

Psychology of Ecological Consciousness

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Abstract

The authors substantiate in the article the importance of paying attention to the environmental direction in psychology. They also reveal the significance of perceiving the environment for the formation of an ecocentric position. The conclusions have been drawn that domestic science is just beginning to show interest to this area of research, which undoubtedly requires further and deeper investigation. The ecological approach to the study of the human psyche in natural, "real", "ecological" conditions is presented, in all its diversity influencing the functioning of its variables. Theoretical approaches have been considered in the main research areas of environmental psychology - the study of spatial cognition, behavior, perception of the environment quality, human reactions to the interaction with the environment and the resulting stress. The authors also presented the study of the formation of the child's psyche in the process of interaction with the environment as a system, the urban environment, the psychological consequences of natural disasters and man-made disasters. The article will be useful to students of environmental and psychological programs of study, as well as specialists in the field of social psychology, to teachers and parents.

Keywords: ecological consciousness, ecological behavior, environment, ecological psychology

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INTRODUCTION

The environmental crisis is currently regarded as a worldview crisis, as a crisis of human consciousness and its relationship to nature. Many authors believe that the prevention and overcoming of the ecological crisis is impossible without a change of man's attitude to the surrounding world of nature and to himself as part of this world of nature (Yachina et al. 2018). As a rule, the responsibility of a person for the preservation of nature and the subject-subject nature of attitudes towards natural objects (plants and animals) are considered as a psychological condition for the formation of ecological consciousness (Deriabo and Yasvin 1996, Deryabo 1999, Dlimbetova et al. 2018, Gifford 2002, Maslach and Schaufeli 1993, Medvedev and Aldasheva 2001, Oliver 2002, Panov 1996, 1998, Skrebets 1998).

In addition, the socio-economic instability and the ecological situation of contemporary Russian society

poses a problem of increasing psychological stability and security by uncovering the reserve (potential) capabilities of the human psyche as being not only social and spiritual, but also natural one. The importance of the problem is also due to the lack of psychological literacy (competence) in the majority of the population, including knowledge of the regulatory capabilities of the human psyche and the natural capabilities of humans to develop their abilities (Babieva et al. 2018, Kalenik et al. 2018, Kuznetsova et al. 2017, Lopatkova et al. 2018, Masalimova et al. 2014, Ulengov et al. 2018, Stokols et al. 2009, Veitch and Arkelin 1995, Yasvin 2000, Yusupova et al. 2017).

The necessity of the emergence of this direction of ecological psychology is primarily due to the fact that the solution of environmental problems of any scale requires the restructuring of the present dominant anthropocentric type of people's environmental

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consciousness to ecocentric one (Bulgakov et al. 2018, Ganieva et al. 2015, Kalinina et al. 2017, Kuznetsova et al. 2018, Minakhmetova et al. 2017, Mitin et al. 2017, Miroshkin et al. 2018).

METHODOLOGICAL FRAMEWORK

The concept of "environmental consciousness" is closely connected and quite often mixed with such concepts as "ecological culture" and "ecological behavior" of a person. Taking account of the importance of these concepts, we will give their definitions in the form that was made by Levin (2000): "Ecological culture is the ability of people to use their environmental knowledge and skills in practical activity. People who do not have formed ecological culture may have the required knowledge, but do not know how to use them. Ecological culture of a person includes his ecological consciousness and ecological behavior. Ecological consciousness implies a combination of ecological and environmental concepts, ideological positions and attitudes towards nature, strategies of practical activity directed towards natural objects.

Environmental behavior is a set of specific actions and deeds of people directly or indirectly related to the impact on the natural environment, the use of natural resources. Ecological behavior of a person is determined by the specific features of his ecological consciousness and the basic practical skills in the field of nature management" (Panov 1998).

The formation of ecological consciousness and behavior, and, consequently, ecological culture can occur in different ways and at different levels of the social system: through politics, economics, education, television, etc. School education in this series is one of the first and most important fields. The turn of the XX-XXI centuries is characterized by a crisis in the development of Man as a biological species. A person enters a different phase of his existence, when a sharp expansion of the limits of his individual, group and mass forms of consciousness (i.e., the ability to perceive, experience, think and act) is supposed to occur.

Ecological consciousness as the subject of psychology. Speaking of ecological consciousness, we will consider it precisely as a psychological and even mental phenomenon, unlike, for example, sociology, which considers it as a social phenomenon. For psychology, ecological consciousness is a dynamic and even evolutionary phenomenon, which is characterized by the relative existence and relative definition.

Gnoseological Approach to Psychology of Ecological Consciousness

According this approach, ecological consciousness is an attribute (property) of a person as a component of the logical relationship "man-the world of nature." In the most developed form, this approach to the problem of ecological consciousness is represented by the works of Deryabo (1999) and Levin (2000) in Russian psychology. Most often, it is referred to as the psychology of ecological consciousness, the subject of which is the study of the socio-ontogenesis of ecological consciousness, including the development of methods for its diagnosis, correction and training. Nature is understood by these authors not in a broad, but in a narrow sense - as "the world of nature", i.e. as a system of living and inanimate elements of the biosphere.

The structure of ecological consciousness is defined as a combination of:

- perceptions (both individual and group) about interrelations in the "Man-Nature" system and in nature itself;
- subjective (personal) attitude of man to the world of nature;
- appropriate strategies and technologies of human interaction with the natural world;
- life values of the ethical aspect that dictate the need for environmentally-oriented values (Gilmeeva et al. 2017, Masalimova and Chibakov 2016, Rassolov et al. 2016, Salakhova et al. 2016, 2018, Shmeleva et al. 2017, Shulga et al. 2018).

Different levels of development have also been revealed and, accordingly, the types of ecological consciousness of man. In particular, the anthropocentric type of consciousness was determined, which predetermined the consumerist attitude to nature, and as its alternative - the nature, ecological or ecocentric types of consciousness that predetermine the ecologically oriented attitude of man to nature.

Ecological consciousness prevailing in contemporary culture is anthropocentric in nature, since it is characterized by the following features:

- a hierarchical picture of the world: a man stands at the top of the pyramid, slightly lower are things created by man and for man, various objects of nature are located even lower, their place in the hierarchy is determined by the utility for man;

- recognizing man as the highest value: man is valuable in itself, everything else in nature is valuable only to the extent that it can be useful to man, nature is declared as the property of the mankind, and it is taken for granted that it has the right to do so;
- the pragmatic nature of human interaction with nature: its essence is expressed by the word "use", i.e. the satisfaction of certain human needs: industrial, scientific, aesthetic, etc., while the nature of interaction with nature is determined by a kind of "pragmatic imperative". That thing is right and is allowed which is useful to man and mankind, nature is perceived only as an object of human manipulation, as an impersonal "environment";
- the prevalence of ethical norms and principles only in the world of people, permissiveness in the interaction with the natural world.

An alternative to the anthropocentric type of consciousness is the ecocentric type of ecological consciousness, which is characterized by the following distinctive features:

- rejection of the hierarchical picture of the world: a person does not have any special privileges on the grounds that he has a mind, on the contrary, his rationality imposes additional duties on him in relation to the nature surrounding him; the world of people is not opposed to the world of nature, they are both elements of a single system;
- recognition of the harmonious development of man and nature as the highest value: the natural is recognized as primordially valuable, having the right to exist regardless of usefulness, uselessness and even harm to humans; man is not the owner of nature, but one of the members of the natural community;
- recognition of equal rights to satisfy both human needs and the needs of the entire natural community: nature and all natural things are perceived as a full subject for human interaction; ethical norms and rules equally apply to both interaction between people and interaction with the natural world; impact on nature is replaced by interaction;
- the presence of an "ecological imperative" in interaction with nature: it is allowed and correct only that which does not disturb the ecological balance existing in nature, the development of nature and man is conceived as a process of mutually beneficial unity;

- the subordination of nature conservation activities to the existence logic of nature: nature conservation is dictated by the need to preserve nature for its own sake.

Thus, the ecocentric type of ecological consciousness is a system of ideas about the world, which is characterized by a focus on the environmental expediency, the absence of opposition between man and nature, the subjective perception of nature, the balance of pragmatic and non-pragmatic interaction with it. One of the most important components of ecocentric consciousness is the presence of such a subjective attitude of the individual to Nature, when natural objects acquire the status of a "person-significant other" and begin to "regulate" the behavior of the individual in relation to the natural environment. Thus, the opposition of man and nature is neutralized, and their interaction begins to be carried out and explored in the logic of subject-subject relations as components of a single system.

The main problem of diagnostics and the formation of ecological consciousness is the identification and elimination of discrepancies between existing knowledge and the motives that determine actions of an individual (Salakhova et al. 2017a, 2017b, Shukshina et al. 2015, 2017, Shulga et al. 2016).

At present, the theoretical and methodological foundations of the typology of ecological consciousness, diagnostics of its formation and psychological training have been developed.

Diagnostics of the ecological consciousness type is based on the following parameters, representing the expression of the subjective attitude of the individual to natural objects in such spheres of the psyche as:

- emotional perception of nature as an object of aesthetics, ethics, life;
- cognitive nature as an object of knowledge and as a condition of habitat;
- behavioral, practical nature as an object and subject of action; an attitude to nature acts as a subjective means of moral self-determination and selfassertion.

Ontological Approach to Psychology of Environmental Consciousness

In order to imagine the specific character of the ontological paradigm of understanding ecological consciousness, it is necessary to point out several basic grounds for such an understanding.

Ecological consciousness is initially considered as a special form of being, which is the highest form of the psyche development and which acquires the reality of its existence in the interaction of man with the environment. This means that the system "Man - Nature (the world around)" acts as an integral, joint subject, realizing in its formation the general natural principles of development (nature of human existence) and thus capable of self-development through the formation of a joint subject of the development of mental reality.

The psyche as a phenomenon is usually viewed in three types of mental reality: as a mental process, as a mental state and as personality traits, in this case as consciousness. The mental process is mental phenomena of one modality, i.e. processes of perception, including understanding and awareness, processes of emotional experience, expressing emotional attitude, behavioral processes. These phenomena characterize different spheres and mental modalities: body, soul, mind, personality, and consciousness, when it comes to their dynamic features and process mechanisms.

A mental state is the functionally time-limited unity of perception (including reflection), experiences, and actions (behaviors). It should be noted that the systemic unity is functionally subordinate and / or caused by quite definite circumstances.

Consciousness is, firstly, a multitude of mental states that a particular individual is capable of experiencing, and secondly, these are mental states that, from mental constructs functionally limited in time and space, turned into such permanent structures of consciousness that they began to predetermine and to mediate the processes and states of the individual's psyche. Consciousness in its "psychological" structure coincides with the mental state, since it is also the essence of nothing other than the systemic (functional-structural) unity of perception, experience and human behavior. This is a unity that already constantly characterizes a given person and predetermines all his actions and behavior.

Hence the fundamental — ontological — peculiarity of the development of consciousness as the formation of the psychic form of an individual's existence: the formation of consciousness occurs as a result of an individual's psyche change, when its processes of perception, experience and behavior are functionally combined (integrated) into mental states, and mental states become structural components of consciousness.

This is the core basis for the formation of any type of consciousness, in this case – ecological one.

An example of the ontology of the targeted formation of ecological consciousness according to the ecocentric type can be training methods for the correction and formation of ecological consciousness, as well as imitation-game methods (Yasvin 2000).

RESULTS AND DISCUSSION

Thus, the conducted theoretical and methodological analysis of the problem of the formation of ecological consciousness psychology suggests that the formation of ecological consciousness can occur in different ways: through politics, economics, television, education, and, of course, education. However, often ecological education programs designed to ensure the formation of an ecological world view are traditionally based on generally accepted subject-oriented learning. This means that they reproduce the logic of the relevant scientific discipline (in this case, ecology), but not the general patterns of development of a person and his consciousness. Therefore, as another academic subject, they do not imply such psychological actions as are necessary for the formation of human consciousness, such as diagnostics and training of ecological consciousness of an eco- or nature-centric type.

Ecological education in traditional (information type) forms of training and education has been developing in our country for about 20 years (Deriabo and Yasvin 1996, Gifford 2002, Panov 1996, Skrebets 1998, Veitch and Arkelin 1995, Yasvin 2000). Despite its undoubted merits, ecological consciousness of a student who has successfully mastered the ecological knowledge needed for the program, which is being formed at the same time, remains anthropocentric in nature.

The main reason for this is the confusion of the worldview ("ideological") and professional functions of environmental education. As a result, the attitude towards it remains the same – like to another educational subject in a series of others. Environmental education should provide the student with the required level of ecological knowledge – faculties – skills taken from ecology as a scientific discipline. As a result, the traditional technologies of environmental education in a comprehensive and vocational "school":

1) in their content and methods, they reproduce ecological knowledge – faculties – skills as a projection of the scientific discipline "Ecology" on the subject content of geography, biology and other school subjects. Attempts to introduce integrated courses, changing the

didactic content, do not change the principle of projection on the student's consciousness of the structure and content of ecology as a science. As a result, the cognitive sphere of consciousness is formed, separated from the emotional, personal and moral (value) spheres of the student's consciousness and therefore does not act as the ecological imperative of his perception, feeling, thinking and behavior;

- 2) traditionally, the subject-object type of interaction is reproduced in their didactic bases characteristic of the naturally scientific paradigm, where the role of the subject and the right to decide the fate of the Planet and Nature is given to Man this is the anthropocentric type of ecological consciousness;
- 3) they are focused mainly on the human cognitive sphere, therefore, in a didactic sense, they are built according to the informational type of interaction between the teacher and the student, which again limits the formation of ecological consciousness only to the cognitive sphere.

Traditional environmental education, while providing the student with the required amount of environmental knowledge, does not contribute to the development of his ecological consciousness of an ecocentric type, because environmental knowledge only becomes the basis of environmental awareness when they lead to environmentally correct actions.

According to the worldview function, the main goal of environmental education should be to form an

ecological imperative in a person's consciousness. In this case, ecological consciousness of an individual acquires a nature-centered (ecocentric) type, when he not only "knows", but also "perceives", and "thinks", and "behaves" ecologically. Nature (around man, in other people and in man himself) subjectively acts in this case in the role of the personally meaningful "Other" for the individual. Here arises the problem of creating an educational environment under conditions of a comprehensive school that would contribute to the formation of ecological consciousness in children of the ecocentric type, which is based on a personal-significant relationship to nature and man (to himself and others).

CONCLUSION

So, the formation of ecological consciousness (attitude to nature, to other people and to oneself) should take place as a process of learning and socialization, during which children successively master the forms of consciousness inherent in various levels and forms of the development of Nature and Man. For this, the educational environment should provide students with the opportunity to master various subject roles: the subject of the family, the subject of their class or school, the subject of the ethnic group, the subject of the country, the subject of the planet Earth, etc. The development of these roles also involves the formation of the students' ability to be the subject of their mental and physical development.

REFERENCES

Babieva NS, Sidyacheva NV, Mudrak, SA, Kalinin IV, Zolotkova EV, Buyanova VV, Mikhailova IV (2018) Specific features of self-perception and anxiety of a woman with pathology of pregnancy Electronic Journal of General Medicine, 15(4): 33-46.

Bulgakov AV, Babieva NS, Levanova EA, Gridyaeva LN, Erofeeva MA, Sokolovskaya IE, Davidyan LY (2018) Specific features of psycho-emotional states of working women during pregnancy. Electronic Journal of General Medicine, 15(6): em86-97.

Deriabo SD, Yasvin VA (1996) Environmental pedagogy and psychology. Rostov-on-Don: Phoenix.

Deryabo SD (1999) Ecological psychology: diagnostics of ecological consciousness Moscow: Meaning.

Dlimbetova GK, Bulatbayeva KN, Abenova SU, Fahrutdinova GZh, Khuziakhmetov AN (2018) Management of Ecologization of Professional Education. Ekoloji, 106: 1217-1225.

Ganieva IN, Saifutdinova GB, Yunusova AB, Sadovaya VV, Shchepkina NK, Shcheka NYu, Gutman EV, Salakhova VB (2015) Structure and content of higher professional school lecturer education competence. Review of European Studies, 7(4): 32-38.

Gifford R (2002) Environmental psychology: principles and practice. Ottawa: Optimal books.

Gilmeeva RKh, Solovyova PV, Nikonova EI, Pak LG, Shulga TI, Perekrestov VN, Makarov AL (2017) Projecting and implementation of professional-personal environment for future teachers. Eurasian Journal of Analytical Chemistry, 12(7b): 1059-1067.

- Kalenik EN, Salakhova VB, Mikhaylovsky MN, Zhelezniakova ME, Bulgakov AV, Oshchepkov AA (2018) Psychophysiologic features and personal-adaptive potential of students with limited abilities Electron J Gen Med; 15(6): 98-106.
- Kalinina NV, Salakhova VB, Artamonova EG, Efimova OI, Kalinin IV (2017) Psychological prevention mechanisms of minors' deviant behavior. Eurasian Journal of Analytical Chemistry, 12(5b): 663-672.
- Kuznetsova MA, Klochkova SV, Lavrinenko SV, Nikityuk DB (2018) Nutrition in sports: present situation and prospects Theory And Practice of Physical Culture, 2: 15-22.
- Kuznetsova MA, Miroshkin DV, Chilingaridi SN (2017) methodical approaches to teaching human anatomy in modern conditions. Morphology, 151 (3): 79-80.
- Levin VA (2000) Formation of ecological culture as a priority of regional environmental policy. Development of regional environmental education systems. Perm: PSPU.
- Lopatkova IV, Serykh AB, Miroshkin DV, Shcherbakova OI, Kochetkov IG, Deberdeeva NA, Diatlova EV (2018) The interrelation of post-trauma stress disorders with reactive and personal anxiety. Electron J Gen Med; 15(6): 85-97.
- Masalimova AR, Schepkina NK, Leifa AV, Shaidullina AR, Burdukovskaya EA (2014) Mentoring perfection in modern enterprises conditions: practical recommendations. American Journal of Applied Sciences, 11(7): 1152-1156.
- Masalimova AR, Chibakov AS (2016) Experimental analytical model of conditions and quality control of vocational training of workers and specialists. Mathematics Education, 11(6): 1796-1808.
- Maslach C, Schaufeli WB (1993) History and conceptual specificity of burnout. URL: https://www.wilmarschaufeli.nl/publications/Schaufeli/089.pdf
- Medvedev VI, Aldasheva AA (2001) Ecological Consciousness. Moscow: Logos.
- Minakhmetova AZ, Skutelnik OA, Fedorchuk YM, Shulga TI, Pavlushin AA, Shagiev BV (2017) Motivational and valuable orientation of teachers as a condition to form students tolerant behavior. Man in India, 97(3): 323-332.
- Miroshkin DV, Shulga TI, Melamud MR, Maslova VM, Lazareva OD, Vrublevskiy AS, Kochetkov IG (2018) Self-Perception and Cognitive Features of Students with Different Sociometric Status. Eurasian Journal of Analytical Chemistry, 13(1b): 86-94.
- Mitin SN, Shukshina LV, Bazhdanova YV, Koretskaya IA, Vasyakin, BS (2017) Value and meaning attitudes as a factor of forming tolerant ethnic consciousness in the multicultural milieu of a higher education institution. Eurasian Journal of Analytical Chemistry, 12(7b): 1193-1200.
- Oliver K (2002) Psychology in practice Environment. Banbury: Hodder Education.
- Panov VI (1996) The eco-psychology of individuality. International Journal of Psychology Abstracts of 26-th International Congress of Psychology Montreal, pp. 2765-2778.
- Panov VI (1998) The state and problems of ecological psychology Psychological science and education, 1: 35-42.
- Rassolov IM, Sidyacheva NV, Zotova LE, Salitova FS, Konyushenko SM, Gzhemskaya NK (2016) Socio-pedagogical priorities of the educational process at the university: the didactic aspect of information technology. International Journal of Environmental and Science Education, 11(18): 10987-10997.
- Salakhova VB, Belinskaya DB, Erofeeva MA, Ulyanova IV, Zotova LE, Khammatova RS, Mizonova OV (2018) Modern methods of diagnosing addiction to psychoactive substances: neurophysiological aspects. Electron J Gen Med, 15(6): 94-102.
- Salakhova VB, Kalinina NV, Belinskaya DB, Aygumova ZI, Tkhugo MM (2017a) Education as a factor of raising the adaptation potential in a delinquent personality. Man in India, 97(3): 1-13.
- Salakhova VB, Lodzhanidze AA, Vasyakin BS, Sidyacheva NV, Ludvig SD (2016) Dynamic meaning systems of consciousness of a criminal personality International Journal of Environmental and Science. Education, 11(16): 9374-9380.
- Salakhova VB, Tkhugo MM, Shalamova LF, Polevaya MV, Pozharskaya EL (2017b) Intergration resources of the personality in the context of human existence modes. Man in India, 97(9): 121-130.
- Shmeleva NB, Aygumova ZI, Carroll VV, Babieva NS, Gasanova PG (2017) Creativity in the teenager's personality structure. Man in India, 97(9): 143-150.
- Shukshina LV, Bazhdanova YV, Koretskaya IA, Vasyakin BS, Lipatova NV (2017) Development of multicultural value orientations in future specialists in the context of a higher education institution. Eurasian Journal of Analytical Chemistry, 12(5b): 875-885.

- Shukshina LV, Mizonova OV, Motchalov EV, Eldin MA (2015) The mechanisms of social illusions and their development. Review of European Studies, 7(6): 282-288.
- Shulga TI, Efimova OA, Kolomiychenko LV, Minkova ES, Kartushina IG, Makarova EV (2018) Technology of complex accompany of student social and project competence formation process in social sphere. Espacios, 39(17), 119-128.
- Shulga TI, Savchenko DD, Filinkova EB (2016) Psychological characteristics of adolescents with different experience of living in a family. International Journal of Environmental and Science Education, 11(17): 10493-10504.
- Skrebets VA (1998) Ecological Psychology Kazan: MAUP.
- Stokols D, Runnerstrom M, Hipp JA (2009) Psychology in an era of environmental crisis: from personal angst to collective action American Psychologist, 64(3): 181-193.
- Ulengov RA, Khuziakhmetov AN, Nasibullov RR, Yarullin IF (2018) Approaches to the Environmental Assessment of Landscapes in the Republic of Tatarstan. Ekoloji, 106: 1713-1717.
- Veitch R, Arkelin D (1995). Environmental Psychology An interdisciplinary perspective. New Jersey: Prentice Hall Englewood cliffs.
- Yachina NP, Khuziakhmetov AN, Gabdrakhmanova RG (2018) Formation and Development of the Regional System of Continuous Environmental Education of a Teacher. Ekoloji, 106: 1315-1322.
- Yasvin VA (2000) Psychology of attitude to nature. Moscow: Meaning.
- Yusupova ZF, Gorbunova LN, Shulga TI, Timirov FF, Sorokoumova EA, Kochneva LV (2017) Formation of humanitarian competence of university students in the context of education globalization. Man in India, 97(14): 21-33.