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**THE SYNERGETIC MODEL OF GLOBAL SYNTHESIS OF SOCIAL,  
CULTURAL, SCIENTIFIC AND TECHNOLOGICAL PROGRESS**

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**Abstract**

The article, The Synergetic Model of Global Synthesis of Social, Cultural, Scientific and Technological Progress is focused on discussing a new methodological approach to the study of theoretical prerequisites for synthesis of Global Social, Cultural, and Scientific and Technological progress from the Synergetic Historicism perspective. The approach in question is aimed at rethinking interconnected problems both of human origins in the Universe and humanity's global future. Results of the analysis of two approaches to considering a role of Homo Faber in dynamic synthesis of Social, Cultural, Scientific and Technological Progress allowed to ground two alternative ways to the reproduction of Homo Faber's viability. Thus, globalization, regarded, according to the Synergetic Historicism conception, as a new phenomenon of social, cultural, and scientific life opposed by deglobulisation, is thought of as a way to global human mentality achieved through a potentially local diversity. This concept is evidently exemplified by a bifurcation of global progress, demonstrated by the Synergetic Model of Synthesis, which allows to show a constructive-cum-destructive role of Chaos and Order.

The investigation in question is based on such a progressive methodology as the Law of Self-Organizing Social and Cultural Ideals, as well as the Method of Dual Oppositions. The Law of Self-Organizing Ideals contributes to obtain identity between the absolute ideal common to all humanity and relative individual ideals shared by every member of society, according to the principle of self-similarity of dissipative systems. Synergetic Historicism considers life in biological and sociological aspects to be a synthesis of reversible and irreversible, recurrent and unique, stable and mutable transformations of matter, on the one hand, and a product of reproducing and consuming social and cultural values, on the other. And, in both cases, life is treated as a synthesis of two or more interrelated opposite processes. The infringement of such a synthesis results in negating life and emerging self-destroying systems (that is to say, in Order-to-Chaos transition). The Synergetic approach to the human history is oriented towards rethinking it as the alternation of Ideological Order and Ideological Chaos, whereas social and cultural experiences accumulated by humanity - as the alternation of Social and Cultural Order and Social and Cultural Chaos, according to the Law of Self-Organizing Ideals.

Rethinking Self-Expressing Subjects called «Homo Faber» as a kind of ideological as well as social and political «animals» allows demonstrating that any idealization is inherent in human beings' mental activity only, for the only society is characterized by reproducing ideals and values. Thereby, rethinking interrelationships between the problem of a sense of social history and the meaning-of-life of Homo Faber permits to substantiate specific regularities of self-

transforming Homo Faber into Homo Super by the agency of the Ideological Code transmitted from generation to generation on the way of potentially infinite movement of Humanity to the Absolute Ideal.

**Keywords:** Social and Cultural Ideals, Homo Faber, Homo Super, Law of Self-Organizing Ideals, Dual Oppositions, Absolute Ideal, «Ideological Animals», Social, Cultural, Scientific and Technological Progress, Ideological Code

### **The Methodological Approach to the Study on the Specific Nature of Dynamic Synthesis of Global Social, Cultural, Scientific and Technological Progress from the Synergetic Historicism Perspective**

A new methodological approach from the Synergetic Philosophy of History viewpoint to the speculation on interconnected problems both of the dynamic nature of Synthesis of Global Social, Cultural, Scientific and Technological Progress and the future development of Humanity in the Universe is focused on self-organizing interconversions between poles of the cardinal dual opposition of Constructive Order and Creative-cum-Destructive Chaos. The investigation in question is based on such a progressive methodology as the Law of Self-Organizing Social and Cultural Ideals [1, P. 98–100], as well as the Method of Dual Oppositions [1, P. 289–290]. The Law of Self-Organizing Ideals, governing processes of their differentiation, integration, disintegration, and synthesis, contributes to obtain identity between the absolute ideal common to all humanity and relative individual ideals shared by every member of society, according to the principle of self-similarity of dissipative systems.

The Synergetic approach to the human history is aimed at rethinking it as the alternation of Ideological Order and Ideological Chaos, whereas social and cultural experiences accumulated by humanity - as the alternation of Social and Cultural Order and Social and Cultural Chaos, according to the Law of Self-Organizing Ideals. According to the Synergetic Historicism conception, the way of Homo Faber (that is to say, the Self-Expressing Subjects) to the Absolute Ideal consists in potentially infinite Order-to- Chaos and Chaos-to-Order transitions. The specific nature of Order and Chaos states is determined by reversible dual (constructive-cum-destructive) nature characterized by four states of Order and Chaos:

- The state of Constructive Order aimed at the self-reproduction and reproduction of social and cultural ideals as well as at constructive scientific and technological innovations;
- The state of Destructive Order aimed at the self-destruction and reproduction of destructive innovations, anti-ideals, and anti-values;
- The state of Destructive Chaos aimed at destruction of the current state of Destructive Order;
- The state of Constructive Chaos aimed at the reproduction of a qualitatively new stage of Constructive Order.

The specific of a new stage of synthesis of Global Social, Cultural, Scientific and Technological Progress might be explained by the specific nature of two cardinal dual oppositions:

- By the nature of the first opposition whose one pole is characterized by a tendency towards total determinism of Homo Faber's activities, whereas its other pole – by a tendency towards total permissiveness;
- By the nature of the second dual opposition whose one pole is aimed at the striving of Homo Faber after global unity, whereas its other pole at their striving after potentially infinite local diversity.

Thereby, this new stage in developing globalization processes in the social and cultural area, marked by a tendency towards accumulating cultural senses common to all mankind, actualized the problem of tolerance and readiness of local culture bearers to ideological and dogmatic compromises.

### **The Synthesis of Global Social, Cultural, Scientific and Technological Progress and Its Theoretical Prerequisites**

Any human society (as a group of people sharing common ideals) functions on the verge of unbalance, determined by a possibility of maintaining life in open systems, exchanging energy, matter, and information with their surroundings. Therefore, not all bifurcations result in generating new historical systems due to interrelations between specifics of social history and sequence of events whose microstructure is able to distinguish the past from the future, and whose idea is equated with that of bifurcation expressed by non-linear laws of evolution. And, inasmuch as the specific nature of events is characterized by qualities of their predictability or unpredictability, since any event results from a constructive or destructive bifurcation, such bifurcations impart to social events their constructive or destructive aspects [2, P. 206–207].

Dynamic development of Scientific and Technological Progress resulted in the imminent transition from industrial to high technological society, whose critical resources comprised information and technological innovations, assisting in the formation of new scientific models of the World.

The significant contribution to the development of the problem of the synthesis of Social, Cultural, Scientific and Technological Progress, has been made by Sergei Podolinsky (1850–1891), the Ukrainian physicist and pioneer of ecological economics, by reconciling social thought and the Second Law of thermodynamics by synthesizing the approaches by Karl Marx (1818–1883), Charles Darwin (1809–1882), and Nicolas Leonard Sadi Carnot (1796–1832). In 1880, Podolinsky postulated the rule stating that Homo Faber, due to their constructive mental activities, were invested with function of accumulating and transforming solar energy on the Earth's surface as to provide humanity with conditions required for human survival as well as to resist the dissipation of energy and the minimization of a growth of entropy<sup>1</sup> [3, P. 10]. This, so-called «Podolinsky's Rule» marking a qualitatively new stage of the synthesis of Social,

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<sup>1</sup> Entropy is a quantitative measure of what the Second Law of thermodynamics describes, to wit, the spreading of energy until it is evenly spread. So then, informational entropy is a measure of information communicated by systems, being affected by data noise, whereas thermodynamic entropy (as part of the science of heat energy) is a measure of how energy is organized in a system of atoms or molecules. In this sense, entropy can be considered to be a measure of uncertainty.

Cultural, Scientific and Technological Progress, assisted in balancing the Second Law of thermodynamics considered to be the law of common equalization. This law was understood by Pavel Florensky (1882–1937), the Russian Orthodox theologian, philosopher, mathematician, and physicist, as the law of Chaos in all the Universe, according to which negentropy<sup>2</sup> (as Logos) resists entropy. In this manner, culture was thought of by Pavel Florensky not only as conscious fight against world equalization, but also as a life condition, preventing from equating process in the Universe and assisting in increasing a potential difference, in contradistinction to an equality (that is to say, to death). Pavel Florensky regarded culture as the target and interrelated system for reproducing spiritual values as a subject of faith separated from any religious system. Pavel Florensky regarded the real existence of the sphere of the Earth incorporated into humans' mental activities as «Pneumatosphere» (that is to say, a sphere of human mental energy), having made a significant contribution to the concept of Noosphere<sup>3</sup> [4, P. 69] developed by Vladimir Vernadsky (1863–1945), the Russian and Soviet mineralogist and geochemist, by enriching it with his doctrine of the spiritual sphere of Humanity (to wit, the Pneumatosphere)[5, P. 194–303].

Vladimir Vernadsky's concept of Noosphere as the scientific basis for Saving the Planet (as an Appeal to the Citizens of the Earth) originated in Vernadsky's Sorbonna lectures, titled «La Géochimie» [6] in 1924. However, Vernadsky adopted the term «Noosphere» [7, P. 18] not earlier than in 1927 when the work by Edouard Louis Emmanuel Julien Le Roy (1870–1954), the French mathematician and philosopher, «Les Origines humaines et l'évolution de l'intelligence /The Human Origins and Evolution of Mind» was published, where the notions of Biosphere<sup>4</sup> and Noosphere were explained [8, P. 37–57].

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<sup>2</sup> Negentropy (negative entropy) is reverse entropy, and means things becoming more in order, implying organization structure and function opposite to randomness or chaos. The concept and term 'negative entropy' was introduced by Erwin Rudolf Josef Alexander Schrödinger (1887–1961), the Austrian physicist, who developed a number of fundamental results in the field of quantum theory, forming the basis for wave mechanics, in his work «What is Life: The Physical Aspect of the Living Cell» (1954) [9]. The term «negative entropy» was reduced to that of «negentropy» by Leon Nicolas Brillouin (1889–1969), the French physicist, contributing to quantum mechanics [10, P. 1152–1163]. In 2009, «negentropy» of a dynamically ordered subsystem was redefined as the specific entropy deficit of the ordered subsystem relative to its surrounding chaos [11, P. 1939–1948].

<sup>3</sup> The term «Noosphere» (from «νοῦς /mind» and «σφαῖρα /sphere»), meaning the sphere of human thought [12, P. 160–177], was first used in print by Edouard Louis Emmanuel Julien Le Roy [8, P. 46]. However, it was probably coined in 1924 by his friend, Teilhard de Chardin (1881–1955), the Jesuit priest, geologist, and paleontologist, inspired by ideas of Edvard Suess (1831–1914), the Austrian geologist, who explained this notion in his three-volume work "La Face de la Terre" (Das Antlitz der Erde /The Countenance of the Earth) (1885–1909) [13, IV, P. 1709].

<sup>4</sup> The term «Biosphere», connoting the entire earth as a single ecosystem, was coined in 1885 by Edvard Suess [14, P. 1–14] and popularized by hypothesizing that life was the geological force shaping the Earth. According to the First\* and Second biogeochemical principles, the Biosphere evolves in the direction of increasing stability and accelerating the biogenetic migration of atoms. Vernadsky contended that human thought appears in the Noosphere as a lawful manifestation of biospheric evolution, which can only be separated from it in abstraction. His Noosphere concept supposed that the reflective human mind would expand its control of the whole geological stratum, and that human beings-cum-watchers would spread throughout the Cosmos [4, P. 130–132].

The Biosphere concept was initially developed by Suess as a particular envelope of the terrestrial crust, a layer permeated by life, and was then rethought by Teilhard de Chardin as the actual layer of vitalized substance,

Pierre Teilhard de Chardin (1881–1955), the Jesuit priest, geologist, and paleontologist, regarded the Noosphere from his Catholic mystic perspective, as the spiritual realm that would be achieved by Humanity through overcoming the material world and transferring from the Biosphere into the Omega, identified with Christ, who has no higher stage [15, P.300]. This vitalist<sup>5</sup> idea of the Omega Point as a maximum level of complexity and consciousness originated in the dual character of matter and energy appearing at the atomic level [16, P. 356–359]. The interior aspect of matter (of atoms) implied the constant presence of Omega from the very beginning of the Universe [15, P. 269]. This Chardin's concept was the principle of the movement of Humanity towards the Supermind in the course of evolution and beyond the evolutionary mechanisms [17, III, P. 230–261]. The transcendental Omega Point was thus regarded as a pure state of being without any material constituents [18, P. 163; 19, P. 75–111]. Thomas Berry (1914–2009), the Catholic priest of the Passionist Order (Congregatio Passionis Jesu Christ), the cosmologist, geologist, and cultural historian, following Teilhard de Chardin's tradition, advocated «ecospirituality»<sup>6</sup>. Berry considered humans as a global and cosmic species collectively enacting spatio-temporal agency as a force powerful enough to induce radical biospheric changes. Thomas Berry believed that humanity is poised to play a new constructive

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enveloping the Earth. Vladimir Vernadsky, in turn, developed this idea by adding that not only Man exists within the Biosphere and in no way can exist beyond it, but also the Biosphere itself, all terrestrial plants and animals are interconnected with one another through competition, nutrition, predation, parasitism, and decay, and with non-biotic solar, geological, hydrological, and atmospheric environment through photosynthesis, respiration and transportation [20, P. 18–19].

\*The First Law of thermodynamics providing the basic definition of internal energy and being associated with all thermodynamic systems, states the rule of conservation of energy [21, P. 769–781].

<sup>5</sup> Vitalism is the belief that living organisms are fundamentally different from non-living entities, for they contain some non-physical element or are governed by different principles than inanimate things. This element is called the «vital spark», «energy» or «elan vital» identified with the soul.

<sup>6</sup> The term «Ecospirituality» («ecological spirituality»), meaning «ecological cosmology», in Indian thought implies the basic quest for knowing the place and role of Man in the Universe. The term was coined by Swami Vivekananda (born Narendranath Datta /1863–1902), the Indian Hindu monk and chief follower of the Indian Hindu mystic and saint, Ramakrishna Paramahansa (born Gadadhar Chatterjee /1836–1886), who traced back the Ecospirituality concept to the Maya concept.\*

The Ecospirituality concept originated in the dual opposition of Form and Formless, according to which, the Supreme Being was regarded as both Personal and Impersonal (that is to say, being the same thing, like the snake and its wriggling motion, which implies that it would have been impossible to conceive of the one separated from the other), as well as Active and Inactive (that is to say, neither creating nor preserving, nor destroying) [23, P. 33–34]. As Swami Vivekananda maintained, the Ecospirituality concept plays a vital role in the Hindu aspiration after achieving Harmony (that is to say, a counter-balancing point) between nature and humanity, resulting in transforming human beings into Homo Super and in their cosmological awakening by means of transcending the Universe [24, P. 1–2; 25, P. 157–158].

\*Maya (in Devanagari means «illusion», «magic») [26, P. 535]. This term, in Ancient Vedic tradition meaning «extraordinary power and wisdom» [27, P. 1–17], in later Vedic literature was reduced to a notion of «magic illusion», which explained that things appearing to be present, are not what they seem [28, P. 433; 29, P. 35–37].

The Maya spiritual concept declares that which exists, but it constantly changing and thus is spiritually unreal, is the Principle concealing the True nature of Spiritual Reality [30, P. 14–16; 31, P. 160–161].

role in synthesis of Social, Cultural, Scientific and Technological Progress as vital constituent of a larger cosmic community [22, P. 116]. Berry considered the Cosmos to be a dynamic, unfolding drama, a cosmogenesis characterized by increasing complexity, consciousness, and cephalization (understood as development of the central nervous system), leading to large-brained humans (thought of as «ideological animals»). While Teilhard de Chardin sought a mystical synthesis of science and religion, Berry, aimed at demystifying mechanisms of this synthesis, investigated in what way it could powerfully evoke constructive human changes. Nevertheless, both Teilhard and Berry regarded the Universe as a whole exhibiting a psychicum-physical nature. However, Berry believed that in humans (as «ideological animals»), consciousness has developed into complex forms of self-consciousness as reflective thought. Such a development was understood by Berry to be an inherent feature and tendency towards increasing cephalization [22, P. 119]. Following Teilhard de Chardin, Thomas Berry postulated the Law of complexification of consciousness, according to which the whole process of synthesis of Global Social, Cultural, Scientific and Technological Progress would provide Humanity with complexifying and deepening intelligence and emerging a radically new and transformative mindsphere (that is to say, the Noosphere, or sphere of intellect), relevant to the future well-being on the Earth. The Noosphere would thus be manifested by an additional thinking layer of the Earth system generated by human mental activity and its products.

Developing Teilhard's Hominization concept, Berry investigated the way in which human thought transforms all previously existing practice and functions on the Earth. Thereby, Berry's Noosphere superposes on the Biosphere as an agent of planetary transformation resulting in greater hominization. Human decision-making, akin to natural selection's transformation of the Biosphere, has hominized the natural selection process of the planet as a whole. In this manner, the Noosphere would reshape the Biosphere to such an extent that human beings would ultimately be transformed into Homo Super [22, P. 121]. And moreover, Cosmic evolution would be characterized by the leading role of humanity, marking the evolutionary convergence of mind through the synthesis of Social, Cultural, Scientific and Technological Progress, inevitably inducing the transformation of all Humanity into a global Supermind [22, P. 122]. This concept of a Global Supermind resulting from the Global Social, Cultural, Scientific and Technological Synthesis, anticipated the Synergetic Historicism conception of Homo Sapiens being transformed into Homo Faber, and then, into Homo Super (Superhumanity) [1, P. 115–116].

In contrast to Teilhard de Chardin's view on the Noosphere from the Omega-Point perspective, Vladimir Vernadsky, a Cosmic realist, considered the Noosphere as the part of the Biosphere, physically transformed by human activities [7, P. 27–28]. Vernadsky strongly believed that evolution as an inevitable and progressive advance to a better future of Humanity can assist human intelligence in eliminating negative side-effects caused by the expansion of the Noosphere. The Noosphere was thus thought of by Vernadsky as the last of many stages in the evolution of the Biosphere in geological history. Vernadsky maintained that «in the period of a new geological evolutionary change in the Biosphere», humanity is entering the Noosphere. «This new elemental geological process takes place at a stormy time, in the epoch of a destructive world war. But the important fact is that democratic ideals are in tune with the

elemental geological processes, with the natural laws and with the Noosphere» [32, P. 8–10]. Thereby, obvious parallels may be observed between Vernadsky's view on human activities, transforming the Biosphere into Noosphere, and the current view that human activities changing the Earth System, have initiated a new geological epoch. Vernadsky's idea of humanity's impact on the Biosphere could be easily applied to any modern account of disrupting biogeochemical cycles.

Vernadsky's Noosphere concept, differing from Teilhard's and Berry's, explicitly entailed not only human transformation of the environment, but also an idea that human knowledge possesses the potential for longer-term sustainable planetary management. In contradistinction to Teilhard's and Berry's Mindsphere, Vernadsky's Noosphere remained within the evolving material world and was no means considered to be a spiritual layer only. Nevertheless, Teilhard's and Berry's mystical as well as Vernadsky's materialistic conceptions of Noosphere were both products of evolutionary thinking which regarded civilized Man emerging in the Universe not as a Watcher but rather as a geological force developing over time. This evolutionary unfolding could be regarded as generally Lamarckian<sup>7</sup> in the sense that the Noosphere progressively develops as a higher stage of the human-directed evolving Biosphere. As human knowledge of the cosmos increases, the Noosphere incorporates new facts concerning the cosmos itself and self-organizing cosmic matter, allowing the Mindsphere to become a Microcosm of the Macrocosm, both a mirror of the Cosmos as well as its directive agency, according to the Principle «*Ἐν τὸ πᾶν* /The All is One».

As Teilhard de Chardin proclaimed, the humans hold evolution in their hands, being responsible for its past and future. In this manner, Humanity is in no way to be regarded as the navel of the Universe but rather the arrow, pointing the path to the final unification of the world. And though Teilhard de Chardin did not yet concern the measure of synthesis of Freedom and Responsibility as a key instrumental in successful tracing stochastically self-organizing social and cultural processes, tending to increase the complexity of social and cultural evolution, he anticipated the Synergetic Historicism conception of the measure of synthesis (considered to be a counterbalancing point between Freedom and Responsibility) of Freedom as Knowable Necessity and

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<sup>7</sup> Lamarckism (or Lamarckian inheritance, or soft inheritance) is the hypothesis that an organism can pass down its characteristics acquired by it during its lifetime to its offspring. It was named after Jean-Baptiste Lamarck (1744–1829), the French biologist, who incorporated the action of soft inheritance into his evolutionary theory as a supplement to his Orthogenesis\* concept, to wit, a drive towards complexity (37, P. 177–178). This theory was opposed to Darwinian, for it represented a false picture of the history of biology; and, moreover, Lamarck did not originate the idea of soft inheritance known from the classical era onwards.

\*The term «orthogenesis» (from Ancient Greek «ὀρθός /straight» and «γένεσις /origin»), also known as «orthogenetic evolution» or «progressive evolution», was first used in 1893 by Johann Wilhelm Haacke (1855–1912), the German zoologist [36, P. 99–138; 37, P. 351–352]. Gustav Heinrich Theodor Eimer (1843–1898), the German zoologist, defined this Orthogenesis concept as the general law, according to which evolutionary development realizes in a noticeable direction, above all, in specialized groups [38, P. 60–64].

Proponents of Orthogenesis concept called Progressionists, rejected the theory of natural selection as the organizing mechanism in evolution (thought of as a rectilinear model of directed evolution) [33, P. 124–132].

The strong Progressionists Jean-Baptiste Lamarck, Pierre Teilhard de Chardin, and Henri-Louis Bergson (1859–1941) advocated this biological hypothesis, according to which organisms have an innate tendency to evolve in a definite direction towards an increasing biological complexity [34, P. 499; 33, P. 268–270; 35, P. 526–539].

Responsibility as Knowable Chance, achieved through opting for a constructive way of social and cultural revolution, aimed at the Absolute Ideal common to all humanity and identified with Chardin's Omega-Point concept [40, P. 30].

In contradistinction to Vernadsky's concept of the Noosphere as the inevitable and progressive evolution of the Biosphere, the Anthropocene concept<sup>8</sup> rejected any advance to a higher stage [14, P. 9]. Radically distinctive ways in which Teilhard de Chardin, Berry, Vernadsky, and the advocates of the Anthropocene concept treated the notions of Biosphere and Noosphere, depended on their conceptualizations of what the Earth is and how this planet moves.

The similarities in Chardin's, Berry's, and Vernadsky's concepts were that evolution was regarded by them as a process aimed at ever-higher levels of cephalization, culminating in the incredible growth of the human brain and consciousness, leading to the transformation of Humanity into Super humanity and thus anticipating the Synergetic Historicism conception of Super humanity [1, P. 115–116].

In contrast to Chardin's, Berry's, and Vernadsky's idea of Humanity playing the constructive role of mind and consciousness of the Cosmos, Pavel Florensky supposed that humans lead their planet to a critical threshold of the unbalance, and exceeding this threshold can result not only in corrupting their own spiritual values, but also in destroying earthly self-organizing mechanisms. Therefore, Humanity should be aimed at opposing inertia of destroying spiritual ideals by improving a qualitatively condition of the thin layer of the planet called by Florensky «Pneumatosphere». The idea of spirituality, according to Florensky, must be incorporated into human life as the fundamental principle of Human Existence. Only by being aimed at the Absolute Ideal (identified with the Omega Point by Chardin and the Global Attractor as the global limit of self-organization<sup>9</sup> postulated by the Synergetic Historicism conception) and values proclaimed by it, humanity could restore dynamic balance lost by the system of the Earth. Similarly, both Vernadsky's and Florensky's concepts might be considered to be one of the special forms of the collective influence of humanity on harmonizing Biosphere, Noosphere, and Pneumatosphere of the Earth achieved through the synthesis of the intellectual and spiritual development of Humanity [5, P. 194–303].

Florensky's concept of culture as an instrument of Humanity's struggle against World Chaos by means of negentropy anticipated the so-called Law postulated by Sergei Podolinsky in his work, «Human Labour and Its Attitude to the Dissipation of Energy» [3], by grounding the process, counteracting dissipation of the solar energy on the Earth's surface by means of human constructive mental activities, aimed at being able to provide humanity with survival and obtaining the stage of Super humanity [2, P. 205–206].

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<sup>8</sup> The Anthropocene concept could be regarded as a new anthropogenic rift in the natural history of the planet Earth rather than as the further development of an anthropocentric biosphere. The proponents of the Anthropocene concept considered Homo Faber as the power able to disturb the self-organizing natural cycles that govern the planet's trajectory [14, P. 9].

<sup>9</sup> The global limit of self-organization is characterized by achieving the measure of synthesis (considered to be a counter-balancing point) between the striving of humanity for a cult of one-sided Freedom (leading to Anarchical Chaos achieved through violating social norms), on the one hand, and the striving for a cult of one-sided Responsibility (leading to Totalitarian Order achieved through thrusting social norms), on the other [40, P. 27].



The historical transformations in sciences were marked by the so-called Paradigm of Self-Organization<sup>10</sup> by Ilya R. Prigogine (1917–2003), the Belgian physical chemist of Russian origin and Nobel Laureate. This Paradigm, focused on the problem of relationships between human and physical realities [41, P. 151–164], as well as on aspects of reality typical of the modern stage of social transformations (in a dehumanized society) such as non-stability, randomness, non-equilibrium, non-linearity, assisted in rethinking the notion of time as the constituent of the synthesis of Social, Cultural, Scientific and Technological Progress [2, P. 206].

Investigating self-organizing processes in nature on the level of human individual and social consciousness, Prigogine has revealed that in far-from-equilibrium conditions, transformation from disorder (or thermal chaos) into order may also take place. And moreover, new dynamic states of matter may reflect the interaction between a given system and its surroundings. These new systems were defined by Prigogine as dissipative structures<sup>11</sup> [42, P. 158].

According to Ilya Prigogine, increasing entropy corresponds to the spontaneous evolution of the system. Entropy thus becomes indicator of evolution or «Time's Arrow» as Sir Arthur Stanley Eddington (1882–1944), the English astronomer, physicist, and mathematician, aptly called it [46, P. 20–25]. For all isolated systems, the future is aimed at increasing entropy [43, P. 119]. The concept, declaring that no system could be better «isolated» than the Universe as a whole [21, P. 769–781], became the basis for the cosmological formulation of the two laws of thermodynamics by Rudolf Julius Clausius (1822–1888), the German physicist and mathematician, one of the founders of the science of thermodynamics. In his work, "On the Moving Force of Heat and the Law of Heat Which May Be Deduced Therefrom", Clausius stated the basic ideas of the Second Law of thermodynamics [44, P. 14–69]. Then, in 1865, Clausius introduced the concept of entropy, concluding that the entropy of the Universe tends to a maximum: «Die Energie der Welt ist konstant. Die Entropie der Welt strebt einem Maximum zu»<sup>12</sup> [21, P. 769–781].

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<sup>10</sup> Prigogine's Paradigm of self-organization connected with natural historical reality, acknowledges the necessity of understanding it as a whole, including humanity, and is aimed at explaining his non-classical conception of science. It deals with strong non-equilibrium and self-complication and forms the basis for cosmology [42, P. 162–163]. Prigogine's concept of self-organization might be considered natural-cum-historical due to interrelations between each natural science and the technological conquest of nature [49, P. 207–214].

<sup>11</sup> Prigogine's Synergetics is based on the technological subordination of nature, whereas his synergetic method originates in theoretical investigating automatic chemical oscillations of Belousov-Zhabotinsky\* reaction, considered to be a classical example of non-equilibrium thermodynamics, resulting in establishing a non-linear chemical oscillator. This natural-cum-historical character of the Synergistic Prigogine's theories resulted in such physical and mathematical concepts which allowed to regard Chaos, Reality, and linear historical time as microscopic entropy' inner-time operator, as well as to redefine the Second Law of thermodynamics as the fundamental principle of dynamics [42, P. 160].

\*Boris P. Belousov (1893–1970), the Soviet chemist and biochemist, discovered the Belousov-Zhabotinsky reaction in the early 1950s. His work initiated the field of modern non-linear chemical dynamics.

Anatol M. Zhabotinsky (1938–2008), the Soviet biochemist, in the early 1960s postulated a theory of the chemical clock known as Belousov-Zhabotinsky reaction and published the results of his experiments on chemical wave propagation and pattern formation in non-uniform media.

<sup>12</sup> «Energy in the World is constant. Entropy of the World strives for maximum» (Increasing entropy is no synonymous with loss but implies the natural processes within the system. Those processes ultimately lead the system to thermodynamic equilibrium, corresponding to the state of maximum entropy).

As anthropology witnesses, conceptions of time in cultures of local civilizations were different. For instance, the culture of Judaism was characterized by cyclic (of the eternal return) time, whereas the culture of Christianity, in turn, by linear (historical) time [45, P. 153]. Besides, the stationariness in time was typical of all archaic cultures.

Though Sir Issac Newton (1642–1726), the English mathematician, astronomer, and natural philosopher, who devised Clockwork Universe Model, stated that the total momentum of the Universe is conserved, interactions redistribute the momentum but the total never changes. In this model, God only started the clock (as initial cause)<sup>13</sup>, then it runs by itself for the rest of time. In this way, Newton's Clockwork Universe Model regarded time as an appendage devoid of significance, whereas any moment of time in the present, past or future was not distinguished from another [46, P. 20–25].

Time's Arrow of Sir Arthur Eddington evidenced irreversibility of the train of events in the Universe as to prevent from continually increasing entropy<sup>14</sup> [46, P. 37]. Ilya Prigogine, however, not only proved that Time's Arrow is manifested only if a system stochastically<sup>15</sup> behaves, but also demonstrated numerous examples of irreversibility such as radioactive decay, solar radiation, diffusion, and evolution of life. And moreover, Prigogine proved that determinism loses its explanatory power due to irreversibility and instability.

The time's problem is interconnected with the problem of sense of the social history and of the meaning-of-individual existence, on the one hand, and that of achieving a measure of synthesis of Freedom and Responsibility, on the other. Thereby, the human history finds its sense in the world which is not subjected to laws of determinism and in which unpredictability becomes a prerequisite for reproducing constructive innovations, aimed at social and cultural ideals.

### **Homo Faber as «Ideological Animals» and Their Role in Transmitting the Ideological Code from Generation to Generation**

The transmission of the right Ideological Code is intended to provide Humanity with the constructive path aimed at the self-reproduction and reproduction of social, cultural, and religious ideals in order to prevent from growing entropy, caused by reproducing anti-ideals and anti-values which lead Humanity to fall into Chaos. The new stage of Superhumanity would be marked by achieving the measure of synthesis of Social Freedom and Ethical Responsibility of Homo Super for products of their mental activities.

Similarly, multifurcations, causing the emergence of new historical systems, with their new ideological programs, are initiated by Homo Faber, choosing their constructive way of self-actualization.

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<sup>13</sup> Sir Isaac Newton insisted that divine intervention would eventually be required to reform the system, due to the slow growth of instabilities.

<sup>14</sup> The term «Time's Arrow» was used by Sir Arthur Eddington in his work, «The Nature of the Physical World», in order to express one-way property of time having no analogous in space. This «Time's Arrow» is recognized not only by consciousness, but also by human mind, understanding that a reversal of the arrow would render the external world nonsensical [46, P. 35].

<sup>15</sup> The term «stochastic» (from Ancient Greek «στόχος» meaning «guess») was firstly used in 1953 by Joseph «Joe» Doob (1910–2004), the American mathematician, who specialized in analysis and probability theory, in his work "Stochastic Processes" [47, P. 37; 48, P. 163–176].

The Synergetic approach oriented towards regarding Homo Faber as the product of synthesis of «ideological» (ιδεολογική), «spiritual» (πνευματική), «political» (πολιτική) and «social» (κοινωνική) «animals» (Ζώα), demonstrates that any idealization is inherent to human activities only, for the reproduction of spiritual ideals and value<sup>16</sup> proclaimed by them, provides the dynamic synthesis of Global Social, Cultural, Scientific and Technological Progress on the way to the ideal common to all humanity. The reproduction of values without which the existence of Homo Faber would have been devoid of sense, becomes the meaning of individual subsistence of Homo Faber and the sense of social history [1, P. 114; 40, P. 32].

According to the conception of Synergetic Historicism, Constructive Chaos (as a product of destroying ideals and values generated by them) is able to be self-organized by means of forming a creative thesaurus, containing a multitude of alternatives in every multifunction point. Thus, Homo Faber, aimed at opting for one of alternative ways of their self-development, function as the Creative Detector, whereas an ideal, directing their choice, functions as the Selector. The main threat preventing Humanity from approaching the Global Ideal, is the danger of returning to relative individual values devoid of their actuality that results in cyclicity of social transformations when life loses its meaning due to lacking in reproducing new values neither in long-term nor in short-term perspective.

Any ideologized society is distinguished by a primacy of its members creativity, providing the dominance of spiritual values (serving as an objective) over utilitarian values (serving as a mean of achieving this objective), whereas in any consumer society, spiritual values become secondary made to serve utilitarian values. Such a target· inversion not only demonstrates that an objective as well as a means to an end have changed social roles with one another, but also became the main trend in thinking of mechanisms of transition from an ideologized creative society to de-ideologized consumer society. De-ideologization of any creative society inevitably results not only in substituting the striving after an ideal for the striving after a fashion, but also in radical transformations of social structures when consumption of utilitarian values becomes the new meaning of social life. Global history of artistic culture thus shows that, as a rule, life loses meaning only for those who fail in fighting for their ideals [2, P. 209].

The social selection in social and cultural reproduction of values is determined by the Law of Self-Organizing social and cultural ideals. The conception of Synergetic Historicism is thus oriented towards rethinking the dynamic synthesis of Global Social, Cultural, Scientific and Technological Progress as a potentially infinite movement to the Absolute Value which is aimed at preventing Humanity from self-destruction. Synergetic Historicism grounds the root cause of destruction of human culture and a global humanitarian crisis by means of social and cultural dynamics of alternating ideological and consumer phases in any society development. According to the law of Self-Organizing Social and Cultural Ideals, their periodic alternation in consequence of their degrading is a kind of empirical regularity, characterized by the successive alternation of a cult of creation by that of consumption in the social history. Therefore, the cognition of the Absolute (common to all humanity) Value might be provided by taking account

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<sup>16</sup> Neither spiritual nor moral values are to be reduced to usefulness, existing both in nature and society, for their criteria are the necessities of life, whereas the criterion of values, existing in society only, is an ideal [1, P.114].

of partial devaluation of new relative individual values and the periodic rejection of them on the base of the Law of Self-Organizing Social and Cultural Ideals.

Specifics of a new stage of synthesis of Social, Cultural, Scientific and Technological Progress consist in interrelated processes of reproducing the genetic code<sup>17</sup> and its transformation into the ideological one [53, P. 611–613]. According to the Central Dogma of Molecular Biology (explaining the flow of genetic information within a biological system) postulated in 1958 by Francis Harry Compton Crick (1916–2004), the British molecular biologist, biophysicist, and neuroscientist, "information" once transformed into protein, cannot get out again, that is to say, the transfer of information from nucleic acid, or from nucleic acid to protein may be possible, but transfer from protein to protein, or from protein to nucleic acid is impossible<sup>18</sup> [54, P. 138–163]. Like a genome<sup>19</sup>, being an organism's complete set of DNA including all of its genes and containing all information needed to build and maintain that organism, an ideological genome contains a similar aggregate of inherited material in cells of Homo Faber's mind which contains all ideological information needed to his self-development and self-actualization in the stage of synthesis of Social, Cultural, Scientific and Technological Progress, as well as to Homo Faber's transformation into Homo Super [1, P. 212].

The conception of the Ideological Code conceived of from the Synergetic Historicism perspective, is based on the Meme-concept<sup>20</sup> postulated by Clinton Richard Dawkins (b.1941), the English ethologist<sup>21</sup>, in his work, «The Selfish Gene» (1976) [60]. The «meme» regarded as a kind of social and cultural evolution model, was defined by Dawkins as a unit of cultural information, residing in the human brain, and the mutating replicator<sup>22</sup> in human cultural revolution: «We need, – Richard Dawkins wrote, – a name for the new replicator, conveying the idea of a unit of cultural transmission (or a unit of imitation). 'Mimeme' comes from Ancient Greek but I want a monosyllable sounding as 'gene' (that is to say, being modelled on 'gene')» [60, P. 192].

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<sup>17</sup> The genetic code is the set of rules used by living cells to translate information encoded within genetic material (DNA or mRNA sequences) into proteins. Translation is accomplished by the ribosome linking amino acids in an order specified by messenger RNA (mRNA), using transfer RNA (tRNA) molecules to carry amino acids and to read the RNA three nucleotides at a time [55, P. 21–26].

<sup>18</sup> The Central Dogma of Molecular Biology deals with the detailed residue-by-residue transfer of sequential information. It states that such information cannot be transferred back from protein to either protein or nucleic acid [56, P. 561–563].

<sup>19</sup> A genome is the genetic material of an organism consisting of DNA and including both the genes (the coding regions) and the non-coding DNA, as well as mitochondrial DNA and chloroplast DNA [5, P.186–193]. The term «genome» («gene» + «chromosome») was coined in 1920 by Hans Karl Albert Winkler (1877–1945), the German botanist, in his work, «Verbreitung und Ursache der Parthenogenesis im Pflanzen- und Tierreiche» (Dissemination and Cause of Parthenogenesis in Plant- and Animal World) [58, S. 165–166].

<sup>20</sup> The term «meme», derived from Ancient Greek «μίμημα» meaning 'imitator', 'pretender' or 'thing imitated' (from «μίμεισθαι» meaning 'to imitate' from «μίμος» meaning 'mime') was coined by Richard Dawkins in his work, «The Selfish Gene» (1976) [60, P. 192].

<sup>21</sup> Ethology is the scientific and objective study on animal behaviour under natural conditions.

<sup>22</sup> The notion of «replicator» was defined by Richard Dawkins as any entity in the Universe of which ectypes are made [63, P. 45–64], whereas that of «self-replicator» – as a dynamic system capable of building up an identical ectype of itself.

Having likened the meme (as a unit of human cultural transmission) to the gene [64, P. 161–182], Dawkins based his Meme-concept on the theory of memory by Richard Wolfgang Semon (1859–1918), the German evolutionary biologist. In his work, «Die mnemischen Empfindungen in ihren Beziehungen zu den Originalempfindungen» («The Mneme» /1921), Semon, the strong believer in the inheritance of acquired qualities, developed the Engram-concept (also developed by Pavel Florensky in his Pneumatosphere-conception, albeit independent of Semon's theory of memory). Semon considered the engram, marked by him with the term «mneme», as a kind of memory unit stored in the human brain and responsible for some biophysical as well as biochemical changes occurring in it in response to external stimuli [62, P. 1007–1013].

The Meme-concept was developed by Nicholas Keynes Humphrey (b.1943), the English neuropsychologist, investigating the evolution of primate intelligence and consciousness. So, Humphrey rethought memes as being ideological structures, residing in the human brain and being transmitted from one brain to another by means of replicating [61, P. 109]. Nevertheless, inasmuch as the process of social and cultural learning varies not only from one person to another, but also from one generation to another, their replication process implies no complete imitation. The sameness of an idea, being expressed by different memes supporting it, results in increasing the mutation rate in memetic evolution. Considering memes to be cultural information units copied by imitation, teachings and other methods, Humphrey took notice of the fact that, inasmuch as such ectypes are far from perfection of archetypes, they are made to fight for space in human brains, as well as for the chance to be copied again [66, P. 127–135]. Thus, only some of them can survive. Humphrey maintained that this fight of ectypes (that is to say, memes subjected to replication) for survival results in evolving human culture. In this way, large groups of memes, copied and passed down from one generation to another, form so-called above-adapted meme models defined by Humphrey as "memeplexes" (groups of memes incorporated into an individual's brain). Therefore, the longer a meme stays in the brain of the same individual, the higher its chances to be propagated. And the oftener this individual's brain uses a meme, the longer its life is. Nevertheless, if the neural space embracing a certain meme's ectype, is refused to accept other memeplexes, such an act threatens that meme's ectype with its destruction. Insofar as, however, all human beings hosting different memeplexes, are mortal, their survival cannot be provided within one generation, and requires to be perpetuated by means of transmitting from generation to generation<sup>23</sup>.

Results of studying the dual character of human nature contributed to rethinking Homo Faber, on the one hand, as «biological animals» (βιολογική Ζώα) distinguished by a mechanism of

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<sup>23</sup> Humphrey believed that such a transmission could be both vertical and horizontal. The former is realized by replication of genes (from parents to children), whereas the latter – through «mental viruses» within a single biological generation. Humphrey's idea of memes replication through mental viruses was developed by Richard Dawkins in his essay, «Viruses of the Mind» (1991), where he depicted the symptoms of being infected by the «virus of religion» (considered to be a kind of religious meme incorporated into the brain of its «faith-sufferer») as a specific form of being obsessed by mind-parasites» (by which religious beliefs were implied). Dawkins also stressed that those mind parasites typically spread by means of cultural transmission [67, P. 13–27].

evolution in a form both of the genome<sup>24</sup> and of the genetic code, whereas on the other hand, as «ideological animals» (ιδεολογική Ζώα) characterized by a memetic evolution mechanism in a form both of the ideological genome and of the ideological code. And if a biological genome is characterized by genes-and-chromosomes mechanism with such evolving constituents as genes and a genetic code, in an ideological genome, a function of evolving ideologization is delegated to this ideological code of non-genetic inheritance [54, P. 611–612; 52, P. 222–223].

Self-realization and self-development of Homo Faber in the course of dynamical globalization progress are oriented towards reproducing social and cultural values. As far as Homo Faber models their activities in correspondence with their surroundings, the ideological genome provides the inheritance of the ideological code of reproducing ideological programs in every stage of developing local civilizations and their cultures. Like a biological genome an ideological genome functions as a selector choosing ideological information generally significant to be inherited. As the social history shows, transitional periods of social and cultural evolution are marked by reproducing fundamental ideological programs as objective necessity, providing the stable reproduction of any social system [54, P. 612–613]. In this way, ideological programs formed by Homo Faber, even if are erroneous, objectively determined and measured.<sup>25</sup>

Ideas of transmitting the ideological code from generation to generation originate from the Judaist tradition of transmitting the individual code given by God (YHWH) to Moses on Mount Sinai, named «Ο Μοσαϊκος νόμος» (Mosaic Law) or «Τα δεκα λόγια» (The Ten Commandments)<sup>26</sup>. This constructive ideological code was intended to be transmitted to Aaron Levite, the High Priest, the elder brother of Moses, and then, from him to his sons, Nadabh and Abhihu, the firstborn, being anointed (Exodus 28:1; Numbers, 3:1–2) to sacrifice to God a red heifer without spot (ξανθην δαμαλιν) in the wilderness of Sinai (Numbers 19:2–4). And as for as

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<sup>24</sup> The human genome is the complete set of nucleic acid sequences for humans, encoded as DNA within the 23 chromosome pairs in cell nuclei and in a small DM molecule found within individual mitochondria. Human genomes include both protein-coding DNA genes and non-coding DNA [68, P. 56–65].

<sup>25</sup> Science and the teaching on truth and ideology as the teaching on ideals might have been identified on condition that both notions would also have been identified (but they are not). And, if the truth implies the correspondence of knowledge to reality, the ideal means the correspondence of knowledge to human wish to see reality being transformed in accordance with this wish. In contradistinction to the truth adequately reflecting objective reality, the ideal transforms this reality, and reflects the correspondence of knowledge to reality transformed in accordance with human wishes and based on faith and sacrifice [69, P. 63–71].

Dramatic nuances inherent to the problem of interrelation between science and ideology may be explained by a struggle between two opposite ideologies (the totalitarian and the liberal) as well as between their opposite ideological programs. Karl Marx (1818–1883) and Friedrich Engels (1820–1895), German philosophers, proponents of Revolutionary Socialism, in their early works identified «ideology» with «false consciousness», whereas in their later works, the communist ideology was proclaimed by them the only true one. Their view on ideology was shared by Vladimir Lenin (Vladimir I. Ulyanov /1870–1924), the Russian revolutionary and political theorist, in his work, «Materialism and Empiriocriticism» (1908). However, the Synergetic approach prevents from considering any knowledge as «true» or «false» because such a classification is applied neither to pragmatic program knowledge nor to utopian knowledge. Therefore, Synergetic Historicism, teaching that the notions of «Truth» and «Ideal», on the one hand, and those of «Science» and «Ideology», on the other, are not equated, substantiates the notion of the scientific theory of ideology as expedient, whereas that of scientific ideology as erroneous.

<sup>26</sup> «And the Lord said unto Moses, Come up to Me into the mount and be there: and I will give thee tables of stone, and a law, and commandments which I have written; that you mayest teach them» (Exodus 24:12).

in this case the ideological genome failed to fulfil a task of a selector to choose and transit individual ideological information to be inherited, the brothers distorted the ritual and died before the Lord when they offered strange fire (Numbers 3:2–4; 26–61). In this way, Nadabh and Abhihu were devoured by fire from the Lord, since the priests were forbidden wine<sup>27</sup>, when they were to go into the tabernacle; and Aaron and his sons were forbidden to mourn for them (Leviticus 10:1–2).

The act of repealing the genetic code by Judeo-Christianity (to wit, the consanguinity prohibition) not only freed a son from his blood relationship (that is to say, from his genetic dependence on his father), instead giving to him God the Father common to all mankind, but also gifted him with the right to reproduce the new ideological code. Such an act resulted in the Second (the New) Exodus from the Old Testament World. This New Exodus was achieved through transforming the Act of Jesus' death on the cross into a mechanism of transforming death into a source of life [46, P. 159].

The reproduction of ideological genomes in different stages of social and Cultural Revolution, considered from the Synergetic Historicism perspective as embryonic forms of self-organization in the ancient social history, could be illustrated by following examples:

- Firstly, The Instructions of Šuruppak (SU.KUP.RU.), son of Ubara-Tutu, the last ruler of Sumer prior to the deluge, as a significant example of Sumerian wisdom literature (the cuneiform tablets from Abu Salabikh dated to the early third millennium BC) [70, P. 30–32, 57–61];
- Secondly, Vedas ('knowledge' /dated to the second millennium BC), [71, P. 82–97];
- Thirdly, «The Loyalist Teachings, or The Loyalist Instructions» from a biographical stele at Abydos made in honour of Sehetepibre, a high government official and seal-bearer who served under Senusret III (r. 1860BC to 1814BC). This inscription, emphasizing the virtues of loyalty to the ruling pharaoh and the responsibilities one must maintain for the sake of society [72, P. 313–319; 73, S. 87–97], could be considered as the Egyptian ideological propaganda literature aimed at extolling the virtues of the Pharaoh and reestablishing spiritual and moral values that ensure a stable society[74, P. 7–8;75, P. 83; 73, P. 87–97; 76, S. 418–420];
- Fourthly, «The Admonitions of Ipuwer, or The Dialogue of Ipuwer and the Lord of All» (Papyrus Leiden 344 recto /The Dutch National Museum of Antiquities in Leiden, Netherlands) dated from the late Twelfth Dynasty of Egypt (c.1991BC to 1830BC) [77, P. 169–175; 78, P. 109–110; 79, P. 138];
- Fifthly, «The Code of Hammurabi» including «Lex Talionis» («an eye for an eye, a tooth for a tooth»), the Babylonian code of law dated from c. 1754BC and consisting of 282 laws on a 2.25 meter stone stele [80, P. 601– 609];
- Sixthly, Confucian «Virtue Ethics» by the greatest Chinese thinker Confucius (Grand Master Kong /551BC–479BC) based on the Li-Principle [81, P. 22] and oriented towards the dominant Taoist ideal, corresponding to the Golden Rule, which proclaimed that, first

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<sup>27</sup> «Do not drink wine nor strong drink, thou, nor thy sons with thee, when ye go into the tabernacle of the congregation, lest ye die; it shall be a statute for ever throughout your generations» (Leviticus 10:9).

and foremost, what every society member does what not wish for himself, he does not do to others (to wit, never impose on others you would not choose for yourself)<sup>28</sup> (Analects XV.24). Confucius' Virtue Ethics proclaimed the norms of proper social behaviour as taught by forefathers in order to promote commonly significant ideals of filial piety, brotherliness, righteousness, faith, and loyalty to the rulers [82, P.790];

- Seventhly, one of the greatest commandments of the Old Testament proclaiming that, inasmuch as the Lord Israel's God is one Lord, Israelites should love the Lord their God with all their heart, and with all their soul, and with all their might (Deuteronomy 6:5);
- And finally, the six greatest Commandments of Jesus Christ as follows:
  - «You shall love the Lord your God with all your heart, with all your soul, and with all your mind» (Matthew 22:37; Mark 12:30);
  - «Love your enemies, do good to those who hate you, bless those who curse you, and pray for those who spitefully use you» (Luke 6:27–28);
  - «To him who strikes you on the one cheek, offer the other also. And from him who takes away your cloak, do not withhold your tunic either» (Luke 6:29);
  - «Give to everyone who asks of you. And from him who takes away your goods do not ask them back» (Luke 6:30);
  - «And just as you want men to do to you, you also do to them likewise» (Luke 6:31);
  - «Judge not, and you shall not be judged. Condemn not, and you shall not be condemned. Forgive, and you will be forgiven» (Luke 6: 37).

### **Conclusion**

The results of studying the regularities of Global Synthesis of Social, Cultural, Scientific and Technological Progress from the Synergetic Historicism perspective allowed to draw conclusions of profound methodological significance to develop the theory of social self-organization:

- I. The conception of Synergetic Historicism assists in revealing the interrelationship between two cardinal dual oppositions characterizing dynamic processes of synthesis of Social, Cultural, Scientific and Technological Progress. The first of them is the dual opposition, whose one pole is aimed at obtaining the unity (a tendency to the globalization), whereas another is aimed at the diversity (a tendency to retain an identity).  
The second is the dual opposition, whose one pole is aimed at establishing a cult of Order and Responsibility (in Totalitarian societies), whereas another pole is aimed at establishing a cult of Chaos and Freedom (in Anarchist societies).
- II. The approach to the search for a measure of synthesis between two poles of those oppositions from the Synergetic Historicism position takes into account functioning mechanisms of synthesis of Social Order and Social Chaos, on the other hand, and mechanisms of mediation and inertia, on the other, on the base of reproduction a new social ideal which would play its dominant role in social consciousness. According to the

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<sup>28</sup> This Confucian Virtue (Analects XV.24) absolutely corresponds to the Commandment of Jesus Christ: «And just as you want men to do to you, you also do to them likewise» (Luke 6:31).



Synergetic Historicism conception, the striving of Humanity after Global Unity, on the one hand, and after Local Diversity, on the other, is explained by the Law of Self-Organizing social and cultural ideals. Leaving out of account either interrelationship between the Ideological Chaos and the Ideological Order or the interrelations between the specific nature of globalization world and that of Homo Faber results in mispresenting specific regularities of Homo Faber's nature modification, considered to be a key to the grounding of Homo Faber's root role in dynamic synthesis of Social, Cultural, Scientific and Technological Progress.

- III. As the Synergetic Globalization theory asserts, the choice of alternative ways of transforming human nature is determined by terms of realizing the Global Ideal (that is to say, the Ideal of Homo Super). An Image of Homo Super (Superior Man) would be accomplished by achieving the measure of synthesis of rights and responsibilities, through obtaining the absolute dominance of spiritual ideals and values over utilitarian ideals.
- IV. The scientific theory of ideology as the teaching on Ideals developed from the Synergetic Philosophy of History perspective, assists not only in avoiding the illegal identity of such fundamental philosophical notions as an objective truth and an intersubjective ideal, but also in revealing the interrelationship between the formation of the absolute truth common to all humanity in the wake of analysis and synthesis of relative individual truths, and the formation of the absolute ideal common to all humanity in the wake of analysis and synthesis of relative individual ideals.
- V. Inasmuch as Globalization Progress is aimed at reproducing values in accordance with the ideal common to all humanity, this ideal becomes a criterion of social and cultural values. The dual nature of ideals is explained by a dual opposition whose one pole is oriented towards ideological compromise, whereas its other - towards the ideological struggle depriving any counter-ideal of its right of being reproduced and its followers of the meaning-of-life which consists in serving such an ideal.
- VI. The approach to the study on Homo Faber's specific nature from the Synergetic Philosophy of History viewpoint consists in their rethinking as «spiritual animals» (πνευματική Ζώα) whose constructive mental activity is aimed at the ideal common to all mankind. This very ideal which assists in suppressing Homo Sapiens' biological instincts, also allows to transform Homo Sapiens into Homo Faber. If, however, those instincts deprive the ideal of its dominant role, such an «ideological animal» is instantaneously transformed into an «instinctive (biological) animal», losing nature inherent in both Homo Sapiens and Homo Faber.
- VII. Synergetic Philosophy of History considers life in biological and sociological aspects as the synthesis of reversible and irreversible, recurrent and unique, stable and mutable transformations of matter, on the one hand, and a product of reproducing and consuming social and cultural values, on the other. And, in both cases, life is treated as a synthesis of two or more interrelated opposite processes. The infringement of such a synthesis results in negating life and emerging self-destroying systems (that is to say, in Order-to-Chaos transition).

VIII. Analysis of two alternative approaches to rethinking a root role of Homo Faber in dynamic synthesis of Social, Cultural, Scientific and Technological Progress (in terms of those who regard Man as a destructive factor of the Universe evolution and reject human beings' specifics as «spiritual animals» following social, cultural, and religious ideals, on the one hand, and from the position of those who absolutize constructive aspects of humans aimed at subjecting Nature and Metagalaxy to their utilitarian ideals, on the other) allowed to ground two alternative ways to the reproduction of Homo Faber's viability:

- firstly, a destructive way distinguished by the dominant of growing social and cultural complications over human beings' subjective capabilities of assimilating the new objective reality that results in decreasing a viability level, increasing disorder, and Homo Faber's self-destruction;
- secondly, a constructive way characterized by human beings' forestalling capabilities of assimilating increasing complexity of the objective reality by the agency of its transformation into an object of thought as to provide the stable reproduction of Homo Faber's viability.

Thereby, the option for a way to the Absolute Ideal and the Absolute Value orientates Homo Faber towards overwhelming the striving for one-sided consumerism of utilitarian values inherent to Homo sapiens valuable in-themselves, and provides them with the constructive approach to the problem of regulating processes in question. A solution to this problem consists in the strong selection of society members as experts following the fundamental principles of Synergetic Historicism. This selection is needed, for any innovations generate both constructive (to wit, the growth of harmonization) and destructive (to wit, the growth of entropy) factors, provoking new forms of ant humanism. Those forms might be realized in three main directions:

- Firstly, in the direction of machinization distinguished by constructing robots not being controlled by humans;
- Secondly, in the direction of biologization distinguished by communities of de-ideologized living creatures;
- And, finally, in the direction of mystification characterized by coming to the earthly area entities from transcendent spaces.

Therefore, Harmonization, obtained on local levels, actualizes an issue of its globalization by achieving a measure of synthesis (as a counter-balancing point between two poles of a dual opposition) of Freedom of society members to choose alternative ways of Global development of Humanity, and their Responsibility for products of their constructive (or destructive) mental activities.

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