fact is that, despite her clear preference for matter,

Barad remains as humanly trapped as the rest of us by the Lacanian panopticon of language.

Coats' reading engages in what I would term productive disruption, rather than reflecting

back the same exact positions that new materialist scholars put forward in the first place.

Yet I can't help but wonder whether Barad might have *intended* the sort of critical

reaction to her terminology presented by Coats in her composition of *Meeting the Universe*

Halfway. After all, Barad's writing is exceedingly recursive, almost comically so at times, all

without producing practical solutions—which is Barad's exact criticism of language in the

first place. (This perhaps *explains* her lack of pragmatic suggestions without *justifying* that

absence in her writing.) What matters to Barad—to any new materialist—isn't the creative combination of vocabulary or the sophisticated elucidation of hypothetical scenarios. What matters are material configurations. A gun, like an ultrasound wand, or a brittlestar, is a non-human entity with which human beings intra-act. Barad says about the brittlestar:

> The specific nature of our intra-actions with brittlestars matters. For all we have learned from our intra-actions with brittlestars, the issue is not whether or not we are willing to follow Nature's example. The attending ethico-onto-epistemological questions have to do with responsibility and accountability for the entanglements "we" help enact and what kinds of commitments "we" are willing to take on, including commitments to "our- selves" and who "we" may become. (*Meeting* 382)

Unfortunately for the rest of us, Barad does not go on to expand on those questions or provide answers to them. Unlike Kirsch's estimation of new materialism as a revolt against humanity, however, or Coats' estimation of it as a "comforting illusion" (208), my reading of this moment with the brittlestar—and of Barad and new materialism more generally—takes Barad's gaps in pragmatic approaches as an invitation to think through what our approaches might be, rather than as a failure of Barad for not providing us with those approaches herself. I do not hold the same opinion of those within posthumanism and new materialism, of which there are several, who advocate for the end of humanity as a response to humanity's mistakes. The nihilistic positions of these scholars are more reminiscent of the 'drain the swamp' mentality of certain contemporary politicians, in the US and elsewhere, who have gained traction through their promises to destroy existing systems but have offered no pragmatic solutions for replacing them after the destruction has occurred (a comparison which I imagine might horrify some of the philosophers in question). But Barad is not so nihilistic about humanity as some of her peers, and I am confident (while having no real opportunity to test

the theory, within the constraints of this thesis) that if asked, Barad would express sadness and a desire for improvement when presented with the problem of school shootings. Unlike philosophers like antinatalist David Benatar, who would likely argue that the best solution to school shootings would be for humans simply to cease reproduction, so that no more school shootings could take place, Barad's stance does not *exclude* humans, current or future, from consideration. It merely asks that we consider: how are we accountable in our entanglement with guns? What material response can we humans have to the problem of school shooting? And, perhaps more poignantly, who is the "we" involved in school shootings?

The new materialist answer to the question of the "we" in a school shooting is that the gun itself, as the material tool without which any shooting would be impossible, is as much a part of the intra-active entanglements of such a situation as the human who pulls the trigger. Or, to quote the comedian Suzy Eddie Izzard, in her critique of a famous National Rifle Association media campaign slogan, "They say that 'Guns don't kill people, people kill people.' Well I think the gun helps. If you just stood there and yelled BANG, I don't think you'd kill too many people" (*Dress to Kill*). Or, as she puts it in a different comedy special, "Guns don't kill people, people kill people, and monkeys do too (if they have a gun)" (*Circle*). As Izzard so astutely points out, material configurations matter. Without a gun, a human cannot shoot anyone. With a gun, a monkey could, and very possibly would, shoot anyone. The difference between those two scenarios isn't human exceptionalism or rationalism; it's whether or not the creature with five fingers is holding a firearm. So to return to the question of who the "we" is that's involved in a school shooting: the gun, clearly, is part of that "we", *as much as* the human is. Not more, and not less. This declaration does not "settle on agentic objects as the main problem (Coats 208); instead, it argues that the "human-holding-a-gun" unit has an ontological separateness from, say, the "human-holding-a-book" unit, and that it's therefore potentially more productive to consider "human-holding-

a-gun" as an ontological unit when talking about school shootings, rather than just "human" or "gun" separately. After all, a school shooter is a "human-holding-a-gun" in perpetuity, after the event has occurred. Nothing about that ontological configuration precludes "teaching young humans[…]to assess potential outcomes and consequences through abstract thought as well as material engagements, and to acknowledge that they are exceptionally responsible for the choices they make as they inter and intra-act with others even within systems they did not create" (Coats, "Afterword" 208).

In fact, the idea that humans "are exceptional, and that means they have exceptional capacities to do both harm and good to others" (ibid.) is the only part of Coats' assertion that new materialism asks us to probe more deeply. It is incorrect to assert that new materialists believe, or would argue, that guns can simply shoot humans without a human making a choice to pull the trigger. On a larger scale, new materialists not only acknowledge that humans are the only species that can reason, invent, and communicate to the extent that we do; they also *benefit* from those human qualities in their own line of work. No human can step outside of her own humanity, even Karen Barad. Much of new materialist theory has originated from the fear inspired by moments that many consider to be the zenith of human 'exceptionalism': the invention of the steam engine, the dropping of the atomic bomb, the development of the internet. In the face of humanity's overwhelming impact on earth and its inhabitants, posthumanists and new materialists aren't arguing against humans being exceptional in our language, our ability to reason, and our devising of tools to further our purposes. They are, rather, reacting to that exceptionalism from a position of caution, rather than elation—a caution that ranges from careful, in the case of theorists like N. Katherine Hayles, to revolted, like Donna Haraway (with Barad, in my opinion, falling somewhere in the middle). Humanity, they point out, has exalted in its exceptionalism for centuries, first as originating from out God-given souls and later as originating from our evolution-given

brains. This exaltation has resulted in an incredible expansion of the human population and an unprecedented level of human comfort—for *some* humans, but notably, not all. It has also resulted in a conditional disregard for less 'exceptional' beings and objects—the condition being proximity to humanity—with devastating consequences for certain species, for the environment, and ultimately, for many humans too. Rather than deny human exceptionalism, new materialists invite us to take a critical look at the flaws that emerge from a full embrace of human exceptionalism as the sole ontological determiner of our species. We have been teaching young humans about our species' exceptionalism in schools, in places of worship, and in movie theaters for many generations—and school shootings, along with other problems of our modern era that is sometimes called the Anthropocene, have only gotten worse.

This invitation issued by new materialists, as I've stated previously in this conclusion, is sometimes taken up by new materialists themselves, who assert that the only honest reckoning with humanity must lead to the conclusion of humanity. For anyone engaged in children's literature research—and for most people, if we're being honest—this is too extreme of a position to take. Between the thesis of human exceptionalism and the antithesis of human extinction, I propose that a humble 'middle ground' approach, in which we take *both* posthumanist theory *and* the ideas offered us by children's literature into account. To provide a concrete example of this 'middle ground' approach, I turn to a real school shooting that occurred in 2021 in my home state of Michigan: fifteen-year-old Ethan Crumbley's attack on his classmates at Oxford High School, which resulted in the death of four other teenagers. While there is no evidence of any posthumanist or new materialist thinking having influenced any individuals involved in the incidence of the shooting itself or the legal procedures after, one can imagine the stances taken by the two opposing positions outlined in the beginning of this paragraph. Posthumanists and new materialists might use

this as an example of humans caring too much about their individual rights at the expense of their community members, or not attending enough to the material configurations that led an unwell child to take a deadly weapon to school in his backpack. Any school shooting, for a new materialist, is an example of the human exceptionalism required to invent a gun and write the Second Amendment taken to one of its most negative extremes. Humanists and religious leaders, on the other hand, might use this as an example to critique the systems at play in a school shooting; they might comment on the contemporary degradation of the family unit, or the lack of resources available to support those with mental health issues, or the failure of the Oxford Public School system to support Ethan more effectively. This is not, ultimately, a thesis about school shootings, and I am not qualified to weigh in on which of these two positions is the correct one. However, as of Tuesday, February 6th, Ethan Crumbley's mother, Jennifer Crumbley, has been convicted of four counts of involuntary manslaughter in the deaths of the four teenagers killed by her son, a decision which I argue has intriguing implications for our understanding of the adult/child binary in a world which is becoming increasingly aware of posthumanist and new materialist concepts.

On one hand, this verdict appears to be a reinforcement of aetonormativity; after all, Jennifer Crumbley was convicted, according to the jury foreperson, because she was "the last adult with the gun" (ABC News). Adults, with their greater share of power, are more responsible than children for their actions, and are even, in the case of the Crumbleys, responsible for the actions of their children, in a very consequential legal sense. On the other hand, the elder Crumbley has not been held *more* responsible for this tragedy, in a legal sense, than the younger. Jennifer Crumbley was convicted of four charges and faces up to sixty years in prison (sentencing to occur in April of 2024). Ethan was convicted of twenty-four charges and has been sentenced to life in prison without parole. This indicates that he, the child, had *more* power during the event of the shooting than his mother did. (His father's

trial for the same charge as involuntary manslaughter is set to commence in March 2024). If Jennifer, as Ethan's mother, had held *all* of the power and agency, it stands to reason that she would have received more criminal charges and a harsher sentence than her son, who was three years away from legal majority at the time of the shooting. Instead, Jennifer Crumbley's charging, trial, and conviction are all uniquely groundbreaking *because* the prosecutors and the jury have determined her to be legally entangled with her child, when all previous cases of shootings by a minor have left parents legally uninvolved. Jennifer, as the "last adult with the gun", and Ethan, the child who killed his classmates, have come to be understood, legally, as an entangled, arguably intra-active unit. The result is an outcome deemed ethically appropriate by the parents of the murdered teens:

> Steve St. Juliana, the father of Hana St. Juliana, said he was initially shocked and then relieved. "The shock is I guess I didn't truly believe that they would come back with the guilty verdict -- and then obviously just relief that they had," he said. "They just looked at the evidence and used common sense and came back with the right verdict." Craig Shilling, the father of Justin Shilling, said it came down to "accountability." "There's this type of culpability out there now, that gross negligence is not acceptable in society," he said. "I hope it resonates in the minds of everybody for a long time. And I just hope that it creates some type of a change as it pertains to school shootings, these mass shootings and shootings in general." (ABC News)

These parents, along with the jury involved in this case, believed that holding Jennifer Crumbley accountable for her part in the Oxford High School shooting was the ethically correct choice, not just in and of itself but because of the precedent it sets for future legal decisions. Regardless of the jury's knowledge of new materialist philosophy, the jurors acted with regard to a "responsibility and accountability for the entanglements 'we' help enact"

(Barad 382), acknowledging that there was a 'we' at play in this tragedy and paving the way for a recognition of the 'we' involved in the enactment of any future school shootings. Rather than a reinforcement of the adult/child binary, or a dissolution of the same, we can take this example as a 'middle ground' example of binary confusion, or perhaps binary redefinition, in which the responsibility of parents to children, and of children to their communities, shifts away from a strict understanding of humans as lone individuals who are the sole enactors of their fate towards a more communal, intra-active model of responsibility (but not so far as a complete erasure of any human responsibility whatsoever).

A lack of evident pragmatism and an overabundance of antihuman nihilism represent two barriers regarding the utility of posthumanism/new materialism for those concerned with children—real live children, being born (or not), living (or not). But what about fictional children in children's literature and media? After all, this thesis is primarily concerned not with real children but with representations of them, and here with arrive at the third problem of posthumanism and new materialism: its rejection of the representation. This element of the theories perhaps *isn't* a problem for the majority of individuals who engage with them, who are invested in more materially-focused fields such as policy development or scientific research (although the lack of pragmatic direction from these theorists would therefore become an even *worse* problem). For literary, desk-based scholars interested in posthumanism/new materialism, however, this rejection of representation is somewhat of an existential quandary. I address this problem in my introduction, and hopefully the existence of this thesis, not to mention the ever-growing amount of analysis of children's literature and media done through a posthumanist/new materialist lens suggests that this problem *can* be reconciled, through a variety of means. Some scholars (e.g. Murris; García-González) address this gap by focusing on research involving real children *and* their texts—an elegant solution, although not one that many desk-based scholars (myself included) may feel ready to enact

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themselves. Despite this reluctance, it may be that including more living children in our research is the most posthumanist/new materialist direction we can take our field. Those of us remaining at the desk, however, must consider how we implement posthumanist/new materialist theories in our reading of children's texts, and our consideration is largely reflective of the problems I considered earlier in this conclusion: are we applying these theories with a practical eye to the ethical elements of them, or are we merely reiterating the nihilistic, anti-child themes that posthumanist/new materialist scholars often offer us?

This thesis has attempted to critique and amend—to *diffract*—these theories whenever they neglect to consider the child, either real or fictional/abstract. Insofar as there's an ethics to analyzing children's texts, re-placing the child into dialogue with theories where she is missing or under-considered seems like an ethically positive choice. However, that still leaves an abundant supply of scenes within children's texts which themselves present ethically questionable behavior, sometimes perpetrated by children themselves. How might any ethical claims of intra-activity and agential realism matter in those cases?

One such example that bears relevance to this thesis in particular is the case of the character Sid from the original *Toy Story* film. Sid, a prepubescent or early pubescent boy, lives next door to Andy with his mother, his father, and his sister Hannah. We first meet Sid when Andy's toys spot him from Andy's window playing in his backyard. He's strapped an M-80 stick of dynamite to a Combat Carl toy, who he then proceeds to blow up:

WOOD: THAT is Sid!

BUZZ: You mean that happy child?

MR. POTATO HEAD: That ain't no happy child.

REX: He tortures toys—just for fun.

[…]

LENNY: He's lighting [the dynamite]! He's lighting it!

SID (off screen): NO-O-O-O-O!!! CA-A-A-A-A-ARL!

LENNY: Hit the dirt!

[EXPLOSION]

SID (off screen): Yes! He's gone! He's history!

This scene is the first of several narratives that Sid plays out with toys. Later in the film, we see Sid use the claw machine at Pizza Planet to win an alien. After heading home from Pizza Planet with Woody and Buzz in tow, Sid becomes a doctor who 'operates' on his sister Hannah's doll Janie, swapping Janie's head with that of a pterodactyl toy (much to Hannah's dismay). We also see him interrogate Woody, putting himself in the role of general and Woody in the role of 'rebel' (which seems like a reference to Star Wars, which has an interrogation scene in it), burning a mark onto Woody's forehead with a magnifying glass in the process. After receiving another explosive in the mail—this one shaped like a rocket— Sid becomes first a meteorologist, predicting sunny skies for the 'space launch' of Buzz, and then a NASA control room operative, communicating with Buzz Lightyear for the aforementioned space launch. Finally, Sid is treated to the only instance of fourth-wall breaking in the entire *Toy Story* franchise, and perhaps the most famous moment of the entire franchise: when Woody and Sid's toys act alive *in front of him,* with Woody admonishing Sid for his violent behavior towards toys:

WOODY (voice box): From now on, you must take good care of your toys. Because

if   you don't, we'll find out, Sid. We toys can see *everything*.

WOODY (regular voice): So play nice.

Quoting the movie in this manner does a disservice to the drama of the scene, which evokes elements of horror from such classics as Night of the Living Dead and The Exorcist, as Woody's head spins around in a 360-degree circle on the word 'everything', his artificial-sounding voice box voice wobbling in an extraordinarily creepy fashion (for a rated-G movie, at least). Taken together, these scenes paint a picture of a child who makes violent choices in his interactions with toys and is punished in an act of extreme vengeance by those very toys, who break the cardinal rule of toy existence by speaking to him directly. The toys' rebellion appears to scare Sid into reforming his behavior, as he runs screaming from Hannah's doll when he returns to the house after being chastised by Woody.

Bringing this scene into dialogue with posthumanist/new materialist theories yields a number of interpretations. One such interpretation is an understanding of Sid as a transhumanist figure. Transhumanism is the other side of Kirsch's revolt against humanity. Unlike posthumanists, who believe that humanity has overstepped its limits as a species and must de-escalate its own existence as an ethical choice, leading to the end of humanity, transhumanists believe that humanity will end because it will transcend itself into something greater, by means of technological innovation. Kirsch focuses on biohackers and others who are concerned with immediately 'improving' human biology through technological means. However, the roles that Sid adopts in his imaginative play—soldier, doctor, meteorologist, space engineer—are all, to some extent, transhumanist in nature, extending the natural tendencies of man (conquest, exploration, discovery, control) via technological means. Sid's Frankenstein-ed toys, then, come to represent what Haraway might call "oddkin…rather than

godkin," a term that delineates "human and other-than-human beings in kinship" from "genealogical and biogenetic family" (*Trouble* 2). For Sid's toys, this network of oddkin is what allows for continued survival under the damage caused by transhumanist tendencies. Keeping critiques of transhumanism discussed earlier in this thesis in mind (e.g. those of Haraway and Hayles), Sid's narrative position as the film's main antagonist would suggest that the communal, supportive intra-action of the toys—themselves "vibrant matter"—is a more ethically correct and compelling force than Sid's transhumanist violence, which must be stopped.

However, we don't have to set up transhumanism vs. posthumanism as yet another oppositional binary. We can consider the film with regard to posthumanist concepts on their own. If we start by examining the film's examples of intra-action—the idea that individuals are ontologically connected with each other, with relationships pre-existing relata—we can see the contours of how this theory might be applied in the situation of the unethical child. The Sid-toy apparatus (which is really multiple apparatuses, of Sid and all of his toys and all of the toys together with each other, together with Sid's parents and sister Hannah, and Hannah's toys, and Sid's dog SCUD, each intra-acting group measured the "local cut" (Barad, *Meeting* 147)of their local closeness or distance at a given moment) form a "we" of responsibility/response-ability for the violence that it enacts. Sid is responsible/response-able for his actions within the intra-action; Sid's parents are responsible/response-able for Sid's ability to access dangerous explosives without any adult interference; the dynamite and the rocket are responsible/response-able for their literal explosive powers; Sid's toys are responsible/response-able simply by being present in Sid's room. This last aspect—the response-ability of Sid's toys—is the most posthumanist element of this intra-action, since the toys literally become able to respond to Sid's torture in a way that is implied to materially impact Sid's future behavior.

Yet, this explanation may not be entirely satisfactory, for the simple reason that toys can't actually come alive and scold children for any violent tendencies they may have exhibited. What, in the real world, can posthumanism/new materialism offer for troubled children like Sid? This is assuming we take Sid to be a troubled child beyond his violent play with toys, which, in a narrative that figures toys to be sentient, would of course be ethically wrong. It's fair to say that Sid bears some hallmarks of a troubled child *beyond* his proclivity for explosions: he appears to have poor relationships with his parents and sister, and at one point he kicks his dog out of frustration. Despite his obvious joy in destroying his toys and his vivid imagination, Sid is probably not a "happy child", although with limited evidence from the film, we can't say for certain the extent to which he is an unhappy child, either.

For the sake of argument, let's assume that Sid represents a child at risk of eventually enacting violence on living creatures, including humans, based on his treatment of toys, and proceed from there in our consideration of the utility of posthumanist/new materialist theory in meeting that challenge. My first instinct is to separate the analysis of children's fiction with the analysis of real-world children. *Toy Story* is not meant as a therapeutic device or policy-setting tool, and it would be improper to treat it or any work of fiction as such. Having watched *Toy Story* may not automatically lead to a real child being kinder to their toys, and such an expectation would be wrong to have. My second instinct is to suggest that didacticism must not always be hyper-realistic in order to be effective. Aesop's fables are famed for the moral didacticism they offer, not for their realism; just because real toys can't actually scold children doesn't mean that *some* children may not be kinder to their toys as a result of watching Woody scold Sid. We can't guarantee that watching *Toy Story* would have this effect; children's texts are works of art, not science. We can, however, hope that it *might* happen in *some* cases.

Putting both of those more pragmatic positions aside, I must consider whether the fable of Sid and His Toys may simply be an opportunity for children to absolve themselves of responsibility towards violence. Isn't this one of the risks of posthumanist/new materialist thinking, pointed out by Coats, that a focus on the non-human absolves humans of their unique responsibilities? A child might think to themselves: if my toys *don't* stand up and tell me to quit cutting their hair or coloring their faces with Sharpie, then they must not mind if I do it. It's a relief to imagine toys busily fixing themselves when we're away from them, undoing all of our damage, leaving us to enjoy damaging them all over again. There is some narrow sense in which the provision of toy responsibility/response-ability may be interpreted as removing the same from any humans involved. However, I find this position to be problematically zero-sum. Responsibility is not a finite resource; the amount possessed by one being does not automatically lessen the amount possessed by another.

What we're left with, in the end, are the limitations of art, of representation, in having a predictable impact on material reality. The posthumanist child remains ephemeral. Like Alice and the Unicorn, our ability to understand the art we create—whether as simple consumers or as critical, desk-based scholars—ultimately comes down to what we believe about the words that we read, as understood by our interpretations. There is no limit to the kinds of interpretation we may make of a text. Where I might see a posthumanist child, another might see a child stripped of their human exceptionality. Within a work of fiction, that figure of a child will remain at the whims of readers' interpretations, from the moment a work is published until it passes from living memory. This ability to be read into nonexistence by use of another critical lens is another form of the ephemerality of the posthumanist child, and perhaps the one that matters most to our understanding of it. Because of this analytical ambiguity, no singular work of fiction, and no singular interpretation, can be said to *guarantee* a material outcome in the real world—like the fable of Sid and His Toys,

we can only speculate on possible reactions that may be generated by those who read or view a text. Even empirical undertakings, I suspect, would have a hard time proving that reading Book X results in Behavior Y more often than chance would suggest, although that avenue of research may prove fruitful as our technological capabilities to correlate complex behaviors increase. This may be another avenue of more posthumanist/new materialist research of children's literature and media, along with research with real children. For those of us continuing to desk-based research on the intersection of posthumanism/new materialism and children's literature and media, however, we must proceed with a keen awareness of the limitations discussed above: that the nihilist strands of posthumanism/new materialism exist but are not all-consuming; that a focus on intra-action does not absolve humans, fictional or real, of responsibility; and that we will necessarily be somewhat at odds with posthumanist and new materialist thought, because we work with representations and ideas, rather than with materiality.

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