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# Education for Ecological Values. How to Build the Bond between Children and Nature?

#### KEYWORDS ABSTRACT

ecological values, education for values, bond between children and nature, ecological education, environmental ethics. The aim of this article is to present the set of values and the axiological system of environmental ethics, as well as to reflect critically on the possibilities of implementing ecological values in preschool and elementary education. The conditions for following values by a person include the knowledge of such values, the possibility of having a practically cognitive contact with them, free choice, and creative activity. Learning about ecological values by teachers is crucial for the process of educating preschool and early school children for those values. Ecological values can be an important source of the goals of ecological education, as well as of actions that are to shape pro-environmental attitudes of children and adolescents. However, superficial ecological education and the use of methods that do not serve building children's bonds with nature can contribute to an undesired effect, i. e. opposition towards life and well-being of plants and animals, or towards the values of compassion, solidarity and respect for nature. In order to discuss global problems in the time of climate changes, one should focus on the common ecological values for all eco-ethical orientations, such as moderation, self-limitation, responsibility, respect for nature, intra-generational and intergenerational justice, solidarity, and opening oneself to the intrinsic value of nature.

## Introduction

"We are at the crossroads" – it's a diagnosis of the state of our planet determined by scientists and formulated for many years in a series of reports at the Intergovernmental Panel on Climate Change, IPCC. In early April 2022, the 3rd part of the (already) 6th IPCC report was published. It was dedicated to climate-economic crisis, especially to the need for the reduction of greenhouse gasses emission, considering political, technological, economic and social conditions of the modern world (Climate Change 2022). Despite numerous interdisciplinary research, the anthropogenic characteristics of global warming and climate change despite scientific proofs (Bińczyk 2018; Popkiewicz, Kardaś, Malinowski 2019; Budziszewska, Kardaś, Bohdanowicz 2021) is sometimes questioned by denialists and climate myths. Ecological crisis, which is currently a global crisis, is also - as Zbigniew Hull notices -a total crisis, because it permeates the whole human life, affecting the processes of production and consumption, the organization of social life, international politics, and even leisure (Hull 1999: 56). The recognition of the civilization and cultural crisis articulated at the end of the 20th century extends to the crisis of the family, science (academics?), human and humanitarian values. The current situation in the world is significantly exacerbated by Russia's invasion of Ukraine and the ongoing war, and the COVID-19 pandemic. The climate crisis, that is related to the above mentioned factors, is a manifestation of the growing conflict between man and the rest of the biosphere.

Since the world, as we know it (with regard to biodiversity or human relations) is about to disappear, it is important to think why it is happening and what can be done about it. Without giving simple answers, as well as aiming at changing the way of thinking and acting, it is worth taking up the idea of upbringing for ecological values. The key issue in this respect is the matter of learning about these values, their catalogues and systems. Therefore, the aim of this article is to make the readers familiar with the values of environmental ethics (sometimes called ecological values)<sup>1</sup>, as well as critical reflection on building children's bonds with nature through implementing these values in pre-school and early school education.

## Learning the value of environmental ethics

The basis for conscious implementation of values is knowing them, the possibility of getting to know them by people or the need for practically cognitive contact with them (Cichoń 1996: 56). Władysław Cichoń emphasizes that "the knowledge of

<sup>&</sup>lt;sup>1</sup> In this article I will use the term 'education for ecological values' because I believe it is more clear with regard to what this paper is about, since the term "environment" can be very broadly interpreted.

values – irrespective of its theoretical or practical nature – is the necessary condition for human moral practice". (Cichoń 1996: 111). The choice of values that should be presented in the content, goals and upbringing ideals, should be based on a deep axiological discernment. This applies to teachers, because without knowing the values, one is unable to implement them or teach others how to act morally (Cichoń 1996: 111). Therefore, learning ecological values seems to be an important stage for teachers in the process of educating children at preschool and early school age.

Determining moral references of a man towards natural environment is connected to recognizing values that may help us in establishing rules that would determine the attitude of man towards that environment. When the subject matter includes ecological values, one should refer to the approaches that have been established on the basis of ecological philosophy and environmental ethics (ecological ethics), which provide the theoretical basis for determining the moral references of a human being to the natural environment. These foundations are the concepts of environmental ethics (ecological ethics) which have an axiological, normative and practical dimension.

The importance of values in upbringing and in the process of shaping ecological awareness and attitudes is the result of the fact that they are:

- a) cognitive- providing knowledge;
- b) evaluating they can be used to check certain theories or even curricula;
- c) motivating and mobilizing values that are implemented and respected are encouraging.

Values also lie at the basis of their imperative counterparts (codes of conduct principles) thanks to which, in case of the values of environmental ethics, they regulate human relationships with the natural and socio-economic environment. This is a type of their practical application (see Tyburski 2013: 131). Therefore, when recognized, named and articulated, they determine finding a solution or mitigating conflicts and tensions at the level of man/society – economy – natural environment.

Stanisław Gałkowski wrote on values that are manifested in nature, listing biological, cultural and economic values. As he notes, the world ecosystem is a carrier of values without which the survival of an individual and the human species as a whole is impossible (Gałkowski 2006: 804). Economy is also impossible without the participation of nature which fulfils human spiritual needs as it is a carrier of aesthetic and cognitive values. Within cultural values, one can also notice recreational, civilization and political values in which nature appears as the common good of a human being (Gałkowski 2006: 805–807). The above mentioned values meet the needs of a man, however, the author himself notes: "nature – Nature – (she) is a carrier of values that would not be able to exist without it. Thus, the humanistic perspective, which recognizes the inalienable value of each human being, should be harmonized with the requirements of the pro-ecological attitude" (Gałkowski 2006: 807–808). In the conclusion, he states: "the environment should be protected not only for the sake of people, but also because of the self-contained value of the protection itself. A different approach that only refers to selected aspects will quickly turn against people" (Gałkowski 2006: 808).

On the basis of environmental ethics, the subject of values is undertaken in the context of:

- the intrinsic value of non-human beings,
- values considered to be of prime importance (life, health),
- values serving environmental protection, e.g. responsibility, moderation-restraint, community-solidarity, justice (see Tyburski 2013: 132, 136–164).

A broad catalogue of ecological values was created by Hull. It includes three groups:

- a) at the basic level (the most narrow one) natural values that enable life and health: natural environment (for example clean air, water, variety of species, natural landscape), as well as life and health themselves;
- b) values that are the basis of ecological ethics; there is an assumption that nature (biosphere, living creatures) has an intrinsic value<sup>2</sup>, which is why it is the subject of human moral acts such as: responsibility, respect for resources, solidarity among different species, moderation in consumption and using the environment, participation in the stream of life, compassion with others living beings, reverence for life (the sanctity of all that lives), biodiversity;
- c) values present in various spheres of human activity with an environmental dimension: intergenerational justice in terms of the access to natural resources; interpersonal solidarity in the opportunities and possibilities of using the resources of the biosphere; demographic responsibility; responsibility for ecological damage; fair distribution of goods; reliable information on dangers and the condition of the environment; qualitative development (Hull 1996: 86–87).

Taking into consideration selected ethical concepts included in eco-philosophical theories (after analyzing the views of: J. Passmore, D. Birnbacher, B. Norton, T. Ślipko, P.W. Taylor, Z. Piątek, A. Naess, A. Schweitzer, A. Leopold, J.B. Callicott), after reconstructing the set of values of environmental ethics, I suggest to include the following values in it:

- a) values centred around living organisms (their life, biological existence):
- human life, life of non-human living beings,
- respect for life,
- health,

 $<sup>^2</sup>$  Intrinsic value (autotelic value – a value in itself; an autonomic, immanent, non-instrumental, and self-existing value). In case of non-human living beings, their intrinsic value results from their having specific goals in life (the correctness of biological development), which makes them teleological "centres" of life which strive to fulfil their own good adjusted to their own species.

- man as a human person; the intrinsic value of man; the intrinsic value of nonhuman living beings,
- community of living beings and their environments, the good (interests) of man, the good (interests) of non-human living beings, the good of individuals, the good of the biotic community,
- the ability to live to the measure of one's own species, self-preservation (survival and development of a living organism), the ability of individual living beings to live in natural ecosystems,
- biocentric equality;
- b) values centred around the "natural" environment:
- animate and inanimate natural environment (plant and animal organisms, clear water, air, soil, rocks, natural landscape, wild areas);
- biodiversity,
- the ecosystem and its stability, preserving the ecosystem's integrity,
- intrinsic value of animate and inanimate elements of nature,
- the process of self-purification of water ecosystems;
- c) values centred around practical activities in the social and natural environment:
- restraint, moderation, self-restraint,
- responsibility, common good,
- honesty, intra- and inter-generational justice, solidarity,
- compassion,
- concern for future generations.

All of the ecological values mentioned in the lists form a set of environmental ethics values. However, if we organize these values according to their weight and principles of their use in situations of conflict of values determined in terms of rank and importance due to the value considered the most important, then we can talk about the system of values of the environmental ethics. Within the ecological ethics, there are basically three eco-ethical orientations: anthropocentric, biocentric and holistic ethics (compare Dołęga 2002: 51; Tyburski 2013: 109). Taking into account these orientations, one can create an axiological system of the environmental ethics (Table 1).

Axiological system of environmental ethics		
Anthropocentric ethics	Biocentric ethics	Holistic ethics
Man	Life of all organisms	Ecosystem
Man as the highest value due to his status	Equality of all human and non-human beings	Integrity and sustainability of the biotic community (man belongs to the whole of the community of living beings and their environment)
Health		
Intrinsic value of a man	Intrinsic value of human and non-human beings	Intrinsic value of animate and inanimate elements of nature
Moral obligations only towards other people (extreme anthropocentrism)	Moral equality of all living beings (strong biocentrism)	Moral duties towards the whole biotic community
Nature as an utilitarian value	Nature as an intrinsic good has a value in itself	
The good of man more important than the good of nature	Good of an individual more important than the good of an entire population	The good of individuals is subordinated to the good of the entire community (ecosystem).
	The ability to live to the measure of one's own species, the ability of individual living beings to live in natural ecosystems	The ability of the whole ecosystem to live in interconnectedness
Responsibility, justice, restraint, solidarity	Respect for nature, self-restraint	Moderation
Sustainable development, concern for future generations	Compassion	

### Table 1. Axiological system of environmental ethics

Source: the author's own work (Gola 2018: 96).

In the anthropocentric kind of environmental ethics, a human being is the main point of reference in the entire reality. He/she is the highest and absolute value. In the biocentric (individualist) ethics, the superior category is any life – not just human life, but also the life of all living beings. The holistic (ecosystem) ethics makes the central point of reference the ecosystem itself. It includes, within the moral aspect of the reference, not only all the living beings (the biotic part of the ecosystem), but also the inanimate environment (the abiotic part of the ecosystem such as: water, rocks, stones, soil, light, etc.). The above mentioned varieties of ecological ethics exist in weak and strong versions (moderate or extreme). Also, hierarchical and egalitarian biocentrism are distinguished.

The environmental ethics was created in response to the need to expand the subject scope of ethics. As Zdzisława Piątek writes: "expanding the moral respect means that all of the beings who are entitled to it require our moral decisions in our actions towards them. It means that we cannot hurt them without justification and without compensation" (Piątek 1998: 9). At the same time, she refutes the argument of anthropocentrism, explaining that non-human living beings are not self-aware and they do not value things, but this does not make it impossible to give them a moral status which is not the same as being a moral subject. In the biotope community only people can be moral subjects since they are self-aware and responsible individuals.

However, in ecocentrism, which is the basis of the holistic ethics, it is assumed that all elements of animate and inanimate nature have an intrinsic value. "This is how the entire ecosphere is included in the scope of human morality" (Ganowicz-Bączyk 2015: 57). It is a biological principle that living organisms cannot survive without abiotic components of the environment. Life on earth depends on networks of interconnected ecosystems in the biosphere. For Aldo Leopold, "the Earth ethics simply broadens the boundaries of the community, so that it includes soils, waters, plants and animals, generally speaking: the Earth" (Leopold 2004: 252). The follower of Leopold's ideas, J. Baird Callicott – the creator of the community ethics, believed that the entire biosphere should be subject to morality. He perceived biosphere as a set of interconnected biotope communities of which a man is also an element. At the same time, when considering an intrinsic value, he recognizes that something is intrinsically valuable if it is valuable in itself and for itself, and not for someone else – its value cannot be based on utility or functions performed (Callicott 1989: 131).

All of the three versions of eco-ethics have their limits and weaknesses, as well as assumptions that are hard to solve. A remark by Eric Katz seems to be accurate in this regard: "I believe that the debate between anthropocentrism and non-anthropocentrism should be expressed in categories other than absolute, i. e. in the language which allows for compromise, flexibility and pluralism of values" (Katz 1999: 377). It is an urgent task to find a common perspective for recognizing the protection of the environment and nature as a universal human problem. This is all the more important since "environmental awareness and actions that derive from it can be justified in different, often even mutually exclusive, value systems, as well as philosophical and ideological beliefs" (Kaźmierczak, Gałkowski 2021: 27).

In order to address global problems in the time of climate change, one ought to focus on common ecological values (see Table 1) for all the eco-ethical orientations,

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instead of wasting time (which we do not have) on ideological disputes. These common values are: moderation, self-restraint, responsibility, respect for nature, intra- and inter-generational justice, and solidarity. However, due to the dominant paradigm of consumerism and utilitarian treatment of nature, the transition in education from anthropocentric ethics towards biocentric and holistic ethics is becoming more and more necessary. Such transition means becoming open to the intrinsic value of nature and such ecological values as respect/reverence for nature, respect for all life, compassion, the intrinsic value of non-human living beings, and the intrinsic value of biotic communities.

# Creating a bond between children and nature – a few remarks

When building a bond between children and nature through ecological values promoted in formal education, the key figure is the teacher. It is the teacher who first acquires the values of environmental ethics, has the knowledge thereof, knows them, accepts them as his or her own, as well as internalizes and implements them in their own life. It is impossible to reveal ecological values to children without true passion and belief in them. Upbringing is a process of implementing values which are manifested in the content of teaching, methods and educational goals. Ecological values can be an important source of defined goals of ecological education and shaping proenvironmental attitude in children and youth, as well as serve adults in their ongoing education. But...

But, as Agnieszka Kozłowska states (not without a reason): "Our pro-environmental attitude is superficial, a bit local, a bit global, but mainly theoretical or focused on unimportant details. (...) Cubic meters of water saved by taking short showers and when brushing teeth is insignificant when you compare them to thousands of cubic meters of water needed to produce one hamburger" (Kozłowska 2020: 15). "Is the knowledge of a huge island of trash on the Pacific Ocean, or sea birds that die with their bellies filled with plastic, less important than the knowledge of floors of vegetation in a forest that a child has to recognize in a picture and name, according to core curriculum?", she asks (Kozłowska 2021: 146–147). The author believes that the hierarchy of goals and contents of environmental education is incorrectly set, not prioritizing the main ecological problems of the modern world, such as climate change and its causes.

This bitter diagnosis of how superficial environmental education is, could be, for instance, an impulse for a change of the attitudes of preschool and early education teachers themselves towards the educational contents they teach. Of course, it requires

taking a critical look at the core curriculum, taking various actions towards correcting it, and improving at the government level, but it also requires constant self-education on the subject. Teachers often admit that they notice the biggest obstacles in introducing pro-climate content in themselves, for example in the lack of their own education on the climate change (Guzy, Ochwat 2021: 59–61).

Teachers' critical reflection on the content of teaching and upbringing, and on the didactic methods used is also necessary. Unfortunately, during environmental and ecological classes, there might be many activities that fail to support the bond between children and nature. Such activities fail to contribute to the implementation of ecological values and, as a result, they do not educate children for those values. Here are some examples of paradoxes taken from preschool or early education lessons on nature and environment protection:

- creating colourful pictures with the use of flowers (both those from wild areas and flowers grown by people) and placing them between pieces of foil in a frame or gluing them on paper;
- creating images of a meadow on a bright cloth using a hammer in order to thoroughly smash every piece of a plant;
- making paint stamps out of heads of big flowers and using such flower heads instead of paintbrushes;
- looking for small animals, often bugs or spiders, and sucking them into small containers with special equipment where the animal can be observed, usually in order to count their legs and classify them properly;
- preparing eco-friendly toys, etc. out of waste materials (usually plastic), participating in competitions that aim at recycling rubbish, whereas, in fact, new glue is being used and the produced objects are useless.

By plucking flower heads, we stopped their life cycle<sup>3</sup>; we did not let the plant to die naturally – we acted against such values as life and good of non-human beings, respect for nature or compassion. Similar behaviour can be seen quite often with mindless plucking plants, breaking them and immediately throwing them out. Likewise, catching small animals, often arthropods, molluscs and fish, and even jellyfish (e. g. the moon jelly) in order to look at them or play with them is a violation of the rule of no harm and no intervention created by the biocentrist Paul W. Taylor (1989: 172–173). A wild animal with a more or less organized nervous system and sensory organs receives such stimuli in a very unfavourable way. Often, during such a play, the animal's body gets damaged (e.g. broken legs, antennae, crushed shells or insect wings).

 $<sup>^{3}</sup>$  We violated the rule of no harm.

It's worth being aware of the fact that involving children in arts and crafts, colouring animal pictures, making collages about nature, and singing songs about clear rivers is not ecological or environmental education yet. Indeed, these activities are crucial for the development of small motor skills or cognitive development, but the teacher cannot be convinced that he or she implements ecological education in this way. Very often, such education is only limited to teaching children how to recycle trash.

In order to create a bond between children and nature, children need to experience it during activities outside the classroom. In Poland such classes are extremely rare, mainly because of the reluctance of school principals or parents, and due to the deficit of teachers' competences (Michalak, Parczewska 2022). It is a pity because *outdoor education* opens a wide range of learning opportunities that include experience and development of imagination. It also links the process of acquiring knowledge with emotions and experiences, and it facilitates physical activity which is crucial in learning processes. Different "places" and meanings of how man and nature co-exist may be present in children's ecological education thanks to the designed educational opportunities and open tasks within innovative teaching methods (Łukaszewicz 2021: 157–170).

Among the new approaches to building children's bonds with nature are the methods based on inquiry (IBSE) and reasoning (IBE), the methods integrating knowledge from various fields (STEAM education), as well as the methods which facilitate creating knowledge, spreading and using information, and developing knowledge for the future (Kowalik-Olubińska 2021; Surma 2021). Due to the size of this text, I am limiting myself to indicating the above methodological aspects. However, I deliberately presented ecological values that are often unknown and that, in this article, are an inspiration for a different look at the education of preschool and early school children.

### Conclusion

The answer to the title question: "How to Build the Bond between Children and Nature? is: by extending their moral respect for non-human living beings (in the moderate version) and for the whole biotic community. What is also needed is a critical reflection of each individual teacher on their personal attitude towards nature and its perception. Making children sensitive to nature which lives, pulsates and breathes, means making them sensitive to another human being.

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