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Feeling the Catastrophe: Affective Ecocriticism in Liu Cixin's "The Wandering Earth"

Martina CODELUPPI

ORCID: [0000-0002-2478-8344](https://orcid.org/0000-0002-2478-8344).

Abstract

Liu Cixin's popular novella "The Wandering Earth" (2008) has become a milestone in Chinese science-fiction, especially after providing the basis for the blockbuster movie distributed by Netflix in 2019. The plot unfolds in an unprecedented catastrophic context: the Sun is dying, the human race needs to find another place in which to continue its existence and the plan is to motorize the whole planet so that it may drift away from its star. This work constitutes an eloquent example of Chinese Climate Fiction, a genre dealing with the human response to climate change in a science-fiction context. The ecological disaster depicted by Liu is extreme and the human response to the environmental crisis is consequently amplified. "Emotion" and "nature" are indissoluble elements that shape the narrative, raising questions about natural and human potential. How do people react to the impending end of their planet? What emotions does the author depict, and how do they impact climate action? This article seeks to answer such questions by investigating the intersection between the environment-oriented approach of ecocriticism and the emotion-bound field of affect theory. The analysis will be developed following a few key steps: the depiction of estrangement and anxiety, the perception of a changing world vis-à-vis nostalgia for a lost environment, the challenge of imagining a life beyond the disaster and of striving for ultimate salvation. The results will provide some insights into the importance of affect in the narration of the environmental crisis. Despite the drastic scenario, the characters' feelings provide a powerful tool to awaken the reader's ecological sensitivity, no matter how embryonic this may be.

Keywords: ecocriticism, affect studies, Liu Cixin, cli-fi, The Wandering Earth.

Climate Fiction and Affect

Today we have become familiar with the issue of climate change and the world is experiencing a growing interest in ecology and sustainability that was lacking in the previous centuries. It has become clear that the fate of humanity is inextricably linked to that of its natural home, and that our planet must be shown a little more respect. But what if the universe were to turn the tables and make our Solar System inhospitable for any living being? This is precisely the scenario in which Liu Cixin's 刘慈欣 novella *Liulang diqiu* 流浪地球 (The Wandering Earth) unfolds. First published in 2006, it has become popular worldwide thanks to the film adaptation by Frant Gwo 郭帆 that was "marketed as the first Chinese sci-fi blockbuster featuring a 'Chinese team' saving the Earth" (Zhu 8). Despite its catastrophic setting and the overall extreme portrayal of technology, this work can be regarded as an example of Chinese climate fiction, generally shortened to Cli-fi. This term was coined by Taiwan-based American journalist Dan Bloom in the late 2000s and was recognized in 2013 as a literary term indicating a subgenre of science fiction that deals with environmental issues (Bloom). It is a rather new genre that has not been widely explored in Chinese literature yet, but Liu's "The Wandering Earth" fulfils the requirements to be included in this category. What is needed in order to identify a Cli-fi work is a focus on the human dimension. While science fiction is generally analyzed by stressing the technological features of the fictional worlds it describes, exploring climate fiction means concentrating on the effects on human life. If analyzed from this perspective, "The Wandering Earth" offers an inside view of a hypothetical reaction to an extreme and unparalleled climatic emergency. Although Cli-fi tends to be dystopic and apocalyptic, it has the potential to divert the audience's attention from gloomy scenarios to possible transitions toward a more sustainable future (Reitsma, Wessman, and Önnvall 2019). Liu's work exemplifies the impact of such a transition on

the characters' minds as well as on their social lives, underlining the connection between a hyper-technological solution to climate change and the inexorably human effects on its performers.

Before climate action comes climate thinking, and before the thinking comes the feeling. If Cli-fi "is a genre with a mission" (Szabo ch. 1) that has to change how we think about and interact with our planet, it is hardly helpful to consider the depiction of the environment without exploring its interrelations with the most spontaneous part of the human mind. This article will explore how nature and emotion are entangled in Liu Cixin's novella by adopting an approach that combines the environment-oriented perspective of ecocriticism and the emotion-bound field of affect theory.¹ It will underline the role of feelings in shaping humanity's reaction to the menace of extinction, by expanding the conception of environmental affect and by rethinking familiar affect in spatial terms (Bladow and Ladino 6).

A Cosmic Journey toward Salvation

Born in 1963 in Longquan, Shanxi, Liu Cixin is one of the most popular contemporary Chinese science-fiction writers. His *Three-Body Trilogy* (*Santi sanbuqu* 三体三部曲, also known by the title *Diqiu wangshi* 地球往事 [Remembrance of Earth's Past]) was published between 2006 and 2010 and earned him the international Hugo Award in 2015. Its global popularity has had such an influence that, as Gaffric points out, Chinese researchers speak of "pre-" and "post-*Three Body*" Chinese science fiction (Gaffric 21). "The Wandering Earth" was first published in 2008 and, after being made into a movie in 2019, became Liu's second worldwide success. The plot recounts a catastrophic time for humanity and our planet: a group of scientists discover that the Sun is dying and will soon expand into a red giant, engulfing the orbit of the Earth. Therefore, all the nations join forces and form a Coalition to implement a colossal rescue plan that aims to deviate our planet's orbit from the Solar System and into the Alpha Centauri System. In order to shift the Earth from its original location, thousands of engines are installed around the planet with the purpose of halting its rotation and pushing it away from the Sun. Obviously, these interventions have enormous effects on the Earth's climate, causing the death of millions and forcing the survivors to leave the frozen surface, taking refuge in underground cities. Liu's novella follows the steps of the unnamed protagonist from his birth to his old age and the history of his family, which dissolves across the various phases of the project (Zhu 1). The unprecedented environmental crisis triggers the response of humanity, whose actions affect the planet tremendously, subverting its natural balance as well as its inhabitants' minds and social organization.

Thanks to the success of the blockbuster movie, the cinematographic version has been the subject of most studies on "The Wandering Earth". In particular, some scholars have addressed its cultural significance in terms of cosmopolitanism (He) and Chinese soft power (Ye), aspects which overlap with its hard power in terms of space capacities (Silk) and technology (Khan). By contrast, other scholars have focused on its representation of human values (Ma and Hua; Heng; Wang and Xu). Relevant studies on the novella, while more limited in number than ones on the movie, have underlined its ecological interest and analyzed it from an ecocritical perspective (Li; Zhang and Zhou).

The analysis that follows will explore Liu's depiction of the interaction between nature and emotion against the background of the environmental catastrophe. In order to highlight the emotional component of the narrative, I will analyze the text from an ecocritical perspective, while integrating

¹ Whereas the debate about the difference between *emotion* and *affect* has been ongoing since their original split in psychoanalysis (see Ngai 25), it would be unhelpful in this article to perpetuate the dichotomy between subjective emotion and objective affect, or narrative emotion and non-narrative affect (26). Therefore, I will use the two terms interchangeably.

it with affect theory. The field of affect studies is a varied one, owing to the fact that a “multidisciplinary question of what it means to be a sensory being cannot be confined to one theoretical school” (Cvetkovich 8). Here I will adopt an approach that applies affect studies to literature through their intersection with narrative theory (Hogan; Liang). Example of studies conducted by merging these elements are found in volumes such as *Affective Ecocriticism* (Bladow and Ladino) and *Ecosickness in Contemporary U.S. Fiction* (Houser), but the emerging genre of Chinese Cli-fi has yet to be explored through these lenses, which allow for a better understanding of the bond between nature and emotion.

In her essay in the collected volume *Affective Ecocriticism*, Merola states that “[t]he Anthropocene is fundamentally estranging: what we though we knew about the continuance of a habitable biosphere for currently evolved creatures has turned out to be a mirage” (Merola 26). It comes as no surprise that the majority of the works dealing with climate change convey, to some extent, a pervading feeling of anxiety, and “*The Wandering Earth*” is no exception. Liu Cixin’s work carries such estrangement to an extreme: planet Earth is not “simply” deteriorating, as what had always been a comfortable environment for humankind suddenly becomes lethal (Li 61). The description of the impending doom, therefore, is developed alongside an account of the mostly negative emotions characterizing this peculiar age. However, despite their pessimistic overtones, it is important to note that these “unpleasant ecological feelings” (Merola 32) appear in contemporary cultural forms. In particular, in Cli-fi narratives, the negative emotions described can help trigger empathic responses, resulting in increased preoccupation about the serious consequences of climate change.

Shared Fears about an Uncertain Future

The incipit of “*The Wandering Earth*” immediately sets the story in a gloomy atmosphere (Wang and Xu 10) by reporting the atypical environmental conditions characterizing the first phase of the project, namely, the *shache shidai* 刹车时代 (Braking Era), during which the engines halted the rotation of the planet with massive consequences on the Earth’s climate:

我没见过黑夜，我没见过星星，我没见过春天、秋天和冬天。

我出生在刹车时代结束的时候，那时地球刚刚停止转动。

[...] 刹车时代刚刚结束，其对地球的影响已触目惊心：地球发动机加速造成的潮汐吞没了北半球三分之二的大城市，发动机带来的全球高温融化了极地冰川，更给这大洪水推波助澜，波及到南半球。(Liu, “*Liulang diqiu*” 2; 4)

I have never seen the night. I have never seen the stars. I have never seen spring, fall or winter. I was born as the Braking Era ended, just as the Earth stopped turning.

[...] Even before the Braking Era ended, its effects upon the Earth had become horrifyingly apparent. The tides caused by the acceleration of the Earth Engines engulfed two-thirds of the Northern hemisphere’s major cities. Then, the rise in global temperatures melted the polar ice caps, which turned the flooding into a catastrophe that spread to the Southern hemisphere. (Liu, “*The Wandering Earth*” chap. 1)

The ecological catastrophe that opens the plot defines the mood of the whole story and, more importantly, underlines the tragedy of a possible future. The novella is told by a first-person narrator, facilitating the description of the protagonist’s emotions. It is possible to distinguish two levels of narrated affects: those that are common to (almost) all humankind and those that are peculiar to the protagonist. In both cases, it can be said that the text exploits the power of identification – fiction’s

main process (Oatley and Johnson-Laird 136) – to engage the reader in the apocalyptic scenario it describes. Among the emotions uniting all the Earth's population, the most widely represented is fear, followed by anxiety and rage, whereas the protagonist is particularly touched by sorrow, loneliness, and discouragement. Nostalgia and hope are, instead, feelings that concern, albeit in different forms, both the main character and all the Earth's population.

From the beginning of the text, Liu Cixin portrays a terrified humanity, frightened by what used to be the source of all life on the planet: the Sun. The first description of this fear appears when the protagonist recalls a trip he made during primary school, when his teacher took the class on a trip to see the Earth's engines, and their first sunrise:

“其实，人类把太阳同恐惧连在一起也只是这三四个世纪的事。这之前，人类是不怕太阳的，相反，太阳在他们眼中是庄严和壮美的。
[...] 终于，我们看到了那令人胆寒的火焰，开始时只是天水连线上的一个亮点，很快增大，渐渐显示出了圆弧的形状。这时，我感到自己的喉咙被什么东西掐住了，恐惧使我窒息，脚下的甲板仿佛突然消失，我在向海的深渊坠下去，坠下去…… (Liu, “Liulang diqiu” 5-6)

‘In fact, we only began to fear the Sun three or four centuries ago. Before that, humans were not afraid of the Sun. It was just the opposite. In their eyes, the Sun was noble and majestic. [...] Finally, we glimpsed the soul-chilling flame. At first, it was just a point of light on the horizon, but it quickly grew into a blazing arc. I felt my throat close up in terror. It seemed as if the deck beneath my feet had suddenly vanished. I was falling into the blackness of the sea, falling... (Liu, “The Wandering Earth” chap. 1)

What the author depicts is an infantile fear that is not merely the consequence of the protagonist's young age. It is the results of the menace of a terrible calamity that has been lurking for decades, and that has now become part and parcel of everyday life on Earth. As the main emotion that is represented, fear not only pervades the whole plot, determining the characters' actions, but also serves as a magnet, anchoring the readers' attention from beginning to end. In Oatley's words, “[a] play or novel runs on the minds of the audience or reader as a computer simulation runs on a computer” (Oatley 105). By *simulating* the prospect of disaster by means of the fright it triggers, the text engages the reader in a conscious reflection on the limits of human power.

As an immediate consequence of a frightful future, anxiety is another dominant feeling in Liu's narration. The uncertainty pervading the condition of the Sun causes the phases of the “Wandering Earth project” to be soaked in tension. In order to escape the Solar System, the Earth needs to accelerate its revolution, but the shadow of the helium flash accompanies every step toward the perihelion:

人类的精神像在荡着一个宇宙秋千，更适当地说，在经历着一场宇宙俄罗斯轮盘赌：升上远日点和跌向太阳的过程是在转动弹仓，掠过近日点时则是扣动扳机！每扣一次时的神经比上一次更紧张，我就是在这种交替的恐惧中度过了自己的少年时代。(Liu, “Liulang diqiu” 16)

It was like humanity's morale was dangling from a cosmic trapeze. Or perhaps it was more accurate to say that we were playing Russian Roulette on a planetary scale: every journey from perihelion to aphelion and back was like turning the chamber, and passing the perihelion was like pulling the trigger! Each pull was more nerve-wracking than the last. My boyhood was spent alternating between terror and relaxation. (Liu, “The Wandering Earth” chap. 2)

The emotion depicted by the author is what Freud defined as a “realistic anxiety”, caused by an external threat (Ngai 211). It is interesting to point out how the spatial dimension of anxiety theorized in psychological discourse (Ngai 210) finds its counterpart in the text: anxiety is projected onto others and affects the protagonist by means of the “rumors” circulating about an imminent helium flash. While the fear of the Sun is truly felt by the main character, the anxiety is depicted as the effect of others’ apprehension, which is unnecessary and harmful to his straight-thinking.

The third affect that is described as felt by a conspicuous portion of the Earth’s population is rage. Anger explodes among the population when a group of observers discovers that the Sun has not changed in the previous four hundred years, discrediting – erroneously – the theory that had foreseen its upcoming death. Insurrection breaks out on the whole planet, the Coalition army is finally defeated, its five thousand representatives are made prisoners and sentenced to a cruel death on the frozen ocean:

当我听到这 5000 人全部被判处死刑的时候，我突然觉得太宽容了！难道仅仅一死吗？这一死就能偿清他们的罪恶吗？能偿清他们用一个离奇变态的想象和骗局毁掉地球，毁掉人类文明的罪恶吗？他们应该死 10000 次，这个时候我想起了那些做出太阳爆发预测的天体物理学家，那些设计和制造地球发动机的工程师，他们在一个世纪之前就已经作古。我现在真想把他们也从坟墓里挖出来，让他们也死 10000 次。(Liu, “Liulang diqiu” 30)

When I heard that all five thousand of the prisoners had been sentenced to death, I felt it was too lenient. One death? Could one death repair the evil they had done? Could it make amends for the crime of perpetrating an insane hoax that destroyed both the Earth and human civilization? They should die ten thousand times over! I suddenly recalled the astrophysicists who had forecast the explosion of the Sun and the engineers who had designed and built the Earth Engines. They had passed away a century ago, but I truly wanted to dig up their graves and make them die the deaths they deserved. (Liu, “The Wandering Earth” chap. 3)

Unlike the feeling of fear and anxiety, rage is depicted as completely blinding, inducing the characters to take action against the “Wandering Earth Project.” Here the author exemplifies the potential effects of unjustified rumors about – and irrational reactions to – the science-based plan to save the planet. It can also be considered a means to foster reflection on the political implications of science.

Internalizing the Prospect of Disaster

In addition to the shared feelings of fear, anxiety, and rage, Liu Cixin offers some insight on the main character’s emotions, which are still a consequence of the ecological collapse, but are experienced at the level of the individual. The narration of the phases of the project provides the background for the story of the protagonist’s family, which is destroyed one piece at a time: his grandfather, his mother, his father, and his wife are all victims of the “Wandering Earth Project” and of its consequences on climate. Therefore, sorrow is one of the most widely represented emotions, as in the following excerpt, when the protagonist pictures his mother’s death:

我到地面两个半小时后，岩浆就在 500 米深的地下吞没了整座城市。我心如刀绞地想像着妈妈最后的时刻：她同没能撤出的 1.8 万人一起，看着岩浆涌进市中心广场。[...] 广场那高大的白色穹顶在高温中渐渐变黑，所有的遇难者可能还没接触到岩浆，就被这上千度的高温夺去了生命。(Liu, “Liulang diqiu” 17)

Two and a half hours after I made it to the surface, magma inundated the entire city five hundred meters beneath my feet. A knife twisted in my heart as I imagined my mother’s final

moments. Standing alongside eighteen thousand others who could not be evacuated in time, she would have watched magma surge into the plaza. [...] The victims likely never came into contact with the magma before the thousand-plus-degree temperatures proved fatal. (Liu “The Wandering Earth” chap. 2)

The woman represents only one of the deaths caused by the project, which has altered the equilibrium in the Earth’s core: by modifying the speed and trajectory of the planet, the engines cause a chain of ecological disasters. In this case, not only does the projection of the consequences of climate crisis on one’s family serve as an additional motivation for the protagonist to complete his mission, but it can also be regarded as an attempt to exploit the involving power of fiction (Oatley 109) by linking the hero’s action to his personal relationships, so as to elicit empathy and enhance the impact on the reader.

In the whirl of events, what is often stressed is the final goal of saving the Earth, which is common to all humanity. Yet, the depiction of the main character’s individual affect is particularly emblematic of the social consequences of a space calamity. The sense of loss translates into a latent loneliness that becomes manifest during an Olympic race on ice in which the protagonist competes:

而在无限的星空和无限的冰原组成的宇宙中，只有我一个人！雪崩般的孤独感压倒了我，我想哭。我拼命地赶路，名次已无关紧要，只是为了在这可怕的孤独感杀死我之前尽早地摆脱它，而那想像中的彼岸似乎根本就不存在。(Liu, “Liulang diqiu” 18)

[...] in this universe of infinite stars and endless ice, I was alone! As an avalanche of loneliness overwhelmed me, I wanted to cry. I drove as if my life depended on it. Whether or not I placed on the podium was beside the point: I needed to get rid of this terrible loneliness before it killed me. In my mind, the opposite shore no longer existed. (Liu, “The Wandering Earth” chap. 2)

The feeling of oppression resulting from the observation of the surrounding environment translates into a sense of loneliness that can be assimilated to what Timothy Clark defines as the “Anthropocene disorder”, which is the emotional reaction to the awareness of the gap between the scale of the catastrophe and the day-to-day basis of the human perception (Clark 140). In “The Wandering Earth”, it is precisely the experience of this peculiar state of mind that brings together the protagonist and his wife. The two lost souls manage to overcome their dismay through the plan of building a family together, although the uncertainties of their times do not facilitate the positive thinking necessary to bring a new life into the world (Liu, “The Wandering Earth” chap. 2).

While on the one hand a child makes the hero’s life worth living, on the other hand it is an added concern when it comes to evaluating the quality of life of a whole generation. When the protagonist reflects on future prospects, his fears give way to discouragement:

当我们的一百代重孙爬上阶梯的顶端，见到新生活的光明时，我们的骨头都变成灰了。我不敢想像未来的苦难和艰辛，更不敢想像要带着爱人和孩子走过这条看不到头的泥泞路，我累了，实在走不动了…… (Liu, “Liulang diqiu” 22)

In a hundred generations, when our descendants reached the top and glimpsed the promise of new life, our bones would have long turned to dust. I did not imagine the suffering and hardships yet to come, much less consider leading my lover and my child down that endless, muddy road. I was so tired, too tired to go on... (Liu, “The Wandering Earth” chap. 2)

This kind of feeling is a direct consequence of the peculiar environmental condition, in which the protagonist loses sight of the ultimate goal because of the unbearable adversities of his current life. The difficulty of being able to think about the final salvation in spite of one's own sacrifice is widely represented by Liu, yet the novella ends on a bright note, with the protagonist picturing the future environment of the Earth, after its successful migration into the Alpha Centauri System:

我好像看到半人马座三颗金色的太阳在地平线上依次升起，万物沐浴在它温暖的光芒中。固态的空气融化了，变成了碧蓝的天。2000 多年前的种子从解冻的土层中复苏，大地绿了。我看到我的第 100 代孙子孙女们在绿色的草原上欢笑，草原上有清澈的小溪，溪中有银色的小鱼……我看到了加代子，她从绿色的大地上向我跑来，年轻美丽，像个天使…… (Liu, “Liulang diqu” 33)

In my mind's eye, the three golden suns of Alpha Centauri rise above the horizon one after another, bathing everything in their warm light. The solid atmosphere has melted, and the sky is clear and blue again. Seeds planted two thousand years ago sprout from the thawed soil, breathing new life into the earth. I see my great-grandchildren, one hundred generations removed, playing and laughing on green grass. Clear streams flow through the meadows, filled with small silver fish. I see Kayoko, bounding toward me across the green earth. She is young and beautiful, like an angel... (Liu, “The Wandering Earth” chap. 4).

Indeed, the feeling that unites the protagonist and the rest of humanity is the fundamental hope of a possible future for the planet. However, although one's ability to believe in a happy ending is a *sine qua non* condition to contribute to the implementing of the “Wandering Earth Project”, the melancholic aftertaste of this image exemplifies what Glenn Albrecht has defined as “eco-nostalgia” (Weik von Mossner 53). The protagonist longs for a planet he has hardly seen in its original shape, but such a description is guaranteed to have an impact on the reader, who is likely to immediately relate, experiencing nostalgia for a world that is quickly disappearing before his or her own eyes.

Conclusions

“The Wandering Earth” explores a scenario in which the Earth is in danger and its human inhabitants all work together to rescue it, setting a clear and common goal that guides the development of the plot. The first-person narrative creates a peculiar interplay between the subject and the community, addressing the issue of climate crisis from a twofold perspective. My analysis has shown that the events narrated revolve around two main levels of affect: the emotions felt by large groups of people (fear, anxiety, rage) and those described as the protagonist's personal feelings (sorrow, loneliness, discouragement). Whereas the shared emotions lead to – sometimes hasty – action, the individual's affects are experienced in a more passive way and tend to paralyze the subject when he has to face the calamities of his times. The threat of an ecosystem becoming uninhabitable can hardly be faced by the individual alone, whereas a union of forces shows the power both to plan and to implement a possible solution. Nonetheless, disrupting the environment comes with an emotional recoil, which reflects the relation between human feelings and nature.

Liu Cixin's novella is an almost extreme example of Chinese Cli-fi, which has won over a global audience through the 2019 film adaptation. While the movie fulfills the task of promoting the idea of P.R.C. military power in space (Silk 157) and reduces the emotional load of the narrative to a “family melodrama” (Zhu 3), the original text provides a deeper understanding of the link between natural catastrophes and human feelings, describing how the environment actually shapes – and is in turn shaped by – human affect. Showing this connection is an important step to sensitizing the readership's awareness. Oatley states that fiction is involving (Oatley 109) and that “emotions produced by narrative are the participant's own” (Oatley 113); therefore, any fiction that dwells on possible

reactions to the climate crisis also works at a cognitive level, constituting valuable training to prepare the reader's feelings and encourage climate action.

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