

Thus, B.L.Yavorsky justified origination of the "living" sound, which in its development became the material of the musical art.

The history of a centuries-old sound practice of the musical art evidences that this sound scale evolves constantly depending on development both of sound scientific consciousness and technique of musical-artistic practice. This evolution of the sound scale tends to reveal the increasingly more possibilities of the external sound manifestations of the processes of internal sound thinking and internal hearing.

"To vivify" music, to represent peculiarities of different style epochs of musical culture is possible only on the basis of understanding and perception of intonations (speech and musical).

Though discoveries made by B.L.Yavorsky are referred to the end of the XIX-th – the first quarter of the XX-th centuries, they haven't yet lost their urgency and at present they are practically advisable for development of the information science in all spheres of human activity.

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TOWARDS THE NOOSPHERE OF INTANGIBLE (ESOTERICISM FROM MATERIALISTIC VIEWPOINT)

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Abstract: *Exploration of intangible world is under the serious influence of esotericism. Mystics, religions, unrestrained use of metaphors, fairy tales, gossips, unverified and uncertified "facts" – all this needs accurate well-disposed, but sound scientific consideration. Our society really needs new ideas, new approaches and new paradigms. Technological civilization becomes more and more complicated, risky and ecologically critical. The current level of AI research cannot guarantee successful solution of societal control and management. Besides, the human being itself practically did not change its mental and psychological abilities for many thousands years. We can lose control over our society and its technology, if we do not change cardinally ourselves. In this text, I tried to approach this problem – the problem of our noosphere from materialistic viewpoint.*

Keywords: *philosophy, noosphere, esoteric, intangible world, beliefs, soul, God, materialism, idealism, egregors*

ACM Classification Keywords: *1.2.0 General: Philosophical foundations, H.1.1 Systems and Information Theory: Information theory, I.6.5 Model Development: Modeling methodologies*

"Go there, don't know where, bring that, don't know what..."

Russian fairy tales folklore

"We believe that $2 * 2 = 4$. Without this belief we would fail in our everyday calculations. We should be the true believers the whole yearlong. But once a year we ought to stop and think over this issue one more time..."

V.Lofovskiy, Wise Thoughts (unpublished)

Introduction

I was greatly embarrassed when decided at last to step forward with this theme. First, I am a newcomer to the field of esoteric, while this sphere of human activity is philosophized, theorized and practiced from the very beginning of humankind. Yes, the progress of human society started with the first inventions to support physical existence of prehistoric people. But no one society can exist without "ideal" world – semiotic systems which, of course, have material carriers, but whose sense is in representing some knowledge and communicating it between intellectual subjects.

It is very hard to handle existing information fund on esotericism: abundance of paradigms, approaches, term interpretations, metaphoric way of consideration (usually the authors never admit it, but go on in developing their personal viewpoints as if it was scientifically proven truth). Thus, for our current goals the idea to make substantial comparative presentation of this field was abandoned from the very beginning. And, again, it is unusually hard to make specific literature and author reference. I understand that in these circumstances one should leave the hope to pinpoint exact scientific priorities of all researchers in this field, including your obedient servant... Instead, we are aimed at much more important issue – try to find correct estimates of what is going on in our civilization, and how should we together handle all difficult problems, which life evolved around us. As a partial compensation for this liberty in approach, we shall try to give as precise definitions, as we can, for the nontrivial concepts, with which we are going to deal.

Amen!

Knowledge, Civilization, Noosphere, AI, Esotericism and the Future of the Humankind

Speaking about human beings, about society, we cannot bypass the question of human destination, goal, sense of living in this World. Of course, the answer varies among specific individuals, epochs, situations and the fundamental issue of humankind creation – was it done according to Creator's will, or was it completely natural process – including evolution, mutations, natural selection, or even extraterrestrial visitors interference. Looks like we can find the common denominator for all these variations and alternatives. I guess, it is knowledge.

Obtaining *Knowledge* is the sound motive for any human deeds and actions irrelevantly to the prime cause: material, or ideal (In the beginning was the Word, and the Word was with God, and the Word was God [Bible]). Knowledge is obtained as a result of *need, boredom, pleasure, curiosity* and *chance*. The universal method of obtaining knowledge is *activity*. Life is activity. The natural frame of activity is *adequacy*, or *harmony*.

Of course, we cannot prove this thesis, but one can easily try to fit it over any imaginable situation – is it striving for life, scientific research, creating work of art. In any kind of human activity, we should obtain knowledge. New feelings are also new knowledge. Just imagine that due our inactivity or due completely routine activity one stops to acquire new knowledge. At that point life ceases its sense and we prefer to name it *existence*.

From now, we will use the concept of Creator (God, Lord in Christianity). Even the orthodox materialist should agree, that such concept exists, and until now, science could not prove neither (His? Her? Its?) existence, nor absence. In our argumentation here we shall – not accept – but touch and from time to time refer to this concept. Assume, for the moment, existence of Creator who created World and humans. In all idealistic philosophies and religions, Creator is Omniscient and Almighty. In such case – what could be the reason for material World creation? What could be the sense for creation of humankind? The reader should agree that He created the whole World having no other way for obtaining new knowledge. Such ideal entity as Creator, by definition, could

not be interested just in shuffling the matter. So, obtaining knowledge really is the sound candidate for the goal of human existence.

Humans became humans only due the creation of *society*. Civilization is the product of social activity - communication, interaction of people, creation of crafts, engineering, science, art, religions, traditions. Civilization is the natural cradle for new knowledge creation. It became possible only because each human generation could absorb the knowledge of previous generations and, in its turn, lay its own knowledge strata for future generations to rest upon. Along this reasoning thread, we arrive at the concept of noosphere. It was formulated by V.I.Vernadsky [Vernadsky, 1943] and Père Pierre Teilhard de Chardin [Teilhard, 1947]. My own vision of noosphere in semiotic context could be found in [Lozovskiy, 2003]. The term «noosphere» (Ionian Greek "noos" = mind) is used for integrative designation of physical world realities together with the whole mankind knowledge.

One of the key milestones in the humankind development was when people tried to attack the fundamental concept of knowledge creation and handling. Information technologies (IT) and even artificial intelligence (AI) sprang into existence and were developed to the current level. Before the information age only humans (and, to some extent, higher animals) could generate, process and communicate knowledge. Now it could be done much more efficiently with the help of artificial means.

The stunning progress of IT and AI cannot conceal the problems encountered in this way of technological development of civilization. We encounter difficult problems in every step of knowledge acquisition, formalization, handling in computer systems. One of the main obstacles is a bad ergonomics of artificial systems. Many managers and applied specialists fail in efficient communication with expert systems and remain on primitive level of using technology of paper, pencil, phone, and maybe calculator. From the other side, human intelligence in its entirety and, in general, human performance, remains unreachable for current technical counterparts. We have very weak understanding of human intuition, emotions, flexibility of behavior, methods of handling imprecise, unreliable, incomplete information. The notorious human factor, intrinsic difficulties of management in organizational systems are still beyond the reach of contemporary knowledge engineers.

From the other side, our civilization is inevitably approaching its crucial point. We have serious ecological problems, which have definite tendency for deterioration, we more and more depend upon technological world, created by us: the failure in power supply, communication, automated management and control systems can not only block the normal life process, but even lead to catastrophes and tragedies (Chernobyl, for example). This overcomplicated world requires much better level of understanding, interaction and management, than can provide the human brain of contemporary people. And it is no wonder: human brain and its usage by humans practically did not change during many thousands of years.

Of course, we cannot stop, reverse the civilization, return to caves and animal skins clothes – we ought to go on in our development, changing our ways, our mental and psychic abilities, harmonizing our interaction with Nature.

But does our brain, perceptual and psychic abilities work at their extremes? Neurophysiologists say that usually human brain works within the range of 3-6% of its potential. This phenomenon is not coincidental. It means that our life conditions until now did not stimulate the growth.

Everyone can name maybe several encounters in his/her life with persons demonstrating outstanding abilities – physical, mental, psychic. One elderly woman under the affect brought out of fire her huge trunk, which later could not lift four strong men. There are people who developed their memory to fantastic level – they memorize heaps of numbers, perform complicated calculations in mind. Some behave very soundly and efficiently under the stress situations, when others just got paralyzed. All these phenomena, though rare and frequently requiring tedious and systematic everyday training – do not seem to us marvelous: we understand, in principle, how these results could be achieved, and can give scientific explanation concerning their mechanisms.

Besides above mentioned phenomena, which can be explained by “materialistic” science, from ancient times we obtain evidences of something supernatural taking place – clairvoyance, foretelling, telepathy, telekinesis, levitation, nontraditional healing, bio-field, UFO, communication with Higher Intelligence, - all what is known as esoteric, or mystics. The number of books on this theme is overwhelming – it is hard to mark out the most fundamental ones – one usually adheres to some or other school according to personal taste or belief.

There are some specific problems with esoteric... First, “official science” calls it “pseudoscience”. Phenomena, pretending to be esoteric, rarely become objects of scientific investigation. In its turn, the number of esoteric

paradigms is astonishing. As a rule, esoteric authors freely and without restraint use metaphoric presentation of their subject tacitly convincing the reader to buy it without any doubts. Personal and religious beliefs in this sphere play essential role. And again – authors usually avoid modest remarks of the type: “It seems to” or “I believe, that...”, so that the reader is left to his/her own judgment concerning the objectivity status of specific presentation.

My idea is that time is ripe for humankind to approach esoteric from the positions of scientific method. AI professionals should be among the researchers in this field. And that is why. First, we should acknowledge the fact, that the modern technological society is approaching the crucial barrier of complexity, beyond which we can lose control over the civilization, we created. Our current understanding of noosphere structure, content and behavior may present only the tip of the iceberg and should be critically reconsidered. Even if majority of esoteric evidences will occur false, their remaining part may add substantially to our philosophy and practice. Alers are proficient in knowledge engineering and simulation of human behavior. Acquaintance with world of unconscious and other esoteric themes could enhance understanding of human mental and psychological characteristics and, as a result, lead to automation systems creation, which will be better adapted to the challenges of our growing and maturing society. In such research, we can expect several byproducts, for example, refining our philosophical background – handling this subtle border between material and ideal hypostases.

The proposed approach to esoteric requires refinement and elaboration of our basic definitions. Without such bureaucratic stage, we cannot attack such complicated humanitarian polyparadigmatic area.

Materialism and Idealism

Traditional approach to these paradigms is symmetric and frequently vulgar. They say that materialism does not accept in the world anything but substance and energy. Earthy materialists do not believe in good and evil, they deny the existence of soul, ethics, do not believe in God. They see only material interactions in the world and deny the existence of any higher will, intelligence governing the Universe. Contrarily to that, idealism is supposed to put forward “ideas” – abstract concepts, goals according to which sprang into existence, function and changes the physical world. That is why idealism is inevitably tied hard with the concept of God, Creator, whose goals and orders rule the Universe. Traditionally, consistent materialistic and idealistic paradigms are considered equally sound; i.e. one can adhere to any one of them, and do not be afraid of refutation from the opposite camp.

My argument is - that idealistic paradigm is weaker than materialistic one due the lack of experimental evidences. It is the routine approach to natural science theories: they all should be supported by practice. Speaking about concepts, paradigms, ideas, language, phrases, plans, intentions, emotions, etc, we should inevitably postulate existence of the following components necessary for the success of communication act:

- subject generating and issuing these “ideal” assets (source of information);
- subject receiving, understanding and perceiving these information (reception of information);
- material data medium used for transmission and/or storage of information.

Both communicants should be intelligent enough, belong, at least, to the similar cultures, have common communication language, be involved in some common goal oriented activity – otherwise such communication act will fail. The state or activity of receiving subject should change somehow due to the communication being considered.

All three communication components are really indispensable. Thus, “information” cannot exist without some material substrate – media, bearing this information. So, material data medium should first be created, and only then, it could be used for handling “ideal” (information) entities. One of the main characteristics of an ideal entity is its semioticity.

From this trivial argumentation, one can infer the following significant corollaries.

1. The ideal entity creation should be preceded with obtaining the material bearer good for generation, storing or transmission of this ideal entity. Thus, the issue of priority is solved in the favor of matter.
2. Communication of ideal entities – information – is possible only between intellectual beings belonging to the same culture and of comparable intellectual level. So, it is impossible and senseless to give orders to inanimate objects, they cannot perceive and understand information.

3. Ideal entities exist in reality, but only within certain cultural world [Lozovskiy, 2003] and have sense and meaning only within this world – intellectual beings inhabiting it.

I feel that this is correct materialistic approach to the Nature, and one can rely upon it in the following investigations. As was shown above, our world, being materialistic in form, has means for representing ideal entities - information. One more remark here – concerning the origin of Universe, Solar system and human race. Here we, of course, cannot answer the question – whether our world is the result of natural physical, biological and physiological processes and evolution, or it was the result of Creator's activity, or interference of some extraterrestrial civilization. All we can proclaim – it is the result of material processes.

Materialistic Approach to Exploration of Intangible World

Cognition of the World is the endless process. The whole Universe at each given moment of time can be divided into two subworlds: Tangible and Intangible.

Tangible World – is the part of the Universe, of which we are aware and have some positive knowledge about it. Adequateness of the paradigms used, theories created (and verified), their experimental confirmation varies within the broad range, though. From time to time this knowledge is changed to reflect better the new facts; sometimes old paradigms are replaced by the new ones within the course of scientific and technological revolutions. Knowledge (and folklore) about Tangible World as the part of cultural World [Lozovskiy, 2003] determine the current scope and state of the Tangible Noosphere.

Intangible World – is the collective term for all Unknown part of the Universe, of which we are unaware and have no rational verified knowledge.

Of course, this classification is fuzzy and provisional; there is no clear cut border between these worlds. In the course of scientific progress human cognition attacks, tries to explore the Intangible World gradually moving its fragments to Tangible one. The main obstacles on this road are fallacies, misbeliefs, fantasies which cannot be laid in the basement of natural science theories and usually become the part of human cultural World (fairy tales, religious beliefs, superstitions). If our destination really is to gain new knowledge, as we argued in the beginning of this article, we ought to permanently attack the World of Intangible. But how? This situation reminds the classic one from the Russian fairy tales: go there, don't know where, bring that, don't know what... Of course, we ought to be armed with the technological approach, for example, new instruments for measuring radiation while exploring new areas of the Universe, but the most subtle and mysterious areas are tied with humans themselves, their inner world and relationship with Nature environment. By the way, the basic goal of AI researches is to better understand "ideal" processes in human mind and psychics, try to simulate them and create better instruments to help humans solve their most important problems.

Frequently information about Intangible World researcher obtains from other humans in the form of their personal unusual experience or from witnesses of some extraordinary phenomena. These evidences, as a rule, have very troublesome features:

- extremely high level of dependence on specific person, their physical, mental and psychic state, character type, suggestibility, religiosity, innate features and personal training;
- high dependency on environment conditions: season, time of the day, weather influence (usually interfering) and even silent disbelief or skepticism of listeners;
- aforementioned peculiarities frequently result in a bad recurrence of phenomena under investigation.

Esoteric is a very intriguing potential wonderland, which in my opinion quite deserve exploration, and that is why:

- it has a long history – thousands of years; esoteric beliefs accompanied human race from the very beginning of the history, have not vanished, but broaden and flourish;
- many outstanding persons were studying and practicing esoteric mysteries, and there is abundance of literature on this subject;
- there are a lot of esoteric schools, societies and communities – one can easily find one in one's own town – according to the taste and interests;
- esoteric is full of extremely rich promises, which are quite tempting and badly needed in contemporary human society in order to better correspond to requirements of our life, society, civilization – better

physical, psychical and mental health, better control over own organism – even over its organs and subsystems, diagnostics and healing the diseases, which are caused by functional disorders or improper influence of the nerve system, mastering subconscious processes, development of extrasensory perception abilities and potential nontraditional ways of interpersonal communication and interaction.

Unbiased consideration of esoteric doctrines produces ambivalent impression. The lack of sound scientific theory and reliably confirmed facts positioned esoteric from viewpoint of Academy in the domain of pseudoscience. Situation is aggravated by very strong positions, which are held in many esoteric teachings by religions and mysticism. The time has come to investigate this problem using sound scientific method. Of course, the whole issue is exceedingly complicated, and here we will try, at most, approach it shyly not losing solid ground beneath our feet.

So, the key source of information in esoteric is human evidence.

Evidences of Level 0. These are evidences of “folklore” character. Researcher obtains oblique information from unknown, unavailable or unreachable source: somebody had said something – no details, confirmations, trust. Most evidences unfortunately belong to this category and can be dismissed with light heart. This information probably deserves only to be put into protocol as possible hint for future, if it comes sometimes to relevant issues.

Evidences of Level 1. This sort of evidences is obtained directly from trustworthy subjects on the base of their personal experience, experience of their close friends or relatives, from direct witnesses or participants in some happening. Such evidences deserve the close examination. Their valuable feature is that it becomes possible to recur to the sources requiring detailed, probably documented and/or confirmed information; in the future it is possible to return to the issue under consideration, if new questions arise, new circumstances come to light or require clarification.

Sometimes, we may obtain distorted information, if the author of the evidence was in changed mind state: under hypnotic suggestion or in meditation. The serious problem within this Level 1 is that these evidences to high degree can be subjective.

Evidences of Level 2. Here we deal with the evidences obtained by researcher himself in the course of experiment, as a witness of some activity or observation of natural phenomenon. In this case, it is possible not only to create a protocol of the experiment, but also actively participate in it on the stage of planning, execution and discussion of the results. Sometimes it becomes instructive to change the course of experiment “on line”. The main objective in this situation is to discern the true nature phenomenon from the magician’s tricks. Of course, the researcher should be exceedingly aware, if the experiment requires changing his/her own mind state. One should exclude chances of being drawn to such states unconsciously. Sometimes, the presence of qualified psychiatrist, whose task should be checking mind state of the participants, is required.

Evidences of Level 3. To this class belong evidences obtained as a result of personal training of the researcher (increasing sensitivity, developing extrasensory perception, special breathing techniques, experiments with changed mind states, meditation, perception of aura, biofield, etc.). Of course, it is the most complicated and time-consuming approach. Besides, it relies on the belief that extrasensorial abilities are not only inherited, but also can be trained by any dedicated person. Results, which could be obtained on this level by researcher stem, in greater part, from his/her introspection.

There are two main problems with esoteric. Firstly, these phenomena are closely related with brain activity on conscious and subconscious levels. And, secondly, we are lacking understanding sound physical backgrounds of these phenomena and, consequently, - instruments for obtaining objective measurements. It would be a pity to rest this domain to magicians, religious figures, naive people and businessmen. Such is the motivation of the current research.

Esoteric and its Strata

The whole domain of esoteric could be seen as consisting of four strata.

Stratum 1 – Neurosomatic. The term was coined by [Wilson-Leary]. Human organism is extremely complicated system. Our orthodox sciences (medicine, neurophysiology, biochemistry, psychology, psychiatry et al.) have until now very superficial understanding of life even on the level of distinct organs, phenomena and subsystems.

When we get to the depths – the cell level, and, even more, if we are interested in integrated functioning of an organism, in gestalt effects, - our sciences really fail.

One of the big white spots is human *subconsciousness*. Neurophysiologists fail to explain its main mechanisms. They say nothing about interfering with them. On the layman level, we understand, that subconscious work, from one side, as buffer, or long term memory, where are stored much greater volumes of data, past impressions, than we are aware, relying on our conscious sphere. It is well known fact that under hypnosis patient can recollect even events of his childhood or reconstruct forgotten relations between some events. The scope of subconscious memory is suspected to include probably genetic information – memory of generations. It could explain reminiscences of some humans about their previous incarnations.

Subconscious human sphere is not only memory – looks like it can process information in nontrivial way, finding correlations, rational solutions, of which people are completely unaware being awake. Psychologists call this phenomenon insight – as if solution comes from nowhere; but this could be the effect of processing data subconsciously and then just transferring it to daytime memory. The power and potential resources of subconscious memory exceed 90% of human brain. People from esoteric [Zykova] say, that we ought only to present our problems to our subconscious sphere, and solution found will be much better, than we would obtain “thinking” over them in ordinary way. Special methods exist which open the door to our subconscious processor: trances, meditations, which help us to lower our beta rhythm of vigil brain activity (15 - 30 and more Hz) down to alpha (7.5 – 13 Hz), teta (5 – 7 Hz) or even delta (0.5 – 4 Hz). Hypnosis, auto-training and meditation usually require subject to be brought, at least, to alpha rhythm. In this state various suggestions could be done, getting rid from negative habits and stress, solving different problems.

Human *nerve system* is the control system for the whole organism. We all know the saying: “All deceases are from nerves”. Evolution adapted us to the current life condition, our technological civilization, primitive medicine with its strong impact on separate organs, or just illness (“from cold”, “from stomach”, “from any pain”...). It led us to the status, where we lost control over our own body. We can discern several aspects of nerve system functioning.

- General psychic personality type and the current nerve system state. Sanguine, melancholic, phlegmatic, choleric character types; optimists and pessimists; gloomy, cheerful, shy types. All these not only determine one’s current psychic state: it has a strong influence on physical state of the organism. Psychical and physical spheres tend to be in harmony: in sound body – sound spirit and vice versa.
- Distal nerve and microcapillary systems work together near the border of the organism being sort of interface between it and environment. Ancient oriental medicine brought to us the theory of meridians and tsubo – small sensitive zones on the body surface [Serigawa]. According to oriental teaching, these zones “represent” internal organs, reflect their state and, from the other side, can be used to influence, correct the state of these organs.
- Nerve system control organs and functional systems of the body. Contemporary humans, in general, lost this ability – it was obsolete due achievements of our technological civilization. However, looks like it did not vanish forever, but is now in the passive state. With the help of special training, we can control our heart, blood pressure, pulse, functioning of liver, kidney and other organs. Good news is that all these effects could be achieved not only by yogis or humans with inherent abilities – everyone can achieve results on this path, but, of course, results will differ. Really, a great artist can create masterpiece, but everyone can be taught to draw a house, a tree and a dog under it...

Extrasensorial perception is the ability for humans to perceive outer world information much more efficiently, than majority of people. It can be attributed to four sources.

- Heightened sensorial sensitivity.
- Broader frequency band.
- Using some “unusual” or yet unknown fields, energies, radiations: magnetic, electromagnetic, electrostatic fields, biofield.
- Perceptions of gestalt type, sometimes, named hypersensory (HSP), or intuition. A person with HSP is very observant and perceptive. They may be adept at reading body language or simply be more

attentive to details than most people picking up subtle behavioral cues unconsciously, cues that are also unconsciously given. Strictly speaking, we deal here not with just perception, but with complicated process of general combined analysis of several stimuli on the basis of pattern recognition. For example, qualified and experienced physician can diagnose many organic disorders on the fly. Sometimes, he cannot even explain, how it is done – he simply feels, or it appears to him so. It means that these processes to the great degree are done subconsciously.

Nutrition and breath. These factors are exceedingly important not only for physical human body – it is self-evident. There are evidences, that breath do not only brings oxygen to the blood, but plays exceedingly important role in energetic processes in the organism and when interacting with environment, or even, Universe. This issue should be thoroughly studied by science.

Drawing a conclusion, we can state, that this neurosomatic stratum is materialistic foundation of esoteric and should be thoroughly studied, practiced and be developed further.

Stratum 2 – Bioenergetics. The issue of “bioenergetics” can be approached from different viewpoints. From physical point of view, each living organism radiates several types of energy: heat, acoustic waves, magnetic, electrostatic field and electromagnetic waves in rather broad frequency range. Correspondingly, these fields somehow influence the organism – on subconscious or biological level. Intensity of radiation is very low and drastically falls with distance. In esoteric it is postulated that there probably exists quite different type of energy – bioenergy, which is emanating from living organisms and form specific biofield around them. Sometimes, they speak about biofields of inorganic objects. The main problem with biofield is that until now we have no reliable physical methods and/or devices for measuring it. Even worse – there is no assurance, that biofield is really field – it may be bioplasma, or some other, maybe yet unknown fine material substance or radiation. Very queer circumstance is that these biofields can usually be detected and “measured” only by humans having specific sensitivity to them. Though, there exist methods (Kirlians’, for example) pretending of making color photographs of aura – biofield around human body.

One of the most fascinating esoteric theories is the teaching about human chakras, auras and of the whole energetic system of the human organism, which support its functioning and play the role of interface gates between the organism and the rest of the Universe. Though these theories lack rigorous scientific confirmation, practically, one can develop personal sensitivity to the level, where some emanation from human body, or from other objects could be felt [for example, Bronnikov, 2005]. I have got training in Bronnikov’s First Stage, starting from the zero sensitivity to biofield, and can present my subjective feelings and impression concerning my achievements. Really, after 10-days course and several months of training, I can feel “something” between my hands when I move them one towards another. This feeling in the palms is a mixture of elasticity – like soft children’s air balloon, pricking, some heat, cold or rippling. At this stage, one can say, that, as there are no *objective* indications (measured with some physical device), - probably, it is psychological effect, suggestion, produced with neurons in my own brain, or between brain hemispheres. But things become more complicated when I feel the fields of other people, trees and even inorganic objects. Several successful sessions were carried, during which patient’s headache, cramps and shoulder neuralgia were cured. The specific method used was of Reiki type [Reiki, 2004] and procedures known as non-contact massage. Practice here evidently goes ahead of theory, but such nontrivial phenomena should not be just ignored due the lack of sound explanations.

Even more spectacular phenomenon in this bioenergetics stratum could have been the direct effects of bioenergy, for example, telekinesis. All I have in this vein now – evidences of the zero level – as majority of us.

Stratum 3 – Bioinformatics. Here we speak about “nontraditional” information transfer between humans, i.e. such information interaction, which cannot be attributed to optical, acoustical, electromagnetic methods of information communication. The most typical example of such phenomenon is telepathy. No sound, non-equivocal, reliable and repeatable confirmations of telepathy are present up to this day. Though, parapsychologists would argue that such evidences do exist. The time is high to solve this issue on the sound basis. Either yes/no experiment conducted rigorously with participants from the natural sciences will be held, or this problem will remain on fiction level for indefinite time ahead.

Stratum 4 – General noosphere. Absolute. This stratum is fundamental from philosophical viewpoint. In [Lozovskiy, 2003] I argued in the favour of cultural layer of the Earth’s noosphere, which includes all knowledge of humankind in any form or domain – from science and religions to folklore and national habits. Esoteric goes much further insisting that “knowledge” per se does exist around us, and the sources of this knowledge are many,

including non-biological objects on Earth, other galaxies and extraterrestrial civilisations. This general worldwide database, according to esoteric, not only keeps information about the past, but also about the future. At this point we should be prepared to accept the idea that such knowledge base is equivalent to the conception of Absolute, God, Creator, Higher Powers and so on. All people, according to this hypothesis, participate in creation of this database. Even the people, who have gone – their souls – can remain in this fine matter World.

In esoteric we can find even the exotic idea that human memory and even thought process are located not in the brain, but in that same global bio-informational field, and our brain function as a mere interface device between ourselves and Absolute. This hypothesis can be ignored until reliable experimental data in its support will be obtained.

The breathtaking revelation about existence of Absolute quite finely explains the principles of most marvellous esoteric deeds: clairvoyance, prophecies, voyages into the living organism cells, in the depths of matter and the Universe. And, of course, here we arrive to the concept of Creator – chief systems programmer, who made all the wheels go round...

So, the main problem here is to answer the question: does this Stratum 4 exist in reality, or it is just a beautiful metaphor. Confining ourselves to metaphorical way of reasoning, we can think of a kitten playing with her tail. For sure, at that moment she is not aware, that *in reality* she is playing with herself. Usually, they say, that neither existence, nor absence of God cannot be proved. Sometimes this issue is tied with personal beliefs. We shall try to clarify this problem.

The Concept of Absolute

Let us start from the agreement, that, generally speaking, Absolute could be imagined as having two hypostases (contrarily to Christianity, where Trinity approach is adopted): mental (or cultural) and objective (physical). First one cannot be empty, because we already have such *concept*. As we stated earlier, this is an ideal entity dwelling either in somebody's brain (thoughts, beliefs, imagination, fantasies, hallucinations), or in some cultural layer. The most critical question concerns the second hypostasis: *physical reality*. If Absolute is, at least, partially, material – it must manifest Itself (Himself, Herself) physically, and thus, be liable to physical measurements. For example, if we arrive at the idea of general database, or information field existence, there should be possible to find out the material substance – carrier – and then methods of encoding used. At last, if it is not just passive database, but functioning control system, we ought to disclose the language of programming used and the programs themselves. Until now, there are no confirmations along these lines of reasoning. Either, we worked not enough diligently, or this hypostasis is empty. Then remains the "God" within human brains: a system of beliefs, religions. Atheists have their own ethic-behavioral rules – their own "God".

We can imagine indirect methods of proving existence of Absolute – for example, carefully studying the results of predictions, clairvoyance. If these phenomena do take place – it means that Absolute exists in reality.

Of course, one can say, that there can exist methods of protection, preventing humans inspect and interfere with "systems programming" layers – as is done in computer operational systems. Then, the last argument can be drawn: there must exist, at least, some interaction with Absolute (analogy: application, calling some system function). If nothing of this sort will be disclosed, we should assume that the concept of Absolute is only a myth in human brains. Situation reminds spy story: just imagine, that some government sends its spy as a resident to other country. This person legalizes there, marries, works somewhere – nobody can guess, that he is really a spy. From the other side, he does nothing contrary to the local law. So to say, the perfect spy... The question is: can we call him spy, while in reality he does not function as a spy?

Soul

Esoteric is built around the concept of human soul. Usually is postulated existence of soul independent of physical body. A lot of attention is paid to the incarnation hypothesis. All this is very interesting and exciting. But, as we already had got accustomed, we have no reliable experimental data on existence of soul as some *separate* entity from human body itself. Until then, I propose much more simple and natural concept of soul.

Soul is specific functionality of higher species, of their central nervous system. In humans this functionality is very rich and represents individual personality – with all spheres including intellect, emotions, ethics, social conduct,

etc. The phenomenon of soul can be attributed to gestalt effect, where some complex entity show broader, or even new functionality than the sum of its parts have in common.

Take for example, car's engine. Being assembled, provided with gas, oil, water, air and electricity it demonstrates its gestalt functionality – its soul: it can rotate its output shaft. Of course, its "soul" is exceedingly primitive; human organism is much more complicated and perfect than our engine. But we are considering the fundamental principle. The engine works perfectly until some malfunction happens – its metal organism becomes ill. Eventually comes the day, when car mechanic says – alas, nothing could be done, it is impossible (or unreasonable) to recover the functionality of this engine... The engine is dead. It cannot accomplish its main functionality – rotating the output shaft. Its soul has gone. Where to? No one will be embarrassed with this question. The answer is self-evident: when parts cannot function together – functionality just vanishes. I can clap both my hands – and you will hear the sound. But with only one hand? We arrive at the same situation when human being dies. All his functionality disappears. Very frequently, it is done gradually – deteriorating short, long term memory, hearing, vision, coordination of movements, worsening brain's processing abilities... At last fail subsidiary systems: digestion, breath, blood circulation. Stops metabolism. Life has gone... And with it has gone human *individuality*. Knowledge, emotions, preferences, habits, beliefs... We may call all these mental and psychic abilities soul. Where does it go? Nowhere. It just disappears, ceases to exist.

Esoteric believers, who do not agree with this argumentation, should point out what soul features are missing here, certify that these features really exist and propose some candidate for their bearing media.

Beliefs

In esoteric the term "belief" is used, as a rule, in its religious sense, i.e. as belief in God. Sometimes it is said, that humans *should* believe, that those, who do not "believe" are somewhat inadequate individuals. I can argue that normal human life is impossible without belief, but beliefs are many. Let us propose the definition of belief.

Belief is some (model) entity in a knowledge representation system (KRS), which we consider to be in adequate correspondence with prototype entity in given problem domain (PD). Strictly speaking, all model entities in any KRS are beliefs. Every belief should be accompanied with two indications: prototype status and evaluation adequacy.

Prototype status can be:

- real (we shall not discuss now objectiveness of reality while perceiving World through our senses);
- ideal (mental or cultural);
- indirect evidence - personal or cultural – (for example: "as my friend told me, we will reach town in two hours")

Evaluation adequacy is very delicate issue. Even when we measure physical parameters (weight, dimensions, temperature, etc), we do it with some accuracy. Our senses can mislead us. The mapping itself is not straightforward process: it includes, as a rule some processing (interpretation). That is why our beliefs could be so uncertain. Beliefs drastically vary among different people, religions, cultures.

Let us try to classify beliefs from the viewpoint of pragmatics.

- **Axiomatic beliefs.** They are assumptions taken by intellectual being without proof – on some pragmatic or aesthetic base, for example, axioms of Euclidean geometry. This belief is imaginary with absolute adequacy. Everyone agrees that axioms are purely ideal entities.
- **Beliefs-knowledge.** They can be theoretical and applied. Theoretical – predominantly mathematical – knowledge is obtained through inference from axioms in accordance with specified rules of inference. Applied knowledge is reflection of real world entities: "The Volga flows into the Caspian Sea", "Horses like oats". Of course, applied knowledge can be imprecise, unreliable, inadequate, based on the faulty paradigm or be result of senses mistake. This knowledge is frequently questionable, and it needs to be verified. If verification fails – it is a good reason to dismiss such belief as inadequate.
- **Cultural beliefs.** Ideal entities, created by humankind: sciences, arts, religions, etiquette, folklore, habits, customs, etc. Holding to specific cultural beliefs tends to consolidate people within corresponding social units.

- "Pure" belief. This belief usually concerns Intangible World, about which, according to the definition, we have no positive knowledge. There is of no use to ask pure believers about foundations of their beliefs, motivations and confirmations. At most, you will receive reference to some "Holy" books or to authority of certain "known" people. Pure beliefs have nothing in common with World comprehension and can be thought of as some variety of cultural beliefs.
- Autosuggestion beliefs. They are beliefs in one's own mental sphere. These beliefs are of primary importance from the viewpoint of their influence on human personality, psychic and physical state. It correlates with cultural beliefs. We will consider these aspects closer in what follows.
- Social beliefs. The basic social unit is family. Members of normal family believe each other, believe their opinions. Intuitively, everyone tends to surround oneself and contact with people, which he could always count on in social aspects. These beliefs are verified and supported by mutuality. If you receive positive stimuli from your surroundings, it means that you are right in believing them. Social beliefs differ from cultural ones: here you tend to believe (*trust*) specific persons, and therefore – you believe to their ideas, views, advises.
- Materializing beliefs and omens. Esoteric people introduce these beliefs with the words: "We know that the thought is material". Heroes in fairy tales say: "According to jackfish will and to my wish..." – and requested action is performed in reality, or requested object materializes in the physical world. It should be said, that literally such effects are not confirmed rigorously. Though, they can have extraordinary positive material effects. But the leading factor here is psychology. In medicine is well known "placebo" effect, when some indifferent substance is given to the patient with accompanying words, that it is new very efficient remedy against his illness. The patient *believes* in it and mobilizes his nervous system, conscious and subconscious towards success. This effect can be obtained on the pure suggestion level – without material substance. And it supports our understanding that nerve system and psychological determination can really influence physiology of our organisms. In this aspect, such beliefs correspond to cultural, autosuggestion and social ones.

Autosuggestion and Cultural Beliefs, Egregors, Religions

The main principle, which we should, in my opinion, adhere to, is the well known philosophical maxim, Occam's razor: "Plurality should not be posited without necessity" [Occam]. It means that if we can explain some phenomenon with few simple arguments, it should be done unless we have the sound base to change our mind. In mathematics the good taste dictate choosing as simple, evident and small in number axioms, as is possible. This approach permits us filter out mysticism, metaphors, unrestricted imagination, which have no persuasive arguments in their support.

On the current stage of our research, we can assert that Stratum 1 – neurosomatic – is really good entrance into the realm of bringing up superhuman race. This way is good for everyone. Only results and achievements will somewhat differ depending on genetics, psychological type, dedication to the method and trust to the teacher. Let us formulate several issues in this concern.

- You need to construct and then strictly adhere to positive psychological pattern: you are happy, healthy, optimistic, sociable, you explain your ideas freely and persuasively, you are always in good mood, smile to everybody and sincerely wish them all the best. The power of nerve system over the physical body and over your other abilities is so high, that the results are just miraculous. Besides, we can rely on the fact that in such complex system as our organism is sometimes cause and effect change places, and you can induce some situation if you really believe in its consequence. In medicine are known situations where patients cured themselves just with their "will power".
- As we argued earlier, our subconscious sphere has tremendous memory and processing power. We can apply to it with the help of special psychic practices, known as suggestion, autosuggestion, hypnosis, trance, meditations. There is abundance of literature on this theme; procedures depend on each specific person. Mastering these techniques personally is possible, but much easier success is achieved in groups and, of course, under the guidance of qualified teacher.

- Special exercises should be done to revitalize certain organism's functions - distal nerve and microcapillary systems, acuity of vision, biofield sensitivity.
- Nutrition, and especially, breathing is of vital importance not only for overall healthy state of the physical organism, but in developing extraordinary psychological abilities. We shall not accentuate importance of the general physical training and procedures of personal hygiene – it is self-evident.

Till now, we were speaking about personal psychological technique. Now we will turn to the social aspects. In the core of this issue always lies some community. It may be family, political party, ethnic, national, religious communities; sporting team, graduates of some university, etc. Such communities have certain features in common.

- Specific community is created around some idea, belief, sphere of common interests, or just on the basis of certain common features of their members.
- Frequently there is some documentation concerning the community. It may be unwritten law, ethnic traditions, statute of the party, "holy" book – in case of religion. Sometimes members of a community are formally registered and receive personal certificates confirming their membership.
- There exist special regulations concerning the membership. It may be free, or an applicant should satisfy some requirements (believe in some idea, have certain qualities, or be eager to obtain them, etc). So, there exist a procedure of initiation, enrollment into the community, and contrarily – procedure of disfellowship.
- Usually special symbolism is present. Official colors, uniform, banners, badges, carefully developed specific rituals: initiation, meeting, worshiping, special exercises, gestures, dances. Frequently community is organized as followers of some teaching, and thus there are real or imaginary persons in the past or even at present, which are greatly respected. Very popular are their portraits, exceedingly idealized and much younger, then at present, as a rule.
- Each member has a set of liabilities concerning the broad spectrum of what should and what should not be thought, said and done at proper circumstances. As a reward community's member receive sometimes material, but – what is much more important – moral, spiritual support, that wonderful feeling of participating in something great, true, even holy activity. Frequently, such community promises take a form of future happiness to come, maybe even after physical death. This issue has paramount importance and is probably determinative in the whole community–members' affair. This mechanism works on psychological level and has powerful suggestive effect.
- The "power" of the systems being considered heightens with the number of their members and with the system's age.

Community, complying to considerable extent with the issues given above, together with its members is named "*egregor*" (see, for example, [Bernstein]). Egregors could be thought as having two hypostases. First is social and psychological, and there is not a slight doubt that it is really existing ideal entity. The second hypostasis, from the current scientific point of view is mystical. Genuine esoteric considers that, besides socio-psychological foundation, egregors have some fine-material aspects, probably being the part of Stratum 4 – Absolute. This thesis today has no scientific confirmation.

Relying on the considerations just given, we can argue, that religions, Christianity, in the first place, are the typical representatives of egregors. This issue gives us the solid foundation for understanding religious activity in human societies.

Conclusion

Let us remember what was our pathos and determination when idea of creating AI sprang into existence. Yes, it was the dream about the future society, where AI, wise and helpful robots will help us in our intellectual work. Being carried away with this noble humane idea, we forgot about humans themselves. We thought that we know all principal mechanisms of brain activity, neglected sphere of unconscious and restricted our intellect simulation to known area. At the same time, already during several thousands of years flourished alternative approach to

dealing with human intellect and psychics – religions, various beliefs, esoteric. Adepts of these disciplines suppose, that they possess much more general, powerful and complete knowledge about the World and humanity, but orthodox science usually avoid studying this domain, using the label: “pseudoscience”. Benevolent consideration of this problem shows that, as always and as everywhere, the realm of esoteric encloses the broad spectrum of ideas, approaches, techniques, etc, with rather broad spectrum of utility. Some things look very unrealistic, even mystic, others could be positively considered if serious confirmations and verifications will be available. And still others look very rational and could be used in mental and psychological practice already today. Frankly saying, reality of esoteric experience should be carefully studied [JREF].

Besides that, until now we doing AI research used only hardware provided to us by engineers. It may happen, that “programming” human beings will give much more efficient results.

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