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Climate Change in Jennifer Mills Dyschronia: An Eco-Social Critical Study

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Abstract

In the recent decades, the influence of the oblivious human actions has resulted in an environmental devastation and critical problems affecting both nature and human being existence. Climate changes entail a change in temperature and weather conditions, and these changes can lead to serious crisis such severe fires, droughts, rising sea levels, water scarcity, melting polar ice, floods, catastrophic storms, and declining biodiversity. The current paper tries to highlight the impact of capitalism and its practices upon the environment and how the economy plays an important role in depleting resource and destroying the whole environment. The study investigates Jennifer Mills Dyschronia to highlight the effect of climate change upon human lives through adapting ecosocialism theory. The study comes up that capitalist ideology, which seeks to achieve the ultimate gains, results in depleting the resources of the nations and thus creating deserted environments. The depletion of resources leads to displacing people from their environment.

Key words: climate change, ecosocialism, Dyschronia, capitalism.

Introduction

In the recent decades, the effects of human activity on the world are setting and atmosphere becomes so critical that needs further studies and explorations. All the changes of nature like sea ice loss, accelerated sea-levels rising; narrowed glaciers, shift in plant and animal varieties, and more extreme heat make the scientists predict that all these environmental fluctuations are a result of climate change. In the Anthropocene, the human activity has transformed the history of the earth into a new level that new epoch emerged to express this impact.

The subject of the climate change has become more and more entrenched in people's daily lives, affecting upcoming authors. It is not merely a fictional "theme." It redraws the story's essential operations

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and enhances the place's passivity rather than elevating it to a character that is formed by world systems. It alters character interactions and adds new components to storytelling, and gives any novel the ecological system meaning. It is important to notice that Anthropocene fiction explores how climate change and its consequences have altered the capabilities of contemporary writing. One method to assess innovation is to look at it in the context of a genre. Many pre-existing genres provide incredible tools for thinking about difficult topics such as climate change. Science fiction is a rich source for imagining future technologies and history.

There have been three epochs in the development of eco-socialism. Initial manifestations of this phenomenon can be traced back to the 1970s and 1980s. For misrepresenting ecological constraints, early eco-socialist theorists criticized Marx and Marxism. By fusing neo-Malthusian ideas of environmental constraints onto Marx's analysis, as well as the strictly ethical conceptions of the nature-human relationship associated with deep ecology and ecologism, these individuals advocate for a heterodox "greening of Marxism." There was a growing consensus among eco-socialists in the late 1980s and early 1990s that Marx's writings were "antiecological," with critics saying things like, "Karel's'mechanistic-positivistic rational view' of nature, his "productivism," and "Prometheanism," and the "labor theory of value" were all "antiecological." These ideas are central to Marx's explanation of capitalist social relations of production that need adjusting. The early stages of ecosocialism sought to demonstrate Marx's supposed environmental shortcomings before fusing Green theory with Marxism (Croeser, 2017).

The Second-stage Eco-socialism aims to reconnect with Marx and the material world. The intent was to show how traditional historical materialism is ecologically grounded (Croeser, 2017). At this point, we're going to be focusing on how Marx's materialist views of history and nature are connected. It was planned that Marx's entire body of work, beginning with his doctoral dissertation on Epicurus' (341-270 BC) philosophy of nature and ending with his final publications in the 1880s, would be the subject of a major archaeological dig to restore the underlying ecological structure of his thought.

Marx's ideas were incorporated into three different discoveries: (1) an ecological value-form theory based on his entire critique, (2) a theory of metabolic rift (and, with it, his terms for the "universal metabolism of nature" and the "social metabolism"), and (3) two different theories

of ecological crises (scarcity crises and ecological crises proper). Radical analysts, equipped with these new methods, have begun to apply them to the ecological and social situations of the present, ushering in a third phase of eco-socialism (or ecological Marxism) that is directly linked to contemporary praxis, as seen in movements like System Change Not Climate Change. Thus, in the early decades of this century, Marx's ecological critique emerged as a concrete factor in the worldwide environmental struggle (Foster, 2020).

The second wave started with the publication of two books in 1999 and 2000: Marx and Nature by Paul Burkett and Marx's Ecology by Foster. They both wondered, in different ways, "What did Marx genuinely mean about the relationship between humans and nature in capitalist society?" They demonstrated that Marx stated much more about ecology than most Marxists of the twentieth century realized. This resulted in the development of the metabolic rift theory, which some environmentalists currently employ to comprehend specific environmental issues (Angus, 2017, p.162).

Eco-socialist texts on the one hand, and activists on the other, have engaged in on-the-ground political activity; the third stage of Eco-socialist readings seeks to bridge that gap between more academic and expert disputes over the first-stage and the second-stage. However, there is sometimes murkiness surrounding the divide between theorists and activists. Eco-socialist activists in the climate justice movement need better theoretical knowledge to inform their plans and methods, and third-stage eco-socialists have used Marx's method of ecological materialism to analyse contemporary environmental challenges (Croeser,2017). Marx's three major contributions to our understanding of the relationship between humans and the natural world are the concepts of universal metabolism, social metabolism, and the rift theory of metabolism.

- Universal: Marx's universal metabolism describes nature's complex relationship with society. Marx and Engels believed in a "universal metabolism of nature" in biophysics. Ecological cycles and processes build and rejuvenate. Human society reacts to its natural surroundings to provide services, wants, and products (Foster & Clark, 2016). Humans create a social metabolism with nature, both macrocosm and microcosm (e.g., the human microbiome), which requires matter and energy exchange. Thus, nature's metabolism affects humans' social metabolism. Historical political-economic arrangement of labor and production forms this interaction (Clark et al., 2019).

-Social: The notion of a social metabolism is often used in ecological economics and industrial ecology. It is the vast collection of physical that is converting to raw materials and energy, as well as labor, into final products and wastes. The term has also been named to social or

social economic metabolism. Almost everything the society extracts from the environment is turned and eventually returns as trash and pollutants to the environment.

The essential materials are taken from the natural environment by humans. Though some materials, such as fuel and food, are utilized immediately after extraction, others are preserved in buildings or infrastructures for decades or even centuries. Society's metabolism is the main driver of global environmental change, putting pressure on the environment on three levels: the input side, when resources are extracted, usage phase, and the output stage, when wastes and emissions are released. Numerous critical resources for industrial development have grown increasingly limited, increasing the cost of production to the point where systems depending on them can no longer be sustained (Krausmann, 2017).

The metabolic rift idea is based on the term's natural science history and Marx's use of it to discuss environmental difficulties. Marx's ecological critique of capitalism emphasizes the metabolic divide between social structures and nature. It investigates metabolic linkages and ecological rifts in modern agricultural, climatic, oceanic, and forest systems. Marx initially noticed a metabolic gap between humans and non-humans (Foster & Clark, 2016). Over the past two decades, eco-socialist studies have used Marx's triadic concept of nature's metabolism, social metabolism, and metabolic rift to examine historical and contemporary environmental challenges. Marxist metabolic research has examined capitalism's social metabolism and climate, marine, hydrological, and forest systems. Coal, natural gas, and oil have powered capitalism's growth. This procedure broke the solar-income budget, releasing large volumes of trapped carbon. Growth-driven ecosystem degradation diminishes carbon sinks, increasing atmospheric carbon dioxide and human-caused climate change (Clark et al., 2019).

It is obvious that eco-socialism is associated with the third phase of ecocriticism. It tries to acknowledge the global capitalism's environmental devastation and to promote social and environmental justice, but within the context of a bio-spherical egalitarianism comparable to that is advocated by many ecologists. This support for the non-human broadens the concept of environmental justice to include the environment itself, linking together parties whose concerns would have been considered distinct previously.

The aim of the current study is to trace the human impact on climate change and investigate the problem of altering earth atmosphere The novel deals with the effect of climate change on the environment and even on the existence of human being. To achieve this aim, the study is going to:

1. Explore the human impact on nature and environment.

2. Analyzes the selected novel in the light of the Ecosocialism theory.

3. Investigate the problem of climate change and role of human being in rendering this change in the novel of Jennifer Mills' Dyschronia .

Literature review

Although the subject of human impact on nature and its consequent role in making climate change is widely studied and investigated by scholars, there are few studies carried out on Jennifer Mills' Dyschronia due to its recent publication in 2018. The first study is Jack Kirne's (2018) article, titled 'Staggered Time: Catastrophe, Extinction, and Unsteady Temporalities in Jennifer Mills' Dyschronia ', in which he confirmed that Mills emphasizes the importance of avoiding the allure of prophetic time when we become confused; only by acknowledging the tragedies of the future and past as if they are now can prevent the increasing of catastrophe.

Discussion

Jennifer Mills' Dyschronia is a dystopian novel in which Mills uses a non-linear narrative to present the dilemma of climate change. The title of the novels implies some sort of confusion about time. It refers to a fictional medical disease in which "pain and perception of time have produced a dissociation cycle, a splitting" (Mills, 2018, p.77). Migraine is an example of a self-fulfilling prophecy (Milner & Burgmann, 2020). The protagonist, a young girl named Sam, is often felled by migraines, happening in tandem with prophet dreams of the future. Sam is a young lady who suffers from an abnormal sense of time (Bradley, 2018).

Sam predicts a series of cumulative mini-catastrophes: The shutdown of the town's Aspco Asphalt plant, which causes six former employees to commit suicide, a flood, the distinctive unsuccessful effort to establish a local theme park of amusement, and the city's eventual contamination to the point where it is rezoned as "unviable" by the Department of Sustainable Communities (Milner & Burgmann, 2020). Handling time with elegance, Sam's uncomfortable connection with it

reveals itself in language difficulties, including confusion with past and present tenses and definite and indefinite articles (Shirm, 2018).

When one of her gloomier prophecies becomes true, sequences of events happened through which she sees the township all but turn against her. The novel is set in the fictional South Australian town of Clapstone which has always been a marginal place, formed by a series of failed efforts to reshape and harness the land. Clapstone is afflicted initially by agriculture, but more recently by the construction and subsequent closure of an asphalt refinery close outside the town, an enterprise that harmed the town's health (Bradley, 2018).

The term 'dyschronia' refers to a perceptual disorder, confusion with the notion of time. Moreover, it conveniently recalls the word "dystopia". The novel Dyschronia chronicles the fate of an Australian small community named Clapstone. It is a dystopian future in which the majority of the town's inhabitants leave after the closing of the last enterprise. Apsco Asphalt is the city's largest employer and polluter. Although the concept of a small business is not novel, something unusual is occurring in a community in Australia where manufacturing has ceased to operate Clapstone.

Clapstone suffers failed farming efforts, droughts and floods, a fruitless gold rush, the ebb and flow of an ephemeral river named Luck, and the loss of the sea. It leaves the former seaside town as a crumbling shell on the brink of an arid plain. Mills' novel might have easily used the alternative title of solastalgia because it is a lament for a town destroyed by an apocalyptic event, climate change occurrence (Hyde, 2018).

Mills creates a wonderfully tragic novel that notes quite beautifully the weakening public of the environment. So many doomed things have been happening to the planet: natural catastrophes, climate changes, and ecological changes. Moreover, the failure of agriculture in Calpstone city turns back to the cultivation method Clapstones farmers' practices lead to decreased fertility of the soil when they are scratching wheat from the worse land. These ended up causing the topsoil to be swept away to become salt marshes. These actions led to separating the fields from dunes crops. The crops recede around partially half full in sand hills. These cycle operations affect the natural system of soil (Mills, 2018).

Humans, in the light of metabolic sense, must deal with the predicaments imposed by nature on the material world's processes

while also having an impact on these cycles through their labour (and the linked structure of production). Since fewer people now own agricultural land, those who do pay close attention to it use increasingly intensive methods of production, such as the use of synthetic fertilizers, which places a strain on the environment (Foster et al., 2010):

The farms appeared from a smudge of white dust. Sandy topsoil stirred up behind a horse, then a plough, then machinery. Chemistry marched in, white mist sprayed with spreaders, leaving the black marks of birds on the ground behind. The sea kept coming to blow the clouds away. It was still reliable then. It was never good country; the farming was an act. (Mills, 2018, p.36)

Mill shows us that pesticide has influenced profoundly the planets when she uses "leaving the black marks of birds on the ground behind"(Mills, 2018, p .36). She presented the effect of pesticide sprays on animal, plants, and the soil itself.

Agriculture, long-distance trade, and rapid population increase have all contributed to this massive metabolic exchange between humans and the planet. The land is also affected by the growing use of synthetic inputs (chemical fertilizers) and urbanization. When profit was prioritized over reinvesting in land, it led to the depletion of vital soil nutrients and the contamination of urban areas due to the accumulation of trash. Vladimir Vernadsky states that increased human activities serve as a geological force to reform the planet (Foster et al., 2010). The activity of Clapstone's people reforms the town after scratching wheat made the land worse. They explained what had happened to Clapstone city in the past, describing the miserable condition of the environment; the soil started to drift to salty swallow that detached the field from the dunes. As well as the animal has suffered from this heinous condition that has led to the transformation of the animals into decorative Skelton. As a result of the drought that affects the two conditions. Furthermore, the dams transformed to sour with salt Sulphur. This bad condition didn't stop this limit but it speared to swallow. The swallows were salty and dried (Mills, 2018).

According to Marx, the social metabolism approach emphasizes the connection of social and ecological systems, highlighting that ecosystems and natural cycles operate independently of human civilization and other systems as well as in relation to them. Marx acknowledges that people cannot produce anything apart from nature. Therefore, a metabolic connection between humans and the planet is essential. He defines labour as a process between man and nature, a process by which human mediates, regulates, and directs the metabolism of both himself and nature by his own acts. Humans

interplay with the “universal metabolism of nature” through practical efforts to improve products and services (Longo et al, 2015, p. 23). In Dyschronia, the refinery represents the system of capitalism that cares only about making a profit; it leads to serious problems for both the humans and non-humans in Clapstone town; “There were lung problems, here and there. A few children lost to tumours, but that was just bad luck. Everyone had headaches” (Mills, 2018, p.42).

The widespread accumulation of the Refinery of the Asp waste has a global impact, degrading the environment and leading to further biosphere modification and triggering a global disaster. In addition, the gas emission of the Asp refinery leads to climate change and health problems. It destroys the health of the inhabitants of Clapstone; it also causes the disease of Dyschronia from which the protagonist suffers; perhaps it is the result of gas emissions.

"Migraines could change shape; the smell could be neurological. She had heard of this happening with epilepsy, tumours: the brain played tricks" (Mills, 2018, p.333). Sam’s migraines, headaches, and tumours, or suicides, are a result of the gas emission; both of these are found as a result of just random mutations (Mills, 2018). She believes that all these problems are consequently connected with Asp refinery, whilst, the townies refuse to recognize the gravity of the situation or their role in worsening it. They say, “It’s nature’s way, we say, this awful behaviour; it’s all part of a cycle. Fire and flood, round here. The sea will be back” (Mills, 2018, p.51). With their blind belief in the very technological and economic powers that have generated this catastrophe to remain, they attempt and ‘monetize’ their new ‘ghost town’ with their computers, while expecting their share of profits from the asphalt corporation that has destroyed their lives (Gildfind, 2018).

Marine systems are rising distressed by human-induced aspects such as pollution, carbon dioxide emissions, and an array of other ecosystem crises. The combined impacts of these anthropogenic methods, as well as overfishing, magnify the results and deteriorate the linked ecological systems (Longo et al., 2015). “We got punctures if we rode down to the sea, our wheels making brown marks in the soft earth” (Mills, 2018, p.40). The speech reveals the ability of nature to transform in strange ways. The abnormal condition of the sea came as “We preferred to drive away to swim at a decent beach. We sometimes waded in the crabby shallows, joined to the slack mouth of the Luck, but the water never smelled right. You wouldn’t let your kids put their faces in it, in case it stung their eyes” (Mills, 2018, p.41).

When they sometimes swim in the crabby swallow, they have felt pollution and the stinky smell of the sea. They had not let their children swim in because when the water touches their eyes, it will seriously harm them. Clapstone people knew that there is something wrong but they did not admit it. They had just adapted to climate change that affects the town.

Ed, another character in Dyschronia, represents the capitalist mind that seeks just to make profits with the help of Sam's visions. When starting to make a project for Giant cuttlefish, he is placed in a situation either to make the project or let the cephalopod live; he thinks only of his interest and how to increase the profit. Clapstone's resources were exploited by different multinationals and sold many times for manufacturing purposes for different institutions. The value of the town is measured in how many resources it owns. According to Marx, the transformation of land into private property, as means of accumulation of capitalism, has laid the foundation for the destruction of the human-earth metabolismom which the protagonist suffers; perhaps it is the result of gas emissions.

In this term, the eco-socialists propose social ownership of the means of production, dismissing private owners, the benefit to expropriate laborers' surplus value, and profit, which is inherently just, but also because it allows socially beneficial decisions to address the environmental dilemma to be reached. Asp refinery represents the power of capitalism and how it has exploited humans and non-humans. It reflects the idea of the ultimate growth of capitalism, whose mere interest is to increase financial profits. The activity of ASP refinery leads to a serious environmental problem in Clapstone town. Factory garbage affects the natural life cycle. Capitalist companies deal with the planet like big garbage that holds their trash. Similar to the way of ASP refinery deals with Clapstone town, they use their natural source, and consequently, the depletion of natural sources and population the environment as a sequence of industrial processes.

Under capitalism, nature is viewed as a "free gift" to the property owner. Capitalism overcomes the planet (including the atmosphere) and expands its destructive operations to a global scale. The exploitation of nature is universalized, bringing more and more of nature within the gaze of the economy and subjecting everything to the rationale of increasing profit. Capitalism is the systematic power that controls social production and propels industrialism to enhance natural exploitation (Foster et al.,2010). The Clapstone people have seen the importance of the land depending on its material worth. They perceive their land in terms of its content of natural materials. They consider nature as only a resource for use and benefits.

We were sure that all this ground had been investigated already, a long time ago, and found to be worthless. Ed spent months running it through tests, back in the day. It occurs to us that there are new kinds of metals now, rarer earths, and many shortages. Plus, technology is always advancing. Could be there's a resource here we didn't know about back then, or a new way to extract it. That would certainly change things. (Mills, 2018, p.178)

It makes reasonable to separate nature and natural operations from labor and production, as Marx argues. However, there is no longer any untouched part of nature on Earth, and no untouched part of civilization is immune to the devastating natural-material impacts of human actions. During the Anthropocene period, it's crucial to study capitalism as a system of detached social metabolic reproduction inside the Earth System and the intricate, dialectical natural-social linkages between the two (Foster & Clark, 2020).

The flood serves as a tool to discuss the morality of human emissions and the danger to humanity's survival brought on by climate change and its consequences on cities, wildlife, and individuals (Trexler, 2015). As a result of climate change, the Clapstone people's language reflects the changes in their surroundings. The goal of the capitalist worldview is to make earth a more sinister place. Karl Marx used a metabolic analysis to look at the environmental problems of his day. This involved analyzing the metabolism of natural systems, the connections between species and their environment, and the material exchange within these connections. The Clapstone crisis is not natural; it is a result of and a backlash against the abuse of the natural world. The analysis of the global climate change, particularly the impact of human activity on the carbon cycle, makes use of Marx's metabolic assessment of the nature-society dialectic. Because of these practices, the Earth was in danger (Foster et al., 2010).

Mills's book ends with several bad things happening to the environment, such as widespread desertification, a state in danger of becoming "unviable" because of problems with its water table, sinkholes, and even "green" emissions, and the disappearance of the sea. Finally, these environmental catastrophes have resulted in the deportation of the citizens of Calpstone from their homes by an impractical bureaucracy whose aim is to seize their property.

Conclusion

Milles' Dyschronia reflects the negative effects of climate change upon a small village in Australia. In Dyschronia, Jenifer Mills introduces the dilemma of Clapstone town that suffers from the phenomenon of climate change as a result of the refinery activities and capitalist companies whose only target is to increase their profit at expense of destroying people and animals alike. Dyschronia clearly illustrates how capitalism contributes to make a harmful climate change; consequently, Marx's theory of metabolism considers the best theory to deal with the domination of human being over nature and climate change in the field of literature. There is a need for maximum profits at the expense of the environment, regardless of the interest in environmental changes caused by this greed. This theory reveals that production processes create a rift between human and non-human. Marx's theory emphasized the connection between human being and nature as the ecological issues cannot be separated from human community.

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