

## THE ECOLOGICAL IMPERATIVE AND HUMAN NATURE: A NEW PERSPECTIVE ON ECOLOGICAL EDUCATION

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**Abstract.** This paper aims at disclosing the essence of “environmental imperative” and “human nature”, identifying the interconnection and relationship of historical development and current processes of globalization in the system of education and training and their influence on the formation of human cultural values. Global society and its educational institutions are still not ready to meet the environmental challenges of the 21<sup>st</sup> century. The international community is starting to understand that the moral principles, spiritual world and human behavior in the biosphere do not meet the conditions of life, in which the society is immersed. People are now realizing that only the co-evolution with the biosphere will allow them to fit reasonably into the natural cycles and comprehend universal laws that prevail in the world. Similar trends bring the issues of environmentally safe development of civilization to the forefront of scientific inquiry, especially in education. For the sake of ecological survival, humankind must develop and actively implement a unified global strategy for the worldwide development on the basis of global cooperation in education that will ensure environmental quality for the civilization in the 21<sup>st</sup> century. Through nurturing environmental sensitivity, contemporary humankind is able to explore their own selves and come to new conclusions in experiencing their own realities and truths. Bringing the problem of a human in terms of globalization of education to the fore will eventually result in a new paradigm that reflects a specific holistic nature of humans, their involvement to the natural and cultural worlds and their aspiration to move beyond their own limits.

**Keywords:** human nature, human being, ecological imperative, environmental challenges, education, globalization of education

## 1 Introduction

**Relevance of the study.** Every epoch, every society, every culture has uniquely interpreted the concept and essence of education. This largely depends on the mentality of society that influences the educative doctrine and also undergoes dramatic changes. The philosophy and psychology of education is the center, the battlefield of worldviews and system of values. Obviously, this struggle is the norm of life in any society, in which the level of civilization and culture of this struggle is a measure of the civilized society itself.

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Worsening ecological situation, the real threat of further deterioration and the urgent need to preserve and restore the natural environment is a burning issue in the context of human existence, which is seen as the basis of self-awareness of any citizen, nation, state, and finally, the international community. In the 20<sup>th</sup> century, one-sided view on a person (biological and sociological approaches), particularly in the educational cognitive space, led to the idea that substantial consolidation of human existence does not exist. However, a person still remains the material being who lives in the world of culture created by him/herself. Thus, the human nature requires a broader understanding. It is obvious that the impact of human activities on the environment does not simply become a factor that determines its evolution. It is growing so fast that it is just impossible to speak of any balance of the biosphere and at the same time of the maintenance of homeostasis of *Homo sapiens* species.

Today in the educational process of each country, the topic of the human nature takes on a new meaning due to the synthesis of the old philosophical traditions, psychology, neurologic [4], and broad complex of contemporary human sciences, as well as due to the development of a new science on the behavior of higher animals, whose biology is similar to human biology.

In addition, modern biotechnology and psychotechnologies require comprehensive multidisciplinary studies — they can be used to change the human nature. The main objective of contemporary education in terms of globalization approaches is to create a new scientific paradigm that holistically reflects specificity of a human nature, human involvement in the natural world and the world of culture that characterizes a person as an independent form of existence [1].

A complex character of the environmental issue has been in the focus of knowledge since the second half of the 20<sup>th</sup> century. The Chicago School of Environmental Sociology initiated the humanitarian approach to environmental issues. It studied various forms of environmental destruction caused by humans and the establishment of the basic principles of environmental protection [13]. Within the humanitarian approach, the laws of influence of abiogenic, altered biogenic and anthropogenic factors and their interaction with anthropological and social cultural factors were revealed.

The international community is starting to understand that the moral principles, spiritual world and human behavior within the biosphere do not meet the conditions of life, in which the society is immersed. People are now realizing that only the co-evolution with the biosphere will allow them to fit reasonably into the natural cycles and comprehend universal laws that prevail in the world. Similar trends bring the issues of environmentally safe development of civilization to the forefront of scientific inquiry, especially in education [8].

The fact that the current situation requires new approaches to the analysis of the interaction between nature and society, approval of new spiritual and moral regulators of human activity, changes in ideological paradigm is often not taken into account. We talk about the need to subordinate activities aimed at transforming nature to the system of limitations, which is called the ecological imperative. Its violation can lead to rapid degradation of our civilization.

**Purpose of the study.** All abovementioned foregrounds the necessity to disclose the essence of “environmental imperative” and “human nature”, identify the interconnection and relationship of historical development and current processes of globalization in the system of education and training and their influence on the formation of human cultural values.

**The research methodology.** Exploratory research design was used to conduct this study. The authors have used “Knowledge and Attitude about Ecological Education” questionnaire [4, 14], secondary data collected from reports, journals, and periodicals along with philosophical hermeneutics.

## 2 Meeting the Contemporary Environmental Challenges: The Formation of a New Type of Ecological Consciousness

Consciousness and morality, which carry out their regulation by means of legal, spiritual and moral values, can and must act as key elements of the social regulation of human behavior. Therefore, the society faces the fact: it is necessary to learn to control ourselves, correlate our actions with natural abilities and provide the harmonious interaction with the environment.

There is some resistance to the idea of introducing broader environmental courses into an already crowded curriculum. In “The Professional Accountancy Bodies and the Provision of Education and Training in Relation to Environmental Issues” R. Gray and colleagues stated that “the primary resistance to new, critical and reflective issues — including environmental issues — is not institutional or structural but psychological” [6, p. 94]. Many career-oriented educational groups resist any attempts to provide them with “more ‘critical’ education because it does not fit with either the way in which they perceive themselves or their perceptions of their future self” [6, p. 94].

To illustrate this point, we conducted the survey among 37 students (21 female and 16 male). The participants of the study were undergraduate students in Management at National University of Life and Environmental Sciences of Ukraine. Choosing among several options in terms of F. Kluckhohn and F. Strodtbeck’s value orientation “man’s relationship to nature” — subjugation to nature, harmony with nature, and mastery over nature — 84% of respondents to a survey agreed that people should live in harmony with nature. In regard to the state of environment, 73% responded that environmental deterioration was worsening, 27% — that it has not changed. The survey found that 54% were concerned with environmental problems, however only 5% were involved in the environmental conservation and preservation activities. The respondents stressed that government must be responsible for environment protection (76%). The majority did not see themselves as active participants in social and political life. 51% chose to study special environmental courses, while 49% rejected this proposition because they believed their profession did not value it. The study showed minimum or no significant difference in analyzing the answers by sex.

Global society and its educational institutions are still not ready to meet the environmental challenges of the 21<sup>st</sup> century. According to G. Boyce, “contemporary university activity is increasingly centred on the narrow goals of preparing students for work and meeting the needs of business for trained workers. The resultant socialization of students into disciplined compliance with the values of the present social order, is in sharp contrast to the “ideal” university as a community of scholars with a role in reflecting on and problematizing the pervasive ideas of the times and providing an active space for difference, debate, and even dissent” [2, p. 566].

Thus, for the sake of ecological survival, humankind must develop and actively implement a unified global strategy for the worldwide development on the basis of global cooperation in education that will ensure environmental quality in the 21<sup>st</sup> century. Through nurturing environmental sensitivity, contemporary humankind is able to explore their own selves and come to new conclusions in experiencing their own realities and truths.

The agenda includes a wider “ecologization” of social consciousness, which means the formation of ecological awareness as the distinct form of social consciousness and the introduction of ecological aspect into all other forms and levels of social consciousness. Ecological consciousness is a key component of ecological culture that integrates all types and results of material and spiritual human activities aimed at achieving optimal interaction between society and nature. The need for the formation of ecological culture as a decisive factor in the harmonization of relations between society and nature has become more urgent now, especially in globalization processes of educational transformations.

The term “ecological imperative” was introduced by N. Moiseev by analogy with the categorical imperative devised by I. Kant. This resulted in the discussion on value and normative foundations of the ecological imperative and the scope of its application in the scientific community. Sustainable human development requires conceptualization of the ecological imperative. The implementation of the ecological imperative depends on the degree of human understanding of social and historical significance of environmentally safe development.

The ecological imperative in terms of axiological interpretation may be seen as substantial reality that has emerged and developed in the process of global sociogenesis and evolution of the biosphere. It exists within the limits of the latter and is determined by the correlation of properties of the environment and the characteristics of civilizations. Human bodies are made of the same matter as that of the physical cosmos, that is, human is “linked by genetic continuity with all the other living inhabitants of his planet” [7, p. 19]. The ecological imperative is a measure of rational interaction between the international community and the nature.

Environmental degradation turned out to be the logical result of the existing perception of the world influenced by values and attitudes. Peculiar perception of the nature in the ancient world caused the illusion of inexhaustible natural substrate. Later these views were transformed: the problem of co-evolutionary interactions was interpreted in the context of social communities that largely led to the global environmental crisis.

Understanding the complexity of social and natural situation greatly depends on the spiritual and moral values, level and depth of education, traditional culture, as well as accessibility and transparency of environmental information. Shaping social aspirations, attitudes and preferences of individuals, groups and community in general, the worldview affects the system of moral values and orientations, determines the development of ideas on the ideal and current strategy of the social development.

Since different ethnic groups perceive the natural constraints differently, the revision of value hierarchy within the public consciousness should be the priority in solving environmental problems, especially in the educational context. These new values must meet the high spiritual and moral orientations and overcome “a horizontal existence, one in which all values are of equal significance — what Barrett calls the “flattening out of values”. The urgent psychological and philosophical need of Western man today is a return to the vertical, to some central spiritual ideal principle about which he can orient his life. . . .” [3, p. 219].

### **3 On Different Interpretations of Human Nature**

Nurturing a new ecological consciousness is tightly connected to the interpretation of a human nature that have developed in the philosophical, physical, biological, cultural anthropology and differently assessed the degree of unity of a human with the worlds of nature and culture [14].

Naturalistic understanding of human nature is based on the idea of biological nature of a human. At different times, human nature was reduced to the body, passions, and instincts. In the extreme case, this approach leads to the identification of higher animals’ and humans’ biology: the deep roots of human behavior are reduced to pre-conscious and pre-cultural principle in humans.

Sociological perspective of human nature is based on the recognition of common social characteristics, attitudes inherent in all individuals. According to the logic of this approach, human nature can not be derived from human biology, thus, any human as social and cultural being is seen as interiorized social relations. This model breaks phylogenetic animal-human continuity: it is based on the premise that all biological aspects of humans were socialized.

The theory of gene-culture coevolution and bio-cultural anthropology claim that humans are “woven” into both nature and culture. Human nature is a result of historical evolution in the synthesis of certain innate biological predispositions. The representatives of sociobiology made an attempt to synthesize biological and social determinants of a personality. They claimed that the types of social behavior had a biological origin. Sociobiological theory is based on the theory of gene-culture coevolution. This theory describes the complex interactions, in which culture is generated and shaped by biological imperatives. At the same time, biological properties are changed in response to cultural innovations. According to Ch. Lumsden and E. Wilson, genetic and cultural coevolution created a human [11].

In his “Hypothesis on the Genesis of Homo Intelligence”, Y. Masuda pointed out that humans created culture due to their brain activities and mental abilities, while animal actions were determined merely by genes. Constantly evolving culture affects the genetic evolution. Thus, human genes and culture follow the course of coevolution mutually influencing each other: “humans have a long history of becoming increasingly more complex. And while species survival is not assured, in another 10,000 years, it may evolve into a new level” [5].

If sociobiology (evolutionary psychology) tries to understand the motives of human behavior based on biology, bio-cultural anthropology tries to reveal how culture affects our biological capabilities and limitations. Over the past few thousand years, culture has become an important aspect of human reality and its importance continues to grow rapidly: “. . . culture now rivals nature as the more prominent source of challenges to our continuation. Today culture consists of a rapidly growing number of material objects, customs, practices, values and institutions. . . our lives are immersed in culture (as well as nature) from conception to death. Culture is to human beings as water is to fish. This calls into question the widespread assumption that we human beings are somehow able to rise above, stand outside of, culture and make decisions free from the constraints of experience. The principles of biocultural anthropology rest upon the assumption that we are an animal species fully integrated into nature, responsive to natural law, enmeshed within a cultural as well as a natural environment, and, as fully as every thing else in the universe, a product of natural processes that began billions of years ago with the origin of the universe” [9].

Bio-cultural approach considers a human as a biological, social, and cultural being [12]. This includes consideration of biological variability as a function of response and adaptation to environmental conditions when taking into account the request of socio-cultural environment. The importance of bio-cultural approach lies in the development of a certain model for understanding the dynamics of interaction between human biological, psychological, and socio-cultural characteristics in response to environmental changes. “Bio-cultural approach provides a basic framework to bridge the gap between cultural and biological anthropology, thereby depicting the true nature of anthropology as a scientific discipline. In other words, bio-cultural approach is one of those attempts to reintegrate sub-disciplines, especially cultural and biological anthropology. . . It strengthens the holistic approach to understanding the biological and cultural aspects of human population not only from the sub-disciplinary but also from the multidisciplinary perspective, thereby making anthropology more trans-disciplinary in nature” [10, p. 40].

Thus within the designated paradigm, humans embrace both natural and cultural worlds being deeply rooted in each of them. The border between these worlds does not split humans into two halves. It rather unites them in their primordial human nature. Biological and cultural in a human are not hierarchically structured, but interact and influence each other making a human the unique phenomenon, independent form of being alongside with nature and culture.

## 4 Conclusions

Today it is clear that environmental conservation and preservation, the future of humanity is almost impossible without transformation of social consciousness, awareness of the meaning and significance of the forthcoming changes. Thus, the issues of socialization, new value orientations as well as the content of educational programs (both national and global) come to the forefront. We must deal with these challenges from the standpoint of the ecological imperative and the principle of coevolution of humans and the biosphere. It is extremely important to seek new forms and ways of introducing environmental knowledge and imperatives into educational structures at various levels and a new base for global educational discussion.

Education should promote physical, mental and social well-being of both the individual and society, thereby improving our world. Bringing the problem of a human in terms of globalization of education to the fore will eventually result in a new paradigm that reflects a specific holistic nature of humans, their involvement in the natural and cultural worlds and their aspiration to move beyond their own limits.

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