

Cultivating Hope and Resilience: Meeting the Climate Change Challenge

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PAPER INFO	ABSTRACT
Received:	This study contributes to transforming climate change trauma
November 19, 2019	and despair by mitigating the risk and fostering a pro-
Accepted: December 25, 2019	environmental attitude within young people. Considering human emotions are essential in offering an immediate, effective
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December 31, 2019	response to high-risk situations, possible courses of action can be
Keywords:	formulated – all in an effort to direct this fear and hopelessness
Climate Change Fear,	towards a positive engagement with the environment in order to
Climate Change,	solve global warming. Bearing in mind the fact that literature and
Environmental	arts have the potential to dramatically alter perceptions and
Consciousness	emotions, my study argues that efforts towards raising
Hope and	awareness for the importance behind pro-environmental and
Resilience,	sustainable behaviour (in order to mitigate climate change risk)
Pro-Environment	
Pedagogies,	can be made more effective through engagement with literary
Corresponding	humanities. The creative pedagogies as suggested in this paper
Author	serve to sensitise the participants to environmental calamities, as
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Introduction

Over the course of the past six decades, since the publication of *Silent Spring* (1962), environmental protection movements and programmes have made enormous contributions in raising global awareness regarding the issue—as have the constitution of environmental laws, policies, and organisations. However, humankind has nevertheless entered the Age of Anthropocene, facing climate change catastrophes in the form of resource depletion, acid rains, tsunamis, cyclones, biodiversity loss, floods increasing global temperatures, and drastic changes in seasonal cycles—and these are just some of the vast manifestations of climate change. Existing research regarding Anthropocene indicates that such overwhelming climate change has largely been triggered by humans—meaning the Earth's climate has 'changed in many ways over geological time' and that 'for the first time, over the past century, human activity has become a significant cause of climate change'

(Swim et al., 2011, p. 241). Indeed, as a destructive geological force, humankind has emerged as the biggest threat to the survival of the planet—and this has led to a wealth of efforts being directed towards mitigating environmental devastation.

Climate change is no longer an impending threat, but, rather a destructive reality with dire implications for the future of the planet and its inhabitants; in their report, the World Health Organization (WHO) states that there will be an increase of '250,000 excess deaths per year between 2030 and 2050', exclusively as a result of the hazardous impacts of climate change ("WHO calls," 2015). A wealth of scholars and theorists has also informed the public of the various adverse impacts of climate change, and the fact that these will occur in both direct illnesses (e.g., vector-borne diseases; respiratory problems) and indirect illnesses (e.g., morbidity; stress). Bourque & Willox's report (2014, p. 415) and the Lancet Report ("The Lancet Countdown") have additionally warned against the adverse effects of climate change on mental and psychological health. Besides, the most critical challenges witnessed here have related to mental and psychological health, which are being faced in abundance by contemporary societies—more specifically 'eco-anxiety', which has occurred as a result of environmental degradation and climate change.

Climate change discourses-which portray an apocalyptic future of the planet and extinction of the human race, as well as other life forms-have led to the vast majority of individuals all over the world experiencing some form of trauma, fear, anxiety, and/or a sense of inefficacy. Such feelings have rapidly resulted in widespread campaigns, warnings, and 'continual exposure to information engendered by modern technologies', around the topic of climate change-which have also become one of the most critical challenges in the wake of this threat (Swim et al., 2010, p. 48). As one may expect, this anxiety and trauma has made the situation more critical as it leads to 'individualistic prepping' instead of 'engaged citizenship or political mobilisation' (Mayerson, 2018, p. 495). Overwhelmed by this anxiety and fear, people are scared, anxious, and even helpless - and, because of this, there is a pressing need to meet this challenge, as well as to continue warning people against the dire climate change catastrophes. When faced with such a critical challenge, it is crucial to mitigate such negative emotions and instead motivate people toward action; in other words, we need to strike a balance between natural fear, anxiety, and hope-a matter that has taken a new degree of urgency with the ever-rapid environmental degradation and resultant climate change. The research conducted within this field has especially prioritised 'provok[ing] the necessary behavioral changes' (Peterson, 2015, p. 42) in the presence of fear and despair in order to tackle the 'cognitive dissonance' that has occurred, since individual acts and minor behavioural change will not make any difference in the face of such a colossal problem. Thus, it has become essential to spark engaging conversations that guide people toward effective action, keeping hope despite obstacles and fear. In Beyond *Ecophobia*, Sobel pleads that people recognise 'the natural world is being abused' and realise that it's ineffective to try and avoid it ("Of Place and Education", n.d., para. 4).

Bearing in mind the urgency of the situation, my study contributes to transforming climate change fear, trauma, and despair into mitigating the risk and fostering pro-environmental behaviours in people. Human emotions are essential in offering immediate, effective responses to high-risk situations, and so solutions can be formulated – as my paper suggests – by directing fear and hopelessness towards positive engagement with the environment to solve global warming. Bearing in mind the fact that literature and arts have the potential to dramatically alter perceptions and emotions, my study argues that efforts towards raising awareness for the importance behind pro-environmental and sustainable behaviour (in order to mitigate climate change risk) can be made more effective through engagement with literary humanities. In line with this, it is my belief that courses in literary humanities across the disciplines should be taught in an effort to encourage pedagogical experimentation, which incorporates strategies of the problem-solving method, project method, and Environmental Trails method. This would thus serve as environmental education in or from the environment, which would provide ample opportunity for learners to experience nature, be with it directly, and learn how to truly value its various processes and forms. This further serves to develop an environmental consciousness, urging the participants to be environmentally responsible citizens with the capacity to mobilise collective agency for mitigating the environmental degradation.

As Jacobson, Carlton & Devitt (2012) recommend, educational institutions and training centres need to 'alter behavior related to climate change' through their programmes by integrating 'ecological knowledge . . . with solutions that address psychological barriers' (p. 94). In this regard, they suggest developing a comprehensive 'underlying framework' within regular study programmes. This would theoretically allow students to 'understand the basis of why people's individual and collective actions may reflect denial exacerbation' and the reasons behind their not looking for solutions (p. 94). Therefore, those teaching learning programmes should allow themselves to be guided by the current psychological research, training the participants to recognise the risks of the climate change impact and learn ways of effectively managing it. They should also themselves engage in any actions that aid in mitigating the impact (Doherty & Clayton, 2011, pp. 271-272), enacting this 'psychological adaptation' for coping with climate change problems (Hayes et al., 2018, p. 8). This involves all the strategies that aid people in managing their behaviour and balancing their lifestyle to mitigate fear and protect the planet. One way to 'psychological[ly] adapt' is to treat 'despair as hope's opposite' (McKinnon, 2014, p. 34), urging others to view their own contributions-whether positive or negative – as casting a great impact on the future of the planet. There is a lengthy volume of research that indicates several ways of balancing the emotions of fear and anxiety with hope and courage in an effort to solve the issues: 'genuine hope', as Paul Tillich (1965) in his talk On 'Peace on Earth' explains, 'is based on the already-existing presence of a fragment of that which is hoped for' (as cited in Peterson, p. 43). Like a seed that remains to be a vital source of life in fully-grown plants, hope induces motivation, and is a continuous presence of vitality and growth

in human life. Amid the climate catastrophe, if people make the decision to live in more mindful ways and to lead sustainable lifestyles, they can nourish the seeds for a better future.

Hope can motivate individuals, encourage focus on transformative social practices, and inspire the public in terms of the possibilities of creating a different future. As Tillich further explains, 'to ground hope in the face of climate disaster, we need to identify the evidence, embodied in practical experiences, that humans can live in a more sustainable way' (p. 43). Such a statement contains hope for the future, and an evident need for us to focus on our mode of thinking and styles of living. Similar to this notion of 'genuine hope' is 'active hope', which, according to Macy & Johnstone (2012), is necessary for 'psychological adaptation' and is required 'to move hopeful intentions from a passive state, where [one would be] waiting for someone else to take on the task of addressing the climate change problem, is replaced with an active process of climate change mitigation and adaptation behaviors' (Hayes, 2018, p. 8). They further explain that hope is more effective when supported by appropriate action. Hence, the first step in pursuing this process is to acknowledge and understand the magnitude of the impending threat, as well as to showcase a willingness to address the issue. This, indeed, can lead to a more active process of serious engagement with the problem. Hence, we can see here that people need to find ways and spaces where they are 'powerful', 'hopeful', and 'have the opportunity to make a difference' (Ricketts, 2012, p. 253).

We can see here that there is a need to develop innovative classroom pedagogies and cognitive models integrating environmental issues-not only in literary studies, but also in the courses offered across all disciplines. Such pedagogic approaches challenge younger people to think more critically and to focus on their own sociocultural entanglements with the environment that may contribute to climate change. They are also encouraged to consider their commitments and responsibilities, as well as the various complex ways through which the problem can be tackled. Such learning strategies need to breed critical awareness amongst students concerning the ways in which their individual acts and collective behaviours contribute to the climate disaster, as well as, on the contrary, how both their individual and collective efforts would practically mitigate the disaster. Thus, there is a need to prepare a framework of reference that can make behavioural intervention a requirement, all with the aim of treating the 'despair' currently prevalent amongst the population as a turning point to cultivate hope for the future in young people. Such a reference framework for pro-environmental thinking and action should involve pro-environmental social engagement.

Environmental Humanities offer practical guidance in terms of developing teaching and learning programmes that encourage pedagogical experimentation, specifically in terms of increasing diverse human understanding of the humanenvironment relationship—an understanding that will be necessary for proenvironmental thinking and action through community engagement. Environmental Humanities also offers various possible ways for pedagogical experimentation as a method of encouraging the rethinking of classroom teaching, with the aim of facilitating students to explore the real world and develop a better understanding of the climate change crisis. The innovative pro-environmental approaches aim to train students to perceive the environmental crisis as a social challenge and urge them to believe in their efficacy to use creative methods here. After fully acknowledging the true urgency of the crisis, various pro-environmental programmes have been organised for within numerous top universities internationally. These institutions are now using different teaching practices and strategies, all serving as different components of the framework in an effort to raise awareness and provide hope and motivation for action. Along with ecocritical reading of various texts and other text-based activities, consciousness-raising workshops, surveys, open public debates, photography, nature tourism, and trail walks are encouraged; classrooms are connected with nature to bring further awareness. The encouragement of furthering ongoing debates concerning socioenvironmental justice and oppression have also made huge contributions in creating environmental hazards.

As argued throughout my paper, Environmental Humanities should be integrated in the courses offered across all disciplines in order to encourage conversations surrounding the problem of environmental degradation, as well as to foster an environmental consciousness in the student calibre. Creative approaches of reading literary texts such as building connection between the texts and specific places can serve to develop a framework of refence for fostering environmental consciousness – allow the students to outline their research on specific sites, in turn encouraging them to explore connections between the theoretical debates and the real-world in the context of climate change. They are involved in the field research and find plenty of opportunities to personally observe the value of biodiversity, as well as the potential repercussions brought by its loss, pollution, and waste discharge. Their harmful impact, wasteful consumptions, and production of emissions and their disastrous impact on the Earth are also considered diligently, amongst other such problems. Here, the relevant data is collected and used to carry out research-all with the aim of arriving at some useful conclusions in the context of environmental hazards and climate change.

Environmental Humanities also encourages pedagogical experimentation, which involves many 'small and easy' actions that ultimately build up into a meaningful and powerful force. These cultivate to give hope and contribute to mitigating the crisis (Mayerson, 2018, p. 495). One such action is building a connection with nature—essential when it comes to getting people to understand how human life is intrinsically connected with other life forms in the ecosystem as a part of the great web of beings. An awareness of our inherent bond with the ecosystem forms a sense that 'concern with the environment is a human concern' (Andrew Stables, 1996, p. 193). This provides individuals with a sense of environmental responsibility, and forms the hopeful perspective that if our irresponsible behaviour and mindlessness can contribute so significantly to

destroying the planet, perhaps our mindfulness could make similarly impactful contributions in reversing the effects of the disaster. A connection to nature also contributes to overall mental wellbeing (Swim et al., 2010, p. 48; Koger et al., 2011, p. 230) and develops resilience, providing people with a sense of 'stewardship' and 'personal investment' – things Koger *et al.* believe can aid people in overcoming feelings of hopelessness, anxiety, and 'eco-paralysis', as threats to natural resources are 'much more likely to be viewed as personal issues' (p. 230). Thus, a connection to nature serves to give awareness that wilderness and biodiversity in natural environments are vital for human health and wellbeing, also casting a particularly positive effect on mood and cognition. Hence, fieldwork, nature walks, tours, and keeping reflective journals can all be classed as eco-centric activities, all building connections with nature and being integral in the pedagogy for environmental education.

Environmental Humanities promote teaching/learning programmes, using activities that encourage students to 'read the environment as [a] text'-one of the fundamental approach in raising environmental consciousness for activating an individual and collective agency. 'Reading environment as a text' is a critical strategy in building a connection with nature, and was initially introduced as a concept by Stables (1996), explaining, 'We "read" the environment as part of a complex process of generating and responding to texts. Our responses to environment form an element in the network of shared meanings which embodies society' (p. 193). The magnitude of the environmental degradation present requires activating the collective agency of the environmentally responsible citizens, and, indeed, reading the environment as a text can be a useful strategy in achieving such a goal. As Stables (1996) explains, this concept places the environment and its study as a significant and vital part of the humanities - not simply within the confinement of the sphere of sciences. The ways in which people treat environment depends largely on what they think about the environment, as well as how they understand it which typically possesses a 'value-laden nature'. Our 'moral connotations' with the environment also have symbolic significance, and so it is important to experience the environment so as to read it in the relevant sociocultural context. Nature excursions, trail walks, and surveys supplemented with theoretical reading of social ecological issues and indigenous ecology can impact both our 'affective and cognitive responses', and generate rich results in term of building understanding of the environment (pp. 193-194).

Notably, it is necessary that we contextualise the efforts made to transform our mindless attitudes towards the environment—and this requires providing a rich experiential learning experience to people so they can garner an understanding of the environment through environmental education. This places an even greater need for reading the environment as a text using the methods and techniques of literary textual analysis (p. 194). This will embed the environment within our culture, in turn integrating it into our cultural practices, whereby we assign meaning to certain cultural components and accept their significance. Literary humanities and environmental humanities thus form an integral part of environmental education when it comes to tackling the task of facing the looming threat of global warming.

As insisted by Environmental Humanities, storytelling and fiction are instrumental tools for bringing the 'real' world into the classroom and understanding the many complex ways in which the human race and the environment are interconnected. Fiction has attracted significant attention in creative pedagogical practices for its inherent quality to provide robust simulation and alternative viewpoints and scenarios. With a strong communicative approach, both fictional or real-life stories are one of the powerful transformative tools; hence, they can serve as key tools for raising environmental consciousness and transforming opinion – both these things being highly necessary in activating the agency required for mitigating efforts. Indeed, ecological-focused stories/ecocritical reading provide a useful framework to embed the issue of climate change into classroom conversations and activities, in turn drawing students' attention to their personal lives, as well as their socio-ecological contexts. Stories that are developed around the lives of the survivors of climate change disasters (e.g., earthquakes; tsunamis; floods, etc.) play an immense role in providing hope and building a resilience in people; further, a range of classroom activities can be developed on the based on such survival stories, students possibly being assigned tasks to develop surveys on their local ecosystem and climate change. Children can be encouraged to prepare lists of the emissions they produce in their day-to-day lives, along with their efforts to reduce these emissions and be mindful of their consumption. They may also be encouraged to keep diaries of any abrupt changes in seasonal cycles, or to maintain some record of conversations on the topic with older people, or those living in different geographical locations. They may also be motivated to keep records of their own responses and reflection on these issues.

Being at the threshold of the Anthropocene, there is a high urgency in terms of our response to climate change threat from multiple directions, one of the most impactful of which (as discussed above) being teaching and learning through environmental humanities. Along with the departments of environmental science, there is an additional need to introduce innovative approaches to teaching literature, as well as to offer specialised courses in humanities and to integrate environmentrelated issues in at all courses. Finally, there is also a need to provide training on experimental and creative pedagogies so as to develop a connection with nature amongst the student population. Creative pro-environmental pedagogical approaches, as well as cognitive frameworks, aid in developing students' creative and critical thinking skills. The dialogues and discussions incorporating information concerning ecological, global, and local environmental policies, as well as the roles of individual and collective responsibilities in managing the risks, etc., are instrumental in raising critical awareness. The creative use of literary texts and innovative pedagogies can aid in sensitising individuals to the relevant environment calamities, as well as to encourage the ecological thinking necessary in order to turn around the fears and anxieties surrounding this topic, instead carving pathways for positive

behaviour to solve these issues. The 'cognitive perspective'-developed through critical thinking, sharing environmental experiences, and discussion concerning the research mentioned in the proceeding pages-illustrates recent dramatic alterations in perceptions of the problem, and provides a different frame of reference in perceiving the problem. This contributes toward raising the consciousness of the public concerning their empowering role, as well as implementing proenvironmental behaviour. In order to activate collective agency – as required for the environment's betterment-, experimentation in pedagogy can encourage young people to work as a community. As discussed above, pedagogical experimentation can also draw students' attention to their modern ways of living, serving as an engaging, motivating tool urging them to ask questions, such as: how do our modern and contemporary ways of living (e.g., water extraction, transportation, cooking, and community gathering) differ from indigenous and local ways, and how un/compatible are they for the environment? In what ways are they possibly adding to the climate transformation, and are there any ways we can check them, balance them, or change them? What are the possibilities for alternative ways of living and doing things?

Hence, this study argues there is an urgent need to engage young people in such discussions related to climate change and the colossal scale of environmental degradation so they can be motivated to make their own critical evaluations, as well as to understand the fact that they are not inefficacious in terms of making a personal contribution in challenging and tackling climate change.

During these times of major and violent planetary transformation, people should be trained to acknowledge their personal responsibility and efficacy to act. There is also a need for the public to be made aware of the importance of collective acts when it comes to contributing to the health and wellbeing of the planet. The understanding of the people regarding the fact that their negative emotions (anger; fear) contribute to the intensification of the problem and the fact that they can think of the ways to turn these emotions into hope and courage—in turn allowing them to become more engaged and active as citizens (Edwards, n.d., paras. 8-10)—is also essential. Hence, this paper argues that it is mandatory that we engage in serious conversations concerning the loss and harm inflicted by our treatment of the environment, and that we share our grief and views to recover from the trauma, fear, and state of indifference to positively support the efforts of the government in implementing environment-friendly policies—as well as to help in devising better, more productive policies to meet this challenge. We need to build upon an open mindset willing to adopt sustainable living.

As discussed in the preceding pages, experimental pedagogies and frameworks can be effective in generating wide-ranging responses to the climate change crisis, as well as in engaging young people with fundamental issues related to this crisis (e.g., personal responsibility; social transformation through sustainable lifestyle adaptation). It is largely as a result of climate change that we have found ourselves living in a radically altered world in which we are exposed to multiple physical—as well as psychological—diseases, and so teaching/learning programmes should serve to provide an understanding that such undesirable changes are anthropogenic and human-induced, and so will only cease when we rethink our standards of living and ideals to save the planet and all who live on it. In order to achieve such a goal, we need to draw useful insights from the emergent conversations on the climate change fear, and use this fear and anxiety to cultivate environment-friendly mindset and lifestyles.

The defining opportunity for us now lies in 'active' and 'genuine hope', both being necessary to mobilise a collective agency for the planet's wellbeing. My study regards hope as an essential tool in strategy designs, created to activate individual and collective agencies and keep people engaged in efforts to meet the climate change challenge. Experience with nature is necessary so people can create a world low in carbon and marred less with emissions. This, indeed, can engage them in reflection concerning the possibilities for a transformed world, as well as in understanding and welcoming these transformations. Hope can transform fear and anxiety into activism, and so it is an important ingredient to motivate people to believe in their efficacy and activate their agency. As has been the running theme in this paper, commitment to environmental education—with special courses on literary humanities and environmental humanities across all disciplines—can contribute as a valuable step toward fostering ecological consciousness in young people and employing 'hope' to protect environment.

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