

## 10. THE ART OF ENVIRONMENTAL AWARENESS TRAINING IN THE SECONDARY TEACHING SYSTEM

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**Abstract:** *It is true that education cannot solve the problems of the environment, but it can ameliorate them, because through ecological education it is easier and more economic to prevent, than to repair and to ameliorate the damages brought to nature by the adult generations. In the pedagogical literature, there are four types of intercessions of implementation of the ecological education in the process of study. Even though the Romanian curricula has created all the premises for the approach of the ecological education through all the four types of intercessions, the achievement of the objectives of this education remain still at the preference and judgment of the teaching staff. This study aims to conduct a thorough analysis of how the art of infusing ecological ethics theories in the curriculum of the secondary teaching system leads to the training of students' environmental awareness.*

**Key words:** *environmental education, environmental ethics, attitude of respect for nature, curriculum, ecological awareness*

### Introduction

The existence of some problems that concern the whole planet and whose proper solving is of interest for all countries, represents an irrefutable reality. Judging these problems from the perspective of their substance, the entire humanity – starting with the public opinion up until the decisional factors or the international forums for collaboration and cooperation – has a clear view over the multiple and complex problems that are raised today by the relationships between man and environment, the importance of natural resources for the sustaining of life and the wellbeing of people, and over the fact that these are no longer inexhaustible. It has become more and more obvious the fact that the human activities have profound repercussions on nature and its richness, especially in the condition in which the human influence on environment is getting bigger and bigger as a result of the increasing population, of the urban agglomeration and the development of industries and technologies. This global vision over the planet has led to numerous worrying observations and to immediate actions. Thus, the modern problematic concerning the environment represents a threat for the survival and existence of life on this planet and it needs the intervention of ethics for its solving.

### Theoretical backgrounds

Even though in the finale decade of the last century, Romania has developed a whole strategy for the protection of the environment – it has adopted the legislation concerning the environment protection; with the help of some extra-budgetary funds, it has developed some projects for the preservation and protection of the environment; it has implemented some sustainable development programmes and even some educational programmes, etc. – this entire strategy was created without taking into consideration a local ecological

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ethics, but only by putting to use the theories elaborated by the Western philosophers.

Taking into consideration the interdisciplinary perspective for solving the problematic of environment, the main goal of this paper is to identify the means of trans-disciplinary approaching the ecological ethics so as to allow the re-balancing of the relationships between man and nature. Their use by means of the ecological education will contribute at the improvement of the relationships between man and nature.

Opposite to the shallow ecology which is more focused on pollution and the exhaustion of the resources and which is also criticized because in the countries where this trend is present, there is a massive preoccupation with the outsourcing of the sources and the expenses tied to their own pollution towards the poorer countries from the third world, deep ecology is based on an eco-centric conception which includes both the anthropocentric perspective and the non-human one, by extending our preoccupations at the level of the whole biosphere. Its focus is on a process which analyzes the relationship between man and nature.

Even in this orientation, we can distinguish between two major trends: biocentrism and eco-centrism. While biocentrism extends the sphere of the concept of value over everything that is alive: humans, animals, plants, all of these being worthy of moral consideration and respect, eco-centrism states that the whole is superior to the individual, which means that it extends the moral sphere even over the non-living entities by considering the whole nature as having a moral significance and value.

According to biocentrism, human beings are just a small part of the living world alongside the non-human beings, and together, they represent the living beings or the biosphere which has an intrinsic value. This property makes them worthy of dignity. So, all the living entities are important from the moral point of view because they have intrinsic value. Biocentrism is actually promoting the idea of equality at the level of the whole biosphere. All of these lead towards the conclusion that people must respect the living nature and they must protect it. The representatives of this trend, P. Taylor, A. Naess and many others, claim that the species, the ecosystems and the biosphere carry intrinsic value because any individual is only a small part of the whole. Following their desire to establish a living connection with nature, the philosophers mentioned above are trying to obtain the development of an extended ecological conscience, based not only on the concept of intrinsic value, but also on the idea of reaching the Self, an idea which in the vision of A. Naess represents an extension of the individual self towards The Self that embraces all the forms of life from the planet, together with their own individuality (Naess, A. - *The Deep Ecological Movement – Some Philosophical Aspects*, *Philosophical Inquiry* (Vol. 8, nos. 1-2, 1986) - apud. Mark W. McElroy, 2002). Opposite biocentrism, the eco-centrism emphasizes even more the idea that people are only a part of the eco-sphere on which they are totally dependent. This is actually the main reason for

which eco-centrism is considered to be the most radical trend of the movement called Deep Ecology.

What Taylor is trying to reach is a life centred ethics which in other words means that all living beings are gaining a moral consideration that also translates into a series of direct obligations that humans have towards them. In this category, Taylor includes “all the living organisms, and also some other groups of organisms.” He classifies the environmental ethics into two categories: human centred environmental ethics (also known as anthropocentrism) and life centred ethics (or biocentrism) (Taylor, P., 2011, pp. 11-12). While the human centred ethics implies duties and obligations that some have towards other human beings, the bio-centric ethics involves a series of rules and norms regarding the way in which humans treat the living creatures of nature (here, Taylor refers to wild animals and plants) that must be protected – especially those natural ecosystems that are not under the influence of the human beings. Life centred ethics is not subordinate to human centred ethics. On what concerns the conflicts that might emerge between the wellbeing of humans and that of other non-human living beings (and the other way around), Taylor states that a set of principles is necessary in order to allow a fair arbitration for these conflicts. It is not necessary the reduction of the negative consequences of behaviour, but the diminution of breaking one’s obligations (Taylor, P., 2011, pp. 263 - 307). On the other side, he thinks that wild animals and plants can be protected by law, even though they do not have moral rights. The legal rights recognize their well being and their inherent dignity which cannot be protected if the local legislation does not state that. Taylor perceives the protection of nature as based on the idea of respect, but he does not focus upon this observation because he finds it to be the smallest evil of them all which can be interpreted as: the attitude of respect towards nature must not be understood as one that does not allow any kind of interventions upon it. He just wanted to emphasize the fact that there are human actions that do not break the rights and interests of humans, but that damage the welfare of the living beings from nature. Taylor hopes that his bio-centric theory will produce changes at the level of the ideal ethic which in his turn, will cause improvements at the psychological and behavioural level of humans on what concerns their relationship with nature.

Like other philosophers of the environmental ethics, Callicott outlines his own ethical conception that contours a more radical perspective. In his perspective, a truly universal ethics cannot be isolated from a conceptual matrix. He considers that the ideal or the model of human nature targeted by this universal, pragmatic and functional perspective of ethics is given by “the rightful, natural and intentional place occupied by man in this world” (Callicott, J. B., 1986, p. 383) which talks about humans from the perspective of natural environment, thus envisioning an eco-centric perspective. For Callicott, environmental ethics must have a series of characteristics: to be purposeful so as to be accepted and convincing; it must follow the purposefulness of the whole assembly of theories which states that the environmental destruction represents a

moral problem. In order for an environmental ethics to be accepted and adequate, it must target directly or at least that environmental problem must be recognized as one of moral nature, as it happened in the case of the biocide through which several species have gone extinct or in the case of the increasing rarity of some species. All of these were caused because of the pollution of the environmental factors, the destruction of the living and feeding conditions. All of these represent a moral problem if we are to take into consideration the fact that in the case of some living beings, some of their rights needed for their wellbeing, are being broken. From the ecological perspective, the living beings are interdependent, linked together through a matrix of vital relationships. So, the human species cannot be conceived as being isolated from the living nature in which it has developed. The ecological arguments help Callicott to present the natural ecosystem as a whole, as a sick organism, where degradation and the destruction of the environment are similar to a disease, pollution is like a poison, and the extinction of species is similar to a surgical extirpation. Such metaphors can be considered useful for the development of the environmental ethics, and especially for the creating a holistic conception over nature, in which man is replaced in the proper context of the ecosystem he is a part of, and which he has transformed and explored for his own purposes, without thinking at the consequences of his deeds over the other members of his biotic community (Callicott, J. B., 1986, pp. 389-392). From his point of view the environmental ethics does not forbid the exploration of the environment, but there are two things that must be taken into consideration: the exploration of the environment must increase the diversity, integrity, stability and beauty of the biotic community; from this point of view, man's occupation and the exploration of the environment from the perspective of the environmental quality seen as a whole, must not be destructive; and the second, man must limit his individualistic ethics over the exploration of the environment, the trees, the animals which he uses to reach his purposes; all of these must be done with care, skill and humanity, and without destroying the planet. Each individual component of the biotic community or of the ecosystem taken as a whole deserves to be explored with respect. Callicott claims that the ecosystemic ethics is practicable nowadays. One of his first recommendations is vegetarianism. It can be used not only to diminish the famine in the world, but also: to diminish the pain of the animals, to better conduct the solar energy through the human body, to use bigger fields and solar energy that are needed for the reorganization of the natural community. Callicott recommends above all to avoid fast-food products (they are made from beef carcass) not only for the diminish of food distress, but because they are products coming from swampy fields. "The good use of eco-centric ethics can be seen greatly in the worldly things, even in the most plane decisions we take every day. Becoming aware of the eco-centric ethics will change one's entire life" (Callicott, J. B., 1986, p. 417). Callicott emphasizes the fact that people have an individual and a collective responsibility to prevent the destruction of nature by preserving the biological diversity of this planet.

## **Research hypothesis, objectives and research methodology**

Taking into consideration the aspects presented above, the present study will present an observant research based on a questionnaire with the help of which I tried to see the level of development of the ecological conscience in the case of students from the primary and secondary schools and high-schools, after they have finished studying what was stipulated in the curriculum. One of the hypotheses of this study was the idea that the level of development of the ecological conscience in students from the urban area is higher than that of the students from the rural area. Another one was the idea that with the age growing, the students' level of ecological conscience is decreasing. *The objectives of the research* were: a) to evaluate the level of development of the ecological conscience for the students from the primary and secondary schools and high-schools; b) to identify the differences that appear at the level of development of the ecological conscience of students coming from the urban and respectively, the rural area; c) to draw some conclusions regarding the results of the research.

The research sample consisted of secondary school students from the urban and rural environment, being stratified according to criteria such as: school level – secondary school; environment – urban and rural; the class, as follows: from the urban environment – 5th class – 30 subjects, 6th class – 26 subjects, 7th class – 26 subjects, 8th class – 18 subjects from “Ștefan cel Mare” and “Calistrat Hogaș” schools of Galați, and from the rural environment respectively: 5th class – 30 subjects, 6th class – 26 subjects, 7th class – 26 subjects, 8th class – 18 subjects from the schools in Piscu, Pechea and T. Vladimirescu, in the county of Galați.

The questionnaire was made up of 7 items referring to moral- ecological features: respect towards nature, discipline, responsibility towards nature, moral-ecological conscience, initiative, moral attitude in the relationships towards others and nature, humanitarianism. Each one of these items is calculated based on the answer to a great number of questions concerning the behaviour of a subject in different concrete situations. Seven situations were being presented and for each one of them was given several examples of attitudes that an individual may manifest on that specific situation. For each attitude or position taken for the given situations, the student has the possibility to choose one of the three options given: the attitude might be true for him, partially true or false. From the questions and concrete situations presented for each item, there were 8 attitudes that resulted – the moral obligation grounded in fear of punishment, moral obligation as a result of respect towards people, moral obligation as a result of respect towards non-human beings, compliance with the rules, moral decision, ungrounded decision, the consistency of moral conscience, the inconsistency of moral conscience– and that may be present in each individual for that specific situation.

## **Results and discussion**

In point of the attitude related to the moral obligation grounded in the fear of punishment, the analysis of the results shows that for the 5<sup>th</sup> up to 8<sup>th</sup> classes the

average value of the individual coefficients is small: smaller for the 5<sup>th</sup> and the 7<sup>th</sup> classes, and bigger for the 6<sup>th</sup> and the 8<sup>th</sup> classes from the urban area, which means that with the passage of time, students do not continue acting out of fear of punishment. The same thing cannot be said for the students from the rural environment where the average value of the individual coefficients is significantly decreasing for this situation (from 2.66 in the 5<sup>th</sup> class, to 2.41 in the 8<sup>th</sup>), comparatively with the one for children from the urban area. This situation can be explained by the fact that every bad attitude of the child, especially towards nature, is punished more severely in the rural area than the urban one. In the case of the second attitude - the moral obligation as a result of respect towards people – the analysis of the results shows that the average value of the coefficients from the rural area smaller for the 5<sup>th</sup> and 7<sup>th</sup> classes (6,94 and respectively, 7,40 ), but bigger for the 6<sup>th</sup> and the 8<sup>th</sup> classes (7,54 and respectively 7,98). In the urban area, the values are smaller for the 6<sup>th</sup> and the 8<sup>th</sup> classes (7,02 and 6,80), but bigger for the 5<sup>th</sup> and the 7<sup>th</sup> classes (8,46 and 7,90) – which denotes a pretty high preoccupation towards the interest and the appreciation obtained by the young people from their teachers, parents and colleagues or friends. This situation can be explained by means of the impact that familial and social environment has on the child in time, and also by means of the decrease of the teacher's influence over the child and the increase in time of the need to create and to pertain to a group of friends. This is also a result of the fact that once he gets older, the child loses his fear of punishment as it can be seen in the analysis made above. One might observe that in the case of the third attitude – the moral obligation as a result of respect for non-human beings – the average values are similar both in the urban and rural area. For the rural area the values are increasing from the 5<sup>th</sup> class (4,36) to the 7<sup>th</sup> class (4,48) and then, at the 8<sup>th</sup> class, the value decreases to 3,98. In the urban area, the values are bigger for the 5<sup>th</sup> and the 7<sup>th</sup> classes (4,62 and respectively 4,40) and smaller for the 6<sup>th</sup> and the 8<sup>th</sup> classes (3,77 and 3,94). This is a result of the fact that the student from the rural area is directly involved in the relationship with the non-human beings due to the responsibilities established by the family so as to assure the living conditions, while in the urban area the child does not have a direct contact with them because he is not in the position to assure or to have responsibilities towards the non-human beings. The build-up and developed, both in school and in the family, of the abilities to take care of, to durably exploit and protect nature and the non-human beings – as it happens in the urban area – make the children's attitude of respect for non-human beings from the rural area to grow or to remain relatively constant, comparatively with that of the children from the urban area that is decreasing with the passage of time. The fourth attitude – compliance with the rules – reflects the difference between the children from the urban area and those from the rural one. If in the urban area, it can be observed a slight decrease for compliance with the rules (from 4,17 during 1st class, to 4,25 during the 4th class), in the rural area the values are relatively constant (from 3.89 in the 5th class, to 3,68 in the 8th). If in the urban area, due to a constant education the children accept and interiorize better the

rules, in the rural area it happens the contrary because of the fear of punishment. Even the fifth attitude - the moral decision – reflects the difference between the children from the urban and the rural areas. If in the urban area, a certain decrease can be observed on what concerns taking some moral decisions (from 7,92 during 5th class, to 7,73 during 8th class), in the rural area a slight increase can be seen (from 6,26 during 5th class, to 6,74 during the 8th). The difference and also the decrease can be explained by means of the urban area children's power to think and to take decisions, which is due to the education they have received, reflected also in the degree of internalizing the rules and the ecological knowledge. On the other side, the students' preoccupations for passing to the next school cycle, that does not lay emphasis also on the degree of developing the students' ecological knowledge, makes their preoccupation for the issues of the environment to decrease. In the case of the children from the rural area, a slight increase of the values can be noticed which can be explained due to their experience of life and of learning. When dealing with the sixth attitude - the ungrounded decision – it can be observed that the difference between children from the urban and the rural area is relatively small, but also the reverse proportional rapport towards the previous attitude – the moral decision. The more it decreases the preoccupation for the ecological education, the more it grows the level of the ungrounded decisions. It can be noticed that the level of this attitude increases for the students from the urban area (from 3,80 in the 5<sup>th</sup> class, to 4,23 in the 8<sup>th</sup> class), but also for those coming from the rural area (from 4,05 for the 5<sup>th</sup> class, up to 4,24 for the 8<sup>th</sup> class), a fact which can be explained on the one side by means of the gap between the intellectual and the moral training, and on the others, by means of the discontinuity regarding the presence of ecological ethics in the curriculum of different school subjects. On what concerns the seventh attitude - the consistency of the moral conscience – it can be observed an increasing and a decreasing variation from one year to the other, on what concerns the moral conscience of the children both from the urban and the rural area. Still, the children from the urban area register a slight superiority towards the others, which is explained by means of the role played by the educational influences, both from the school environment and from family. The transfer of knowledge from other fields is manifested at the level of the personality, even though the ecological education of children is not constantly accomplished from one school year to the other. On what concerns the last attitude - the inconsistency of the moral conscience – it can be observed that the difference between children from the urban and the rural area is relatively small, but also the reverse proportional rapport towards the previous attitude - the consistency of the moral conscience. It can be observed that in the case of the children from the rural area there is registered a slight decreasing variation (from the 5th class, to the 7th class), only to increase again during the 8<sup>th</sup> class. In the urban area, the value variation is bigger than the one from the rural one, and we might see an increase from 9,34 during the 5th class, to 10,26 during the 6th class and after that the value is decreasing to 8,78 during the 7th class and it increases again in the 8<sup>th</sup> class to 9,63. The difference and the reverse

proportional rapport between the 7th and the 8th attitudes is the result of not only the level of accomplishing the ecological education, but also the detachment from the childhood problems and the age makes young people be more eccentric.

When referring to the average value of the individual scores – from the analysis of the obtained results it can be noticed that the level of development of the children's ecological conscience in secondary schools is average, slightly bigger for the students from the urban area than those from the rural one, but higher in the case of the students from the 5th class than those from the 8th class (45,79, respectively 43,16) in the urban area, while for the students from the rural area, it can be noticed a slight increase from 42,07 in the 5<sup>th</sup> class, to 43,35 in the 8<sup>th</sup>.

By comparison, the average values of each student from the higher classes of the secondary school are smaller from those of the students from lower classes, even though the differences are not very big, which might lead to the conclusion that with age growing, the average value of their results is reverse proportional with the age, thus proving our hypothesis. On what concerns the differences registered between the students from the urban area and those from the rural area on some attitudes, the results are in favour of the students from the rural area (the moral obligation as a result of the respect they carry for the non-human beings, the respect for rules), while in the case of other attitudes, the results were in favour of the students from the urban area (the moral decision), which indicates that this hypothesis is partially proven for some attitudes. Regarding the average value of the individual results, the values registered by the students from the urban area are higher than those obtained by those from rural area, thus proving our hypothesis.

### **Instead of Conclusions**

This situation can be explained on the one side by the fact that the level of development of the ecological conscience does not represent one of the criteria of promotion from one school cycle to the next, and thus resulting the low interest towards the environmental problematic. On the other side, the promoted model of ecological conscience reached by means of both the explicit and implicit curriculum, is an anthropocentric one. One might notice the existence of an influence from the educational environment which is interpreted as follows: the anthropocentric attitude and mentality towards nature, animals and their rights, which is being promoted by school curriculum and implicitly by the adults, be they teachers or parents, is used as an argument that justifies children's aggressiveness towards nature. The implementation of the elements of ecological ethics both in the explicit curriculum that targets the development of the young generation, and in the initial training of the didactic staff, is necessary to create an eco-centric mentality both in the case of the teacher and of the student. A special role in building up pupils from the ecological point of view is the teachers' own attitude towards nature, an attitude which is reflected in the influence they have over the mentality and the personality of their pupils. We

agree with D. Joder when he states: “The teacher’s ethical responsibilities, beyond reporting to a general set of rules and codes, mean the ability to find suitable solutions for particular situations, to display behaviours that are consistent with the beliefs of the achiever and to live the moral values, not just to declare them” (Joder, D., 2013, p. 436).

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