



What Can You Do as an Eco-hero? A Study on the Ecopedagogical Potential of Dutch Non-fictional Environmental Texts for Children

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Abstract

In the context of a global crisis around climate change, children continue to be largely excluded from environmental conversations. In order to change this, there has been an increased effort to produce children's media that educates young readers about the origins, effects, and possible solutions to climate change. These environmental texts for children can contribute to the ecopedagogical project and provide children with the information and the language that are necessary to become conscious ecocitizens. This paper analyzes how children's non-fiction books from the Netherlands enable young readers to develop socio-political agency regarding climate change and position themselves within discussions about this topic. A potential trap for children's environmental literature lies in its tendency to simplify the complex issue of climate change and to offer potential ways for fighting climate change which are not accessible to all young readers. Therefore, the paper pays specific attention to the processes of inclusion and exclusion that are used in these books. The analysis is structured around Greta Gaard's critical model for inclusive ecopedagogical texts, based on recognizing and dismantling alienation, hierarchy, and ultimately domination. The study finds that the books selected use contrasting techniques that alienate the reader from the already abstract concept of climate change. They encourage the reader to see themselves as possible "eco heroes" and propose different strategies for contributing to help the direct victims of climate change who are frequently positioned as distanced from the intended young reader. Nature is largely represented as a passive entity, which can play no role in restoring ecological balance.

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Introduction

Do something for the world!
Here, I want to protest!
OK? So there. (*Earth Speakr*, 2020)¹

This short statement was uploaded by a Dutch child into the *Earth Speakr* app. The app is a creation by Danish-Icelandic artist Olafur Eliasson that allows children (age 7–17) to upload short audio fragments related to environmental issues and climate change. These fragments are accompanied by the facial expressions of the child that are superimposed on whatever piece of the child's direct environment they see fit. In many entries, children chose something that relates to the theme of the app, such as a piece of living nature (e.g. a tree or a flower) or an object that violates nature (e.g. a plastic bottle that is thrown in the river). The messages uploaded by children are almost always formulated as a call for action. One Dutch child created a plastic bottle that cries out "No one wants me to be lying around. So why do you throw me on the floor?"² Another child made a tree lament the loss of their friends: "All my friends are dead and I think that's a shame."³ The app is created with the explicit purpose to allow children's voices to enter the debate about climate change and other environmental discussions. The project's website explains that the app "invites kids to speak up for the planet and adults to listen up to what they have to say." (Eliasson, 2020) This app is one of many platforms recently created to include children of all ages in the important discussions about climate change. In fact, by morphing these children's voices and facial expressions with pieces of the environment, the app does not only include children's voices in the debate, but also allows the environment itself to "speak up" and be heard. This seems emblematic for an emerging approach to environmentalism that seeks to include different marginalized or unheard voices in these important conversations.

However, platforms like *Earth Speakr* that do not only include but actually foreground children's voices in environmental discussions, are still quite marginal. Mostly, young people continue to be excluded from these conversations based on their alleged lack of knowledge and inability to comprehend complex problems. Even though children will have to face the majority of the consequences of the actions that today's adults do (or do not) make, adults still systematically exclude children's voices from most debates on the topic. In order to overcome one of the

¹ Original quote in Dutch: "Doe iets voor de wereld! Hiermee wil ik protesteren. Oke? Dus." Note: all translations from the Dutch are made by the authors.

² Original quote in Dutch: "We willen allemaal dat ik niet op grond blijf liggen. Waarom gooien jullie het dan op de grond?"

³ Original quote in Dutch: "Al mijn vrienden zijn dood, dat vind ik jammer".

main objections to children's participation in these discussions, there has been an increased effort to produce children's media that educates young readers about the origins, effects, and possible solutions to climate change. These texts can provide children with the information and the language necessary to develop substantiated opinions so they can (eventually) position themselves within critical discussions about environmental topics. This paper analyzes how children's non-fiction literature enables young readers to develop socio-political agency regarding climate change and position themselves within discussions about this topic.

Positioning Children in Environmental Texts

Although climate change is neither a recent nor a strictly human-made phenomenon, it has become clear that during the last century, humans' activity on Earth has contributed greatly to changes in the world's climate. Ongoing research, performed among others by the UN's Intergovernmental Panel on Climate Change, continuously warns us about the disastrous consequences of this development for both human life and the world at large. Informed by the drastic solutions that are necessary in order to fight these developments, different academic disciplines have produced critical responses to the kinds of human activity that contribute to climate change. One of the first prominent ways in which (children's) literary studies has replied to this plight is via the notion of ecocriticism.

Ecocriticism was first defined by Glotfelty in 1996 as "the study of the relationship between literature and the physical environment." (1996, p. xviii). The representation of this relationship in children's literature has been studied since at least the 1990s. In 2004, the volume *Wild Things*, edited by Sid I. Dobrin and Kenneth B. Kidd, confirmed the study of ecocritical children's literature as an established discipline. One of the main contributions of this line of study is the observation that children's literature can play an important role in the development of an ecocritical worldview. We find this worldview most obviously in children's environmental texts, that is, texts that explicitly thematize contemporary ecological issues. In their introductory chapter on this genre, Geraldine Massey and Clare Bradford argue that one of the primary functions of children's environmental texts is "to socialize young people into becoming the responsible and empathetic adults of tomorrow by positioning readers as ecocitizens, dedicated both to sustainable development in the local sphere and also to global responsibility." (2011, p. 109) This educational project, hoping to create (future) ecocitizens, is often referred to as ecopedagogy.

A potential trap for children's environmental literature lies in its tendency to simplify the complex issue of climate change and to offer potential ways for fighting climate change which are not accessible to all readers. Environmental texts for children tend to homogenize their audience and assume, for instance, that all children face similar consequences of climate change, or that all children have access to the same resources needed to perform the kinds of changes that are necessary to restore ecological balance. Critical voices from different academic disciplines have pointed out that privileged notions of citizenship built into many of these assumptions may well exclude large groups of young people from relating to the ecocritical project.

Therefore, different ecopedagogical movements work to embed ecocriticism into a larger social justice context. This embedding contextualizes the different ways in which citizens are affected by the results of climate change and other ecological disasters, and the different resources that are available to different people for fighting these disasters. Such studies all work to promote a more socially conscious approach to environmental justice (cf. Colquette and Robertson, 1991; Tsao, 1992; Murphy, 1995; Anderson et al., 1999; Adamson et al., 2002; Stein, 2004; Pellow and Brulle, 2005; Roberts and Parks, 2006; Kahn, 2008; Pellow, 2016).

In her 2009 study on children's environmental literature, Greta Gaard argues that the field of ecofeminism can assist the social contextualization of the ecopedagogical project. Ecofeminism understands environmental problems as fundamentally interconnected with other social forms of injustice. She writes:

Beginning with a recognition that the position and treatment of women, animals, and nature are not separable, ecofeminists make connections among not just sexism, speciesism, and the oppression of nature but also other forms of social injustice—racism, classism, heterosexism, ageism, ableism, and colonialism—as part of western culture's assault on nature. (2009, p. 323)

From an ecofeminist perspective, all of these are functions of an oppressive system that operates with the same “logic of domination” (2009, p. 323). Gaard argues that this system works via three steps, which are clearly recognizable in the representation of climate change in western discourses.

First, *alienation*. Gaard argues that western discourse promotes notions of individualism and autonomy over notions of community and collective action. This results, for example, in the common idea that true happiness lies in self-reliance. This discourse works to divide communities by emphasizing differences rather than common grounds. Many studies on the representation of climate change have pointed out that this strategy of alienation is prominently featured in the representation of environmental problems in the public debate (cf. O'Neill and Nicholson-Cole, 2009; O'Neill et al., 2013). Kate Manzo's study on the representation of climate change in UK poster campaigns (2010) supports these findings and demonstrates how the rhetoric of climate change communication relies heavily on images of environments and people that would seem far away for the intended UK audience. Two recurring visual tropes that she finds are “images of polar bears stranded on ice floes” (2010, p. 198) and depictions of the global poor, invoked by images of “lone (generally African) children” (2010, p. 199). These tropes provide a basis for alienation based on both speciesism (human versus non-human animals) and on geo-economic grounds (global rich versus global poor). In order to undermine this process of alienation, Gaard argues for ecopedagogical children's literature that foregrounds inclusion and unity: “if the logic of domination is rooted in alienation and the myth of a separate self, then undoing this logic would require narratives of connection, community, and interdependence among humans, animals, and the natural world.” (2009, p. 327) This would be the first important function of socially conscious environmental children's literature.

Second, *hierarchy*. Gaard argues that the first step of alienation works to center the autonomous self over the perceived other. By doing this, the system pushes the

non-self to the margins and confirms the elevation of the self over the other. This directly feeds into the third step of Gaard's model: *domination*. As the self is hierarchically placed above the other, the system justifies the subordination of those others by the self. We see this double dynamic in the representation of climate change, especially when we look at those who are called into action. In the research cited above, Manzo finds that while depictions of non-human animals and the global poor are a recurring trope in the representation of the problem, images of humans and the global rich are often invoked as the potential agents for fighting climate change. In the UK campaign posters she analyzes, Manzo finds examples of both celebrities and 'ordinary people' from the UK proclaiming their commitment to fighting climate change and sharing strategies to do so, such as growing one's own vegetables (2010, p. 201). This rhetoric is based on a distinction between the self (active and morally conscious UK citizens) and the other (passive and victimized animals and people living far removed from the UK). The hierarchy that is established between these two groups feeds the idea that one of them should occupy an authoritative position over the other in the fight against climate change. In order to undermine this process of hierarchical ordering and domination, Gaard proposes that "the literary antidotes would offer narratives of anarchy, or an absence of hierarchy and a presence of diverse human-animal-nature communities and participatory democracy. Resolving these two operations [i.e. alienation and hierarchy] leaves no room for domination, the third step in the logical sequence of oppressive thought." (2009, p. 327) Another important function of socially conscious environmental children's literature would therefore be the promotion of non-hierarchical participation in the fight against climate change. This should undermine the "logic of domination" that threatens to structure the ecopedagogical project.

The analysis we present in this study takes into account depictions of the perceived self and the other in environmental texts for children and explores the representation of hierarchies between these categories. Following Gaard, we argue that the way these categories play out in environmental children's literature determines who is included in the ecopedagogical project and who is excluded or marginalized.

Dutch Environmental Texts for Children

For this study, we limit ourselves to recent non-fiction books that were originally published in the Netherlands. We chose to work with non-fiction books, rather than fiction books, for two main reasons. A first important reason comes from an inherent difficulty in the depiction of climate change in children's fiction. Even though there is a definite increase in environmental texts for children, the genre remains difficult to integrate in the field of children's fiction. Clare Bradford argues that an important reason for this comes from the 'happy ending' that is conventional in children's stories. This poses a problem because it is difficult, if not impossible, to tell the story of climate change and conclude with a satisfactory ending that suggests all is well. Bradford explains:

Most picture books, especially those intended for young audiences, are shaped by metanarratives of progress and or development, or the integration or reintegration of individuals into sociality. [...] But the metanarratives that circulate in Western culture around environmental topics very rarely have happy endings; many, indeed, are apocalyptic in their depictions of ecological outcomes. (2003 , p. 111)

After analyzing the ways environmental picture books navigate this paradox, Bradford finds that the most common strategy used is to disconnect the narrative of the protagonist from the larger environmental narrative towards the end of the book. Nature, many of these books imply, is a force beyond human control and will be able to heal whatever humans inflict on it. As a result, these picture books “are strong on articulating ecological crises, but weak on promoting political programs or collective action.” (2003 , p. 116) It seems, therefore, that fictional narratives might not be ideal as vehicles for ecopedagogical progress.

In addition, previous research into the educational effects of fictional and non-fictional environmental texts suggest that the latter is more effective in shaping children's opinions on environmental issues than the former. Rebecca Monhardt and Leigh Monhardt (2003) found that children showed a short-lived empathetic response to fictional narratives about environmental issues, but did not change their minds or hearts about these issues in the long run. Monhardt and Monhardt argue:

Students of all ages need to develop attitudes of care and responsibility for living things and the environment, but as students reach the upper elementary and middle school level, these attitudes should be not be based only on statements that they "simply love all animals" or that "people should be able to do what they want with their property." (2003, p. 181)

As a result, the authors stress the need for an educational model that promotes young readers to formulate opinions on environmental issues that are based on factual knowledge about the world, rather than evocative narratives in fictional books. Informed by these findings, we focus on non-fictional books that can help children to create well-informed and sustainable opinions about and attitudes towards environmental issues.

The second criterion for our corpus relates to the geographical limitation of our research: we only include books that were originally published in the Netherlands. We include this limitation because we want to take seriously the impact of geographical position in our research. Different areas of the world face different effects of climate change. One's particular position on earth determines whether climate change manifests itself most directly as drought, flooding, hurricanes, etc. These experiences result in different narratives about climate change that are communicated to children via environmental texts. However, countries are not always located in only one geographical location. Due to geo-political developments, particularly histories of colonialism, countries can be spread out across different geographical regions. This also holds true for the Netherlands. This country has known many different formations over the last five centuries. The borders of the small country in the Northwestern part of Europe have shifted as a result of European conflicts

(including Spanish, French, and German occupations). Simultaneously, centuries of colonial wars have meant that Dutch regions overseas have been established and subsequently dismantled, usually after decolonization wars (including Indonesia and Surinam). At this point in time, the Netherlands can be roughly divided between a European region and a Caribbean region. The European part of the Netherlands consists of twelve provinces that are located in the Northwestern part of Europe. The Caribbean part of the Netherlands—referred to as the Caribbean Netherlands—consists of three ‘special municipalities’: Bonaire, Sint Eustatius, and Saba (or: the BES islands). What is more, the Netherlands is only one country in the current sovereign state of the Kingdom of the Netherlands. The other three countries that make up this state are Aruba, Curaçao, and Sint Maarten—all three of which are located in the Caribbean region. The different geographical locations of these different parts of the Netherlands result in different climatological manifestations of climate change. The European part of the Netherlands is most directly concerned with its low elevation which makes it vulnerable to rising sea levels and flooding. The islands of Aruba, Bonaire, and Curaçao, which are located in the Southern Caribbean, are facing increasingly long dry periods. Sint Eustatius, Saba, and Sint Maarten, which are located in the Northeast Caribbean, are preparing for an increase in rainfall during the wet season and more frequent and violent hurricanes (IPCC, 2013). Besides these direct geographical implications, the different parts of the Netherlands also differ in socio-cultural make-up and have access to different kinds and degrees of financial and political resources to fight the manifestations of climate change.

Based on these heuristic choices, we constructed a corpus consisting of the following texts:

- *Klimaatverandering (Climate change, 2009)* by Martine Van Kolfshoten. This short booklet was published as part of the *De Ruiter's Documentatiecentrum* series which consists of short informative books that introduce children to a range of different topics.
- *Ecohelden in Actie (Eco-heroes in Action, 2010)* by Vrouwke Klapwijk and Mariska Vos. This book builds on a Christian worldview and informs the reader about different aspects of climate change using highly evocative language.
- *Palmen op de Noordpool (Palm Trees on the North Pole, 2018)* by Marc Ter Horst and illustrated by Wendy Panders. This more substantial picture book offers a perspective on the notion of climate change that is broad in scope, including a wide historical perspective and complex political discussions of the problem.
- *Janouk zoekt een duurzame wereld (Janouk is Looking for a Sustainable World, 2020)* by Janouk Kelderman. In this most recent text, Dutch children's TV presenter Janouk takes a very pragmatic approach to climate change and focuses mainly on small ways in which children can live a more environmentally friendly lifestyle.

It should be noted that all these books were published by publishing houses that are located in the European parts of the Netherlands. We have found no non-fictional

children's books that deal with climate change that were published in the Caribbean part of the Netherlands.

We structure the analysis of these children's books around the three central questions set up by Gaard, based on her critical examination of the inclusive ecopedagogical potential of children's literature (2009, pp. 327–332). First, we analyze the possibilities for self-identification in the texts. We study the strategies of alienation and/or connection between the self and the other that are invoked by the text. How is this self related to animals and to humans from different cultures, backgrounds, or geographical locations? Second, we analyze the position between this perceived self and the environmental problems discussed in the book. What role is attributed to the child reader in tackling these issues? We study the hierarchies inherent in the solutions that are proposed to the child reader. Third, we analyze the position that is reserved for nature in these books. In what ways is nature's agency presented in relation to the actions of the ecocritical child? Together, these questions point us towards the explicit and implicit positioning of different parties involved in the environmental problems discussed in these books.

Step 1: Self-identification

Communicating Climate Change to Children: "Amateurs like You and Me"

A first form of positioning that we noticed in our environmental texts relates to the dynamic between the adult-narrator and the child-reader. Climate change is a complex topic that is often understood as too difficult for children to understand in a meaningful way. An important aim of the environmental texts in our corpus is to provide children with the necessary information to engage with this topic. In communicating this information, most of the books in our corpus make use of an all-knowing and impersonal narrator that mimics the differences in comprehension and knowledge between the adult-narrator and the child-reader. The child-reader is thereby encouraged to understand themselves as a pupil that is being educated by a more knowledgeable (if not all-knowing) adult. *Janouk zoekt een duurzame wereld* addresses this dynamic in its introductory chapter. The narrator writes:

I also see that children are not heard enough because adults think that they are always right. That was the last straw for me. We need something that explains the problems of climate change in a clear language. As simple as possible, without too many complicated 'professor words'.⁴ (2020, p. 5)

⁴ Original Dutch: "Ik zie ook dat er te weinig naar kinderen wordt geluisterd omdat volwassenen denken dat ze altijd gelijk hebben. Dat was voor mij de druppel. Er moet iets komen dat in heldere taal de problemen van klimaatverandering uitlegt. Zo simpel mogelijk, zonder al te veel ingewikkelde, wetenschappelijke 'professor-woorden'."

In this assertion, and throughout the book, the narrator blames adults for excluding children from environmental debates through linguistic barriers and “professor words”. The solution they offer is not only a simplification of the language around climate change, but also a simplification of the solutions. “I can already tell you that sustainability does not have to be difficult or complicated.”⁵ (2020, p. 6) This approach might create a safe and accessible space for children to explore climate change, but still talks down to them by stating children can only be included in this discussion via simplified language and simplified solutions.

We found a more interesting approach to this dynamic in *Palmen op de Noordpool*. This book stands out by using a narrator presented explicitly to the reader, addressing their own opinions and questions regarding the topic of climate change. According to Pauwels (2019), the main function of the ‘visible narrator’ in non-fictional children’s literature is to help the reader to position themselves with regards to the text. Pauwels argues that the reader’s engagement can increase when they feel themselves to be at the same level as the narrator. The narrator in *Palmen op de Noordpool* invites this engagement throughout the book by professing to being uncertain and insecure about many of the statements presented in this book. In the introduction, the text explains that the problem of climate change is complex and the narrator wonders how “amateurs like you and me” can understand it fully (Ter Horst, 2018, p. 9). The child-reader is thus invited to see themselves as positioned on the same level as the adult-narrator. Sutliff Sanders (2018) argues that the perceived dialogue between narrator and reader also encourages the reader to reflect critically on the information provided by the text. The explicit demonstrations of ‘vulnerabilities in knowledge’ contribute to the critical engagement of the reader. The narrator in *Palmen op de Noordpool* presents their vulnerability throughout the text. The book’s closing chapter emphasizes that the reader might be uncertain and insecure, but so is the narrator. As such, the text prevents the child from feeling intimidated by the large and multi-faceted problem of climate change, without pretending the problem is less complex than it is. The narrator also explicitly thanks a few experts, such as meteorologists and scientists, for their contributions and answers to the author’s questions while writing the book. Furthermore, the author states that the book has been proof-read by a panel of children and their parents. This also contributes to the idea of the ‘vulnerable narrator’, who is in no way omniscient or an absolute expert.

Centralizing White and European Children: “But There Are No Palm Trees in the Netherlands, Right?”

Besides a clear positioning of the reader as a child, the auto-image that is used in all of these books is that of a child living in the Netherlands. This is of course a direct result of the heuristic limitations used in the selection for our corpus. A nuance that does seem significant is the fact that this auto-image specifically implies a white reader living in the European part of the Netherlands. For example, in

⁵ Original Dutch: “Ik kan alvast verklappen dat duurzaamheid helemaal niet moeilijk of ingewikkeld hoeft te zijn”.

Klimaatverandering (2009) by Martine Van Kolfschoten, the text opens by asking readers to envision a future that is unfamiliar to them:

But there are no palm trees in the Netherlands, right? That's correct. It is still too cold for these trees in the Netherlands. But you can already find the big yellow-black-striped *Argiope* spider in our country.⁶ (Van Kolfschoten, 2009, p. 3)

The purpose of this opening is evidently to encourage the reader to envision a future that is starkly different from the situation they are familiar with in order to approach climate change as an impactful development that will have far-reaching consequences. However, the envisioned estrangement of seeing palm trees and certain insects would resonate with Dutch children living in the European parts of the Netherlands, but would not have the same effect for children that live in the Caribbean. Palm trees and warm winters are already part of the lived experience of Dutch children living in the BES islands. This is a first example of how the Dutch child living in Europe is foregrounded in these books. We see this same strategy used in other books in our corpus. For example: *Palmen op de Noordpool* uses this strategy when it points at the presence of the bee-eater bird and specific kinds of ants, spiders, and caterpillars in the Netherlands (2018, pp.118–119; pp. 126–127) while *Janouk zoekt een duurzame wereld* presents a list of “endangered animal species in the Netherlands” that only live in Europe (2020, pp. 32–33) and list of “most beautiful nature reserves in the Netherlands” that are all located in Europe (2020, p. 41).

Another example of the centrality of European Dutch children in these books can be found in the discussion around the Netherlands' special relation to the water. Many of the books in our corpus employ a popular notion about the Netherlands that is based on the fact that about 40% of the country's land is located below sea level. If it were not for the extensive system of dykes and other structures, these areas would be submerged under water. This popular strand of the Dutch founding narrative is used in the discourse around climate change because it allows us to think of the Netherlands as being in a special position: The general idea is that “when the sea levels rise, the Dutch will be the first to get their feet wet.”⁷ Both *Klimaatverandering*, *Palmen op de Noordpool* and *Janouk zoekt een duurzame wereld* include the image—very familiar to Dutch pupils—that shows what parts of the Netherlands are located below sea level and are therefore in constant danger of flooding. (2009, p. 5; 2018, p. 135; 2020, p. 75) This image, again, relies on the centrality of the European part of the Netherlands and does not take into account the specific relation that the Dutch islands located in the Caribbean have to the water.

A second element of the auto-image presented that stands out in these books is the distinct whiteness of the assumed reader. In all of these books, we see a difference in skin colour between the images of people that the reader is supposed to identify with and the images of people that the reader understands as others. In

⁶ Original Dutch “Palmbomen in Nederland, die heb je hier toch helemaal niet? Dat klopt. In Nederland is het nu nog veel te koud voor deze bomen. Maar je kunt in ons land al wel bijvoorbeeld de grote zwartgeel gestreepte tijgerspin zien”.

⁷ This narrative is obviously incorrect, as the Netherlands are unlikely to be hit either first or the worst compared to other regions. However, even though this statement easily falls apart under any critical scrutiny, the narrative remains popular and widely spread.

Ecohelden in actie, for example, we find mostly depictions of white people doing day-to-day tasks, loosely related to the chapters' central themes of air, water, energy, consumption and waste, and weather and climate. These activities include flying a kite next to a house while a car emits fumes in the background, washing windows and doing the dishes, ice skating on a frozen body of water, and building a snowman. These images seem to serve as depictions of scenes that are familiar to the reader, in order to illustrate that climate change is a part of their daily life, the background to their day-to-day activities.

There are only three exceptions to this. One image shows two hands of a brown-skinned child washing their hands. The accompanying text indicates that the reader is meant to recognize themselves in this image: "But you also pollute the water. You use soap to wash your hands [...]"⁸ (Klapwijk and Vos, 2010, p. 25). The other two images of children of colour both invite the reader to distance themselves from them. One image shows a black-skinned child carrying a large number of jerry cans, while the text explains that there are children who need "to walk up to three hours per day to get drinking water" (Klapwijk and Vos, 2010, p. 29). The other image shows a child holding a football while the accompanying text explains that some children are forced into child labour from an early age (Klapwijk and Vos, 2010, p. 68). The book therefore uses a white auto-image of their reader and seems to stress the alienation of children in other countries through an assumed difference in skin colour. We see similar techniques used in most of the other books in our corpus. In *Klimaatverandering* we find only three photographs that include people. One of these shows two white people installing solar panels in a Dutch municipality, while the other two show brown-skinned and black-skinned people who are affected by the effects of climate change—one picture shows Bangladeshi people in a flooded neighbourhood and the other picture shows people in Africa (referred to as a homogenous location) collecting water from a well.

The auto-image of the white Dutch child living in the European parts of the Netherlands is further strengthened by other moments that explicitly contrast the reader from the perceived other. A telling example is the following excerpt from *Ecohelden in actie*:

Earth is a place for us to live. You probably live in a normal house in a decent comfortable street in the Netherlands. Anan lives in a cabin in the jungle of Australia. And Solana lives with her entire family in a small hut made out of corrugated sheets in Indonesia, maybe even on a landfill...⁹ (Klapwijk and Vos, 2010, p. 4)

In this fragment, we see how the presumed living conditions of the perceived reader are normalized and presented as desirable (cf. "a normal house in a decent

⁸ Original Dutch: "Maar jij vervuult het water zelf ook. Je gebruikt zeep om je handen te wassen [...]"

⁹ Original Dutch: "De aarde is onze plek om te wonen. Jij woont waarschijnlijk in een gewoon huis in een gezellige nette straat in Nederland. Anan leeft in een hutje in het oerwoud in Australië. En Solana leeft met haar hele familie in een klein hokje van golfplaten in Indonesië, misschien wel op een vuilnisbelt..."

comfortable street”) while the perceived other is presented as either alien or even straight-out pitiable (cf. “maybe even on a landfill...”). These contrasting techniques result in an alienation of the reader from the already abstract concept of climate change. The books in our corpus constantly distance the reader from environmental issues. The reader only comes into contact with climate change when they travel to other parts of the world or when imagining the far future (e.g. imagining that parts of the Netherlands might be submerged in water in the future in *Klimaatverandering*; imagining there would be palm trees on the North Pole in the distant past in *Palmen op de Noordpool*, or imagining there will be a new ice age in 6000 years in *Ecohelden in Actie*).

Based on this first step of our analysis, we conclude that the books in our corpus rely on contrasting techniques that alienate the white, Dutch child living in the European part of the Netherlands from the immediate effects of climate change. In the following section, we demonstrate how this process of alienation translates into a hierarchical structuring that creates a divide between those who *can* and those who *cannot* contribute significantly to the fight against climate change.

Step 2: Solutions, Hierarchies, and Agency

Perpetrators and Victims of Climate Change: “They Resemble a Group of Arguing Children”

Discussions on climate change often involve reflections on moral responsibility: who can be blamed for creating it and who can be held responsible for fixing it? All the books in our corpus provide a historical overview of climate change that explains how climates have always changed and how the rate at which climates have been changing in the last century indicates that we are currently in a different situation. All books also explain that there is a common consensus that human activity is affecting the environment negatively, but that certain scientists and politicians are skeptical about the gravity of these effects. Several books continue to explain that climate change is a large-scale problem that is the result of large social, political, and technological developments. The books point to such sources as industrialization, standardized food production, deforestation, and the steep increase in human population. An interesting case here is *Ecohelden in actie*. This book uses a Christian creationist narrative to explain the creation of the world, but goes on to argue that climate change is a result of human actions. In fact, this book brings the issue very close to home and asks the reader to reflect on their own contributions:

But even you pollute the water. You use soap to wash your hands and wash the dishes. You flush the toilet, you shower with plenty of soap, and every morning you put on clothes that are freshly washed by your mother. All that dirty used water needs to go somewhere.¹⁰ (Klapwijk and Vos, 2010, p. 25)

¹⁰ Original Dutch: “Maar jij vervuult het water zelf ook. Je gebruikt zeep om je handen te wassen en afwas-middel bij de afwas. Je trekt de wc door, je neemt een douche met lekker veel schuim en je trekt elke dag schone kleren aan die je moeder heeft gewassen. Al dat vieze, gebruikte water moet ergens heen”.

The origin of climate change is largely presented in these books as the inevitable result of global developments that everyone contributes to in different degrees. The insistence that “even you” contribute to it, seems first and foremost to underline the idea that everyone contributes to large scale environmental problems. In this area, we find few contrasting techniques at work to differentiate between the ways in which diverse communities contribute to climate change and a mostly inclusive approach to understanding the sources of climate change. However, some indications of different contributions in some of the books. For example, *Ecohelden in actie* explains that: “Poor countries would like to pollute less, but do not have the money to do so. And rich countries sometimes do not want to pollute less because they value their own industry too much”¹¹ (Klapwijk and Vos, 2010, p. 18). This indicates that there is a difference in the choices made by “poor countries” and “rich countries” and consequently a different level of moral responsibility. *Palmen op de Noordpool* complicates this discussion further in a chapter called “Het is hun schuld” (“It is their fault”) that explores the different attempts to set up political solutions to climate change on a global scale. The chapter opens by explaining that different large-scale economies blame each other for being the main perpetrators of the problem:

They are like a group of arguing children. With a further 190 other children yelling from the sideline. ‘China is right!’ ‘Sure, but you also pollute too much, Russia!’ ‘OK, but you shouldn’t cut down so many trees, Brazil!’ ‘How about you first fix those factories.’ ‘But England started it all!’¹² (2018, p. 168)

The books usually note that these kinds of global conferences remain ineffective because some large countries (including China, India, and the United States) are not committed to the plans set out there. Overall, the books in our corpus portray the origins of climate change to be vastly complex and the specific culprits to be unidentifiable.

Considering the victims of climate change, we do see a sharp contrast in all of the books in our corpus. *Klimaatverandering* is perhaps the most upfront in its presentation of geo-economic hierarchies in the fight against climate change. Under the header “Arme landen” (“Poor countries”), the book discusses the effects of climate change today. Bangladesh is given a special position in this discussion because, much like the European part of the Netherlands, it is largely located below sea level. The text contrasts both countries by pointing out that:

Much like the Netherlands, Bangladesh is partly located below sea level. But they do not have enough money to build dykes over there. Lower parts of the

¹¹ Original Dutch: “Arme landen zouden wel minder willen vervuilen, maar hebben daar vaak het geld niet voor. En rijke landen willen soms niet minder vervuilen omdat ze hun eigen industrie belangrijker vinden”.

¹² Original Dutch: “Het lijkt wel een stel ruziënde kinderen. En dan staan er ook nog 190 andere kinderen omheen te schreeuwen. ‘China heeft gelijk!’ ‘Ja, maar jij stoot ook teveel uit, Rusland!’ ‘Ja maar jij moet niet zoveel bomen kappen, Brazilië!’ ‘Doe jij eerst nou maar eens wat aan al die fabrieken.’ ‘Maar Engeland was begonnen!’”.

country are already facing floods every other year. Especially poor people, who do not have money to protect themselves, are facing problems because of the high temperatures.¹³ (Van Kolfshoten, 2009, p. 6)

The problems resulting from climate change are here directly connected to “poor countries” that are not able to fight this development. This notion is supported by images showing Bangladeshi people wading through water after a flood. *Palmen op de Noordpool* presents a similar narrative. In a chapter titled “Klaar voor de toekomst” (“Ready for the future”) the text explains that people from all over the world are requesting advice from Dutch engineers, because of their centuries long experience with reclaiming land that is located below sea level:

From all corners of the earth, architects, engineers and politicians come to the Netherlands to see how we are dealing with water. Half of the Netherlands is located below sea level, so we know how to keep our stuff dry. The visitors usually come from large cities such as New York, Jakarta, and Shanghai. They want to know what they can do to protect their citizens from storms and rising waters. Dutch companies are happy to show them around.¹⁴ (2018, p. 134)

In these two stories we see the contrasting narrative that is presented about two countries that are both located below sea level: on the one hand, we have Bangladesh that is presented as victim due to a lack of resources and on the other hand we have the European part of the Netherlands that is presented as an expert and a leader in the fight against rising sea levels. This comparison obviously builds on a severely simplified depiction of both countries, that among other things ignores differences in financial wealth, population size, community involvement in environmental action, climatological conditions, and geographical features such as rivers and soil conditions.¹⁵

Children Taking Action: “What Can You Do as an Eco-hero?”

When discussing possible solutions to climate change on a global level, children are not usually granted the agency to contribute significantly. It is, therefore, interesting to note that children are very much involved in the environmental project in most of these books. The only book in our corpus that does not even mention the possibility for children to participate in this project is *Klimaatverandering*. This book

¹³ Original Dutch: “Net als Nederland ligt Bangladesh voor een deel onder de zeespiegel, maar ze hebben daar geen geld om goede dijken te bouwen. Nu al overstromen de laaggelegen gebieden om de paar jaar. Vooral arme mensen, die geen geld hebben om zich te beschermen, krijgen problemen als gevolg van hogere temperaturen”.

¹⁴ Original Dutch: “Uit alle hoeken van de wereld komen architecten, ingenieurs en politici naar Nederland om te kijken hoe we hier met water omgaan. Nederland ligt voor de helft onder de zeespiegel, dus we weten wel hoe we de boel hier droog moeten houden. De bezoekers komen meestal uit grote kuststeden als New York, Jakarta en Shanghai. Ze willen weten wat ze kunnen doen om hun inwoners te beschermen tegen storm en hoog water. Nederlandse bedrijven leiden ze maar wat graag rond”.

¹⁵ Many thanks to the editor for pointing out the need for adding this nuance.

only describes large political projects that have been set up for this purpose, from which children are almost completely excluded. The agency in this book is exclusively accessible to adults, more specifically: to adult professionals that are involved in global politics. All other books, however, do include children in the fight against climate change. The books in our corpus indicate that action can be taken on different levels. *Ecohelden in actie* concretizes this idea by formulating three different levels. At the end of each chapter, the book asks “What can you do as an eco-hero?” (e.g. taking shorter showers), “What can the Netherlands do?” (e.g. reducing water waste in the agricultural sector), and finally “What can be done globally?” (e.g. collaboration through the Kyoto Protocol). As children are not usually allowed to participate in political debates on a national or international level, their agency in fighting climate change is largely directed to actions in the domestic sphere. In a chapter titled “Doe het zelf” (“Do it yourself”), Both *Janouk zoekt een duurzame wereld* and *Palmen op de noordpool* offer a long list of actions that children could take to combat climate change. These range from actions that are relatively easy for children to accomplish (e.g. take shorter showers) to actions that require assistance by adults (e.g. buy your clothes second-hand), to actions that are almost completely inaccessible to children (e.g. refrain from having children, or vote for a political party that takes climate change seriously). (Kelderman, 2020, pp. 56–61, pp. 97–101, pp. 134–135, pp. 166–170; Ter Horst, 2018, pp. 136–137). The tips from this latter category seem to prepare the child for a future life as an adult ecocitizen and perhaps enables them to encourage the adults in their lives to make these ecocritical decisions.

At the end of this chapter in *Palmen op de noordpool*, the book acknowledges that it would be difficult to do all of these things and encourages the reader to take it step-by-step and to not lose hope:

It might be a good idea to start small. Choose three things that are not too complicated and still effective. Eat less meat for example. Use a tablet. Shower less often. If you have got that down, add another one.¹⁶ (Ter Horst, 2018, p. 137)

This sentiment is reiterated in the book’s epilogue, which states: “Don’t you go feeling guilty because you left a light on that one time, or because you ate a sausage roll or showered too long. It is no fun that way and you will not be able to keep it up”¹⁷ (Ter Horst, 2018, p. 176). As such, the book takes seriously the likely limitations that the child has in living a more environmentally friendly lifestyle and helps the reader to find a realistic way in which they can still be included in the fight against climate change. Even though the child is thus explicitly included, they are

¹⁶ Original Dutch: “Misschien is het slim om klein te beginnen. Kies drie dingen die niet al te ingewikkeld zijn en toch veel opleveren. Eet minder vlees bijvoorbeeld. Gebruik een tablet. Douche wat minder vaak. Heb je dat voor elkaar, kies er dan nog een bij”.

¹⁷ Original Dutch: “Maar ga je nou niet schuldig voelen als je een keer een lampje laat branden, een saucijzenbroodje eet of te lang onder de douche staat. Op die manier is er niets aan en ga je het ook niet volhouden.”.

not to be the main carriers of change here—this is still the role of adults still. The book also includes more lighthearted approaches to encouraging readers to engage with climate change in their day-to-day life, including a “klimaatbingo” (“climate bingo card”) in which children can mark off different climate change related events. These events range from close to home (e.g. your first vegetarian Christmas dinner) to global events (e.g. palm trees are growing on the North Pole). Even though these are mostly events that lie outside of the child’s control, the game translates these large-scale events into things that fit within their own world and gives children permission to think of them as being within their own realm.

Discourses of Collectivity: “Will You Accept the Challenge?”

Many of the books in our corpus provide information on what the child reader could contribute to the fight against climate change. These actions are usually small, everyday actions that are located in the immediate living environment of the child. Although many of these actions are individual activities, the books stress that they become effective when many people participate. As a result, we find a large emphasis on community building and collective efforts.

In several of the books in our corpus, the text acknowledges that the kinds of actions that are available to children might seem too marginal to be effective. In *Ecohelden in actie* we find the following question: “If there are that many people living on the planet, how can you and I make sure that the earth remains clean and beautiful? Isn’t that way too much for one person?”¹⁸ (Klapwijk and Vos, 2010, p. 5) In doing this, the book acknowledges that the marginal position that children hold in this project might be frustrating and might even make the reader decide to not bother with it. However, the book explains that actual change only comes from collective action, undertaken by a large community of people, including children:

While you are reading this, you might think: can’t we do more things faster? It all seems like small, sometimes unimportant things. But when everyone helps out, we can achieve a lot together. Will you accept the challenge?¹⁹ (Klapwijk and Vos, 2010, p. 19)

Through this assertion, the text stresses that the fight against climate change is a collaborative effort that requires participation on all ends and all levels. *Palmen op de Noordpool* demonstrates its own contribution by stating (twice) that this book is printed on environmentally friendly paper. The book *Ecohelden in actie*, opens with a chapter in which five Dutch public figures align themselves with the project of the book and encourage children to join the environmental project. (2010, pp. 6–7) *Janouk zoekt een duurzame wereld* includes short chapters throughout the book in

¹⁸ Original Dutch: “Als er zo veel mensen op aarde wonen, hoe kunnen jij en ik er dan voor zorgen dat de aarde mooi en schoon blijft? Daar kun je toch niet in je eentje aan beginnen?”

¹⁹ Original Dutch: “Als je dit zo leest, denk je misschien: kan het niet wat meer en wat sneller? Het lijken allemaal kleine, soms onbelangrijke dingen. Maar als iedereen meehelpt, kunnen we samen veel bereiken. Ga jij die uitdaging ook aan?”

which Dutch environmental celebrities discuss their own contributions to the fight against climate change.

In this second step of our analysis, we have found that most of the books in our corpus promote a complex, multifaceted story about the origin of climate change but present the direct victims of climate change as distanced from the child reader both in time and space. These victims are also presented mostly as passive and at the mercy of wealthy humans in the global north. The readers of these books are encouraged to envision themselves as a part of that community and are presented with many options to support the collective effort against climate change. The last step of our analysis explores the position that is reserved for nature in this project.

Step 3: Nature's Role

Nature's Agency: Under Attack

Something that all our books agree on is that climate change is—to some extent—normal and natural. Historically, the climate on planet earth has always been variable. Ice ages occur once every 100,000 years and have shaped the earth's landscapes. In the Pacific Ocean, changes in the sea's temperature can cause tropical storms like El Niño to occur. Over the past century, however, climate change was mostly caused by human behavior. Nature's agency is completely taken away in some of the books: humans have caused the problems and they are the ones that need to solve them. This reasoning ('Nature was always able to handle it, humans came along and messed it up') is very clearly visible in *Ecohelden in Actie*. The chapter about water mentions multiple reasons why humans are a threat to earth's water supply (by polluting it with soap, fertilizer and factory waste or by using a lot of it for dishwashers, washing machines, and long showers)

Water can clean itself, because of dirt-eating bacteria that live in the water. But if the water is too dirty, it all goes wrong. The bacteria can't handle it anymore and the water won't be clean again.²⁰ (Klapwijk and Vos, 2010, 25)

The chapter about energy is constructed in a similar way. This approach comes across as rather fatalist. *Ecohelden in Actie* is the only book out of the corpus that has a clearly Christian approach. Just like nature, God used to have agency. *Ecohelden in Actie* states that God created the world:

If you read the first chapter of the Bible, you know that God made heaven and earth. First, there was only water on earth, but God made sure that the bodies

²⁰ Original Dutch: "Water kan zichzelf schoonmaken, doordat er bacteriën in het water zitten die het vuil opeten. Maar als er te veel vuil in het water zit, gaat het mis. De bacteriën kunnen het dan niet meer aan en het water wordt niet meer schoon".

of water flowed towards each other (oceans) and land came into existence.²¹ (Klapwijk and Vos, p. 22).

However, the book places the blame of harmful climate change on humans. Just like nature, God's agency seems to have faded and has become non-existent. Humans are to blame and humans have to fix the problems.

Ecocritical Young Humans as Saviours

Although *Klimaatverandering* isn't very opinionated on the impact of climate change on nature, it does emphasize the fact that humans can (and have to) help nature, by using their knowledge about eco-friendly ways to generate energy:

We have to find ways to generate energy in the future. It is very good that research on *clean energy sources*, like wind and solar power, is being carried out. Furthermore, it is excellent to be frugal with the energy we do have. If the next ice age arrives, we're going to need all of the extra energy to stay warm.²² (Van Kolfschoten, p. 18)

In contrast to the other books in our corpus, *Klimaatverandering* does not emphasize the devastating effect that climate change can have on the earth. Rather, it focuses on the next ice age that will eventually occur—not because of climate change caused by human life, but just because of the predictive 'normal' behaviour of nature. *Klimaatverandering* does call on the reader to be frugal with energy, but it doesn't target children in particular. The people that are shown doing climate friendly things are mostly adults (e.g. people installing solar panels on a roof). *Ecohelden in Actie* on the other hand, focuses on children as the ones that could and should be acting in a climate friendly way. The illustrations mostly show children and the book concentrates on places children normally go (e.g. school, around the house with family, playing with friends).

Klimaatverandering focuses on what is already innate to nature (e.g. wind, sun, water). Humans play a significant part in using natural energy sources: they are the ones that are capable of manipulating said sources in such a way that they can be used in a way to generate energy. Nature can't do that by itself, and so it has no agency in the responsible use of sources, according to *Klimaatverandering*.

²¹ Original Dutch: "Als je het eerste hoofdstuk uit de Bijbel leest, weet je dat God de hemel en de aarde heeft gemaakt. Eerst was er op de aarde alleen maar water, maar God zorgde ervoor dat het water naar elkaar toestroomde (zeeën) en dat er land ontstond".

²² Original Dutch: "We zullen in de toekomst andere manieren moeten vinden om energie op te wekken. Dat er onderzoek naar *schone energie*, zoals wind- en zonne-energie wordt gedaan, is heel goed. Verder is het natuurlijk uitstekend om zuinig om te gaan met de energie die we hebben. Als de volgende ijstijd eraan komt, zullen we alle energie hard nodig hebben om het nog een beetje warm te krijgen".

Conclusion

In the introductory video to his app, the creator of *Earth Speakr* directs his speech to children and explains how they can use the platform to claim a voice in the fight against climate change.

With the artwork you can make a tree talk, you can make the sky cry, a rock on the floor – maybe it's screaming at you, and the flowers, they can be smiling. You can really say anything you want to say, or tell us what to do about how do we make the planet safe for the future. (...) And then I promise I will take that and try to deliver it to the politicians, to the people in power, so they listen to you. (Eliasson, 2020)

In this short clip, Eliasson clearly positions the child in the larger debate about climate change: the child has something to contribute, but it needs the mediation of an adult (here: the artist) to be able to be heard by the other adults. In the context of environmental discussions, children are largely reliant on adults to position them in that conversation.

In this paper, we have seen how Dutch non-fictional books about climate change do this. Following Gaard's critical ecopedagogical model, we have first concluded that these books primarily include white children living in the European part of the Netherlands. Second, we found that the books position these children through strategies of differentiation, between white children and children of colour, between adults and children, and between the global rich and the global poor. These oppositions result in hierarchies that position those who can take action above those who are reliant on the actions taken by others. It is interesting, however, to note that some books do stress the need for collective action. In this, several texts work to include young readers in the fight against climate change and point out where their agency for change is located. Lastly, we have concluded that nature itself is only granted a very marginal position in the fight against climate change. Overall, these books demonstrate a clear desire to inform children about climate change and (in many cases) to include them in the debate about and fight against climate change. If we want this fight to take place on equal footing, we need to include a more diverse understanding of the perceived child reader and a discourse that does not rely on alienation and subsequent hierarchies.

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