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A Different Side of the Story

On Neurodiversity and Trees

Abstract

*This essay analyzes Richard Powers’s *The Overstory* (2018), a novel that ostensibly demands an eco-critical reading, under the lens of neurodiversity. Focusing on the idiosyncrasies of sensory perception in autism, the essay explores the atypical engagement with the more-than-human that neurodiversity (and specifically autism) fosters—a kind of engagement that deeply destabilizes neuro-normative, human-centered subjectivity, opening up to more egalitarian ways of relation with the environment. In a novel populated by neurodivergent characters with a keen ecological sensibility, Powers comes close to imagining this kind of non-hierarchical connection with the natural world. The essay explores how neurodiversity works in the novel at a characterological, thematic, and structural level, functioning as a bridge between human and non-human scales. In this way, neurodiversity finely glosses and articulates the kind of animistic, environmental message that Powers instils in his Pulitzer prize winning novel.*

Keywords: *American literature, Richard Powers, neurodiversity, environmentalism, non-human*

Richard Powers’s Pulitzer prize winning novel, *The Overstory* (2018), has been acclaimed as “part love letter to trees and part *cri de coeur* about the state of the world’s forests” and as an “epic saga about the interrelationship of humans and nature” (Fabiani 2018, 54). The novel charts the lives of nine characters whose personal or family histories are, in different ways, intimately tied to trees. Trees are, of course, the reason why their apparently unconnected paths cross at different points: in the virgin Redwood groves of the American Northwest; in the pages of a book, *The Secret Forest*, written by a biologist who listens to trees; in a conference—oddly called “Home Repair”—on climate change. Their actions are guided by the idea that “*the most wondrous products of four billion years of life need help*” (Powers 2018, 165, original emphasis), as the luminous “presences” (Powers 2018, 165) tell Olivia Vandergriff (aka Maidenhair), the spiritual leader of the novel’s eco-warriors, after a near-death experience. For the over three hundred pages that follow it is understood that the phrase refers to those same trees the protagonists are devoted to saving in different ways: through militant eco-activism (and arson);

through the creation of an exhaustive seed bank; through virtual reality; or, more simply, by merely refusing to mow a backyard. Yet, the final pages of the book cast anew the meaning of those ‘wondrous products,’ as it suddenly dawns on Nick Hoel (Olivia’s devotee and lover) what those invisible voices must have always meant: “Not them; *us*. Help from all quarters” (Powers 2018, 493, my emphasis). It is not the trees, then, but the humans, that need saving.

The acclaimed eco-epic novel thus ends on a strikingly anthropocentric note. Even as its ending imagines the possibility of a future world where the human is no more and the “green things” (Powers 2018, 496) may finally thrive, the human ultimately regains the stage, as if the purpose of eco-activism were the wellbeing and preservation of humankind rather than any genuine or disinterested environmental concern. However, is it really so? After all, thinking environmentally does not necessarily entail disposing of the human. Is there not a way to attend to that ‘us’ that is not hopelessly anthropocentric or human-centered, that makes room for the egalitarian engagement with the non-human that the novel fosters throughout? This is the central question that I address in this essay, where I seize on the neurodiversity paradigm as a way to talk about the human that is not monolithically human-centered.

The novel feasts on difference in humans as well as in trees. A veritable botanical catalog, its pages showcase chestnuts, maples, mulberries, ashes, firs, redwoods and what not. Trees have names and lodge people on their massive branches; exotic trees take human form; trees cripple humans, but also save lives; trees survive blights and succumb to loggers. But the novel likewise displays a remarkable variety of the human genus. As one reviewer writes, *The Overstory* is populated by people who experience the “wide and beautiful expanding web of ecological diversity” that we call the universe “not as our resource, or even our (necessary) habitat, but as our kin” (Jacobs 2020, 46). What I find more intriguing about this kinship is the fact that virtually all these eco-conscious people show some intimation of neurological diversity. Throughout its pages we encounter an obsessive-compulsive sculptor, a seemingly schizophrenic undergrad, a traumatized Vietnam vet, an aphasic intellectual property lawyer, an ‘aspie’ hi-tech tycoon, a psychology professor described as ‘borderline autistic,’ and a deaf dendrologist. The novel, we might say, moves at ease between arboreal biodiversity and human neurodiversity.

But neurodiversity in the novel is not merely a characterological device. Richard Powers, I contend, turns to the neurodivergent mind to reflect on our relationship to trees. The novel constantly ties eco-consciousness with a kind of perception, communication, and relation that does not conform with our customary (and normative) schemas—and which, as I will demonstrate, lines up quite neatly with modalities of perception, communication, and relation

of the neurodiverse mind. Neurodiversity, in sum, pervades the narrative both at the “micro-textual level” and at the “macro-level” of the structural organization of plot, to use Marco Caracciolo’s terms (2019, 272). Not only does the novel take up the vegetal world as its subject matter, but it also compels us to think about it differently, stimulating unconventional ways of relating to the environment that we might not even readily recognize as thinking or communicating.

My interest in *The Overstory*, that is, lies less in the urgency of its environmental concerns than in the fact that such concerns seem both to spring from and to stimulate a reconsideration of our human-centered and neurotypical mindset. My reading seeks to clarify the ways in which understanding the workings of a different mind may help us rethink some of the assumptions and beliefs of “neurotypical humancenteredness,” to borrow from Erin Manning (2018, 13), and to envision an openness to the non-human world that does not efface human consciousness. *The Overstory* suggests that neurodiversity has a lot to say about the way we relate to—and narrate—the nonhuman environment, as it allows us to imagine a more capacious ‘us.’

1. What we talk about when we talk about neurodiversity

Let us begin with some terminological clarifications. The meaning of neurodiversity seems rather self-evident: it explicitly refers to neurological difference. The term is particularly associated with autism (and in this essay I mainly refer to this condition), but it actually encompasses a wide array of neurological experiences and, as Jason Tougaw notes, “emphasizes the fact that many of these experiences cannot be clearly delineated from one another” (2019, 67). The neurodiversity paradigm, accordingly, postulates that “conditions like autism, dyslexia, and attention-deficit/hyperactivity disorder (ADHD) should be regarded as naturally occurring cognitive variations [...] rather than mere checklists of deficits and dysfunctions” (Silberman 2015, 17). As queer autistic scholar and author Nick Walker puts it, behind neurodiversity is the conviction that “the idea that there is one ‘normal’ or ‘healthy’ type of brain or mind, or one ‘right’ style of neurocognitive function, is a culturally constructed fiction, no more valid [...] than the idea that there is one ‘normal’ or ‘right’ ethnicity, gender, or culture” (quoted in Tougaw 2018, 67). Put differently, the neurodiversity paradigm proposes to apply to the human brain “the lessons we have learned about biodiversity and cultural and racial diversity” (Armstrong 2010, 3): it is simply a question of human variation.

At stake here is not mere political correctness, or the condescending concession of calling what was previously labeled as ‘deficit’ a ‘difference.’ As a movement and a paradigm, neurodiversity is more disruptive and subversive in a more subtle sense, inasmuch as it implies that the

neurodivergent mind is not different or confusing *per se*, but only when gauged against the neurotypical mindset. Awareness of neurological difference, that is, implies a “rejoinder to [neurotypical] assumptions and arrangements” (Savarese 2010, 275) that, perforce, destabilizes customary typical/atypical hierarchical binaries—in sum, our idea of ‘normalcy.’ Why is the neurotypical seen as the norm from what the autistic, the dyslexic, the person with Tourette’s or ADHD diverges, and not the other way around?¹ Why is neurotypicality not considered a ‘condition,’ why is it not included, we might ask provocatively, in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM), which has been classifying, labelling, and medicalizing neurological conditions for five editions now, since the 1950s? As Muskie, a woman with autism, tongue-in-cheek put it in a mock website: “Neurotypical syndrome is a neurobiological disorder characterized by preoccupation with social concerns, delusions of superiority, and obsession with conformity” (quoted in Savarese and Savarese 2010). These traits—obsession with human sociality, superiority, and normativity—may, as we shall see, make the neurotypical mind ill-fitted to respectfully engage with the natural environment.

In this context, Ralph James Savarese regards neurodiversity in postcolonial terms (2010, 2015). His provocative gambit serves a twofold purpose: “neuropostcoloniality” (2015, 394) celebrates difference against the hegemony of neurotypicality even as it acknowledges “the history of exclusion and oppression” (2010, 274) suffered by the neurodiverse. The ‘neuro-subaltern,’ writes Savarese, “has learned to speak, and he has most certainly learned to write in the master’s tongue” (2010, 276). Savarese’s point here is that the neurodiverse has traveled a long way in order to learn, and conform to, the cognitive, cultural, and social habits of the “neuromajority” (2015, 394). Now, neurodiversity—or, what Savarese calls the “neurocosmopolitan approach” (2015, 394)—demands a similar effort from the other side: a bidirectional encounter of neurological proclivities. From this perspective, the paradigm entails “not just an openness to neurological difference but, rather, a denaturalization, even a dethronement, of privileged neurotypicality” (2015, 394). The neurodiversity paradigm, as we shall see, may function as a productive tool for cultural and literary analysis, insofar as it “decenters or deterritorializes” (Savarese 2010, 275) neurotypical human-centered subjectivity without disposing of the human. This is particularly urgent in the context of the current “new materialist” turn in the humanities, whose engagement with the non-human world often ends

¹ We cannot, and should not, resort to statistical reasons for this state of things. As disability scholar Lennard Davis has convincingly demonstrated, the concept of ‘norm’ or ‘normalcy’ is a social construct, and a very recent one at that. “The idea of norm” he writes “is less a condition of human nature than it is a feature of a certain kind of society” (2013, 1). As a construct, the concept of ‘norm’ of course helps create the idea of deviance as pathology rather than variation.

up disregarding human consciousness. The neurodiversity paradigm, conversely, offers a fresh perspective on that attunement with the non-human that is solidly grounded on human cognition and agency—an expanded version of it.

On the other hand, the neurodiversity paradigm is also more complex than an acritical celebration of difference. As David James Savarese—writer, poet, and non-speaking self-advocate—put it, “Autism sucks, but I see things that you don’t see” (2019, 90). I will return to this quip later on, but for the moment I would like to focus on its first part: “Autism sucks.” Neurodiversity activism, that is, does not attempt to romanticize neurodivergence, nor to disregard the very serious challenges that people with autism or other conditions face in their everyday lives. To the contrary, part of the activism aims precisely at calling attention to those challenges in order to alleviate or accommodate them, for it is not physical, sensory, or neurological difference that is disabling, but rather society’s unwillingness to embrace and accommodate it (Dick and Russell 2020, 174).

On the other hand, emphasis on difference aims at achieving a more rounded, thorough understanding of the neurodivergent mind: what does that difference look like? What are the specific cognitive proclivities that make us label a certain mind as ‘diverse’? Both autistic memoir and neuroscientific studies are giving us an increasingly accurate description of the workings of the autistic mind. First published in 1995, Temple Grandin’s memoir *Thinking in Pictures* described in astonishing detail her visual processing: “I think in pictures. Words are like a second language to me” (2006, 3). Grandin is aware that her cognitive style is different from most people’s, yet she relishes this difference: “I value my ability to think visually, and I would never want to lose it,” she writes (2006, 3). In her memoir, Grandin—a university professor of animal science who has built a successful career as a designer and consultant for livestock plants—also describes the painstaking attention to detail as well as the sensory challenges that are typical of the autistic mind (on both of which I will have more to say later). And yet she credits her autism for her successful professional career in the cattle industry (Grandin 2006, 111). Her story in fact demonstrates how “certain challenges,” as Ralph Savarese writes, “become boons in another context” (2014, 74).

On the other hand, the picture that emerges from both the autobiographical literature and neuroscience research is (not surprisingly) one of tremendous variety. Grandin herself admits that while “all people on the spectrum think in details” (2006, 28), not all of them are “visual thinkers” like herself (2006, 12). There is clearly as much variety among the autistic population as there is among neurotypicals—and one of the paradigm’s concerns is to point up such variety. And yet, there are some salient traits. Some of them are: atypical sensory processing (“under-

and over-including elements of the environment” [Savarese 2010, 286]), atypical proprioception (i.e. the awareness of one’s own body in space); motor difficulties; associative thinking; speech issues and word-finding delays; synesthesia. It goes beyond the scope of this essay to analyze all these aspects in detail. For the purpose of my reading of *The Overstory*, in the next section I focus on the sensory challenges in autism. Understanding such challenges, and the implications of what Erin Manning (2012; 2018) calls “autistic perception,” may help us discover new contexts in which such challenges become boons.

2. I’ve seen things you neurotypicals wouldn’t believe

Inadequate, uncoordinated or excessive sensory input can pose serious difficulties in everyday life. Consider how Tito Mukhopadhyay—a published poet and memoirist, and perhaps the world’s best-known non-speaking autistic—describes his permanent immersion in the sensory:

No see-saw can be as intense as the see-saw of hyper-and hyposensitivity, rocking you from one end to the other, lifting you up, dropping you down, then lifting you up again—throughout the ocean of days, months and years that we call life. Awake, you feel the fish under your feet; asleep, you feel the slimy eel under your back. No matter how much you pace yourself or rock your body to compensate, the see-saw finds your nerves and rocks you ever more furiously into an exhausted self. (Quoted in Savarese 2018, 31-32)

Similar—though perhaps less lyrical—accounts abound in the autobiographical literature. Dr. Grandin has also documented sensory issues, like “excessive sensitivity” to touch (2006, 61) or how loud noises “actually caused pain” (2006, 63) in her ears. The coexisting hyper- and hyposensitivity (that is, the “too much, or too little feeling” in autism [Savarese 2018, 159]) is thought to account for autistic ‘behaviors,’² such as rocking, stimming or flapping (Savarese 2018, 32), that have been traditionally dismissed as bizarre or stigmatized as mental retardation. Mukhopadhyay’s words above—his effective fishy images—would seem to attest that autism certainly sucks.

Yet Mukhopadhyay also identifies as a “Proud Autistic” (quoted in Savarese 2010, 278). Like, among others, David James Savarese, who, if you recall the latter part of his remark, proudly declares that he “see[s] things that you [neurotypicals] don’t see”:

The sky, for example, before it has become the sky. Or a barn before it has become a barn. Or even my own hand before it has become my hand. As in a painting by Seurat, the object

² As Ralph Savarese notes, the use of the word ‘behaviors’ to refer to this kind of actions and movements is in itself derogatory (2010, 280).

appears as a million points of color, little flecks of something that do not need a name, and that hold my attention completely. (2019, 90)

Immersion in the sensory can be also captivating and the source of boundless wonderment. “*Look the color!*” one of the characters of *The Overstory* says, “More shades than there are names” (490, original emphasis). Imagine experiencing the world with fresh eyes every day; imagine the novelty of discovering the world anew before it congeals into the already-known. As we shall see, the ability to perceive what others cannot plays a decisive role in Powers’s novel—as does the complete attention to ‘Seuratian’ detail Savarese evokes; the needlessness of categorical containment while experiencing the world. “*The several hundred kinds of hawthorn laugh at the single name they are forced to share*” (Powers 2018, 3, original emphasis), an unknown arboreal voice recites at the beginning of the novel, as if to confirm that in order to exist and be experienced, things do not need a name.

The paragraph above vividly describes what scientists call “weak coherence” or “detail-focused processing” (Happé and Frith 2006). “Individuals with ASD [Autism spectrum disorder],” they hypothesize, “show ‘weak central coherence;’ a processing bias for featural and local information, and relative failure to extract gist or ‘see the big picture’ in everyday life” (2006, 6). Put simply, autistics “excel at ‘local coherence’” (Savarese 2019, 90)—that is, they show a marked preference for sensuous impressions (what Savarese calls “blizzard of detail” [2019, 90]) over conceptual categories (or, ‘global coherence’), which is neurotypicals’ forte (the difference between seeing the trees and seeing the forest, as it were). Yet, the authors of the study do not see ‘weak coherence’ as a deficit, but rather as a mere cognitive preference or “bias” (Happé and Frith 2006, 15). A person with detail-focused processing can learn to integrate experience into categories (and vice versa)—like David James Savarese and other autistic ‘neurocosmopolites’ are doing. “Of course, I have learned to find the sky or barn or hand by making the points cohere, by giving them a name,” Savarese writes, “but I regard the entire process as reductive and more than a little bit boring” (2019, 90).

Their learning capacities notwithstanding, “autistics struggle to subdue the sensory” (Ralph Savarese 2018, 37). Primarily ‘sensing creatures,’ in autistic activist Donna Williams’s words, they often “struggle to find the cultivated gardens of categorical thought,” as David James Savarese beautifully puts it (2019, 91). But the struggle can be immensely rewarding—unless, of course, you have to get through in a neurotypical world. To begin with, there is something compelling, even mesmerizing, in this ‘sensory knowing.’ Like DJ Savarese, who finds the naming process reductive and boring, also Donna Williams regarded the switch from sensation to categorization “pale, weak, insignificant, foreign, and of little reward” (quoted in Ralph

Savarese 2015, 395). Like forcing all those shades of color, or all the kinds of hawthorn, into a reductive name.

Along these lines, Erin Manning celebrates “autistic perception” as “the opening, in perception, to the uncategorized, to the unclassified” (2016, 14)—in sum, a precategorical engagement with experience that is not parsed with words. Autistics, in her view, have access to “direct perception of experience in-forming” (2016, 175), as opposed to neurotypicals who, as Ralph Savarese writes, with their penchant for categorical thought “miss much of the actual world” (2015, 395). But Manning’s formulation of autistic perception speaks to my argument in at least another important sense. “Rather than seeing the parts abstracted from the whole,” she writes,

Autistic perception is alive with tendings that create ecologies before they coalesce into form. There is here as yet no hierarchical differentiation, for instance, between color, sound, light, between human and nonhuman, between what connects to the body and what connects to the world. (2016, 14)

Manning here puts her finger on a kind of non-hierarchical relationality, what she elsewhere calls “an ethic of the more than human” (2012, 153), that autistic perception stimulates. Her view resonates with what Ralph Savarese calls “ethical proprioception” (2010, 283) in relation to Tito Mukhopadhyay and his problems with “body integrity and inadequate or uncoordinated sensory input” (2010, 280). Many people with autism, as Temple Grandin has also noted, have “severe boundaries problems;” that is, a “fractured perception” (2006, 62) of their own bodies that makes it difficult to determine where one’s body ends and the outside world begins. Tito’s shattered proprioception, Savarese writes, leads him to believe “that he is connected to all sorts of things” (2010, 280). The ethical proprioception that Savarese conceptualizes hinges on this ‘democratic’ or ‘egalitarian’ sense of connection: it “not only contests typical arrangements of power and identity but reconfigures them as well” (2010, 283). More importantly, it promotes a relation to the world—animals, things, trees, ...—that is “alive, animistic, and anti-hierarchical” (2010, 284).

This brings me to the last aspect of autism I wish to examine here: its paradoxical sense of animistic connection. I say paradoxical because autism has traditionally been associated with ‘mindblindness’³ (i.e. lack of awareness of other human minds), isolation, silence, and lack of empathy. The autistic, such is the common belief, lives in a world of his/her own—oblivious of

³ Simon Baron-Cohen was the first to use the term, in 1995, to account for some of the ‘problems’ in autism. For him, mindblindness equals lack of empathy (of course, in his view, empathy is necessarily ‘human-centered’).

the world around him/her. But, it turns out, it is rather the opposite, as autistic memoir and scientific research insistently suggest. If anything, there might be too much connection, too much communication, too much empathy in autism—only, connection, communication, and empathy not necessarily with or for the human.

Temple Grandin has written and spoken extensively about her deep connection with animals—but the bond can also extend to the inorganic Other. Recent studies suggest that autistics are consistently drawn to nonhuman entities: while neurotypical children “begin to privilege human sounds in utero” and “learn to privilege human faces” shortly after they are born, “neither of these proclivities appears to be true in autism” (Savarese 2014, 77). The affective, empathic, and communicative interests of the autistic extend to the nonhuman, disrespecting “the hierarchy governing neurotypical attention” (Savarese 2014, 79). This “engagement with the more-than human,” as Erin Manning and Brian Massumi explain, yields a “unhierarchized commitment” to experiencing the organic and inorganic world “without discrimination” (2014, 4), which is very different from indifference or rejection of the human. This ‘unhierarchized’ drive fuels ecological commitment in a novel like *The Overstory*, which entertains explicitly the idea of “plant-personhood” (237) and asks provocatively “why should humans, alone on all the planet, have [rights]?” (2018, 249).

The pathologization of autism disregards, as Erin Manning explains, the “different modality of relational emphasis” (2012, 152). It is not that the autistic lacks connection: the point is rather that she is not “interacting according to human expectations” (2012, 152). In the YouTube sensation *In My Language* (2007), Mel Baggs (formerly Amanda)⁴ put this in astoundingly eloquent terms. In the first part of the video, we see hir engaged in a number of repetitive actions: fingers in and out a stream of running water; rocking movements, humming—in short, classic ‘autistic behaviors’ that have been traditionally interpreted as cognitive deficit. But in the second part Baggs explains that such behaviors are part of a “constant conversation with [hir] environment” (2007, 3:40). When sie interact with water and with every other element of hir surroundings, hir behavior is described by the neurotypical world as ‘living in a world of hir own,’ while, when Baggs’s attention is focused on a tiny portion of the environment (i.e., the human), sie is perceived as finally “opening up to true interaction with the world” (2007, 4:20). Baggs protests: “it’s only when I type something in your language that you refer to me as having communication” (2007, 5:08).

⁴ Mel Baggs, who died in April 2020, identified as non-binary and preferred the gender-neutral sie/hir pronouns.

For this reason, Ralph Savarese has denounced language (i.e., language parsed with words) as the marker of neurotypical privilege (2014, 79). Savarese takes issue with the overemphasis on words, on oral or spoken language, as the only valuable (i.e., intelligent) means of communication, which results in the immediate focus “on humans to the detriment of other elements in the environment” (Manning and Massumi 2014, 3). The neurodiversity paradigm reclaims the value of other forms of language and, in so doing, it espouses an expanded, more inclusive idea of language, that can accommodate the kind of egalitarian interactions between the human and the nonhuman that Baggs celebrates.

In this sense it is clear that the neurodiversity paradigm aims at disrupting human normativity. “Neurodiversity, and particularly autism,” writes Erin Manning, “is often referred to as the most asocial of modes of living”:

It is a sign of our neurotypical humancenteredness that we only feel heard when we have eye contact, when the body we are speaking to consents to be a single being, excluding its more than human tendencies. So much meaning is given to the way attention is oriented (pay attention!) that we rarely stop to think of the violence of those frontal modes of attention that force us to block out the scintillations of the world and its many qualities of attending. (2018, 13)

Manning’s words clarify why neurodiversity may be such a productive cultural category. It challenges our customary anthropocentric proclivities and re-orientes our attention, so as to open it up to the ‘scintillations’ of the world. But disruption does not necessarily equal obliteration. With its attention to precategorical or prelinguistic modes of thought, akin to what N. Katharine Hayles calls “the cognitive nonconscious” (2017, 182), the neurodiversity paradigm offers a corrective to the effacement of the human so widespread among the “new materialisms” in the humanities. In other words, I propose that neurodiversity participates in the “central thrust of decentering the human” Hayles (2017, 182) ascribes to nonconscious cognition, as it provides a bridge between human and nonhuman cognition that locates them in a “continuum,” while enlisting the “cognitive powers of humans” (2017, 197) in its decentering project. Along these lines, in the next section I investigate how the neurodivergent mind works textually and structurally as a bridge between the human and the vegetal.

3. Overcoming ‘plant blindness;’ or, bridging human and nonhuman scales

Halfway into the novel, Ray Brinkman, a boring intellectual property lawyer and loving (cuckolded) husband is reading about a proposal to grant rights to the natural world:

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. (2018, 250, original emphasis)

The Overstory takes the possibility that trees can communicate seriously. The kind of language the novel grants the vegetal is not, however, one mediated by the human voice of the advocate (although activism plays a fundamental role in it). The arboreal language the novel puts forward is more akin to the semiosis that, according to Eduardo Kohn, permeates the living world and allows multi-species relations (2013, 9).⁵ In fact, Powers's latest work imagines the possibility (and the modalities) of an egalitarian inter-species (or, rather, inter-kingdom) communication between the human and the vegetal. Although the novel clearly calls for an eco-critical reading, the neurodiversity paradigm nicely illuminates the kind of (inter-species, inter-kingdom) 'ethics of relation' that animates its environmental message. And this for two reasons. First, because the novel is peopled by differently neurodiverse characters with a keen ecological conscience. Second, and more importantly, because the novel itself seems to participate of its characters' neurodiversity and force us, as it were, to explore alternative neurologies as we read. As one reviewer writes, "Powers collapses the idea that human consciousness is Paramount" (Bourke 2018, 46). The novel, indeed, quite ostensibly challenges the centrality of the human in our ecosystem. But, importantly, in its apparent flight from human concerns, it returns to human consciousness or, rather, it compels us to enlarge our customary idea of the human. The novel's environmental thrust makes room for the engagement with the more than human that, according to Erin Manning, is peculiar to autistic perception.

As I have said, intimations of neurological difference abound in *The Overstory*. Obsessive-compulsive disorder, PTSD, schizophrenia, dementia, autism, aphasic strokes—these conditions to some extent shape and define virtually all its characters. This is particularly true in the case of two of them (both university professors) whose implied neurodiversity is more elaborate and dictates (in disparate but complementary ways) the novel's programmatic thesis. By the end of the story, Adam Appich is a successful professor of psychology at NYU, but earlier on he had been described by a fellow PhD student as "borderline autistic" (Powers 2018, 361). As a child

⁵ Similarly, for Michael Marder, the language of plants does not resolve in chemicals or airborne signals (yet another important factor in the novel), but rather in their "lived spatiality." Plants express themselves through their posture (2013, 75). Marder, however, disposes of any idea of agency or intentionality in his reflection on vegetal thought and language: "Plant-thinking [...] cannot but rely on material signification that bypasses conscious intentionality and coincides with the very phenomenality—the modes of appearance—of vegetal life" (2013, 75).

“he hated being held” (2018, 48)—like “many autistic children [who] cannot tolerate being touched,” according to Temple Grandin (2006, 58). Extremely intelligent and gifted—a bit like Hans Asperger’s “little professors” (Silberman 2015, 6)—he is mostly interested in the natural world because “humans are beside the point” (Powers 2018, 51). His mother in fact dubs him “socially retarded” (2018, 48), because “Adam doesn’t *get* people” (2018, 54) (just in case we miss the point, Powers italicizes it for us). Not surprisingly, the very people he does not get become for him but a detached object of study. On the other hand, as an early career researcher, dendrologist Patricia Westerford had discovered that trees communicate with one another.⁶ As a child, we are told, Patricia had “no need for words;” she “said nothing until the age of three” (Powers 2018, 112) and her parents feared she might be “mentally retarded” (2018, 113). Patricia has also hearing issues, which become more conspicuous and disabling when anxiety is high—as does her “old childhood speech defect” (2018, 127; 280). Like her father, with whom she forms “a little nation of two” (2018, 113), Patricia has trouble socializing with other human beings, and feels more at ease among trees which, she firmly believes, “are social creatures” (2018, 122).

Now, why would Powers take so much care in the neurodivergent characterization of his protagonists in a novel ostensibly about trees? His intent to play up his characters’ neurological difference feels at times a bit contrived, but I am less interested in anecdotal diagnoses than I am in the fact that the novel itself is so stubbornly neurodiverse. In fact, the characters’ neurodiversity is instrumental in the novel’s own neurodiverse thrust. Put differently, *The Overstory* forces us to abandon our neurotypical mindset and espouse an ‘autistic perception,’ in Erin Manning’s sense of “a tendency to perception shared by all that privileges complexity of experience over categories” (Manning 2016, 112), or of an enhanced attention that spans beyond the human world. It is, we might say, a question of scales:⁷ the novel explicitly invokes the incommensurability between the “speed of people” and “the speed of trees” (Powers 2018, 498); between the human scale and the vegetal scale. Less explicitly, I would like to suggest, the novel posits the neuroatypical scale as a bridge between the two. Let us see how.

⁶ Dr. Westerford’s character is probably based on Dr. Suzanne Simard, who first studied the “wood wide web” (Wohllleben 2015, 25) of arboreal communication. Yet, the description of this lone scientist is vaguely reminiscent of Temple Grandin, and of her accurate description of autistic traits in children, from speech delays to auditory issues.

⁷ I adopt the useful terminology of “scales” from Marco Caracciolo, who in turn draws from Derek Woods and Timothy Morton for the use of the concept of scale in eco-criticism (2019, 271 and following).

David James Savarese's aforementioned quip ("Autism sucks, but I see things you don't see") clarifies much of what is going on in *The Overstory*. The novel, it seems to me, hinges on the idea that some people actually can see things others cannot—which resonates with that "direct perception of experience in-forming" Erin Manning associates with autistic perception and that DJ Savarese captures so well in the depiction of his 'Seuratian' world. Interestingly, the lifelong focus of research of Adam Appich (that aloof psychology professor) is, as we learn toward the end of the novel, "What keeps us from seeing the obvious," as well as the opposite, and more interesting question: "How some people manage to see" (Powers 2018, 430). As a child he was indeed one of those who managed to see: he was the only one to see in fact that a tree his father was trying to plant was "choking. Its roots [couldn't] breathe" (2018, 50), so tightly wrapped the root-ball was in burlap. Adam, it is implied, has direct access to the nonhuman scale. But he is of course not the only one who can see (i.e., perceive) things others cannot. Olivia hears silent 'beings of light' no one else can see or hear. After her near death experience she develops a new awareness of the destruction of trees—the beings urge her to pay attention—to expand her attention in order to embrace (and help save) "the most wondrous products of four billion years of life." The trees, the urgency, the environmental disaster had always been there, she understands, "but now she's primed to see" (Powers 2018, 165). Patricia Westerford, "hard-of-hearing, hard-of-speech" (2018, 115), spends her life "listening to trees" (2018, 279). But she does not expect them to learn her language. Patricia is the living proof that the point is not so much that trees do not produce sounds, but that people (typically) will not listen. In her final address at the climate change conference, Patricia tells a baffled audience: "A forest knows things. They wire themselves up underground. There are brains down there, ones our brains are not shaped to see" (Powers 2018, 453). And yet, some human brains, the novel implies, are more receptive than others.

Of course, not your typical, 'normal,' healthy brain: that kind of brain, conversely, is seen as its own kind of deficit. Patricia's father, himself a tree-hugger ill at ease with "Homo Sapiens" (Powers 2018, 114) has an effective label for the neurotypical disorder, "plant-blind[ness]" (2018, 114), that puns on Simon Baron-Cohen's 'mind-blindness,' the notion that autistics are unable to develop an "awareness of what is in the mind of another human" (Baron-Cohen 1995, 5). The novel cleverly reverses the significance of the latter, as plant-blindness is an exquisitely human condition ("Adam's curse") according to which "we only see things that look like us" (Powers 2018, 114). And, because its neuroatypical characters do see things that do not look like them, plant-blindness is implicitly associated with neurotypicality.

The novel, I contend, capitalizes on that fundamental reversal so as to force a change of perspective, to lure us into adopting an atypical or diverse perspective that brings us closer to the nonhuman arboreal scale. And it does so starting from its very formal structure. Marco Caracciolo has convincingly demonstrated that narrative form may contribute to the imagination of nonhuman scales. “The form of narrative” he writes “is capacious enough to accommodate forms that exist well below, or far above, the intermediate world of human perception” (2019, 272).

This is essentially what happens in *The Overstory*, whose formal structure explicitly mimics (at least textually) the shape of a tree. The book is divided into four parts, aptly called “Roots,” “Trunk,” “Crown,” and “Seeds” that successively introduce the personal histories of the characters, the ways in which they come together, split up and ramify into branches, and finally project themselves into the future. Yet, I rather turn my attention to what lies beneath this ostensible arboreal structure. Each section is composed of a myriad of impressionistic vignettes that move randomly in space and time, from one character and storyline to the other, with no apparent order nor logic. The stable and straightforward tree-like structure collapses; it disintegrates into hundreds of ‘Seuratian’ diegetic points, as it were. This profusion of apparently unconnected snippets of narration recalls the ‘blizzard of detail,’ as David James Savarese refers to ‘local coherence,’ that defining trait of autistic perception. Put differently, if on the one hand the narrative form of *The Overstory* explicitly evokes a physical arboreal form, on the other it subtly mimics and enacts the workings of the neurodivergent mind: its consistent preference for local over global coherence; for perceptual or experiential detail over categories; for the trees over the forest.

Narrative form, as Caracciolo argues, may involve “a dynamic structuring of reader’s experience” (2019, 279). In this sense, Powers’s narrative strategy challenges his readers to overcome their own plant-blindness, their own cognitive bias or preference for global coherence, as it delays the moment of categorical certainty. The novel, that is, slows down and reverses the processing bias of the neurodiverse mind, as it invites us to make those diegetic points cohere backwardly into the categories (roots, trunk, crown, seeds) that reorganize the narrative. Of course, one might say that this kind of impressionistic mosaic of characters whose histories intersect in unsuspected ways is a fairly common narrative strategy—no need, then, to link it to neurodiversity. And yet, the association is authorized, even encouraged, by the aforementioned characterological and thematic elements that evoke neurodiversity at a micro-textual level.

Moreover, toward the end of the novel its overall narrative structure is textualized. In its last section, we find Nick Hoel living alone in the Northern woods, where he builds sculptures with pieces of wood, branches, twigs, logs. The sculpture Nick and his visitor “in the red plaid coat” are building is, apparently, formless, “snaking shapes” and the two men work together, moving logs, executing “each other’s ideas with almost no words at all” (Powers 2018, 492). The two men work on the mysterious heap of wood until the end:

The transported pieces of downed wood snake through the standing trees. Satellites high up above this work already take pictures from orbit. The shapes turn into letters complete with tendrils flourishes, and the letters spell out a gigantic word legible from space:

STILL

(2018, 492)

Like the pieces of narration, the pieces of wood recall the sensuous impressions that populate autistic perception. Like in this final image, throughout his novel Powers has his readers immerse themselves, zooming in, as it were, into that world of sensation or local coherence, before they can ‘see the big picture’ (“Still”) by making the points cohere, zooming out of the human scale.⁸ Again, Powers delays the moment of categorical certainty, as if that global coherence were less important or enjoyable than the sensuous pieces of wood.

Throughout *The Overstory*, the neurotypical brain is seen as impaired precisely by its proclivity to categorical thought—by those “frontal modes of attention” that, to retrieve Manning’s words, violently block out the “scintillations of the world” (2018, 13). In one of the most lyrical, melancholic but hopeful episodes of the novel, Dorothy is reading *Anna Karenina* out loud to her husband Ray, aphasic after a stroke. But she falls asleep and he is left to “stare out the window into the backyard” (2018, 383). There is not dejection, but rather joy and rapture, in this silent (and ‘still’) contemplation. Let me reproduce it in full:

⁸ In the final pages of the book, Powers introduces yet another nonhuman scale, namely the artificial intelligence of the so-called “learners” (Powers 2018, 478). In this last scene it is indeed the technological eyes and consciousness of “satellites high up above” (2018, 502) that assist the human in seeing the ‘big picture,’ providing an “overhead, far-away perspective more proper to a high-flying drone than to any human observer,” as N. Katharine Hayles puts it in a different context (2014, 216). The possibility of technological modes of cognition goes beyond the scope of this essay, but I would like to point up how this final move toward AI in the novel nicely illustrates the different ways in which expanded ideas of cognition and consciousness (Hayles’s ‘cognitive nonconscious’) surface in contemporary fiction (2014, 216), in ways that link the human (typical *and* atypical) and the nonhuman—animal, vegetal, or machine.

A woodpecker shuttles back and forth onto a blazing oak, stuffing nuts into a girdle of pits. Two squirrels fling themselves in crazed spirals up the trunk of a shed linden. Clouds of small black bugs swarm across the grass tips, unhinged by the coming cold. A shrub he and Dorothy must have put in years ago is clumping in shaggy yellow flowers, even with all its leaves long dead. High drama to a paralytic. The wind throws out gossip; the branches of all the Brinkman anniversary plantings wave, scandalized. There's danger everywhere, readiness, intrigue, slow-motion rising action, epic changes of season once too slow to see that now blast past his bed too quickly to make sense of. (2018, 383-384)

We are hopelessly caught up in Ray's animistic, alive, egalitarian relation with the world outside his window in his "newfound life" (2018, 383). When Dorothy wakes up and apologizes for having "abandoned" him, Ray actually pities her; he pities his wife because she will never understand how much of the actual world she—with her 'healthy' brain—misses: "She has no idea, and there's no way he can let her know. Civilized yards are all alike. Every wild yard is wild in its own way" (2018, 384). Like David James Savarese, who lives (happily) in a "Seurantian [wild] Nature" (2019, 91), Ray feels for his wife, who, in Savarese's words, inhabits "cultivated gardens [yards] of categorical thought" (2019, 91).

Patricia Westerford makes a similar point. Discussing with a group of like-minded colleagues the oft-neglected importance of dead logs among the scientific community, she exclaims: "Science in the service of willful blindness: How could so many smart people have missed the obvious? A person has only to *look*, to *see* that dead logs are far more alive than living ones. *But the senses never have much chance, against the power of doctrine*" (2018, 139, my emphasis). Like Ray, Patricia praises the virtue of sensuous detail at the expense of conceptualization. Detailed-focused attention, as Happé and Frith claimed, has its advantages; categorical thought (that talent of neurotypicality) sometimes takes its toll: it may prevent to *see*.

In fact, part of what *The Overstory* is saying is that human-centeredness and its normative modes of attention (which is to say, neurotypicality) may very well be a disabling condition. And it is certainly so when it comes to caring for the nonhuman Other. Listen to Olivia's reaction to Adam's study of the "personality profiles of environmental activists": "You're studying what makes some people take the living world seriously when the only real thing for everyone else is other people. *You should be studying everyone who thinks that only people matter*" (Powers 2018, 319, my emphasis).

Olivia puts her finger on the fact that most people equate 'life,' or at least 'valuable life' with the human. By human, Erin Manning and Brian Massumi write, "we mean 'neurotypical,' we mean expressing oneself predominantly in spoken language, and most of all, we mean being immediately focused on humans to the detriment of other elements in the environment" (2014,

3). Inasmuch as they are not immediately focused on the human, the characters in *The Overstory* are certainly not neurotypicals. And, more importantly, the novel itself, with its relentless attention to the more-than-human, with its thematic, characterological and formal penchant for ‘local coherence,’ is fundamentally neurodiverse.

The novel forces us as readers to turn away from our customary neurotypical mindset. “Neurotypicality” writes Erin Manning, “frames our idea of which lives are worth fighting for” (2016, 3). From this point of view, it is intuitive to grasp why Powers may have chosen to create such a vivid gallery of neurodiverse characters in a novel about ecological activism. Neurodiversity fosters an “ethic of the more than human” that, as Erin Manning writes, is “urgently needed today” (2012, 153); an “animistic empathy,” in Ralph Savarese’s words, “that reorders the world, dismantling the privilege that attends to one entity or group” (2010, 284-285). Only through such a dismantling of privilege will “the most wondrous products of four billion years of life” be saved—may those products be the trees, or us.

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