

Essence of Organic Life In Russian Orthodox and Modern Philosophical Tradition: Beyond Functionalism and Elementarism

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Abstract

In Russian Orthodox Tradition, as it is pointed out by Ioann Kronshtadsky (1902), life is understood as a remarkable harmony or agreeable order in God's Creation, where flesh is like a temple of spirituality strengthened and sanctified by the power of Divine grace. N.O. Lossky's (1938), V.F. Voino-Yasenetsky's (1947), V.V. Zenkovsky's (1961, 1964) and A. Men's (1971) theology is majorly based on the ideas of H. Bergson, P. Teilhard de Chardin and Hegel (with Shelling). Further on we will thoroughly consider these ideas in the light of modern scientific approaches towards the definition of the essence of life.

During the Soviet period, "Idealism" and "Materialism" emerged as a shift from ideological philosophy. For example, V.P. Kuzmin (1986), distinguished between "Systematic" and "Meta-systematic" understanding of objects. A. Tchanyshv (1981) emphasised "Naturalistic" and "Anthropomorphic" principles for cognizing the essence of objects, whereas B.T. Grigorian (1973), through the principles of "Objectivism" and "Subjectivism". Yu.A. Shreider (1990) just opposed "Naturalistic" and "Individualistic" principles for interpretation the world. S.N. Smirnov (1978) emphasised "Functional" and "Structural" principles for the development of a scientific interpretation of objects. S. Petrov (1980) distinguished between "Structural", "Functional", "Phenomenological", and "Substratum-substantial" principles, B.M. Kedrov (1980) between "Functional" and "Substratum" principles, while A.R. Sokolov (1985) worked mainly with "Functional-substantial" principles. In the works of the authors mentioned above, one can discern their will to deny the dogma of State Marxism in favour of a dialogue with Western philosophical and Church traditions.

First F.W.J. Shelling and G.W.F. Hegel interpreted the phenomenon as the "Substratum", "Process (causal)" and "Substance", as levels of understanding of the objects' essence.

Nowadays there have been a great variety of new definitions of essence of life created, in which the authors try to reflect the achievements of modern science. They differ from one another over a number of points. First of all it is necessary to mention the contraposition of "Organismic" and "Biospheric (Macro-evolutional)" definitions, which differ in understanding the every object of Biology - the essence of which is determined - organism, biosphere or process of evolution as a whole. Then it is necessary to single out general logical level of the definition itself. It could either determine common spatial and temporal features of the object defined or express the substance of phenomena, basis of common and differentiating features, peculiarities - in this case empirical and essential, phenomenological and fundamental definitions will differ. Depending on the way how the essence of phenomena is understood the definitions are divided into "Substratum (substratum)", "Structural", "Substantial (substantial)" and "Functional", "Functional-composite" and "Structural-functional", energy and informational.

Biography

Dr. Evgueny Arinin is founder and chair of Pomor Dialogue, a 2002 grantee of the Local Societies Initiative, located in Arkhangelsk, Russian Federation. In addition to teaching and heading the Department of Cultural and Religious Studies at Pomor State University, Dr. Arinin also travels to Vladimir State University to teach and foster the exploration of the same topics. He is currently exploring the creation of another dialogue project to be held in Vladimir State. Dr. Arinin is Founder and editor of "Candle", an annual collection of articles and a series of study books "Sources". He is also founder and coordinator of the project "ISTOKI", sponsored by the Barents Region Secretariat, Nordic Council of ministers, Arkhangelsk Regional Administration and the Ministry of Education of the Russian Federation. He is a member of ESSSAT and author of several articles related to religious education in Russia.

In Russian Orthodox Tradition, as it is pointed out by Ioan Kronshtadsky (Christianskaja Filosofija /Christian Philosophy/, 1902), life is understood as a remarkable harmony or agreeable order in God's Creation, where flesh is like a temple of spirituality strengthened and sanctified by the power of Divine grace.

N.O. Lossky (Chuvstvennaja, Intellectualnaja i Mističeskaja Intuitsija /Sensual, Intellectual and Mystical Intuition/, 1938), analyzes methodological aspects of perception of existence "biomorphic", not "meta-physical", but "meta-biological", which is in its inner nature created by a great number of "substantial active elements".

Prof. of Medicine V.F. Voino-Yasensky, Archbishop Louka Simferopoljsky and Crymsky (Concerning with Spirit, Soul and Body /O Dukhe, Dushe i Tele/, 1947) also pointed out that there are no absolute boundaries between inorganic, organic and organized (social) nature - in all of the texts of the Holy Scripture there is quite a clear idea about general animation and life-giving by Spirit of God (Voino-Yasensky, p. 56). Spiritual Energy flowing from Spirit of God, the energy of love is a motive power for the nature and gives life. And the most vivid feature of living nature t.e. its spirituality can not appear all of a sudden on the boundary between it and inorganic nature. The whole of inorganic nature is filled with spiritual energy (Voino-Yasensky, p. 57). Under creative influence of the Spirit all the existing forms of the universe are created (Voino-Yasensky, p. 60). One has to have a heart of stone not to hear this mute sermon of pure soul, this voice of God, which is clearly reflected in the beauty of material forms of nature (Voino-Yasensky, 61). He considers anabiosis as empirical confirmation of organic link between life and death - temporal death ... does not prevent life ... to appear again ... which impossible without manifestation of some kind of unknown life-giving energy in them (Voino-Yasensky, p. 65).

His point of view is criticised by V.V. Zenkovsky (Basis of Christian Philosophy /Osnovy Christianskoy Philosophy/, 1961, 1964), who agrees with him on the point of biocentrism in general understanding of the nature of existence, but Zenkovsky insists on **apophatic** understanding of the essence of life as creation of God and filled with His energy.

Alexander Menj (Istorija Religij /History of Religion/, 1971), is also convinced in fundamental spirituality of the existence and divine creative might filling the universe as the creation of God. He underlines the fact that the discoveries of modern science are closer related to Christian understanding of life rather than polytheistic myths and the problem is not the worldview but religious gap (p.89).

Russian Orthodox theology is majorly based on the ideas of A.Bergson, Teilhard de Chardin, Hegel and Shelling. Further on we will thoroughly consider these ideas in the light of modern scientific approaches towards the definition of the essence of life.

1. General Methodology in Understanding of Essence

In our eventful time with international conflicts and unstable politics characterised by pervasive enthusiasm for occultism and lack of spiritual depth we need a renewed interest in the scientific analysis of basic world view concepts that can express a genuine understanding of the Essence or Sacred. Such concepts express the main principles for cognizing reality. They help us to systematise the information about our surrounding world, and to determine not only how we perceive ourselves and the world, but also a specific logic of linking such statements with the reasons for our behaviour. *Gnosiology* is meaningful only with a definite ontology, and a definite understanding of the Ultimate as Essence (Sacred).

During the Soviet period, “idealism” and “materialism” emerged as a shift from ideological philosophy. For example, V.P. Kuzmin distinguished between “systematic” and “meta-systematic” understanding of objects. He also showed the appropriate stages and levels through which one could develop a true understanding of the object's essence.¹ A.Tchanyshhev emphasised naturalistic and anthropomorphic principles for cognizing the essence of objects², whereas B.T. Grigorian, through the principles of objectivism and subjectivism, made it possible to comprehend the notion of essence with regard to human beings.³ Yu.A. Shreider juxtaposed naturalistic and individualistic principles for cognizing the world.⁴ S.N. Smirnov emphasised functional and structural principles for the development of a scientific interpretation of objects.⁵ S. Petrov distinguished between structural, functional, phenomenological, and substratum-substantial principles,⁶ B.M. Kedrov between functional and substratum principles,⁷ while A.R. Sokolov worked mainly with functional-substantial principles.⁸ In the works of the authors mentioned above, one can discern their will to deny the dogma of State Marxism in favour of a dialogue with Western philosophical and Church traditions.

Today there have emerged quite new possibilities for such dialogue, although there remains a number of basic problems to solve. One of the most important is the problem of unity between gnosiological methods in theology and natural science. Is there any common epistemological ground between the wisdom of the Church, and the wisdom of secular tradition?

For the first time ever Shelling and Hegel interpreted the phenomenon as the substratum, process and substance, as levels of understanding of the objects' essence (Hegel George W. 1972: Science of Logics, Moscow, v.3, 214 – 225).

I would like to give a constructive analysis of the following notions: *substrate*, *function*, and *substantion*. The latter term refers to the principles for knowing the Essence and Sacred. One may attempt to comprehend the Sacred through the alternative concepts of “magic” and “religious”⁹ with a clear-cut distinction between the pagan (to which magic belongs) and the Christian (the “religious”).¹⁰ On the other hand, one can emphasize the basic unity within the cognition of the Sacred and assume a basic identity between paganism and Christianity due to the isomorphism between spiritual cultures. In this case, paganism is understood in terms of the “pre-Christian” so that “magic” have much in common with the “religious.” In this latter case, the lower (paganism) is understood in terms of higher (Christianity). This point of view is quite different from that of the Marxists, who identified religion with magic by interpreting the higher in terms of the lower.¹¹ In fact, the Marxists' view can be considered as an attempt to deny the very essence of being “human”. One can

¹ V.P. Kuzmin, *The Principles of Systemness in Theory and Methodology of K. Marx*. Moscow 1986, p. 36-72.

² A.N. Tchanyshhev, *Lecture Course on Ancient Philosophy*. Moscow 1981, p.5.

³ B.T. Grigoryan, *Philosophy about the Essence of Man*. Moscow 1973, p. 32-43.

⁴ Yu.A. Shreider, “Illegitimate Alternative” in *Novy Myr*. 1990, N.7, p.264.

⁵ S.N. Smirnov, “Elements of Philosophic Contents in the Notion of ‘System’ as a stage for Developing Cognition and Social Activities” in *Systematical Analysis and Scientific Knowledge*. Moscow 1978, p. 69-70.

⁶ S. Petrov, *Methodology of Substratum Approach*. Sophia 1980, p.10.

⁷ B.M. Kedrov, “About Modern Classification of Sciences” in *Questions of Philosophy*. Moscow 1980, N. 10, p. 97-98.

⁸ A.R. Sokolov, *Categories of Essence and Phenomenon and their Methodological Role*. Yumen 1985, p.8.

⁹ A. Men, *A History of Religion. Vol. 1*. Moscow 1991, p.163.

¹⁰ Mircea Eliade, *Sacred and Profan*. Moscow 1994, p.13.

¹¹ S. A. Tokarev, *Religion in the History of the Peoples of the World*. Moscow 1976, p.22.

distinguish between three contemporary cultural “images” of what it means to be a human being: the neo-pagan, the Christian, and the secular. The Marxist way of interpreting the higher in terms of the lower can also be considered as an attempt to deny any fruitful dialogue between the representatives of these three cultural types.

Secular culture often considers historical progress on a linear scale. It begins at a “magical” stage, continuing through the “religious” stage, until it finally reaches the “scientific” stage.¹² Christian culture, on the other hand, rather interprets history as a conversion from an original perfect state, to a fallen and sinful state,¹³ and subsequently to the renewal of religiousness in which there is a constant danger of falling back into the non-religious and secular stage. Another side of this interpretation incorporates the world's transition from a magical stage to an ethical stage, either through the teachings of the Church or scientific insight.¹⁴ Magic reduces everything to itself; it has no other method.¹⁵ In fact, the essence of being “human” is understood in the light of what is considered to be “sacred” in culture itself as the cult of *mind, science, supernatural, the immanent Person or natural powers*.

It is necessary to analyse the principles of cognizing the Sacred according to the three types of world-orientation: archaic (magic and mythological), Christian (personal and symbolic), and secular (scientific and humanistic). The discovery of any similarity between these types will allow us to affirm that “being human” is essentially unchangeable, and to see how its unity is preserved within each image. The meaning of “being human” is in itself unique and independent of specific cultural images. Such a perspective will imply a paradigm change in the way we understand the meaning of “being human” because it means a transition from a typological paradigm which understands the essence of “being human” in terms of conforming to pre-conceived ideals, to an ecological paradigm of a pluralistic nature, in which each individual will have an “ecological niche” due to their non-reducible mode of being and their unique significance. This does not imply any “chaotic pluralism” in which everything is accidental and nothing has any meaning.

The archaic world-orientation displays a *substratum* principle for cognizing a phenomenon's essence and conceives the *Sacred* in terms of mysterious powers, spirits, demons, or gods. Its most important peculiarity is the sense perception of an object, an emotional attitude to it, a spontaneous conviction that it is impossible for the mental and the physical to exist as separate entities, and also that everything is in a sense animated and alive. Fetishes, amulets, protectives and idols, all these things express the idea that there is a fundamental identity between the human being and the natural world and that this identity include both the dead and the living. The whole world is seen as a “psycho-physical system.”

The ontogenesis of the archaic world-orientation doesn't merely develop on its own accord. Its development looks like a system of “initiations” or transformational conversions depending on special conditions: a “new birth” interpreted as a substratum renewal of the total psycho-physical system, including the mythological and magical mentality as well as elements of social and natural skill of knowledge. These elements form an active substratum which represents a functional element that distinguishes the human being from non-human beings, i.e., meaning the principal identity of their structural organization.

The “psycho-physical” – the functional and substratum – character of an individual is initiated, sanctioned, and regulated by a supra-individual system such as a group

¹² J. Freser, *Golden Branch*. Moscow 1987, pp. 54-55.

¹³ A. Men, *History of Religion*, op.cit., pp. 54-55.

¹⁴ M. Veber, *Science as Inclination and Profession*. Vol 2. Moscow 1979, p.343.

¹⁵ K. Levi-Strauss, *Structural Anthropology*. Moscow 1983, p.147.

or a tribe in an archaic society. It is the substance of an individual, a marginal basis for his/her display of substratum and functional peculiarities. And even more, it is usually comprehended as something visible and bodily substratum such as “meat”, “blood”, “eyes”, “breath”, “heart”, etc. Thus, the archaic world-orientation is based on revealing the visible, the bodily and obvious “substratum” notions of a substance, of all its forms of expression. This archaic orientation focuses on an object’s characteristics, that which is “sacred” and mysterious, the “magic power”, the “soul”, the “demon” of an object, its inner “Ego” - in short, its anthropomorphous subjectness. Pre-Socratic philosophers like Protagoras and Xenon, thought in terms of being and intelligibility. Democrit and Epicur thought in terms of atoms, which in modern times became a mechanical conception of matter as substance. This idea was also used by Descartes and Leibniz as displaying different versions of the substratum approach, the principle for interpretation of reality and cognition of new phenomena. The substratum approach is based on the spontaneous conviction of the fact that every action has some “actor”, an acting object, a sensible object, while the “functional” approach, appearing in the early philosophical systems, is based on the conviction of the existence of particular invisible objects must be cognized through the mind, not through feelings.

Anaximander’s “Apeiron” and Pythagoras’ “Numbers” – became the first concepts in the history of philosophy about a principally new nature of “actors” (substrate) who gave birth to the world that can be perceived. Perception was the result of the “sacred-rational” element of cognition. “Numbers”, “Apeiron” or “God” were conceived as “imaginary” and “rough” as distinct from “true” and “light” character of real substances as conceived by Plato. From Plato’s point of view, the “heavenly” (light) substrate is opposed to the “earth” (rough) substrate, the latter being faceless and chaotic in general. The sophists and sceptics had a relative and utilitarian understanding of substance. They contrasted it to the sacred understanding of substance as a functional element and affirmed a secular, earthly character of functionality based on the new understanding of man’s intentions and opinions as fundamentally pluralistic and subjectivistic. From this point of view, the sacred functional element looks like *one* of the opinions only, profitable for a definite group of people, i.e., it is the function of circumstances.

Thus, civilization is characterized by the appearance of three types of notions for the essence of the sacred as well as of the corresponding three principles, which direct the gnosiological activity of man: the naturalistic (or function-substratum), the Platonic-idealistic (or substratum-functional), and the pluralistic (or subjective-functional). All three principles are different according to the notion of the substance of that which is sacred. For naturalists, the sacred is nature, a sensible element, a physical object, as the sources of characteristics expressed in terms of functionality and process. For Platonic philosophy, the sacred is in principle non-physical, non-material, non-sensible. In this way they affirm a principal “functionality”, “independence”, and immanent activity of the sacred, its ability to cause not only external characteristics of the object, but also the characteristics of the object’s sensible and physical substratum. For pluralists, the sacred stops being universal. It loses its universal significance and rational-sensible dependence, as it turns into one of the functions of man’s life, of sacred individuality, or arbitrary activity.

Hence the sacred is being transformed by civilization into something “naturalistic” as it gradually loses the features of being human. It “de-anthropomorphises” itself, it becomes “supra-naturalistic”, “divine”, gradually losing the features of “arbitrariness” and “subjectiveness”. Whether the sacred is conceived in principle as anthropomorphic or as non-anthropomorphic, they both affirm the existence of the sacred. The conception is opposed by the de-ontologised pluralistic understanding, which desacralises man’s life and regards man’s cognition as “imaginary”, arbitrary and subjective.

It was Aristotle who tried to realize the synthesis of the naturalistic and the ideas (as formal causes), of the objective and the subjective aspects of the sacred. The subject rises from the “imaginary” up to the “essential” understanding through the comprehension of hylomorphic aspects of things (the unity of their dual nature). Aristotle introduces three different meanings of the word “substratum”: “in one meaning it is matter, in another shape, in the next, all what consists of them both”.¹⁶ Substratum (or subject) is any object (total combination of matter and shape), so far as it is the base of our language or subject matter; in so far as it is the basis for the sensible comprehension of an object or shape, and the basis for a mental comprehension of the object.

Aristotle regards the sacred as the self-thinking mentality, the World Intellect, the shape of shapes, standing in absolute opposition to the “primary matter”, to the sense basis of existence. This makes existence ambivalent, “hylomorphic”. Only the affirmation of the sacred as a Personal God by Christianity changes the general character of its understanding radically. In Christianity, God is regarded as Creator, the only substance of all that which exists. God is the origin of “creaturehood”, the element of all “substratum” and “functional” peculiarities of objects as true Existence.

Democrit and Plato alienate pluralism of subjectivism from Existence as well as the totalitarianism of necessity from subjectivism. Christianity presents a contrast to those alienated categories, by virtue of the fundamental unity of person and Existence in Christ as God, the second person of the Trinity. The history of formulating the dogma of the Trinity reflects the transition from the Pagan to the Christian understanding of Man which includes the faith in the existence of a personal God.

The Trinitarian issue much debated during several centuries, reveals the depth and specific character of a new world-view. Leaving aside the details of the Trinitarian discussions, let us point out three typologically different ways of understanding the Trinity: a substratum one (Tertullian), a functional one (Arius), and a substantial one (Nicean). Tertullian based himself on the Stoics’ idea about the corporeality of all that which exist, including God. Consequently, Father, Son and Spirit, were the three bodily individuals of the same nature, similar to three lamps, or three fires.¹⁷

Arius proceeded from his strict monotheistic view, tried to show in a logical way, how the nature of Christ can be derived from God. Christ is Son because he comes from God the Father. He based himself on the ideas of Origen, who had proceeded from a complete incorporeal, or non-substratum view of God, i.e., from a purely functional understanding of Divine. This point of view is very much alike as Neo-Platonism. Father, Son and the Spirit are thought in terms of hierarchical beings in which Father is the highest being as functional “image” (hypostasis). In this connection, the hypostatic Oneness was denied, because in Antiquity it corresponded either to a logical order, in which both Father and Son were Gods, or to a “substance” (substratum) which were common for different creatures.¹⁸ All those versions reduced Christianity to the Pagan ancient philosophic conceptions, twisting the unique features of new wisdom.

Niceans were facing the task of overcoming both “Tritheism” and Origen’s monotheism that demanded changes in the language itself. The new language should be able to express a new view of the world. The Trinity is not the three individuals of the same substratum kind, and not the three gods with different functions, not the three faces, or masks of a single God, and not a subordinated God in which God as Son and Spirit is close to the level of created beings. They used a Greek term “hypostasis” and distinguished it from

¹⁶ Aristotle, *Works. Vol. 1.* Moscow 1975, p.189.

¹⁷ G.V. Florovsky, *Eastern Fathers of the IVth Century.* Moscow 1992, p.152.

¹⁸ *Ibid.*, pp. 14-15.

“ousia” (essence) signifying that, which is specific apart from the universal or common. In Western philosophy, both terms have been translated into Latin as “substantia”, signifying that, which is specific, and expressed by means of the term “persona” (person). Here we deal not with any play on words, but with their ability to express accurately the essence of notions, with their inevitable “being loaded” with a definite conceptual underlying idea.

Methodologically it meant reaching a new level of understanding the problem, a transition from a linear logic to a systematic, integrated and many-sided logic. The Greek language being improved by philosophers for centuries, matured into a basis for a new spirituality. The Trinity is mysterious and incomprehensible, and consequently, there is no system of categories ready to describe it. The substratum and functional systems of explanation are deprived of their universal significance and self-sufficiency. Logical procedures began to act as parts, as elements of something larger than itself. There occurs a breaking out from the antique personless understanding of existence, which turns into an understanding of the personal, an understanding with a person that loves and is full of life.

The Trinity is the three unique (non-subordinative) hypostatic beings of Father, Son and Spirit, who exist as a unified substance, as an integrated and full Divine Life (not according to a logic order of substantial identity).¹⁹ All the three hypostases are incomparable images of one and the same existence, and each of them gets its fullness from the other two, thus resembling a rainbow, which is one and multicoloured simultaneously. In the 20th century, positivistic philosophy was struck by the fact that our common logic actually depends on a transcendental logic.²⁰ As one realizes this dependence, it becomes necessary to elaborate a terminological set for describing and explaining the Transcendent as far as it is possible, and to emphasize its qualitative difference from the created order. Thus the methodology of describing and explaining the objects which are systematically different, has been worked out.

Nicean Christianity is able to elaborate the methodology for cognizing the world as constituted by qualitatively and systematically different objects which are unique among themselves. Consequently they are equal, but unique, hypostases, particular forms of the common substance, of the organic Absolute. Substratum and functional views are not denied at all, but they become the means for reaching the unity in terms of their fullness and mutual dependence.

The novelty of the Christian approach to existence, a true “substantiality” or world-comprehension, based on the language of Revelation as Absolute means of communication for humankind and its existence, makes it an eternally alive and self-renewed means for a person’s self-determination in eternity,²¹ for humankind’s self-determination in nature, for the noosphere’s self-determination in the biosphere. One should be aware of a definite relativity in some “substratum” or “functional” inevitable subjective interpretations of meanings within the language of Revelation. The historical development of Christianity, accompanied by “schisms” and bloody battles between different confessions, led to the appearance of a secular “culture”, a humankind that lives apart from the church.

Secular culture proceeds from “anti-clericalism” to humanism, to deifying every object of nature in general. Scientism naturalises and desacralises nature and society when “knowledge is power” is used to transform existence, while freedom is a “cognized necessity” of existence. Existence, being unknown, becomes a depersonalised “uncognized”, a complete inhuman “naturalism”. Nature and man find themselves “discharmed” and “de-humanised” by

¹⁹ Ibid., pp. 112, 84.

²⁰ W.Pannenberg, *Theology and Philosophy of Science*. Philadelphia 1976, pp. 29–35, 45.

²¹ A. F. Losev, *Of the Early Works*. Moscow 1990, p.574.

some functional substratum primary elements, e.g., by the dialectical materialism's conception of the function of matter and motion.²²

Gradually the mechanistic "reductionism" and "universality", as well as "scientific totalitarianism" are opposed by non-confessional, theoretic and universal "theism", "idealism", "organicism", "wholism", and the alike forms of functional approach. It was Leibniz who started the scientific use of the very notion of "function" – he regarded it as a mathematical dependence between the rows of phenomena which cannot be linked – this is "psycho-physical parallelism", the alive as an "ideal automation", "monads".

The notion of function is comprehended today in its three main meanings: (1) The correspondence of unconnected rows of phenomena, (2) A "phenomenon" of some "substance" (correspondence between the "external" and the "internal", the "actual" and the "potential", the "accidental" and the "necessary", etc.), (3) The cause for some phenomena (the correspondence between the "process" and the "composition", the "dynamic" and the "static", "time" and "space", the "active" and the "passive").

Only Modern Time and secular culture have created a functional principle for the cognition of existence. This principle is opposed to the substratum principle. In scientism, the notion of "substratum" acted as a specific principle for the cognition of existence. It attracted attention of the researchers to the discovery of the sensible, of the visible cause for our judgment on objects, to the description, which is withstanding the arbitrariness and subjectivism of individual opinions on objects. At the same time this notion was connected with "physicalism", i.e., naturalistic interpretation of an object's phenomenon as the display of an object's composition, substance, and matter. Accordingly this principle was regarded as the criterion for scientific work and verifiability, thus giving us the opportunity to systematise all the wealth of accumulated knowledge. Besides it became the paradigm of modern science, a gnosiological (epistemological) order which enabled one to describe the elementary objects according to this or that branch "secondary nature".

The appearance of an actually "functional" approach is connected with the difficulties of a purely substratum interpretation of the world with the discovery of peculiar "systematical" (in addition to additive substratum ones), non-additive, wholistic characteristics.²³

The functional approach was also connected with looking for special non-substratum, non-substantial, non-material cause for those characteristics. In ancient times there were no purely "functional" relationships, Plato's "ideas" are substratum as well as the Neo-Platonics' "wholeness". Only Leibniz' "mathematical idealism", Kant's formal Deism, and the "desubstantivism" of the early 20th century physicians and their discovery of "matter's disappearance", the splitting of the atomic nucleus, of substance regarded as only a function or a derivative of non-substantial primary elements as the true non-substantial basis for existence – led to the affirmation of a systematic and structural-functional approach as the "substratum" paradigm was replaced by the systematic one in modern science.

The functional approach is a principle for revealing non-additive, systematic, wholistic phenomena of objects, as well as non-elementary causes for phenomena of this kind. It is regarded as an anti-reductionistic, anti-elementaristic and anti-physicalistic methodology, which had the shape of "idealism", "theism", "organicism", "wholism", etc., including the marginally deontologised "systematical" or "structure-functional" approach.²⁴ As a whole, both approaches, the substratum and functional ones, allow us to give two additional "descriptions" of any object, or the existence in its marginally desacralised form.

²² F. Engels, *Natural Dialectics*. Vol 20. Moscow, pp. 382, 392, 566.

²³ G. A. Yugai, *General life Theory*. Moscow 1985, p.54.

²⁴ Y. Prigogine and I. Stengers, *Time, Chaos, Quantum*. Moscow 1994, pp. 6-7.

The analysis results in the possibility of manipulating the elements and constructing a new functional and virtual world. The secularisation of the substratum was replaced by the secularisation of mathematics. The substratum as a principle was turned into a variant of functional systems in general. Existence was deontologised and lost its definiteness.

Mathematical sacrality of the modern systematical approach, as well as “objectivistic” functionality are opposed to by the “anthropic” (“subjectivistic” or “personalistic”) functionality, affirming a fundamental identity of man and objects as active, independent open systems. This is the very way of ontological affirmation of non-reductionistic methodologies, which take into consideration “systematical” and “qualifying” effects, as well as the necessity of a “special language”, i.e., specific categorial systems for adequate expressions. Ontological “scientism” and “materialism” of the substratum approach was contrasted with “organicism” and “personalism” of the functional view.

This allows us to distinguish one more (the third) fundamental principle for cognizing the sacred and the existence as a whole, the unity of substratum and functional (systematic and active) elements of objects – the substantial principle. It may be named “a gnosiological Christianity” as distinct from “a gnosiological paganism” of the substratum and functional approaches. It shows itself as the principle of monism, unity, togetherness, self-substantiation of one’s own characteristics, independence, self-organization, and deep unity of an object’s characteristics.

Substantion, apart from substratum and functioning, looks like a mysterious something, standing in opposition to the rationally and empirically given characteristics. Substratum and functional peculiarities are not able to see the whole object and give purely “descriptive”, superficial knowledge. The only unity, avoiding the mixing of the three “images” of an object – substratum, functioning, and substantion – allows us to cognize a true object, to reproduce the sacred as such, to show it as the unity of the mysterious and the obvious, of the static and the dynamic, of the passive and the active.

2. Definitions of Life`s Essence:

Nowadays there has been created a great variety of new definitions of essence of life, in which the authors try to reflect the achievements of modern science. They differ one another over a number of points. First of all it is necessary to mention the contraposition of organismic and biospheric²⁵ (evolutional²⁶) definitions, which differ in understanding the very object of biology - the essence of which is determined - organism, biosphere or process of evolution as a whole. Then it is necessary to single out general logical level of the definition itself. It could either determine common spatial and temporal features of the object defined or express the substance of phenomena, basis of common and differentiating features, peculiarities - in this case empirical and essential²⁷, phenomenological and fundamental²⁸ definitions will differ. Depending on the way how the substance of phenomena is understood the definitions are divided into substratural (**substratum**), structural, substantial (**substantial**) and functional²⁹, functional-composite and structural-functional³⁰, substratural (**substratum**), energy and informational³¹.

Contraposition of the mono- and polyattributive, monistic and pluralistic definitions³² reflects extent of “curtailment”, reduction of the features of life to a single basis. Sufficiency of this “curtailment”, completeness of reduction is reflected in contrasting particular, abstract metaphysical and general, theoretically concrete, dialectical definitions³³.

In the light of the mentioned trends of how modern science determines the essence of life the variety of its definitions expresses:

- a) general understanding of the object (organism, biosphere or a natural object in general);
- b) static or dynamic character of the object (organism or vital functions of organism, biosphere or functioning of biosphere, object or functioning of object);
- c) Conditional (ecological) or unconditional existence (disengaged from conditions) of the object defined;
- d) Cognitive level of the features determined, attributes of the object defined - empirical or theoretical (similarity or the basis of expression is analysed);
- e) the way how the basis of the defined object manifestations are understood - whether it is substrate, functional origin or their substance.

After summarising nearly three hundred modern definitions of the essence of life, we have made the following groups of typical expressions:

I Abstract-Organismic Definitions:

- a) Life is an organism.
- b) Life is manifestations of organism.
- c) Life is movements, processes taking place in organism, typical for organisms.
- d) Life is contrary phenomena of organisms, opposed phenomena.
- e) Life is an organisation (orderly structure) of the organism's processes.
- f) Life is organised expressions of common basis and is the way this basis exists.

II Ecological-Organismic Definitions:

- a) Life is a way for an organism to interact with environment.
- b) Life is a manifestation of organism in a certain environment, conditions.
- c) Life is a faculty, organisation, determining the manifestations in certain environmental conditions.
- d) Life is a manifestation of genotype, nucleic acids of the body.
- e) Life is a manifestation of organism as an open system.

III Abstract-Object Definitions:

- a) Life is a manifestation of a certain type of objects.
- b) Life is an organisation of a certain type of objects.
- c) Life is a way of existence, manifestation of the basis of a certain type of objects.

IV Abstract-Biospheric Definitions:

- a) Life is a biosphere.
- b) Life is a functioning of biosphere.
- c) Life is an organisation of the biosphere's structure.

V Specifically-General (Substantial) Definitions:

- a) Life is an evolving system of organisms, element of the Universe, a special form of movement of matter.
- b) Life is adaptation.

Each group of the definitions has a special significance for expressing certain level of knowledge about life. The first group reflects peculiarities of immediately these particular organisms by starting with mere ostensible pointing to the object under investigation (I.a) and then extending on object-substantial understanding of the unity of composition, structure and functions of the organisms in their development. Different levels of analysis of organisms' peculiarities could be distinguished. Starting from simple statement of peculiar phenomena, functioning of the organic (I.b), specific organisation (I.d) and up to understanding their unity, interdependence of the opposites.

The first group of the definitions digresses from the conditions providing the process of vital functioning, and in fact assuming these processes as being unconditional and eternal as well as taking place everywhere. While the other group focuses its attention on this particular aspect, thus broadening the content of the definition of life. This leads to realisation of the basis of life's phenomena as an open system, specific organisation of the organic. The definitions of the third group are considered in the same domain where the attempt is made to consider the universal content, the place of the organic systems in the general system of the natural objects, the way how the organic are discerned from the inorganic as natural formation. The similar logic is working in the case with biospheric definitions. The definitions of the fifth group suggest the synthesis of all the approaches. However, being on their own and without connections to the definitions of the other groups, they give just a very general and as a matter of fact the concept of life is abstract and meagre in content.

The set groups of definitions discriminate between certain levels and the way cognition of the essence of life in modern science moves on. The research works within the substratum cognitive principle are considered fundamental in terms of cognizing the essence of phenomena of separate organisms as manifestations of their certain structure or organisation, static origin. The same significance has the investigation of functional basis of "emergent"³⁴ phenomena of organisms, which can not be explained on the basis of its substratum, on the basis of the properties of the separate proteins, nucleic acids etc., and their systems that is their properties as "open systems", "dissipating structures" etc. By revealing similarities of certain features this object-centred understanding of life's essence, when investigation is done only on the level of independent organisms, gives an opportunity to cognize premises for originating the organic from inorganic to determine the types of transitional systems mediating contraposition of the organic and inorganic.

Functional principle of cognition makes it possible to overcome object-centred level of understanding of the object. It necessitates ecological, biospheric, systematic understanding in general, and consideration of the separate object as a moment of general wholeness, while the separate substratum and functional features (internal and external) are its manifestations. Within this principle the cognition of life's essence moves on to the level of ecological-organism and biospheric, evolutionary understanding.

Completing this principle with the whole of content of accumulated knowledge about various types of biological substrates and biological functionings in their interrelations gives a real universal - substantial - picture of the organic, phenomena of life as forms of manifestation of indivisible substance. This substance nowadays is adaptation, unity and principles of origin and development, object-type and systematic in animate nature.

- V.I. Vernadskij "Razmyshlenija naturalista" (Naturalist's Reflections). Moscow, Nauka, 1977, p. 142.
- S.E. Shnolj "Phiziko-khimicheskie factory biologicheskoy evolutsiy" (Physics and Chemistry Factors of Biological Evolution). Moscow. Nauka, 1979, p. 18.

- V.N. Sagatovsky “Zamechania po voprosu ob opredeleniy zhizny” (Remarks on the Matter of Definition of Life). Voprosy Filosofiy, 1963, # 3, p. 128-129.
- Ibid. p. 129.
- K. Folsom “Proiskhozhdenie zhizni” (Origins of Life). Moscow: Mir, 1982, p. 74.
- A.N. Kholmogorov “Zhiznj i myshlenie kak osobyje formy suschestvovaniya materiy” (Life and Thinking as Special forms of existance of matter). Nasedenny Kosmos. M.: Nauka, 1972, p. 27.
- A.A. Butakhov “Osnovnie formy dvizheniya materiy i ih vzaimosvjazj v svete sovremennoy nauky” (The Main Forms of Movement of Matter and Their Interaction in the Light of Modern Science). Moscow.: Vysshaja Shkola, 1974, p. 270; R.S. Karpinskaja “Biologija i mirovozzrenie” (Biology and Outlook), p. 109; V.N. Sagatovsky “Zamechanija po voprosu ob opredelenija zhizni” (Remarks on the Matter of Definition of Life), p. 129.
- B.M. Kedrov, K.B. Serebrovskaja “Problema proiskhozhdenija i suschnosti zhizny i ee filosofsky aspekt (The Problem of Origins and Essence of Life and its Philosophical aspect). ZhVHO im. D.I. Mendeleeva, 1980, #3, p. 260.
- G.V. Platonov “Zhiznj, nasledstvennostj, izmenchivostj” (Life, Heredity, Mutability), p. 66-67.
- Ibid. p. 67.

Supplement

Types of definitions of the notion “Life”

I. Simple, element-based structural definitions of the first type.

Chzhuan-Tszy (3c. B.C.): Life is something created through accumulation of living power.

Lamarck (19 c.): Life is an order and the state of things.

Frenkel-Konrat X. (20 c.): Life is a state of of biophysical and biochemical organisation.

II. Simple, element-based sturctural functional definitions of the first type.

Aristothel (6 c. B.C.) Life is nourishment, growth and decay of the body.

Sheftsberry (18 c.) Life is circulation, succession.

A.I. Ignatov (20 c.) Life is specific process of movement.

III Simple, element-based functional definitions of the second type.

F. Engels: Life is a way of existance of protein bodies.

A.A. Butakov (20 c.): Life is a way of existance of open nucleoprotein systems.

IV. Polysemantic structural definitions of the first type.

Saint-Iler (19 c.): Life is an organisation.

G. Jugay (20 c.): Life is a special cosmic organisation of matter.

V. Polysemantic structural definitions of the second type.

V. Tserling (20 c.): Life is a superorganism unity.

VI. Polysemantic functional definitions of the first type.

K. Bernar (19 c.): Life is both synthesis and organic decay.

V.I. Kremyansky (20 c.): Life is a self-accomplishing process.

S.Y. Frenkel (20 c.): Life is a homeostasis, developing self-sustainment.

VII. Polysemantic functional definitions of the second type.

Spenser (19 c.): Life is a constant adaptation.

N.P. Dubinin (20 c.): Life is an integrated existence.

VII. Simple systematic structural definitions.

G. Gecksly (19 c.): Life is an aggregate of systems of matter and energy.

M. Kashmilov (20 c.): Life is a biosphere.

IX. Simple systematic functional definitions.

Plotin (3 c.): Life is something continuous.

V.I. Vernadsky (20 c.): Life is a complex of living organisms and their changes, it is a phenomenon.