MENTAL HEALTH AND PSYCHOLOGICAL WELL-BEING: DEVELOPMENT OF ENVIRONMENTAL APPROACH IN PSYCHOLOGY AND EDUCATION

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Abstract

The article analyses the development of environmental approach to explore personality's well-being, health and happiness systems in psychology and education.

Revision of one hundred sources about the environmental approach allowed us to reveal the main trends in the development of theoretical and applied areas in psychology, psychotherapy and education. Different viewpoints on interaction mechanisms in the person-environment system in the article were examined. They are congruence theories of person-environment interaction (Kahana, 1982), "Dynamic features and person-environmental resources" conception of Moos (1991), "Four-front approach" of Wright and Lopez (2002) and "Engagement model of person-environment interaction" of Neufeld et al. (2006). The current state of the environmental approach in applied areas of psychology and education focuses on the conditions, which should provide personality's harmonious development, and allow removing or minimization stress factors that violate personal well-being. These conditions, in general, presuppose an orientation toward the natural environment as a resource for the human psyche as well as the active inclusion of a person in the care of the environment and formation of ecological consciousness. The review of inter-level representations current state interactions in the "person-environment" system covers the fields of "intercultural psychology", "geographical psychology", "ecological psychology" and "environmental psychotherapy".

In conclusion, modern person-environment system representation was shown. It contributes preservation and restoration to personality's well-being and mental health system, assumes a person position as an active subject of interaction with environment. It is important to perceive nature as a harmony and health source for modern person who lives mostly in built environment and to develop ecological consciousness that means to take responsibility for the environment.

Keywords: environmental approach; person-environment interaction; personality's well-being; mental health.

Introduction

The environmental approach in Russian education and personality psychology develops in the direction of "ecopsychology of educational environment". The "educational environment" concept arose at the intersection of ecology, pedagogy and psychology. The methodology of the environmental approach aim to manage personality development mediated by the environment. In the history of Russian psychology "environmental approach to the personality development" based on Vygotsky's cultural-historical theory. At the same time, this problem actively develops in foreign studies in various views and models. Modern issue of environmental approach in psychology and education actualizes in connection with "grand challenges". It includes global climate change, human-caused pollution, urbanization and distance from nature, population growth and the enlargement of megacities, virtualization of

space and relations etc. (Hansen et al., 2013; Sörqvist, 2016; Stokols, Montero, 2002; Uzzell, Räthzel, 2009). The aim of this article is to conduct review of current state on various trends in the study of different level factors in the "person-environment interaction system" which promote or hinder psychological well-being.

1. Development of environmental approach in psychology and education to study mental health and well-being

According to Hunt (1975) the earliest person-environment interaction model proposed Plato in The Republic around 360 B.C. It was a congruence model of person-environment interaction (Hunt, 1975). Personality development considered in psychology as the interaction between individual and his/her environment from the beginning of the 20th century (Lewin, 1935). Behaviorists who studied the mechanisms and principles of this effect (Conyne, Clack, 1981) gave great importance to the influence of the environment on individual behavior. These views are reflected in modern conceptualizations of person-environment relationship (Van de Vliert, 2013; Walsh, Craik, Price, 2000). The environmental approach is also classic in cognitive psychology: in studies of memory, attention (Kaplan, 1995), perceptions and representations (Joye, 2007; Lambert et al., 2015; Lederbogen et al., 2011). The organization of cognitive processes under the influence of natural or built environment is studied in this direction. In particular, scientists are interested in the mechanisms of the influence of the natural environment on person, both at the mental and neuropsychological levels (Joye, Van den Berg, 2011).

Since the middle of the last century, interest to studying the influence of environmental factors on learning, as well as to understanding benefits of active interaction between students and their environment is growing (Dewey, 1959; Hammond, 1994; Hungerford, Volk, 1990; Tolley, 1994; Wals, Beringer, Stapp, 1990). Currently environmental education is an interdisciplinary and complex area. It offers wide range of learning strategies, and depends on variable resources, time, space, curriculum, characteristics of students, and other factors that can influence to all participants in the educational process and their subjective well-being (Winther, Sadler, Saunders, 2010). In this direction, each teacher can choose the most effective approach according to particular conditions of educational situations.

2. Theoretical models of "person-environment" interactions analysis

Theoretical approaches to the analysis of person-environment multi-level interactions are currently being implemented in a number of models that have different views in explaining mechanisms, factors and results of this system's interaction.

Congruence theory is, perhaps, the first concept of person-environment interaction mechanisms. Congruent models of person-environment interaction focuses on individual's adaptation processes and connected with availability (or accessibility) at his/her disposal environmental conditions when a successful adaptation strategy contributes to psychological well-being (Kahana, 1982). According to this view, a person is inclined to choose the environment that is most suitable for him/her, and helps to develop abilities and realizes interests. In other worlds, this type of environment is the most productive to person (Holland, 1996). People behave differently in conditions and relationships that correspond and do not correspond to their personal characteristics, tending to change the environment that does not suit them. Thus, human behavior is a function of the correspondence (congruence) of the individual and psychological conditions of environment (Robitschek, Woodson, 2006). Person activity is represented as the possibility of choosing or searching for a suitable environment conducive to personality development.

Moos's conception of "Dynamic features and person-environmental resources" (Moos, 1991) is a five level socioecological model of human adaptation. The Moos's (1991) model draws attention to the dynamic characteristics of interaction between the environment and the personality. In this model, the person-environment relationship is a bidirectional interaction with feedback at all levels. The first level is the system characteristics of environment. It includes continuous life stressors, and social resources in various life areas, for example, school, family, and work. The second level is composed to person's demographic characteristics and personal resources (needs and value orientations, problem-solving skills, self-esteem, cognitive ability and wishes). These two subsystems determine the cognitive evaluation (the fourth subsystem) and solutions for significant life situations or crisis life events (the third subsystem) and, as a result, evaluation of the effectiveness of these solutions (the fifth subsystem). This model estimates three parameters of relations in the "person-environment" system aimed to find out what works well for humans as a part of this setting. The "relationship parameter" measures how close the person is involved in relations with other people in this system, can feel the support, comfort, and can be opened. The "personal growth (or goal-orientation) parameter" is indicative for what purpose does the person orient the environment or what goals does it allow to realize. The "system maintenance and change parameter" represents the characteristics of the content or transformations in the environment, which must be interrelated with the first two parameters to achieve efficiency. Positive social results arise when all three basic parameters of environmental measurement interact equally in the system: relations, personal growth and maintenance. So, according to the Moos's study (1991) in the education system the moral state of pupils increased when they were combined into organized, structured, innovative classes (the maintenance parameter of the system). It provided supportive relationships with teachers and peers (the relationship parameter), and classes oriented on specific academic goals (the "personal growth (or goal orientation)" parameter).

In the practical direction, associated with personal management in psychology and education, the "four-front approach" is used (Wright, Lopez, 2002). Practical support, assistance and counseling of person in the environment context should take into account four parameters: strengths and weaknesses of the individual, as well as resources and stressors from the environment. This model allows identifying positive potential of both person and environment, which helps to expand the opportunities for personal growth and well-being.

Neufeld et al. (2006) by integrating the strengths of Holland's congruency theory, Moos's model, and four-front approach of Wright and Lopez, developed the "engagement model" of person-environment interaction. This model focuses attention both on the individual and on the environmental resources and attaches great importance to the dynamic characteristics of relations in the system "person-environment". Authors proposed "… that the engagement construct is the force mediating the person-environment unit, and the potential outcomes resulting from the interaction", and define engagement as "…the quality of a person-environment relationship determined by the extent to which the negotiation, participation, and evaluation processes occur during the interaction" (Neufeld et al., 2006, p. 7). In this model, special attention is drawn to activate process of mutual influence between person and environment. It is emphasized that we cannot focus only on one of the sides of this interaction as the most important or influencing the whole process. Both environmental and personal changes are adjusted in accordance with each other. The effectiveness of interaction between person and environment increases positive psychological factors, including: flexibility, adaptive behavior, acceptance, sustainability and the ability to recognize environmental problems and formulate solutions. These psychological personality traits increase opportunities for individual adjustments to the environment, thereby increasing personal involvement (or

"participation"). It is very important that in this model are represented both environment and person as equal in the interaction process.

Developing already for a century, the environmental approach in present time draws attention to the purposeful organization of conditions that are conducive to the harmonious personality development and to minimize the stress factors, which violate the personal well-being. These perspectives are presented in applied areas of both psychology (Hartig et al, 2014; Kennedy et al., 2015; Stern, 2000) and education (Broda, 2007; Clark, Head, Stansfeld, 2013; Martin, 2003). In modern psychology, the environmental approach is presented in various fields, for example, "cross-cultural psychology", "geographical psychology", "environmental psychology" and "environmental psychotherapy".

3. The influence of culture on indicators of subjective well-being, happiness and mental health

Environmental approach considers culture in the measurements, which reflect specific attitudes, beliefs, norms and expectations of a particular community (Hofstede, 2001; Triandis, 2001). These cultural dimensions influence to personality traits, aspirations, goals, self-identity development and subjective well-being. The comparison of personal parameters among representatives of different societies is aimed to assess cultural influences in the "person-environment" system in cross-cultural studies. It is suggested that the dimensions of culture such as "individualism", "masculinity" or "distance of power" (Hofstede, 2001) influence to manifestations of personality traits that determine adaptive abilities and strategies for coping with stress. It is shown in several studies that interpersonal relationship attitudes, health and well-being associated with culture (Bond et al., 2012; Carballeira, González, Marrero, 2015; Glymour, Avendaño, Berkman, 2007). At the same time, there are many arguments about universal mechanisms of psychological well-being in different cultures. For example, a study of resilience with regard to personal characteristics, anxiety and depression across cultures, described by the "Ecological systems theory of resilience" (Maltby et al., 2016) showed indefinite cross-cultural differences.

The study of cross-national differences about happiness showed that "average self-reported happiness varies considerably across nations" (Veenhoven, 2012, p. 305), and these differences are not attributable to different views of life or other parameters of culture, for example, language differences in the descriptions of happiness and life satisfaction. A higher level of happiness perception significantly associated with affluence, civil rights, freedom (economic, politic and personal), tolerance of minorities and modernity.

Lomas (2015) based on analysis of universalism and relativism, the two dominant trends in cross-cultural psychology, offers two-level model, which he called "universal relativism". Lomas shows that subjective well-being is defined as universal determinants (family relations, financial situation, work, communities and friends, health) and cultural-relativistic mediators (history, traditions, norms, language, culture), as well as politics, geography and climate of the country (Lomas, 2015). Other studies (Allik, Realo, 2004; Hyyppä, Mäki, 2003; Izquierdo, 2005; Taras, Kirkman, Steel, 2010) also point to the importance of including a wide range of macro-environmental factors in the analysis of relations between person and environment. This trend of research is traced in the studies of geographical psychology.

4. The study of "person-environment" inter-level interactions in geographical psychology

Geographical psychology explores how external factors affect behavioral manifestations, and how psychological factors affect the macro-level processes (Oishi, Graham, 2010; Rentfrow, 2013; Rentfrow, Jokela, 2016).

The variability of personality traits, subjective well-being and life satisfaction, prosocial behavior, aggressiveness, individualism are revealed at different geographical levels - from intercountry (or intercultural) differences to differences between areas within a particular city (Bleidorn et al, 2016). For example, it was found that prosocial behavior correlates with expression of very different factors. The most important of them: economic well-being and low crime rate in the city as well as the size of the city. In addition, it was revealed that the inhabitants of large megacities are less focused on helping newcomers in compared with the inhabitants of small towns (Levine, Norenzayan, Philbrick, 2001; Levine, Reysen, Ganz, 2008). The study on sample of London residents found that psychology well-being parameters (extraversion, emotional stability and life satisfaction) by the factor of "urban center-outskirts" were higher in more affluent southwestern areas of the city while the lowest levels of these indicators have been grouped in the center (Jokela et al., 2015).

In the studies of influence on geographical differences in economic conditions on subjective well-being, it was found that the level of life satisfaction is higher in North Americans and Western European countries compared to citizens of other countries (Diener, Helliwell, Kahneman, 2010; Lucas, Cheung, Lawless, 2013; Rentfrow, Mellander, Florida, 2009).

The most striking differences in various geographical areas reveal the characteristics of "neuroticism" and "openness". In particular, a number of studies have shown differences in the expression of these characteristics between various regions in the United States, the United Kingdom and the Russian Federation (Allik et al., 2009; Gebauer, et al, 2014; Rentfrow, Gosling, Potter, 2008; Rentfrow et al., 2013; Rentfrow, Jokela, Lamb, 2015). Neuroticism tends to be high from the Mid-Atlantic region to the South, gradually declining westward. Openness is high in more urban and ethnically diverse areas, such as London, Brighton, Manchester and Glasgow. Rentfrow, Jokela, and Lamb (2015) also found that neuroticism negatively correlates with the expected lifespan, and positively correlates with a variety of health problems.

Studies conducted in the US and British regions (Obschonka, et al., 2013) found that the prevalence of individuals with the profile that combines high openness, conscientiousness and extraversion with low neuroticism and compliance (the authors called it "entrepreneurial profile") associated with economic prosperity in the region.

Analysis at the levels of countries, states, counties and cities (Diener, Oishi, Lucas, 2015, Eichstaedt et al., 2015, Florida, Mellander, Rentfrow, 2013; Lawless, Lucas, 2011) showed a positive relationship between psychological well-being and various markers of physical health. The extent to which residents of the region feel psychological healthy is directly related to the level of physical health in this area or vice versa.

In general, the analysis of foreign studies reveals methodological contradiction that can be attributed to the field of "geographical psychology". On the one hand, there is a large amount of accumulated data on the geographic differences of various psychological constructs, and on the other hand, the understanding of mechanisms responsible for the geographical distribution of psychological phenomena, has not yet received systematic methodological basis. In the review of this problem, Rentfrow and Jokela (2016) identified three mechanisms that describe the nature of geographical differences in the manifestations of psychological phenomena: "social influence", "environmental impact" and "selective migration". "Social influence" is determined by social values, norms and attitudes that make up the content of intercultural differences. "Environmental impact" means the impact of features of the natural and built environment, such as climate, topography, green spaces and urban overcrowding. "Selective migration" is the influence of individual psychological characteristics on a person's choice of a type of environment, for example, when people migrate to places that allow them to satisfy their psychological needs (Motyl, et al., 2014).

The studies have shown that the mechanism of "environmental impact" significantly affects the individual psychological processes. For example, it was found that living near green spaces enhances well-being and reduces stress (White, et al., 2013), and on the contrary, in geographical areas where pathogenic conditions historically prevailed, people have tendency to risk behavior (Schaller, Murray, 2008). In countries with severe climate and limited natural resources, residents are more communicative, and have collectivist values in comparison with people living in less severe conditions (Van de Vliert, 2013).

The important role of ecological situation in the region, and the proximity to natural environment for the preservation of mental health, and subjective well-being is now increasingly recognized. These factors of mental health preservation are special subject of research in ecopsychology and ecotherapy.

5. Theoretical and applied ecological psychology

Theoretical development in ecopsychology is aimed at the analysis of fundamental psychological processes, for example, the processes of the environment space perceptions or the study of personality traits that structure behavior in accordance with environmental factors (Gifford, 2008). According to Brown (1995), the issues raised by ecopsychology concern the definition based on mental activity. Applied ecopsychology raises issues of social space management, for example, the optimal conditions for organizing personal space or workplace (Gifford, 2007), or health-saving conditions for organizing educational space at school / office. Studies about healthy living space includes the influence of architectural design and natural elements (greenery, water, sounds of nature etc.) on the psychological well-being (Sullivan, Kuo, DePooter, 2004; Thompson, 2000). The third area in the development of modern ecopsychology is the study of interactions between person and nature, including environmental socialization, environmental education, development of person consciousness, and influence proenvironmental attitudes toward nature in both the environmental changes and human psyche (Steg, Vlek, 2009).

As noted by De Young (2013), two concepts are interrelated in applied ecological psychology: "reasonable person model" and "adaptive muddling". These models underlie programs implementation to work with population, revealing capacity, inherent for human, to explore and understand the environment, and to increase competences that helps to solve the problem of preserving the environment and nature resources.

Ecopsychological concept of personality attaches importance not only to human relations in family and society spheres but also to the natural environment, which are considered as a prerequisite in formation ideas about oneself. Eco-identity is defined as one of the elements of self-concept associated with own experience and awareness of an integral relationship with the natural environment. Eco-identity is developed based on internal and external activities aimed at caring about nature (Kopytin, 2016).

Ecopsychology criticizes modern consumer society, considering that the exploitation of natural environment leads to the growing of psychopathology. In this regard, Roszak (1995) believes that violation of human relations with the environment and consumer attitudes towards nature are the leading factors in reducing stress resistance and adaptive potential, leading to deterioration in health and to the development of mental and physical illnesses.

Significant place in ecopsychology takes "concept of environmental personalization" (Heimets, 1994). Heimets defines "personalization of the environment" as various activities of person, related to environmental care, which can influence the development of personality's mental structures. The concept of environmental personalization explains the ways of solving many eco-psychological problems, for example, environmental socialization, ecological education,

correction of disturbed personal relationships with the environment, development of a healthy self and environmental identity, and improvement of adaptive models of behavior and self-regulation skills (Kopytin, 2017).

Positive view of human nature in ecopsychology means that the revolution of ecological consciousness is possible on the basis of strengthening positive links with the natural environment (Brown, 1995), and also that people are capable to interaction actively, and consciously with their environment (De Young, 2013). Ecopsychology largely determines a new policy both in the environmental domain and in the health domain because they are interrelated. The ecological approach provides a balance both of the citizens personal health concerns (microlevel) and of the environment health concerns (macrolevel) in solution the problem of protecting human health (Burls, 2007).

6. Environmental approach to person psychotherapy and psycho-correction: "Ecotherapy"

Recently, understanding that a person's connection with nature contains a powerful healing potential and can be involved in solving psycho-correctional and psychotherapeutic problems. Interaction with the natural environment actualizes the evolutionarily formed mechanisms of personality self-regulation that play not only an important protective role, preventing the development of somatic and mental diseases, but also can make a significant contribution to the treatment. According to this view the new direction in person psychotherapy and psycho-correction, named "Ecoterapy" revealed. According to Clinebell (1996), "Ecoterapy" is the scientific and practical discipline based on strengthening the human-nature links and dealing with mental and physical diseases treatment and prevention. Ecotherapy (in other terms "Green Therapy" or "Nature-centered therapy") includes a wide range of health-improving methods based on the interaction between people and nature (Buzzell, Chalquist, 2006).

Ecotherapeutic techniques and methods attach special importance to restructuring behavioral patterns, attitudes and value orientations in the relationship of person with nature: modesty and moderation are cultivated; ecological activism and overcoming of consumer preferences are supported; daily schedule adjusted; the home and work environment is being transformed. In this perspective, Buzzell (2009) proposes follow instructions for therapeutic inclusion his clients in relation with nature:

- to do something to protect the close natural environment (for example, to take care of plants and animals);
- attempt to create new relationships with others taking into account environmental factors, beginning with the family (for example, spend more time together in nature or working in garden);
- change own attitude to life, paying attention not only to personal well-being but also on the well-being of the environment.

Range of ecotherapeutic methods and directions is quite wide and varied. Among the well-known methods of eco-therapy that are effectively used to increase adaptive potential and reduce the stressful environmental impact on the individual, we can distinguish follow:

- "wilderness therapy" or "wilderness experience" (Dufrechou, 2002; Grady, 2009; Greenway, 2009; Harper, 1995; Schneider, 2009);
- "horticultural therapy" (Clinebell, 1996; Kopytin, 2016; Messer Dehl, 2009), "environmental restoration" (Watkins, 2009);
- "animal assisted therapy", in particular, "Equine-assisted learning" or "Horse-assisted therapy" (Garcia, 2010; Hauge et al, 2015; Ho et al., 2017; Kern-Godal, Arnevik, 2016; Lopukhova, 2017);

- methods of creative (expressive) ecotherapy or "eco-art-therapy", using "environmental creative activity" (Courtney, Mills, 2016; Kopytin, Rugh, 2016; Kopytin, 2017; Montgomery, Courtney, 2015; Peterson, 2015; Van der Riet et al., 2014).

The wide application of these eco-therapeutic methods and techniques in the technogenic conditions of our life shows high efficiency for achieving mental health. Human immersion in the natural environment and positive attitude to the nature is a significant resource of resilience and psychological well-being. Thus, now, there are more and more updated significance and prospects of psychotherapeutic approach, based on changing human relationships with the natural environment. Although environmental psychotherapy approach is confronted with the resistance of traditional psychotherapeutic views, its positions are rapidly developing in different directions, including both individual and group forms of therapy, addressing both curative and preventive tasks. (Conn, 1995; Kopytin, 2017; Kopytin, Rugh, 2017).

Conclusion

The current state of the environmental approach in education and personality development suggests that the concept of environment includes physical, geographic, environmental, social and cultural factors. All these factors, on the one hand, are the conditions for the development of personality, and on the other hand, a person influences the formation and change an environment. Psychological aspects of interaction in the "person - environment (natural, build and social)" system have a developmental and therapeutic potential (when a person acts as the subject of this interaction) but, at the same time, they can cause distortions, and violations development, and well-being of the individual. The available data about the environmental factors of psychological well-being indicate that the organization of educational environments and teaching technologies should correspond to the natural patterns of physical, mental, social and moral development of all participants of education, so as do not be the cause of a deterioration in their physical and mental health.

Based on the analysis of modern research in the field of "person-environment" multi-level interactions, we can conclude that with growing interest to this field, integral methodological basis for understanding the system mechanisms of macro-, meso- and microsocial factors' interrelations not yet represented. The available meta-analytic studies do not compensate this problem because each study focused on the analysis of a single macro-factor of specific personal or behavioral manifestations, and this does not allow us to see the mechanism of inter-level "person-environment" system interferences. Currently, actual comparison of different levels of environmental influence on personality development in the aspect of adaptive or socially unfavorable conditions prevail.

Thus, in modern Russian education complex studies covering different levels of interaction of economic, geographical, ecological and social parameters which affecting schoolchild's way of life are very acute. In addition, practical technologies aimed to transform the educational space and system of interpersonal relations in school should contribute preservation and restoration of teachers and schoolchildren psychological health and well-being. The topical directions of the educational systems transformation is the development of the subject's personal position at all levels of interaction with the environment, resorting to nature as a source of resources, and developing environmental awareness, creating a sense of responsibility for the environment.

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