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Can “Green Education” Save the World? Texts of Culture for Young Audiences in the Face of Contemporary Civilisational Challenges (from Empathy to Agency)

1. CHILDREN’S LITERATURE AND ECOPELAGOGY

No one can deny we live in momentous times. Climate change is here. We see it in our everyday lives, we hear it all the more often in the news, worried experts sound the alarm about an impending ecological disaster. Yet still, there is a sprawling feeling that this dire situation somehow will not affect us or more audaciously, we feel that the media and scientists are probably exaggerating and overestimating the current situation. Our planet is literally going through a transformation as climate change alternates not only the climate but every part of the world. This exact apprehension can be quite unsettling as it is painful to digest that the world, as we know it, has taken a dramatic turn. We cannot compromise with the idea that our summers will be so hot that it will be unbearable to stay outside, or our seas, rivers and lakes will become so polluted that the water will be too dangerous for humans as well as the aquatic life. Thus, we try to obliterate this idea and pretend that this entrenched sense of uneasiness and loss will somehow go away.

The “breaking news” of this volume is that what we feel is real, what we experience and how we decide to tackle the ‘climate change’ issue is of paramount importance and it is ok to feel alarmed by the whole situation. However,

we should enter the conversation with great care as it may inflict in us big emotions, such as “eco-anxiety, climate guilt, grief, and hopelessness that cumulatively may lead to traumatic withdrawal” and ultimately, induce disengagement and shutting down (Oziewicz, 2022: 23). It is clear that without a foundation of resilience, we risk descending into turmoil with far-reaching implications. On one hand, we need to remember that it is natural to feel this way as “feelings are a signal that something’s wrong and needs our attention” (Davenport, 2021: 11) and on the other hand, we need to stop oscillating between acknowledging the imperative of acting for the planet while adhering to unsustainable practices.

Undeniably, we live in the age of the Anthropocene. This is what life looks like in this era. Humans have altered the anaglyph of Earth in myriad ways and now we have reached a point when people need to find ways to address the magnitude of the environmental problems without feeling weak or disheartened. The relatively new name of this era precisely indicates the geological era in which man has left his indelible imprint in the geology of the earth and its ecosystems (Reno, 2022: 3). What gives us impetus to keep on spreading the word on the perturbing matter of climate change is the idea of successfully engaging in this task all kinds of people; not only the few, that is, scientists and humanists. Hence, two questions arise: “What if ordinary people – and not just specialists – were to embrace the Anthropocene in both our private and public deliberations about the environment?” (Reno, 2022: 14). Given the overarching importance of the accelerating climate change, how do we move beyond circulating desperate warnings to spark change? By summoning up ‘literature’ of course; by using narratives to prepare the next generation. To make our idea more specific, we shall also raise another crucial point. We consider that the best way to start raising eco-awareness in our societies is to first reach the children; the children which will be the citizens of tomorrow and we, as teachers, are obliged to equip them with all the necessary tools in order for them to become resilient, responsible and empathetic future eco-citizens. In this venture, we think that children’s literature may prove an invaluable tool in our quiver as it may help young learners cultivate mindfulness and ecological awareness for a more sustainable future. If we manage to help children understand how to explore the environment with their senses and listen to their hearts, and if we manage to plant in their souls the seeds of hope and resilience, then, hopefully, they might become the adults of tomorrow who will probably conjure new pathways towards sustainability.

It has long been admitted that literature, first and foremost, bestows exuberance upon its readers all over the world – let alone, children – as they are given the opportunity to retreat to all kinds of fictional and non-fictional worlds and discover new aspects of themselves. All these mediated experiences emanating from literature’s lap induce personal development and joy, as through literature children can learn about how people used to cope with their own problems in

the past, while in the meantime they become enabled to confront similar difficulties in life as well as acknowledge others' feelings. Another literature value is the much-needed nowadays growth of emotional intelligence. Furthermore, literature is an excellent tool for children to get aware of humankind's cultural inheritance. Thanks to its inspiring effect, children can get to know themselves, relate to experiences of the past, gaze future with an inquiring eye, learn how to manage their feelings, how to cope with anxiety in the most appropriate way and how to empathise the others. On top of this, non-fiction books impart solid knowledge to young readers on several subjects while keeping the element of fun throughout reading. Overall, literature acts like a bridge between the realm of fantasy and reality, thus offering children powerful stimuli of excitement, knowledge and empathy, whilst it strongly enhances their aesthetic development.

In this context, we can't help but raising our next point of discussion, which is highly related to the previous. For as long as humans have been writing and reflecting on what others have written, we have been considering the relationship that we have with our environment. This idea goes far beyond classic antiquity and it is clear that the idea of "nature" is an old and difficult concept to grasp. Literary responses to environmental concerns go back in time and seem to have tormented writers from the very beginning of time, when humans started to leave their imprint on the planet. Many years after, in the mid-eighties the field of environmental studies – that is, ecocriticism – was planted and in the mid-nineties it grew. "Simply put, ecocriticism is the study of relationship between literature and the physical environment" (Glotfelty, 2015: 122). Delving deeper into this definition, what is understood is that ecocriticism "takes as subject the interconnection between nature and culture, specifically the cultural artefacts of language and literature. [...] As a theoretical discourse it negotiates between the human and the non-human" (Glotfelty, 2015: 123). It is an interdisciplinary field that requires cultural as well as scientific analysis because of "the interaction between ecological knowledge of nature and its cultural inflection" (Garrard, 2004: 14).

Hence, in order to give answers to our original questions, posed at the beginning of this introductory text, we take a step deeper into ecocriticism by depicting the value of the key branch of ecocritical theory, ecopedagogy, as it combines theory with practice. Ecopedagogy "widen[ed] Freire's initial notion of reading of the world – defined as anthroposphere – to reading of Earth (defined as the planetary sphere, with the world as inseparable part of Earth)" (Misiaszek, 2022: 2297). "Ecopedagogies are grounded in critical thinking and transformability, with the ultimate goal being to construct learning with increased social and environmental justice" (Misiaszek, 2020: 1). Hence, reading literature with our minds set on the goals of ecopedagogy not only urges the reader to find the point of convergence between social, ecological, and

inter-species justice, but also necessitates the existence of inclusive praxis (Humes, 2008), which is our main desideratum now that humanity has reached the “age of its environmental limits” (Glotfelty, 2015: 123).

Because of this age of precariousness we live in, we need narratives that not only will they offer us a safe space to grieve within the safety net of literary readings. Still, we will also prepare the next generations by offering them a foundation of resilience and activation. This indispensable foundation may be established in multiple ways. However, we as literary teachers promote the idea that the power of children’s literature can prove quite invaluable. Modern children’s literature responds remarkably well with the issue at hand at all levels, that is thematic, values, representations. Children’s books respond to the decrees of critical theory, and in the end, give hope and often ways through which one could get activated and act accordingly.

In the current volume dedicated to Ecology, one may find valid theoretical approaches to children’s literature in a wide range of books and picturebooks, interviews with leading figures in the academic field of environmental children’s literature, who struggle through their work to raise awareness of the climate emergency and promote climate literacy, and many many more. All the above is only a foretaste of what follows inside the vibrant pages of this volume. And maybe, after having reflected on what we just read, we might be able to start making small changes, to reverse this situation; by informing ourselves and becoming the change we need to see in the world. After all, we know that the future is being decided in the present. Many people may be overwhelmed by doom and gloom, but we have to believe it is not too late. We should work our way out soon.

2. THE INFLUENCE OF NARRATIVES ON CHILDREN’S AND TEENAGERS’ ENVIRONMENTAL ATTITUDES, PERCEPTIONS, AND BEHAVIOR:

An Empirical Ecocritical Perspective

While individual attitudes and behaviors toward the environment can change at any point throughout life, including well into old age, there are good reasons to think that their lasting core is formed in childhood and adolescence (Cole, 2014; Evans, Otto, Kaiser, 2018; Pillemer, Nolte, Cope, 2022). There are also good reasons to think that a key role in this process is played by narratives, ranging from the fairy tales we are told by parents and guardians to school-assigned readings, novels read in spare time, movies, cartoons, video games, and social media stories (Hsiao, Shih, 2016; Małecki, Sorokowski et al., 2019). To fully understand the impact of narratives on the environmental attitudes and behaviors of the public, it is therefore necessary to understand the impact they have on the attitudes and behavior of children and teenagers. An efficient way

to achieve this is through empirical research, the framework offered by empirical ecocriticism specifically (Schneider-Mayerson et al., 2023). The aim of this paper is to provide support for these points.

The Development of Environmental Attitudes, Perceptions, and Behavior in Childhood and Teens

Available evidence suggests that stories fundamentally shape a variety of environmental attitudes and behaviors, including those that might otherwise be presumed innate. Speciesism, for instance, is a preference for one's own species over other species in situations of moral choice (Singer, 2009; Corbyn, 2023). It appears to be universal across cultures and might be seen as beneficial to humans in general, so it is easy to assume it to be an evolutionary adaptation (DeGrazia, Millum, 2021; Hill, Bertrand, 2020; LaFollette, Shanks, 1996) while individuals with nontrivial temporal self-awareness that falls short of narrative capacity have partial-strength rights. This account of moral status is neutral with respect to species, which means that membership in *Homo sapiens* is neither necessary nor sufficient for moral status or rights. The final three sections explore ethical implications for research involving human embryos, rodents, and great apes. We defend a very liberal position with respect to embryo research, a relatively restrictive approach to rodent research (granting equal consequentialist consideration to rodents' interests while permitting their use on utilitarian grounds). However, a recent study showed that when asked to choose which lives to save, human or animal, children participants valued the life of non-human animals over the life of humans more often than adults do. In particular, the children "often chose to save multiple dogs over one human, and many valued the life of a dog as much as the life of a human," while, in contrast, "all adults chose to save one human over even 100 dogs" (Wilks et al., 2021: 27). Another recent study showed that children aged nine to eleven years old had less speciesist attitudes toward a set of specific human-animal interactions than both young adults (aged 18 to 21 years old) and adults (aged above 21). In particular, they were less likely than adults to agree that "it is okay to test new medicines on animals that we wouldn't test on humans" or that it is right to eat meat and animal products (McGuire, Palmer, Faber, 2023). It is clear from both studies that speciesism cannot be presumed innate and is likely acquired sometime during childhood or adolescence or at least significantly increases during that period.

There is analogous evidence for other environmental variables, including pro-environmental behavior. For instance, a study showed that increased pro-environmental behavior at eighteen years of age is significantly predicted by whether one's mother exhibited such behavior when one was six (e.g., boycotting companies with poor environmental record or reusing shopping bags), but not by one's own behavior at that time (Evans, Otto, Kaiser, 2018). Again, our approach toward the environment as adults seems to be something that

we are socialized into as children and teenagers rather than something we are born with.

The Role of Narrative

An important role in this process of socialization is played by narratives. For instance, apart from some notable exceptions, classic Western fairy tales of the Brothers Grimm tradition and others tend to portray animal characters as significant only relative to either human characters (animals as deadly threats, useful tools, or as bodily forms into which human characters are magically cast) or human characteristics (animals as symbolic illustrations of specific vices and virtues) (Cole, 2014). Systematic exposure to such stories may lead children to develop a tendency to objectify animals as lacking agency or inherent moral value and as suitable for any kind of use by human agents (Cole, 2014). However, stories can also foster greater moral consideration and empathy toward non-human animals. A recent study showed that stories portraying snakes with agentic features such as intentions and emotions made children more likely to express willingness to help these reptiles compared to snake stories lacking such attributions (Reider, LoBue, 2024). This result is particularly important as snakes are typically seen as pests and threats, to be eliminated rather than protected, which most likely results, at least in part, from the negative and objectifying portrayals of snakes common in the media and popular culture (Ballouard et al., 2013; Geest, Knoch, Shufan, 2022; Knight, 2008; Vaughn et al., 2022) most conservation efforts focus on a few charismatic species and consequently neglect the majority of others under threat; many unpopular species are even killed in large numbers with little concern. Redressing this bias through educational programs is therefore important. Snakes are unpopular animals; they suffer from human harassment in most places and many populations have declined worldwide. Consequently, they provide suitable substrate to better improve conservation education in schoolchildren. Responses to a questionnaire administered to 2,570 schoolchildren (7–14 years old).

Other studies, conducted with thousands of participants, showed that literary narratives portraying human-induced plight of animal protagonists can make high schoolers care more about the welfare of dogs, horses, and monkeys, as well as animals in general, increasing agreement with statements such as “I feel personally responsible for helping animals in need” and “The low costs of food production do not justify maintaining animals under poor conditions” and decreasing agreement with statements such as “Basically, humans have the right to use animals as we see fit” (Małecki, Sorokowski, et al., 2019). Importantly, these results were obtained with stories representing various genres: literary journalism, detective fiction, and realist prose, including classic school readings such as *Crime and Punishment* (Dostoyevsky, 1993).

Still other studies provide analogous evidence for the influence of narratives on environmental outcomes beyond attitudes toward animals. It was found, for

instance, that preschoolers exposed to picture books portraying pro-climate behaviors such as switching off the light upon leaving a room were more likely to engage in such behaviors themselves than those not so exposed (Hsiao, Shih, 2016). Similarly, reading a story with a protagonist exhibiting sustainable behaviors led ten-year olds to make more sustainable choices when playing an economic game compared to the choices of their peers who read a story without such a protagonist (Ebersbach, Brandenburger, 2020). However, little is known about how universal such effects are across different cultural, national, ethnic, and economic groups, different media, and narrative conventions, and about the psychological mechanisms potentially underlying them, such as narrative transportation, identification, and empathy (Green, Brock, 2000; Cohen, Weimann-Saks, Mazor-Tregerman, 2018; Hammond, Kim, 2014; Małecki, Pawłowski, et al., 2019). Without this knowledge, it is impossible to adequately assess the potential of stories for shaping the environmental attitudes and behavior of children and teens, nor to efficiently use that potential in practice. It is here that empirical ecocriticism may help.

The Potential of Empirical Ecocriticism

Empirical ecocriticism is a branch of ecocriticism devoted to the empirical study of the impact of environmental stories (Schneider-Mayerson et al., 2023; Schneider-Mayerson, Weik von Mossner, Małecki, 2020). It emerged to fill a research gap resulting from how this subject is approached within the humanities and social sciences respectively. Humanities scholars typically derive their hypotheses about the social impact of environmental stories from consideration of their formal and thematic components as well as the cultural and historical conditions of their production and reception, but tend not to test those hypotheses empirically (Buell, 2001). Social scientists, in turn, do test their hypotheses on the impact of environmental stories empirically, but draw them mainly from psychological theories, which tend not to take into account the historical, formal, and cultural factors considered by the humanities scholars (Schneider-Mayerson, Weik Von Mossner, Małecki, 2021). As a result, the role of those factors in the impact of environmental stories, while essential, is rarely submitted to empirical scrutiny, with the available empirical evidence yielding a significantly limited picture (Slovic, Sarveswaran, Rangarajan, 2019).

Empirical ecocriticism aims to make that picture more comprehensive by integrating the two disciplinary perspectives. It does so by following a methodological circle. First, in formulating its hypotheses, it tends to draw from the humanities and social sciences alike. An example might be the hypothesis that animal stories induce ambassadorial narrative empathy toward animals and, through this, foster more appreciative attitudes toward animal welfare. The construct of ambassadorial narrative empathy was proposed within a humanities field, literary studies, and refers to the process of extending one's empathy toward the protagonists of stories to the groups they represent: from

animal protagonists to animals in general, from child protagonists to children, and so on (Keen, 2011) this essay shows Thomas Hardy's bounded strategic empathy for his fictional creations, Wessex countrymen and women; his ambassadorial strategic empathy for animals and select members of despised outgroups; and his broadcast strategic empathy for feeling humanity in an indifferent, Godless universe. Hardy's work demonstrates engagement with a variety of empathetic narrative strategies outlined in my *Empathy and the Novel* (2007). The idea that empathizing with a group influences attitudes toward that group, in turn, originates in social psychology (Batson et al., 2002; 1997; Batson, 2011).

The above hypothesis might be further nuanced through subhypotheses about the role of various cultural, aesthetic, and psychological factors in the postulated impact. These may include the effects of narrative techniques such as first-person voice (Deen, Mangurian, Cabaniss, 2010; Edmiston, 1989), stylistic devices such as metaphorical language (Underhill, 2011), personality characteristics such as openness to experience or agreeableness (Gosling, Rentfrow, Swann, 2003) researchers may be faced with the choice of using an extremely brief measure of the Big-Five personality dimensions or using no measure at all. To meet the need for a very brief measure, 5 and 10-item inventories were developed and evaluated. Although somewhat inferior to standard multi-item instruments, the instruments reached adequate levels in terms of: (a, ideological attitudes such as social dominance orientation (Dhont et al., 2014) and that individual differences in desire for group dominance and inequality may underlie associations between these biases. The present investigation directly tests these assumptions. As expected, the results of the current study (N=191, and others. Once an empirical ecocritical hypothesis is formulated, it is then tested with a social scientific method such as the randomized controlled experiment (Malecki, 2023), with the results interpreted from both a humanistic and social scientific perspective. While most experimental studies yield quantitative results, empirical ecocritics can and have used qualitative empirical methods as well: interviews, focus groups, participatory ethnographic observation, and others (Dirksen et al., 2023; Skiveren, 2023), including to study the impact of environmental stories on younger audiences (Helle et al., 2023). However, there are still very few such studies.

A stronger integration of the empirical ecocritical framework into studies on the impact of stories on environmental attitudes and behavior of children and teenagers would provide humanists interested in the subject with a means to empirically test their hypotheses. At the same time, it would allow the social scientists already investigating the topic empirically to consider more comprehensively in their research the role of aesthetic, ideological, cultural, and historical factors. In this way, empirical ecocriticism would facilitate a better understanding of how the influence of environmental stories on today's children

may extend to tomorrow's adults, thereby contributing to a more sustainable society.

3. CAN ECOCRITICISM SAVE THE WORLD? ECOLOGICAL AWARENESS, EMPATHY AND AGENCY

Motto:

“Ecocriticism takes on the responsibility of describing not only changes in the relations between the human and non-human worlds, but also of creating scenarios for recovery from the environmental crisis”
(Wójcik-Dudek, 2020: 109)

Texts for young audiences with an ecological theme, or more broadly works relating to the emotional relationship between nature and humans, play an important role and allow the reading style to incorporate not only ecocritical poetics, but also more broadly the assumptions of ecological humanities. At its core, in the post-anthropocentric era, which implies the fusion of different disciplines (e.g. humanities, biology, earth and nature sciences), as Ewa Domanska notes, the inclusion of an account of the holistic shape of the organic system (of life on earth), counteracting the patriarchal view of the world (associated with the domination of man over nature), emphasising the value of local places, peripheries and provinces, and the ennoblement of ‘indigenous knowledge’ combined with the exploration of research based on a model of social inclusion (Domańska, 2013: 13–32; Buell, 1996; 2005). Ecological humanities has become an interesting research field also from the perspective of education, “it speaks of the necessity of shaping a humanistic imagination already in the youngest citizens of the world,” Bernadetta Niesporek-Szamburska notes, “an imagination that mobilises actions aimed at stopping the destruction of the natural environment, preserving its balance in the context of everyday life and generation” (Niesporek-Szamburska, 2021: 90; Józefowicz, 2022: 64).

Literature for young readers, understood in the context of the ecological turn variously due to the variety of genres and the three levels of education corresponding to the different age ranges of the recipient of ecological books (early childhood education – pupils aged 7–9, primary school – pupils aged 10–14, secondary school – pupils aged 15–18) should also take into account the different levels of experiencing nature. This perceiving, understanding and solving of problems of an ecological nature by the young viewer of cultural texts (let us emphasise, a viewer of different ages), the building of environmental awareness and literary eco-education in the Anthropocene era, has already been convincingly discussed by Magdalena Ochwat. (Ochwat, 2020).

In addition to knowledge about nature, however, the dominant elements linking the reception of books on environmental issues and connecting different age levels of children and adolescents will be elements such as an ethical perspective, axiological issues, the issue of empathy and care, and the awareness that human solidarity with the natural world and the shaping of respect for all forms of life are necessary to carry out any action to protect the planet (Oziewicz, Saguisag, 2021; Środa, 2017; 1994)

Studies of literature (including narratives for young readers) with environmental themes are often framed within the context of confronting notions of nature and culture, and seem to combine three perspectives on conceptions of the relationship between humans and nature: 1/. Romantic, which treats the “Book of Nature as an anthropocentric system of symbols, and signs to be read” (Barcz, 2012: 58–59) , emphasises the peculiar identification of man with the world of nature, the empathic experience of nature, which allows for the revealing of human feelings and emotions, thus emphasising, “designing oneself into the world” 2/. modernist – combining the reception of reality with affects and experience (e.g. in the approach of Bolesław Leśmian), emphasising the beauty of the natural world, human fascination and enchantment with nature, its fairy-tale character and mysteriousness (Barcz, 2012: 58–59) and 3/. contemporary, oriented towards social action and causality, reflective, underpinned by solid knowledge, community of action, being an example of building ecological awareness and showing “ways of problematising responsibility for nature in literature” (Barcz, 2012: 58–59) .

As Wojciech Małecki, an expert on ecocriticism as an interdisciplinary issue, sees it, the awareness that we are living in the Anthropocene – a geological epoch characterised by man’s destructive impact on the planet – is having an increasing impact on literary practice, also in Poland . We are witnessing a significant increase in the number of scientific publications on the subject and educational activities (also within the framework of non-formal education). We can even speak of a kind of ecological turn, in which ecocriticism – i.e. a field of research exploring the relationship between literature and the natural world/environment (Barcz, 2016: 58; Tabaszewska 2018: 156–165)¹, *animal*

¹ Barcz considers: “From an ecocritical perspective, looking for ways to make the relationship with nature in Polish literature more realistic, Romanticism is an important testimony, also due to the often described experiences of being alone with nature. However, at the level of nature representation, too little space in these narratives is devoted to the autonomous presence of the natural world, as Romantic authors do not set themselves up for reception from the natural environment, but for its projection in the form of their own experiences.” (p. 58). In the context of the ecocritical interpretation of Prus’s “Placówka” presented by Barcz, Tabaszewska writes: “The difficult art of finding and problematising literary texts that avoid the problem of over-aestheticising nature or reducing it to symbol or metaphor succeeds here. Nature, although not the primary focus of attention, is not subordinated to other human goals, nor is it an emanation or

studies and post-humanist literary *studies* – play a key role. These fields use tools and concepts developed by literary studies, philosophy, social geography, biology, anthrozoology, cognitive science, history, sociology or psychology to interpret literary works in terms of their pro-ecological and post-anthropocentric potential, to search for a new form of aesthetic sensitivity (Małeck, Woźniak, 2020), which will be open to experiencing the surrounding world and its non-human inhabitants, and to develop a new conception of the role of language and imagination (Bakke, 2007; Barcz, 2016; Szalewska, 2022; Baratay, 2024), especially in the case of "green education" or interdisciplinary humanistic education of children and young people.

The second decade of the 21st century has brought numerous narratives in children's literature highlighting the need to sensitise readers to the changes constantly taking place in the natural environment. On the publishing market, both at home and abroad, one can observe a veritable harvest of books in the spirit of anthropogenic criticism, writes Anna Jozefowicz (Józefowicz, 2022) discussing around 70 Polish book positions on environmental issues in the context of humanistic education (Józefowicz, 2022: 46). When we take a look at the editions that Józefowicz has put in order, they will play an important role in this approach, especially the richly illustrated popular science books, which are educational in their function, but which also skilfully combine didacticism with artistry, stories with a playful bent, books for the youngest readers (intended for children rather than at an early age), paraliterary narratives, eco-reportages, eco-storytelling, eco-parables shaping ethical attitudes, interesting from the perspective of the relationship that occurs between the word and image, editions with an interesting graphic design, combining various conventions, styles and artistic concepts, from comic books and graphic novels, through collages, the use of photography, caricature, grotesque and satire drawing, fantasy convention (with particular emphasis on fairy tales), the visual layer explicating and interpreting the verbal narrative, but also narratives introducing images as a kind of impression for the story told in words. Nature-environmental themes, as shown by contemporary editions of children's books taking into account the roles of intersecting cognitive, aesthetic and artistic components, can also provoke social engagement and affective approaches. (Hogan, 2010; Miall, Kuiken, 1998: 328).

With such a broader view of the concept of ecocritical research and its transformations in understanding the relationship between literature, a text that is a product of man, and the environment, it will become important to "shift" from describing the representation of wild, alien, untouched nature to a discussion of the environment and nature conservation (Kolbuszewski, 1992;

reflection of the subject's inner state. It remains independent, unsubordinated to human schemes and aspirations' (p. 156–158).

Kolbuszewski, 2000)², the shape of which can be influenced by man (the so-called second wave of ecocriticism) (Tabaszewska, 2018). The concretisation of these concepts, however, is not straightforward, “nature can [add D.M.] be conceptualised <<in itself>>, while the environment is always imagined at first sight as what it is [...]” (Tabaszewska, 2018: 13).

Justyna Tabaszewska also highlights in this context of consideration that:

The widening of ecocriticism’s circle of interest to include further research problems is therefore accompanied by a fundamental change in thinking about its aims: one of the main ones is no longer to be simply the study of abstractly understood relations between text and environment, but the search for such texts – and thus, more broadly, ways of speaking – that can respond to current environmental problems. It is therefore more than a discourse analysis, it is rather a search for a language of speaking about things, phenomena and experiences that are part of both the human and non-human environment, and that intertwine us – different but interdependent subjects – into a single whole [...] this language, in addition to being communicative and doing justice to those on whose behalf it speaks, should also be *causa*. (Tabaszewska, 2018: 11)

The preferred “causality of language” would therefore suggest a kind of division into two wings of ecocriticism, “which could be somewhat simplistically described as ‘academic’ (oriented more towards discourse analysis) and ‘activist’ (oriented more towards making ecocriticism a tool and an engine for change)” (Tabaszewska, 2018: 12).

In this second area of research – ‘activist’ – would therefore, I believe, also include contemporary texts for young audiences with environmental themes, particularly those that can be used in discourses on contemporary “green” humanities education.

Polish research on the broadly understood relations between nature and culture and ecological criticism, according to the findings of Jarosław Woźniak or Wojciech Małecki, has often distinguished between the Romantic tradition and the Romantic understanding of nature. The period of Romanticism exposing the issues of the philosophy of nature and its relations with human existence, as both researchers state, became, in a way, a precursor for the contemporary understanding of ecology (Woźniak, 2017), about which Maria Janion convincingly wrote “[...] demanding that nature be treated as a specific, separate whole [and, D.M] [...] defending the autonomy of nature” (Janion, 2001:64). Jacek Kolbuszewski also had an important voice in this discourse, with a particular focus on ecological realism (Barcz, 2016) and environmental issues. Addressing the issue of the relationship between the environment and literature, the researcher pointed to bridging the gap between research in the

² Kolbuszewski discusses on the example of literary texts the changes in human attitudes towards nature, indicating not only understanding of nature but also respect and care for it.

humanities and natural sciences, also indicating educational and practical solutions (Kolbuszewski, 1992; Czaplinski, Bednarek & Gostynski, 2017: 182- 184) . An interdisciplinary look at images of nature in a literary text (Bartoszewicz, 1972: 256; Woźniak, 2027)³ , "green education" and the formation of ecological awareness, ecological empathy and causality, as the authors of the articles, included in this volume, have shown, will also involve a special focus on the poetics of space (in terms of "wild heterotopia"), the space of the other ("in-between") (Foucault, 2005) , where diversity, differentiation, heterogeneity, multiplicity meet: "[...] that which is untamed and that which is domesticated, that which is feral and that which is cultivated" (Bartel, et al., 2021) , after all, it is the concrete place, the actual space in which we live that also determines a strongly childish and adolescent understanding of the world and influences certain actions.

4. "GREEN EDUCATION" – NEW CHALLENGES OF XXI CENTURY

Interest in environmental humanities, also referred to as ecological humanities, has significantly increased in Poland in recent years. Both research on environmental humanities education and academic education itself are developing dynamically – an increasing number of courses with an ecological focus⁴, as well as degree programs⁵, are emerging at universities in response to contemporary environmental and climate challenges. Incorporating this new perspective into humanistic research not only revitalizes and deepens scientific inquiry but also helps shape civic attitudes based on concern for the world, the Earth, and all beings – both animate (plants, animals) and inanimate (e.g., rocks, rivers). Recently, we have observed a rise in civic activism in Poland aimed at protecting forests from logging and rivers from further regulation, including concreting and taming.

Despite these civic activities, the lack of implementation of environmental humanities and, in general, climate education in schools remains a significant problem. This education is not systematically present in schools. To illustrate this thesis, one can cite statements from students in Polish schools who

³ Woźniak writes: "For Polish literary studies and Polish literature, this may be of great importance due to the overwhelming dominance of Romantic literature in school didactics and the vitality of the Romantic paradigm" (p. 177).

⁴ Cf. In 2022/2023, the university's offer includes an all-academic interdisciplinary module: "Yes to Climate. Why the Earth Needs Humanists." In the 2023/2024 academic year, one of the courses in the art of writing, creative writing course is titled "How to be of the world? Environmental Humanities in the Field" and was taught by a naturalist and a humanist.

⁵ The course in question is Interdisciplinary Environmental Humanities Studies, recruited by the University of Silesia in Katowice. It is the first such course in Poland to combine the humanities, natural sciences and technology.

responded to the question of what they think climate and environmental education in schools should look like: “First of all, it should be said that climate change and global warming is a FACT and there should be no argument about it. Teachers do not address this topic and we are unaware of the scale of the problem. This should be discussed in lessons about how glaciers are melting, the Earth is warming, and the great impact of human actions. I’m sure that half of the students at my school don’t know about the fact that the Earth is endangered by CO₂ emissions, people and animals are dying, and we sit and watch this completely idly. There should be classes that also talk about how huge pollution is produced by the human species. I would like to hear about the island of garbage, the poisoning of water in India, and many others” (Ochwat, Guzy, 2021: 49)⁶.

The school’s silence on anthropogenic climate change is a serious problem in the Polish educational system, and it is not just an issue of Polish schools – similar deficiencies are observed in the educational systems of many countries (Kozłowska, 2021)⁷. Filling this gap has become a key challenge for contemporary humanistic climate education. The humanistic view of ecological issues is an invaluable complement to the so-called “hard knowledge” about the environment, which consists of data, graphs, numbers. The value of humanistic education also lies in its unique ability to influence young people through culture and the arts – elements that can influence values and attitudes more effectively than “dry facts”, which in turn have a real impact on the choices and lifestyles of the younger generation. In the context of this causal potential of the humanities, it can be noted that literature and other forms of artistic expression have a unique power today.

Today, the task of creating new stories in times of mass species extinction and the loss of biodiversity, one that inspires hope and strength for the ongoing fight for a better future, lies in the hands of writers, artists, poets, and cultural figures (Napiórkowski, 2022). This is why American anthropologist Anna

⁶ In the main study conducted from November to December 15, 2021, a total of 2,181 students participated, with 1,227 questionnaires fully completed and subsequently subjected to detailed analysis. The average age of the respondents was 15.5 years. The largest group of respondents fell within the 15–18 age range. A significant majority of those who completed the questionnaire were high school students: 807 individuals (65.7 %).

⁷ Climate change is absent from the core curriculum. Agnieszka Kozłowska examined core curricula in two countries, looking for key words in them. These included: climate change, global warming, enhanced greenhouse effect, carbon cycle / carbon footprint, fossil fuels., energy, climate crisis, greenhouse gases, greenhouse gas emissions, environmental impact of climate change, mitigation / adaptation, deforestation, reforestation, planetary boundaries / environmental limits, ecological transformation, sustainable development, sustainable lifestyles, environmental awareness. Only 3 of the 19 keywords were present in the Polish core curriculum, while 5 of them were present in the English one. In both cases, the keywords showed no direct reference to climate change.

Lowenhaupt Tsing weaves a new story about matsutake mushrooms, and why Monika Rogowska-Stangret, in the Polish introduction to Tsing's newly translated book *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*, writes: "Today, we are all yearning for new stories for the time of catastrophe, stories that can offer a non-naive hope, that [...] will propose a way out of the logic of human privilege" (Tsing, 2024: 10).

School-based humanities education has extensive potential for shaping attitudes, modeling desirable environmental behaviors, and creating new, multifaceted stories – GEOstories and BIOstories. This happens by encouraging critical reflection in lessons, contesting established practices and traditions, such as hunting, exploiting of other species, exploitation of the land, the descriptions of which are still present in school readings, or by showing various relationships between humans and the more-than-human world.

So what might the much-needed ecological education for all of us look like (see Ochwat, 2024)? Olga Tokarczuk, the 2018 Polish winner of the Nobel Prize for Literature, gives us a hint. In an interview with the monthly magazine "Wild Life", Tokarczuk emphasizes the need for an ecological framework for looking at the world that could permeate education at every stage of education. Such a framework, in which individual school subjects – from the natural sciences to the humanities – would be filled with content that promotes ecological awareness, should become a basic reference point in the teaching process. As the Nobel laureate points out, an "ecological framework" could be at the center of curricula. Tokarczuk points out that only through such a deep integration of pro-environmental issues will it be possible to shape the environmental consciousness of younger generations in a consistent, multi-dimensional, and relevant way to contemporary climate challenges: "Ecology before our eyes became more than a science concerning interdependence in nature. Today its paradigm can also be found in sociology, psychology, economics, geography, medicine, in every scientific approach... It is the mother of sciences. Ecology could show children something that is sorely lacking in modern education – an overall view of what we call the world as a great complex organism, all of whose components constantly influence and depend on each other. So it could give a kind of synthetic, general knowledge. It would create a framework, which only later would fill in the individual objects piece by piece. In this way it would build in the minds of children some kind of coherent and general map of the world in which they live" (Skubała et al., 2014).

Education on the climate crisis should be integrated at all levels of education and across all teaching disciplines, covering every subject. However, the idea is not to add another subject, but to create a common ground on which a new ecological awareness will be based.

It is worthwhile to expand Olga Tokarczuk's call for interdisciplinary education, which aligns well with the posthumanist idea of relationality, by

incorporating new perspectives that ease the traditional anthropocentric view of the world, including biocentrism and ecocentrism.

Furthermore, environmental education demands modifications in teaching methods at all educational levels. This could involve reducing the traditional classroom desk arrangement in favor of field-based education (Śliwerski, Paluch, 2021), increasing hands-on activities to counteract the deficit of contact with nature and excessive sensory stimulation. Such methods should strengthen young people's resilience in crisis situations. In these dystopian times of the Anthropocene, it is also essential to foster imagination, introduce speculative thinking, prototype solutions, and create new stories grounded in a non-naive hope.

We also advocate for the recognition of local education's importance in the context of the environmental crisis, aiming to foster agency, engagement, and responsibility for the immediate surroundings of the school, neighborhood, city, or village. The goal is for students to have a tangible impact on the future, acquiring skills in making responsible decisions and acting on behalf of the local environment.

An essential aspect of this approach is also cultivating and promoting cooperative attitudes and relationship-building to replace competition, allowing for effective responses to contemporary ecological challenges. Perhaps it is time to openly discuss a shift in the school's operating philosophy, which is currently dominated by harmful promotion-focused thinking – based on growth ideology and competition rather than on expanding sensitivity, attentiveness, and care for others and the Earth.

In this framework, climate and environmental education in the humanities could serve as a foundation for collective (interdisciplinary) and hope-filled thinking (new stories) about the future of our Planet and all beings that inhabit it (biocentrism).

* * * * *

Growing up in the uncertain climate challenges of the 21st century, experiencing pluralism and diversity, the child protagonists will therefore 'enter' into different relationships with nature: from confrontation and fear of the unknown, to a deeper knowledge and understanding of the laws of nature, to an emotional taming of nature.

The articles included in this volume only confirm the scientific insights we wrote about in the introduction to this edition, noting that literary images of nature interaction, provoking children's imagination, shaping ecological awareness, promoting agency (also from an educational perspective), would therefore have a clear connection to the existential-ethical dimension of the works analysed, reflections on empathy with the natural world, in-depth reflection on the meaning of life and relations between humans and non-humans,

educating and strengthening openness to learning about the world and reinforcing readiness for change.

As demonstrated in this volume, ecologically themed cultural texts representative of the post-Anthropocene era fit perfectly into social and educational discussions about building environmental awareness in young audiences, "organising contemporary imagination and stimulating action" (Bendyk, 2020), they also encourage empathetic reading. Referring here to the results of research conducted by Mark Oziewicz and Lara Saguisag (Oziewicz, Saguisag, 2021) and Mathew Schneider-Mayerson, Alexy Weik von Mossner and Wojciech Malecki (Schneider-Mayerson, Weik von Mossner, Malecki, 2020), it seems that texts for young audiences due to the involvement present in the narratives, the often causal nature of the heroes/heroines, as well as the respect for science and knowledge of nature exposed in the stories (Harari, 2022), may shape an attitude of understanding and respect for the natural world, build an ecocentric vision of the world and influence the construction of conceptual nets indispensable for the realisation of a future aimed at actions protecting the vanishing planet.

Often, referring here to the Romantic tradition already alluded to, these would also be stories revealing not only the threat of annihilation resulting from the climate crisis, but also works showing images of a wild nature that is still beautiful and pure, texts about an authentic, affective experience of it, a polysensory, sensitive and empathetic reception, but above all stories about reinforcing the role of nature in the process of searching for one's own identity and finding oneself.

We invite you to reading!

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