

Philosophic Problems of Correlation Between Professional Education and Education in General

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Abstract: modern epoch is called the epoch of constant changes connected first of all with development of science and its applications which have lead to quality changes in all social life of mankind. Changes taking place in civilization are associated in mass mind with culture of postmodern which is opposite to traditional culture of modern. Contradictory character of relationship between two cultures affects in a bad way the education system which nowadays must look for reasonable correlation between education responsible for ideology and forming of a person and professional education. The author points out that main purpose of modern education is - through upbringing - to form comprehensively developed person without which professional education can not be realized. In the article philosophic analysis of the problems of correlation of education and professional education is made, in terms of trends taking place in the modern world. This investigation is based on dialectics and methodology of self-organization theory. Contradictory character of integration processes in education in the epoch of globalization is shown. The author proposes the idea of two-level continuous education as theoretical solution to this problem. In this concept contradictory requirements of conservative culture and mobile civilization necessary for forming of modern person are put together in harmonious way.

Key words: Education • Integration • Self-organization • Civilization • Person

INTRODUCTION

Reforms of educational system demand answers to the questions "Why, Where to go, How?" - and it is impossible to answer them without a look into philosophy. The world develops thanks to contradictions, that is why the first condition will be finding additional aspects of integral phenomena. One of these objects is a system of education which exists in the system of larger systems - such as society, mankind, nature in general. In its turn every big system is also developing thanks to its contradictions and we should mention that these processes depending on their size have their own time intervals of forming (appearance and disappearance). In such a way, some hierarchy of systems is built up in which, as a subsystem, educational system exists. Taking into consideration that a man is an element of all social systems, that is why the system of professional

education must correlate not only with globalization processes taking place on Earth but with personal interests and human aims.

Society is a system of relations and the result of these relations will be civilization. A man has free will and in all his actions is lead by emotions and mind, but total result of many actions of all the people, in general, is of objective character, that is why it has its own necessary laws of development, which do not depend on the will of separate persons regardless of their rank and position in social structure. Breaking laws by these subjects of society leads to systemic failures which are easy to make and very difficult to improve. It is connected with the fact that self-organized system of education is built on the base of memory function. System with memory thanks to the functions of storage and accumulation of past experience will never return to original state and start moving "from the scratch". In social structures the role of

social memory is fulfilled by culture. It is the culture which in its metaphor approximation fulfills necessary feedback and determines inertia of social systems. And for real development of the system this inertia may have both positive and negative effects that in principle allow to control social processes.

Use of methodological base of philosophy is an obligatory thing in science in general and in educational science in particular - especially in key points in history. Forming of new methodological approaches is always connected with going out of the limits of traditional beliefs onto the new grounds (these often can be found even in the past history) - which is impossible without addressing of science to philosophy. It is philosophy through which science is able, in accordance with changes taking place in surrounding reality, to reflect adequately its place in public consciousness and determine its ways of further development.

Philosophy is intended for integral reflection of the world, result of which is forming of ontology or metaphysics. Through metaphysics philosophy realizes its place in culture and by means of ontology it enables reflection of science in general and pedagogic science in particular.

Main methodological tool of philosophy is dialectics which makes it possible to find the reasons of movement of things and reflect dynamics of development of single whole phenomena in time. Because of integration processes taking place in the society and professional education we must use the methodology of theory of open, dissipative, non-linear systems. Synergy first of all must describe spatial organization of systems. Here spatial organization and development of systems in time must be regarded as additional to each other. In general, methodology of researches of professional education must be a synthesis of dialectics and synergetics (or general scientific approaches).

System approach is based on unconditional belief that all the things are systems and the world is viewed as "system of systems" [1]. Control system, for all time, by means of structural re-arrangement of some relations must have an opportunity to correlate itself with changing external conditions of its existence. Dynamics of social processes changes quickly today thanks to non-linear character of civilization's development. That is why professional education (as an institute and as pedagogics' system) must be not only control system but relatively self-organized system which is developing in the conditions of global social integration. By this reason system of self-control must be established in the social

structure, operating through negative feedback which will on the one hand prevent culture from transforming some forms of public consciousness into ideology and on the other hand - prevent civilization from transforming ALL social relations including professional education structure into hypertrophied power of money, things and services. In such terms the structure of modern system of professional education itself must be an ideal of harmonious integral co-existence of culture and civilization.

Education, as relatively self-organized system, is developing from one attractor to another overcoming the state of deterministic chaos [2, 3]. We can talk about exclusiveness of education because it is a synthesis of un-correlated social aspects. Education as a social institute resembles the civilization structure because it is connected with copying and production of a number of trained people but in its contents it deals with upbringing and transferring from generation to generation of historical experience, ideas and knowledge. In other words education in terms of its contents deals with the system of cultural values necessary for existence and development of a person and society.

Changes in civilization and culture are caused by globalization processes. Difficulty in adaptation of the system of professional education to new conditions of social environment is caused by culture and civilization development dynamics. One of the ways of adaptation of self-organized system to changing external conditions is integration on the base of functional differentiation which enables profile institutions to survive by general efforts. To let integration of modern education provide both cultural fundamentality and mobility of civilization this integration must be done in accordance with the laws of existence of systems in general. Today integration is often perceived as unconditional positive act but we must remember that just physical union of systems is just a condition for integration, but it is not sufficient. To achieve integrity features of much higher level which will match the conditions of integrity of the global world we must provide analysis and listing of relations on all 4 levels of existence of system objects: meta-integral, integral, sub-integral and ad-hoc-integral [4].

Russia and the West approached globalization from different political control systems, that is why simple extension of foreign experience into the reforms of professional education of Russia will not provide good results. Historically Russia and the West have come to present days by different ways. If in non-distant past Russia was absolutely "crazy" on political ideology the

West hypertrophied the importance of business. On the one hand we have cult of person (Stalin), on the other hand - cult of money. These relations lead to appropriate educational systems. We can talk about two extreme forms of organization of state control in the sphere of educational institutions: centralized in Russia and liberal-democratic which was formed in Europe. Comparative analysis brings us to conclusion that today Russia has a unique opportunity (it will be for the first time in all world history) to form control of educational system on the base of synthesis of positive features of former Soviet system and western liberal-democratic one.

This experience demonstrates that today the forming of self-organized system of professional education is necessary which must on the one hand prevent it from getting under influence of single ideology (as it was in the past in Russia) and on the other hand - prevent from getting under absolute Power of civilization's interests (as it is in the West now). Today we must form such system of professional education which embodies in itself the combination of positive features of both strict vertical power and horizontal relations. While vertical structures are necessary for formation of ideology, person's culture and moral (and they must have values as its base which must be kept) European system is more orientated to practice and getting professional skills and knowledge intended to bring changes into the world - by this I mean values which are necessary for a man to exist in environment of civilization. Russia is strong by traditional culture, the West - by cultural skills.

Today profession explicitly starts to dominate over education. Elimination of importance of broad classical education (aimed to formation of culture and ideology) and its substitution by narrowly professional training for practical needs of global civilization is a modern social trend. Such substitution can be destructive both for civilization and a man [5].

Because of complexness of phenomena of professional education the research of them is not restricted by formal and logic (scientific) description but demands philosophic, dialectical analysis in all range of possible changes. In research of self-organized educational systems the use of multi-dimensional models would be fruitful (they are built on the base of proliferation proposed by P. Feyerabend [6], whose anarchic theory of cognition is able to present multi-level character of social phenomena in the most complete and global way. Social relations are of complex and multi-dimensional character - that is why when being analyzed they can break into many binary definitions which can be

used in mental reconstruction of educational systems. When building multi-dimensional models on human, educational, social mankind and international level we must use basic principle of science - the correlation [7]. Therefore in further research the principles of situational approach (developed in the Center of situational research in Kazan State Technological University under leadership of N. Solodukho) must be used.

In connection with actual problem of situationality and the necessity to coordinate actions of different scientists working on these issues main research program was proposed. The aim of this work in Solodukho's opinion, is to extend situational approach as a mean of cognition of the world to general scientific and philosophic level. To do that he develops a number of principles which demonstrate in full methodical and methodological significance of situational approach [8].

Science of today is in process of integration, but integration is accompanied by differentiation of notions - this leads to some difficulties in getting notions from different sciences closer to each other. Integration is not just summary of knowledge of separate sciences. When developing general scientific level of knowledge we often face the problem: positive aspects in the framework of separate science lead both to positive and negative consequences in the course of integration. Because of multi-dimensional character of subject-subject relations we have situation when the same objects are investigated by different separate sciences which results in splitting of notions. The problem of getting close notions to common denominator takes place. We believe that situational approach has a huge methodological potential in solving this problem in science in general and educational science particularly. In this regard we would like to emphasize "the principle of relativity of notion's centre in the notion space" and "the principle of crossing of general scientific approaches" [9] which in fact enables Solodukho to formulate the principle of correspondence and additionality in investigation of multi-dimensional objects both of material world and "subject-subjective" relations in humanitarian sphere of knowledge.

The problems of education can not be solved if we consider professional system of education as a closed world, they demand application of counter-reduction principle proposed by V. Kurashov [10]. The principle of counter-reduction demands to treat every finite system as sub-system in the structure of system of larger size.

Educational and professional educational systems exist in the society development of which is determined by the character of relationship between culture and

civilization. In the same time the society itself is a structural unit of mankind which today let us talk about differentiation of culture in general into the culture of modern and post-modern. Modern culture is a traditional culture of industrial society. It appeared historically on the base of Protestant ethics and is orientated to keeping of intangible values and in the same time is a base for spiritual unification of people into nation. The culture of post-modern apart from modern is international and orientated to finding and cultivation of significant values of today demanded by people for existence in the conditions of modern informative civilization.

This allows to talk about real opportunity of building optimal system of control over education in the limits of its existence in the conditions of dynamically developing world and, depending on the conditions formed in the society, get educational system through the loops of negative feedback connections between civilization and culture closer to needs of civilization or ideology (as it seems reasonable). Control over education based on optimal combination of interests of business and spirit will open professional training of a person both for needs of culture and civilization.

Modern professional education must develop on the base of broad education. Education is the same as up-bringing while professional education is based on self-bringing. As we see, without appropriate education any level of professional education can not be reached. This shows that there must be an ideology which will have the functions of national idea.

Traditional culture turn people to intangible values born by society over all its history of existence, to keeping of hierarchy in society; it is a base for preservation of integrity of state. That is why it must be supported by state. This is obligatory condition of existence of a country and elite at power. Business will not contribute into development of human spirit because it does not bring profit. In the same time without preservation of culture the country can dissolve and be assimilated into cultures of other nations. Culture of post-modern as opposed to the culture of modern culture has no limits, is global in nature, is orientated for extension of horizontal connections and not lasting relations. Postmodern is a synthesis of values of different cultures which will not provide for creation of one dominating cultural value serving to particular country as national idea. Modern life flows in open society where domination of some particular form of public consciousness is impossible. A man is in the tenets of cultural pluralism where none of values can dominate over

others. Open society with equal opportunities for different ideologies inevitably leads to elimination of significance of values of a particular culture. Total impact on the human minds of different ideas and values of separate cultures in the conditions of open society with Internet will transform into singularity.

In conditions of absence of limiting factor from traditional culture the interests of civilization with the cult of limitless consumption begin to dominate actively. Cult of material "values" of civilization has led to big-scale negative pressure from business on natural environment of human existence and worsening of ecological, energy, demographic and other global problems of mankind.

You can ask: How do you connect necessity of ideology without which upbringing is not possible with impossibility of creation of national idea in open society? Total pressure of mass culture of globalizing civilization on national elite cultures and nature in general leads us to the necessity of forming special ideology of transnational character intended for elimination of global problems of mankind, which would be able to limit endless appetite of private agents of civilization by means of whole-planet responsibility.

The aim of education is forming of comprehensively (all-round) developed person. The key notion is "all-round" which can be achieved on the base of ideology. Education can be understood as possession by a person a single-whole image of the world. Education will allow to scan human inclinations to define those areas where he or she can realize themselves in a society. Availability of single-whole image of the world formed on the base of education will enable a person to define its place in the world. All this allows to formulate the aim of professional education which seems a dialectical denial of all-round education - this is a person which can set objectives on the base of educational competences and achieve them.

Reproduction as well as elevation of culture and civilization on the new level of existence will demand its own persons with definite style of thinking. Analysis of perception of temporality in time allows us to argue that a person must be significant for present moment and the relations between a person a society must be harmonized. While mechanism in thinking in Renaissance epoch (later it led to humanism) gave birth to giving significance to a person and formation of mass education system the approach in the beginning of 20th century resulted in total estrangement from social structures. In the end of 20th century non-linear character of development of civilization became distinctly obvious even in the framework of a

single generation of people. It was totally un-linear character of processes of modern civilization which creates demand for person and even on unconscious level increases significance of education.

Civilization, culture and education are inter-related but still are different sub-systems of society and for their reproduction they need different things from a person which must be taken into consideration in organization of professional education. Culture development dynamics is quite different from development dynamics of civilization. While culture develops linearly the civilization does it non-linearly. And requirements to a person for reproduction of culture and civilization are quite opposite. While non-linear civilization demands a person with linear, non-contradictory, consistent, technological logical thinking linear culture demands a person with non-linear, non-standard, creative, contradictory, reasonable thinking. Of course a person possesses the whole set of personal characteristics but needs of culture and civilization are different.

Today we can talk about formation of 2-levels culture on the planet which partly corresponds to the structure of human brain. Modern and post-modern cultures are reflected by human consciousness in different way and demand for reproduction of their structures different types of person and that must be taken into consideration in organization of professional education. Reproduction of values of modern culture and needs of the educational system itself demands a person with broad fundamental education intended to forming of ideological competences. Reproduction of material wealth of civilization demands a professional who is able if necessary to improve his competences and is trained to orientate himself in the informative space, he must be able to get knowledge from information, by combining pieces of knowledge to get new knowledge to be used for rationalization of life. In absolute terms culture requires explorers, but civilization needs inventors. Culture is aimed for "novations" and civilization - for innovations.

Forming of modern social consciousness is greatly influenced by Internet. Internet expresses ideological essence of the culture of informative society and is the result of adaptation of a person to informative civilization - not to nature as it was in genesis of traditional culture. Forming of informative civilization is connected with inversion in regard to dynamics of change of generations of people and technologies. Today speed of change of generations of technologies is much higher than with people generations. This raises significance, on the one

hand of education with further application to professional training, on the other hand - significance of person with its ambitions in self-realization.

Development of culture and civilization must be based on a person. Person includes 2 components: basic and changing one. The 1st is self-consciousness (knowledge of knowledge), intellect (knowledge of ignorance), creativity (end in itself) and responsibility (I am the reason of my people). Actual qualities (moduses) of person are formed under influence of external conditions which depend on the relationship between nature and civilization. Therefore modern person must correlate its principles with ethos of human-dimensional science aimed for harmony of man with the world which is possible only when nature is treated as a subject.

It is connected with the fact that science, by now, as a form of public consciousness has passed 3 stages in its development [11]. Every stage is characterized by its own ideal of scientific value. In classical science ideal of cognition is elimination of subject from end result of scientific research. In non-classical ideal of scientific value principle of additivity is adopted (N. Bohr) [12] which means some parity between subject and object. Post non-classical science is characterized by elimination of object and domination of subject-subject relations. Here not physical elimination of object is meant but that everything which is touched by a man becomes a subject (or must be treated like subject). In globalization epoch the whole nature becomes a home for a man and its interests must be taken into consideration - therefore it must be treated with respect - as a subject.

The base of a person is intellect which can be understood in two ways: the first understanding was formed in Enlightenment times by ideas of A. Smith and G. Lork and it is described by formula "human intellect is knowledge of its knowledge", the second approach was formulated by I. Kant who used Sokrat's idea that "knowledge is knowledge of human ignorance". If persons of 1st type are more adapted to the needs of technological civilization, persons of 2nd type are the ones who support existence of culture itself. While persons of the 1st type must be able to see all that is essential (ideas and knowledge), in the space of informative noise and in Internet, the persons of the second type must be able to orientate themselves in cultural values system in the being of phenomena of their own thinking. The first type people must find and choose useful information changing it into knowledge, first of all, for themselves to use in practice as technologies, second

type people must be able to form new senses and get new ideas and "knowledge for others" in the space of their own thinking.

While 20th-21st centuries is characterized by overcoming of physical limited nature of a man today his narrowmindedness is being overcome by handing control over to informative systems. In high-tech epoch a man himself, because of its limited intellectual abilities, has become the threat for his own existence. But the same informative environment gives a man opportunity to play freely and make mistakes on virtual level in order to live in real world full of energy where people must not play and make mistakes.

This demands computer revolutionists which can be compared with points of bifurcation which become actual if there is real necessity of changes for solving problems. Here in the conditions of non-linear civilization of transition world every individual potentially has an opportunity to realize its individuality to become significant for civilization person. Global non-linearity stretched for several generations of people can be viewed as approximation consisting of many bifurcation points (possible ways of future development) which can not be the same, but having the same denominator - conceptual time flow.

In industrial epoch of high significance of nature sciences for development of civilization humanitarian science for a long time was perceived as "not quite a science". Now natural sciences are in the state "science is on the last place", it means that it is more and more often faces humanitarian problems the essence of which is the use in human way of the inventions and discoveries for the well-being of mankind. Natural sciences begin to look like humanitarian zone and in all its divisions they demand addition in human-dimension aspect of knowledge, first of all, ethical aspects must be included into objective reflection of reality. In times of industrial epoch social consciousness reflected reality and in education "knowledge system" of professional education dominated because relations "machine-man-thing" were on the first place. Here organizer was the man and machine which always could break down and fail and lead to problems was a source of uncertainty which must be mastered by knowing-how man. Today we have epoch of informative civilization and relations "man-machine-man" dominate and human ability to reflect possible events is on the first place because organizing power is with machine while the man, as a creature with limited nature is a source of non-predictable random events.

Randomness has both positive and negative meaning. On the one hand a chance is a source of everything new, on the other hand - it is a source of destruction. Today chance must be elevated to virtual level as a condition of rational organization of real level of existence. Only successful decisions must be implemented. Therefore human abilities of making choice, combining, build, simulate and play by scenarios of future are in demand. Close relationship between genesis of culture and a game was pointed out by J. Huiziga [13]. It seems that history of human development which has reached dangerous point of self-destruction and a game as phenomenon of culture must be treated as necessary factor of preservation of civilization.

All mentioned above changes the internal structure of pedagogical system. While organization of education as a social institute demands harmonious combination of vertical and horizontal management, the contents of professional education (or pedagogical systems) demand transition to educational technologies and systems of self-control. Today, in the conditions of acceleration of social development pedagogics expressed in non-contradictory models is not able to reflect quickly changing technologies of civilization. Therefore it is necessary to go from internal non-contradictory systems to flexible training technologies.

In investigation of professional education systems together with scientific rationality great importance is laid on intuition and understanding. It is high time to form conceptual and methodological foundation of investigation of educational systems on the base of synthesis of ideas of pedagogical science and achievements of philosophic hermeneutics, existential philosophy and psychology. Realization of understanding is of complex character - on the one hand educational system is of mass character, on the other hand understanding is individual process. Understanding in the process of training is connected with learning from history only chain of successful decisions without wasting time on analysis of mistakes. That is why professional education is concentrated not on the creative work but on search for ready decisions. The solution of this must be in inventing game-like educational technologies which must include both elements of necessity and chance. It is a game which embodies in itself the single whole thing of the rules (which can not be changed) and many opportunities.

CONCLUSION

This analysis of social relations allows us to argue that the problems connected with harmonization of relations between education and professional education must be solved by integration of private systems of education around classical universities the result of which is 2-levels structure of continuous educational process. The first level is basic education and it is directed to learning culture. It is obligatory as it is connected with upbringing. It is concentrated on fundamental knowledge and obtaining general competences with purpose of creation of necessary conditions for forming integral ideology of person. It exists thanks to vertical control and because of that it must be financed by the state. The second level - is a level of professional education for the needs of civilization. It is realized by free choice. It is directed into depth of knowledge. It is concentrated on learning based on self-upbringing. It exists thanks to horizontal relations and for this reason must be financed by the organizations and individuals who are interested in it. The second level is intended for implementation of the model "education throughout all life" [14] and forming professional competences needed by a man for successful self-realization and becoming a person.

REFERENCES

1. Bertalanffy, L., 1956. General System Theory. General Systems, 1: 1-10.
2. Afanasieva, V., 2001. Deterministic chaos: from physics to philosophy. Publishing house of Saratov University.
3. Lorfenz, E., 1963. Deterministic Non-Periodic Flow. J.Atmos.Sci., 20: 130-141.
4. Kurashov, V., 2004. Beginning of philosophy of science. Publishing house of Kazan University.
5. Shchelkunov, M. and E. Nikolaeva, 2010. Education in 21st century: Facing new challenges. Publishing house of Kazan University..
6. Feyerabend, P., 2010. Against Method / P.Feyerabend. New York: Verso Books.
7. Bohr, N., 1939. The Causality Problem in Atomic Physics. New Theories in Physics.
8. Solodukho, N., 2005. Manifesto of Situational Movement. Fundamental Researches, 8: 87-88.
9. Solodukho, N., 2009. Situational approach as general scientific way of cognition. Vestnik of KSTU, 3: 116-119.
10. Kurashov, V., 2004. Beginning of philosophy of science. Publishing house of Kazan University.
11. Stepin, V., 1992. Philosophic anthropology and philosophy of science. Moscow: Vysshaya Shkola.
12. Bohm, D., XXXX. On Bohr Views Concerning the Quantum Theory. Quantum Theory and Beyond.
13. Huiziga, J., 1940. Homo ludens. Proeve eener bepaling van het spel-element der cultuur.
14. Shcherbakov, V., 2012. Modern requirements to the structure and contents of scientific and methodological base for integration processes in professional education. Kazan: Danis.