

## THE FUTURE HUMAN BEING – WHAT IS IT LIKE?

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*Realization of permanent transformational transitions has brought to necessity to apprehend complex ontological issues of a new reality for development of a complex strategy for adequate opposition to challenges faced by the humanity. Understanding the role of education in the formation and development of a future human being ranks first among these issues. In this article I have analyzed modern directions of futuristic apprehension of a sense of transformational changes of a man (transhumanism, theory of androgyny), represented a key role of the philosophy of education in development of an image of the future human being, and determined main characteristics of a personality of planetary-cosmic type, system of his personal, local and global interactions.*

*Key words: posthuman, transhumanism, androgyny, philosophy of education, image of a future human being*

## ЧЕЛОВЕК БУДУЩЕГО – КТО ОН?

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*Актуализация перманентных трансформационных преобразований привела к необходимости постижения сложных онтологических проблем новой реальности для выработки комплексной стратегии адекватного противостояния вызовам, стоящим перед человечеством. В этом круге вопросов особое место занимает осмысление роли образования в становлении и развитии человека будущего. В данной статье проанализированы современные направления футуристического осмысления сущности трансформационных изменений человека (трансгуманизм, теория андрогинии), представлена ведущая роль философии образования в формировании образа человека будущего, определены основные характеристики личности планетарно-космического типа, система его персональных, локальных и глобальных взаимодействий.*

*Ключевые слова: постчеловек, трансгуманизм, андрогин, философия образования, образ человека будущего.*

## 1. Introduction

The beginning of the 21<sup>st</sup> century is a new phase in the history of humanity evolution. Development and formation of such social phenomena and tendencies like information revolution, humanization, democratization of society, intensification of cross-cultural communication, globalization etc. have made a colossal impact on fundamentals of social system, risen profound changes in the essence of social institutions and practices, everyday life of people, their ideas, values, interpersonal communications, moral norms, life goals and strategies. Realization of permanent transformational transitions has brought to necessity to apprehend complex ontological issues of a new reality for development of a complex strategy for adequate opposition to challenges faced by the humanity. Understanding the role of education in the formation and development of a future human being ranks first among these issues.

Understanding the future of the humanity has always had a special place in philosophical discourse. Nowadays in the troubling period of changes and transformations the image of the future human being draws particular attention. Not only does mere interest lie in the basis of such attention, but objective people's needs, hopes for the future as well as the people's fear of expected changes. Motivated activity and constant adjustment of their directions to immediate result and remote consequences of their activity are common to humans. Modern processes and tendencies will be developed during numerous decades further on and will significantly influence not only our lives, but future generations as well. Hence there comes necessity of nurturing responsibility of a special kind in the socium – responsibility before future generations, which has to become a core of all and every decision of a personality, society, state ensuring its deliberateness.

Futurologists, scientists, philosophers are interested not only in future transformational changes in the world, but also how these changes will influence a person, what the future human being will be like. There are numerous prognoses of development of the humanity and future human being. Let us consider the most well-known and controversial ones.

## 2. The future human being. Transhumanism

Philosophical ideas of transhumanism have become rather popular in recent decades. Transhumanism is a rational philosophical movement grounded on apprehension of prospects and achievements of science, which determines desirability and possibility of fundamental changes in social state of a human by means of different sophisticated technologies, which

are to eliminate ageing, suffering and even human's death, strengthen mental, physical and psychological abilities of a person. Main goal and task of transhumanism is endless perfection of a human applying all available means and techniques. In order to achieve this goal transhumanism suggests the following: support and facilitate technical progress in any way; expand freedoms of every person applying scientific achievements; predict and prevent all possible moral problems and dangers, which may hinder implementation of scientific achievements; postpone humans' ageing and death as far as possible and give humans the right to decide when to die and even to die or not to die. Transhumanists adhere to a cross-disciplinary approach analyzing dynamic interrelation of the humanity and growing technologies. Transhumanists focus on both existing biotechnologies and information technologies and those which are under development yet – molecular nanotechnology and artificial general intelligence. Transhumanism aims at ethical usage of technologies for expansion of humans' abilities [Humanity+, 2013]. One of the most influential hearths of transhumanism ideas in the world is the Future of Humanity Institute, University of Oxford. The Future of Humanity Institute is a leading multi field research and development centre which investigates a large range of issues extremely important for human civilization. The task of the institute is to analyze (with application of mathematical tools, scientific theories and data, methods of analytical philosophy) risks and possibilities which will be connected with future technological changes, studying topical ethic dilemma, estimation of global priorities in order to make a decision which way of development to follow to ensure a long-term future of the humanity. Research work of the institute covers four programme areas: global estimation of irretrievable risks; improvement of human's life; applied theory of cognition and rationality; technologies of future [Future Humanity Institute, 2013]. In 2005 the Future of Humanity Institute was headed by N. Bostrom, co-founder of World Transhumanist Association (nowadays Humanity+), which covers such areas of theoretical interests as singularity, risks of civilization extinction, "mind uploading" [Humanity+, 2013]. In 2003 *The Philosophical Quarterly* published N. Bostrom's article with an almost fantastic title: "Are we living in computer simulation?" [Bostrom, 2003], which caused controversial discussions in academic communities all over the world. In his work N. Bostrom thoroughly analyzes computation capacity necessary for simulation of human mind or even whole civilizations, he also assumes that there is a high possibility of the fact that we all live inside a huge computer model launched by posthumans for studying their own past. Bostrom is sure that future people will transcend modern human being: they will possess mental abilities transcending all abilities of present geniuses, perfect

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memory, artificial body which will be able to withstand any disease and age. Substantiating simulation hypothesis N. Bostrom contends that at least one of the following statements is likely to be true (so called Bostrom's trilemma):

1) The human species is very likely to go extinct before reaching a posthuman stage;

2) Any posthuman civilization is unlikely to run a significant number of simulations of their evolutionary history, for any of a number of reasons;

3) We are almost certainly living in a computer simulation.

In his work Bostrom follows a concept of being independent of a carrier, according to which consciousness does not depend on the carrier, i.e. biological tissue – human brain. It means that consciousness can be actualized in a way of a number of electric impulses of some computing machine. Taking into account that the work describes simulations created by posthumans, people modeled inside the simulation have consciousness. They will understand the model as reality. Bostrom thinks that if simulations take place, there will be a lot of them. It is logically to assume that the number of modeled people will be next larger than the number of ancestors of the base civilization. Thus probability of the fact that a randomly selected person is an object of experiment is very close to one [Bostrom, 2003]. Bostrom's simulation hypothesis was actively criticized by scientists, yet it has realized the function of a “different opinion” in full.

Many futurologists share the idea of “uploading mind”. According to this hypothesis it will be possible to read mind and transfer it to electronic format. An American scientist K. Hayworth [Hayworth, 2012] has been investigating this area for decades. He is sure that our civilization is moving in the way of mind teleportation. Scientists will try to save brain and then use it in robots' bodies. It will be a perfect computer created on the basis of human brain.

Another famous American researcher and futurologist R. Kurzweil [Kurzweil, 2005] is sure that by 2020 personal computers will have achieved computing capacity of a human brain. In 2020s nanomachines will be used with medical purposes. Moreover nanorobots will supply nutrition to people's cells and extract waste products. They will also carry out detailed scanning of people's brain and by 2029 brain computer simulation will have become possible. In 2040 human body will be able to take any shape formed by a large number of nanorobots. Inner organs will be substituted by cybernetic gadgets. Kurzweil predicts the boost of technological singularity in 2045. At this time Earth will start turning into one giant computer and gradually this process will expand to the whole Universe. Some futurologists like K. Venter, R. Freitas are convinced that genetic engineer-

ing will become a propelling power on the way to a posthuman. Onset of cosmic era will facilitate research in the area of genetic engineering aiming at adaptation of the human's body to a long-term staying in cosmic space.

### **3. The future human being. Theory of androgyny**

One more influential approach of futuristic apprehension is a theory of androgyny which is actively used in mass culture nowadays although in a primitive way. This theory has also ancestry roots. Bisexual or asexual creatures can be found in mythological works of nearly all cultures. Plato in his dialogue "The Banquet" tells us a myth about androgens, ancestors of people, who combined masculine and feminine characteristics. They were strong and had intentions to encroach even upon Gods' power. And then Zeus divided them into two parts – masculine and feminine. Later on this theory was considered in mystical anthropology by J. Böhme, works of Russian philosophers M. Berdiaiev, V. Soloviov who were convinced that spiritual perfection requires androgyny, which was understood as a mental reversion back to initial unity of human being. Famous psychologist and philosopher C. Jung saw an archetypical figure in the unity of two opposites – masculine and feminine. He considered expression of a feminine origin in the masculine unconsciousness (anima) and masculine into feminine (animus), i.e. psychological bisexuality, as the most important archetypes, as regulators of behaviour that manifest itself by appearing in some dreams and fantasies or in irrationality of men's feelings and women's reasoning. According to C. Jung both animus and anima lie between individual consciousness and collective unconsciousness. Men's understanding of their inner femininity and women's understanding of their masculinity lead to manifestation and integration of the true essence, which is an indicator of personal development. S. Bem, the author of the theory of psychological androgyny believed that androgyny provides big opportunities for social adaptation. The relation between androgyny and situational flexibility [Bem, 1975], self-esteem [Orlofsky, 1977], motivation to achievements [Spence and Helmrich, 1978], decent fulfillment of parental duty [Baumrind, 1982] has been discovered. Theory of androgyny has acquired popularity in feminist discourse as well.

### **4. Philosophy of education in search for an ideal image of the future human being**

What is a posthuman like: cyborg, mutant, androgen – nobody knows. But the obvious thing is that at present, when humanity is on the

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edge of massive transformations the issues on education have become more topical than ever, in particular changes of its philosophical paradigm, which would allow to prepare further generations not only too radical global transformational changes, but also become their immediate creators.

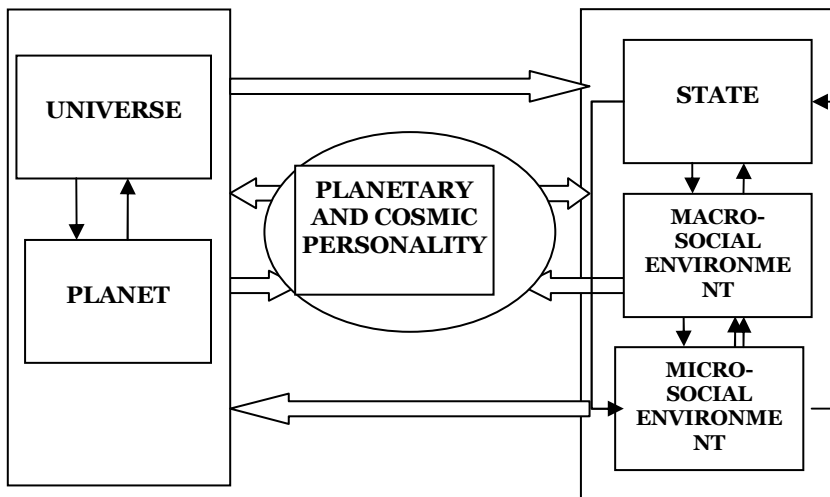
We think that the image of a future human being – this is the planetary-cosmic personality. International philosophical and cosmological society under chairmanship of Professor O. Bazaluk [International philosophical and cosmological society, 2013], brings together researchers from many countries in Europe, Asia and America. It has been conducting interdisciplinary research in the field of cosmology, philosophy, psychology and neuroscience, in order to create a complete model of the evolution of the world, including a model of the evolution of the universe, living matter and humans (intelligent substance). Studies of the International Society of Philosophy and Cosmology presented in numerous publications [*Bazaluk, 2010a; Bazaluk, 2010b*]

Planetary-cosmic personality is focused on space and its development. It is a step-by-step overcomes the boundaries of the particular material object and its activity covers the first near space (interplanetary space and the scale of the solar system), and then the space (the scale of the Milky Way and the universe.) In its transition from planetary activity to cosmic activity planetary-cosmic personality adapts the morphology and physiology of the organism to the conditions of weightlessness, thus ensuring themselves a comfortable existence in the long-term space travel.

There is a number of characteristics that differ a contemporary human from personality of planetary and cosmic type: knowledge of its past, including not only historical one, connected with development of society, but cosmic as well, connected with stages of formation and evolution of the Universe structure; level of thinking; consistent activity; motivation of activity (realization of a global goal of life). Main clusters of characteristics of a planetary and cosmic personality include: cognitive (informative), creative (imaginative), organizational (methodological), communicative, world perceptive characteristics.

Modern word tendencies, development of concept of “ecological imperative” require a number of environment directed characteristics to be included into the image of future human being. These are eco-prediction (bioethical) characteristics: ability to predict impact of our own activity on environment, constant correlation between consequences of our activity and needs of eco-system, awareness of our place and role in the unified being of the Universe, formation of bioethical awareness, personal ecological responsibility, adjustment of own interests, needs to laws of nature so on.

The necessity to include eco-prediction (bioethical) characteristics to the image of future human being has been caused by the following main factors: firstly – colossal impact of environmental conditions on development of human society and civilization in general; secondly – intensification of anthropological load on biosphere, present ecology conditions; thirdly – necessity of constant ethic control over interrelations in the system “human-nature” due to rapid development of engineering, emergence of new sophisticated technologies. The system of interrelations of a planetary and cosmic personality is shown in Picture 1.



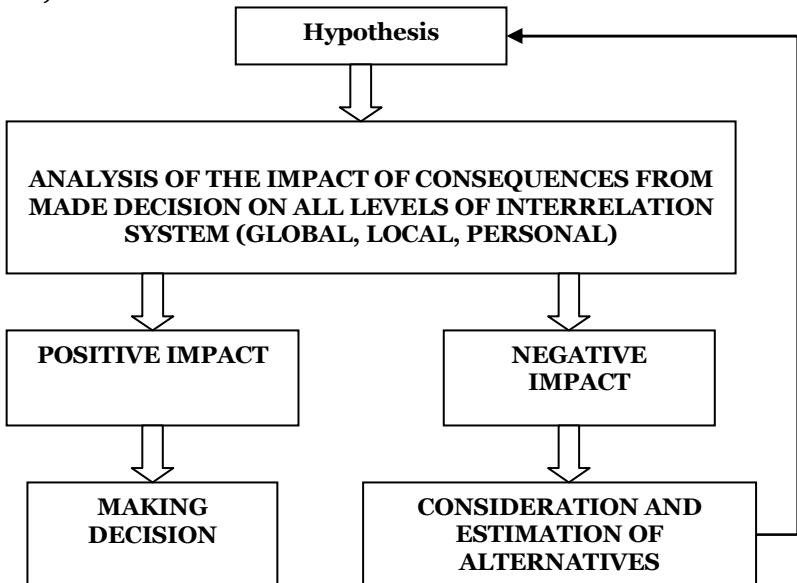
Picture 1. The system of interrelations of a planetary and cosmic personality

A main component of intellectual image of the future human being is simultaneous mind, i.e. ability to simultaneously form an idea, analyze a phenomenon, object, problem from all sides, build parallel logical chains, thought processes, contrast information which seems to be different at first sight. Development of such personal characteristic would allow an individual to have “wider world view”, avoid closed mind, narrow mind, and help prevent mind manipulation, which is in the beginning of the formation process.

Furthermore, when considering the image of future human being one should pay attention to gender characteristics of personality, develop *gender* tolerance in the younger generations alongside with racial, cross-national, religious and political ones, which will ensure peaceful coexistence

and equal cooperation of individuals, recognition, understanding and respect of alternatives, freedom of personality, multidimensionality of surrounding, variability of points of view, exclusion of domination and pressure, aprioristic ascription of gender stereotypes. So far as gender equality in all spheres of social life is one of the most important attributes of a just civil society, society of equal rights and opportunities, which excludes any involuntary segregation and discrimination. The topicality of gender problematic is determined by necessity to study specific peculiarities of women's and men's personal development as a basis for differentiation and individualization of upbringing and education aiming at formation of new gender awareness and creation of a society, which ensures conditions for self-actualization of every individual and exclude any forms of violence and pressure to personality.

Activity motivation of a personality of planetary and cosmic type, conformity of own ontogenesis with prospects and restrictions at all levels of interrelation system is reflected in the algorithm of making strategic decisions by an individual, which must have imperative, invariant character (Picture 2).



Picture 2. The algorithm of making strategic decisions by a planetary and cosmic individual



## 5. Conclusion

Summarizing everything above-mentioned we can make a conclusion that there are numerous prognoses of development of the humanity and future human being and nobody knows what is a posthuman like: cyborg, mutant, androgen, etc. But the obvious thing is that at present the issues on education have become more topical than ever. The strategic objective of philosophy of education is to shape the planetary and cosmic type of person – an intellectually developed, balanced, tolerant, simultaneously thinking personality, who arranges its activity and development within personal, local and global interrelations. Philosophy of education as an integrative anthropological knowledge, taking into account all civilization processes, prospects of humanity evolution, cultural time dominator, shall not only facilitate the choice of the variants of educational systems, programs, methods which would correspond to progressive tendencies of social development as complete as possible, needs of individual in self-actualization, but also perform prognostic and axiological function forming a prospect of world outlook genesis of personality ensuring theoretical and methodological grounds for innovation processes in education.



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