

Icebergs, Polar bears and Butterflies: A Study of Climate Change Imagery in Imagination

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Abstract

Imagining climate change and incorporating it in literature is seen as an uphill task. When the world is ravaged by the rapidly escalating climate change issues, literary imagination has been seen as a way of understanding and exploring the manifestations of climate change in culture and society. The paper intends to look into how iconic objects and images such as the ice, polar bears, butterflies, rising seas and erupting volcanoes form crucial and effective tools in depicting the implications of climate change. Special focus will be given to the work *Flight Behavior* by

Barbara Kingsolver but other works with significant representations of related motifs will also be dealt with.

Keywords: Cli Fi, Climate Change Motifs, Anthropocentrism, Apocalypse, Species Extinction.

Imagination and fictional representations have always mirrored and many a times disrupted the perspectives, ideologies, anxieties and ways of the world. Climate change, which was formerly a mere conception, has of recent, turned out to be the massive contemporary anxiety. The ever-increasing frequency of raging storms, droughts, floods, cyclones and heat waves have disturbed our tendency to defer climate change as a farfetched possibility. The issue has moved beyond the compartments of scientific study and has entered discussions at multiple levels.

Climate change is notorious not just for the threat that it brings forth but also for the abstract nature that makes it impossible to communicate. The greatest challenge in communicating climate change lies in the fact that the greatest contributor to climate change, greenhouse gas emission, is invisible and therefore unappealing to the thoughts of the society. Discourses on climate change are often abstract, blunt and inconclusive due to the cloudy perceptions on the issue. The use of iconic, often affective imagery is predominant in the communication of climate change, both in scientific and imaginative narratives.

Jason M Brown, in his article, “The Iconography of Climate Change”, quotes Timothy Morton in saying that climate change like any other modern world trend is a ‘hyperobject’, as it is “massively distributed in time and space relative to humans.” Given its universal pervasiveness, it is difficult to transcend the ‘hyperobject’ of climate change into concrete, easily comprehensible terminology or imagery.

Icons and images giving poignant depictions of the consequences of the changing climate are put in use by authors and artists in attempts to concretize the abstract notions of climate change. The ideas of species extinction, drought, floods and the like which are difficult to be presented through words, are represented through a single image.

Literature as a traditional and serious mode of dispersal of knowledge and thought patterns definitely plays a major role in trying to bring sense to the contemporary world ravaged by climate change anxieties and climate change denials. The effect of climate change manifests itself differently in different time frames and different communities. Climate change is different for each society and has varied implications for each community. When one society is ravaged by flood waters, another will be embroiled in an impossible drought. Representing climate change in literature entails complex and difficult challenges given this kaleidoscopic scale of the implications of climate.

Imaginative representations of climate change cannot be easily restricted to a catastrophic tsunami or tornado, as the real effects of climate change are more distributed. The silent repercussions of the change are deeper and more devastating than the visible catastrophe. Depicting the gradual ramifications of climate change like contamination of fresh water, scarcity of food and water, poverty, loss of livelihood and habitat and the like in literature is more challenging and complex. The emergence of cli fi, a relatively new genre dedicated to the representation of climate can be seen as the result of efforts towards dealing with this challenge of imagination and representation. Sensitizing the reader to the responsibility of each human being and to create awareness on what is awaiting a world that is insensitive to climate is a demanding task for climate literature.

Authors of cli fi mainly resort to depictions of bleak settings, both contemporary and futuristic. The former portrays the materialistic, self-centered industrial world, blind and insensitive to the changing climate, triggering more disasters through over exploitation of the nature. The latter, on the other hand, imagines undesirable but probable futures where humankind tries to survive a devastated and unfriendly world by setting up life supporting technologies. Imagining the unpredictable future finds more space in climate change imagination as the possibilities of disaster offer varied scenarios for fiction. The difficulty in encompassing the multifaceted implications of climate change within the literary work has compelled authors to adopt and experiment a number of innovative narrative techniques. Lorin R Robinson, for instance, adopts a collage of narrative modes trying to bring in all the causes and consequences of the climate crisis addressed in his work *The Warming*. Some authors take up the conventional science fiction style to depict a future dependent completely on technology for survival. Yet others like Margaret Atwood take up a philosophic warning tone and imagine horrible futures, the thought of which is prone to trigger immediate climate action.

Climate change, especially the anthropogenic climate change, is as much a political, social, cultural phenomenon as it is a scientific one. The erudite sections of the society have begun to look at climate change as a dynamic cultural and societal force capable of reshaping societies and environments. Kathryn Yusoff and Jennifer Gabrys in their article “Climate Change and the Imagination”, says “Climate change is being re imagined as an ethical, societal and cultural problem that poses new questions and reconfigures the geographic imaginaries of the world.” They categorize this new culture of understanding and imagining climate change into three distinct temporal, spacial and imaginative frames. The first one is imagining the futurity of climate change, second, the visions of adaptations with the changing climate and third, bringing

in a ‘cultural turn’ that brings together an unprecedented critical engagement of arts and humanities with science, especially climate science.

Representing the future seems to be the most preferred narrative mode among the authors of cli fi and also some makers of films on the theme of climate. Lawrence Buell says, “Apocalypse is the single most powerful master metaphor that the contemporary environmental imagination has at its disposal....; for the rhetoric of apocalypticism imagines that the fate of the world hinges on the arousal of imagination to a sense of crisis.”(60). Margaret Atwood’s seminal work, *Maddadam Trilogy*, is a poignant example for the depiction of the imaginary future of a world altered by anthropogenic factors.

On a more pragmatic note, some artists and authors create scenarios where human kind adapts to the altered world through technology and other contrived modes of adaptation. *Geostorm*, a 2017 American sci fi movie directed by Dean Devlin portrays a near future world that is protected by an array of climate control satellites, at a huge expense, from massive climate catastrophes. The bleak landscape that forms the imagery of the film and the sequences depicting massive and instant “climate attacks” invokes concerns for a future world which is so brittle that it shatters at the slightest technical collapse at the climate control satellite system. Yet another example is the film *Blade Runner 2049* directed by Denis Villeneuve and starring Ryan Gosling. Though the movie does not directly mention climate change, the imagery and iconography directly pertains to a world that has undergone complete alteration. The wooden toy horse depicted is an instance of how a simple icon can imply powerful significations. The strangeness of the wooden material and the impossibly high price it gains at the black market reveals how nature has become a strange entity for the community that dwells the future.

The third and very significant aspect is the tying up of science and arts in the representation of climate. Climate change and concerns related to climate change had been restricted to the compartments of scientific research till recently. If at all an artist or a writer took up the challenge of depicting climate change in art and literature, the works were in the peril of becoming another insignificant entry into the oft undervalued genre of science fiction.

In any case, climate change narratives are centered on an environment that is on the brink of extinction. Being a subject of vast and varied proportions, climate change as a subject of imagination and fiction requires a panoramic background. However, at times, even while attempting to nail kaleidoscopic themes, focus on the small and seemingly insignificant factors claims greater attention and appreciation than an overarching approach that touches everything but probes nothing. Images like melting ice bergs, starving polar bears and insects on refugee sagas speaks volumes on the silent after effects of climate change. The use of iconic images in climate change imagination helps to frontline the depth and gravity of the climate issue. The fact that the effects of climate change influence, affect and change every tiny being on the earth as much as it affects humankind is underlined through the adoption of such images in fiction and other literary and art forms.

The significance of iconic images in the communication of climate change, both imaginative and statistical, is paramount. The alteration in climate patterns in terms of rise in temperature and rising sea levels and the causes for climate change like greenhouse gas emissions and the depletion of fossil fuels are abstract concepts, effective representation of which is difficult to achieve. The appropriateness of using iconic images to represent and mirror climate concern is has been debated at various planes by the scientific and non-scientific community.

In an article entitled “Imaging vulnerability: the iconography of climate change”, Kate Manzo argues that “exemplary campaign images are collective denotations of the idea of global warming at the heart of scientific understandings of climate change.”(96) An oft used image in the communication of climate change is that of the globe with vulnerable areas (that forms most of the globe) colored red. Globes are used in mainly in projecting a possible future and the pictures of animate objects, both humans and animals are used to present warnings and possible impacts. Kate Manzo says, “In scientific parlance, such conventional images as melting glaciers and flooded landscapes are visual ‘fingerprints’ and ‘harbingers’ of global warming and its local consequences.” (97)

Thus, it can be said that the images connote collective danger and individual vulnerability and helps in percolating awareness about the situation, though gradually, into the collective consciousness of peoples. The conventional climate change icons like melting ice, polar bears and flooded landscapes have inspired both scientific and imaginative literature.

The wider political contexts of this process of iconization and the semiotic and cultural resources on which it draws need to be scrutinized in detail to understand the kinds of climate change communication such icons enable or inhibits. Critics have tried to dissuade the use of iconic imagery in the communication of climate change quoting localisation and loss of seriousness on the part of the receiver of the communication. For instance, the image of a melting ice bar in the Arctic might not seriously disturb an individual residing in the tropics.

The polar bear has emerged as the ambassador of a threatened ecosystem and the icon of climate change recently. Polar bears have been used in many campaigns connected to climate change in order to communicate, raise awareness and to prompt effective action and engagement on the issue. The image of a polar bear adrift on a brittle ice floe or another one clutching on to a

rapidly melting block of ice, bring in empathy and distress for the creature and provoke thought on the loss of habitat. The polar bear icon no longer stands for a particular animal, time or place. The image has transcended its localized boundaries and has evolved into a universal icon for climate change.

However, on the other side, resistances have come up against the use of such iconic images in depicting a universal issue. That is, even though the image of a distressed polar bear might evoke empathy and affinity, it might steer the receiver of the message away from the human aspects of the issue and from imagining possibilities of change. It has been argued that while polar bear images might trigger some emotions, it do not foster effective understanding of the issue.

The emotions of fear and empathy, in the words of O'Neill, S. J., & Nicholson-Cole, "also create emotional distance and feelings of disempowerment". They might prove counterproductive to creative engagement. Critics have also suggested that localised icons like the polar bear can limit the receiver from perceiving the spatial gravity of the issue.

However, iconic images have been perceived to carry messages that are not immediately apparent. For instance, the image of the globe, a clichéd icon of climate change, can represent different aspects of the issue. The colour coded images of the globe released by scientific agencies project the specifically scientific aspects of the climate change phenomenon. Such images help in the effective transfer of messages in relation to vulnerable areas, possible rise in temperatures and sea levels at a given point of time and the like. At the same time, the image of a globe created artistically to depict the bleak future of species extinction, drought, poverty, refugee sagas, domestic and international tensions in the name of resources and drinking water – a world of information informing a single image of the world.

The icon of the globe, thus, both in scientific and artistic parlance, can act for a number of paragraphs of complicated prose and terminology incomprehensible to the common man. In the transmission of ideas on multifaceted and dynamic issues like climate change, the dimensions of which transcend all disciplinary and ideological boundaries, the use of iconic imagery comes to be of prime importance. The effective communication of the causes and effects of climate change among the society is of crucial importance for the speedy actions towards mitigation, adaptation and rebuilding processes. A conventional scientific language with scientific terminology will not garner the attention of the nonscientific community, who forms the major part of the population and who is likely to face the gravest consequences of the climate change phenomenon.

Literature, arts and the humanities can play a very significant role in communicating climate change to the world at large. The language of the imagination is more accessible and friendly for a knowledgeable and concerned nonscientific society. Moreover, the universality and flexibility that art offers open the doors of creative communication for all people who are affected by or concerned about the climate change issue. As for a scientific discourse, it can be taken up only by a scientific community qualified by their specific norms of education and profession. However, any person who has been in contact with the effects of climate change at any level can take up a creative medium to communicate his/her experience, opinion or suggestions on the issue.

For instance, Kathy Jetnil-Kijiner, a 26 year old mother from the Marshall Islands, shook up the 2014 United Nations Climate Summit at New York with a passionate recitation of her poem, "Dear Matafele Peinem." The poem addresses Jetnil Kijiner's infant daughter Matafele Peinem, of whose future the mother is desperately concerned for as they live in the Marshall

Islands, a crucially vulnerable piece of land that is sinking under the rapidly rising sea levels. In her almost prosaic but deeply moving poem, she tries to assure her infant that the parents would not spare any action in trying to give their daughter a safe life in her place of birth. In the course of the narration, the poet ably brings in a number of images that speak volumes on the anthropogenic nature of climate change, the corporate agenda behind climate change denials, the growing anxiety and insecurity of the common human being, the typhoons, flash floods, earthquakes and hurricanes that ravage the planet and several other faces of the global challenge. The beautiful lacing of fact, emotion and hope in the poem paves an apt foundation for the issue at hand.

However, even arts and literature, in spite of the vast scope and imaginary possibilities that it entails, finds difficulty in representing climate change. Imagination falls short of scenarios when faced by an unprecedented issue like climate change. As mentioned earlier, apocalypse and end of the present world seems to be the master metaphor used to depict climate change. Cli fi and eco poetry can be seen growing into genres of importance in the contemporary literary world. The increasing number of distressing dystopian narratives on climate change has however evoked stringent critical disapproval. The inability of literary and artistic imagination in depicting climate change is an issue that has been discussed by several academicians.

Amitav Ghosh, in his work, *The Great Derangement*, hints that literature has been unable to depict effectively the issue of global climate change. Majority of the works that deal with climate change are in the form of nonfiction. A mere mention of the concept of climate change in a novel or short story immediately relegates the work to the genre of science fiction. Ghosh calls this inability of serious fiction to accommodate the theme of climate change as an imaginative and cultural failure.

Even writers like Arundathi Roy and Paul Kingsnorth, who are acutely aware of the issue of climate change, chose nonfiction to register their concerns on the matter. Ghosh suggests that this discrepancy arises out of the peculiar kind of resistance that climate change offers to serious fiction. This resistance inevitably arises out of the atypical cultural matrix created jointly by the histories of imperialism and capitalism, human desire for the best facilities in life and many other factors that are yet to be identified. This consistent tug of war between the grave reality of anthropogenic climate change and culture generated desire might be causing fiction to repel climate change. Thus, climate change is not just a crisis of nature but also a crisis of culture, thus that of the imagination.

Nevertheless, a visual image or a picture can speak volumes on an issue where words fail miserably. In the same manner, an iconic image of a polar bear, a burning globe, a stranded elephant calf, a man eater tiger or host of butterflies migrating in search of safe abodes can tell harrowing and deep tales on some previously unthought-of aspects of the climate change dilemma.

Barbara Kingsolver's seminal novel *Flight Behavior* is a startlingly poignant narrative of the displacement effect caused by climate change. In the novel, the author effectively portrays the displacement and extinction threat faced by human kind through the iconic imagery of a host of monarch butterflies, who all of a sudden change their migration path and settle down on a patch of domestic forest in Tennessee, hundreds of miles away from where they ought to be. In the novel, the butterflies, silent and docile as they are, form the principal icon and image in the narrative. The displaced butterflies influence and change the thought patterns, life and life style of the whole neighborhood. Here, the animal imagery used by the author stands for a vast and

unknown face of the climate change issue and places the human being as just one part of the whole system that is being roughly managed by the nature.

Amitav Ghosh's work *The Hungry Tide* presents a very powerful image in the man eater tiger. The constant conflict between man and nature and the threat they pose for each other is depicted in the novel with intense philosophical insight. The tiger that ventures out into the human settlements in search of prey, though seen as the predator and threatening element, is ultimately the prey of loss of habitat due to human invasion into animal territory.

The Sunderbans, a territory where land and sea constantly yield to each other on a daily basis, itself becomes an icon for the constant threat of dissipation that the earth faces. The Sunderbans, as the name says is a beautiful patch of forest where the sea, river, land, humans and animals all exist in seeming harmony. However, the harmony is often disrupted when humans invade into animal territory for sustenance. Here arise a situation of competition and the fight for survival. The consecutive displacement of humans, animals and finally the all consuming hunger of the tide depict the competitive nature of life on earth. The fight for the best of habitats and resources and the ultimate fight back of the nature portrayed in the novel serve as a veiled augury for the fate of life on earth.

Kanai's encounter with the tiger in the depths of the forest is an image that carries layers of meaning. The dream/magical realistic situation where the scene is placed makes it the iconic scene of the novel which pin points the basic thread of the narrative -- the ultimate oneness and equal vulnerability of the predator and prey in the face of a larger and more powerful nature.

The novel, poem and other fictional representations of climate gain a lot of representative stamina through the effective use of iconic imagery. So is the case of cinematic representation which has visual imagery as its primary medium of communication. Climate change has formed

the important theme of several films during the last decade. Film, in contrast to literary imagination, is well equipped with the representation of iconic imagery, given its visual medium.

The popular and critically appraised animated movie series *Ice Age* can be taken up as one of the best instances proving the significance of iconic images in climate change imagination. The movie series representing the struggle for survival of a group of animals in a world threatened by global warming abounds in images and suggestions on the climate change issue.

The opening movie of the series *Ice Age* directed by Chris Wedge and co directed by Carlos Saldanha, released in 2002, can be seen as the presentation of a human parable through animal allegory. The opening scene itself is a humorous but equally distressing image of the changing climate as we find a group of animals making a mass movement in towards warmer climes to escape a forthcoming frostbite. The key concerns of climate change, species extinction, food scarcity, climate change denial and ultimately, the universality of the consequences of the changing weather find representation in the very first sequence of the movie.

The movie, noticeably, begins and ends featuring the efforts of Scrat, a saber toothed squirrel to protect his last acorn. The squirrel's obsession with his food and his efforts to save it can be seen as a relevant pointer towards the scarcity of food that will inevitably entail the climate change phenomenon. The animal iconography in the movie proves highly effective in placing the graveness and all embracing nature of the climate change phenomenon.

The concerns on climate change and the parallel discourses of climate change denial that existed in the academic society till now had primarily focused exclusively on the human centric aspects of the issue. The way in which human life and property is put in danger and how earth, the dwelling of human beings is on the brink of extinction. The depiction of icons and images,

especially animal imagery in arts and literature has helped in dissipating the human centric discourses on the climate change issue. However, even when critics lash out that such iconisation will “dehumanize” the effects of climate change and will steer concerns away from the human mitigation concerns, icons and images still continue to inform and influence climate change imagination.

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