

# Exploring the Eco-Psychological Impact of Hyper-Technologized Environments and Ecological Destruction in Anil Menon's *The Beast with Nine Billion Feet*

Senthamizh Inmozhi S<sup>1</sup> & Sushant Kishore<sup>1</sup>

<sup>1</sup> Department of English, School of Social Sciences and Languages, Vellore Institute of Technology, Vellore, India

Correspondence: Sushant Kishore, Assistant Professor, Department of English, School of Social Sciences and Languages, Vellore Institute of Technology, Vellore, India. E-mail: Sushant.kishore@vit.ac.in

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## Abstract

This paper delves into the intricate relationship between human beings and Earth's ecosystems, emphasising their mutualistic reliance on survival. However, contemporary challenges, characterised by excessive resource exploitation and the rise of hyper technologized environments, have resulted in a significant disconnect between humans and nature. This disconnection has precipitated various psychological issues and severed vital bonds between individuals, obstructing adherence to fundamental humanistic principles. Focusing on Anil Menon's book, *The Beast with Nine Billion Feet*, this paper operates within the framework of eco-psychology, utilising Richard Louv's concept of Nature Deficit Disorder to investigate the widening chasm between humans and nature. Ethical dilemmas, especially concerning the impact of AI and synthetic life forms, have also been explored in this context. The research objective was to unravel the unintended eco-psychological consequences resulting from excessive resource exploitation and an overemphasis on artificial environments. Employing a narrative method, this paper analyses plots, characters, and situations to illustrate this eco-psychological crisis. The main findings underscore Menon's portrayal of characters, showcasing innate human instinct to forge a profound connection with nature. Those residing in proximity to nature lead fulfilling lives, whereas individuals isolated from the environment exhibit varying degrees of Nature Deficit Disorder, compelling them to seek solace in nature.

**Keywords:** Eco-Psychology, Hyper-Technology, Human Intervention, Ecological Degradation, Green Space

## 1. Introduction

Environmental degradation is the deterioration of the environment through the depletion of resources, such as air, water, and soil, destruction of ecosystems, and elimination of species. Environmental change is considered undesirable or harmful. Environmental degradation can be caused by a variety of factors, including urbanisation, population growth, economic development, agricultural intensification, increased energy use, and increased transportation. (Pratap, Singh, & Kumar, 2015).

For instance, the period of agricultural intensification beginning in the mid-20th century, also referred to as the Green Revolution, involved the introduction of new agricultural technologies such as high-yielding varieties of crops, chemical fertilisers, and pesticides. These technologies have helped increase crop yields and food production, but they also have a number of negative environmental consequences. One of the most significant environmental consequences of the Green Revolution is loss of soil fertility and damage to ecosystems. The excessive use of water is another environmental consequence of the Green Revolution. The use of agricultural technologies has led to an increase in the incidence of human and livestock diseases. The use of antibiotics to treat livestock has led to the development of antibiotic-resistant bacteria (Rahman, 2015).

Environmental psychology is a multidisciplinary field that investigates the reciprocal relationships between humans and their surroundings. It is concerned with how people perceive, evaluate, and interact with their environment and how the environment can affect their thoughts, feelings, and behaviours (Stokols & Altman, 1987). It is a multidisciplinary field that draws on psychology, sociology, environmental science, and other disciplines to understand the relationship between people and their environments. Kaplan also showed that people living in green spaces tend to have lower rates of stress and anxiety (Kaplan, 1995). Kidner (1994) investigated how environmental factors such as stress, pollution, noise, urbanization, and congestion can affect people's cognitive abilities and emotional well-being. Roszak (1994) argued that the built environment of urban life can alienate people from nature and that this can have a negative impact on their mental and physical health. Stern and colleagues (1995) found that people with strong environmental values are more likely to engage in pro-environmental behaviours, such as recycling and conserving energy. (Stern, Kalof, Dietz & Guagnano, 1995)

The theory of planned behavior proposes that positive cognitive structures such as attitudes, beliefs, norms, and values exist (Ajzen, 1991). Although there are numerous obstacles to how behavioural intentions become real behaviours, there are determinants of behavioural intentions. Clinebell (1996) suggested that contact with Earth might promote both mental health and growth. Winter (1998) supported the

use of mining and psychological techniques to comprehend and address environmental issues. According to Bell and his colleagues human psychology, in conjunction with environmental influences, determines behaviour and mood (Bell, Greene, Fisher, & Baum, 1996). Gifford (2007) argues that protecting natural resources and enhancing interactions with the environment are important. It defines the interactions between people and their physical environments.

### 1.1 Research Methods

This study employs a qualitative research approach, specifically employing narrative analysis to examine Anil Menon's *The Beast with Nine Billion Feet* (2009)(henceforth referred to as *The Beast*) through the lens of ecopsychology. Narrative analysis, a methodology widely used in literary research, allows for a deep exploration of the narrative structure, characters, and themes within the context of the chosen theoretical framework.

The primary focus of this study is Anil Menon's speculative fiction novel *The Beast*. The selection of this text is integral to the research, as it offers a rich narrative landscape that intricately weaves the themes of nature, technology, ethics, and existential threats.

### 1.2 Theoretical Framework

The theoretical lens guiding this research is ecopsychology, an interdisciplinary field that explores the relationship between individuals and the natural environment, emphasising the psychological interconnectedness between humans and Earth.

Richard Louv coined "Nature Deficit Disorder" to illustrate how urbanization and technology disconnects people from nature, causing adverse effects. NDD leads to adverse physical and mental effects, stress, reduced creativity, attention issues, and diminished environmental awareness, affecting the ecological problem-solving abilities of future generations. Nature Deficit Disorder can be better understood by incorporating eco-psychology, which supports practices that emphasise reconnection with nature in urban settings, education, and recreation for therapeutic benefits. Ecotherapy with nature, reducing stress, and enhancing mental health while instilling environmental responsibility. Integrating eco-psychology and addressing nature-deficit disorder strives for holistic well-being, emphasising our integral role in the ecosystem, and nurturing a sustainable connection with nature.

Richard Louv's concept of Nature Deficit serves as a fundamental pillar in comprehending the increasing disconnection between humans and the natural world, resulting from limited exposure to nature and carrying significant psychological and sociological consequences. This article also examines a critical exploration of the ethical dilemmas stemming from environmental exploitation and its subsequent influence on human psychology and societal norms. It entails a comprehensive analysis of the psychological and existential challenges posed by the rise of synthetic life forms, potentially reshaping human existence and altering perceptions of life, aimed at understanding the blurred boundaries between these life forms, particularly focusing on the ethical and psychological implications associated with replacing natural life with synthetic alternatives. Furthermore, exploring Biotechnology as an Enterprise and a Commodity involves an in-depth examination of its commercialisation and far-reaching impacts on ecological systems, human conduct, and societal values.

Anil Menon is especially curious about how technology impacts global standards (Menon, 2017). His ideas also seem to be anchored in the indigenous traditions of developing countries. Menon's novel, *The Beast*, highlights the threat to the delicate balance of the planet and challenges the human understanding of biology and ecosystems. The novel imagines the lives of nine billion people who live on Earth in 2040 and suggests that the events depicted in the novel will affect all of humanity, not just the main characters (March, 2012). Human intervention in ecosystem impacts, including both positive and negative effects on ecological integrity, are highlighted in *The Beast*. The novel explores the rapid development of transhumanism, which influences people's autonomy and identity (Narendiran & Bhuvanewari, 2020). Menon tries to imagine a shattered world in which mutant forms of capitalism compete for dominance in a new world order (Khan, 2015).

Technological, institutional, and socioeconomic actions collectively contribute to environmental deterioration, leading to the depletion of natural resources such as water, air, and soil, and negatively impact wildlife, plants, animals, and microbes. This degradation occurs when Earth's natural resources are exhausted, affecting the interconnected web of life (Pratap et al., 2015)The argument that the lack of "connection with nature" present in life in contemporary (post) industrial society contributes significantly to the growing anthropogenic degradation of the global ecosystem and calls for concerted promotion of direct nature engagement is becoming more and more common to gain the environmental consciousness thought to be required to change this trajectory (Fletcher, 2017).

This study attempts to illustrate how urbanisation and the pursuit of environmental deterioration affect children of the novel and determine how they experience it. The "nature deficit disorder" that the novel portrays is looked at in this study. It is important to discuss environmental issues to understand how young people respond to urbanisation and environmental degradation.

This article involves a comprehensive narrative analysis of the selected text, examining plot structures, character developments, and situational contexts within the conceptual framework of ecopsychology. This approach enables the identification and interpretation of themes, symbols, and instances related to ecopsychology, allowing for a nuanced understanding of the interplay among nature, technology, ethics, and human psychology in the narrative.

By utilising this qualitative narrative analysis approach and incorporating the conceptual foundations of ecopsychology, this research aims to provide a deeper insight into the ecological and psychological dimensions presented in *The Beast*, shedding light on the intricate relationship between humanity and the natural world within the context of contemporary technologically driven society.

## 2. Review of Literature

Menon's novel shares cynicism with technology and technology-enabled rapid urbanisation with authors across the world. It investigates the loss of vital natural resources and ecological restoration in and around a city (Larochelle, 2013). Banerjee traces the similarity between *The Beast* and the narratives of colonial periods, and the scientific power of the West benefits' multinational corporations and developed nations by exploiting underdeveloped regions (2015). However, he also argues that posthuman ideologies do not fit non-Western nations, such as India, which have recently emerged from colonial oppression (Banerjee, 2015).

Khan discussed the detrimental effects of profit-driven, nature-bending global capitalism that reduces humans to mere consumers in *The Beast* (Khan, 2015). Consumption as a human attribute expands not only to commodities, but also to the commodification of human characteristics and features via genetic engineering. Narendiran stated that Menon highlights the dangers of this emerging trend in human development through two families, where young people are subjected to genetic engineering without consent. As a result, these individuals suffer from psychiatric issues and identity struggles, serving as a cautionary tale against the uncritical adoption of popular sciences, such as genetic engineering, without fully considering the potential consequences (Narendiran & Bhuvanewari, 2020).

Adam Spires "Nature-deficit disorder in the Mexican dystopia: Carlos Fuentes, Carmen Boullosa, and Homero Aridjis" (2016) focused the concept of Nature-Deficit Disorder within the context of dystopian literature, focusing on the works of Carlos Fuentes, Carmen Boullosa, and Homero Aridjis. This study highlights the themes of alienation, loss of identity, and environmental degradation, emphasising the importance of connection with nature for human well-being and societal harmony (Spires, 2016).

In exploring the societal and environmental themes present in Anil Menon's *The Beast*, a notable gap emerges in the scholarly discourse. While existing analyses discuss the dangers of profit-driven global capitalism and genetic engineering, there is a distinct absence of discussion regarding the potential ecological and psychological repercussions of a disconnection with the natural world. Natural deficit disorder (NDD), as elucidated by Richard Louv, presents an appropriate framework to address this gap. Given the book's portrayal of a future where nature is increasingly exploited and genetically manipulated, examining characters' psychological states and their relationship with the environment becomes crucial. Integrating the NDD lens allows for a deeper exploration of the characters' responses to a world where the human-nature bond is frayed, ultimately enriching our understanding of the multifaceted dimensions presented in Menon's narrative. Through this lens, the narrative may reveal how the absence of a harmonious relationship with nature contributes to the characters' identity struggles and overall well-being, thus providing valuable insights into the cautionary themes embedded in the text.

## 3. Discussion

### 3.1 Nature Deficit Disorder in *The Beast*

"Nature Deficit Disorder", proposed by Richard Louv (2008), is the adverse consequences of less time spent in nature and lack of unstructured play on children's well-being. In his book *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder* Louv used Nature Deficit Disorder to describe the societal trend in which individuals, particularly children, spend less time outdoors and have reduced contact with the natural world. This lack of interaction with nature is believed to contribute to a range of behavioural, emotional, and physical issues.

Louv argues that the diminishing connection with nature in modern life can lead to a variety of problems, including obesity, attention disorders, diminished use of the senses, higher rates of physical and emotional illnesses, and a lack of empathy for both the natural world and other humans. Essentially, Nature Deficit Disorder suggests a disconnection from the natural environment and potential negative consequences on one's well-being. This can be exacerbated by urbanisation. Children who are disconnected from direct contact with nature because of their urban environment are more prone to experiencing the negative impacts of this disorder which can include a range of physical, emotional, and social issues. The lack of exposure to nature may lead to higher stress and anxiety levels, human-nature alienness, impaired social interaction, and cooperative conflicts. Although not formally recognised as a medical condition, the concept highlights the importance of engaging with nature for overall well-being, emphasising the value of implicit eco-psychological understanding among humans.

The effects of the absence of such an eco-psychological understanding are shown in *The Beast* through the experiences of characters, such as Adi, Tara, Ria, and Francis. Menon uses these characteristics to demonstrate the urbanisation and technological advances that they must deal with, as well as how they live a synthetic existence and are segregated away from nature. Menon also depicts the advanced technologies in which the novel's "nature deficit disorder" was reflected, but this does not fully capture all the eco-psychological concerns that children must deal with.

The novel shows children's experiences of a synthetic world in which nature and natural resources are either mere simulations or artificially created. This novel was established in Pune in 2040. India is filled with advanced science and technological programs and genetically engineered birds and animals, such as artificial lobsters, parrots, silicon brains, and self-organising neural tissues. Artificial lab-grown flora and fauna have supplanted the natural environment. Both essential and aesthetic natural resources, such as capricorn beetles, dragonflies, white ants, red ants, holy dung, bulbuls, kadamba trees, weaver birds, canopies, nests, and mango birds, were created in the artificial station of the bonsai garden.

There is also an emotionally hovering machine that can listen to, understand, and respond to conversations. Using biotechnology Adi enterprises to enhance the artificial immune systems of Godzilla, the shark, and the whale for public entertainment, while the novel does

not depict any natural resources or organisms. Children live in artificial environments created by humans. Humans have developed technologies that provide alternatives to natural resources, such as synthetic materials, processed foods, and electronic entertainment. These technologies have made it possible for children to live in a world that is becoming increasingly disconnected from nature. Louv (2005) argues that children's disconnection from nature has had a number of negative consequences, including increased rates of obesity, attention deficit hyperactivity disorder (ADHD), and anxiety. He attributes this disconnection to several factors, including parental protectionism, media-induced anxiety, fear of litigation, and "well-meaning (and usually necessary) environmental regulations (Louv, 2005). Living in artificial, simulated environments trigger a "nature deficit disorder" that becomes evident in the lives of Menon's characters in *The Beast*.

People must consume manipulated food. These technologies serve as substitutes for the fresh natural resources of Earth. Children are obligated to live on an artificial Earth. The "nature deficit disorder" affects children. It is challenging for children to disconnect themselves from nature, making them prone to despair and anxiety. The worst-case scenario was the emergence of both synthetic and moral sources. This prevents societal prejudices and beliefs from evolving. Disconnection from nature can result in constant conflict between synthetic and natural life in society and make it challenging for future generations to contribute to the development of the country.

### 3.2 Environment and Ethical Conundrums in *The Beast*

Sivan, a skilled biologist, and proponent of open-source seeds, initiated the Free Life movement to empower farmers with freely shareable seeds, challenging the GURT, synthetic seeds that created dependency. Sivan was the focus of a hostile campaign when he was expelled from the project because of his support for open-source seeds. This apprehension deeply affected his children Adi, a molecular genetic biologist, and Tara. Meanwhile, on an artificial island, Vispala, who led both GURT seed and anti-aging initiatives, synthetically created Ria and Francis meticulously crafted according to her preferences. Reluctantly, they befriended Tara and helped to abduct Adi and Sivan, who fiercely opposed the anti-aging project that pursues immortality through manipulation of the human life cycle. Adi eventually joined Vispala's team but soon realised his yearning for a connection to nature amidst the technologically advanced environment.

In this novel, the children Adi, Tara, Ria, and Francis must deal with artificial life everywhere, not just while engaging in outdoor activities but also while consuming sterile food. They experience an array of artificial environments including gene-engineered pets, amusement rooms, synthetic gardens, man-made islands, illusion pods, sterile food, and other structural artificials. Children in the novel experience a range of emotions and stress due to the rapidly evolving science and technology.

In 2040 AD, India is dwelling on leading-edge science and technology, which creates a synthetic life that prevents extinction. India's future civilisation ironically incorporates a synthetic existence that resembles the effects of nature deficit disorder. Children experience psychological discomfort in any location based on their technological features. Children are the victims of ill beings who are disconnected from nature, genetically modified plants, and animals. Menon described the bonsai garden Matheran as "botanical as a funeral home (Menon, 2009 p-224). "Illusion tech gave Adi a life worth living" (Menon, 2009 p-15). The illusive technology usage of Adi's excessive virtual reality obsession, which hinders his work commitments, is of paramount importance (Narendiran & Bhuvaneswari, 2020). According to Louv's research in 2008, engaging in indoor activities such as watching TV or playing in non-green areas such as concrete environments worsen attention deficit hyperactivity disorder (ADHD) symptoms.

In 2025, A multinational company "Mother Earth" initiated the Genetic use restriction technological seed supply. The goal of the GURT seed is to create a dependency loop for the farmers. Sterile technology generates nonviable seeds that do not germinate if planted again. Sivan, a talented biologist, started the Free Life movement advocating open-source seeds, which are freely saved, shared, and replanted by farmers. However, he became the target of a malicious campaign framed for serious crimes, including bioterrorism, sedition, sabotage, and tax evasion because of his vocal opposition to corporate practices. A major Political Force sent DSP Pranay to arrest Sivan. He explained how he was respectful of Sivan.

Pranay: At one point, Sivan-bhau took my father's hand and placed a seed in it. This seed represents the end of Mother Earth. Free life has been developed as an alternative to GURT-controlled seeds. I did not know it then, but I would just meet the genius who had started the open-source genetics movement. Sivan-bhau organized us, showed us how to organize others, and how to spread, as he put it, the creed and the seed. This was the man I was sent to arrest ten years later. (Menon, 2009 p.98).

Anil Menon clearly showed that "Biotechnology is a trillion-dollar enterprise" (Menon, 2009, p.98), and Sivan's wish for the availability of nature appears to have put him in conflict with formidable forces seeking to maintain the status quo. This section argues that a counterproductive outcome can occur when ethics and profit motives clash. The arrest of Sivan has a significant psychological impact not only on him but also on his family, particularly on his children. The stigma associated with being labelled as a terrorist can result in social isolation and discrimination, further exacerbating psychological distress. The mismatch between Sivan and his children's longing for their parents and the reality of their absence can have long-term consequences for their wellbeing and development. Improving sterile seeds based on synthetic life raises ethical concerns regarding biodiversity, potential unintended consequences, and ownership of genetic forces. The absence of Sivan left Adi and Tara facing hardship and social marginalisation, yet they clung to the hope that their fathers' return from exile would lead to improved living conditions.

### 3.3 Existential Threats of Synthetic Life

The well-being of children is in stake, and the Earth's well-being is in peril (Charles, Louv, Bodner & Guns, 2008). *The Beast* portrays the synthetic substitution of natural resources, leading to psychological ill-being in children. This novel shows that technology and psychological ill being are intertwined. Substitution of nature and lack of nature can worsen the psyche of children. Children dwell on synthetic substitutions, disruptions in nature and transhuman supremacy. They commit a range of behaviours because they struggle with technology and lack ecological integrity.

#### 3.3.1 Synthetic Substitutes Replicate Natural Sources

Adi seeks worth living life by using illusion pods that are “easy to fool the simple-minded human body into thinking it was experiencing the romping in an alter space and alter time” (Menon, 2009, p. 18). It harms his behaviour by encouraging addiction, social exclusion, recklessness with obligations, and blending virtual and real-life experiences. Children's interactions (both experiential and behavioural) are intertwined with the physical, interpersonal, and sociocultural aspects of their surroundings (Wapner & Demick, 2002). Adi appears to be a rebel who refuses to adhere to the requirements imposed by a woman (Aunt Sita) who must take care of him (Narendriaran & Bhuvanawari, 2020). The potential independence of the technical world brought forth by modern technology also has a dehumanising effect on interpersonal interactions and a fragmented society. The ability of modern technology to separate the technological world also involves interpersonal interactions, resulting in societal fragmentation and fewer linkages (Schuurman, 1997).

There are fewer green spaces than artificial entertainment rooms. Children between the ages of 8 and 18 currently spend 6.5 hours every day on electronic media (Ko, Cho, & Roberts, 2005; Roberts & Foehr, 2008). Over the last decade, the use of various forms of media has increased (Robert, Foehr & Rideout, 2010). Adi used artificial outdoor activities on a human-made island, “Luhu,” a gravel beach. Adi worked in the field of molecular biology to design synthetic sharks and immune shots of godzilla. This leads to long-term consequences, such as disruption of natural cycles and ethical dilemmas, while manipulating the genes of organisms. Adi experienced a range of behaviours and emotional discomfort when he sought to return a genetically modified parrot from livestock.

Animals that have undergone considerable genetic manipulation and have been released into the wild have raised concerns regarding the potential threats to their welfare and ecosystems (Rollin, 1996). Adi was mad at his father, as he helped the policeman remove the parrot. Genetically modified organisms have been banned in India because they can disrupt ecosystems, threaten biodiversity, and have unintended consequences on the natural balance of species. This raises questions regarding the ethical boundaries of manipulating nature.

#### 3.3.2 Synthetic-Superiority

Ria and Francis were artificially created using the technology at NURTH (New Earth), an artificial island lying under deep seawater. They were transhumans who were systematically structured by their mother (Vispala) based on her desires. Ria and Francis were created using the artificial women required to produce embryos in the laboratory. They believe that the next stage of evolution will include transcending the senses, thinking, and the structural constraints of the human body. This evolution is expected to be triggered by quantum computing, gene therapy, neural implants, and cloning.

Ria: Her wrinkles freak me out. This is similar to stressed leather. Didn't she ever do plastic? (Menon, 2009 p-61).

Ria and Francis developed a strong belief in the potential for artificial enhancement by viewing themselves as transhumans, transcending the limitations of human biology, and seeking to improve their lives through technology. Their desire for an artificial, portable nose made of materials such as silicon, glass, and rose petals reflects their inclination toward superiority.

Francis demonstrates aggression and superiority towards those he perceives as different or inferior to him. The insult “sap”, a derogatory acronym for *Homo Sapiens*, is a tool used by the ruling elite to assert dominance and marginalised technologically unmodified people who were considered lower in the hierarchy of the NURTH.

Francis: “How come monkeys don't believe in Evolution? Tara?”

Tara: “How come?”

Francis: “Who wants to be related to humans?”

Tara: “Ha ha. Stop him, Ria. He kills me through laughter. Just killing me.”

Francis: “Why do aliens avoid getting involved with humans?”

Tara: “You may be the reason.”

Francis: “Because humans are still attached to their tails.” “Get it?” (Menon, 2009. P-80)

Francis is a transhuman who considers himself to be superior to humans. He used to make jokes about *Homo sapiens* but not meant to harm, indicating a certain level of condescension or arrogance towards Tara and others like her. Francis' discrimination against humans exemplifies a synthetic versus natural hierarchy in the island community. This perpetuates cycles of inequality and exploitation.

Bene Gene is a multinational company consortium working on a project named “Mother Earth”. One of the focus areas of the project is to develop “pure-grain seeds”. Ironically, unlike traditional seeds, which are specific to plant species, the “pure-grain seeds” possess the unique ability to grow into various types of grains. The seeds are described as “Half-machine”, and “Seed+ Software” (Menon, 2009 p-83) referring to the incorporation of engineered genetic elements that mimic machine-like precision in their behaviour, character, and

function.

Vispala is the director of Bene Gene Company. She observes that genetic mutation or creating a synthetic life is easy, supporting her beliefs; she used the key phrase but “the trick is to keep it from dying”. This vision extends to encompass all her efforts from agriculture to healthcare. It describes the guiding principle in her goal of creating artificial synthetic seeds that not only persevere through climatic changes but also adapt to contingent requirements and are therefore immortalised through sterile and synthetic seed modification, another goal very dear to her heart, to achieve immortality as a speciation. Vispala used an efficient branding strategy to market these ideas to the masses.

Vispala: “It’s a way to influence impressions. Suppose I introduced a rice variety called Atomic Rice: Would you eat it? Exactly. This reminds you of the mutants, radioactivity, and Hiroshima. However, what if I call it Ayurvedic Rice and back it up with Sanskrit slokas, white beards, and ancient texts? Does it not taste much better now? See how the label frames an item. It’s still the same thing, but it’s much harder to lead marches against Vedic goodness. Humans don’t see anything until you put a frame around it.” (Menon, 2009. p.70).

Natural processes and living organisms possess autonomy, an ‘otherness’ that is always, to some extent, opaque to human understanding: nature ‘lives and grows by itself’ (Verhoog, Matze, Bueren, & Baars, 2003).

#### 4. “Biotechnology Is a Trillion-Dollar Enterprise.”

Menon showed that biotechnology is an extensive and influential field that encourages people to look for a way out of ordinary existence and transcend human biological limitations. This distance causes Ria and Francis to overlook authentic emotions and familial relationships, which would ultimately have an impact on humans. Adi and Tara, future generations growing up in a biotechnologically sophisticated environment, may not fully understand the natural course of human evolution because of the growing gap between fantasy and reality. It is crucial for children to understand the value of comprehending roots and to foster appreciation for nature’s wonders.

##### 4.1 *Vispala –Mother/Monster*

The next segment of the novel shows that Ria has mixed emotions and strange feelings towards her mother. Initially, she had a strong affinity for the technology. Ria started transitioning from a technology-focused lifestyle to a more nature-oriented one, which made her explore different interests and values in her life. Ria metaphorically describes her mother “Mother is a monster” (Menon, 2009. p-81), who performs ethically ambiguous acts such as designing synthetic life forms solely for financial gain. And she adds, “And so are we”(Menon, 2009. p-81). The vitality of nature is valued significantly more than humans in tribal and primitive societies around the world, whereas Western cultures have traditionally viewed it as a resource that can be exploited for economic advantage (Monika & Meenakshi, 2022).

Owing to the dominance of electronic media and technology, the next generation of young people is losing their direct experience with nature (Louv, 2008).

“I don’t want to go”, said Ria, in a soft voice. (Menon, 2009. p-84).

“Not back to Nurth. Not back to that house.” (Menon, 2009. p-84).

“Nurth is so hideously the same” (Menon, 2009. p-84).

This conversation illustrates Ria’s growing disdain for a man-made island, below the ocean surface lies NURTH, where Ria and Francis are deprived of the opportunity to see the sky and stars. Children can have positive or negative feelings about places, and these assessments can be made by individuals or groups (Stokols & Montero, 2002). Some kids can talk exactly global warming and the effects of the rainforest, but they don’t know about the plants in their garden or how garbage affects the nearby watershed (Louv, 2008)

Their heartfelt plea for Vispala is to experience life in a real country. Due to this request, they came to Pune. Ria no longer wishes to return to NURTH. She felt remorseful about birth without navel. Children are essentially in home arrest and in danger of losing their ability to think or learn about the outside world. The text eloquently illustrates that technological advancements or technical prosthetics cannot substitute personal experiences for gaining knowledge of nature.

##### 4.2 *Anti-Aging Fantasy*

Adi’s genetically modified parrot was created by the Bene Gene Company. A mistake in tweaking the gene caused death of the parrot. Adi experienced deep grief and a profound impact due to the death of the parrot. However, Vispala explained that parrots have shorter lifespans than normal individuals do. However, it also has language talent. So, the parrot will live in the memory of Adi.

Vispala’s “Season Project” (Monstrous Beast) aims to make immortality feasible by manipulating the human life cycle. Her plan involves the concept of cyclic rejuvenation, in which an embryo is born as a baby girl, grows to become a woman, has children, and reverts to the embryo state. To achieve this, she intends to hack the human immune system, possibly to address the issue of aging and the inherited disease she believes affects the human species.

Sivan argues that the idea of Vispala is the fantasy of Anti-Aging. He says that while genetic tweaks have shown some effects on longevity in simpler organisms, it is challenging to apply the same principles directly to humans because of the complexity and intricate interactions between various biological systems. “Death is a feature. It is a part of the human body. It’s not an option.” (Menon, 2009

p-229). Aging and mortality in humans are the signatures of the world. This shows that Sivan's approach to gene tweets reflects his concerns regarding socio-ethical and ecological considerations. Whenever he encountered genetic engineering projects aimed at altering human species, including projects related to GURT seeds and anti-aging processes, he considered their broader impacts on society and the environment. A human being can be seen as merely a machine, physical-chemical substance, or an information system when it is under the influence of techno scepticism, which dehumanises people by turning them into gullible beings (Schuurman, 1997). Menon described the negative impacts of biotechnology, which led to the manipulation of genes for anti-aging projects.

Being cautious and stopping projects that could have significant socio-ethical and ecological integrity, Sivan demonstrated his commitment to responsible and thoughtful decision-making, considering the long-term well-being of both humanity and the natural world.

#### 4.3 Disruption from Nature

Tara feels inferior due to her dark skin. This sense of inferiority impels her to genetically change her skin colour. Because of this advanced and easily feasible technology, Tara tried to change her skin colour. She is also amazed by the beauty of her friend, Ria, who is a transhuman child created in the lab. Adi attempted to explain the negative impact of a genetic cosmetic makeover and supported her by trying to increase her confidence and self-esteem.

Tara: "Because. I want Ria's colour."

Adi: "If it's her colour, let her keep it."

Tara: "It is not simple. You tweak one gene and screw the entire set of other things. You tweak for colour, and maybe it will become easier to have diabetes. However, there is always a tradeoff. No free grub in biology."

Adi: "What is your matter? Seriously, Tar. Sometimes I worry. Colour isn't going to fix your low self-esteem." (Menon, 2009 p-48)

The dialogue above indicates that although Tara understands the potential negative consequences of gene tweak, she wants to manipulate her colour to match her friend Ria, an idealised version of human beings. Adi and Tara have been exposed to virtual experiences, gene engineering, and digital devices since their young ages, shaping their perceptions and preferences. Emulating their friends, who had artificial genetic cosmetic makeovers, further disconnected her from the state of natural being and natural health.

#### 4.4 Lack of Green Space

*"In every walk with nature, one receives far more than he seeks" – John Muir*

This novel portrays Tara's love for nature and Adi's discomfort on an artificial island. Tara is depicted as someone who appreciates the natural world and finds it lush, serene, and welcome. She kneels to examine the leaves, showing her close connection with the environment.

However, Adi perceives what is missing from the artificial island as crucial natural elements that create a truly immersive and vibrant environment. He noticed the absence of birds, wind, and sounds typical of nature, which made the environment feel lifeless and unsatisfactory in Matheran, a bonsai garden. The place is described as "botanical as a funeral home" (Menon, 2009 p-224) implying a lack of vitality and energy.

Adi's sense of detachment from nature in NURTH misses the dynamic experiences and physical sensations that nature provides, such as feeling wind on his face and being surrounded by others. The lack of organic elements in the artificial setting left the patient disconnected and unsatisfactory. In contrast, NURTH is described as noisy and dissonant, owing to its constant construction, robotic machinery, and shifting ice sheets. This portrayal emphasises the complexity of human experiences in both artificial and natural environments. It effectively conveys human yearning for a connection to nature and highlights the significance of preserving and appreciating natural spaces for their profound impact on human well-being and sensory experience.

Adi mentioned that knives and technology are neutral instruments and that their impact depends on how they are used. Technology can benefit from the dissemination of education and knowledge. However, excessive use may lead to social isolation, resulting in negative consequences. "Technology wasn't evil any more than a knife was evil. This depended on the context" (Menon, 2009, p. 99).

Sivan poses a moral issue regarding the obligations towards the environment and living beings. The tree's contribution to providing shade makes him think about his role in protecting and fostering life. "Why not? He is a tree that provides the shade. The tree requires little help in continuing to be a tree. If I don't help, he'll manage. No doubt. But what do you think I should do?" (Menon, 2009 p-142)

Menon demonstrated that human intervention leads to habitat destruction and its impact on ecological integrity. Sivan examined the ethical aspects of social and ecological integrity, while Adi and Tara emphasised the significance of natural environments over artificial ecosystems. People who choose to spend a lot of time in nature typically have superior overall health across various health aspects (Cox, Shanahan, Hudson, Fuller & Gaston, 2018). Ria and Francis went through Pune's experiences, revealing the victory of the natural environment over transhumanism.

## 5. Conclusion

*The Beast* underscores the importance of ecological sustainability, while shedding light on the socio-ethical challenges confronted by

children in environments lacking green spaces. Within their personal and social spheres, children grapple with both ecological and ethical manipulations, depicting the harsh reality portrayed in the novel. These four central young characters confront various biases, including artificial ecosystems and inhumane customs, as they strive to have meaningful impacts on future generations. To gain acceptance from society and peers, they must forgo their identity. Their struggles serve as poignant reminders of the significance of perseverance and resilience when facing troubles.

Using sociological and descriptive-analytic methodologies, this study reveals the psychological and ecological injustices endured by children, providing a unique perspective on the themes of novels. The novel underscores its opposition to the synthetic Earth and its implications for future generations.

*The Beast* serves as a powerful reminder of the significance of children's experiences and the necessity for ecological efforts to foster a just and ethical society. The four young children confronted the absence of a balanced ecosystem and humane principles, ultimately finding their true identities and breaking free of synthetic influences.

In *The Beast*, a poignant and dystopian novel, the narrative explores the rapid expansion of technology and its detrimental impacts on ecosystems. The themes of politics, ecology, and artificial intelligence (AI) serve as constant awareness of the ongoing necessity for vigilance and proactive measures in the battle against environmental deterioration and the pursuit of immortality.

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### **Authors contributions**

Ms. S. Senthamizh Inmozhi conceived of the presented idea and identified Ecopsychology as the overarching theoretical framework required to investigate the research question. Dr. Sushant Kishore verified the analytical methods and supervised the findings of this work. Ms. Inmozhi prepared the first draft of the manuscript, which both authors jointly developed, proofread, and edited.

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