KAISU RÄTTYÄ ORCID: 0000-0002-2454-1472
Tampere University

# Climate Anxiety and Hyperobjects in Two Picturebooks on Climate Activism

**Abstract:** This article explores the ways in which climate change is presented in texts and pictures as a hyperobject and what kind of climate anxiety is connected to characters in picturebooks. The analysis focuses on two picturebooks, *Greta and the Giants*, by Zoë Tucker and Zoe Persico (2019), and *Our House is on Fire*, by Jeanette Winter (2019). Both books present young climate activists solving problems that threaten the environment. Ecocritical content analysis (EcCA) was used to identify anxiety-related emotions in picturebooks connected to climate change issues and show how these emotions can be expressed in texts and pictures. The analysis was performed by applying the typology of ecological settings in texts and pictures and the taxonomy of characters' climate anxiety. The nonlocality, interobjectivity, plurality, and viscosity of the hyperobject exist in both books, allowing young readers to encounter it. Moreover, global warming causes sadness- and threat-related emotions in both books; Winter's picturebook even depicts strong depression-related emotions.

**Keywords:** climate anxiety, hyperobject, picturebook, affective ecocriticism, ecocritical content analysis

When we discuss climate change or the climate crisis, we encounter an enormous, multilayered problem that is intangible. As several researchers in the field of eco-criticism and ecological education have pointed out, climate change refers to a construct that is difficult to fully understand. Thus, it can be described as a hyperobject (Morton, 2013a, 130–135; 2013b; Oziewicz & Saguisag, 2021, p. vii). The term 'hyperobject' refers to entities that are intangible and indefinable in place, time, and causality. Hyperobjects have been described as viscous, nonlocal, interobjective (i.e., pluralities of different objects); temporally undulating (i.e., smoothly appearing); and phasing phenomena, one of which is global warming. In Timothy Morton's (2010; 2013a; 2013b) writings, hyperobjects are frequently connected to thoughts of anxiety, fear, crisis, and the end of the world.

Almost 60 % of children and young people are very or extremely worried about climate change, and 84 % are at least moderately worried, as a survey that included 10,000 children and young people (aged 16–25 years) around the world testifies (Hickman et al., 2021). Research concerning eco-grief, eco-anxiety, and climate-anxiety has investigated the feelings attached to global warming and climate change (e.g., Pihkala, 2020; 2022). Simultaneously, the ecological crisis, climate change, and eco-grief have emerged as trending themes in children's literature (Oziewicz & Saguisag, 2021; Duckworth, 2022). A part of this literature has explored the theme of eco-crisis and eco-anxiety through climate change activism[1].

The perspective of climate change and climate activism as a kind of answer to such anxiety has emerged and become an issue even in recent children's literature research, such as Clare Echterling's (2016) and Geraldine Massey and Clare Bradford's (2011) articles on environmental activism or Rachel Conrad's (2021) article 'Youth climate activists trading on time', which analyzed the rhetorical strategies utilized by climate activists. Several analyses (e.g., Axelsson & Källström, 2023; Conrad, 2021; Moriarty, 2021; Olsen, 2023) have been written on literature focussing on one young Nordic climate activist who has been the inspiration for several children's book authors and illustrators, namely Greta Thunberg.

In a previous article, we focused on children's books on climate change that were published in Finland. Using discourse analysis, we studied picturebooks[2] published from 2019 to 2020 (Rättyä, Hakala, & Matilainen, 2023) and found the discourse of anxiety-evoking climate change activism, among other discourses. The studied books included two picturebooks that were inspired by Greta Thunberg's actions, as indicated by their titles: *Greta and the Giants: Inspired by Greta Thunberg's stand to save the world*, by Zoë Tucker and Zoe Persico (2020), and *Our House is on Fire: Greta Thunberg's call to save the planet*, by Jeanette Winter (2019). In this article, I want to review how the climate crisis and anxiety into relation to concept of the hyperobject were constructed in these two picturebooks. For a deeper analysis, I read them while focussing on the types of anxiety, as well as the characterisations of climate crises. I was inspired in this work by Brianna Andersson's (2021) article 'Reimagining plastic pollution and climate activism'. In it, activism and Great Pacific Garbage Patch (GPGP) were studied using the hyperobejct as an operative analysis tool.

In this article, my analysis concentrates on picturebooks and the relationship between texts and pictures representing climate activism, anxiety, and the hyperobject in picturebooks that illustrate young protagonists' actions in the face of the climate crisis. The books *Greta and the Giants* and *Our House is*

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[1] Children's literature researchers had already written about environmental activism in the 1990s, for example, Carolyn Sigler's (1994) article 'Wonderland to wasteland: Toward historicizing environmental activism in children's literature'.

[2] Following William Moebius (1986) and Serafini and Reid (2022), I use 'picturebook' instead of 'picture book'.

*on Fire* are aimed at slightly different age groups. The illustrations vary from being in the mode of a fairytale to Winter's more realistic style. This article begins by presenting affective eco-criticism as its theoretical framework, as well as concepts – climate anxiety and the hyperobject – that can orient us towards understanding the climate crisis. Next, I offer a model of analysis for the close reading of the picturebooks. Finally, a discussion of the results ends the article.

## ASPECTS OF HYPEROBJECTS AND CLIMATE ANXIETY

The affective eco-criticism that frames this research is grounded in eco-criticism and affect theories (Bladow & Ladino, 2018; Gaard, 2020). The purpose of affective ecocriticism is, as Bladow and Ladino (2018) explain, 'to identify the emotions that circulate around environmental issues today, to clarify how that circulation works, to acknowledge the powerful role environments themselves play in shaping affective experience, and to identify new affects emerging in our contemporary moment' (p. 3). To explore the affective experiences and environmental issues depicted in the chosen texts, the main concepts chosen for use in this study were the hyperobject and climate anxiety. In the current study, I left out a discussion of the different backgrounds of affective eco-criticism and the differences between the concepts of affect and emotion (see, e.g., Gaard, 2020, pp. 225–227; Weik von Mossner, 2020). The evaluation of the development of ecocriticism in children's literature research (see, e.g., Massey & Bradford, 2011) was not in focus in this study.

Children's literature research has seldom discussed the question of the hyperobject in the context of climate fiction. Only one peer-reviewed article focussing on the hyperobject and children's literature was found in ProQuest in February 2024. In addition to this, there is an introduction to a special issue on children's literature and climate change in *Lion & Unicorn*. Brianna Anderson's (2021) article connects the concept of the hyperobject with plastic pollution and the GPGP and explores the spatial vastness and non-locality of the patch in a picturebook by Rachel Hope Allison. Morton's concept is mainly understood through depiction of the GPGP as a growing, complex, and non-tangible object (Anderson, 2021). When Morton discusses the hyperobject in his philosophical monograph, the text style is discursive and subjective; the author's own experiences and feelings are highly present. The illusion represented by the quality of viscosity is presented using pictures of phenomena that linger in the social space and daily life, as well as the idea that there is no possibility of escaping them, for example, radioactive materials or global warming (Morton, 2013a, pp. 27–36). The elements of the hyperobject are connected to scale. The objects are massively spread out in space and time. They linger over oceans, like the GPGP, and over generations, like climate change; simultaneously, they are non-local and interminable. They are 'shared by numerous

entities' (Morton, 2013a, 40). These hyper-scale quantities are why hyperobjects are experienced as frightening (Morton, 2010, pp. 130–131).

Reviews of the prior research on eco-anxiety and climate anxiety have compiled lists and key characteristics of climate emotions based on emotionally charged terms (Coffey, Bhullar, Durkin, Islam, & Ushker, 2021; Pihkala, 2022). These studies of ecological forms of grief reveal how these emotions are reported among children and youth (Coffey et al., 2021). Lists of emotions, affects, or feelings related to eco-anxiety cover different forms of anxiety (fear, worry, grief, guilt, anger, enthusiasm, stress, and overwhelm) and mental states (confusion, shock, trauma, solastalgia, shame, excitement, expectation, and helplessness; Pihkala, 2020, p. 11). Based on the results of his review, Pihkala created a taxonomy of climate-emotions. It is extensive because it ranges over several scientific fields, from psychology to neuroscience.

In applying this taxonomy to studies of children's eco-critical and climate change literature, it will benefit from some simplification and restructuring. My application of the climate anxiety taxonomy to picturebook analysis combines emotions, feelings, and affects under the same term: 'emotions'. I attempt to make visible the different kinds of emotions combined in anxiety. I organise the emotions in terms of feelings toward potential action (e.g., sorrow and worry, which may result in hopelessness or even anger). Therefore, the taxonomy of the characters' climate anxiety consists of four categories (see Figure 1):

1. Sadness-related emotions: sadness, sorrow, and grief
2. Threat-related emotions: fear, worry, helplessness, and powerlessness
3. Strong depression-related emotions: depression, meaninglessness, and hopelessness
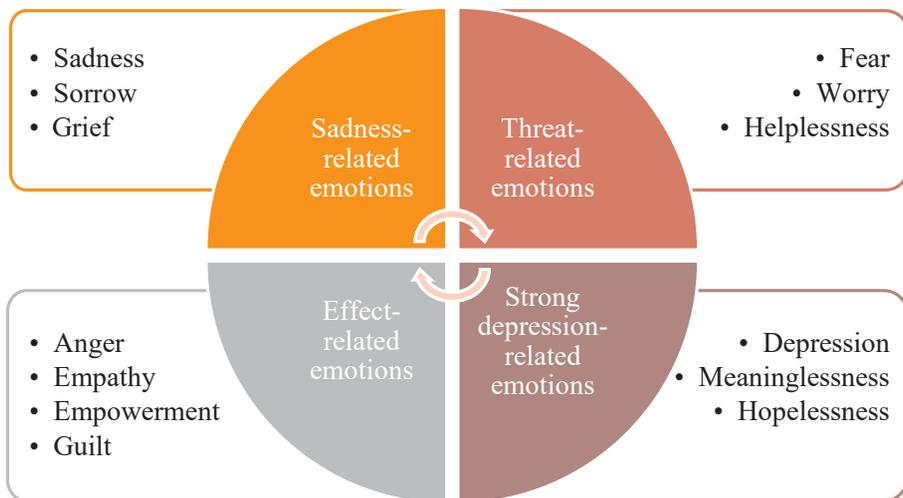4. Effect-related emotions: anger, empathy, empowerment, and guilt



**Figure 1.** Taxonomy of characters' climate anxiety

## METHODOLOGY

The discussions of climate anxiety and previous analyses of picturebooks that thematize climate activism convinced me to explore how the main characters are urged to act, what kind of climate change books depicted, and how the characters experienced the signs of climate change. My research questions were as follows: Which kind of climate crisis threatens the characters, and what types of climate anxiety do the texts and pictures depict?

I examined two picturebooks that thematize both climate change and climate activism. Each book features a young girl combatting a problem that threatens her environment. Additionally, the protagonists are linked to Greta Thunberg via the subtitles *Greta and the Giants: Inspired by Greta Thunberg's stand to save the world* (Tucker & Persico, 2019) and *Our House is on Fire: Greta Thunberg's call to save the planet* (Winter, 2019). The discourse regarding climate anxiety is exceedingly present in the books.

*Greta and the Giants* begins with the atmosphere of a fairytale but closes with double-spread paratextual information of Greta Thunberg. Humanized animals from the neighboring woods (e.g., a wolf, squirrel, and owl) come to Greta and ask for help because their home woods are 'broken.' The pictures and text emphasize the small size of children and animals; they are illustrated as notable smaller than adults, whom the title refers to as 'giants.' The Giants are destroying the woods by building smoking cities and polluting factories. After realising what was happening in her surroundings, Greta writes a one-word demonstration sign, which reads 'STOP.' One by one, other children and animals join Greta's protest, and they march to the Giants to tell them that their acts are not acceptable. The activist crowd explains what needs to be changed and how this can only be done if everyone works together. The giants' changed attitudes and more sustainable acts are depicted in the pictures. At the end of the book, Greta sees the changes that her demonstration and other actions have caused.

*Our House is on Fire* begins with a city scene. The realistic tone of the picturebook retells Greta's story, from weekly school strike Fridays in Stockholm to worldwide conferences, ending with a demonstration. At the end of the book, a direct question is posed to the readers: 'What would you do?' The illustrations focus on the main character, Greta. The other characters are typically presented as gray silhouettes. Other children's eyes, mouths, and facial expressions are hidden before they lift their posters and placards.

To analyse these picturebooks, I explored the ways in which they represent the milieu, which consists of physical, social, and temporal settings; how climate change, as a hyperobject, is presented in texts and pictures; and what kinds of anxiety the characters experience. I call my analytical process ecocritical content analysis (EcCA). It was inspired by Kathy G. Short et al.'s (2017, pp.

1–15) critical content analysis (see also Mathis, 2015; Stephens, 2015) and uses affective eco-criticism as its critical theoretical framework (Bladow & Ladino, 2018). The concepts of climate anxiety and the hyperobject are its theoretical tenets. To examine the characters' agency and power relations, we must understand how their social networks and the connections in their worlds are constructed. To understand the environmental issues they face, we must comprehend the kinds of physical settings presented in texts and pictures.

Frank Serafini and Stephanie Reid (2022) recognised three analytical frameworks that can be used to study the dialogical relationships between images and text in the context of picturebooks: semiotic, literary, and artistic. These frameworks are grounded in different theoretical and methodological foundations but all are intended to help understand the essence of picturebooks and their genres. The semiotic framework emphasizes semiotic resources, the literary framework stresses the relationships between narrative structures and story elements, and the artistic framework highlights picturebooks as aesthetic art objects through art criticism. As a literary scholar, I prefer the literary framework, which considers a picturebook to be a 'complex literary entity that must be considered holistically' (Serafini & Reid, 2022, p. 11). However, these frameworks do not include discussions of critical theories and their relationships to picturebook analysis. This kind of critical framework is presented in, for example, Kathy Short's (2017) article 'The right to participate: Children as activists in picturebooks' and Marianne Røskeland's (2018) article 'Nature and becoming in a picturebook about "things that are"'. While Short turns to critical pedagogy and childism, Røskeland draws on the Nature in Culture Matrix (Goga et al., 2018, pp. 12–14), which is constructed using an anthropocentric-to-ecocentric $x$-axis and a celebrating-nature-to-problematizing-nature $y$-axis; theoretically, it is based on ecocriticism. In the same article collection discussing ecocritical themes, I present another analysis typology, which is combined with the Nature in Culture Matrix and ecocriticism. My article 'Ecological settings in texts and pictures' (Rättyä, 2018) describes how nature and physical, social, and temporal settings are represented in a Finnish picturebook entitled *A Dog Called Cat*, by Tomi Kontio and Elina Warsta.

The present study applies Rättyä's (2018) typology, which employs Bronfenbrenner's ecological systems theory, as an analytical tool for ecocritical content analysis and examining the representations of the environment and a character's social relationships. The ecological-settings-in-texts-and-pictures typology covers three system levels:

1. The microsystem, comprising the characters' immediate surroundings or settings;
2. The mesosystem, comprising several microlevels in which the individual participates; and

3. The macrosystem, containing the social, educational, ideological, or insti-
   tutional patterns of a culture or subculture.

These system levels can be studied in social, physical, and temporal settings, which in this context, create the milieu of the studied picturebooks (see Table 1). Social settings can be divided into system levels based on the scale and intensity of social connections. The scale and distance from protagonists' homes construct different physical settings in the micro-, meso-, and macrosystems. Temporal settings extend from the immediate time of events to decades and centuries. (Rättyä, 2018, p. 161–163.)

**Table 1.** Ecological settings in texts and pictures

|  | Social Setting | Physical Setting | Temporal Setting |
|---|---|---|---|
| **Microsystem** | Active, daily social contact with family and friends | Immediate surroundings, where a person's activities take place (e.g., home or nest) | Immediate time of events (e.g., week, summer, or weekend) |
| **Mesosystem** | Connections, occasional contacts | Local areas and regions (e.g., hometown or home forest) | Period in a person's life (e.g., childhood, teens, or adulthood) |
| **Macrosystem** | Nationality, ethnicity, religion, ideology, species | National or global setting | Centuries, decades |

I used Table 1 as a template to collect and document units of analysis from both texts and pictures in *Greta and the Giants* and *Our House is on Fire*. Notions and comments about settings and system levels were placed in tables for each book. After analyzing the ecological settings, I examined the emotions related to climate anxiety that the characters expressed in social and physical settings and reviewed the emotions that appeared in each system level. For this, I used the taxonomy of characters' climate anxiety (Figure 1).

## RESULTS

**Hyperobjects Threatening Characters**
A young girl holding a demonstration sign in her hands and striking for climate change is pictured in both books. The reasons she is expressing her feelings are grounded in global warming. As Oziewitcz and Saguisag (2021, pp. vii) express, the challenge of climate change can be both 'psychologically traumatizing and conceptually daunting'. The signals of climate change in the analysed picturebooks are mainly depicted before the act of demonstration. The illustrations and texts convey a variety of fearsome and alarming notions about the changing surroundings being experienced by people and animals. In her picturebook analysis, Andersson (2021) focusses on plastic pollution, especially the hyperobjective nature of the GPGP. Andersson's interpretation of the

hyperobject can be challenged, while Morton's list of characteristics includes the idea of nonlocality, meaning that hyperobjects cannot be localized even though they appear as local manifestations (Morton, 2013, 40). *Greta and the Giants* and *Our House is on Fire* describe climate change as repeated, accumulating changes, expanding fires; and animals' shrinking living space, thus exemplifing the hyperobject as interobjective, nonlocal, and temporally undulating.

### *Greta and the Giants* (2019)

On the title page, Greta is shown marching alone and carrying a poster that says 'STOP!'. This indicates the forthcoming action in which the main character acts on her own, without adult support. On the next double spread, she is seen surrounded by animals of all sizes: a bear, a wolf, a fox, a deer, some smaller animals, and birds. Her immediate surrounding is the forest. The physical setting, on the microlevel, is depicted in both text and pictures, but her social setting, on the microlevel, is not presented. The animals around her do not appear to be daily connections; rather, they are occasional social connections that visit during the course of the story. However, the animals seem to have a close connection with Greta in the pictures, as well as a verbal one. Their spokesperson is the wolf, who appeals for help, saying: 'Please help us – The forest is broken, and we don't know where to go. The Giants are ruining our home' (Tucker & Persico, 2019, p. 7).

The next system level, the mesosystem, introduces the crisis. The animals recall the destruction that the Giants have caused: 'They chopped down trees to build homes… The houses grew into towns and the towns grew into cities. They built factories and shops and cars and planes' (Tucker & Persico, 2019, p. 8). With text and four images, the author and illustrator show a forest that was transformed into a large city with smoking chimneys, a busy motorway, and a blackening sky. The smoke in the sky overshadows the double spread (pp. 10–11) and phasing over the rest of the forest and its inhabitants. The series of pictures represents the macrosystem, with its physical and temporal settings, indicating a change over centuries and referring to a long timescale. The following message is expressed in the text: 'The Giants had always been there, for as long as Greta could remember, but now they were worse than ever.' The atmosphere of the twenty-first century is shown in the last pictures (pp. 9–11) of the picture collage. The text does not specify the pollution problem, but the illustration shows the forest disappearing until only a few leafless trees are left for the animals, who observe from the right-page corner, looking back in the direction of a motorway full of cars.

The animals' talk about the Giants alludes to fear: 'They didn't see all the little birds and bugs and butterflies and bears that trembled in the shadows. And no one told them to stop because everyone was scared of them' (Tucker & Persico, 2019, p.11). Here, the focus is on the mesolevel, specifically the point at which

the animals need help and approach Greta. The social microlevel cannot be determined, which reveals how alone Greta is in her actions, as well as the Giants' disregard of her. Even though other children join her demonstration, they do not converse or initiate a close connection with Greta: "A little boy who had been watching Greta made a sign and came and sat down next to her. He didn't say much, but Greta know he felt like she did" (Tucker & Persico, 2019, p. 17).

The number of people at the rally increases, but no social connections between them are indicated in the pictures or text. The only speech after the animals' plea to Greta is her manifesto and the crowd's shouts toward the Giants, such as 'The smoke from your fires is choking the air!' The protesters' signs have texts on them that reiterate the demands to act now, stop, and make change. The need to protect the forest, as the animals' physical living environment, is frequently repeated in various spreads, both in speech bubbles and signs, as well as in Greta's pronouncement that 'These animals are homeless and our forest is dying' (Tucker & Persico, 2019, p. 23).

The giants' actions are hastily explained, and their regret is mentioned in the text (Tucker & Persico, 2019, p. 26). Because the edges of the pictures seldomly depict the giants' faces, apologetic and sad emotions are not visible. Then, the attempt to slow down the pace is described and metaphorically indicated by hands knitting and figures picking flowers. The final picture shows the giants in restored, more colorful forest scenery (Tucker & Persico, 2019, pp. 30–31).

The climate crisis in *Greta and the Giants* is presented from the perspective of forest animals. This is understandable, as this fairytale-like picturebook is targeted towards a young audience. The phenomenon of a home forest dying is rather concrete. Furthermore, the text and pictures offer information about other dimensions of the climate crisis: industrialization; the disappearance of forests; and the appearance of towns, cities, cars, and factories.

The changes in Greta's and the animals' own microsystems are not visible. Even though the characters refer to 'our' forest, the forest is depicted quite onedimensional, different, and the nuances of the effects on flora or fauna are examined. The analysis reveals that the climate crisis phenomena are presented multifacetedly, indicating the crisis's hyperobjective nature. It is a question of making change, saving the forest, and stopping pollution. Climate change appears to be unescapable, all-around, and viscous. A climate strike is called, and action is requested on the part of the giants, but a detailed problem presentation is not provided. Moreover, some of the actions are aimed at saving the forest, but a sense of nonlocality is present, as well as the plurality of various objects. A smooth change is depicted by a series of pictures.

### Our House Is on Fire

The front cover of *Our House Is on Fire* presents the main character facing the reader. Her eyes are directed towards the audience, and the book's title

is printed on the sign she holds in her hands. Behind her, colorfully clothed children have raised their own signs, with similar texts and pictures of Earth, symbolizing their collective concern. The children are not interacting with one another or Greta; they also face the picturebook's audience. The cover picture establishes the system level hierarchy of the book: the macrosystem is more important than the microsystem. This picture is repeated on the second-to-last spread of the book.

Although the microsystem is less noticeable, it exists. For example, Greta's dog, on whom her feelings are projected, is present in almost all pictures at the beginning of the book. Greta's parents are shown supporting her school strike and other actions, both in the text and the picture (Winter, 2019, p. 23). The illustrations introduce the parents as grey silhouettes, like the people from school or those passing Greta in front of the parliament building on her strike days. As in *Greta and the Giants*, adult figures are silhouetted, cut, and cropped so that only their torsos or legs are visible, or they are shown from behind. This design choice strengthens the sense that adults are part of a faceless, anonymous mass.

Global social and temporal settings are identified by the names of official global events, such as the United Nations' climate talks in Poland. A fact sheet at the end of the book lists Greta Thunberg's quotes, places where her manifestos appeared, and published sources on Thunberg. In the book, the children's actions around the world fit into the mesosystem level. For example, Greta launches her school strike in Stockholm, and Swedish children join it first. The macrosystem is connected to this via references to 'cyberspace' in the text and illustrations of people reading their mobile phones in various languages (Winter, 2019, p. 28).

The temporal setting, contemporary daily life, is clear throughout the book. Technological elements, such as mobile phones, orient readers to the 2010s, as do the historical documents about Greta's protest. The macrosystem is more detailed than the microsystem, even though seasonal clothing and snow imply the passage of time. At the textual level, more information is given about Greta's mental experiences: 'The sad days went on for a long time, each day more unhappy than the next. There might not be a world to live in when she grows up. What use is school without a future?' (Winter, 2019, p. 26).

The pictures in *Our House Is on Fire* illustrate the climate crisis as a hyperobjective, interobjective sum of many signals of global warming. The text tells how she listens to her teacher's talk, reads, and watches documents about climate change. The text demonstrates the plurality of the problems at hand, such as the warming of the planet, the melting of the polar ice, and threatens to animal species. In pictures, Greta and her dog watch black-framed screens. In the same way, the reader sees the repetition of the interobject: floods, dying coral reefs, and cracks in the earth. The image of a wildfire and burning trees is

replicated on several pages (Winter, 2019, p. 17, 19, 21, 32), and the apocalyptic themes in the picture series describe a nonlocal problem. The different modes of catastrophe identify a hyperobject that consists of not just one problem but several different crises. The quality of viscosity causes a negative reaction in terms of Greta's mood; the more she becomes aware of global warming, the greater her sorrow is.

**Climate anxiety represented in texts and pictures**
In *Our House Is on Fire,* anxiety is expressed on Greta's face, in her body postures, and in Roxy's eyes and poses. The dog invites the reader to worry with her about Greta and Greta's reaction to global warming. When they watch documentaries on crisis, Greta hugs her dog. She does so not only to seek comfort from Roxy but also to give comfort. Greta's expressions are seen in her face, her hand lifted to her cheek, and her posture. In this phase, the text does not explain her emotions; it only reports what Greta sees. This sense of anxiety is depicted by dark-toned illustrations and, especially, by focussing on the microsystem; sorrow and sadness are not apparent in the pictures that illustrate the meso- or macrosystems.

The repetition of global-level apocalyptic scenes fills Greta with negative anxiety-related emotions and symptoms; she is no longer eating or talking. Sorrow, hopelessness, and meaninglessness surround her. Her parents appear in one illustration in which they are told to support her during her school strike.

Because of her parents' support, she feels that she is being heard. Thus, she begins to talk and express her feelings. She accuses the people with power and urges them, instead of the children, to feel the anxious: 'I want you to panic. I want you to feel the fear I feel every day… I want you to act as if the house was on fire. Because it is.' (Winter, 2019, p. 33). Relief from anxiety is never given to the characters. In the end, large print reads, 'Can you hear us? What will you do?' (Winter, 2019, p. 35, 38–39). Thus, the anxiety is passed on to the readers.

In *Greta and the Giants*, the feelings of sadness, sorrow, and exhaustion that the animals who appeal to Greta for help have are emphasised. When the animals talk about their fear, their helplessness is shown in their body language. After Greta has taken control and received a positive response regarding her climate change actions, the animals' eyes and postures reflect higher expectations and hopes. Greta's enthusiasm is described with words, and though, at first, she works alone, her enthusiasm becomes a movement, even in the mesosystem of the social setting, and is presented in the pictures through the movement towards the right bottom corner and next page. Shame and sadness are later evident in the adult figures and written about in the texts below the pictures. Greta blames them for being greedy, and her fierceness and anger are

pictured (Tucker & Persico, 2019, pp. 18–19). At the end of the book, the giants change their behavior. Because of that, different future scenery is possible, which gives the readers the possibility of solace.

## CONCLUSION

In this ecocritical content analysis (EcCA), I identified anxiety-related emotions in picturebooks related to climate change issues and showed how these emotions were expressed in text and pictures. Affective eco-criticism provided an inspiration for this study. Marek Oziewicz and Lara Saguisag's (2021, pp. vii–ix) view of children's ecocritical literature explored using the concept of the hypertext in analyses. Additionally, they call for further analytical tools with which to study eco-literature. This article implemented new analytical tools, and it utilised the typology of ecological settings in texts and pictures and a new taxonomy of characters' climate anxiety, combined with Morton's (2013a) concept of the hyperobject. Reading with this concept in mind revealed the authors' and illustrators' attempts to cover various aspects of climate change and global warming. The manifestations of the ecocrisis may appear to be a discontinuous and sporadic chain of actions, but books represent the nonlocal, phasing, viscous, and intersubjectivity characteristics that hyperobjects have.

One characteristic of hyperobject relates to notions of scale. How do large-scale global warming and vanishing nature affect the children and animals in books? The question of scale has been explored in children's books research in some cases. For example, Alice Curry (2017) and Sinéad Moriarty (2020) draw on Timothy Clark's (2012) scaled reading in literary or cultural criticism. For further research, a comparison of Curry's scale (small-scale personal transformation, medium-scale socio-political change, and large-scale environmental reappraisal) with this article's ecological settings in terms of text and picture typology would be interesting.

The enlarged burden of responsibility that protagonists in Greta books have may have the wrong proportions. The many effects that climate change has had globally are not easily resolved, and one person's cannot take on this responsibility alone. Even though Winter's picturebook has a quotion from Greta Thunberg on the page before the title page that reads 'You are never too small to make a difference', in my mind, the hyper scale connected to a hyperobject like climate change leads to a failed interpretation of responsibilities, which I term the climate change scale fallacy. This climate change scale fallacy connected to a young protagonist's attempt to make a change appears to cause anxiety. In *Greta and the Giants*, that anxiety is considered through animals' reactions. In *Our House Is on Fire*, it is explored in Greta's gestures, positions, and words. Thus, the books vary in their representations of climate anxiety. *Greta and the*

*Giants* has a happier ending than *Our House Is on Fire*. The sadness and threats caused by the crisis affect the animals, not the main character; the emotions are distanced from Greta's immediate surroundings. However, because of her empathy, Greta feels sadness- and threat-related emotions, which are also present, along with strong depression-related emotions, in *Our House Is on Fire*. Moreover, the dark colours correspond to disappointment and negative feelings, which can be interpreted as indicating meaningless and hopelessness.

The authors and illustrators skillfully solved the problem of picturing the hyperobjects. Nonlocality, plurality, and viscosity exist, but they exist in a way that younger readers can grasp it. Frequently appearing and repetitive images and symbols also help make the subject material easier to understand, although the plurality of the problem remains. Still, picturebooks show that a worldwide wicked problem requires many solutions and that children's voices can make others aware of such a hyperobject. Empowerment is not about placing the burden of climate actions on children but, rather, raising the awareness of adults and allowing them to carry this burden first.

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