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THE CORPORAL-ORIENTED APPROACH TO EDUCATION: A TURN TOWARDS THE WHOLE PERSON

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Abstract. Recent anthropological studies consider the corporal experience as an indispensable attribute of a person's life world. They declare to go beyond the dichotomy of body and mind and present a modern person as a complex integrity of all systems and characteristics of a living organism. Body and mind are a union of vitality with different forms of their manifestation. The corporal is not regarded as an essential complement to the mental, the corporal is the mental, just in a different form of its manifestation. The implementation of a methodological turn from a rational-cognitive approach to a holistic understanding of human nature and the peculiarities of cognitive processes outlines the problem of education transformation in both theoretical and practical terms. Taking into account the complexity and multiplicity of tasks in solving this problem, the guideline in defining conceptual ideas is the understanding of a person as a multi-temporal being who lives simultaneously in multiple hierarchical levels, ontological time and the scale of processes. It is a question of necessity to construct educational activity in semantic planes: mind-body-culture, mind-body-activity, body-consciousness-reaction and others.

Keywords: person; education; corporal-oriented approach; body; integrity; mind; transformation of education

1. Introduction. Topicality

The modern world is full of alarming predictions, unforeseen threats and risks. Crisis phenomena, which have become quite permanent, destroy not only the established structures of social order, but also the logic of their existence. Spontaneity, variability and contingency are increasingly becoming the defining characteristics of the world. Its current state is considered as a kind of a bifurcation point, which contains a plurality of options for its further development. It is obvious that the world is deprived of any definite main path of development as everything is acceptable and everything is possible. The current pandemic illustrates these views. It caused a large-scale crisis in all spheres of social life, exacerbated the uncertainty, caused a loss of integrity in understanding and comprehending not only the realities of

the present, but also the future prospects. The peculiarity of the situation is that the issues facing humanity, despite their depth and complexity, do not have clear and understandable solutions. In addition, a number of social problems, which were caused by the pandemic, requires a quick and drastic solution in order to protect themselves in the future. The point is that decisions and measures, which could have taken years of reflection, discussion and step-by-step implementation in the old days, are taken in a few hours now, since the alternative could be even worse. Thus, today many countries are forced to take part in large-scale social experiments, in which they would hardly have dared to take part in pre-pandemic times. One of such experiments is the educational system transfer into online. If in recent decades the network model of education has been developing as an alternative to the classroom model, then in the context of a pandemic, it turned out to be the only possible way to provide educational services. Despite the fact that it is characterized by a high level of mobility, is open and accessible to a wide range of people, allows everyone to learn at their own pace and get adapted to different types of tasks, perform individual diagnostics and many other advantages, this educational model has a number of disadvantages. One of the main disadvantages is the lack of physical contact. Researchers and practicing educators point to a lack of emotional interaction and physical contact. In such a way, they state that education is something more than just the transfer of knowledge, information or considerations, which is carried out with the help of technical means. No technical device can replace live communication during classes, empathic states of experience, inspiration or involvement, and so on. Live contact is essential. This circumstance proves that we are truly living beings. A person exists in the world and reflects it through the prism of corporality. He cannot live and develop, leveling his corporality. A person thinks and feels with the help of the body. Mental processes take place in the body, that is, they are physically conditioned. M. Merleau-Ponty (1999) claims that we exist in the world and perceive it with the help of our body. The body is our natural self, so to say, the subject of perception (Merleau-Ponty 1999, 265). This position implies integrated and holistic understanding of a person, which reflects intellectual, emotional, spiritual and moral aspects of our existence in this world. Accordingly, the problem of corporality analysis as a sphere of localization of cognitive and mental states, which reveal and realize themselves at different levels of corporal organization is actualized. The search for effective pedagogical practices and forms and methods of teaching with regard to human development and self-development is also quite relevant.

2. Turning from a rational-cognitive approach to a holistic one in cognitive activity

In modern socio-cultural realities, a person shows an increasing ability to perform many social roles and try on a number of different images, thus demonstrating the inexhaustibility of the human nature in various situations and life practices. It is the

multiplicity and complexity contain the possibility for a more complete disclosure of the complex nature of the human self. However, the complexity of a person lies not only in a set of physical, physiological, psychological, mental, emotional and intellectual characteristics, but also in the recognition of obvious and hidden relationship between them. All the diversity of human nature and its manifestations is woven into a certain integrity that creates human tissue, constitutes the world of human existence, in other words is the connection between unity and multiplicity. A person by nature is a multiple unity and unique diversity, a kind of "hologram point that carries the Cosmos" (Moren 2007, 52). Its existential nature is expressed and acts in a complex and is perceived in a complex. In the process of his life and activity, a person always involves not only the rational, but also the emotional, sensory and corporality spheres.

To live, learn and create means to preserve one's identity. This position is highlighted in the theory of autopoiesis by H. Maturana and F. Varela. The researchers try to figure out what the life essence is. They do not agree with the generally accepted view that the difference between living and non-living systems lies in their ability to reproduce themselves. According to them, living systems are capable of self-construction. They claim that living systems develop themselves according to their own unique scenario. In their development, they do not reflect the world around them, but learn it, attracting external resources for their development and creation of their complex, holistic and unique system. The principle of a holistic approach is presented as the unity, integrity of all systems and characteristics of a living organism, rather than simple interaction and interdependence between them (Maturana & Varela 2001). In fact, this understanding of integrity declares going beyond the dichotomy of body and mind. It is obvious that the methodological potential of rational-cognitive approaches in explaining a person's holistic nature is limited. The integrity and complexity of human nature and the features of his cognitive activity require other methodological approaches and theoretical concepts. From this perspective a corporal-oriented approach is relevant.

It should be noted that corporality entered the forefront of the modern culture only in the late 20th century. Corporality as a necessary attribute of the human world is presented in a number of researches. In particular, M. Foucault considers the features of power relations in society through the prism of corporality. According to the researcher, the subjective world of corporality experiences appears as a source of knowledge and experience, a centre of opposition to power (Foucault 1999). Corporality as an indispensable attribute not only of physiological processes, but also of cultural practices is presented in the work of E. Husserl (Husserl 1996). A holistic approach to understanding the relationship between body-spirit and body-environment was formed in the phenomenological tradition of F. Varela, H. Maturana, M. Merleau-Ponty and other scholars. M. Merleau-Ponty considers the body as an equal subject of "perception", through which a person identifies himself

in the world, that is, he gains the ability to perceive and be perceived by other people. (Merleau-Ponty 1999, 265). It is worth mentioning that the views of these and other researchers on the corporality nature not only helped to determine its physiological nature, but also allowed us to consider its cultural, linguistic, genetic, intellectual and other features. Corporality is determined by external realities. To a certain extent, it reflects the cultural development of a certain historical epoch. According to O. Homilko (2001), human corporality is a kind of microcosm, which is in universal correspondence with the macrocosm of human existence and the world around us (Homilko 2001, 49). The variety of thoughts and views shows the complexity of the corporality phenomenon. The basic idea of the corporal-oriented approach is focused on the fact how to make the cognitive process "more corporal", on the corporal determinants of human cognitive activity. Mental processes take place in the body, that is, they are corporally conditioned.

A radical idea within a corporal-oriented approach, which states that the brain is not the only cognitive resource that a person can use for solving problems, is corporal cognition. Its proponents claim that human body and movements perform a significant part of the work, which is necessary to achieve our goals, replacing the need for complex internal concepts (Wilson & Golonka 2013). They think, the body state is able to change the state of mind. Cognition can encompass the brain, body, and environment (Wilson & Golonka 2013). Thus, the process of cognition is closely connected with the characteristics of the physical body. The body is not considered to be secondary and peripheral in cognition. We usually gesture when we talk to each other, and gesturing facilitates not just communication, but the very processing of speech. Waving your hands, bending your fingers, walking back and forth around the room – all these things help to perceive new information more quickly. Gestures affect the quality of material perception. The students learn new concepts better if they are taught to repeat the gestures after their teacher, and the information, which is accompanied by gestures, is kept in learners' memory longer than that one, which is introduced only verbally. Corporal movements are ideal material for implicit memory. So, if we accompany our words with movements, we encourage the brain to create two independent memories of events and increase the chances to remember them later (Barras 2014). Thus, the process of cognition appears as an extended system, which comprises a wide range of resources. These resources include the brain as well as the body, the environment and the relationships between these components (such as our body's cognitive activity in the environment). In general, this outlined radical idea determines a revision of the human cognitive behaviour implementation. Its basic idea is to understand that the way how we perceive this world is limited by the actions, which are performed by our bodies (Wilson & Golonka 2013).

These considerations correlate with the ideas of the enactivism concept. Its proponents believe that the mind is corporally determined, and the human body is

active and intelligent. The body learns because it acts. According to the proponents of this concept, sensorimotor communication with the environment is critical for providing the body with the proprioceptive / kinesthetic feedback, which is necessary for a sense of belonging to the movement. (Wilson & Foglia 2017). Our speech is quite often accompanied by hand movements, which not only play the role of an emotional intensifier for our communication, but also facilitate the support of spatial notions in memory work. For example, when we touch an object, then we not only get experience about its properties and functional characteristics, but also get the ability to feel the control of our own body in action. The body is not just an organizer of actions. It is also sensitive and effective. As D. Legrand (2006) says, this is the point where action and perception are converted. Therefore, at the corporal level, reflexive self-knowledge is relevant. (Legrand, 2006).

Visual experience of consciousness plays a significant role in this process. In fact, it indicates that the body and the world are matter and a source of causal influence. (Wilson & Foglia 2017). Communication with the world and the world cognition depend on what we do with our eyes, head and body to bring everything into visual consciousness. As a result, cognitive science, within the concept of collectivism, seeks to understand the entire spectrum of perceptual, cognitive and motor capabilities that a person possesses. We are also talking about cognition in a broad sense as an ability that depends on the characteristics of the physical body. Mirror neurons with sensorimotor properties can serve as an illustration. Their peculiarity lies in the fact that they work both during the action and during the observation of the same action which is performed by another person. (Turella et al. 2009). Indirect evidence in favour of the mirror system comes from studies on the reactivity of brain rhythm, Alpha waves and mu wave during the action observation. The sensorimotor mu wave is present during motor rest, but it disappears when active movements are used. (Rizzolatti & Craighero 2004).

Thus, integrity in the understanding of mind and body, mental and corporal involves overcoming their dichotomy in solving psychophysical problems and cognitive tasks. Body and mind are the union of vitality with different forms of their manifestation. The corporal is not regarded as an essential complement to the mental, the corporal is the mental, just in a different form of its manifestation.

3. The body as an instrument for cognition: conceptual ideas for building educational practices

Educational activity can help a person to reveal his holistic and natural activity. Its mission is not only to transfer a certain knowledge resource and experience, but also in human development and self-development, in identifying and realizing his hidden potential. How should the educational process be organized to take into account the individual potential of a person? On what principles should its construction and organization be based? What should be effective methodological

tools? Of course, these and other issues of education as a process of human development and self-development require a number of thorough studies.

Within the article we will outline a number of conceptual ideas, which from the point of a corporal-oriented approach can be productive and relevant in solving this problem. A guideline in outlining conceptual ideas is the understanding of a person as a multi-temporal being who lives simultaneously in multiple hierarchical levels, ontological time and the scale of processes. That is, we are talking about the need to distinguish between body-culture (traditions, cultural practices), body-activity (skills, practical experience), body-consciousness-reaction (reflection, psychokinetics), etc.

Conceptual ideas in the plane of body-consciousness-reaction are based on the belief that a person cannot live and develop while leveling his corporality. He thinks and feels with the help of his body. We believe, thoughts can make a person blush or turn pale. Regarding a person as a complex whole is non-dual: "consciousness becomes corporal, and the body becomes spiritual – the spirit lives in the body, it lives thanks to the spirit" (Beskova et al. 2011, 12). There is necessity in paying attention to the corporal embodiment of the mind in educational practices. This is relevant in determining the emphasis in further research on the human cognitive sphere and building effective education. Overcoming the opposition between body and mind leads to the abandonment of the intelligence modelling tradition to produce symbolically encoded solutions that find their expression in puzzles (Clark 1997). An example of the practical implementation of the abovementioned considerations are the idea of psycho-gymnastics. Its proponents claim that cognitive processes are based on motor skills and sensory sensitivity. Therefore, it is necessary to develop the sensory sphere for the cognitive activity development. There is a direct connection between the body and the senses. Therefore, the brain, which is plastic and undergoes changes throughout life, develops through the body. Physical movements affect the intelligence development. Neuro-gymnastic exercises are used to establish basic coordination of sensory systems (vestibular, tactile, musculo-skeletal), motor coordination, coordination of the left and right sides of the body, development of motor, spatial and communicative competences, the formation of self-regulation and sensory framework. (Hendricks 2001). Under the influence of neuro-gymnastics classes, positive structural changes occur in the body. In particular, the brain function of regulation and control improves as well as mobility, balance and plasticity of nervous processes develop. Activation of nerve centres helps a person, regardless of age, to reveal hidden abilities, to expand the boundaries of opportunities that are inherent in his body. Thus, in order to create a successful learning environment, teachers implement various educational programs, which are aimed at increasing motivation, better perception and awareness of educational material. Why are these programs not effective for all learners? The fact is that sometimes the brain integration mechanisms that provide full-fledged

learning do not work. Information enters the rear parts of the brain and "lives" there in the form of an image. Then it passes into its frontal parts and takes the form of expression. However, information may not always be available to the frontal lobes of the brain, and then the inability to express what has been learned leads to academic failure syndrome. The solution to this problem is to use the holistic function of the brain in the learning process. This can be achieved through neuro-gymnastics. Its exercises provide an opportunity to use those parts of the brain that have not previously participated in learning. As soon as a person discovers how it is possible to receive and express information simultaneously, there are significant changes in learning, the natural brain mechanisms are activated, there is interaction development between body and mind as a whole.

The corporality is not passive. On the contrary, it should be considered as a certain point that accumulates perception and action. The notion that our mental processes are related to our corporal actions and interact with the world around us is fundamental to define conceptual ideas in the mind-body-activity plane. Cognition is active. It occurs due to the corporal activity and involvement in the cognitive process of the entire living organism. The basic idea is that cognition is a completely corporal process of continuous sensorimotor interaction between a living organism and its environment. Therefore, due to the way our bodies move in the cognition process, we can create a large number of productive educational models. The methods of educational kinesiology can illustrate the implementation of these ideas in educational practices. This system of practical exercises was created in the second half of the twentieth century in the United States. Its authors are researchers and educators Paul and Gail Dennison (2010). Based on the basic principles of kinesiology, they have developed a system of simple exercises that help a person to reveal the hidden capabilities of our body. Their program comprises a series of special breathing and physical exercises, which are aimed at increasing the tone or relaxation of a certain muscle group. The system of special movements and breathing exercises allows not only to prevent or overcome existing physiological problems, but also to activate neurophysiological connections between the body and the brain, to improve the coordinating and regulatory function of the nervous system. Therefore, at first the program was used to diagnose and treat a number of diseases by activating a number of muscles, but later its ideas, principles and exercises were effectively implemented in educational activity. Taking into account that mental processes occur in the body and are corporally conditioned, the system of exercises helps to increase mental activity, synchronizes the function of the hemispheres, promotes better memorization of new information, develops fine motor skills and thinking, increases attention, helps to restore speech functions, facilitates reading and writing, promotes the human intellectual potential development. (Dennison & Dennison 2010). Using this program in education allows us to correct problems that arise in the learning process, in human development and relationships.

Another guideline in the conceptual analysis of the educational goals and content in terms of a holistic approach is considering corporality as a certain cultural model, an important factor in personal identification and vital self-determination (Homilko 2001, 52). Corporality as a cultural model is ontologically analogous to corporality in the psychological state, through which a person creates his existence and develops as a personality. The body language expresses various cultural meanings, such as: success, confidence, deprivation, defeat, despair, and many others. The corporal image is a set of qualities and characteristics that the human body acquires depending on certain socio-cultural influences and practices. In the process of cultural development of corporal functions psychological components are interwoven into a determined physiological process. For instance, when a person begins to learn how to write, the language structure, its syntax and grammar are an object for him to involve the external world to his inner world. In the process of mastering writing, linguistic structures "move" from the external world and are included in the boundaries of the human corporality. Considering human corporal experience as the most important source of meaning in the work "Corpus", J.-L. Nancy (1999) states that the body in the cultural practices is a container (corpus) for much knowledge. For example, the main temporal and spatial categorizations of educational activities are based on corporal organization. By examining his own body, a person discovers the ability to transfer its characteristics and parameters to other objects and their functions. It is about a person's creation of a certain surrounding world projection, which is reflected in cognitive practices and various ways to present the world. The connections with the human body indicate a connection with the projection of knowledge about oneself onto the surrounding reality, with the implementation of significant meanings that are transmitted by the changes themselves. For example, there are such idioms with body parts as "head over heels in love", "on the tip of one's tongue", "keep one's chin up", "to give somebody the cold shoulder", "long arm of the law", etc.).

A person's corporal organization sets the parameters and mechanisms of culture existence in all its manifestations. In the daily life, a person relies on his 'corporal' knowledge. A person's communication with the world begins with the knowledge of his own body and the realization of basic corporal experience, with functional-sensory cognition of the world (Koliarova 2018, 153). As an active creator of socio-cultural practices, corporality not only individualizes a person, showing his unique nature, which differs from others, but also encourages the interaction with others. It should be mentioned the connection and interdependence of body, spirit and culture (social practices) are reflected in self-aesthetics. This is a modern field of interdisciplinary research, which takes into account the achievements of psychology, physiology, medicine, anthropology, philosophy and other humanities. The basic idea and tasks of this direction are the enrichment of somatic experience and the possibilities of its application in the individual's life practices (Shusterman

2006, 53). Examples are various Eastern philosophical traditions, such as breathing exercises, yoga, martial arts and Zen medicine. The individual's self-development and self-improvement involves ritual and artistic practices, somatic exercises that promote harmony of mind and body, cultivate proper behaviour, self-esteem and high technique of appropriate actions (Shusterman 2006, 57).

4. Conclusions

In the conditions of network technology development and rapid research development in the field of artificial intelligence the problem of corporality analysis as a sphere of localization of cognitive and psychological states is actualized. They manifest and realize themselves at different levels of corporal organization. Recent anthropological studies consider the corporality experience as an indispensable attribute of a person's life world. They declare to go beyond the dichotomy of body and mind and present a modern person as a complex integrity of all systems and characteristics of a living organism. All the diversity of human nature and its manifestations is woven into a certain integrity that creates human tissue, constitutes the world of human existence, in other words, is the connection between unity and multiplicity. Body and mind are a union of vitality with different forms of their manifestation. The corporal is not regarded as an essential complement to the mental, the corporal is the mental, just in a different form of its manifestation. The implementation of a methodological turn from a rational-cognitive approach to a holistic understanding of human nature and the peculiarities of cognitive processes outlines the problem of education transformation in both theoretical and practical terms. Taking into account the complexity and multiplicity of tasks in solving this problem, the guideline in defining conceptual ideas is the understanding of a person as a multi-temporal being who lives simultaneously in multiple hierarchical levels, ontological time and the scale of processes. It is a question of necessity to construct educational activity in semantic planes: mind-body-culture, mind-body-activity, body-consciousness-reaction and others. As an active creator of socio-cultural practices, corporality not only individualizes a person, showing his unique nature, which differs from others, but also encourages the interaction with others.

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