

Materials of Conferences

**«THE MAN AND NOOSPHERE»
IN THE SCIENTIFIC HERITAGE
AFTER V.E. VERNADSKY**

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V.E. Vernadsky has used the noosphere notion for the future stage designation in the biosphere further development, when it would become possible the whole mankind consolidation, on the basis of the humanistic principles, and also, when the mankind's Collective Mind would be acted by the mankind's further evolution dominating factor in the organic unity with the nature. The transition from the biosphere to the noosphere, in which the ordered sustained development would come to replace the Earth's living and the bone components interaction in the face of the nature, having rested upon the Mind, is the law – governed process, by Vernadsky [1]. So, it is quite impossible to be recognized, that the biosphere structure has, in essence, been changed, because of the one type meaningfulness disproportionate strengthening, and, moreover, the fact, that the biosphere self-regulation processes potential has been become smaller and smaller. And, that is why, it is necessary to be comprehended by the mankind, that it had already been entered into the Earth development new epoch, on which V.E. Vernadsky told, the biosphere transition into the noosphere, that is the sphere, having created by the human Mind, and also, having incarnated by, as the science, well as the technique.

The V.E. Vernadsky's teaching is rather optimistically. So, the moral component and the constituent part of his conception on the noosphere are being revealed, in the first place, in the standing, having affirmed the fact, that the noosphere formation laws are not being opposed to the biosphere evolution laws. V.E. Vernadsky has repeatedly emphasized the biosphere and the noosphere generality, and the fact that the biosphere has been bearing from the noosphere. The man and the mankind emergence, by the V.E. Vernadsky's opinion – this is, absolutely, the law – governed period in the biosphere development, only the one from the components and the constituent parts organization of the living material and the organized matter. The mankind's unification into the integration has been conditioned by the noosphere formation. The ethical – morally component and the constituent part of his teaching are also being revealed and in this. The defining significance during the biosphere evolution in the Mind sphere is being belonged to the ethical – morally mind of the unified mankind, and not only to the science. Thus, the science, the technique, and the man's ethical mind are being integrated together in the noosphere.

The noosphere and the scientific knowledge industrial and the technical application for V.E. Vernadsky are not quite identical and the same ones, the mind, as such in its essence, is not the scientific, and it is not the technocratic one. This is the ethical Mind, having realized, as in the science, well as in the technique. The good and the beauty are quite inseparable in the noosphere conception. The Vernadsky's optimism background and its origins are quite being noticeable both in his historical – philosophically point of view and in his position's scientific direction and the orientation.

The teaching on the noosphere is being connected with the man, and it is no mere chance. It, moreover, is impossible to be characterized by the objective signs and the indications, which are quite inherent in the defined and the specified period nature. The principally new type of the nature and the man connection – is the main thing and, very likely, the most considerable one for the noosphere.

However, he states on such development probability and the possible perspectives and the further prospects sufficiently with the caution, though the governed development idea is being tracked in the early period in the V.E. Vernadsky's noosphere theory. He, moreover, told, that human mind is quite responsible for the society and the biosphere further development. For all this, he does not express on any peremptory judgments on the specific mechanisms content, which are quite necessary for the purposes of this responsibility implementation into the life, in the contrast, for example, to the soviet Marxism supporters. It is to be done for the mankind, no better than, to be taught and also to be capable of their own needs correlation with the biosphere potential. This is, in its essence, the theory rather of the directed development, but not the governed one. V.E. Vernadsky has not ever specified and clarified it out, how exactly to be realized the given coordination, so it then, the directed development, what kind of the efforts are needed to be used, and what kind of the organizing solutions it is necessary to be accepted.

Thus, the noosphere notion is being acquired its own special meaning, only in the correlation with the biosphere and the technosphere analogous conceptions. All these notions are not being meant the periods names in the planet's history, having changed each other. Certainly, the defined and the specified chronological periods are being separated the biosphere emergence from the technosphere formation time, but the main essence of their relations to the time sequence is not being combined and aggregated. It is necessary to be noted, that the historical situation complexity is being concluded for the contemporary humanity in the fact, that it has been involved in all kinds of interrelations and the mutual relations with

the nature, having defined by the biosphere, the technosphere, and also the noosphere notions.

The man is the biosphere's part, that the most complex structured system, which, has been creating and forming many millions and millions years and its further development is being continuing in these latter days. V.E. Vernadsky makes his statements against the man's study, as the separate object, and also he is against his superfluous autonomy and his excessive isolation. It is also quite possible to be spoken on such analysis applicability restricted limits, as, in the main, the man – is «the planet's living material part»[2]. Undoubtedly, the man's situation itself has already been changed: his relations with the nature are being become, to an even greater degree, the indirect ones, in the result of the civilizational and the historical humanity development, but, after all, they are being left. On the whole, the human society existence is quite possible, as soon as in the nature preservation limits, and the man is invariably being left interconnected with it. All these above – mentioned phenomena give the possibility to be formulated some regulations of the world vision and the outlook character:

1) It would be excessively the large assumption to be carried out the development social form analysis, as the over-natural one, and also to be considered the man, independently from the nature. It would be the incorrect one, and, may be, quite possible only in the consciousness.

2) The biosphere, or the Earth's geological crust, has been modifying in the peculiar time behavior, sufficient slowly. Nevertheless, the humanity is being felt on itself their actions, independently from the fact, that the mankind is quite to be known on all these changes, and it is quite known something, in general.

3) It is quite possible the interrelations and the mutual relations with the biosphere to be added on to the main moments and the focal points of the social development in all its stages, and it is invariably exorbitantly, having had the whole its instability.

It is necessary to be noted, that the genuine threat is being emerged to be turned out his world outlook attitudes and the world-view purposes, having gone beyond biosphere's limits notion, if not to be made out and not to be tested up to the end the whole its significance for the society and for the man, excessively to be taken a great interest in the latest and the up-to-date notions, having changed the range of the interests. It is no mere chance, V.E. Vernadsky has defined it, «as the specific biosphere's state», having said on the noosphere [3].

So, it is quite possible the movement to the noosphere from the various positions to be considered substantially. Indisputably, it is necessary to continue those tendencies in the scientific inquiries and the scientific researches to be developed, which have already been specified earlier. This permits to be achieved the nature phenomena and the human society by the

deeper study. The given direction development at the qualitatively new level is being conditioned by the idea, «as the planetary phenomenon», as V.E. Vernadsky quite often defines noosphere in his transactions, having considered the future mankind's challenges [4]. Thus, it is quite possible to be permitted the fact, that the noosphere creation has already been begun, and even then, this notion is being disposed by the defined and the specified bases, but still, having spoken on the noosphere, it is quite possible to be defined it, as the humanity's prognostic future. The development ways acknowledgement challenge, the space elaboration, in which the man would be able to be survived, not having exerted the pernicious and the harmful impact upon the nature, is being considered, here, in this paper. Thus, the development tragic prospects and the perspectives, having considered, as the history end [5], and, having found their positive solution in it, are completely absent in the conception on the noosphere.

This is of no small importance to be realized for us, that it is quite impossible to be characterized the noosphere, as the objective state. Above all things, this time is being defined by our consciousness. The noosphere is supposed the new paradigm development in the cognition and the activity directions, and the consequent ones its image variations from this, as it is the new type of the society with the nature interaction. In other words, the noosphere implementation into the life has already been conditioned by the man himself development. The noosphere content is being included in itself the outdated standings reconsideration necessity, as it is not quite able to be only the independent intellectual initiative consequence. The valuables recognition of the existing all forms and the man's intention and the tendency to give the feasible help in their preservation and the further development is the absolute anthropocentrism opposite. This activity's final results, which has already been emerged, are being raised the optimism. It is necessary to be noted, that the man himself is obliged to be recognized his complete dependence from the nature, and the civilizational development to be considered, as the one from its alternatives. Thus, it is not necessary to be absolutized the standard model of the man and the nature opposition, as the subject – the object, on the contrary, it is necessary to be formed the cognition quite new model, in which it would be taken into consideration the man's inseparable organic participation in all the natural processes. And when it will be reconsidered and will be expanded the man's comprehension itself, then and such events further development may be the highly probable one.

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EXPERIMENTAL LEARNING OF DOSE-RELATED INFLUENCE OF PHENOTROPIL ON HUMORAL LINK OF IMMUNOGENESIS

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Nootropics is a popular group in treating many diseases of central nervous system. Phenotropil which is of interest is characterized by multicomponent drug-induced effects. Taking into consideration the fact of immunoreactivity changes while the majority of pathological processes in CNS, we regard learning of

phenotropil's immunocorrective activity of current concern.

Objective of the work is to learn influence of phenotropil on humoral link of immunogenesis in conditions of experimental immunodepression.

The experiment is conducted in 50 mice with SVA line of both genders 3–4 months old. Immune deficiency was modulated by intraperitoneal introduction of cyclophosphamide 100 mg/kg. Humoral immunoreactivity was estimated on the basis of reactions of direct hemagglutination. Sheep erythrocytes were used as antigenetic stimulation pulse. The experimental animals were divided into groups (n=10): control #1 (physiological saline), control #2 (mice with immunosuppression); experiment groups – immunodepressive animals who got phenotropil 25mg/kg, 50 mg/kg, or 100 mg/kg ip. All manipulations with animals were conducted keeping international principles of Declaration of Helsinki. The results were statistically processed using Student t-test.

It is established in the course of the work that single intraperitoneal introduction of phenotropil in all tested doses enables reconditioning of the level of antierythrocytic antibody against introduction of immunodepressant, positively increasing the index more than 50% in comparison to the corresponding characteristics in control #2. The most effective were doses 25mg/kg and 50 mg/kg, when using them titer of antibody reached baseline level in control #1.

Thus the obtained data allow concluding that phenotropil shows expressed immunocorrective action, eliminating cyclophosphamide induced disorders of antibody response which is of interest in the context of following learning of neuroimmunotropic effects of the medication.

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