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NON-MATERIAL THEORY OF THE PSYCHE

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Summary

It has been justified that: 1) for 2000 years, scientists did not notice the erroneous substitution of concepts: they talked and wrote about the study or therapy of the psyche, but studied and "treated" the brain (in parallel, inventing pseudo-physiological terminology to explain mental processes); 2) the brain and the psyche are two different systems; 3) the brain and the nervous system are material substrates regulating inner organs and adaptive functions of the organism; the psyche is a non-material (informational) structure which is developing as result of language programming of the brain in a social informational environment and regulating all cognitive, emotional and behavioral aspects of social adaptation of personality in accordance with the demands of society, in which one's psyche was formed.

Key words: adaptive functions, brain, cognitive, emotional and behavioral activity, nervous system, psyche.

For two thousands of years, the problem of relation between the psyche and the brain has been explained in the most primitive way based on Hippocrates' hypothesis. But to the modern time this problem remains as one of the main, mystery and unresolved.

Let me remind you that according to Hippocrates, the brain is a vessel of all mental processes. Despite the enormous progress of science, Hippocrates' hypothesis still dominates in medicine, physiology and psychology.

In the 16th century, this hypothesis was further developed by René Descartes, who dissected heads of animals trying to find material structures of memory and thinking. In 1863, Ivan Sechenov, based on the ideas of Hippocrates, Descartes and Darwin, wrote his paper "*Reflexes of the Brain*". This short article still regarded as a revolutionary turn in our understanding of the psyche. In this paper Sechenov purely theoretically stated, that the brain acts "like any other machine" driven by reactions of excitation and inhibition. It was the time of primitive materialism, and these ideas were embraced with enthusiasm as the scientific community as the general public.

Ivan Pavlov was delighted with Sechenov's ideas and developed the well-known theory of conditional reflexes. Later, he suggested and then stated that it is the reflex is that place where the physiological and psychological are united. Moreover, at the congress of physiologists in Rome in 1936, Pavlov proposed to completely abandon the term "mental" and replace it with the term of "the higher nervous activity". No any psyche! Just "the higher nervous activity".

What united all these outstanding scientists - Descartes, Sechenov, Pavlov and their followers? It was a powerful and exciting idea of discovering the material substrate of the psyche. Let me stress it once again - they did not mean finding some structures on which the psyche is based; but they tried to find the material substrate of the psyche itself.

I should remind you that dominant hypotheses about the material structures of the psyche directly influenced the therapy of mental disorders. The anatomical approach to mental structures stimulated the ideas of lobotomy and dissection of the cerebral corpus callosum. The idea of electrical activity led to multiple experiments with electroshock and attempts to read human thoughts by the EEG. New biochemical theories caused the development of a new branch of the medicine called psychopharmacology. Metaphorically speaking, during long time scientists have searched for the vessel of the soul - and finally they found it in the synaptic cleft. As a result, 90% of modern therapies for mental disorders are conducted with pharmacological substances. The target of these substances is metabolism of neurotransmitters in the synaptic cleft, but it is supposed that it is influence to mental processes.

What happened in modern science but was not ever noticed by the scientific community? It was a regrettable substitution of concepts! Scientists talked about studying and treating the psyche, but in fact, they were studying and treating the brain. At the same time, new pseudo-physiological and pseudo-psychological terms were

invented to describe mental processes in terms of neural flows, neurotransmitter exchange, excitation and inhibition in the brain, and so on.

In 2008, in contrast to these traditional ideas, I introduced the hypothesis of the brain as a biological interface. This hypothesis draws a parallel between the brain and the computer hardware (from one side), and between the psyche and the computer software (from another side). From this perspective, teaching a child to speak a language, and human learning in general, could be seen as a language programming, conducted in a specific language, just as in technical systems. Here is one of the main conclusions of this new theory: "Over time, the unique role of the brain will be reconsidered, and in the new framework, it will be given a more modest but no less important role of a bridge between the ideal and the real; or, in modern terms, of a biological interface".

It must be admitted that age-old attempts to reduce the diversity of mental phenomena to primitive anatomical structures, or biochemical or electro-physiological reactions, do not stand up to criticism. The very essence of mental processes is qualitatively different. We receive information, produce information, modify and verify information, exchange information and – that is the most importantly – we transmit an ever-increasing amount of information from generation to generation. It is this ability to preserve information on stones and papyrus, on paper and electronic devices, and to transmit it to the next

generations - is that what does us human and distinguishes us from animals.

The further development of my theory was related to one essential point that has long escaped the attention of physiologists and psychologists. Modern academic science generally recognizes information as non-material. Only its carriers - biological, paper or electronic formats - are material. However, being non-material, any information obtains (does not initially have, but namely obtains) a number of quantitative and qualitative characteristics. It can be neutral, emotionally intense, frightening, true, or false. However, all these characteristics can only appear if there is a subject of perception. Moreover, the same information can cause completely different mental reactions in different subjects. Let us remember September 11, 2001, and the collapse of the World Trade Centre: we saw nationwide mourning in the United States and cheering crowds in Libya. Actually, the information does not exist, until there is no a subject to perceive it.

The prevailing view of the brain as the vessel of all mental processes has led to many misconceptions which have entered our everyday speech. But in science, it has led to the well-known phenomenon of overload of an outdated theory, when everything outside this dominant scientific concept is immediately discarded. It is quite common, even for our educated colleagues, to say something like "he has a problem with his nerves" or "it's getting on my nerves", although everyone knows that nerves are just conductors. Another example is a phrase "it came into my

head". However, ideas do not come into one's head, but into one's mind. In general, the identification of the nervous and the mental - at the level of ordinary perception and even scientific knowledge - is overwhelming.

I will not dwell on the detailed explanations of the non-material theory of the psyche. If colleagues are interested in it, they can find its literally explanation in series of my articles both in Russian and in English. I would conclude with formulating the main ideas of this theory only. It was shown that:

Firstly, the brain and the psyche are two closely related but fundamentally different systems.

Secondly, the brain and nervous system are material and regulate the activity of internal organs, reflex reactions and adaptive functions of the body.

Thirdly, the psyche is non-material. It is an informational structure, which is formed on the basis of language

programming only in the social environment and regulates all human social functions.

This was clearly demonstrated by the unintended experiments of raising human children in animal communities. They remain a representatives of the species Homo sapience. But they do not obtain a human personality, as they could only learn the language and behavior of the animal community in which they have survived.

Literature

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