



An Ecolinguistic Study of Environmental Degradation and Human Survival in Atwood's MaddAddam

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ABSTRACT

The current study explores environmental degradation and human survival by analyzing a dystopian novel *MaddAddam*. This study employs the theoretical framework of Ecolinguistics given by Stibbe (2015). Ecolinguistics explores the relationship of language and ecology. Atwood's *MaddAddam* depicts environmental negligence which causes challenges to human survival. This study explores the connection of ecological degradation and genetic engineering by analyzing its discourse. The current study aims to explore the discourse of *MaddAddam* by Margaret Atwood, which depicts environmental degradation and evokes a sense of urgency for human survival in an eroded environment due to genetic engineering. The findings of the study reveal that genetic engineering has caused environmental degradation, which has resulted in threat to human survival in a dystopian future. The discourse of the novel develops a narrative which requires an immediate action for environmental sustainability.

Keywords:

Environmental Degradation, Human Survival, Genetic Engineering, Ecolinguistics



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INTRODUCTION

Nature has been an integral part of human society. Human beings not only get benefits from nature, but nature actually makes them able to survive. Nature has always facilitated human beings. However, since the development of science and technology, it has been observed that the progress of science and technology has damaged nature. This continuous damage throughout the years has caused unprecedented damage to nature and the environment. We have literature that promotes nature. However, earlier English literature focused on the depiction of the beauty of

nature in the romantic age. With the beginning of the modern age the writers wrote about nature and some issues related to nature but not effectively propagated the environmentalism.

Modern literature started to carry different themes about political and social issues. Modern literature has ignored themes that focused on the sustainability of nature, which evoked the need for literature that can talk about the degradation of the nature and promote environmental discourse. Postmortem writers started to develop literature in a way that promoted the theme of loving the environment and efforts to save the environment, which actually paved the way for the development of the theory of ecocriticism in literature. Eco-critical theory mainly focuses on the issues of the representation of environmental degradation. Eco-critical theory has contributed a lot towards the understanding of the issues related to nature, ecology, and the environment. However, there needs to be a more significant gap between understanding the nature of the language used to preserve the environment or to promote the green discourse generally in literature and particularly in all disciplines of life. The researchers worked on the idea of a natural language that can promote environmental issues. However, scholarship on the theories of language and linguistics can point out the issues of environmental unsustainability through the use of language. The earlier theories focused on the discourse of environment in a particular context. These theories only focused on the representation of issues of the environment. Eco-linguistics has filled this gap by pointing out the use of language to degrade or promote the environment around us.

Eco-linguistics is a branch of linguistics that studies language and ecology. International Eco-linguistics Association defines Eco-linguistics as an emerging field of knowledge aimed at “exploring the role of language in the life-sustaining interactions of humans, other species, and the physical environment.” The terms ecology and language seem to be quite different; however, they are very closely related as the way we think about planet Earth is affected by language, and our thinking affects our behavior. Stibbe (2011) defines eco-linguistics as a branch of linguistics that studies the impact of language use in that builds relationships between humans, other organisms, and the physical environment that is normatively oriented towards the preservation of sustainable relationships among all the species. Eco-linguistics is closely related to how language plays a role in forming, nurturing, influencing, or destroying relationships between people, their survival conditions, and the natural environment. So eco-linguistics appeared as consequences of human-ecology development that is associated with different economic, social, religious, cultural, linguistic, and ecosystems that are interdependent to each other.

An eco-linguistic study studies the inverse change between language and environment. It also examines ecosystems, which are a very significant element of the human system, that is, ecology. It is a system with the language that people are supposed to use in communicating in their environment, that is, linguistics. Stibbe (2010) mentions there are three forms of the environment: a physical environment that covers geographic characteristics such as the topography of a country like coastal, valleys, highlands, and mountains, weather conditions, and amount of rainfall; an economic environment like human basic needs that consist of fauna, flora, and mineral resources; a social environment that covers the various forces that exist in a society that shapes the lives and minds of one another.

Stibbe (2014) gave the idea of different discourses related to the environment. He categorized these courses into three categories, which include ambivalent discourse, destructive discourse, and beneficial discourse. He believes that through the understanding of the ideology behind these discourses, we can easily analyze a particular chunk of language to understand the issues related to environmental nature reflected in a particular context. The current study aims to explore the discourse of *MaddAddam* by Margaret Atwood, which depicts environmental degradation and evokes a sense of urgency for human survival in an eroded environment due to genetic engineering. Environmental issues surrounding genetic engineering are thoroughly examined in this paper.

The *MaddAddam* trilogy is Atwood's most acclaimed and significant book. It has also been nominated for literary accolades like the Booker Prize, Arthur C. Clarke Award, and Governor General's Award. Television series adaptations by HBO and Paramount TV are under production. The trilogy is a dystopian speculative fiction masterwork with an intriguing and disturbing ecological future. The *MaddAddam* trilogy is dystopian speculative fiction set in a near-future world where a man-made plague wipes out most of humanity and leaves a few survivors to survive in a hazardous environment. The trilogy depicts a pre-plague society of corporate avarice, genetic biotechnology, environmental degradation, social injustice, and violence. The trilogy mixes numerous personal narratives to explain the ecological disaster's causes and effects. The Crakers, a new species of genetically enhanced humanoids, are ecologically harmonious and innocent in the trilogy. The trilogy pushes readers to rethink their views on ecology, human nature, society, science, technology, morality, religion, etc.

Research Questions

This study addresses the following questions:

1. In what ways does the discourse of *MaddAddam* by Margaret Atwood depict environmental degradation?
2. How does the discourse of *MaddAddam* evoke a sense of urgency for human survival in an eroded environment?

LITERATURE REVIEW

Since ecolinguistics is a relatively new topic of study, opinions regarding where it belongs in academic research are divided. It is commonly known that ecolinguistics arose primarily as a linguistic subfield in the 1990s (Li et al., 2020). According to Chen (2016), ecolinguistics encompasses two distinct approaches within the field: firstly, the application of traditional linguistic methods to texts and discourse that are ecologically significant, and secondly, the contemplation of language theories influenced by the holistic paradigm of ecology. Ecolinguistic discourse analysis studies how language is used to build and convey ecological reality as well as human-nature connections is called ecolinguistic discourse analysis. This is a way of studying how language is utilized. The theoretical framework of ecolinguistics, which is an interdisciplinary discipline that investigates how language influences and reflects ecological reality as well as human-nature connections, serves as the foundation for ecolinguistic discourse analysis. Ecolinguistic discourse analysis not only critiques the discourses that encourage

ecologically destructive behavior, such as consumerism, anthropocentrism, or neoliberalism, but it also seeks out the discourses that encourage relationships of respect and care for the natural world and other human beings. These discourses are referred to as beneficial discourses. Analysis of ecolinguistic discourse may be used in various texts and discourses that deal with ecological concerns and awareness (Mohammadi, 2022). Some examples of these texts and discourses include environmental journalism, environmental education, environmental activism, and environmental literature. Ecolinguistic discourse analysis aims to increase ecological awareness and foster reasonable discourse among the readers or audiences of the analyzed texts or discourses.

As defined by Pen and Fill (1993), Ecolinguistics is "the critical investigation of environmental discourse." Ecolinguists consider the loss of biodiversity equivalent to the loss of language and culture. As with the loss of biodiversity, the extinction of languages also has ecological repercussions. According to Steffensen & Fill (2014), the field of ecolinguistics, which aims to prevent the destruction of ecosystems, languages, civilizations, and all forms of life, is up against two formidable adversaries: ecocide and linguicide. Ecolinguistics is a branch of applied linguistics that studies how different kinds of language may either help or hurt Earth's long-term existence. Language habits that hurt the natural world are strongly criticized. The field of research known as ecolinguistics focuses on the role that languages have in ecosystems. It generates concepts that probe how human language and the surrounding environment interact. Studying the interdependence of ecology and all stakeholders and factors that positively influence sustainability entails investigating a wide range of issues, from climate change to the preservation or destruction of ecosystems to the development of new methods for halting the extinction of endangered languages or halting the degradation of cultural or natural landscapes. The field of ecolinguistics provides the tools for studying the positive impact language has on ecological systems. "Ecolinguistic discourse analysis," as defined by Wu (2018), "consists of analyzing discourses and judging them within a normative framework that considers both humans and the embedding of humans within a larger community of life."

Asfar (2022) states that most of the research in ecolinguistics is done in England and Australia. All recent works are grounded in the framework Arron Stibbe gave in his groundbreaking work "The Stories We Live By." Stibbe's (2015) framework of eco-linguistics is one of the most commonly used methods. Eco linguistics can be described as an interdisciplinary field as language is studied with ecology. The conversations among eco-linguists have made the description of 'ecology' in certain circumstances more comprehensible. Stibbe (2015) states that eco-linguistics studies language to unleash the stories we live by adjudicates those stories in philosophical terms, keeps stories that are against the philosophy of ecology, and contributes to exploring new stories to live by.

RESEARCH METHODOLOGY

Stibbe (2015), in his work "Stories-we-live-by," opines that ecology, directly and indirectly, affects our lives and experiences in this world. He identifies eight different forms of stories, which are ideology, framing, metaphor, evaluation, identity, facticity, erasure, and salience. Stibbe's framework of eco-linguistics has been most commonly used to deal with language

ecology. It also supports the argument of the present study as it is a concrete approach for the analysis of the discursive features that may reveal the stories and the ecological attitude of a discourse, which is developed by language use in specific texts. Stibbe (2015) starts with the concept that some stories are prevalent in society, which are mental models, not the traditional narratives that exist between the lines of discourses.

The Stibbe's (2015) framework describes how discourse and language in use expresses and reproduces ideas. The context and aim of discourse can promote, criticize, or reflect ideas. The framework introduces discourse analysis, which studies how language affects social and cultural phenomena. Discourse analysis can show literary ideologies and how they affect people's thinking and actions. The Stibbe's (2015) framework uses discourse analysis to analyze a climate change newspaper item, a politician's speech, an economics textbook, and a film script. In the chapter, these writings form beliefs about the environment, society, and human nature and influence our tales. The Stibbe's (2015) framework explores discourse analysis's ethical and practical difficulties, such as reflexivity, transparency, and critical awareness. The framework suggests identifying the text's purpose, audience, genre, and context; examining its linguistic features and strategies; assessing its effects and implications; and suggesting alternative ways of expressing or representing the topic. The major objective of Stibbe's (2015) framework is to introduce ideologies and how discourses express and replicate them. The framework also discusses how discourse analysis can reveal text ideologies and how they shape our narrative. The chapter defines ideologies as systems of beliefs that form people's worldview and justify their behavior. The chapter claims that ideas are hidden or naturalized, making them seem inevitable. Neoliberalism, consumerism, individualism, and anthropocentrism are examples of prominent ideas in modern society that affect our interaction with nature and other species.

Data Analysis

MaddAddam is a novel that talks about the issues of environment and survival in the current scenario. Basically, the story of the novel talks about the challenges faced by environmental degradation. It is the story of survival in which the people try to survive on the planet earth and find out the best possible solutions for survival. This novel tells the condition of the earth and how so many species are finished, and it tells the story of the species where many species are genetically engineered or finished. The characterization is symbolic as it tells the demand of the hour, which is necessary for the survival of humans. The world is not livable anymore, and people are migrating to the different destinations to save themselves. Margaret Atwood has very beautifully portrayed the issues of environmental degradation and its impacts on the lives of the characters.

MaddAddam is the part of a trilogy. The first part starts after the pandemic situation. A scientist engineered a species of humanoids. Crake makes a team that works on the development of Pandayk to save humanity. He works on two projects to deal with the environmental changes happening in the world. First, he develops a pill that can prolong youth and save from diseases. Secondly, he makes a species of humanoids. The pill also controls the birth. Crake uses the pill to finish the human race. The human race and few people survive on earth. Nature controls the earth as the people face climate changes, floods, and storms. New species of animals are made to

survive in the new climate. The pigeons are a combination of pig and human species. They are very dangerous and pose a threat to humans as they have the intelligence of humans. Actually, the violation of nature is related to the manipulation of the environment, as these species are against humans now. The second part of the trilogy is about the flood after the pandemic. The second part tells the story of two women who are part of a religious group whose name is the God's Gardeners. The second part actually talks about the development of society into a corporate culture. Different private organizations run the overall structure of the society. The society is divided into two groups. The first group is the elite class, which consists of CEOs and scientists. They are actually ruling the society. The second class is the people who are underprivileged. This part mainly focuses on the narrative developed by the writer to promote a particular social class group, which is the God's Gardeners who works to protect the environment and save humanity. The God's gardeners basically work to promote equality and develop a discourse to save humanity among all species.

The narrative of *MaddAddam* shows a dystopian future where genetically modified species and hybrid animals are common due to genetic engineering's unforeseen effects. Bioengineering allows firms to produce new species for food and drug research. The story features genetically modified humanoid Crakers. Genetic tweaks have made them less violent and sexual, yet they cannot fully understand human emotions and history. In the novel, companies use genetic engineering to produce many species with unique abilities. Animal husbandry for meat production, genetic engineering for amusement, and the creation of Crakers to eliminate humans are examples of this mentality. The novel makes several references to genetically engineered animals. Certain animals have been genetically modified to meet human needs. These species include wolvogs, pigoons, and rakunks, skunk-raccoon hybrids. Pigoons are genetically engineered pigs with transplantable human organs. The Crakers are a classic example of genetic engineering. Crake, a fictional character, creates a race of human beings that resemble humans physically. They are herbivores, submissive, and free of many of Crake's tactics that brought down the previous human civilization. Crakers have a limited comprehension of world history and act accordingly due to their unflinching allegiance to their superiors. The protagonists discuss morally controversial subjects like manipulating nature, controlling evolution, and designing animals for specific purposes as deities. Various characters raise these topics. The ability to modify genes raises concerns about unfettered research and unanticipated results.

Environmental deterioration and genetic engineering are linked. The book claims gene editing causes ecological disturbance, biodiversity loss, and environmental imbalance. *MaddAddam* portrays technology's boundaries, scholars' and corporations' obligations, and the effects of environmental change. This is done by studying genetic engineering. The novel focuses on how the conflict between environmental preservation and technological growth affects local communities and individuals. A melancholy story shows how human irresponsibility has destroyed the environment. Unregulated corporate expansion and a negative environmental stance cause global warming, pollution, deforestation, and biodiversity loss. Depletion of resources, urbanization, and hazardous substance use harm the ecology. As the protagonists struggle with their issues, the degradation deepens their emotions of powerlessness and vulnerability. The novel also consists of beneficial discourse which depicts the God's Gardeners

as eco-religious activists opposed to corporate-backed genetic engineering and its ecological calamity. Sustainable agriculture, environmental conservation, and Earth-friendly living are stressed. The group's teachings and deeds in a world where destructive forces have changed reflect Atwood's exploration of alternate ways of dealing with the environment and each other. In addition, the novel explores ethical issues and repercussions of scientific progress. The book shows the consequences of fiddling with nature, the ethical issues brought by genetic engineering, and the porous borders between living things.

The story portrays ecological issues like the "rising sea" (p. 162), showing the rise of the sea level due to environmental degradation. It also shows the transformative power of climate change, which has made the city float, which was once in average condition. The environmental upheaval is also shown as "swept away" (p. 163), which portrays the forceful impact of climate change in the current world. The "semi-flooded" (p. 164) hotels convey a stark contrast to their former opulence as they reveal the devastation of human-built structures due to nature's ruthless advance. This discourse not only shows the immediate consequences of environmental changes on infrastructure but also works as a metaphor for change in our constructed world in the midst of environmental shifts. The streets are transformed into canals, showing a vivid picture of the new urban landscape. This discourse not only shows the physical changes but also provides a sense of displacement, which invites readers to experience navigating a world in the throes of environmental deterioration. Another instance, "Venice living up to its name" (p. 166), shows the sinking fate of Santa Monica. It is an iconic city known for its struggles against the rising sea.

The reference to "Floating World" (p. 166) encapsulates the city's new reality. It suggests a precarious existence that is floating on the edge. Constant use of references like "floating most of the time" (p. 165) emphasizes the dynamic nature of the environment in the current world, which is continually affected by environmental changes. The complicated link between humans and the environment is shown again and again by introducing different natural objects. The example of "full moon and spring tide" (p. 168) shows this link and cyclical rhythm. It also underlines the environmental challenges faced by humans in a new world by forcing them to work on different strategies of survival according to the situation.

According to the theory of ecolinguistic discourse analysis, the novel masterfully weaves together language and environmental awareness. References like "rising," "swept away," and "floating" become discourse markers that not just describe a situation but actively engage the readers in a deep exploration of ecological changes. The novel transcends mere description, becoming an intense commentary on the environmental changes by evoking readers to reconsider the consequences of our actions on the intricate balance of the ecological system. The novel tells a coming-of-age story in which the environment is portrayed as a canvas to ponder due to the continuous technological and societal changes.

The reference to a "moppet shop" (p. 166) reveals a meticulous fusion of reality and artificiality. The term "prostitutes" (p. 166) shows a complicated interplay between the organic and the synthetic, which shows the blurring of the boundaries of what is man-made and what is artificially manufactured. This ecological discourse prompts a reconsideration of the environmental consciousness about technological integration in the future world. The contrast

between "real girls" (p, 166) and "prostitutes" (p, 166) shows the commodification and mechanization of human exposure in the future world. This not only signifies moral values regarding the objectification of individuals but also reveals a broader theme of disengagement from nature. The very development of entities developed to copy human communication raises questions about the credibility of relationships in a world where technology has penetrated the most intimate aspects of human life.

The characters' fascination with the "rough, unpolished physical world" (p. 165) shows a transformation of societal values. As the virtual world has become a part of society, the narrative shows a low inclination of characters inclinations toward the crude aspects of the physical world. It shows an escape from the natural world. The prevalent controlled virtual realities have become part of the lives of the characters. However, some characters show resistance to this virtual realm. They raise doubts over mediated experiences. Here, the physical world becomes essential because it draws a line between the virtual world and authentic experiences. The street acrobats face physical injuries (p, 170), showing the contrast between the natural physical world and online interaction. It highlights the intricate aspects of the physical world.

In essence, the book serves as a linguistic exploration of the intricate relationships between technology, society, and the environment. The ecolinguistic lens unveils a narrative where words become vessels for environmental discourse. The juxtaposition of "prostibots" and high-wire acrobats in a flooded urban landscape paints a vivid picture of a world grappling with the consequences of its evolution. Through linguistic choices and narrative nuances, the text encourages contemplation on the delicate balance between progress, authenticity, and the preservation of the natural world. The symbolic relationship that exists between natural phenomena and human activities encourages readers to focus on how all life is intertwined while they read this. The author's utilization of vivid and expressive language can evoke a range of emotions in the audience during the reading experience. Consequently, this might lead to the cultivation of feelings of empathy and a heightened recognition of the surroundings. According to Ecolinguistics, emotional interaction helps develop a more intricate and subtle ecological imagination in individuals.

Based on the investigation's results, the author effectively depicts the debate around the eventual annihilation of mankind in the near future. The author has built an analysis of the effects of ecological degradation on living beings, including humans, landscapes, species, and all natural environments. The study presents the points that represent the exponents of language signs, ecological variables, and cultural influences. The inclusion of those elements would exemplify the favorable depiction of ecology in tandem with the degradation of the environment.

CONCLUSION

MaddAddam depicts a dark future. This future sees various species disappear due to genetic modification, pollution, and habitat shortages. The once-rich natural tapestry has been destroyed, reducing plant and animal biodiversity. This work's characters emphasize human activities' inevitable consequences, including species extinction. The book shows firms put profit before social and environmental responsibilities. They aggressively pollute the land, water, and air,

creating filthy and unsafe living circumstances. Additionally, these activities degrade ecosystems and harm persons and the environment. The story briefly covers climate change and harsh weather occurrences that degrade the environment. The harsher environment, including floods and droughts, affects the characters. More broadly, it shows how human activity is changing the global climate. The book depicts bleak cities with abandoned buildings and filthy streets. Human civilization and the natural environment are interdependent, therefore urban areas are decaying at the same rate. Christian group God's Gardeners takes an unusual approach to environmental challenges. They promote environmental awareness, sustainable living, and a simpler lifestyle. After realizing the need to reconnect humanity with nature, the character realizes the organization's beliefs match this. MaddAddam warns against humanity's disrespect to nature by showing a polluted planet. Unregulated industry, unbridled consumerism, and resource extraction threaten the environment. This book asks readers to consider how they can reduce these hazards. MaddAddam uses genetic engineering and environmental deterioration to comment on the current state of events and warn against unchecked technology and environmental manipulation. This warning warns of the risks of manipulation. God's Gardeners, an ecological cult, is suggested as a solution to genetic modification and irreversible environmental destruction in the novel. This movement prioritizes respect for ecology, eco-friendliness, and traditional methods of connecting with nature. Their values emphasize land care, harmony with nature, and empathy for all aware beings. By adopting these ideas, humanity can reduce the negative effects of genetic engineering and environmental degradation, creating a more sustainable and harmonious relationship with nature.

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