

Deep Ecology and Temporal Resistance: Reimagining Anthropocene and Arboreal Agency in Richard Powers' *The Overstory*

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Abstract: *The present paper is an attempt at examining how nature and its elements represents “scalar resistance” against the dominance of anthropogenic temporal agency in addressing and understanding climate crisis. Richard Powers’ The Overstory (2018) represents this paradigmatic shift in the contemporary environmental narratives, challenging the preeminence of anthropocentric interpretations through the revolutionary representation of non-human agency ‘trees’ and deep ecological time. Powers debunk the traditional human-nature binaries to emphasize on the mycorrhizal narrative structure which privileges nonhuman agency and elements. The paper takes into consideration ecological theory and deep ecology principles to challenge the capping implications and anthropogenic centrality of climate crisis both in the socio-political justifications and literary trends. Through intensive textual analysis using deep ecology, ecocriticism and plant studies theories, the paper highlights the novel’s innovative narrative structure to demonstrate a unique literary ecosystem that operates as per the arboreal rather than the anthropocentric logic. The paper aims to contribute to the emerging discussions and debates in environmental studies by exhibiting how literature can be a potent medium of creating ‘neo-ethical ecology’ for a future where both humanity and nature drive the practical, inclusive and sustainable solutions for the green earth and harmonious co-existence.*

Keywords: Anthropocene novels, Deep Ecology, Ecocriticism, Temporal Resistance, Scalar Resistance, Neo Ecology, Richard Powers

INTRODUCTION

The centrality of Anthropocene epoch has not only affected Earth’s geological processes but also literary and cultural engagement with environmental crisis. Rob Nixon has defined this phenomenon as “Slow Violence” which is humanity’s failure at precepting the magnitude of spatial and temporal environmental degradation. The modern literature also grapples with the struggles of representing the scales of time and agency in environmental crisis and presumptuously focuses on human-centric approach towards problems and solutions, rather than focusing on the actual natural victims cum agents of sustenance. Richard Powers’ *The Overstory* (2018) emerges as a significant work in this context. The novel offers radical narrative and structural innovations that deconstructs Anthropocene centrality and storytelling traditions, returning to foreground the agency of nonhuman entities, especially trees.

Powers novel raises a paradigmatic concern for deep ecology by criticizing the traditional environmental fiction by creating ‘scalar resistance’¹ as a literary strategy to counter the exclusion of innumerable non-human elements from any sort of narrative consideration on geological sustenance. This form of resistance runs through various interconnected networks, like, the novel’s rhizomatic structure that is parallel to mycorrhizal networks, the privileging of arboreal consciousness over human centeredness, and the integration of rational discourse with speculative ecological imagination.

The present study uses theoretical consideration of ‘deep ecology’ as conceptualized by Arne Naess, Timothy Morton’s ‘ecological thought’, and recent developments in ecocritical thoughts that examines the interconnectedness of nature and human in geological sustenance and multispecies entanglements. The study will also incorporate elements from plant studies and biosemiotics to highlight how Powers has used contemporary scientific understandings of plant-based scholarships and natural elements into literary forms.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Anthropocene Narratives and Temporal Challenges

The contemporary Anthropocene literature is facing unique challenge concerning literary representation and temporality. Dipesh Chakrabarty, a renowned historian and postcolonial Indian author, states that the

complex engagement of Anthropocene and temporality requires interdependency across multiple temporal scales—from immediate human experience to geological deep time. He argues for the necessitated collapse and re-evaluation of man-made history and natural history. There should be a reframing of human centric and planet centric approach and solution of environmental crisis.

The Anthropocene literature has responded to these challenges through innovative literary forms. Writers like Kim Stanley Robinson, Ursula K. Le Guin, Margaret Atwood and others have experimented with narrative structures and patterns to include and emphasize on the nonhumane agencies, temporalities and perspectives. However, Powers represents a peculiar departure from conventional anthropocentric literary conventions by narrativizing only from the perspectives of arboreal consciousness and deep time.

Deep Ecology and Literary Representation

The Norwegian philosopher Arne Naess conceptualize Deep Ecology as a fundamental challenge to anthropocentric value systems and ethos by emphasizing on the intrinsic worth of all living beings and ecological phenomenon. In contrast to shallow ecology that contextualizes and address environmental problems only with human centric approach, deep ecology asserts for a paradigmatic shift by recognizing and valuing interconnectedness and equality of all life forms by developing human consciousness. In literature, this concern demands decentering of human subjectivity and creating space for nonhuman elements, perspectives and agencies.

Recent development in ecocritical theories advocates for a more inclusive approach and resolution of environmental crisis by focusing on non-human entities. Theorists like Timothy Morton calls for embracing the “ecological thought” (The Ecological Thought) which is a fundamental interconnectedness and interdependence of all beings within what he terms as “ecological mesh” (The Ecological Thought). This ‘mesh’ is not only a philosophical reality but also political and cultural. He also emphasizes on the concept of “hyperobjects”, which is the massive distribution of the anthropogenic objects like global warming, climate or oil “in time and space relative to humans” (Morton 1), have now become visible to human through same parameters by which they have been created. However, these objects have exceeded far beyond human comprehension and potential control. Powers have effectively used this framework to represent the nonhuman entities, like trees as ‘hyperobjects’ existing across space and time and operates through networks beyond human perception.

Plant Studies and Literary Theory

The emerging field of plant studies have strongly attacked the exclusion of plants from mainstream ecological/environmental crisis discussions and attention. Philosophers like Michael Marder and Monica Gagliano have criticized the negligence of plants from any considerations as intelligent, communicative agency. The recent studies focusing on mycorrhizal networks has revealed the existence of unique communication systems of plants and even patterns of adaptive behavior that questions the traditional understanding of passive plant life and active animal consciousness.

This crucial understanding of plant behavior and pattern finds a crucial context in Powers’ *The Overstory*. The novel has foregrounded scientific findings about forest networks in the narrative structure. The consolidation of recent development in plant studies with speculative fiction establishes Powers’ *The Overstory* as an essential work of ‘biosemiotics literature’, a work which explores the sign language and communication networks in nonhuman agencies.

METHODOLOGY

The present study employs close textual reading and analysis of *The Overstory* using the theoretical implications of ecocriticism and deep ecology. The study will focus on the use of narrative structure to foreground ecological concerns and networks. It will also assess the characterization of trees as the active agents of environment and its sustenance rather than nonhuman passive objects. The study will also focus on biosemiotics examination to analyze how Powers use scientific understanding of plants and plants networks into literary language and forms which has created new possibilities for multispecies storytelling. The study will also be engaged with interdisciplinary approach of plant studies, environmental science, and ecocriticism to reflect on novel’s novel approach to environmental crisis. The novel has innovatively established the use of scientific discourse to understand and signify the relation between empirical knowledge and literary imagination for dealing with environmental crisis and its probable solutions.

Analysis

Narrative Structure and Ecological Network

Powers’ *The Overstory* employs a narrative structure which reflects the mycorrhizal networking which

connects it to forest ecosystems. The four sections of the novel- “Roots”, “Trunks”, “Crown” and “Seeds”, reflects the four stages of growth of tree which is juxtaposed by Powers with the stories of the human characters of the novel, thus marking a shift from the anthropocentric logic to arboreality. This structural placement can be classified as “rhizomatic narrative” (Deleuze and Guattari) which is the debunking the hierarchical system of preferring human over nature, yet presenting them in an interconnected system of relationships.

The first section of the novel, “Roots” introduces nine human characters whose lives ultimately intertwined around ‘forest activism’ but all of their stories is uniquely connected to a specific tree or any species of trees. Such as, Nicholas Hoel is presented as an artist who is obsessed with trees and belongs to a farming family. Powers has associated him with ‘family chestnut tree’. This tree was planted by the Hoel family in mid-1800s and they started a tradition of photographing the tree from the same position every month to track its growth. Powers has presented this act of monthly photographing for decades as a temporal framework that exceeds human life span and “a secret history of the world, written in rings” (Powers). But the chestnut trees are gradually wiped out and destroyed because of blight passed down through the trees exported from Asia. Moreover, this blight spreads across Eastern United States, killing billions of trees despite human attempts at saving them.

The decline of chestnut trees symbolizes ecological loss which operates beyond human perception, scale and potential to control. It is the reflection of ‘scalar resistance’- a technique that confutes anthropocentric temporal centrality of human narratives within the larger ecological frameworks. Powers instead of treating trees as the passive/background agents of environmental discourses and actions has foregrounded them as the ‘arboreal temporality’ which is the organizing principle of the narrative structure of the novel, as well as, the narratives on environmental crisis. Powers reframes human characters as ‘nodes’ within the larger network of environment. They are not central but important, connected to the nature just like the underground fungal system that facilitates forest communication.

Thus, the narrative structure of the novel reflects the ecological principle of interconnectedness. Powers has used the mycorrhizal communicative networks of plants which allow trees to communicate resources and information across spaces, to connect diverse human stories of the characters through their relationship with trees. This process could be described as “ecological mesh” (Morton)-the interconnected network of relations between human and nonhuman entities which constitutes ecological reality.

Nonhuman Agency and Consciousness

The most enduring aspect of the novel is the treatment of trees as the primary protagonists with agency and consciousness. Powers has used innovative narrative strategies to give non-human agency a voice among and above humans in the literary text. The opening of the novel establishes trees as the conscious agency discussing about the westward migration of the chestnut tree in North America, “the chestnut’s story is America story, told in rings” (Powers). This opening presents trees as active historical actors who have stories which both surpass and encompass human history. Powers has used such as ‘arboreal focalization’², a narrative technique which revolves around trees to shape the narrative structure, plot and audience’s perception of the story. In the novel, the trees are presenting events from their perspectives which is radically different from human consciousness with reference to temporal and sensory experiences. The novel presents trees as ‘social creatures’ who are communicating through chemical signals, sharing resources through their roots and are making collective decisions about their resource allocation and defense.

In between the human and arboreal consciousness, the character of Patricia Westerford acts as a mediator. She is modeled after a forest science researcher Suzanne Simard who established a crucial connection between the literary representation and tree consciousness. Westerford’s research in the novel is used to translate complex ecological principles into comprehensible narrative forms. This technique is used to highlight plant behavior their communication, sharing of nutrients through mycorrhizal networks, all of which are suggestive of subtle forms of intelligence.

Westerford also discovers that trees talk to each other using chemical signals which marks a crucial focal point of the development of nonhuman agency in the novel. Her scientific discoveries reveals that the forests and its arboreal elements functions as ‘superorganisms’³ whose intelligence is based on collective consciousness rather than individual interactions. Thus, challenging the anthropocentric understanding of intelligence and agency by providing scientific foundations for the apparent speculative assumptions about tree consciousness.

Powers’ the most significant attempt at representing arboreal consciousness is the portrayal of giant

redwoods of California's Pacific Coast. These are giant, ancient trees around two thousand years old and are depicted as resilient with rich repositories of deep ecological memory which though spans multiple human civilization, still beyond human comprehension. They are described as "libraries of environmental information" (Powers), they use their rings to record climate changes, seasonal cycles, environmental changes for centuries.

Further, the 'mulberry trees' of Mimi Ma have been exceptionally used to represent both a connection and limitation of human with environmental forces. The tree is depicted as the symbol of bridge between cultural memory and ecological elements. It is brought from China and had been maintained by Mimi Ma's family across generations which manifest both cultural continuity and ecological flexibility. It also serves to point what Anna Tsing defines as a "feral entity", which is an entity created, nurtured and developed by human agencies but subsequently escapes or transcends human control. Her father's suicide under that same tree, Mimi's failed attempt at saving Olivia, sacrifices of others around her and her final enlightenment and peace when she was able to hear the voice and signals of trees around her, reflects human failure at 'feral' controlling. Mimi's mulberry tree, her revolution for trees and all her knowledge and efforts couldn't help to avert her loss all signify 'feral's' wild, uncontrollable phenomenon defying anthropocentrism.

Deep Time and Ecological Resilience

One of the most important contribution of Powers to environment literature is the treatment of 'deep time' in the novel. The concept of deep time challenges geological time scales and explores vast stretches of time often beyond human perception like plate tectonics, evolution-creation, formation of natural elements etc. In the novel, human characters function as per the temporal time and individual lifespans with immediate concerns, while the 'trees' are shown to be existing across centuries and millennia. This emphasizes human participation and existence within the larger ecological processes.

The treatment of forest succession and ecological recovery in the novel have appropriately exhibited the temporal complexity. The forests are shown to be responding to disturbances through complex adaptive processes that has evolved over decades and centuries. The old grown forests are used to emphasize their role as repositories of ecological memory where their complex structures represent accumulated information about ecosystem which cannot be replicated through human intervention.

Powers portrayal of Ray Brinkman, a psychologist who turns into forest activist, is shown to be mirroring novel's immense exploration of temporal scales. He suffers a stroke which changes his perception of time and begins to experience reality when he is closer to trees. This led him to closely understand ecological resilience and the limitations of human temporal perspectives. This altered perspective can be understood as "dull edges of extinction" (Dooren) which is the gradual and often overlooked process of declination of species, the loss of biodiversity is not a sudden phenomenon but a slow process of unraveling the interconnected lives, "a slow unravelling of intimately entangled ways of life" (Dooren). Powers has depicted this process as Ray's slow perception and understanding of ecological processes. Ray's slow yet strong connection with nature is effectively used to create a bridge between human and nonhuman temporalities.

Powers has also effectively used 'fire ecology' to emphasize another crucial aspect of human engagement with deep time and ecological resilience. The concept of 'fire ecology' deals with natural fires as a part of geological processes and studies their interactions with the ecosystem. It synthesizes effect of fire on living and non-living beings of an ecosystem to understand its renewal and life-cycle properties. The novel shows how forests have gradually evolved to maintain health and diversity periodically. It also raises serious concerns on man's failure to control natural fire cycle which indicates human's limited understanding of ecological temporality which results in destructive wildfires from the issues persisting over decades.

Powers dynamic representation of interaction between human and non-human agencies in an ecosystem calls for the urgent attention to the narrow anthropocentric understanding and approaches to environmental management. Human fails to see beyond the temporal framework which is too limited to accommodate intensive cycles of ecological adaptation and change. Thus, the novel raises a significant argument that effective environmental leadership will require a paradigmatic shift in temporal consciousness, with unlearning of shallow timeframes to include more extended time and space which characterize ecological processes.

Scientific Discourse and Literary Imagination

The Overstory displays the significant amalgamation of scientific discourse with literary imagination which could be termed as "biosemiotic literature" (Coletta). This branch of literature refers to writings which use

biosemiotics- sign process and communication in all living beings. This approach expands the scope of literature by including to analyze inherent biological and semiotic underpinnings of both animal and human communication. The use of mycorrhizal networking in the novel serves as a crucial example of biosemiotic literature. Powers describes this structure as “wood wide web” that link forest trees through fungal connections. This enables them to share information and resources across vast space and distance. Powers has used character of Neelay Mehta, a computer programmer working on virtual forest simulations, for exploring the relationship between digital communication and ecological networks. Neelay’s most striking discovery establishes that tree communication systems precede and could have potentially inspired human digital technologies. This hints towards an eternal and fundamental continuity between natural and artificial information networks and systems. Thus, the novel’s revolutionary integration of scientific discoveries and theories with ecological systems suggests new insights and approaches towards empirical knowledge and its representation in environmental fiction.

Powers’ through *The Overstory* has uniquely blended imaginative forms of tree consciousness with scientific discoveries. He has particularly emphasized on the arboreal communication and networks that exceed human understanding using the literary technique of speculative fiction. This approach can be defined as “speculative fabulation” (Haraway) which could be categorized as posthumanist mode of thinking and storytelling which blurs the line between fact and fiction by bridging together alternate realities and existing human understanding of social, cultural, political and environmental phenomenon. Thus, this approach can be further utilized to imagine alternate possibilities for multispecies relationships.

Resistance and Activism in Ecological Context

Powers’ portrayal of environmental activism is significantly informed by the deep ecological perspective, presenting human resistance to deforestation as one of the elements of the greater process of ecological crisis, understanding and response. The characters portraying as human activists are shown to chain themselves to old-grown trees protecting it both externally and also by becoming a part of it. They become the agents and parts of nature within the ecological systems to save and sustain it.

Olivia Vandergriff expands this connection into what could be termed as “ecological conversion” (Pope John Paul II) which is a profound conversion in human relationship with the environment marked by the shift from anthropocentric approach to a holistic and interconnected union with all the beings of the environment. Olivia experiences mystical vision which compels her to join forest activism. Her consciousness gradually becomes aligned with arboreal temporalities. Her simultaneous conversion following her visions establishes that holistic environmental activism requires a primary conversion of consciousness involving shift from anthropocentric understandings towards what deep ecology terms as “ecological self-realization” (Naess).

Powers through Adam Appich, a social psychologist studying the forest activists, highlights the psychological dimension of environment commitment. Adam’s research focus on cognitive mechanisms by which human develop emotional connections to nonhuman entities, suggesting that ecological understanding and sensitivity requires debunking deep seated psychological barriers to recognize nonhuman/ arboreal agencies.

Thus, the novel criticism of industrial forestry expands beyond contemporary environmental concerns and issues to address basic questions about the relationship between economic systems and ecological processes. The transformation of complex old-grown forests into simple tree plantations signify “capitalist ruins” (Smith) the remaining, residues and consequences of industrial expansion involving significant environmental decay among others.

DISCUSSIONS AND FINDINGS

Richard Powers’ *The Overstory* presents a compelling case of ‘neo-ethical ecology’ by recognizing the value and the agency of nonhuman entities in environment sustenance while acknowledging the holistic human entanglements with ecology. It establishes the intrinsic relation of Anthropocene with non-human entities in the environmental communication and networks which surpasses time and space. The novel’s literary innovations create new possibilities for representing multispecies relationships with arboreal agency within the literary discourses.

The most significant contribution of the novel is the introduction and recognition of nonhuman consciousness and agency in environmental literature. By placing trees as active protagonist the novel marked a paradigmatic shift in giving voice and awareness to nonhuman characters, equating and expanding the discussions on environment to its natural elements as well. This shifted the focus from

human as center to equally important role and concern of nonhuman agencies in environmental sustenance, which is still beyond human control and comprehension.

Further, the novel's integration of recent development and trends in plant studies with speculative fiction introduced a new approach of blending science and literature for a dynamic insights and perspectives into environmental discourses. Powers has demonstrated how scientific understanding can be used and integrated with literary forms to create new modes of representations. Simultaneously, literature can help in widening the scientific implications by making it comprehensible and accessible to common audience. The central issue of 'scalar resistance' explored in the current study could be used for broader understanding and analysis of how contemporary environmental literature copes with the temporal and spatial anthropocentric challenges. Further narrative structures could be made more flexible to accommodate nonhuman entities, spaces and temporalities to counter the dominance of anthropocentric assumptions and implications of time, space and realities to understand and approach climate crisis.

Overall, the analysis of Powers' *The Overstory* brings forth several directions of future research in environmental literature and ecocriticism. The concepts analyzed in the present study like, deep ecology, plant studies, ecological resilience, scalar resistance and others could be utilized to those works which experiments with nonhuman temporalities and approaches. Likewise, the incorporation of plant studies with literary discourses allows for new possibilities for exploring how fiction can engage with scientific principles of nonhuman intelligence and agency.

The novel's use of mycorrhizal networks representing both fact and literary implications calls for further attention and investigation of how ecological concepts can function in literary discourses. This emerging integration of ecological communicative networks and narrative structures represents a new significant area for continued research.

The aptness of *The Overstory* in manifesting trees as compelling active characters calls for similar crucial attention to other nonhuman entities and agency. The future research can explore and analyze how literature can be used to showcase the agency and perspectives of microorganisms or geological formations which have even more radical different temporal scales.

CONCLUSION

Richard Powers' *The Overstory* presents a radical shift in contemporary environmental literature and ecocritical approaches by offering imaginative literary techniques for representing nonhuman agency and deep ecological time. By using rhizomatic narrative structure, systematic treatment of trees as protagonists and amalgamation of plant science with speculative imagination, Powers has effectively raised 'scalar resistance' against the anthropocentric temporal dominance for nonhuman perspective and discourses.

Powers most significant contribution is the expansion of environmental literature to include scientific knowledge with literary imagination. The opens the possibilities for multispecies storytelling and neo-ethical ecology by understanding and acknowledging the limitation of anthropocentric approaches. Powers creation of arboreal protagonists has introduced "symplogetic" (Haraway) narratology for an inclusive approach for environmental crisis blending human-nature relationships.

The concept of neo-ethical ecology which emerges from symplogetic approach highlights a significant concern for green crisis which is the fundamental transformation in consciousness and imagination rather overdependence on policy making and technological innovations. For this, literature has effective possibilities of putting across both human and nonhuman consciousness. *The Overstory* has brilliantly manifested this potential by presenting readers with a more sustainable and just relation between human and natural systems.

As ecocriticism and environmental discourses are struggling with overdominance of Anthropocene, *The Overstory* plays a crucial role in widening scope, ethos and empathy beyond human-centered frameworks. By focusing on arboreal consciousness, forests networks and presenting them as organized and intelligent, Powers has induced intrinsic values to nonhuman agency in environmental sustenance.

Thus, the novel could be said to offer an important alternative to technological solutions and anthropocentric dependency to ecological crisis by fundamentally transforming man- nature consciousness and relationship across time and space. It calls for a 'deep ecological self- realization' by recognizing that human is inseparable from larger ecological communities. Thus the solution to climate crisis lies in transcending human centralism and species liminality.

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