exposed to dioxins to be significantly elevated over controls.

Special calculations of the cohort biological age showed that individuals with a history of chloracne were 18-20 years older than their calendar age. There was a 1,5 fold rise in mortality rate compared with the general city population. The mean age of dead people was 52,3±4,3 years.

Thus, the dynamic health follow-up of workers exposed to dioxins in the cohort group aged 23 – 63 years has shown that skin disorders like chloracne disappear but pigmentation and proliferative processes occur. Cytopenic reaction is associated with a trend toward a decrease and replacement by mono- and lymphocytosis. Levels of lipids, enzyme activity, blood coagulability, and biological age increase gradually. Functional disorders of the neuro-vegetative and cardiovascular systems are gradually transformed into clinically marked destructive diseases such as IHD, infarcts, insults, tumours that shorten the life span.

References:

1. Roumak V.S., Poznyakov S.P., Umnova N.V. The baseline of biological assessment of dioxin hazards // Dioxins are supertoxicants of the XXI century. Medico-biological problems. – M., 1998, P. 111 p.

2. Poznyakov S.P., Roumak V.S., Umnova N.V. 2,3,7,8,- tetrachlorbenzo-p-dioxin – hormone-like dezantogenic superecotoxicant // Jour. of Ecol. Chemistry – 1993. N 3. P. 189-212.

3. Roumak V.S. Medico-biological assessment bases for remote consequences of phytotoxicants containing 2,3,7,8 T used in military purposes (Agent Orange in Ranch Hand as an example) // Doctorate thesis. St. Petersburg, 1993. – 50 p.

4. Basharova G.R. Medico-biological dioxin consequences // Candidate thesis. 1996. 20 p.

5. Fedorov L.A. Dioxins as ecological danger: retrospectives and perspectives // edit. by V.V. Onaprienko/ - M., Science, 1993. – 265 p.

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EDUCATION IN OPEN SOCIETY: PROBLEMS OF VARIABILITY

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Large-scale sociocultural transformations of the 90-s of the XX century brought our country to the state of openness, defined the way to develop an open society. The law of the RF “On education” opened unseen until then opportunities for educational institutions’ types and kinds diversity growth, educational programs variability, their development terms, forms and methods of teaching, using innovation technologies including control-valuation activities, alternativeness of learners’ accountancy forms. Delimitation of authorities and competences between state and private educational institutions, federal, regional and municipal authorities promoted educational democratization. More than that, not only the teacher and the pupil, the lecturer and the student were named the subjects of education; directly or indirectly parents, community and business leaders, employers turned the ones. The “Educational loan” became brand-new and promising opening real ways to get education for an ample quantity of the desirous.

Lively started deregulation of education has been intensifying since January, 2005, opening a prospect to state educational institutions’ share reduction; that, however, doesn’t mean a “withdrawal” of the state from the educational system. Its attendance is carried out in a variety of ways, among which the availability of national educational standards (unfortunately, being for long in the state of projects). On the one hand, they go on performing regulating function (if not a dictate concerning the “liability” of subject fields, specialties, duration and extent of discipline studies and their contents); on the other hand, - protective function – from arbitrary actions in education (including its contents and efficiency criteria of educational process).

A standard (Eng. norm, pattern, measure, foundation) as a notion is connected with achieving certain norms of quality reduced to typical markers. Let us focus our attention on interpretation of the notion “standard” as a *measure of quality, foundation of quality,* that

goes into contradiction with a very popular idea of a standard as a minimum, also in getting skills.

Variability - (Lat. varians, variantis – changing) modification, diversity, - supposes a breakaway from the nominal principle and, with it, dictates widening the cognitive space, opening the opportunity of mastering other knowledge and skills. The idea of standard (invariant) and variability became of current interest, first of all, because in Soviet education there was no idea of variability at all, but especially – in connection with entering the European educational space, inspired by life in the open society and priorities of national strategy of stable development, by Russia. Now it is certainly possible to bespeak that the education in present-day Russia, in spite of crisis processes and considerable difficulties of their negotiation, is developing even at a faster rate, having many positive results, however, not nearly always measured and measurable in accord with the criteria of quality connected with the idea of standards and variability in the context of the new educational paradigm.

A paradigm (Gr. paradeigma – sample, model) is a notion comparatively recently come into the scholarly apparatus of pedagogy, became widely used and connected with integral ideas of methodological, theoretical and axiological principles adopted by present-day academic community as a pattern for solving theoretical and practical problems. The paradigm approach in pedagogy is productive in scientific search of theoretical-methodological foundations and practice of humanistic orientation, the process of its conceptual-categorical apparatus' renewal being connected with it. So the problem area, conditioned with the necessity and possibility to find a position in standards and variability of education actualizing such notions as personal development training, multilevel education, productivity and destructivity of educational process, full (and flawed) academic activity, pedagogical support, accompaniment, freedomability and freedom advisability in education, subtraction from education, was opened. These and linked with them notions and categories enrich modern education proceeding from the methodological principles of the new paradigm, the aim and result and also one of the instrumental quality criteria of which is *human dimension.* It is this criterion, which has put questions of the educational values and purposes revising necessity. To answer the question – Why is it to teach? – it is necessary to take into account not only the society and personality wants, but also cultural possibilities associated with the needs of its further development. These three matrixes in the development of educational perspective development strategy (anthropological, social and cultural, according to Belyayeva L.A., 1, p. 13), are of current interest with a view to life globalization and integration processes of Russia's entering the world's educational space, that demanded putting the educational system in accordance with the global standards.

The divergences of home educational system and European one turned out to be quite considerable from methodological, theoretical and especially technological positions. Nowadays the question is about the development of *lifelong education, permanent education,* 12-years school, *multilevel higher* (of the three levels - undergraduate, graduate, postgraduate) education, about using the variety of teaching forms, about widening of specialties' number, use of credit, accumulative point rating knowledge evaluation system, about a notable increase of students' and school children's solitary work share, carrying out social and practice oriented projects ("everything from and for life"), and, finally, about the right of learners to choose their teachers. Everything is aimed at the ambition to make education mobile, and the graduate – competitive on the labour market.

And if Russia's entering the Bologna process puts many questions in front of the domestic educational system, and some of them are being solved already, the problems of national identity and Russian traditions preservation, and more than that, the ones of enriching the world's educational space with the best things that represent our national pride (4,5) seem to be not less significant. In our point of view, these are the ideas of Russian cosmism and noospheric education which are developed by native philosophers, naturalists and culturologists, and which, however, are to be developed by Russian education of the new century as well.

Cosmism as a belief about the world and its integrity and as a doctrine of cosmic expansion of the mankind - an original trend of domestic thought from the middle of the XIX century – was a breakthrough in social human reflection, for European thought of that time held to

anthropocentric picture of the world outlook, according to which the human was recognized as Lord of Creation. The three directions of Russian cosmism, according to Yemelyanov B.V. (3), comprehend philosophy, science and culturology. Penetrated with the idea of anthropocosmism, they can be worthily represented in the universal educational space of an open society. In the upbringing of a modern individuality the cosmic world outlook, which includes the recognition of the human as a component of Space, its rational reflecting component, is important. To understand the fact that the human being as homo sapiens became real in the process of long historical development of living matter, one of the potent consciously acting factors of further nature evolution, - it means to understand his role, mission and to understand himself on this Earth, his destination. The thinking, creating human being is a co-author, a "direct participant of cosmic scale and value processes".

That is why a particular interest and place in modern education by right can and must be occupied by the Russian philosophy, having included the ideas of collegiality and unity of Solovyov V.S., Fyodorov N.F., Florensky P.A., Bulgakov S.N., Berdyayev N.A. And also the carrier of its ideas – the Russian literature, having defined the understanding of the human spirit wholeness, sentience, the accord of perception and morality mastering. This is "living knowledge" through attainment of Truth, Good-natured and Beauty in Tolstoy's, Dostoyevsky's, Chekhov's, Bulgakov's prose; Pushkin's, Lermontov's, Bryusov's, Balmont's, Severyanin's, Khlebnikov's, Zabolotsky's, Pasternak's, Tsvetayeva's, Akhmatova's poetry. This is also cosmic fantasies of Chaikovsky's, Skryabin's, Rakhmaninov's. Shnitke's music; Vrubel's, Nesterov's, Rerikh's painting.

Human day-dreams about the Earth and the Heaven were common also among scientists developing cosmic world outlook and noospheric thinking. The scientific direction considers a human being as a part of the environment and significance of his activity after-effect in it. The idea: the world as a wholeness – lead to the study of anti-enthropic activity of the mankind, its possibilities to regulate the cosmic chaos, hence the confidence that "the mankind will not stay on the Earth forever" (Tsiolkovsky K.E., 1911). Vernadsky V.I. developed the idea of a particular significance of human vital activity for the biosphere and with it - for the Space. His main idea is about responsibility of the mankind for everything happening and taking place on the Earth and in Space. Long before understanding the idea of Unity by the world's community and educational system Chizhevsky A.L. wrote about Space as about a common home, where "common blood is flowing in veins of the whole Universe".

The worth of Russian cosmists' idea is in the heuristic idea of the necessity for the people to unite, to overcome created by the civilization barriers between the subject and the object, natural and artificial one. In the face of Space the mankind appears as integral, organic whole, directed into Eternity. Having realized the connection with Space, the mankind must have healthy moral attitude to it.

Such a "discovery" must and can take place not only in Russian, but also in the world's educational space on the way of attainment of the backbone culture of an individual. In the educational process of a school, college and higher educational institution (in the standard or variability) there is a great opportunity to extent space and time to percept the world and the human in it through addressing to the history of scientific thought, "eternal questions" solution traditions connected with the human and his existence. The ideas of Russian cosmism will help answer the question: *"What to teach?"* in the new way, i.e. about the substantial component of the standard and variability of education. That is the addressing to the fundamental notions of cosmism – *active evolution, co-evolution, noosphere, anthropocosmism, Unity of noospheric thinking, ecological imperative, cosmic feeling, pantheism, noospheric ethics.* Present-day world's educational space can worthily value the methodological, world outlook, axiological, ethic, culturological and pedagogical worth of these ideas as basic ones in the universal educational environment. The acquirement of noospheric educational conceptual-categorical apparatus, *noospheric ethics* will allow implementing the advanced function of pedagogy on the ways of humanitarization of education, enriching natural science knowledge with irrational support and humanitarian knowledge – with rational one; dialogue of cultures, civilizations and ideologies. It is real in the one national educational space through realization of standards and variability;

in the space which inevitably will call for the Russian language as existential foundation of Russian culture in the capacity of the world's one as well.

In such understanding of the essence and destination of the national educational space and the role of the Bologna process, undoubtedly, possessing heuristic sense, Russia can productively use foreign experience and enrich it with fundamental ideas of native idea. Russian culture is able to enrich the world's educational space of an open society including the ideas of cosmic pedagogy, which is knocking at doors, our native educator Ventsel N.K. wrote and called us up to "open them wide and study it seriously".

References:

1. Belyayeva L.A. Pedagogical in the context of modern educational philosophy/ Education in the Ural Region: Scientific foundations of innovation development/ Thesis of III Regional scientific-based training conference reports, 11-15 April, 2005, Yekaterinburg, pp. 13-15.

2. Dudina M.N. Philosophic propaedeutics. Or: All ages are submissive to philosophy. Yekaterinburg, 2000.

3. Yemelyanov B.V. Sketches on Russian Philosophy. Yekaterinburg, 1995.

4. Ivanova V.I. Bologna process and Russian Higher education// Pedagogika, 2006, .№1.

5. Lurye L.I. Lurye M.L. Bologna process and new constructs of pedagogical culture. Actual problems of modern professional education. Materials of the conference held in the frame of the International congress "V Slavonic educational readings" 1-2 November, 2006. M., Pedagogika, 2006.

6. Naumov N.D. Russian pedagogy in XX century: main directions and philosophical foundations. Yekaterinburg, 2003.

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COMPARATIVE CHARACTERISTICS OF HEALTH STATUS OF PARENTS EXPOSED TO CHLORENATED DOSES OF TCDD AND OF THEIR CHILDREN

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Abstract: The comparative health studies of subjects exposed to dioxin and their children have shown that functional changes in the cardiovascular system, arterial hypertension, gastritis occurring in adults do not differ significantly from the same disorders when seen in the pediatric age group. There is evidence that at a later age the children may develop the diseases similar to those of their parents – ischemic heart diseases, hypertension, insults, cancer.

Introduction: Dioxins are known to have a high level of cumulative activity. Because of this they are hazardous not only during contact period. Negative processes in all bodily organs and functional systems occur within the lifetime.

Most scientists believe that the presence of dioxins inside the parental body has large effects on health of the offspring. The most convincing studies were conducted in Yusho and Yu-Cheng (1-5). The effects of accidentally consumed rice oil contaminated with TCDD on the regional population health were related to reduced birth weight, height, skin hyperpigmentation, retarded growth and psychoemotional development, impaired memory, hypoplasticity, abnormal finger and toenails. In Yusho, children born to mothers exposed to dioxin, died from cardio-vascular pathology. However, the authors themselves consider the results obtained to be associated with a variety of factors. In rice oil TCDD was not found alone, it contained a mixture of different chemicals.

Materials and Methods: We have been following a closed cohort of subjects exposed to TCDD during the manufacture of 2,4,5 T between 1965 and 1967. The mean age of the subjects when they developed chloracne was 23±2,3 years. During contact period and after it, 103 children were born to the families exposed to dioxin. During a recent four year period, 2004 - 2006, a complex pediatric health study including questionnaire on working and living conditions,