

The influence of home environment on the characteristics and level of development of environmental consciousness in students¹

Abstract

The three basic types of environmental consciousness (anthropocentric, biocentric, ecocentric) allowing for a person's attitude towards nature and his/her activity in the natural environment have underlain a more detailed classification, which includes ten subtypes of environmental consciousness (EC). These subtypes are defined as follows: anthropocentric-contemplative, anthropocentric-pragmatic, anthropocentric-destructive, anthropocentric-preserving, biocentric-altruistic, biocentric-syncretic, biocentric-aggressive, ecocentric-rational, ecocentric-constructive and ecocentric-oppositional. The author underscores the necessity of forming an ecocentric type of EC among the younger generation since it is the first step to overcoming global environmental crisis and ensuring sustainable development of the society. Family education is thought to play an important role in the development of a person's environmental consciousness as a whole and its related components as well (environmental awareness, environmental responsiveness, readiness for protecting nature, environmentally friendly consumption, etc.).

Keywords: *environment, environmental consciousness, environmental responsiveness, readiness for protecting nature, environmentally friendly consumption*

The current state of the major world ecosystems, when water, air and soil are being increasingly contaminated with industrial and domestic waste but avail-

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able biological resources (in particular, green areas and fresh water) are being quickly depleted primarily as a result of unreasonable economic activity and excessive consumption, is nothing but a cause for deep concern. Tim Flannery, an ex-director of the South Australian Museum in Adelaide, noted that "... we have disturbed the balance of nature so much that already begun to threaten the land that feeds us. Obviously, we are becoming a threat to our own existence"¹.

The "*Ecological Footprint*" concept, suggested by Canadian professor William E. Rees, characterises the impact of each individual, settlement or country as a whole on nature. In fact, it is the difference between the amount of natural resources consumed within a certain period of time and those whose nature is able to renew. The Ecological Footprint is measured in global hectares of biologically productive land or water. According to the data provided by World Wildlife Fund (Living Planet Report), these figures have been rapidly increasing, especially since the 1980s. Furthermore, the greatest "contribution" to the disturbance of environmental balance is made by rich countries: Qatar, Kuwait, the United Arab Emirates, Denmark, the United States of America, Belgium, Australia, Canada, the Netherlands, and Ireland. According to calculations, if all the countries in the world consumed the same amount of natural resources as America does, humanity would need five Earths. Ukraine's ecological footprint is 3.19 global hectares per person. Besides, this figure has grown for the last two years. If all the people in the world consumed the same amount of natural resources as Ukrainians do, we would need one and a half Earth [Life for Life, s. a.].

Another quantitative characteristic of the Earth's ecosystems is the *Living Planet Index (LPI)*. It is a measure of the state of the world's biological diversity based on population trends of vertebrate species from around the world. During the period of 1970–2000 the LPI decreased by approximately 37%. Although people consider themselves as masters of the planet, they act irresponsibly or even cruelly. They neither feel any compassion for animals or plants nor care about conservation of natural resources and utilisation of waste products which pollute (or even destroy) the environment. Such irresponsible behaviour towards environment has a destabilising effect on the world's ecological balance, which in its turn threatens human existence, since overconsumption of natural resources and increasing environmental pollution can lead to irreversible changes in the biosphere and make it unsuitable for life.

Obviously, it is impossible to stop using the Earth's natural resources. However, their use can in no way mean the unconditional domination of human beings over nature. Thus, the existing forms of interaction between nature and civilisation should be replaced by new ones, based on *pro-environmental values*, which in their turn are oriented towards environmental protection and preservation and reflected not only in the national environmental policy or eco-friendly manufacturing processes, but also in people's everyday behaviour.

These steps include, first of all, reasonable and responsible consumption of energy and resources (by reducing needless energy waste, in particular), green purchase behaviour (choosing products made from recycled materials or using eco-friendly technologies, refusal to buy products from manufacturers breaching en-

¹ This and all subsequent quotes are translated from Ukrainian by the author.

vironmental standards), participation in various environmental activities (tree planting, beach and park clean-ups, waste collection, etc.), saving water and electricity in households, and, besides, popularisation of active and healthy lifestyle.

Undoubtedly, type of environmental consciousness and level of its development determine persons' environmental attitudes and behaviour (that is to say, how they perceive and treat the nature). Russian environmental psychologists S.D. Deriabo and V.A. Yasvin noted that "...mankind has travelled a long way in developing relationships with nature, and a certain type of environmental consciousness prevailed at each stage of the process" [Deriabo, 1996: p. 6]. So, the scholars understand the **environmental consciousness** as "... the existing perceptions of the natural world along with corresponding strategies and technologies for interaction between humans and nature" [Deriabo, 1996: p. 11]. Being a collection of ideas and views about the natural world, the environmental consciousness, according to a Ukrainian social psychologist V.O. Skrebets', "reflects the attitudes towards nature both at an individual level and in the society as a whole" [Skrebets', 2004: p. 87]. Environmental consciousness also performs a regulating function since it mediates human activity in the natural environment — from the moment of goal setting to achieving and technological realisation of the goal.

Environmental consciousness has a specific set of features, such as level of representation of the existing social values and institutions, prognostic elements which are necessary when dealing with a certain environmental problem ("orientation to the present for the sake of the future"), a person's orientation to a particular social group or society as a whole (which implies the possibility of preventing ecological disturbances or taking part in liquidation of consequences of human-caused environmental disasters, etc.) [Medvedev, 2001: p. 162]. According to Ukrainian sociologist O.H. Stehni, environmental consciousness is a sum of significant ideas about categories and phenomena pertaining to individual or social environmental experience which precedes environmental activities [Stehni, 2012: p. 125].

Russian sociologists V.N. Vasil'yeva and M.A. Torgunakova think that a more exact description of environmental consciousness may be obtained by using the square of opposition. Taking into account persons' awareness and concern for environmental issues, as well as their practical actions, the researchers divided them into four major groups: persons having *positive active*, *negative active*, *positive passive* and *negative passive* attitudes towards nature [Vasil'yeva, 2007: p. 135].

There are four basic types of environmental consciousness, which have been formed during evolution of the system "human — nature". The **syncretic** embraces understanding of human beings as a small but inseparable part of nature; **biocentric** or **nature-centred** regards nature as of the greatest value and calls on humans to subordinate themselves to the natural world. The **anthropocentric** type takes a human being as dominating all other living creatures, so the natural world is supposed to serve various human needs. **Ecocentric** consciousness brings to the fore humans' living and developing in harmony with nature [Deriabo, 1995: p. 28–36; Liovochkina, 2004: p. 83–85].

Taking into account the above-mentioned types of environmental consciousness, the author has suggested a more detailed typology of this phenomenon [Maksymenko, 2009: p. 23–27], which consists of ten subtypes of environmental consciousness (See Table 1).

Table 1

Basic subtypes of environmental consciousness

Types of environmental consciousness	Subtypes of environmental consciousness	Types of "human – nature" relationships	Types of human behaviour in nature	Needs being met
Anthropocentric (human-centred)	<i>Anthropocentric-contemplative</i>	Subject-object (human is the subject while nature is the object of relationship)	Neutral or environmentally appropriate	Aesthetic, cognitive
	<i>Anthropocentric-pragmatic</i>	Subject-object	Indifferent, aloof or overtly consumerist	Utilitarian, aesthetic, cognitive
	<i>Anthropocentric-destructive</i>	Subject-object	Environmentally deviant (destructive, aggressive), without foreseeing consequences of their own actions	Material needs and unrealised latent aggressive inclinations
	<i>Anthropocentric-preserving</i>	Subject-object	Environmentally expedient	Basic needs (water, food, clothing, shelter ¹), aesthetic needs
Biocentric (nature-centred)	<i>Biocentric-altruistic</i>	Subject-object	Environmentally appropriate, actively sympathetic	Ethical aspirations: nature is the object of care and protection
	<i>Biocentric-syncretic</i>	Object-subject (human is the object while nature is the subject of relationship)	Environmentally expedient	Aesthetic needs, ethical aspirations: nature is of the greatest value
	<i>Biocentric-aggressive</i>	Subject-object	Radical environmentalism	Opposing humans against nature
Ecocentric	<i>Ecocentric-rational</i>	Subject-subject	Rational use of natural resources	Aesthetic needs, ethical aspirations, need of living in harmony with nature
	<i>Ecocentric-constructive</i>	Subject-subject	Constructive environmental activities	Aesthetic needs, ethical aspirations, cognitive needs, utilitarian needs
	<i>Ecocentric-oppositional</i>	Subject-subject	Environmental activism	Ethical aspirations, cognitive needs, utilitarian needs

¹ This is typical of rural population or people who live in mountain areas, coastal regions, near forests, etc.

Undoubtedly, the current environmental crisis is caused by domination of anthropocentric type of environmental consciousness, in particular anthropocentric-pragmatic and anthropocentric-destructive subtypes. Surviving in today's world and preventing further expansion of the environmental crisis is possible only by developing the ecocentric type of environmental consciousness, which, in its turn, implies reinterpretation of the place and role of humans in nature and reconsideration of relationships between society and nature. Environmental education programmes should encourage students not only to get to know nature better but also to participate personally in environmental actions. Needless to say, possessing a certain amount of knowledge is not enough. Humans should learn to feel empathy for other living creatures and think themselves only as a small part of nature. Moreover, they should realise the fact that the Earth's resources are limited and learn to use them carefully. Nobody else but us people did harm to nature, so nobody else but us can save it. These steps are necessary for forming an *environmentally conscious person*, which must begin in the family.

Therefore, it would be advisable to study the influence of family background on students' environmental consciousness. Researchers from Eskisehir Osmangazi University (Turkey) paid special attention to the following characteristics of environmental consciousness: *readiness for protecting nature, eco-friendly consumption and environmental responsiveness*. The study was aimed at measuring these three characteristics and identifying the relationship between them, on the one hand; education level of respondents' parents¹ and their place of residence (type of settlement where respondents live with their families: city, town or village), on the other hand. The respondent's gender was also taken into account [Yilmaz, 2001].

A 39-item questionnaire was developed and used to measure the above characteristics of environmental consciousness.

The respondents were expected to fill in the form consisting of three sections. The first section contained 20 statements concerning readiness for protecting nature, the second section (7 statements) was related to eco-friendly consumption and the third one referred to environmental responsiveness (12 statements). The respondents indicated their level of agreement or disagreement with each statement using a 5-point Likert scale. The variants of answers were as follows: 1 point – “I never can do it”; 2 points – “I cannot promise I will do it”; 3 points – “it is difficult to say”; 4 points – “I promise I will do it”; 5 points – “I firmly promise I will do it” (for statements from the first section); 1 point – “never”; 2 points – “rarely”; 3 points – “from time to time”; 4 points – “often”; 5 points – “always” (for statements related to eco-friendly consumption); 1 point – “strongly disagree”; 2 points – “disagree”; 3 points – “neither agree nor disagree”; 4 points – “agree”; 5 points – “strongly agree” (for statements concerning environmental responsiveness)².

¹ Education levels of the respondent's father and mother were analysed separately.

² Here are some statements related to eco-friendly consumption (**1, 2**) and environmental responsiveness (**3, 4**): **1.** I prefer buying products from manufacturers supporting environmental projects. **2.** I choose products that can be recycled or reused / products that are made from renewable materials. **3.** I am afraid that environmental pollution will make the Earth unsuitable for life. **4.** I am worried about the fact that industrial waste causes environmental pollution.

There were 500 randomly selected students who participated in the research (49% of them were women, 51% – men). The questionnaire had been pre-tested on a small sample (60 respondents) in order to identify unclear or non-correct statements and delete them.

The statements related to readiness for protecting nature (*cevre koruma vaadi*) and results are presented in Table 2.

Table 2

The level of readiness for protecting nature among students of Eskisehir Osmangazi University (Turkey), points by Likert scale

Arithmetic mean	Respondent's gender		Education level of a respondent's mother		
	Male	Female	Primary education	Complete secondary education	Higher education
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
A1. I will take part in planting trees	3,56	3,31	3,38	3,29	3,60
A2. I will sort my household waste before throwing it in the dustbin so that it could be recycled	3,90	3,51	3,71	3,56	3,77
A3. I will complain to relevant authorities about people polluting the environment	3,36	3,14	3,27	3,08	3,38
A4. I will warn my family members and close friends about buying/consuming unnecessary things	3,87	3,64	3,83	3,57	3,87
A5. I will admonish people not to harm plants and trees in parks and gardens	3,85	3,56	3,70	3,60	3,74
A6. I will fight against those who pose a threat to the environment	3,70	3,41	3,54	3,45	3,62
A7. I will not be cruel and aggressive to the environment where I live and to the people who live there	4,19	3,89	4,08	3,98	3,99
A8. Being worried about the country's economic well-being, I will not cause direct or indirect damage to the environment both at my workplace and in everyday life	3,96	3,72	3,81	3,75	3,92
A9. I will do everything in my power to make the environment where I live more suitable for life	3,96	3,86	4,01	3,84	3,89
A10. I will take part in clean-up activities	3,44	3,07	3,14	3,05	3,50
A11. Understanding the fact that the Earth's resources are limited, I will oppose their irresponsible exploitation	3,95	3,72	3,88	3,71	3,90

Table 2 (cont.)

1	2	3	4	5	6
A12. I will not consume unnecessary things to reduce my impact on the environment as much as possible	3,1	3,68	3,83	3,68	3,85
A13. I will use carefully the products made from oil, coal, natural gas and iron ore, since these natural resources cannot be replenished	3,91	3,68	3,95	3,64	3,80
A14. If I see a dripping tap, I will turn it off or fix it	4,32	4,07	4,31	4,12	4,16
A15. I will turn off lights when I am not using them	4,32	4,15	4,35	4,15	4,20
A16. I will use both sides of a sheet of paper when taking notes	4,28	3,96	4,15	4,04	4,11
A17. I will give warning to companies or private persons who pollute the environment	3,74	3,53	3,66	3,52	3,70
A18. I will take an active part in environmental projects (like TEMA's) ¹	3,33	2,94	2,97	2,94	3,41
A19. I will voluntarily work for the sake of nature and mankind	3,57	3,06	3,23	3,11	3,49
A20. I will follow all the rules of this agreement so that the environment I am going to leave for future generations could be cleaner than now	3,96	3,66	3,87	3,66	3,88

The authors reported that all of these characteristics (readiness to protect nature, eco-friendly consumption and environmental responsiveness) were determined mainly by education level of the respondent's mother (children of highly educated mothers had higher levels of readiness to protect nature, eco-friendly consumption and environmental responsiveness) and by type of settlement (the respondents who lived with their families in big cities or towns had higher levels of readiness to protect nature, eco-friendly consumption and environmental responsiveness than countryside residents). However, there was no significant correlation between education level of the respondent's father and these characteristics. This fact may be explained by traditional distribution of family responsibilities between mothers and fathers in Turkey (the father is responsible for the family's material well-being, while the mother takes care of psychological climate). As to gender differences in environmental attitudes, it should be noted that female respondents demonstrated higher levels of environ-

¹ TEMA (*Turkiye Erozyonla Mucadele, Agaclandirma ve Dogal Varliklari Koruma Vakfi*) – Turkish Foundation for Reforestation, Combating Soil Erosion and the Protection of Natural Habitats (the TEMA Foundation).

mental responsiveness, while male respondents were more inclined to participate in various environmental movements and activities.

Obviously, the family plays a very important role since whatever we do we usually tend to pattern our behaviour on the perceived expectations of our family and close relatives.

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