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Grace Donahue April 12, 2022

Cripping Trees: Eco-Crip Communication and Temporality in Richard Powers' *The Overstory*

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Abstract
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By Grace Donahue

In the late 20th century, two fields of criticism began to forge their paths in literary history: ecocriticism and critical disability studies. While they have developed separately, commonalities both in theme and approach have emerged. Like two roots of the same tree, they have begun to intertwine to form an expansive and crucial field – eco-crip theory. Coined by Sarah Jaquette Ray and Jay Sibara, an eco-crip theory brings together ideas of both critical approaches, positing that there is much to learn in the intersections. For this thesis, I have chosen to examine Richard Powers' novel, *The Overstory,* which garnered critical acclaim for its exploration of the lives of trees. I argue that Powers, by connecting disability and the environment, brings together human and nonhuman lives to question notions of communication and time. I discuss how deaf gain can inform conversations around tree and plant communication and then show how networks of care like those in disability communities as well as forests might serve as a template for a more symbiotic relationship between people and place. By examining crip time alongside deep time, I show how disability and the environmental humanities are concerned with temporality, and, when put in conversation, reveal an eco-crip theory of time. By pairing ecocritical and disability frameworks, I show how *The Overstory* emerges as a key eco-crip text, one that celebrates human and biological diversity through its exploration of communication and temporality.

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I see fit to mention here that when I first arrived at Emory, I was utterly convinced I was the dumbest and least qualified person to sit in any classroom. If you're reading this, and you feel this way, I'm here to say that you are worthy of an Emory education, that the classroom is a better place with you in it, and that, most importantly, your ideas are worthy of exploration.

There are a few people who once told me these things, and I owe them not only my thanks, because they allowed me to complete this paper, but they also changed the trajectory of my life in no unserious way. So, this is for Dr. Sinykin, the first person who told me I could write, and I actually believed. For Megan who held my hand at every turn and dragged me across this finish line; none of this would have been possible without your unwavering faith and 3am proofreads. For you, I am entirely indebted. It has been an honor getting to discuss literature with you for hours on end – I will miss it sorely when we leave. For my dad, who isn't quick to give praise, but who once told me I could write. In that moment, you made all things possible.

Most importantly, I want to thank my mycorrhizal network for supporting me throughout this project. I feel so lucky to have been planted in such rich soil, one where I grew deep roots that have allowed me to expand my own sense of self. For Maya, Maya, and Gio, who forgave cancelled plans, my incessant discussion of a 500-page novel none of you have read, and most of all, for showing me true friendship. This project has taught me that my fungal networks, like those underground, are expansive, and that life wouldn't be possible without them.

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Introduction

Lauded as a "radical reimagining of the novel," Richard Powers' *The Overstory* has transformed how people view their place in nature (Gander). Its reach went far beyond literary circles. In my own private circle, *The Overstory* not only reimagined my relationship with nature but also with my fellow humans. Just a few pages into the five-hundred-page novel, Powers writes: "*A chorus of living wood sings to the woman:* If your mind were only a slightly greener thing, we'd drown you in meaning" (Powers 4). And drown I did. Slowly, my mind became a greener thing, just as Powers had promised. The chorus of characters sang this project into existence.

This thesis was born mostly out of a curiosity that developed out of my own unfamiliarity. When I first read *The Overstory* I was also reading Ishiguro's *Never Let Me Go*. I had the opportunity to speak with Dr. Rosemarie Garland-Thomson about her article, "Eugenic World Building and Disability," and I couldn't help but draw connections to Powers' *The Overstory*. When she spoke to my research seminar, she introduced me to the world of disability studies – one I hadn't ever been exposed to previously.

Then, fascinated by Garland-Thomson's analysis of eugenics in Ishiguro's novel, I began to wonder how if trees were considered to be "human" (which, at the time, I incorrectly believed was Powers' mission), could we consider deforestation to be a eugenic practice? Although I ultimately decided to go in a different direction for this thesis, when I first expressed that idea to my classmates, they were shocked that I would invoke disability studies in an analysis of *The Overstory.* In fact, in one of my final journal entries, I mentioned that Adam Appich's neurodivergence, who after a traumatic childhood later becomes a renowned psychologist, helped me to contextualize his research in the latter half of the novel. The comment in the margin

read, “Adam?” Worried that I had misrepresented Adam, I went back to the novel, and what I found was that not only could we read Adam as neurodivergent, but we could also examine each character as having a different experience of disability.

And so, it wasn’t only my own failure to notice what was right in front of me, but also that same failure from those around me. Most reviews of the novel barely mention Powers’ disabled characters, and if they do, it always seems to be Neelay’s paralysis that is most notable to them. Some scholars have begun to analyze the novel as a disability studies text, but they have left much ground uncovered. More scholarship pertains to Powers’ novel in the realm of ecocriticism, but almost none place disability and the environment in conversation. It’s at this intersection that my research begins.

When I came across *Disability Studies and the Environmental Humanities: Toward an Eco-Crip Theory*, I was amazed at the number of intersections between these two critical fields. With its foundational essays on an intersectional disabled eco-feminist framework, and environmental justice and disability, the book provides a robust foundation for this project. I use the concept of an “eco-crip” theory in each chapter -- according to Dr. Kim Hall, “to crip sustainability means valuing disability as a source of insight about how the border between the natural and the unnatural is maintained and for whose benefit” (Ray et al. 438). An eco-crip theory, then, is one that looks to both the environmental humanities and critical disability studies to inform one another. Although there is no simple definition of an eco-crip framework, common avenues of study discuss how embodiment, central to disability studies, is irremovable from emplacement, central to the environmental humanities. As with many theoretical frameworks, there is no neat definition and no one way to examine the eco-crip. When I refer to eco-crip theories, I present my research as the hyphen that connects the two schools of thought. In each of

my chapters, I outline the eco, and then the crip, and then place them in conversation together; I hyphenate them.

The essay that has been most foundational to this project's background is featured in Ray and Sibara's anthology – "Defining Eco-ability: Social Justice and the Intersectionality of Disability, Nonhuman Animals, and Ecology," by Anthony J. Nocella. "Eco-ability" is defined by Nocella as a theory that "combines the concepts of interdependency, inclusion, and respect for difference within a community; and this includes *all* life, sentient and nonsentient" (Nocella 235). Nocella traces these three concepts through both disability studies and the environmental humanities. He contextualizes how disability studies scholars have long been thinking about their environments, and how environmental justice movements have long been thinking about equity surrounding ability. He says: "The social construction of terms such as normalcy, ableism, and civilization have been put in the service of domination for political power, economic gain, and social control," which has affected both disabled humans as well as nonhuman life forms (Nocella 267). Eco-ability provides a framework for the ways in which people with disabilities navigate their environments differently.

With eco-ability as background, I began to see how Powers offers disability as a way to disrupt how humans have long viewed themselves as separate from their environment. Powers' characters relate to the natural world around them differently because of their human variations, including their disabilities: these differences can then become a source of opposition to dominant uses and valuations of natural systems. For Patricia Westerford, whose love of trees leads her to become a dendrologist, it means that she takes tree communication seriously; for Ray, it means he adjusts temporal expectations both ecologically and with regard to his own productivity; for Neelay Mehta, a tech-genius living in an up-and-coming Silicon Valley, it means he questions

the speciesist hierarchical assumptions about evolutionary theory. While researching this project, I was most concerned that an eco-ability-related reading of *The Overstory* would lead to an essentializing of the characters with disabilities. In other words, I was concerned that Powers' insistence on his characters' differences in ability was being used as a metaphor, or to borrow from Mitchell and Snyder, narrative prosthesis.

"Narrative prosthesis" defines how characters with disabilities are written about within dominant literary traditions. Mitchell and Snyder argue that these characterizations are twofold: "disability pervades literary narrative, first, as a stock feature of characterization and, second, as an opportunistic metaphorical device" (Mitchell and Snyder, "Narrative Prosthesis" 47). What they propose, however, as a kind of antidote to the "materiality of metaphor," the metaphorical messages conveyed through disability, is to "take up disability as an experience of social or political dimensions," rather than an isolated instance of difference or a symbol to be freighted with psycho-social meanings (Mitchell and Snyder, "Narrative Prosthesis" 48). There's a common analogy used to explain how these social and political factors affect people with disabilities. Picture a world where everyone is eight feet tall. Doorknobs and soap dispensers and handrails all sit around six feet off the ground. In that world, I, as a five feet, two-inch person, would require a few accommodations to move around in the world. When I leave my home, I would think about where I was going that day in order to know what devices or tools (step stools, etc.) I should bring with me. I would become acutely aware of how my built environment would affect my day. Although this is a drastic oversimplification, I find it's a helpful example to consider how nonnormative embodiment would in turn create more of an awareness around emplacement. Eco-ability celebrates that awareness as an important connection between disability and the environment. Eco-ability, then, allows for a different understanding of why

environmental writers, like Powers, might see fit to write their characters with disabilities to be uniquely attuned to issues in their environment. Powers disrupts normative narratives of humans and nature alike by relating marginalized communities and unvalued life forms like trees. In fact, he shows how that very dualism is a false binary.

Val Plumwood, acclaimed philosopher and ecocritic, writes extensively about this human/nature dualism. She argues that

> human/nature dualism conceives the human as not only superior to but as different in kind from the non-human, which is conceived as a lower non-conscious and non-communicative purely physical sphere that exists as a mere resource or instrument for the higher human one. (Plumwood)

Her assertion that consciousness and communication are crucial to fulfilling the "human" dualism indicates, to me, that a critical disability reading of her work is a fruitful endeavor. This "hyperseparation" of human and nonhuman lives, in turn, allows for the subjugation of nonhumans and the natural world (Ibid.). The human/nature binary is reinforced by speciesism – the hierarchical belief that humans are the primary species on Earth. Mitchell and Snyder posit that a nonspeciesist logic has its place in an eco-crip theory, and that there are ways to examine speciesism without negating the harmful real-life effects of human-animal comparisons. In their reading of Mark Haddon's novel, *The Curious Incident of the Dog in the Night-Time*, Mitchell and Snyder show how autism and autistic empathy break down speciesist logic (Mitchell and Snyder, "Cross-Species Identification"). This nonspeciesist logic, for Mitchell and Snyder, is more than having close relationships with animals, and instead an example of their own term "nonnormative positivism." Nonnormative positivism offers "an ethical methodology from which disabled people can articulate how their lives bring something new into the world that would otherwise go unrecognized" (Mitchell and Snyder, "Cross-Species Identification" 555). For them, autism presents a unique opportunity to connect with nonhuman animals in profound and

enriching ways. Nonspeciesism is therefore a means of recontextualizing disability as well as definitions of the human, beyond both the deficit model and the social model, to include room for a "capacity of incapacity" (Mitchell and Snyder, *The Biopolitics of Disability* 196). Mitchell and Snyder analyze Richard Powers' *The Echo* Maker, another novel that deals closely with issues of disability and the environment, and show how a capacity of incapacity

> results from an epiphany central to disability and other forms of resistant subjectivities on display in antinormative novels of embodiment—namely, that social obligations to the persistence of normativity, a consistency that keeps us static as ourselves into the future, predisposes human actors to squelch the truth of variation as a staple feature of organismic life. (Ibid.)

In other words, like a nonnormative positivism, a capacity of incapacity shows that disability, and all forms of human variation, can disrupt the stagnancy of a normative world. Both through their theory of nonnormative positivism as well as a capacity of incapacity, they show how disability can subvert normative ideas about human experience. In turn, they view nonspeciesism as a way to complicate the fraught history of depictions of disability as narrative prosthesis. As such, before beginning my analysis of the ways in which Powers relates the human and nonhuman phenomena of communication and temporality, I will show here how Powers asserts a distinctly nonspeciesist philosophy throughout *The Overstory*.

Ray Brinkman, one of Powers' nine characters, is an intellectual property lawyer struggling in his marriage. One night, Ray picks up an article that will later become the highly influential book *Should Trees Have Standing* by Christopher Stone. Ray is utterly overwhelmed by what he's reading:

> The terrible logic of the essay begins to wear him down. Children, women, slaves, aboriginals, the ill, insane, and disabled: all changed, unthinkably, over the centuries, into persons by the law. So why shouldn't trees and eagles and rivers and living mountains be able to sue humans for theft and endless damages? (Powers 273)

Powers here deftly connects two movements: the fight for humans who have long been considered nonhumans, as well as the fight for nonhumans. Some could argue that comparing marginalized groups, like disabled people, to nonhumans, like trees, is insulting to those humans. However, Powers' insistence on nonspeciesism denies the very hierarchical belief that to be nonhuman is an insult.

While Powers states that *The Overstory* is a novel about trees, it is perhaps more accurate to describe it as a novel driven by trees and their relationships with human characters. The structure of the novel, as other scholars such as Berthold Schoene have noted, is biomimetic: first, there are the "Roots" in which each character's backstory is presented as a vignette. Next, comes the "Trunk" in which many of the characters, once separated at the roots, come together to form the bulk of the novel. As the plot grows, Powers turns to the "Crown" and then finally, the story extends beyond the novel's branches and propagates into action as "Seeds" to end Powers' epic. At the beginning of each chapter in "Roots," a picture of a tree sits beside the first paragraph. Just as the character's name is spelled out at the top of the page, the image of the tree is used to identify the character. Powers provides a powerful symbolism – the picture is never labeled, but by the end of the novel, each character's different species of tree is memorable. Nicholas Hoel, a hearty midwestern man whose entire family has died, is an American Chestnut. Mimi Ma, the daughter of a Chinese Buddhist immigrant, is the Mulberry. Ray Brinkman, an intellectual property lawyer, is the sturdy and sensible White Oak. Neelay Mehta, a tech-genius in an up-and-coming Silicon Valley, is the Coastal Live Oak.

It would be easy to conclude that trees, due to their agency, have been "elevated" to the status of the human in the novel. However, that very statement would indicate a speciesist hierarchy that Powers refutes at every turn. Trees are both disabling, through injury, and

enabling, through the power of noticing. Trees reveal what most humans too easily ignore. Through Neelay, Patricia, and even Olivia, Powers asserts that those with a more embodied experience of the world (like the five-two person in an eight-feet person world) whether physically disabled or otherwise, hold a unique position to notice the world around them. Their eco-ability, because of that embodiment, is in fact a nonnormative positivism – each of them subvert normative ideas and help others to as well. Powers rejects the notion that the disabled should be used as a metaphor or as an extractive resource to better human relationships with nature through the agency of the trees themselves. Often viewed as mere resources for human gain, the trees in the novel possess a more-than-human power that extends beyond mere personification for literary trope. Both the trees and the humans, whether disabled or not, become whole beings, with complex agency and thought, and as such insist upon a radical rethinking of what it means to be human in a natural world. A nonspeciesist reading of *The Overstory* opens up channels of conversation between ecocritics and disability scholars without making false equivalencies between disabled humans and trees.

In my first chapter, "What if Trees Were Deaf and Mute?" I examine themes of communication amongst Powers' characters with disabilities as well as tree communication. I piece together an eco-crip theory of communication in the novel – one that shows how nonnormative modes of communication across species and individuals give agency rather than detract from it. *The Overstory* is a deeply auditory novel, one that's framed by experiences of listening. This insight leads me to analyze Patricia's character through the lens of H-Dirksen L. Bauman's exploration of "deaf gain" – a theory that shows how deafness, unlike medical models of hearing "loss", is an additive experience in that it stimulates types of perception and communication unavailable to those who are not Deaf. I explore how the theory of plant-

blindness, the idea that humans fail to notice plants in their environments, might also be a kind of plant-deafness. Then, I discuss theories of plant communication, pulling mostly from Michael Marder's philosophical inquiries into plant life in *Plant-Thinking*. Patricia Westerford discovers that trees communicate through mycorrhizal networks. Called the Wood-Wide-Web by mycologists, these fungal systems transport messaging and resources from one tree to the next. This symbiotic relationship causes Patricia to call the networks a "welfare state," one in which all trees in the community are given the resources that they need. I use these mycorrhizal networks to posit an eco-crip theory of communication in which networked care, as well as communication differences, are modeled in the forests.

In my second chapter, I discuss timescales in the novel. While other climate fiction novels are almost exclusively written in the future, Powers writes *The Overstory* in the past. At the same time, much of the novel's narration takes place proleptically, creating a collapse of normative chronological sequencing. I turn to Allison Kafer's theory of crip time which is "flex time not just expanded but exploded" (Kafer 27). She, as well as other disability scholars and activists, traces how notions of time can be experienced in radically different ways as a disabled person. Most pertinent to this section is Ray Brinkman, who, after having a stroke, experiences time in such a way that it brings him closer to his natural environment. Then, I examine deep time, "time viewed on a geological or cosmological scale rather than the historical scale" in the novel, and the ways in which human notions of time appear puny in comparison. Although geological time plays a significant role in the novel, perhaps more obviously, so does tree time, or dendrochronology. In the final section of my third chapter, I merge theories of crip time, deep time, and tree time to form a conception of eco-crip time. I show how culturally pathologized

notions of observation and patience sit as the backbone of an eco-crip time, one that subverts common narratives of chronomormative capitalist structures.

By reading *The Overstory* as an eco-crip novel, I emphasize that an ethics of care, both for planet and people, is at the center of Powers' novel – as well as at the core of disability studies and ecocriticism. Although I separate the eco and the "crip" for the sake of my sections, I now know that there cannot be one without the other. There cannot be environmental justice without discussions around ability and access. Likewise, discussions of disability frameworks must examine how the separation of the human and nonhuman have enabled the subjugation of marginalized groups, including the nonhuman and those labeled as defectively human. Powers, in his "novel about trees" ultimately transforms notions of trees as well as humans. Powers asserts that all people, regardless of ability, are deserving of rights and hold value beyond normative conventions of production. Powers, then, seems to ask, if all humans are deserving of rights, why not the trees? Why not extend our understanding of sentient life forms to the very creatures that produce our oxygen and provide us shade? Despite the tension between human-nonhuman comparisons, one that I will unpack in my first chapter, Powers, by decentering normative human experiences, in turn, exposes just how limited normative human perspective is.

A Note on Terminology

A few terms used throughout this thesis may be unfamiliar or carry concerning connotations for some readers. I use these terms with the utmost caution and follow the lead of disabled activists and scholars who have written extensively on these issues. With that being said, as with any community, there is often as much diversity of opinion within as there is between. Therefore, some of these terms are contested even within the disabled community. As such, I have listed below a few of those terms, along with where I encountered the term, and from whom. My worldview is limited in scope and although I have been diligent in my research, my position as an outsider to the disabled community is one that I take seriously. I would never presume to know an entire community's experience from just a few opinions, so I will continue to read and learn from as many people as I can in an endless pursuit of knowledge as well as justice for all humans and nonhumans alike.

The term "crip" is one that causes many people to flinch, and for good reason. Long used as a slur or insult for people with disabilities, "crip" comes with a loaded history. When considering the word "crip," it can be helpful to draw comparisons to the word "queer." For those unfamiliar with disability studies work, "queer" can be helpful because of its resurgence as a largely positive term in the United States. I myself identify as queer – it's the only label that I feel represents both myself and the ways in which my identity allows me to navigate the world. For a more in-depth definition and account of the term "crip," I turn to Victoria Ann Lewis' definitional essay in *Keywords for Disability Studies.* Lewis says that:

> With the emergence of the disability civil rights movement in the 1970s, "crip" gained wide usage as an informal, affectionately ironic, and provocative identification among people with disabilities. The term functions as an alternative to both the old-fashioned and rejected "handicapped person" and the new, more formal terms "disabled person" or "person with a disability," both of which gained official status as the preferred terms for standard usage in the mid-1980s. Within the disability community, it signals in-group

> status and solidarity and is intended to deflate mainstream labels such as "handi-capable," and "physically challenged," terms many activists find patronizing and politically misleading. […] While the noun forms of both "cripple" and "crip" were reclaimed as terms of empowerment rather than degradation under the aegis of the U.S. disability rights and culture movements, "cripple" remains a taboo term in the United States and is marked as derogatory and substandard in most dictionaries and style guides. (Lewis 47-48)

As Lewis shows, the term "crip" still carries with it decades of abuse and harm. I use it in this thesis only when referencing specific theories, or when drawing from specific scholarly works. I encourage all readers to read Lewis' essay in full for more information on the term.

In my first chapter I explore deafness and communication differences in *The Overstory*. I used the term "deaf" to refer to Patricia, one of Powers' characters. Rather than characterize her own disability in my words, I've pasted Powers' each instance where Powers refers to her hearing below:

> All her twig creatures can talk, though most, like Patty, have no need of words. She herself said nothing until past the age of three. Her two older brothers interpreted her secret language for their frightened parents, who began to think she must be mentally deficient. They brought Patty into the clinic in Chillicothe for tests that revealed a deformation of the inner ear. The clinic fitted her with fist-sized hearing aids, which she hated. When her own speech started to flow at last, it hid her thoughts behind a slurry hard for the uninitiated to comprehend. (Powers 124)

> Her hearing aids howl with feedback. Her slides jam in the carousel. The questions are hostile. Fielding them from behind the podium, Patricia feels her old childhood speech defect returning to punish her for her hubris. (Powers 139)

> Her words sound far away, cork-lined and underwater. Either both her hearing aids have died at once or her childhood deafness has chosen this moment to come back. (Powers 491)

In each instance, Powers seems to show that Patricia can hear both speech and ambient noise when wearing her hearing aids. It doesn't appear that she is ever fitted with cochlear implants despite Powers saying that her "childhood deafness has […] come back." Of course, there are many ways to interpret these three instances where Powers refers to Patricia's hearing aids

directly, and as far as I have seen, there hasn't been any criticism on Patricia's disability. Therefore, I turn to Douglas C. Baynton's definitional essay on "Deafness," also included in *Keywords for Disability Studies* to show why I choose to call Patricia deaf rather than hard of hearing or hearing impaired.

In his essay, Baynton says:

> Deafness is not what it used to be. Nor has it ever been just one thing, but many. Typically it refers to those who cannot understand speech through hearing alone, with or without amplification. Colloquially, it may also refer to any hearing impairment, as when a person is described as "a little deaf." Professionals in education and communication sciences distinguish prelingual from postlingual deafness, in recognition of their different implications for speech and language learning. Within the deaf community, in contrast, the term "deaf," as well as its signed equivalent, usually refers to people who identify culturally as deaf, and is sometimes capitalized ("Deaf") to distinguish the culture from the audiological condition. (Baynton, "Deafness" 49)

Patricia doesn't seem to identify as Deaf, nor does she have any ties to a larger Deaf community. With that being said, Patricia also doesn't seem to have many ties to a non-Deaf community either. Baynton continues later: "Acquired deafness begins as hearing loss but becomes something different, a state of being in all its complexity. Deafness from birth or early childhood begins as a state of being" (Baynton, "Deafness" 49). As such, I use "deaf" to describe Patricia's identity as her "state of being" – as I will show through a careful close reading, Patricia's life is shaped by her deafness and therefore irremovable from her identity in the novel.

Finally, in this thesis I oscillate between person-first language (eg. person with a disability) and identity-first language (e.g. autistic person, disabled person etc.). Both linguistic forms have garnered much discussion from within as well as outside of the disabled community. I have read various op-eds and articles regarding both uses of language. First and foremost, as a word-nerd or, more formally, a scholar of English literature, I acknowledge how language affects the way we perceive or are perceived by others. I don't believe that I have the right to decide

which form is more accurate or better. As many of the disability activists I look to say, it is a nuanced issue and often comes down to personal preference of the person being referred to.

Rosemarie Garland-Thomson succinctly addresses the complexities of person-first or identity-first language:

> "People first" language asserts that if we call ourselves "people with disabilities," we put our humanity first and consider our impairment a modification. Others claim disability pride by getting our identity right up front, making us "disabled people." Others, like many sign language users, reject the term "disability." (Garland-Thomson)

The disabled community is vast and varied in their language preferences. To honor both groups of people, those who prefer identity-first language as well as those who prefer person-first language, I use both throughout this thesis.

Chapter 1: What if Trees Were Deaf and Mute?
Eco-Crip Communication in *The Overstory*

> The pine she leans against says: Listen. There's something you need to hear.
>
> – Richard Powers, *The Overstory*

> Some humans say trees are not sentient beings,
> But they do not understand poetry—
>
> Nor can they hear the singing of trees when they are fed by
> Wind, or water music—
> Or hear their cries of anguish when they are broken and bereft
>
> – Joy Harjo, "Speaking Tree"

Introduction

About twenty pages into Robyn Wall Kimmerer's *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge*, I came across this passage: "But scientists decided long ago that plants were deaf and mute, locked in isolation without communication" (Kimmerer 19). Having read H-Dirksen Bauman's *Deaf Gain* in which he posits deafness is something to be celebrated rather than mourned, I couldn't help but wonder, what if plants *were* deaf and "mute"? What if their communication differences, like those of deaf and nonverbal communities, were to be celebrated? What if, contrary to the presumptions of the scientists, these differences gave trees community rather than isolation, in the same way that ASL and other signed languages create shared bonds of culture among Deaf people?

In the introduction to "Roots," Powers defines his novel in auditory terms. He frames his novel as something to be *heard*, rather than viewed or observed. The unnamed subject of the introduction is bathed in sounds; "her ears tune down to the lowest frequencies," and in doing so, she is awakened to the symphony of the forest (Powers 3). Powers continues,

> *It says:* Sun and water are questions endlessly worth answering. *It says:* A good answer must be reinvented many times, from scratch. *It says:* Every piece of earth needs a new

> way to grip it. There are more ways to branch than any cedar pencil will ever find. A thing can travel everywhere, just by holding still. (Ibid.)

The triple repetition of "it says," reinforces the subject "it" and evokes how speech, communication through sound, is not merely a human experience. Even more, the use of italicized and non-italicized speech rather than quotation marks makes readers question whether the tree's speech is in fact "out loud" -- the anaphora presents trees as having the power to "say," without needing human speech (Powers 3). As such, Powers centralizes sound before we even begin the novel. Powers then extends language beyond the spoken word, describing how "signals rain down around her like seeds" (Ibid.). In turn, these signals radically transform her understanding of the world --

> *Poplars repeat the wind's gossip. Persimmons and walnuts set out their bribes and rowans their blood-red clusters. Ancient oaks wave prophecies of future weather. The several hundred kinds of hawthorn laugh at the single name they're forced to share. Laurels insist that even death is nothing to lose sleep over*. (Powers 3)

What emerges is first, an insistence that trees communicate in robust and important ways beyond normative notions of communication, and second, a subversion of the primacy of the human. If only humans would simply *listen* to the trees, then their conceptions of communication would expand beyond limited normative frameworks.

Humans, like trees, also communicate in a variety of ways. To introduce his seminal book, *Deaf Gain: Raising the Stakes for Human Diversity,* H-Dirksen Bauman writes:

> As biologists have made abundantly clear over the past few decades, one of the prime indicators of the health of an ecosystem is the genetic variation that within it. In contrast, a decrease in biodiversity results in the condition of monoculture, in which ecosystems become increasingly fragile and vulnerable to widespread degradation and disease. This may be the case for ecosystems, but what are the implications for human well-being? (Bauman, xvii)

By using concepts of ecosystem biodiversity to examine deafness and its place in the human world, Bauman deftly, albeit perhaps unintentionally, connects the environmental humanities

with disability studies. So, too, does Powers. Powers, it seems, is asking the same question as Bauman – how might normative conceptions of language and communication not only limit human lives but also plant lives? Even further, how might understanding language and communication beyond their normative conceptions blur the lines between the human and the plant? In my attempts to answer these questions, I lean heavily on work foregrounded by Deaf Studies scholars who have long studied differences in communication. By exploring disability theories of communication in the novel, particularly Patricia's deafness and Ray's nonverbal communication, I will show how nonnormative modes of communication enhance communication rather than detract from it, both for the trees and people. Finally, I merge ecological theories of communication through mycorrhizal networks with disability theories of networks of care to develop an eco-crip understanding of communication in the novel. As such, I will show how *The Overstory* emerges as a key text for an eco-crip theory of communication.

Plant-Deafness

Patricia Westerford, *The Overstory*'s resident dendrologist, discovers that trees can communicate not only amongst, but also *across,* species. This interspecies communication comes to involve Patricia, too, who throughout the novel is able to communicate in new ways with trees. However, as a child, Patricia struggles to communicate with her human peers because of her hearing impairment. She feels more at home with trees than with the people around her, largely because of her differences in communication. Patricia finds solace in her trees: "Her twig creatures can talk, though most, like Patty, have no need of words" (Powers 123). Through simile, Powers attaches Patricia to the trees through their non-vocal speech. Powers also deftly separates the act of talking from the words themselves. For Patricia, speech doesn't require human words, it requires different ears. She is later fitted with hearing aids and when she begins

to make words aloud, her speech "hid her thoughts behind a slurry hard for the uninitiated to comprehend" (Powers 124). Powers distinguishes Patricia's difficulty not as a personal deficit, but simply as a difference that requires those who are unfamiliar with her speech to adjust their listening. Hilde Haualand, researcher and scholar of deaf studies, rightly asks, "Why is the audible perceived as the natural form of communication?" (Haualand 111). Although Haualand's question refers to the natural *human* form of communication, her insistence upon the "natural" is interesting. Here, the natural refers to the "normate," to borrow from Rosemarie Garland-Thomson's conception of culturally constructed standards of body, mind, and senses. But what would occur if we considered modes of communication in the "natural" world of which *homo sapiens* is a part?

Haualand argues that sound itself is a connection: "A person's spatialized gaze creates distance and confirms the presence of objects-in-the-world," whereas "sound, by contrast, penetrates the individual and creates a sense of communication and participation and reaches out to the source of the sound" (Haualand 113). By establishing sound as a relational phenomenon, Haualand foregrounds sound as an important factor of connection. Plant Patty, due to her differences in interpreting sounds, struggles to connect to her peers. Powers asserts that "hard-of-hearing, hard-of-speech Patty learns that real joy consists of knowing that human wisdom counts less than the shimmer of beeches in a breeze" (Powers 126). Although shimmering is a visual act, one that recalls Patty's outrage at plant-blindness, Powers himself is playing with sound – the alliteration of "b," a harsher sound, is offset by the long "ee" in both "beech" and "breeze" transforming a once stern letter into a soft and sleepy sound. The sentence slows with the alliteration, requiring more attention. And more attention is always the goal for Powers. By

asserting that sound is connection, Powers presents a unique situation in which Patty is all the more attentive to the sounds of the trees because of her deafness.

Powers posits that Patricia's attention, undistracted by the sounds of "human wisdom," can be spent elsewhere. Pilar Martínez Benedí argues that "human-centeredness and its normative modes of attention (which is to say, neurotypicality) may very well be a disabling condition" (Benedí 274). Therefore, Patricia becomes a kind of translator between her trees and humans, whereas others around her fail repeatedly to hear the trees. One could argue that Powers is essentializing Patricia's deafness and using it as a direct metaphor: her deafness allows her to "hear" what others can't. However, Patricia's deafness is only one part of her "othering," it's her plant-perception that marks Patricia as an outsider. After Patricia grows up, in the latter half of the novel, her hearing is only mentioned just a few times. In fact, when I presented my research to a class that was reading *The Overstory,* one student gave me the strangest look and began to rifle through their novel. After the class, the student came to me amazed – they had never realized that Patricia was hard of hearing. Patricia's disability is most present when she's around other humans. In this way, Powers reinforces the social model of disability: that in a "hearing" world, Patricia experiences her hearing loss as a disability, but amongst the trees, her unique auditory and sensory capacity allows for a deeper connection with the natural world.

However, Patricia's unique sensibilities are also present in a unique category of Powers' characters: the children. Through a young Adam and Patricia, Powers seems to argue that plant-deafness is learned through socialization rather than an innate characteristic of all humans. As a child, Adam, who is described as "borderline autistic," can hear and feel the suffering of the trees around him (Powers 391). His mother describes him as "socially retarded," but Adam, unlike his own mother, can perceive things about non-human societies that his family cannot. The Appich

family decides to plant trees for each of their children, and when his father brings one home before Adam's younger brother is about to be born, Adam is the only one to notice the tree's imminent suffering. Adam tells his father that "[t]he tree is choking. Its roots can't breathe," but his father does nothing. Adam's ensuing tantrum seems exaggerated, but Powers humanizes both the tree and Adam: Adam feels as though he's witnessing a "live burial" (Powers 54). Adam's father is enraged at his son's outburst and can't understand his son's attachment to the trees. Adam establishes a connection with trees that his neurotypical parents believe is *due* to their son's neurodivergence. Notable disability scholars Mitchell and Snyder write about the neurotypical need to interrogate human-nonhuman relationships in a pathological way:

> [the] presumption of normative cognition is that a homology exists within species that does not cross boundaries—like attracts like. Any attraction to unlike suggests something wrong in the individual who would abdicate his desire for humans and more easily locate an affinity with the nonhuman world. (Mitchell and Snyder, "Cross-Species Identification" 557).

After the tree is planted, Adam is convinced his baby brother's life, which is tied to the tree, is at risk. However, "both live, which only proves to Adam that life is trying to say something no one hears," and once again, Powers evokes the power of the auditory. Adam can specifically "hear" what others cannot, causing him to be ridiculed by classmates and family members.

Both Adam and Patricia's reverence for trees could be pathologized in such a way that critics argue that they are used as "supercrips" in the novel. The term "supercrip" is one that has exploded across critical disability studies in recent years. Alison Kafer's dual definition of the supercrip is particularly helpful:

> Supercrips are those disabled figures favored in the media, products of either extremely low expectations (disability by definition means incompetence, so anything a disabled person does, no matter how mundane or banal, merits exaggerated praise) or extremely high expectations (disabled people must accomplish incredibly difficult, and therefore inspiring, tasks to be worthy of nondisabled attention). (Kafer 90)

In this instance, both Patricia's and Adam's ability to connect with plant-life in a nonnormative way could be considered to be *because* of their disabilities. Kafer argues that supercrip narratives "rely heavily on the individual/medical model of disability," because of the disabled person's isolation from the social context that undergirds their narrative (Kafer 141). If we examine Patricia and Adam's perceptions of trees as isolated experiences of people with disabilities, then perhaps they do fit the narrative of the supercrip. However, by invoking non-disabled children and other marginalized groups in his examination of plant-hearing, Powers insists that normative modes of being after socialization are, in fact, the *actual* concern. Powers asserts that non-disabled children also experience plant-hearing. When Mimi snaps a branch off the Mulberry in their backyard, her younger sister Amelia "starts to cry, 'Stop! You're hurting it. I can hear it scream!'" (Powers 35). Those who remain on the margins of society or are too young to have experienced a kind of socialized indoctrination into norms of communication, affect, and temporality, are perhaps least susceptible to internalizing false notions about human supremacy and plant silence.

The Overstory repeatedly references the theory of plant-blindness, both explicitly and implicitly. Schussler and Wandersee, trained botanists, coined plant-blindness[1] as a studied phenomenon that shows that humans fail to notice plants in their environment. Schussler and Wandersee approached plant-blindness from a pedagogical perspective, by studying why more students didn't want to study plants over animals. However, plant-blindness can also be applied

[1] Blindness, for Schussler, is not related to a literal visual impairment, and instead focuses on the metaphorical act of not seeing something that is there. Other scholars have already hit on just how ableist this metaphor is – the implication that a visual impairment is something negative or somehow makes a person lesser-than is not only false but dangerously careless (Schalk). Given that, I will still explore the ways in which perceptions of plants are represented, particularly through communication, without the need for such ableist language.

to literature in a similar way. Why aren't more books centered around plants, or human-plant interactions? Powers answered that question with *The Overstory*, and through an exploration of the human perception of plants in the novel, we can see why. Patricia is dumbfounded by her classmates' inability to see what's right in front of them. One day, she asks her father, an ag-extension worker, "Kids in my class think a black walnut looks just like a white ash. Are they blind?" (Powers 125). Her frustration that her classmates look at trees and can't distinguish them from one another sets the young Patricia apart from her peers; she can easily identify the trees around her because she sees them as holistic individuals. Her father responds, "Plant-blind. Adam's curse. We only see things that look like us. Sad story, ain't it, kiddo?" (Powers 125). His reference to Adam, synecdochic for humanity, recalls our own Adam Appich. Curiously, though, Adam as a human is not plant-blind. By repeating Adam's name, Powers highlights this contrast. In this short quip, Powers reveals a philosophy that will follow readers throughout the novel. He contends that the reason for this 'blindness' is that humans regularly fail to notice what they're unfamiliar with. In her attempt to reduce plant-blindness of her fellow humans, Patricia Westerford names a chapter of her book "The Giving Trees" (Powers 245). And it works! Her agent calls her just days after reading her manuscript and tells her that she "wouldn't believe what you have me seeing, between the subway stop and my office" – it's as if the agent had been wearing blinders her whole life, only to have Patricia gently remove them. In numerous reviews, Powers' readers have had the same experience as Patricia's agent; Bill Gates told his blog-followers that *The Overstory* made him "think differently about my relationship with the trees right outside [his] window" (Gates). In the novel's review in *The Guardian*, Benjamin Markovits asserts that the novel makes "you look at the trees outside your window more curiously. Suspiciously, even," because of Powers' ability to make them come alive, so-to-speak. Much of

Markovits' suspicion, I suspect, emerges out of Powers' ability to make trees talk, without ever having them actually speak.

Just as Powers allows his readers to "see" trees for the first time, Mimi Ma helps her patients discover their deepest secrets simply by looking into their eyes. Once a deforestation activist, Mimi becomes a therapist who practices Eye Gazing or Eye Contact Therapy with her patients. Eye Gazing is an up-and-coming field of therapy where either a couple will stare into each other's eyes, or a therapist and their patient. Extensive studies have been done on the effects of eye contact and the ways in which eye contact serves as important nonverbal communication. One of the first foundational studies shows that

> Other individuals' gaze is a powerful social stimulus. Gaze direction is used to regulate interaction, to facilitate communicational goals, and to express intimacy and social control, to name some of its important functions in the modulation of social interaction processes. (Hietanen 1)

Although some studies on Eye Gazing therapy, as Hietanen explains, focus on couple therapy, Mimi performs the practice herself. Throughout the therapy sequence, Powers italicizes Mimi's own thoughts. Mimi, despite being the practitioner, seems to "say" more about herself than the patient. Mimi's thoughts are translated into italics as if we're hearing directly from Mimi herself, but her patient can only "see" these thoughts through her eyes. Even still, Powers insists upon a hearing vocabulary to describe the encounter. Although Stephanie's thoughts are mostly in non-italicized writing, at one point their eyes have a conversation. Stephanie confesses, "*You shouldn't trust me. I don't deserve this. You see?*" and not only does Mimi see, she also understands. Mimi's eyes respond, "*Yes. Hush,*" thereby hushing a non-auditory exchange (Powers 436). What Powers shows, through Mimi, is the importance of visual nonverbal communication.

Eye contact can be uncomfortable both for neurotypical and neurodivergent people, and although Mimi is not a neurodivergent character, Powers' emphasis on eye contact brings into relief neurodivergent people for whom eye contact and spoken language are challenging. Powers confronts that discomfort head on: "Mimi feels a tinge of fear herself, even now, gazing into the skittering eyes of Stephanie, who, blushing a little, powers through the shame and settles down" (Powers, 433). Stephanie, despite having paid for the session, still feels a bodily reaction to Mimi's gaze. Shame, stemming from the eye contact, becomes an embodied reaction. Later, Powers shows just how rooted in the body humans' thoughts are: "Truth hovers between them, great and nebulous, a thing their bodies keep them from reaching," (Powers 437). Truth is given a physical presence that hovers just above the two women's heads. Their own bodies, almost as if to protect them from potential harm, prevent them from accessing the truth. Later, thirty minutes into the session, "The truth seeps out of her, a bodily discharge," and presumably, that discharge leaks out without any sound. Like the sap of a tree, Mimi's truth leaks out. Mimi senses Stephanie is holding back. In return, Mimi "squints less than the width of two lashes. Microscopic reprimand: Just look. Just. Look," (Powers 433). This mantra, "just look," emphasized further by its separation with a period, seems to be Powers' axiom regarding tree and human communication alike. Furthermore, the phrase employs "just" and in that short word Powers posits that looking, despite its potential discomfort is a simple, but not as easy endeavor.

In emphasizing the eyes as messengers themselves, Powers develops vision and sight as an important form of communication. The theory of plant-blindness when put in tandem with Eye Gazing Therapy shows the power of visual communication. Just like people with trees, human beings don't often truly "see" one another. By offering Eye Gazing Therapy as an

antidote to that invisibility, Powers demonstrates how nonnormative communication can convey messages that are otherwise lost.

Speaking Trees

Powers' illustration of crip-modes of communication also prompts us to think about eco-modes of communication. In the novel, Patricia Westerford's life work is to determine how trees communicate with one another, and what she finds is ground-breaking. Patricia's experiments, based in large part on Dr. Suzanne Simard's book *Finding the Mother Tree*, prove that trees send messages to one another – not only amongst their species individuals but across species. Rather than explain the scientific jargon, I turn to Merlin Sheldrake, author of *Entangled Life*, to explain how mycorrhizal fungal networks facilitates intra-tree communication:

> Mycorrhizal fungi form symbiotic relationships with plants and can link plants together in shared networks sometimes known as the 'wood wide web' […] These networks can sprawl over tens or even hundreds of metres and are subject to an unceasing flood of sensory information. And somehow, without a brain, fungi are able to integrate these many data streams, make decisions, and determine suitable courses of action. (Sheldrake)

Patricia goes even beyond this conception of mycorrhizal communication by discovering that trees actually send messages not only to each other but also to humans. She finds that "the chemistry of their roots and the perfumes their leaves pump out change when we're near…. When you feel good after a walk in the woods, it may be that certain species are bribing you. […] Trees have long been trying to reach us. But they speak on frequencies too low for people to hear" (Powers 459). If we recall the introduction of the novel, Powers tells his readers that for the woman to hear the trees, and therefore 'hear' this story, she must "tune down to the lowest frequencies." Only then can trees truly be heard. However, upon tuning into the trees, Patricia becomes an outsider. She is deemed crazy by her colleagues and is effectively ousted from the

scientific community. When years later her research is vindicated, she is asked to speak at a conference, and she says:

> My whole life, I've been an outsider. But many others have been out there with me. We found that trees could communicate, over the air and through their roots. Common sense hooted us down. We found that trees take care of each other. Collective science dismissed the idea. (Powers 490)

Powers, here, sets apart the image of the outsider and that of the collective. The outsider is able to listen to the trees because they are not entrenched in false notions of plant science. Her outsider status earns her ridicule, and even begins to "scare" people (Powers 142). The implication made by her critics is that hearing voices makes her "crazy," and that notion of "insanity" is one that Powers explores throughout the novel.

Powers contrasts those who can and cannot hear the trees and emphasizes how their ability to hear them is pathologized by the non-hearers. When Olivia begins to hear tree voices, her definition of "crazy" changes. In fact, for Olivia, "the word has become less useful" (Powers 191). Other moments of hearing trees are not similarly pathologized. When Nick and Olivia see the redwoods for the first time, Nick notes that "the redwoods do strange things. They hum. They radiate arcs of force. Their burls spill out in enchanted shapes" (Powers 277). This enumerated list of short clauses evokes a mental image of a list of the ways in which trees possess intelligence; we can almost hear Nick checking the items off in his head. Powers, then, asserts that trees are much more than their visible parts. Nick is then treated to a tree-thought: "a chemical semaphore passes through Nick's brain: Suppose a person had sculpted one of these, just as they stand. That single work would be a landmark of human art" (Powers 278). Powers asserts through Nick's amazement that trees are works of genius, that they possess their very own intelligence, but also that trees are mostly considered to be works of *visual* art. Nick's implication is that the tree could be a sculpture, but as the novel progresses Nick begins to

understand trees as more than visual artistic objects and approaches their internal communication as well. At the close of the novel, Nick's amazement persists: "It amazes me how much they say, when you let them. They're not that hard to hear" (Powers 532). Nick's transformation from skeptic to listener reflects the journey of the reader.

However, Powers insists that even though humans *can* and *should* listen to trees, that hubris cannot take over; tree communication does not bloom in the human-mind, rather, it branches out from the trees themselves. Although the trees are communicating, humans are not aware enough to understand their messages as anything more than human-voices. Patricia is asked to speak on "the most listened-to public radio program" because the show "[needs] someone to speak for the trees" (Powers 282). Immediately, Powers places Patricia in the world of tree-sound: "she hears his words from high up in a Douglas-fir in the middle of a howling storm" (Ibid.). Almost as a response to this request, the trees themselves do not howl, but the wind through the trees does. Physically, the wind passes through the trees leaves and branches, and spreads their semaphore messages. Like the wind, Patricia is being asked to disperse the trees' messages. But, also like the wind, Patricia has remained invisible to human eyes for many years. Patricia's voice will be disembodied on the radio show, and her hesitation to return to that disembodied world is striking. Once again, when Patricia receives the advance for her book all about tree communication and feels it's too much money, Douglas, her partner, tries to tell her that it's her life work, but "she doesn't hear him. She's listening to the wind coming through the alders" (Powers 281). It's as if the non-tree world is drowned out by the wind. By juxtaposing Patricia's position as a tree-communicator with the far-off technological and capitalist human world, Powers seems to reject the notion that Patricia alone can be a voice for the trees.

Furthermore, he challenges the idea that her voice can be separated from the chorus of tree voices that she has tuned into.

Michael Marder, philosopher and author of *Plant-Thinking: A Philosophy of Vegetal Life*, has emerged as a key voice in Critical Plant Studies and also questions the supposed voicelessness of trees. Marder purports that philosophers have historically undermined plant communication because of the plant's lack of verbal speech (Marder 74). He goes on to say that

> vegetal life expresses itself otherwise, without resorting to vocalization. Aside from communicating their distress when predators are detected in the vicinity by releasing airborne (or in some cases below-ground) chemicals, plants, like all living beings, articulate themselves spatially; in a body language free from gestures. (Marder 75)

Marder thereby makes embodiment key to plant-communication. When removed from their embodied space, tree voices become nothing more than projections of the human voice.

Powers transcends the human-voice projection through his emphasis on humming. Nick first hears the redwoods hum, and then when Mimi needs refuge, "messages hum from out of the bark she leans against. Chemical semaphores home in over the air. Currents rise from the soil-gripping roots, relayed over great distances through fungal synapses linked up in a network the size of the planet" (Powers 539). Nearly a hundred years earlier, a Hoel family member leans against a tree and hears the "bare branches click and hum above the drifts" (Powers 16). Humming, a guttural vibration from deep in the throat, is not a normative mode of human communication. People hum for pleasure, out of boredom, for a distraction, but not typically to communicate. By establishing humming, rather than speech, as a tree-mode of communication, Powers asserts that tree-talk is removed from human voices. In fact, humming is a distinctly embodied form of communication because we can more acutely feel the vibrations of a hum than we can with speech or, say, whistling. Neelay navigates his university's quad decorated with trees: "He touches their bark and feels, just beneath their skins, the teeming assemblies of cells,

like whole planetary civilizations, pulse and hum" (Powers 121). This time humming is not simply auditory, it's also tactile. Once again Powers asserts the embodiment of messaging. By creating vocal patterns that don't have to do with human speech, Powers shows that, in Patrycja Austin's words, "meaning originates not in the human mind but outside of its reach - in the nonhuman subjects who can thus no longer be objectified" (Austin 86). By giving trees the embodied experience of humming, Powers situates trees in their physical bark rather than allowing them to be ventriloquized by human voices.

Unlike Austin, ecocritical scholar Moira Marquis argues that without literal spoken voices, trees have been demoted to the status of objects because they lack their own vocal agency. This interpretation is founded upon the ableist principle that to have agency is to have an audible voice, and it is also an interpretation that I believe is inconsistent with Powers' distinctly nonspeciesist approach. As I discussed in the introduction, Powers rejects the dominant species hierarchy, thereby making it impossible for trees to be "elevated" or "subjugated" to the status of the human. Marquis argues that "to avoid the view of human life as incompatible with environmental wellbeing, Powers needed to write a novel where trees speak," but this argument operates under the assumption that to be human is to have speech (Marquis 2). As Haualand and H-Dirksen L. Bauman show in their exploration of deafness, human communication is as vast and diverse as the arboreal ecosystems Powers is writing about. Marquis' findings emphasize how important it is to bring a disability studies lens to this ecocritical work so that we might better understand how hierarchies function in an ecocritical context. Merging both the ecocritical and disability studies interpretations of the novel can thus bring this important dynamic of the novel to light.

A Wood-Wide-Web of Care

Of utmost importance to an eco-crip theory of communication in *The Overstory* is Ray Brinkman, who, after having a stroke, develops aphasia which affects his ability to communicate verbally. Prior to his stroke, Ray reads the article that later became Christopher Stone's groundbreaking book, *Should Trees Have Standing?* and is baffled by what he finds. Powers pastes the following section of the essay in full:

> It is no answer to say that streams and forests cannot have standing because streams and forests cannot speak. Corporations cannot speak, either; nor can states, estates, infants, incompetents, municipalities, or universities. Lawyers speak for them. (Powers 274)

Here, Stone connect the fight for the rights of nonverbal people and those with communication differences with that of the trees. After his stroke, Ray's words are intimately connected with the trees around him. Ray watches the trees out of his bedroom window, and one day, "his mouth opens and he launches a syllable midway between what and who" (Powers 452). Ray's aphasia allows Dorothy, his wife and caregiver, to question the subject of the tree. And from that moment, Ray and Dorothy begin to identify all the trees in their yard. Their newfound passion for tree identification brings them closer than ever before – both individuals find community through the trees. By making Ray's aphasia the catalyst for this moment, Powers asserts that communication differences can enable certain forms of connectedness (inter- as well as intra-species) that are otherwise blocked by normative modes of "speech." In her analysis of neurodiversity in *The Overstory,* Pilar Martínez Benedí argues that "the neurodiversity paradigm reclaims the value of other forms of language and […] espouses an expanded, more inclusive idea of language, that can accommodate the kind of egalitarian interactions between the human and the nonhuman" (Benedí 268). In turn, I would argue that by examining the neurodiversity paradigm in relation to mycorrhizal networks, expressly tree communication, we can look at nonhuman-human interactions in the same way.

The mycorrhizal networks, or the "wood-wide-web" that Patricia studies, allow individual trees to communicate and connect with one another. Patricia tells an auditorium of listeners,

> A forest knows things. They wire themselves up underground. There are brains down there, ones our own brains aren't shaped to see. Root plasticity, solving problems and making decisions. Fungal synapses. What else do you want to call it? Link enough trees together, and a forest grows aware. (Powers 490-491).

So, through their communicative connections, trees actually begin to care for one another. Powers explains how this communication functions -- "Word goes out, and the trees of a given species—whether they stand in sun or shade, wet or dry—bear heavily or not at all, together, as a community…." (Powers 239). Patricia then quips that trees, due to these networks, form a kind of "welfare state," one that depends upon symbiosis rather than competition, on care (Powers 245). In her fascinating analysis of *The Overstory* in the context of the Covid-19 pandemic, Rachel Adams looks at the characters' entangled relationships as a way to understand care networks. She shows that the characters' "experiences embody a spectrum of dependencies extending from the all-encompassing needs of infancy to the illusory independence and responsibilities of midlife to dependencies that come with advanced age" (Adams, "An Overstory" 801). For Adams, Ray and Dorothy's relationship to the trees around them "are nodes in broader networks that connect communities, regions, and species across the planet" (Adams, "An Overstory" 803). Shannon Lambert takes these networks one step further by using Powers' insistence on the mycorrhizal fungal networks as a metaphor for collective agency. She shows that "the biological and botanical transmissions of mycorrhiza and circulations of affect into analogical proximity develops both as 'signals' or 'content' which organise collectives from the bottom-up" (Lambert 194). In other words, Powers introduces mycorrhiza in the novel's content and form; Powers uses patterns of language that entangle the novel and its characters. But he also

introduces caring relationships between disabled and non-disabled characters that could be said to be human versions of mycorrhizal networks. By writing about disability networks of care as well as the mycorrhizae of the forests and then superposing both in the novel, Powers establishes an eco-crip framework through which we can understand communication, connection, and care.

An eco-crip communication framework is about more than listening and speaking; it's about noticing how webs of living beings interact with one another. Let's return, then, to Robyn Wall Kimmerer, who gave me my first inkling that tree communication and human communication were interrelated. In her own exploration of mycorrhizal networks, she shows that the fungi

> weave a web of reciprocity, of giving and taking. In this way, the tress all act as one because the fungi have connected them. Through unity, survival. All flourishing is mutual. Soil, fungus, tree, squirrel, boy – all are the beneficiaries of reciprocity. (Kimmerer, "Serviceberry" 20).

Understanding tree communication, along with communication differences in the disabled community, is not only of benefit to the abled human. In fact, just as Kimmerer says, "all flourishing is mutual" (Ibid). Communication differences like deafness, aphasia, or mycorrhizal networks show that symbiosis, both between and across species, is crucial to building community. Communication, in any form, allows for connection. Whether that is human to human connection or human to nonhuman connection, by tuning our ears to the frequencies of our surroundings, we become more connected to the beings in our environment.

By connecting all these seemingly disparate notions – deaf gain, plant-blindness, mycorrhizal networks, and finally, networks of care, Powers shows just how entangled humans and nonhumans truly are. The notion of emergent properties comes to mind. In systems biology emergent properties are defined as the "collective properties [that] are critical attributes of biological systems, as understanding the individual parts alone is insufficient to understand or

predict system behavior" ("Systems Biology"). In other words, the richness of the whole cannot be calculated by tallying the sum of its parts. Powers puts these parts in conversation, and what emerges is an entangled collective that honors human and nonhuman diversity for its various modes of communication.

Chapter 2: Watching Grass Grow – Eco-Crip Time in *The Overstory*

> Murmuring out of its myriad leaves,
> Down from its lofty top rising two hundred feet high,
> Out of its stalwart trunk and limbs, out of its foot-thick bark,
> That chant of the seasons and time, chant not of the past but only
> the future.
>
> – Walt Whitman, *Leaves of Grass*

Introduction

After my third concussion, I spent six weeks in vestibular rehab, retraining my eyes and brain to calibrate the world around me. Concussions are a tricky injury because in order to heal properly, there is quite literally nothing you can do. After my fourth concussion, I spent three weeks sitting in my empty bathtub (the only room in my apartment with no windows). Once my headaches mostly subsided and I could drive without excruciating shooting pain behind my eyes, I slowly reintroduced myself to the hustle and bustle of daily life. I couldn't help but feel the world was moving at 2x speed, and I was watching the seconds tick by.

I wish I could say the time spent in my bathtub was revelatory, but, in reality, it was perhaps just as painful as the initial injury. Being forced to sit with yourself for hours on end with no stimulus is not something many people today experience. And during that time, I admit that I was most stressed, not about healing or my already troubling memory difficulties, constant headaches, and psychological symptoms brought on by the concussions, but I was most concerned about what I was missing. I was most concerned about the work I hadn't turned in, the classes I couldn't attend, the deadlines that had passed.

Then, the pandemic hit. All of a sudden, the people around me were forced to reconcile their own productivity with the stress of an unpredictable and ever-evolving illness. It seemed as if my earnest wish to just hit pause had happened. Selfishly, I was relieved to have professors

who were understanding, who began their emails with notes about "trying times." Because, for me, the past few months had been trying – it wasn't until the pandemic that I felt like I could finally voice that.

So, when I finally picked up Alison Kafer's *Feminist, Queer, Crip* which my advisor suggested I read for this project, I realized that in my own way I had just experienced what she calls "crip time." Kafer writes,

> Crip time is flex time not just expanded but exploded; it requires reimagining our notions of what can and should happen in time, or recognizing how expectations of "how long things take" are based on very particular minds and bodies. We can then understand the flexibility of crip time as being not only an accommodation to those who need "more" time but also, and perhaps especially, a challenge to normative and normalizing expectations of pace and scheduling. Rather than bend disabled bodies and minds to meet the clock, crip time bends the clock to meet disabled bodies and minds. (Kafer 27)

I had experienced crip time mostly alone, but after the pandemic, much of the United States was also experiencing it. Disability scholar Ellen Samuels argues that "with the advent of the COVID-19 pandemic, suddenly US academics and other white-collar workers who had previously resided in the sheltered space of the norm were thrust into the time-consuming, often frustrating space of crip time," which, in turn, sparked conversations about normative standards of production (Samuels and Freeman 251).

Picking up a novel that's over five-hundred pages long might feel a bit like watching grass grow – a huge amount of time dedicated to something slow-moving. After all, the average American reads just four books a year so each book they read is a considerable commitment (Perrin). When I first picked up *The Overstory* for a class I was taking, it struck me that for the next month or so I would dedicate much of my time to this collection of pages bound together. But the novel itself seems to go beyond traditional time – the five-hundred pages cover hundreds of years of ecological and human history. Through its insistence on deep time as well as crip

time, *The Overstory* emerges as an important eco-crip narrative that fuses timescales. *The Overstory* collapses timescales through narrative prolepsis; the result is an intersectional timescale that blends crip time and deep time. By melding theories of crip time with deep time, I develop an eco-crip time theory – one that prioritizes culturally pathologized qualities of observation and patience as radical acts of environmentalism.

Crip Time

Just as progress and productivity had haunted me during my time in my dark bathtub, and later in rehab, Kafer suggests that crip time isn't about slowing time down, it's about listening to timescales contained in our bodies and minds. Rather than saying that crip time, or the pandemic, *forced* people to slow down, crip time offers a way to live at the speed that makes the most sense. Crip time refutes capitalist notions of value that depend upon a person's productivity and asks how people might be valuable beyond their labor. As such, crip time is a kind of antidote to what Samuels calls "chrononormative capitalist structures" that drive much of our world today (Samuels and Freeman 252).

In *The Overstory,* Powers establishes crip time as a central experience of his characters with disabilities and demonstrates how disability can transform notions of time. Ray Brinkman and his wife Dorothy begin the novel in a tumultuous relationship filled with fast-paced adventures. Dorothy moves through Ray's life like a tornado, unable to be still both in life and in their relationship. In fact, they rush so much that "half a dozen years pass as if a single season," (Powers 75). Ray remarks that until Dorothy, he "had the word 'life,' and then [she] came along and said, 'Oh! You mean this" (Powers 75). Ray is enamored by her business, and her life is glamorous; they sky dive and hike the AT and spend their time doing things most people dream of doing. And yet, Dorothy is never quite satisfied by her adventures. Powers insists upon this

insatiable appetite for more. Powers at once makes Dorothy's life desirable, but also empty and as such, critiques the very idea that to be busy is to be fulfilled.

By juxtaposing Ray's timeline with Dorothy's, Powers forces readers to reckon with the notion that to be busy is to lead a fuller life. Ray, unlike Dorothy, loves his job as an intellectual property lawyer. Ray is the grounded, sensible, slow-moving one. But, together, Ray and Dorothy begin to build a life that is rather mundane. They go through various life stages – they turn forty, Dorothy's mother dies, they question whether they want a baby. In fact, Ray and Dorothy seem to grow old with the novel. The passage of time is of particular concern to Dorothy. One New Year's, Ray remarks that they've "survived another one," which is a curious statement to make to a life-partner. Powers here highlights that survival and life are two different things. For Dorothy, life means adventure; for Ray, life is a banal series of days. Powers seems to say that this binary, constant stimulation vs. mundane existence, isn't the only choice.

Life course, or a life's trajectory, is an important notion for crip time. Normative notions of life courses – birth, education, marriage, parenthood, death, are not only heteronormative and ableist, but are also "highly centered on labour and productivity" (Ljuslinder et al. 35). Ray and Dorothy's labors of love function as a kind of metronome for the first half of the novel. The pair keep readers steady in time until Ray has a stroke that leaves him mostly immobile with difficulty speaking. Up until Ray's stroke, Dorothy has insisted that to live life is to be busy. Then, when Ray has his stroke and Dorothy must finally slow down, Powers turns Dorothy's constant movement on its head and insists upon slowness as a profound way to live a human life. Dorothy's prior insistence on adventure melts away as she cares for Ray. Ray's stroke implodes both his and Dorothy's conceptions of time. Just as Kafer argues, Ray must reimagine time not because of its sudden abundance, but because he now notices time differently. After the two

spend years together post-stroke Powers insists that "time has become something very different for them both" (Powers 442). Rather than separating Ray's disabled experience of crip time from Dorothy's, Powers implies that crip time is something that can transform any human experience through the difference it makes in relationships.

Spengler argues that by distorting normative time scales, Powers demonstrates that fiction has the potential to "reimagine time and space and reflect on the possibilities of time-space arrangements that present alternatives to dominant ways of conceptualizing our being in the world" (Spengler 70). For Spengler, these dominant ways of being are characterized by being human. But, without addressing the nuances of human experience, particularly how identity might shape ways of being, this argument paints itself with broad strokes. As such, Kafer's insistence that people with disabilities experience time differently is a necessary counterpart to Spengler's argument. Although Spengler's research prioritizes ecological timescales, disability serves as a lens through with one can reimagine time. Spengler highlights that fiction allows for an exploration of all time, and her assertion applies not only to crip time but also to more expansive concepts of deep time.

Deep Time

When we examine Powers' treatment of deep time in the novel, a new chronology seems to emerge – one that prioritizes awareness rather than production. Deep time, "time viewed on a geological or cosmological scale rather than the historical scale," calls into question the planetary chronology that cannot be explained by prior biblical timekeeping ("deep time, n."). Climate change is particularly difficult for people to wrap their heads around in part because of its

inability to fit into temporalities that are commonly accepted. As Ginn et al. explain, climate change is just one concept that shatters conceptions of time:

> one of the secular authorities of modernity—science—has revealed, through its reality-making regimes, a profound moment of temporal dislocation: the very long-term effects of climate change, nuclear radiation, plastic pollutants, and more that, collectively, shatter modernity's temporality and its countertemporalities (Ginn et al. 1).

Powers' most obvious reference of deep time is his introduction to the final section of the novel. In it, Powers lays out what he has described for much of the novel – that humans are not the giants they believe themselves to be. He introduces the scientifically accurate story in a conversational "say the planet is born at midnight" (Powers 475). Even the imagery of the planet being born implies that Earth itself was once a child rather than merely a rock hurtling through space and time. Powers goes through around 4.5 billion years of geologic history, or deep time, in just one page. He traces the evolution of single-celled organisms to the anatomical man. Humans become a blip in the timeline of the planet that they call home:

> *Somewhere in the last sixty minutes, high up in the phylogenetic canopy, life grows aware. Creatures start to speculate. Animals start teaching their children about the past and the future. Animals learn to hold rituals.*
> *Anatomically modern man shows up four seconds before midnight. The first cave paintings appear three seconds later. And in a thousandth of a click of the second hand, life solves the mystery of DNA and starts to map the tree of life itself.*
> *By midnight, most of the globe is converted to row crops for the care and feeding of one species. And that's when the tree of life becomes something else again. That's when the giant trunk starts to teeter.* (Powers 475)

Throughout the novel, Powers hints at evolution as a largely misunderstood process. By calling into question common conceptions of evolution – that competition drives all life forms on Earth, and that humans are the most 'highly evolved' species -- Powers invokes arguments about social Darwinism and eugenics. When Patricia submits her paper about tree communication, she receives a letter that says she "displays an almost embarrassing misunderstanding of the units of

natural selection," because trees can't possibly help one another if they are only seeking to compete. Neelay, paralyzed after a childhood incident, "suspects [legs] may be where evolution went berserk" (Powers 470). Neelay remarks that the only creatures he trusts are those without legs, most notably his pet robot. While Neelay's thoughts on legs seem somewhat odd, he highlights how traits that are often unilaterally considered to be advantageous, such as having legs, are not necessarily always desirable. Neelay's thoughts on legs, and evolution more broadly, are echoed in Darwinian disability scholarship. Douglas C. Baynton shows how "the economic race for life in which an individual might succeed or fail, and the evolutionary competition by which races and nations would rise or fall" were the two ways in which disability became a handicap (Baynton, "These Pushful Days" 48). Baynton credits the transformation of time in the nineteenth century to Darwinian theories of evolution.

Powers shows how human conceptions of evolution are rooted in speciesism as well as ableism and insists upon the importance of understanding how humans, like all other life forms, evolved. While addressing an auditorium, Patricia says that "a billion and a half years ago, the two of you parted ways," highlighting how "you," humans, and "you," the trees, are much more connected than one might think. (Powers 293). Wai Chee Dimock writes extensively about misconceptions of evolution in relation to disability. She argues that through the intertwining of evolution and disability, Powers evokes the idea of "assisted survival" (Dimock, *Weak Planet* 7). Dimock argues that "beginning can have a future only if the nonhuman world is on board as friend and foe, a means of locomotion and projectile into the unknown" (Dimock, "Vanishing Sounds" 144). For Dimock, and for Powers, developing a greater understanding of deep time is a way to blur the lines between the human and nonhuman -- to acknowledge ancestry beyond the human and therefore subvert the primacy of the human species. Powers connects tree and human

ancestry to highlight how evolution is not a matter of hierarchy, it's an entangled web of growth across all species.

Unlike speculative fiction, or climate fiction that typically deals with future time periods, *The Overstory* is set in the past. But that doesn't mean Powers isn't concerned about the future. Tung argues that the Anthropocene is "characterized by an understanding of the present as the front end of an enormous swathe of time stratigraphically legible for geological periodization tens of millions of years hence," which seems to evoke a sense of hope for our collective future (Tung 81). Rather than writing into that future to thematize time scales, Powers evokes the future from the past by narrating much of the novel proleptically. Powers uses prolepsis not merely to evoke the future, but he also uses it to grant time a certain agency. When Adam faces two life sentences for his hand in Olivia's death twenty years earlier, Powers writes, "the years ahead will run beyond anything he can imagine," asserting that time itself has a plan that humans don't have agency over (534). Prolepsis, it seems, takes away human certainty over the future, and gives that certainty back to natural systems. Rather than time being an instrument humans can wield for the sake of progress, time has no master. In fact, before entering prison, Adam once again reckons with human hubris. Powers states that the other incarcerated men "will beat [Adam] senseless many times, not for being a terrorist, but for siding with the enemies of human progress," highlighting how time is directly related to capitalist pursuits of progress (Powers 533).

Within these same capitalist structures exist notions of productivity that extend beyond the human to nonhuman lives. Environmental management failures arise from a fundamental misunderstanding of ecological time scales, and value beyond production. In a way, then, crip time is also ecological time. What Karen Malone calls the "terrors of progress," is in fact the

human refusal to acknowledge the chronology of nature. Consequently, chrononormative capitalist structures harm the natural world. Neelay's game, *Mastery*, in many ways reflects evolutionary theory. Powers writes that Neelay, in a Darwinian approach will "unfold the creation in gradual, evolutionary stages, over the course of decades," unexpectedly asserting Neelay's importance in the future of the game (Powers 121). Powers' use of prolepsis throughout the novel collapses time scales, drawing attention to the limited time frames of the human.

Tree Time

Dendrochronology, "the science of arranging events in the order of time by the comparative study of the annual growth rings in (ancient) timber," plays a significant role in the novel ("dendrochronology, n."). What Spengler calls the "dendromorphization of human life," is not only Powers' characters forming significant relationships with trees, as we saw in the first chapter of this project, but also in the chronology of trees (Spengler 80). Trees grow outwards rather than upwards making their progress not immediately obvious. As a child, Patricia is delighted to learn that "if you carved your name four feet high in the bark of a beech tree" it would always remain at "four feet, however high the beech tree grows" (Powers 124). Not only is the passage of time important to the tree in this case, but Powers assures readers that Patricia "[will] love that answer still, half a century later" (Powers 124). Here, Powers combines prolepsis with the actual reality of a tree's time scale that lasts long after half a century.

Through the use of tree rings, Powers also offers another manner of thinking about tree chronology. Biologically, trees grow by adding rings onto their trunk. If we examine Powers' insistence on tree rings as symbology rather than biological objects, though, the outward growth of the rings implies that growth is not merely linear nor upwards. As such, in their very growth,

trees resist a human chronology that depends upon unidirectional, linear notions progress. After Mimi's death, Nick lays atop of Mimas' "ghost" after being logged by the exploitative capitalist deforestation campaigns at play. He sees "the rings of his own birth, the death of his family," and then in prolepsis, we learn that Nick "won't get many good nights for the next twenty years [...] and yet, twenty more rings would have been no wider than his ring finger" (Powers 388-389). Here, the triviality of human chronology is put into relief against the backdrop of a giant tree that is probably hundreds of years old. When Olivia first encounters Mimas, time no longer holds the same meaning as before,

> soon enough, an afternoon, half an hour, a minute, half a sentence, or half a word all feel the same size. They disappear into the rhythm of no rhythm at all. Just crossing the nine-foot platform is a national epic. More time passes. A tenth of an eternity. Two-tenths. (Powers 292)

The rapid movement of clauses in order of length of time creates a kind of decrescendo, building to Powers' admission that time no longer feels so chronological when communing with Mimas. At the sentence level, these clauses and short sentences link together jumping through the chronology of the sentence in short bursts. The breaks in sentences then become disruptive to the very time one spends reading them. Like tree rings, sentences must follow a certain syntax and chronology, but Powers demonstrates how, even at the sentence level, chronology can be manipulated. In an examination of narratology in literature of the Anthropocene, Erin James, scholar of environmental narration, argues that "tree ring time sequences progress steadily, with no analepsis or prolepsis to complicate the annual recording of events," and as such fall short in their ability to bend chronology (James and Morel 192). Although James doesn't engage with *The Overstory* directly, her assertion that "geological strata" is pertinent to understanding chronology in environmental novels relates directly to temporality in Powers' work (James and Morel 185). For Powers, tree rings keep time like the metronome of the forest – steady and

resolute in their own timescale. As such, it is difficult for tree time and human time to be reconciled, but Powers insists that we must try.

Powers argues again and again for humans to consider time in their treatment of nature. Mimi's father has his own axiom about tree time – he and Mimi joke, "best time to plant a tree? Twenty years ago" (Powers 33). This simple joke between father and daughter is exactly what it means to consider tree time. Humans are notoriously short-sighted, and here Powers shows his readers that a future-oriented approach to life is one that will ensure a planetary future. Powers argues that "long answers need long time [...] and long time is exactly what's vanishing," (Powers 385). Nonhuman-human relations are one of those long answers. Ecosystems take years to develop and adapt, but all too often the rush of production slices through that time. Powers explains it best through Plant Patty who, when testifying before a judge on the importance of rejecting logging proposals, lays out the stakes,

> if you want to maximize the net present value of a forest for its current owners and deliver the most wood in the shortest time, then yes: cut the old growth and plant straight-rowed replacement plantations, which you'll be able to harvest a few more times. But if you want next century's soil, if you want pure water, if you want variety and health, if you want stabilizers and services we can't even measure, then be patient and let the forest give slowly. (Powers 310)

Once again, Powers uses this plea-like anaphora of "if you" to drive home just how much old growth trees offer. Powers, here, frames old growth forests through the resources they offer, but at the same time suggests that the forests "give" to humans, and as such assigns them agency.

Although all of Powers' characters seem to care intuitively about trees, the Hoel family's dedication to their American Chestnut across generations is remarkable. Even as the world around them is exposed to the "terrors of progress," the Hoel Chestnut sits as a quiet observer, almost like a sun dial – keeping time and tracking change. Jørgen Hoel plants a Chestnut tree on his land and imagines that "*One day, [his] children will shake the trunks and eat for* free"

(Powers 7). Jørgen Hoel is not thinking about his own lifetime, he's thinking beyond his own timescale to benefit the generations to come. Here, Powers juxtaposes human and tree time scales, and also shows how we might consider tree time to ensure a bountiful future. Slowly, that same tree grows through generations of Hoel's, and Powers documents the tree across human generations. Jørgen's son, John, begins to document the tree; he takes one photo each month and Powers attributes his ability to think in tree time to the fact that

> farmers are patient men tried by brutal seasons, and if they weren't plagued by dreams of generation, few would keep plowing, spring after spring. John Hoel is out on his rise again on March 21, 1904, as if he, too, might have another hundred years or two to document what time hides forever in plain sight. (Powers 12)

For Powers, the act of planting and caring for trees is an act of hope. Powers asserts that trees, in fact, are the keepers of time, but that when humans look at trees, they don't see tree-time. Daniela Fargione argues that Powers' insistence on photography to mark the passage of time suggests that "the art of photography, as any other representational form, can capture only fragments of time and truth" (Fargione 250). Just like the novel itself, art is limited in its perspective. Fargione then shows that trees themselves preserve perhaps just as much "time and truth" in their very beings than the art attempting to represent them. As such, trees, like literature, will endure beyond human time scales. But, Fargione argues that "our species' failure to conceive and experience time is also reflected in the various technologies that humans have invented to facilitate the process of recording: writing, photography, and cinema" (Fargione 258). And while it does seem that Powers is evoking a similar idea, Fargione's assumption that *all* humans cannot conceive of tree time is an oversimplification. Crip time is just one example of how nonnormative human experiences can expand understandings of time. Tree time is not only about understanding timescales, but also about humans acknowledging the ways in which their actions might affect the future. According to the UN World Commission on Environment

and Development, sustainability "meets the needs of the present without compromising the ability of future generations to meet their own needs," and as shown, Powers asserts that the Hoel's, both by farming and by planting their Chestnut, do exactly that. If Fargione's argument applies only to "normate" human experiences of time, then it seems like Powers, through his exposition of crip time, asserts that people with disabilities are uniquely positioned to recognize timescales beyond the normative.

Eco-crip Time

The intersection of deep time and crip time, both refuting capitalist norms of productivity as well as 'human' (normate) superiority, is what I call eco-crip time. Borrowing Ray and Sibara's "eco-crip" theory and applying it to temporalities reveals how in order to crip time, we must also crip nature. This work, to eco-crip time, is not easily done nor easily articulated. And yet, Powers expertly weaves crip time and deep time throughout the novel both in form and in prose.

Perhaps most salient to an eco-crip time theory is Powers' insistence on patience and quiet observation as radical acts that subvert normative modes of production. Powers uses plant growth as a symbol for this passage of time. Interestingly, this growth begins with a bodily accident, and then is traced throughout Ray's experience after his stroke as a disabled person. The first hint that plants will become symbols of chronology for the couple occurs after Dorothy gets into a car accident. When Ray rushes to the hospital, Dorothy comforts him by saying "let's plant something" (Powers 79). Unlike the inevitability of injury, or temporary able-bodiedness, plants represent something more certain for the couple. The car crash is a jolting reminder that time is irreplaceable, and plant life, in its insistence upon slowness, is an antidote to Dorothy's ravenous and insatiable desire for a faster life.

Ray's lack of mobility forces him to remain still, but the world outside his window provides ample entertainment. Although at first Dorothy pities Ray and his supposed entrapment, after years as his caregiver she recognizes that

> [She] envies him. His years of enforced tranquility, the patience of his slowed mind, the expansion of his blinkered senses. He can watch the dozen bare trees in the backyard for hours and see something intricate and surprising, sufficient to his desires, while she – she is still trapped in a hunger that rushes past everything. (Powers 495)

Powers here ties crip time directly to tree time. In his analysis of contemporary climate fiction, Matthew Cole notes that, "whereas apocalyptic narratives are distinguished by radical rupture, the narrative strategies described here emphasize continuity and gradual transformation. This temporal frame of reference reveals surprising dependencies and inheritances, chains of cause and effect that extend beyond lifetimes and across borders," which evoke much of the same nuances as Kafer's insistence that crip time, rather than being about the speed at which time on the clock passes, is in fact an entirely new experience of time (Cole 15). Interestingly, it's Dorothy who takes note of this gradual change in Ray and uses herself as the default setting against which their two timescales can be compared. But, even though Ray's timescale changes because of his stroke, so does Dorothy's as his caretaker. In turn, they both form novel relationships with the natural world around them.

Powers asserts, through the metaphor of Ray and Dorothy's lawn's succession, that life after a diagnosis, or life after a disturbance, can adapt to those disturbances. It seems that Dorothy and Ray's city, like many other cities in the United States, has specific regulations concerning their own yard. Upon Ray's request, the couple stop mowing and allow their once-pristine lawn to transform into something wilder brimming with life. And even though the "grass is foot-high, clumped, weedy" the couple are mesmerized by its resilience. The yard's transformation mimics both Ray and Dorothy's development throughout the novel. Dorothy

reflects that “once, long ago, she jumped from airplanes [... and] did terrible things to anyone who tried to confine her,” but after Ray’s stroke, Dorothy finds “something bigger than she is” on her own (Powers 508). Although Dorothy’s commitment to Ray might seem patronizing, her transformation is only catalyzed by Ray’s wishes which evolve out of his newfound interests after his stroke. Ray, by experiencing crip time, is able to take notice of ecological time and share that with Dorothy. By including disabled people’s experiences of time in environmentalist movements, like watching their yard go through the stages of succession, Powers shows how able-bodied environmentalists have much to learn from disabled environmental advocates.

For Powers, the yard’s resurrection is about more than shirking the strange laws imposed by humans who misunderstand nature: it’s also a symbol of adaptation and resilience. At times, it can seem that human lives and tree lives are so disparate that there is no hope to bring them back together. Certainly, the activists’ attempts to protect the old growth forests fall flat and land Adam in jail for life. But, as Adam says in his sentencing, “soon we’ll know if we were right or wrong” (Powers 509). Even though Ray and Dorothy’s act of protest seems less significant, theirs is the one that results in a healthier ecosystem where there wasn’t one prior. New species of birds use their yard, and Ray and Dorothy marvel at the world just outside. It seems that their window is a kind of television screen, or painting, through which they gain not only entertainment, but also knowledge. They literally watch grass grow and gain so much from the experience that their world begins to revolve around their overgrown yard. This act of resistance is one that empowers resilience.

Most backyard gardeners would argue that the seeds begin the growing process, but Powers insists that this chronology, rather than being linear, depends upon circularity. By ending the novel with the “Seeds” of the story, Powers subverts that linearity. At the end of his carefully

woven novel, Powers insists that "this" – planetary and human resilience – "*will never end*" (Powers 542). Resilience, then, is a promise to our common future. And yet, despite these two separate time scales, so hugely different that it feels like an impossible task to begin to connect the two, Powers leaves us with the most hopeful timescale imaginable: "STILL." Powers' powerful refrain of "already" insists upon the passage of time, beyond human-life time scales. By making Ray the great symbol of resilience in the novel, Powers posits that human resilience as well as ecological resilience is dependent upon understandings of timescales, crip time, tree time, and deep time. Or, rather, eco-crip time.

Nine months ago, a YouTuber with 1.07 million subscribers live-streamed himself watching a tray of grass grow for ten hours. Although it's hard to imagine anyone electing to watch this stream, almost 70,000 viewers joined in to watch the blades of grass. One commenter, Lynquid, remarks, "Imagine 30 years ago you told someone you could be earning money by watching grass grow for 10 hours while thousands of people watch you watching it grow... You'd be put in psychiatry or something like that…" (PointCrow). It's possible the commenter is referring to the capitalist systems that make earning money from a live stream possible, but I also wonder if the commenter's hint at insanity is more about watching grass grow than anything else.

During my time at the vestibular rehab facility, my doctors insisted that my healing could not be measured in 'normal' time scales. It's something people with injuries, whether physical or psychological, are told all the time – healing is not linear. Strangely enough, just a few weeks into my concussion rehab protocol, I began listening to *The Overstory* and marveled at Ray and Dorothy's experience of time. I wasn't yet cleared to read, but during my assigned 30-minutes of exercise, I walked slowly around my neighborhood lined with Live Oaks and imagined how trees might think about an injury with Powers' words playing in my ears. I spent nearly twenty-three

hours listening to his words, and during that time the trees cycled through their own changes; their flowers bloomed, their leaves reached up to the springtime sun.

Eco-crip time is resilience, it's healing, it's moving alongside nature and honoring the ways in which time affects us all, both the human and the nonhuman. But it's not just about injury; whether it's a global pandemic or an illness, or disabling event, all humans will one day be forced to reckon with time as an irremovable factor of their identity. Powers asserts that when that time comes, we can turn to trees as the chronometers of nature.

Conclusion

> Many of us mourn the swamp once a childhood playground, now a parking lot. We fear the wide-reaching impacts of global warming as hurricanes grow more frequent, glaciers melt, and deserts expand. We yearn for the days when bison roamed the Great Plains in the millions and Chinook salmon swam upstream so numerous that rivers churned frothy white. We yearn for a return, and so we broadcast just the right mix of tallgrass prairie seeds, raise and release wolves, bison, whooping cranes. We tear up drainage tiles and reroute water back into what used to be wetlands. We pick up trash, blow up dams, root out loosestrife, tansy ragwort, gorse, Scotch broom, bamboo, and a multitude of other invasive species. Sometimes we can return a place to some semblance of its former self before the white colonialist, capitalist, industrial damage was done. And in doing so we sometimes return ourselves as human animals to the natural world, moving from domination to collaboration. When it works, restoration can be a powerful antidote to grief, fear, despair.
>
> – Eli Clare, "Notes on Natural Worlds, Disabled Bodies, and a Politics of Cure"

> It could be the eternal project of mankind, to learn what forests have figured out.
>
> – Richard Powers, *The Overstory*

Powers writes: "Long answers need long time. And long time is exactly what's disappearing" (Powers 385). This project has been a long answer to a question that I first had two years ago sitting in my English class, "Literature: Nature: Now." Little did I know how different the world would look. The pandemic has changed the very ways in which our society functions. We have learned the ugly truth about individualism. I have learned that time is a precious resource, one that humans fight against at every turn, squeezing every last drop of productivity out of each passing second. This long answer has taken a long time to write out because of the richness I found in eco-crip philosophies. It could be my eternal project to learn from eco-crip connections in literature. In fact, the two fields of criticism are so deeply enmeshed, I can't imagine studying one without the other. An eco-crip framework exposes how normative modes of human hubris affect not only the natural environment but also other humans. Disability transforms notions of human individualism and exceptionalism and reimagines the role of the

human in relation to the environment. Consequently, Powers situates nonnormative modes of being as a kind of antidote to that same human hubris.

If we look to trees as an example of collective symbiosis that spans across timescales and cares for future generations, humans too might recognize the ways in which rugged individualism fueled by competition is hurting both planet and people. In turn, disabled networks of care, like that of Ray and Dorothy, might also show these things in a similar way. As much as we can listen to trees, we can also listen to our fellow humans. Whether they communicate differently than yourself or not, there is much to learn not only from the forests but also from people. By exploring *The Overstory* through an eco-crip framework, Powers prioritizes both biodiversity, as each character is assigned to a different tree, and human diversity. Each character in *The Overstory* experiences a unique world whether because of a disability or their own worldview, with no clear line distinguishing these two registers. Some critics accuse *The Overstory* of a kind of anti-human Luddism, that Powers argues that humans are leeches on the environment and that the only solution is to eradicate human beings (Markovits). However, an eco-crip framework shows how it isn't humankind's innate being that causes environmental destruction, it's normative modes of being. To crip trees, or to evaluate the ways that trees behave in a forest through a disability studies lens, is to show how humans can participate alongside our ecosystems in mutually beneficial ways. We must incorporate trees and all other nonhuman beings into our own networks of care. It's only when we see ourselves as just one string in the web of life that we might better understand our place in the world.

Eco-crip frameworks can illuminate new dimensions of a full range of artistic expression and lived experience. Once I started looking, I found that so many novels would benefit from an eco-crip reading: Shelley's *Frankenstein*, Ishiguro's *Never Let Me Go*,

Yamashita's *Through the Arc of the Rain Forest*. If we consider Shelley's creature to be a figure of disability (Knight 2020), and *Frankenstein* as a deeply ecological text, as Morton asserts, how might these two assertions reveal an eco-crip theory (Morton 2016)? If Ishiguro's clones are disabled figures, as Rosemarie Garland-Thomson argues, how do we view their relationship with the countryside around them? How does Yamashita's three-armed character, Jonathan B. Tweep, complicate notions of capitalist production that harm the environment? It's like when you learn a new word and suddenly that word is everywhere. In short, it's not only *The Overstory* that both expresses and can be understood through an eco-crip philosophy. Just as planting a tree is an act of hope, so too is an eco-crip framework: the hope that disability studies and ecocriticism will become entangled. An intersectional approach to environmentalism is the only way in which we can fully understand the gravity of climate change. As the planet's climate continues to change in ways that are disabling to larger populations, we must all reckon with different modes of being. Land-use change drives disease and natural disasters. The Covid-19 pandemic has shown just how important it is to understand how care functions amongst communities. The pandemic, in many ways, highlights the importance of an eco-crip framework. The pandemic asked of all of us, how might we take better care of our fellow humans? How might we slow down and observe human effects on our environment? How might variations in human embodiment and enmindment correspond to the variety of human responses to the experience of a global pandemic?

By becoming more aware of the nonhuman world around me, I slowly became more aware of my human world. In turn, by recognizing nonhuman modes of beings, and acknowledging their value, my own notions of human modes of being expanded. It is easy to overlook the ways in which trees have agency, but if we recognize them as beings themselves,

we are better equipped to root out injustice in human worlds as well. In an interview with *The Guardian*, Powers says, “Every form of mental despair and terror and incapacity in modern life seems to be related in some way to this complete alienation from everything else alive. We’re deeply, existentially lonely” (John). Eco-crip theories of communication and timescales show that perhaps we aren’t as alienated as we appear to be, or at least we needn’t be. That we have a wood-wide-web of connections within which to find our place if we only look hard enough.

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