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# MODEL OF THE HUMAN MIND BASED ON ADVANCED PRINCIPLES OF MEMORY ORGANIZATION
# МОДЕЛЬ ЛЮДСЬКОГО РОЗУМУ НА ОСНОВІ УДОСКОНАЛЕНИХ ПРИНЦИПІВ ОРГАНІЗАЦІЇ ПАМ'ЯТІ

***Summary.*** *It describes the development and interaction of human consciousness and artificial intelligence. It analyzes the limitations of AI in comparison to the human brain, emphasizing the need to establish ideological and ethical boundaries for the safe coexistence of humans and AI machines. The philosophical section synthesizes Western dialectics and the ancient Kybalion esoteric principles of live being [1; 8].*

***Key words:*** *AI, GAI, robots, human conscience, subconscious, super-conscious, over-conscious, artificial intelligence, memory, philosophy, noosphere, space, evolution, reflection, information, energy, entropy, negentropy.*

***Анотація.*** *Описується розвиток та взаємодія людської свідомості та штучного інтелекту. Аналізуються обмеження ШІ порівняно з*

*людським мозком, підкреслюючи необхідність встановлення ідеологічних та етичних меж для безпечного співіснування людей та машин з ШІ. Філософський розділ синтезує західну діалектику та стародавні езотеричні принципи живого буття «Кібаліону» [1; 8].*

***Ключові слова:*** *ШІ, ЗШІ, роботи, людська свідомість, підсвідомість, надсвідомість, штучний інтелект, пам'ять, філософія, ноосфера, космос, еволюція, відображення, інформація, енергія, ентропія, негоентропія.*

**Introduction.** AHMM is a psycho-philosophical concept exploring the epistemological foundations of rational activity and its influence on human thoughts, emotions, and behavior. It is intended to provide a deeper understanding of how human memory works and how it can be optimized to preserve the lives of future generations.

According to this model, humans can create new mental images of the cosmos and the universe. Past experiences and beliefs can influence the imagination; therefore, cultural, economic, and political conditions should be changed to make them more favorable. One of the key components of the AHMM is the concept of cognitive biases. These biases represent genetically innate patterns that can influence our thinking and decision-making processes. By becoming aware of these patterns, humans will learn to recognize and utilize them. This will lead to more objective and rational thinking for the preservation and development of their environment.

Overall, it proposes a basis for understanding the connection between human perception, thoughts, and actions, given the potential influence of current events on our relationships with AI robots and the possibility of communication with representatives of other civilizations. By harnessing the power of one's mind, one can actively shape one's personal worldview of the Universe without compromising one's beliefs in different Religious ideals.

## 1. Problems of Artificial Intelligence (AI) Development

The topic of various AI is currently a concern due to the vast storage capacity of the databases THEY use and the unpredictable power of their pseudo-cognitive abilities [1; 2]. Over the course of a day, every neuron in the human brain forms four new connections and destroys the same number. This feature allows organisms to conserve their own energy. For AI creators, this is a long-term, insurmountable problem. It's the current shortcoming of the autonomous energy supply of cybernetic systems. The course is simple: there are no effective models for optimizing the energy sources of AI support yet. Human and animal organisms are evolutionarily designed to adapt to their environment. Their batteries are primarily recharged during sleep; instead any AI is constantly powered by external energy sources. The electromagnetic base of AI does not allow the replication of human abilities for autonomously replenishing life-support resources.

In the author's article: "Robots in Educational System Technology and Their Influence on the Safety of Human Progressive Life Being" [1; 2], seven general types of human memory were determined. Still, the previous model didn't mention two new additional types. The seventh type in the hierarchy is called "Worldoutlooking (Ideological)". For the vast majority of people, "It" is the limit for consciously meaningful behavior. Therefore, restrictions for humanoid robots must be met from the outset according to ideological safety criteria. The six-level organization of GAI should be a priority in ITS design [1; 2].

Human physiological nature does not allow the body's biological system to leave the pleasure derived from the biochemical properties of inside-generated drugs. However, everyone has the opportunity to escape this evolutionary morphological trap of the central nervous system (CNS). Overtaking the problem is possible only via an Ideological path of understanding the causes of personal intelligent activity.

In progression, this self-revolution is determined by the material structure of the light cortex, its vertical-stemmed honeycombs of the cerebral hemispheres.

It manifests itself in a six-layered structure of the upper subcortex of the brain, in which the Seventh type of human memory is no longer biochemically but biophysically recorded. It is the ideological level of mastering enormous volumes of accessible, generalized information accumulated by historically different generations of humans.

### 1.1. Limits of human intelligence development

How to describe the ideological problems of the seventh mind's formation and higher layers at this stage of human development? Unfortunately, these processes do not have a biomaterial record of their activity. Therefore, they can only be understood from the perspective of the eighth COSMIC type of human memory organization. If the seventh, "Ideological," no longer has a material embodiment of its activity, then the explanation of the eighth memory type should be found in the vocabulary of religious postulates about the origins of Humanity.

Enlightened "Guru" (holy recluses of various religions) understood this much earlier than official science. It is much easier for them to impart natural Truth to the minds of the believing adherents of their faiths. That is, an abstract narrative about the progression of the natural origins of life and its events over many centuries and even millennia. Thus, the Mystery of existence they comprehend cannot be expressed in simple words. It is more a state of shared physical Bliss than the verbally defined dogmas of any religious life model. This is precisely what distinguishes the Space type of memory from the diversity of the World-outlooking systems of the All-Embrace. It reduces everything to a single architecture of life being.

### 1.2. Evolution of modern humans

Let us recall the phylogenesis (long-term evolution from the simplest to the modern) of biological organisms that continuously explore the preplanetary space, which is under the cyclical influence of the environment for millennia. In humans, this occurs outside the primitive will of "Consciousness" and is distinguished by the personal development of their organism (ontogenesis is an

individually compressed copy of the phylogenetic skills of any population) [1; 2]. Cosmos reigns here! The explored environments of multimillion, and perhaps even multibillion, repetitions of the periodic state of the Earth are marked and reflected by the organisms of Flora and Fauna within their modern bodies. They are always consonant with certain points in the Earth's orbit, which remains practically unchanged relative to the starry sky. Points of regular movement in the Earth's orbit allow us to consciously record the influence of these rotation periods on the human body. They provide timely adaptation of flora and fauna to different conditions of the planet. Cosmic evolution is traced in all living organisms. It is always accompanied by the modeling of basic nucleotides, which obey the laws of the biologically fixed rhythm of cosmic processes. Given their great influence on the adaptation of any living body to the stable repetition of regular events, everything is packaged in the biology of organisms, and it cannot be otherwise.

From this perfection of individual forms of bio-copying the environment, one can easily move on to the possibilities of combining interactions with environmental conditions for their long-term survival. These events always depend on the gravitational influence of the planetary superposition of the Solar System. This is observed at each of the annual and daily points of the Earth's rotation. The structure of the cosmically grown nucleotides of any organism is irrefutably dependent on these cycles. They always contain a specific set of known chemical and biological bases: Adenine, Guanine, Thymine, Cytosine, and Uracil. "Thymine" presents many complexities, according to modern scientific interpretations. "It" is more flexible than others [4; 5]. That means the "Thymine" configuration is involved in 12 positions in the cycle of processes that create Adenosine triphosphate (ATP). This is a universal energy source for all biochemical processes occurring in living organisms. Synthesizing such a universal energy source for solid-state cybernetics systems is not yet possible. It's

not about the energy supply capacity of biological beings, but about the universality of self-reproduction of their sources.

### 1.3. The brain of modern humans

In the human brain, each of the 86 billion neurons born with the body can have over 100,000 connections with other neurons [4; 5]. The brain of any animal exhibits a similar developmental pattern of neural tissue. Whether it's a worm or any other biological entity, including humans, they all utilize the same processes to ensure energetic information interaction between the cells of their bodies. This is necessary for materialized interaction with the closed and deep Space. Mentioned information-energy biomodels allow organisms to live and reproduce in response to changes in their environment.

Science is still far from understanding the origins of human life. Many theories exist that contradict classical religious legends. The epics of ancient wisdom also do not allow a scientific determination of the truth of their various religious systems. However, the formation and development of a personal worldview does not pose major problems for individuals. In the overwhelming majority of cases, this is a belief in one or another imagination of the one God. For non-believer people, it's shaped by news about the cosmic nature of life through popular science media. These processes, both natural and externally induced, are perceived by the human body subconsciously. That is, without awareness of the Earth's rotation effects. Therefore, a desire arises to delve deeper, through words and scientific thought, into the world of the organization of the highest, universal type of human memory. Perhaps here, the creative interest of the human mind, unaffected by the physical influences of the gravitational forces, the superposition of the solar system, will find its place?

### 1.4. The Limits of Human Understanding

Next, let's define new models of the adaptive capabilities of the human brain. The modern generation will likely employ the traditional method of cause-and-effect relationships. This must be rethought and harmonized with the

fundamental laws of nature. Without the third component of the mentioned process, the development of life is impossible. Here, cause and effect can repeatedly switch places, but with subtle cyclicity. It is precisely this period of doubt that allows everybody to ride the wave of natural laws. Humans must master the cycles of repetition of basic events!

Let's consider this third mystery of Existence from the perspective of the organic structures of the body's functioning. It exists in external field structures beyond the human body. That means, it is adapted to the influences of closed and deep Space. This process occurs independently of the habitual lifestyle of biological organisms of any nature.

In the author's model of human memory, a seven-type hierarchy of its organization was described [2]. The highest types of its existence were not mentioned over there. While the seventh, "Worldoutlooking" type still has an invisible but consciously perceptible connection with brain biology. Its subsequent evolutionary types exist independently of the body. They are so objective that we humans depend on them more than they influence us. In other words, "new types" of memory exist from the beginning!

This occurs regardless of lifestyle and modern thinking. It's just that the ordinary insight of researchers doesn't have time to capture them in the usual text of internal pronunciation. They are instantaneous. Consequently, the speed of this stage of generalization of natural cycles is very rarely comprehended by human conscious activity.

**1.4.1.** Let's start with the 8th type of gradual organization of Human memory.

The Space type of memory *is a memory type associated with the organism's systems of energetic-informational interconnection in human life and the phenomena of Negentropy of Cosmic nature; it is clearly distinguished by the technical ability of human consciousness to extend beyond the action of gravitational forces*.

The formation and development of the new NOOSPHERIC GENUS of reflexes determines the spread of this memory influence sphere. IT counts 8 Kinds of ITS activity:

1. SPACE-MOTOR KIND. This is when humanity launched the first artificial Earth satellite. There are many examples here for those interested in space programs for the exploration of closer Space. These are ordinary rocket launches, with and without humans, and monitoring useful data from orbital stations.

2. SPACE-SENSITIVE KIND. This is when people have already sensed the possibilities not only of launching Artificial Earth Satellites (AES), but also desired to benefit from their various altitudes. National AES positioning systems are already familiar to everyone. They have become an international attribute of humans. This is when, in addition to cartographic information, location-based communication quickly displays two-dimensional coordinates of location, even in the absence of terrestrial communication for mobile devices. Thanks to these technologies, people are confident that the technocratic firmament will assist at any moment.

3. SPACE-IMAGINAL KIND. This is when the idea of encircling the Earth with constellations of artificial satellites for 3D geolocation and video surveillance of the planet's surface emerged and was realized. It includes estimating the altitude of a given geographic point. The technology is useful not only for determining the location of various objects but also provides a deeper understanding of figurative versions of technically accessible information through computer vision.

4. SPACE-LOGICAL KIND. This is when satellite systems began to be used for in-depth spectral probing of the structures of solid, liquid, and gaseous surfaces, not just on Earth. This includes weather monitoring and forecasting, as well as modeling of geological and hydrological conditions in various layers of planets in the Solar System and beyond. In this case, computer-based methods for

assessing the data obtained do not yet lend themselves to objective analysis. The information flow of events cannot be stored using linear data accumulation.

Of course, everyone can be calculated, but mathematics alone cannot comprehend them. Autonomous research systems are needed here. Modern cybernetic calculations cannot achieve the desired results in using the recorded data. This path of operating with logical infinities hinders the development of scientific knowledge. It is a false path to human perfection. Graphically parallel computing is needed, which successfully minimizes computation time. Therefore, the volumes of acquired information will have to be processed by supercomputers with the ability to forget insignificantly recurring events. They will provide humans with generalized models of nature's cyclical behavior. Batteries haven't yet been invented to store such volumes of information in a compact, convenient form. A level of meaningful solution to this problem is only available to scientists who take an unconventional path. Access to such a level of generalization should be denied to robots. Even if nuclear batteries will power AI, THEY would still hallucinate under the radiation levels of their nuclear reactors.

5. SPACE-TARGET KIND. This is when the purpose of satellite constellations becomes a means of global information influence on the planet's population. That is, not only through the capabilities of the mass media, but also through sources of physically ordered patterns of preferred weather or of combating exotic diseases. The latter is already partially used for both economic and military-political actions.

The dead-end plan to reduce the population to cavemen is not only flawed but also futile. The results of its implementation will not benefit those who commissioned it. They will bury themselves in bunkers faster than the population declared for extermination will disappear from the face of the Earth. The rich, surprisingly, have a lower chance of survival than the poor.

6. SPACE-MANAGEMENTAL KIND. This is when ideas of psychological manipulation of humans are implemented through information channels. The satellites of any constellation are in resonance with the planetary configuration of the Solar System relative to the center of our Galaxy. Here, the challenges of preserving various populations of living organisms will be addressed in the face of planetary damage from both internal (volcanoes or earthquakes) and external (asteroid or powerful comet impacts). Human factors are also likely to cause catastrophes, such as thermonuclear wars or man-made accidents. Unfortunately, the latter is often triggered by the gravitational force of planetary superpositions at different moments of the "Globe" position.

7. SPACE-WORLDOUTLOOKING KIND. This is when a belief emerges in the organization of vivid life on Earth, based on the information from extraterrestrial spacecraft about deep and close Space events. It is an easily predictable course of action for mankind's preservation to undergo various scenarios of the probable destruction of planet Earth. Humans should not forget the unforgettable prophets of antiquity, who spoke of the inevitable end of the prosperity of old and future civilizations. The overwhelming majority of the religiously minded population (80%) sincerely believes this. However, those gifted with a scientific mind (20%) slow down these processes. They consider both the personal and universal self-preservation of people, regardless of their faith, offering saving solutions from the most impasses.

**1.4.2.** The current stage of Human development is not limited to the SPACE TYPE of Memory. The reasonable limit of the attainable perfection of our Memory is the understanding and mustering of the next stage of human evolution. Let's call it:

The Universal type of memory. *This is the organism's memory of the Dynamics of the formation and development of Interstellar Systems; it is significantly distinguished by its ability to interconnect with Civilizations of other origins within the Galactic systems of deep space*.

This memory Type will be based on the ABSOLUTE GENUS reflexes. It means adequate and realistic reflections for the global Laws of evolving dynamics, both our Galaxy and the diverse Universe. Following the rules of the considered model of Memory of living organisms [1], this supernova GENUS will comprise 8 KINDS of reflexive human activity. It may emerge in the middle of the current century:

1. UNIVERSAL-MOTOR KIND is a physical (hardware) visit to other planets and star systems;

2. UNIVERSAL-SENSIVE is a virtual and real experience of the principles of the existence of other extraterrestrial civilizations.

3. UNIVERSAL-IMAGINAL is a visual acceptance of the embodiments of the Mind of other forms of conscious life. This is akin to solving the problems of racial tolerance, but without fear of their appearance and technological superiority or inferiority.

4. UNIVERSAL-LOGICAL KIND is the difficult process of replacing school mathematics with the universal mathematics of infinity. That is, the current multiplication table will have to be modified for areas of basic education. It will obtain cyclical abacuses by infinity for events of cosmic scale.

The frightening globality of the simple mathematics of the Universal has no linear solutions; everything is calculated according to rhythms. One dies, another immediately appears. Either life is possible, or it is impossible, but there is a third variant: everything adapts to new environmental conditions through a new cycle.

5. UNIVERSAL-GOAL-BASED KIND. The problem of modern Humanity's purposefulness is based on the foolish idea of breaking away from planet Earth. Not a single developed biological population can abandon its "Alma Mater". Physiologically, even more advanced civilizations are incapable of breaking away from the origins of their planetary evolution.

According to the inexorable laws of Space, biological organisms can only travel from one dying planet to another in test tubes or capsules. This is accomplished by preserving their evolutionary embryos, ready to interact with a suitable environment for the new arrival.

6. UNIVERSAL-MANAGEMENT KIND. Here, there is little coordinated action to counter threats of Space nature. Humans can be bluntly pitted against each other for the sake of self-preservation, but no modern state is capable of independently countering extraterrestrial factors and patterns.

Any deliberate imposition of lifestyle by one country on another is doomed to failure. If one percent of the ethnically indigenous population survives, within two generations, it will restore their behavioral model. Even if the model has completely fallen behind the current life of the new era, confrontation will still exist. Governance must be conceived in terms of the progressive development of subsequent generations, not the power of a personality cult or justified revenge against ethnic enemies. It should be overcome through the actions of political art in all spheres and the environments of different people's habitats.

7. UNIVERSAL-WORLDOUTLOOK KIND. IT is a complexly defined system of scientifically substantiated beliefs, which has the same foundations as the immutable Laws of Space Nature, at every root. It is independent of race and the influence of extraterrestrial civilizations. The organization of Rational activity is the same for everyone!

The natural inclination toward pleasure of the human organism is already determined by primordial evolution, that is, an approved scientific truth. Therefore, humans have low resistance to natural drugs. The problem should be studied through the biophysics investigations of ape-like human behavior. Most organisms choose a model of self-satisfaction and complacency in accordance with the rules of communal life established by the heroic ancestors of victorious competitors.

To summarize, any real life is limited by the existence of its home planet. No one has ever succeeded, is currently unable, or will ever succeed in escaping without spacesuits. Spacesuits won't protect anyone for long. Therefore, the exploration of other planets will require changing the biological principles of artificial organisms. They are called "humanoids" in the good science fiction films.

8. UNIVERSAL-SPACE KIND. It's simple here. Humans study the patterns of planetary motion in the Solar System. Next, they have to determine how it moves through space relative to the center of the Galaxy. Simultaneously with previous activities, the investigator should observe the movements of other stellar systems, attempting to explore the unprovable Laws of the Universe. After the model should be comprehended and assembled for future preservation of Civilization. Scientists realize that there is little time left before the cataclysms and begin to value the remaining time not only in their personal lives, but also in those around them. Along the way, they accelerate the search for new methods and places to preserve our own kind in accessible parts of Space.

**2. The wisdom of Nature via the Western mind's manner** [1; 3]

A detailed explanation of the variety of Universal reflex types can begin with the **Triune Law** of Dialectics. This idea is attributed to the german philosopher Georg Wilhelm Friedrich Hegel. He achieved a scientific feat by expressing in words the ultimate generalizations of the lawful course of any process in his own way. Let's view a new interpretation of **Triune Law**, closer to observable reality.

**2.1.** The **TRINITY** will be voiced in the following order, with the author's additions in general rethinking of current events:

*1. The Unity and Struggle of Opposites and Adequacies.*

*2. The Degree of Sufficient Necessity of the Transitions of Quantity into Quality and vice versa.*

*3. The Negation of Negations with the best Repetition of What has already been Repeated.*

These integral features of any process cannot be separated from the simultaneity of their combined application. While focusing on one aspect of the TRIAD, one must not forget ITS essential collaborative work. The principles of the ubiquitous REFLECTION processes will help clarify the TRINITY of this Law.

**2.1.1.** Let's begin with the philosophical "core" of Dialectics (from the Greek - "conversation, debate")—the Global law of UNITY AND STRUGGLE OF OPPOSITES and ADEQUACIES. The core principle of WICH is universal Connection. This Connection has always been and is understood through the entire historically established system of categories and laws of True science.

From the perspective of the Reflection's principles, let's consider "it" using a little-known approach: Any Reflection is the result of the influence of Radiations, expressed as the "sum" of the Absorbed and Re-Emitted Parts, affecting the object of Entropy. The processes of Absorption and Re-Emission are always opposite in direction and cannot exist separately. Because any impact on an object is generated by a single flow of external Radiation Entropy, the qualitative characteristics of the Absorbed and Re-Emitted portions of the influencing mass are essentially uniform. One might say they are adequate (sufficiently proportionate). However, only the portion that best corresponds to the energetic and informational capabilities of the loaded Body is absorbed. That is, physiologically accessible Entropy is transformed into Negentropy. This is precisely where the true Unity of adequacies and their struggle for the "Absorption" and "Re-Emission" portions of the influencing Entropy are manifested. This approach, having slightly expanded the area of a newly meaningful application of the processes of Reflection, asserts that the "core of dialectics" is the lawful life of Reflections in the extremely Huge Law of the cyclic CONTINUITY of Natural phenomena on a Universal scale.

**2.1.2. The Law of Quantitative-Qualitative "Transitions"** is determined by the MEASURE of the ratio of the Absorbed and Re-emitted Parts of the External Influence. At the same time, the operation of "accessible Comparison" inherent in any Object takes into account the degree of organization of the influencing Radiations and the new nature of the change in Their parts. In other words, this PART of the TRIUNE LAW takes into account the informational (predominantly qualitative) and energetic (predominantly quantitative) entropic difference in the states of the System: "Body-Environment". Here, two interesting features of the "eternally ongoing" processes are present:

*1) The higher the degree of organization of the System, the smaller the energy unit of the Body's natural expenditure on assimilating various types of evolutionarily accessible information. That is, the rate of information absorption by the Body is higher than the rate of its energy absorption of the same array of non-destructive Entropy. In other words, these are processes suitable for the Body to assimilate the available Negoentropy of events.*

*2) The larger the conventional unit of energy of homogeneous information content of Entropic influences assimilated by the Body, the lower the level of organization of its work in a given System. That is, the rate of information absorption by the Body is lower than the rate of its energy absorption. In other words, this is the Body's work to assimilate the Negoentropy of a suitable organization of natural phenomena. This leads to the stability of life at a certain stage of interaction with a given environment of influences and interactions.*

Based on the difference in the rates of Absorption and Re-emission of the energetic and informational components of the environment affecting the Entropy object, a criterion may be formulated for the mutual transitions between the Quantity and Quality of the systemic processes of the body's Negentropy development.

*The criterion for the sufficient necessity of transitioning from a given Quantity to a (new, more highly organized) Quality is the condition of exceeding*

*the processing speed of Information Entropy over the processing speed of its Energetic properties. This is the process of correctly developing the Negoentropy of mastered events.*

The reverse transition is a less organized state (Quality), determined by the opposite relationship in the systemic processes that work on the properties of Entropic relationships in the environment of the degrading Body. Simply put, this is when the new Negoentropy cannot be utilized for personal self-preservation, and one must make do with its older model of maintaining a holistic existence.

**2.1.3. The Law of Negation over Negations in the "DIALECTIC TRIAD"** is determined by the principle of Progressive or Regressive change in the organization of Reflections. It governs the systemically utilized transitions of Qualitatively-Quantitative "transformations" of the Object's life. The entropy of these events is transformed into the Negoentropy of Its everyday life. In other words, each repetition of mastered patterns opens up new facets of the application of old Information, with the abandonment of the ban on its dissemination in the past. "Everything new is well-forgotten old!"

**2.2. Emission and Absorption, Reflection and Re-Emission** [3]

Regardless of our desires, the Cosmos lives by the cyclical movement of Its objects. Therefore, MOVEMENT is the real state of Nature. That is, the basis of the existence of the Universe!

Any MOVEMENT presupposes the presence of ITS Source and a Sphere of the properties of influence IT spreads. The physical categories of "RADIATION" and "ABSORPTION" are perfectly suited to describing how the interactions work.

**2.2.1.** Any RADIATION is a specifically formed and directed Movement of diverse matters, possessing an extremely heterogeneous distribution density of the different forms of ITS existence.

Any RADIATION lives in various Cycles, Which are currently inaccessible to human conscious understanding. That proposition is about the

maximum period of event repetition. But THEY exist and have lived throughout the history of the Universe!

Therefore, it is true that the DIRECTION of arbitrary Radiations is determined not only by the characteristics of their Sources, but also by the Resistance of a Medium in which They are propagated.

The resistance of the Medium is determined by its inherent processes of RE-EMISSION and ABSORPTION. In other words, Everything is determined by the dominant characteristic of the spaces in which any Radiation exists.

BOTH processes CANNOT EXIST WITHOUT EACH OTHER, for in "perfect independence," they bring Death to any Movement.

There is no such thing in Space, nor can there be! Contrary to all hypotheses about "black holes" and the all-destructive explosions of dying stars. There is a third hypostasis here that silently balances the rotation of bodies around the center of mass, ensuring the processes of these apocalyptic transformations. It turns out that not a single planet, or even a star, can leave its position relative to low-mass bodies. This is only possible in the presence of a stronger concentration of mass in a cluster of stellar bodies. Therefore, a repetition of Earthly events in the fundamental restructuring of human life is inevitable as long as the Zodiac firmament maintains its unshakable position.

**2.2.2.** In light of the Universal memory type, precise explanations of this should be defined as a simple fulcrum around which everything revolves repeatedly.

MEMORY *is the ability of an Object to REFLECT (in the sense of accumulating in Itself) the RESULTS of the impact of randomly accessible RADIATIONS of the ENVIRONMENT of Its existence.*

**2.2.3.** Any natural "ABSOLUTES" plunge us into the horrors of the "Global End of the World." Fortunately, "THEY" are rare in Our Galaxy. This is precisely why it is necessary to understand the MEASURES OF THE PREVIOUS EFFECT OF THESE PRINCIPLES OF THEIR REFLECTION, i.e.,

the issues of the intermediate phases of the global SYMMETRY of Reflections. From a philosophical perspective, THESE MEASURES are considered special forms of organizing the objectified Systems of any action. Their functions and structure are determined by the respective predominance of SYMMETRY or ASYMMETRY in their combined work. The degree of development of any System characterizes the way it perceives the primary influences of the environment. It's determined by the clarified ratio of the SYMMETRY or ASYMMETRY that will dominate in the evolutionary results of Nature's work.

Applying the above to Human Cognition, let's formulate a new RULE OF ORGANIC MEMORIZING:

*Conscious reproduction of the Event SUM of ABSORBED AND RE-EMISSIONED (by the Object) PARTS of the influencing array of RADIATIONS provides the "ORIGINAL" of truly accessible Information about a given Object, which is ultimately determined by the organic capabilities of the cognizer.*

**2.3. Macrocosm and Microcosm** [3]

In ancient Greek philosophy, the word "COSMOS" has been used to denote the World of the Universe, as an evolutionarily organized Whole, as the ultimate level of generalization of Knowledge about the power of Natural Movements accessible to humans. For this great purpose, ancient scholars formulated concepts as MACROCOSM (Greek: Great World) and MICROCOSM (Greek: Small World). They, "asymmetrically" opposed, "symmetrically" personified the UNIVERSE and HUMANITY.

This idea captivates many scientists. Therefore, let's recall the foundation of Nature's development: the PRINCIPLE OF EVOLUTIONARY REFLECTION. It naturally includes the reception and transmission of Information and Energies, through which the Entropy of an Object's external/internal States is transformed into the useful Negentropy of available means of prosperous existence.

Based on the Law of Energy and Information Preservation, the first impact perceived by the System (the initial Reflection) triggers a whole chain of Transformations (Re-Reflections) according to the following pattern: SOURCE - CONSUMER. The results of this sequential series of cyclical processes determine the dynamic states of the Memory of any System, which is accompanied by organizational variability of Its life.

**2.3.1.** The chains of the described "Reincarnations" can independently develop in TWO global directions of "Their" material state through the dynamics of the third equalizing state, aligning mutually beneficial positions of mutual stability. In other words:

*1) an increase in the size of the consumer of "Radiant" Energy information flows, i.e., the phenomenon of predominant absorption;*

*2) or a decrease in their size, i.e., the phenomenon of predominant re-radiation.*

In the FIRST case, large-volume Bodies have difficulty increasing the Orderliness of the absorbed Entropy of systemic interactions, which explains the low levels of their existence Organization. They are severely limited in the quality (information content) of their reflections, but quantitatively, they are very powerful in their ability to accumulate the energetic properties of any influence. The "stamina" of such Bodies for assimilating homogeneous information is staggering. These are the stars and large planets of their systems. The presence of MEMORY in Objects with THIS DIRECTION OF REFLECTIONS leads to MACRONIZATION of Theirs Bodies. In other words, to a process that, while preserving the basic properties of the previous State, cannot ensure the Systemic assimilation of Radiations of an informationally different ("unusual") type of influence. Therefore, the information-massive impact of "foreign" Energies leads a System of "THIS CLASS" to inevitable destruction!

The second case, with the limited volume of the Consumer's material composition, leads to its MICRONIZATION. This process, while preserving the

evolutionarily possible properties of its Body's previous state, gives it greater "chances" for beneficial interaction with other systems of "foreign" Information. As a result, the probability of improving the degree of memory organization of such Objects increases dramatically. This statement does not mean that the smaller the Object, the greater the perfection of its reflection system. It refers only to the possibilities of contact with Radiations of varying informational content. The energetically massive impact of "foreign" Information leads the System of this "Class" to Destruction!

According to the above reasoning, the short conclusion can be drawn:

*The degree of Organization of Objects depends on the GLOBAL DIRECTION of the results of the PREVIOUS PROCESSES within them, as well as on the SPHERE OF INFORMATION-ENERGY INFLUENCE of the NEOENTROPY they have mastered.*

**3. Energy and Information, Entropy and Negentropy** [2]

At the end of the 20th century, the field of Natural Science saw the emergence of such sciences as the little-known "Energoentropics" and the rather popular "Computer Science." The former allows describing the various processes of Nature and Technology, which fundamentally operate with the concepts of "energy" and "entropy," while the latter uses the concepts of "information" and "entropy." "Both" rightly, but unfortunately separately, expand the scope of "Their" laws and postulates throughout the sphere of scientific knowledge.

ENERGYENTROPICS attempts to idealize the "Cosmically Primordial" characteristics of natural phenomena through "thermodynamic" generalizations and is inclined toward a predominantly physical interpretation of the universal processes (regarding entropy). And INFORMATICS, through "digitalization," is shifting toward the predominantly social application of these same processes, but from the idealized heights of the "Man-Made Order" of the world order (regarding Negoentropy).

**3.1.** Let's propose resolving the compatibility problem of **ENERGYENTROPICS** and **INFORMATICS** by defining the "Semantic Load" of the main categories of these knowledge systems [3; 6].

ENERGY *is a general, cognitive-scalar (i.e., independent of directions) measure of homogeneity of movement in time and space; a quantitative characteristic of the performance of processes of systemically organized reflection of interactions in the environment of objects.*

INFORMATION *is a general, cognitive-vector (i.e., dependent on directions) measure of orderliness of movement in time and space; a qualitative characteristic of the performance of processes of systemically organized reflection of interactions in the environment of objects.*

ENERGY ENTROPY IS A MEASURE OF THE UNCERTAINTY OF ENERGY DISPERSION (REREFLECTION), *its "shadow," the meaning of which is that the greater the energy loss during the System's processing of the influencing environmental radiation, the faster the MULTIPLE HETEROGENEITY OF MOVEMENTS of a given System increases*.

INFORMATION ENTROPY IS A MEASURE OF THE UNCERTAINTY OF INFORMATION PROPAGATION, *its "shadow," the meaning of which is that the greater the information loss during the System's processing of the influencing environmental radiation, the faster the MULTIPLE HETEROGENEITY OF MOVEMENTS of a given System increases*.

**3.2.** Summarizing the last two definitions, let's propose:

*The* ENTROPY *should be understood as a conscious measure of the uncertainty of the dispersion and propagation of systemic motions in nature. That is, as a measure of the UNCERTAINTY of the heterogeneous (energetic) and disordered (informational) motion losses of arbitrary radiations during their reflection by an object of any nature.*

*The* NEGENTROPY *should be understood as a conscious measure of the certainty of the dispersion and propagation of systemic motions in nature. That*

*is, as a measure of the CERTAINTY of the heterogeneous (energetic) and disordered (informational) motion losses of arbitrary radiations during their reflection by an object of any nature.*

**3.3.** These semantic loads of the global concepts of Energy, Information, and their general understanding of ENTROPY and NEGENTROPY will be used for further discussion. The Informational or Energy characteristics of the LATTER will be determined strictly depending on the corresponding DOMINANCE of the Analytical or Synthetic focus of the processes of the researcher's Cognitive REFLECTION:

*Any DOMINATING ANALYZE is better determined by the ENTROPY and NEGENTROPY assessment of the Energy attributes of the cognizing Object.*

*Any DOMINATING SYNTHESIS is better determined by the ENTROPY and NEGENTROPY assessment of the Information attributes of the cognizing Object.*

**3.4.** Based on the above-defined CONCEPTS, let's formulate new NATURE LAWS that do not contradict the known laws of Energoentropics and Informatics. THEY expand on the theoretical basis of thermodynamics:

1) THE LAW OF SYSTEMIC REFLECTION or TRANSFORMATION OF ENERGIES AND INFORMATION OF NATURAL ENTROPY

*NO SINGLE SYSTEM of REFLECTION processes can exist without the Reception-Transmission of ENERGIES and INFORMATION of the mastered ENTROPY of natural interactions, WHICH is the SOURCE of both change and preservation of the REFLECTIVE CAPABILITIES of any OBJECT that masters the limit of natural NON-ENTROPY of the environment accessible to IT.*

2) THE LAW OF INCREASING ENTROPY OF CLOSED SYSTEMS or LOSS OF ENERGY AND INFORMATION

*The ENTROPY of a CLOSED (for external influences) SYSTEM of REFLECTIONS tends to decrease the ORDER of ITS ORGANIZATION due to the INTRA-SYSTEM LOSS of homogeneity of its inherent MOVEMENTS.*

3) THE LAW OF DECREASING ENTROPY OF OPEN SYSTEMS OR THE RISING OF ENERGIES AND INFORMATION

*The ENTROPY OF AN OPEN SYSTEM OF REFLECTIONS strives to INCREASE THE INTERNAL ORDER OF ITS ORGANIZATION, MASTERING THE HETEROGENEITY OF EXTRA-SYSTEMIC INFLUENCES WHILE SPREADING THE HOMOGENEITY OF MOVEMENTS inherent in THE GIVEN SYSTEM. THIS MASTERY gives NEGENTROPY.*

4) THE LAW OF LIMITED DEVELOPMENT OF SYSTEMS or OBSOLETION OF NEGENTROPY OF INFORMATION AND ENERGIES

*ANY SYSTEM of Natural REFLECTIONS REACHES the Evolutionary limit OF ORDERLINESS OF THE HOMOGENEOUS DISTRIBUTION OF THE MOVEMENTS IT consumes and transmits. NEGOTRONICITY IS AGING.*

5) THE LAW OF SYSTEMS DEVELOPMENT OR EVOLUTIONARY COMPETITION OF INFORMATION AND ENERGIES

*Among the various SYSTEMS of Natural REFLECTIONS, THAT will be THE MOST ADVANCED DEVELOPMENT UNDER HOMOGENEOUS CONDITIONS OF EXISTENCE IS THE ONE THAT achieves THE HIGHEST DEGREE OF ORDERLINESS IN ITS OWN consumption and distributes mastered MOVEMENTS. That is, IT more quickly masters the available NEGENTROPY of ITS environment.*

6) THE LAW OF MEMORY DEVELOPMENT OR EVOLUTION AND INVOLUTION OF SYSTEMATIC-MASTERED NEGENTROPY

*A SYSTEMIC CRISIS OF QUANTITATIVE DISCREPANCY BETWEEN THE ENERGY-INFORMATION ENTROPY OF IMPACTS INCOMING TO AN OBJECT AND ITS INFORMATION-ENERGY CAPABILITIES OF THEIR QUALITATIVELY ORGANIZED REFLECTION LEADS THE SYSTEM EITHER TO THE FORMATION OF NEW TYPES OF MEMORY IN THE OBJECT, CAPABLE OF PRESERVING ITS INTEGRATED EXISTENCE, OR TO THE DEGRADATION OR DEATH OF THIS OBJECT AS A WHOLE.*

**4. The Memory Evolution** [2]

According to the Principal Model of Human Memory, SEVEN TYPES of Its gradual organization were identified. THEY correspond to both the broadly generalized stages of Phylogenesis (i.e., the evolutionary improvement of living organisms) and Ontogenesis (the individual growth of a specific organism). Therefore:

*The process of Evolution in Nature has been defined as the RESOLUTION OF THE CRISIS BETWEEN changing Environmental CONDITIONS and the Body's reorganizational CAPABILITY within THEM. This problem is overcome THROUGH the emergence of NEW TYPES OF Its MEMORY organization.*

At the current stage of human development, the need arises for the formation of a NEW LEVEL OF its ORGANIZATION. THEY rarely manifest their work in the practice of modern life. But their mass development will determine the future fate of Civilization.

**5. Wisdom of the southern people about the Nature foundations** [6; 7; 8]

Beyond the Northern European school of philosophy, let's turn to the more ancient truths of the "North African" wisdom, the "Kybalion" system. Compared to its principles, the classic dialectic fades into the shadow of religious models of the All-Explanation. Therefore, let's begin with the 8 foundations of their Truth. These ancient postulates must be absorbed, preserved, and constantly utilized to overcome any problems:

1. The Principle of Reason. *EVERYTHING is a Mental REFLECTION of the laws of the Universe. TRUTH is the Reason of EVERYTHING! Civilizations live by comprehending IT. EVERYTHING is the infinitely vivid REASON of Nature. Enlightened people call the ITS Spirit.*

2. The Principle of Correspondence. *The External is similar to the Internal; the Small is the same as the Great. The Laws of REFLECTION bind EVERYTHING into a single System of universal interdependence.*

3. The Principle of Causality. *Every Cause has its Consequences, every Consequence has Its Causes. EVERYTHING occurs in accordance with the laws of REFLECTION. There are many heights of Causality, but nothing escapes the laws of REFLECTION of the True course of natural events. They are Cyclical.*

4. The Principle of Rhythm. *ALL moves, flows in and out. ALL has its own ebb and low tide. ALL rises and falls. Pendulum-like OSCILLATIONS manifest themselves in EVERYTHING.*

5. The Principle of Polarity. *EVERYTHING is dual, EVERYTHING has ITS POLES. ALL has ITS OWN opposite reactions to external influences in the environment of ITS existence. OPPOSITES are identical in nature, but differ in the degree of extreme activity. All paradoxes can be reconciled using the law of extreme Polarities.*

6. The Principle of Kin. *This is a means of preserving and developing Intelligent life, based on a unified struggle to balance the extremes of the principle of Polarity. KIN is in EVERYTHING, and EVERYTHING has its masculine and feminine characteristics. Only OPPOSITES can give life for the next cycle of previous life renewals.*

7. The Principle of Vibration. *The REFLECTION Laws are capable of modeling the natural Rhythms of EVERYTHING. Only the stably vibrating states of Objects can form Their MEMORY. Only copying the Laws of the environment of ITS existence gives the right for a Life. ALL has ITS OWN vibrational memory.*

8. The Principle of Utility. *Possessing knowledge of TRUTH without applying IT is like hoarding precious metals for the sake of possessing them. This is a useless endeavor! KNOWLEDGE, like health, is intended for use.*

**6. Mastering the ancient foundations of life being**

The other civilizations have clearly influenced the human brain. This is constantly confirmed by the discovery of various artifacts, both archaeological and by the declassification of ancient historical sources. If humans will be learnt to interact with this Knowledge, then Honor and Praise be to Mankind. But they

are lazy and simultaneously unique when they awaken! Perhaps the history of its origin is shrouded in the old experiments of long-extinct aliens.

Our planetary abode of vivid Reason, and indeed any other, rarely allows anyone to go beyond the gravitational pull of inhabited planets. This applies to the physical graves of evolved ancestors. The new generations copy them at the back of their mind in image and likeness. They left humans the freedom to choose between life and death! Freeing ourselves from the need to choose between two opposites is extremely difficult. Apocalyptic sentiments still dominate in the current historical time. This should be changed as soon as possible! Nowadays, reality knows old ways to overcome not individual mortality, but the spiritual immortality of a biological human body. It's like the modern-day "Noah's Ark" of the biblical tales. Other religions have similar descriptions of past events. The recovered artifacts may lead to the unemployment of the current school teachers. They can destroy the modern educational system. Naturally, this is less dangerous than possessing thermonuclear weapons. The problem has to be overcome step by step.

Nuclear charges had taken place on Earth long before Greek and Roman times. Our Planet has changed orbit at least twice during its existence. Therefore, its history is not written by comets alone. Till now, no one has explained the cause of the asteroid belt between Mars and Earth. Only faint memories of a once-existent planet, Phaeton, remain. Let's assume It was many times larger than the Moon. This means the Earth was closer to the Sun, and Phaeton's influence prevented biological organisms from living on its surface. To make this possible, Earth's orbit had to be altered. Either the dying civilizations did this, or the Space itself restructured the conditions for the existence of human society. No idea.

While time permits, it's essential to master the simple "ABC" of the universal laws of spiritual and biological self-preservation in the vast expanses of the Universe. Therefore, let's consider the 6 POSTULATES for the practical application of the 9 PRINCIPLES of the "Kybalion" system [5; 6]:

*1. Nothing can escape the Principle of Cause and Effect, but there are many planes of Causality, and the laws of higher planes can be used to overcome lower ones. Any law may be subordinate to another law, a more General one! (Universal type of memory, Absolute genus of reflexes)*

*2. Only a sense of UTILITY (BENEFIT) can shift attention and compensate for what is HARM (LACKING) now! Catch the Polarity and Rhythm of situations to achieve the desired results. It is impossible to escape the ENVIRONMENT of our existence! Master IT with Spiritual Peacefulness!*

*3. Control the Vibrations of the mastered RHYTHMS of Life. Are you in tune with Them or not? Throw away the excess! Bad mood? Change the current frequency of your personal organism's Vibration! Use the principle of Polarity by focusing on the opposite peak from your dissatisfaction!*

*4. The Soul, just like metal and the elements, can transmute from state to state, from level to level, from position to position, from pole to pole, from vibration to vibration. Switch attention from one Type of memory to Others.*

*5. Neutralize the negativity of events by the opposite polarity of disturbing states. This is a three-dimensional mirror, where the individual conscience should like reflection in any form of curved surface of the current events sphere. That is, personal reflection in one direction is compensated by focusing on the reflection in the opposite direction.*

*6. The laws of the higher plane include the laws of the lower. "A skill fully crossed-out Minus turns into a Plus!" if looking at the problem from the top of its origin area. The higher the point of the generalized view, the smaller the problem at the bottom of the events heap.*

**Conclusion.** This article represents an attempt to combine philosophy, chemistry, physics, biology, psychology, and futurology to explain the future evolution of humans, AI, and contact with possible extraterrestrial intelligences. Understanding the patterns of reflection, memory, information, and energy will

help humanity achieve a new level of awareness for survival in the face of Space-scale variability.

Civilization should move from an internally technocratic path of human development to a spatial outer Noospheric one for preserving its intelligent life. This requires reorienting human thought and activity toward self-reflective harmony with Nature urgently [1].

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