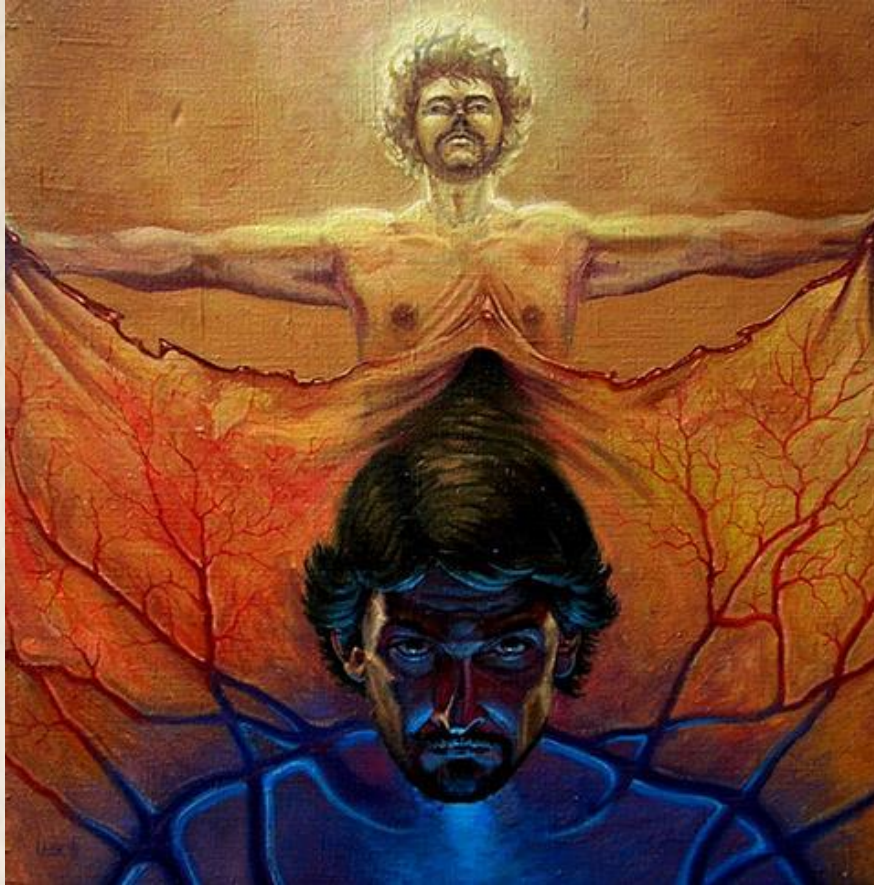


The Living



The New Cosmic Philosophy

Volume V



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An amateur`s essay on the Universe ...
Who are we? Where are we from? Where do we go?
A Human being, his Worlds, his Gods...

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1. Introduction

Making progress in interpretation of the “human being” concept, we still face a problem of improper understanding of such concepts as ***alive*** and ***unalive***, and exactly this misunderstanding will lead us to a dead-lock again.

The human beings with extrasensory perception and ability to communicate with plants, crystals, or with pieces of the solid are confident that all these objects respond to feelings, emotions and communications of the human beings. Such reactions prove the individuality of every object, even of that we consider as ***unalive*** one.

Today reffering an object to ***alive*** or ***unalive (dead)*** one depends on the presence or absence of the so-called ***stirrings of life***.

What are these stirrings?

Do they enable to shape our worldviews “in a proper way”?

2. THE CIRCULATION (mixing) of MATTER

“THE CIRCULATION is a continuous process with the permanent getting around to the starting point, to the beginning.”

The Explanatory Dictionary of Ushakov

D.N. Ushakov

1935-1940

“THE CIRCULATION is a continuous moving, always repeating its circle of development.”

The Explanatory Dictionary of Ozhegov

S. I. Ozhegov, N. Yu. Shvedova

1949-1992

“THE CIRCULATION is a continuous, periodically recurring process.”

The Large Explanatory Dictionary of the Russian Language.

The first edition: St. Petersburg: Norint. S. A. Kuznetsov

1998

We know this information from childhood, from school, from university. It was represented in different ways, but the meaning was always the same. The circulation of matter exists on the Earth, and in the Universe as well.

The different remains on the Earth show us that sometimes large and small cosmic bodies fall to the ground.

We know that our planet becomes heavier every year because of a cosmical dust falling to the Earth.

We make cosmic ships of the materials from the Universe and send them on other planets and areas of the solar system.

“Matter of the outside world flows through my body like water along the coast. Now I feel that matter inside me. But there will be other inhabitants in my body within few days or months – there is another matter of inorganic world, of animals and other people. It lived and felt in another way that differs from the life of inhabitant of my body. By contrast, matter inside me roams about the world and experiences unique life: life of minerals, water and air, life of animals, human being or higher creatures. It’s hard to believe, but it is true: some time ago or even few seconds ago my matter could be inside another creature. And in a matter of seconds or years it will leave the body and will have other feelings. We know nothing and can only guess at it. Our body informs us only about its own state, its past and future, but not about its inhabitants. They always change like citizens of the state. The notice refers to current inhabitants. No one organism is adapted for informing about its guests, i.e. about the atoms of matter. This scope of matter lives and feels inside the animal for a short period of time and many times leaves its body before destroying. However, there are the parts in organism, which exist all life long. Maybe these are bones, brain liquids (in the brain ventricles) that have no need to change. If it is so, then such animals feel one and the same matter during their life cycles: inhabitants are also the same. In any case, animals are possible in theory, but they have no benefit. We wrote about them earlier (from 1895).”

Konstantin Tsiolkovsky

“Longevity”

March 12, 1934

“Every given mass of matter roams throughout the universe, gradually taking all forms of organic and inorganic existence. It is a stone now, then the water, a plant, an animal, or a higher creature (for example, a human being). The life has always been and will be in future as well.”

Konstantin Tsiolkovsky

[“The Highest Truth”](#)

August 27, 1934

“Atom falls on suns, planets, their centers, all celestial bodies, ethereal environment, other galaxies, animals, plants, higher beings, etc. as a result of its known and never-ending movement (or it’s more correct to say of matter movement).

Inside inorganic bodies it is similar to a wanderer who is blearily roaming in the endless dreary wild without any emotions. He is nonentity here.

The bodies of animals are like various hotels for it. It becomes entity and experiences feelings of animals.”

Konstantin Tsiolkovsky

[“The Laws of Life”](#)

1929

“Every particle of matter represents the element of space and lives the life of the universe ... Matter is continuously moving... today atom is on the Earth, tomorrow is on the sun, and the day after is on some Venus or any other planet of the solar system. It also can be the parts of planetary beings, or organisms living somewhere in the sunbeams, without a planet, or with company of their kind – in special dwellings or even without them. It is idea of the science dealing with nature.”

Konstantin Tsiolkovsky

[“A Living Universe”](#)

1923

“The inorganic substance of every celestial body getting cooled from the surface, emanates a continuous flow of life, a flow of conscious or unconscious beings.

Theoretically, this flow is infinite. Its abundance (intensity) and length depend on the nutritional conditions.

Every celestial body becomes alive in appropriate conditions and into a dead planet it turns under unfavourable conditions. So, the universe, mathematically, is all alive, it doesn't differ from the animal in usual sense.”

Konstantin Tsiolkovsky

“Space is the Animal”

1932

“What do we see in a cosmic space? — Only its cycle, its transformation. A dead matter turns into organic (the birth of animal, a tree growth), and alive matter — into a dead one. Both of them consist of the same elements. Both of them include the same atoms: oxygen, hydrogen, nitrogen, carbon, metals and other (92) simple bodies.

These elements are able to modify other elements, but it is more time-consuming process. But there is enough time in nature. One and the same mechanical, physical and chemical processes take place in both alive and unalive matter. Their laws are never and nowhere violated.”

Konstantin Tsiolkovsky

“The Purpose to Work”

November 29, 1930

“So, life of matter consists of conventional imperceivable non-existence, life inside imperfect and higher creatures. The first life doesn't exist, actually, the second one is very rare phenomenon, and the third one is predominant. That's why there is no perfect life.”

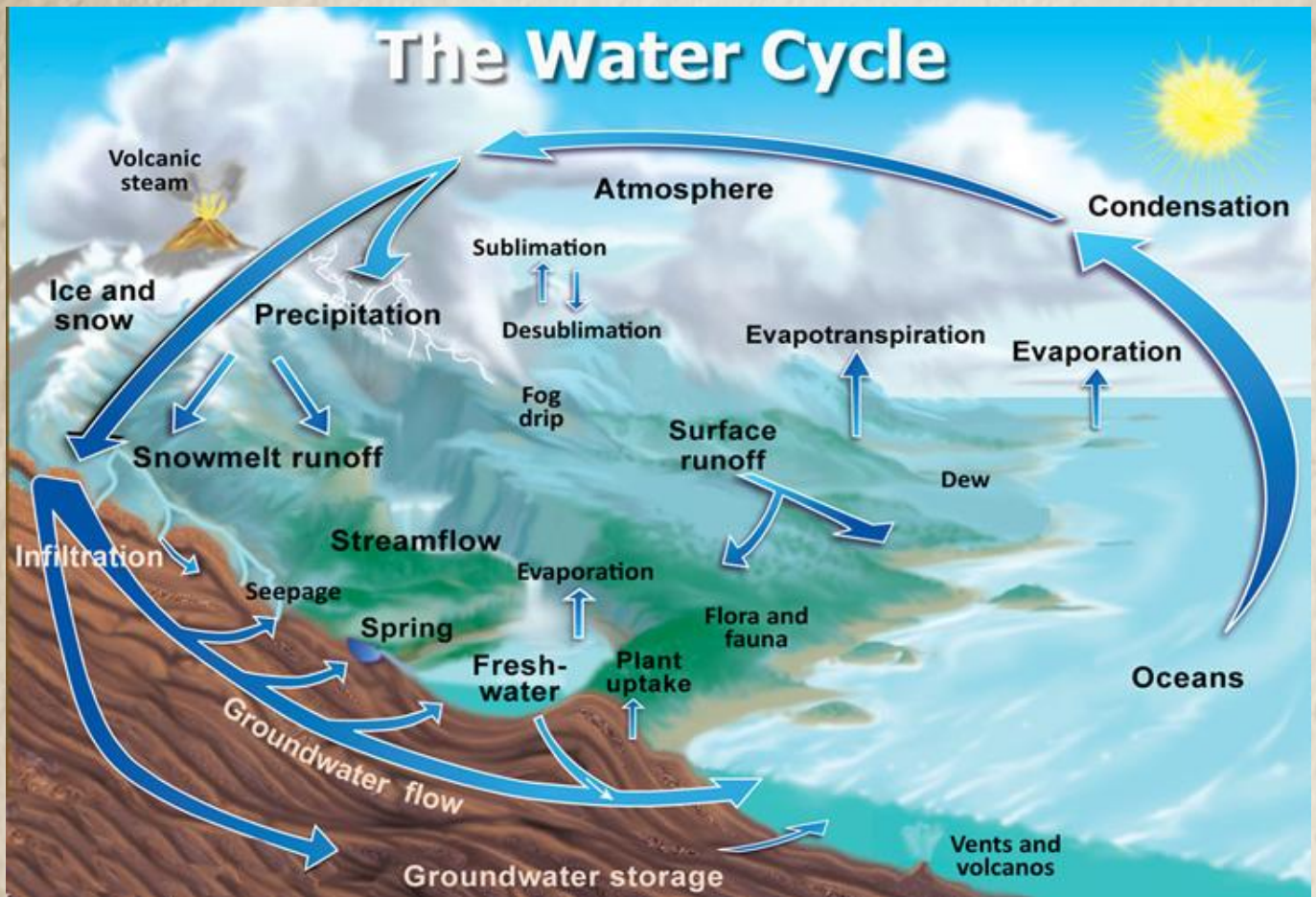
Konstantin Tsiolkovsky

“Rights and Duties of a Human Being”

May 29, 1933

The modern scientists investigate the process under **“The Water Cycle on Earth”** name.

The continuous exchange of humidity between hydrosphere, atmosphere and earth surface is called the water cycle in nature. This cycle consists of evaporation processes, moving of evaporated water in atmosphere, its condensation there, atmospherical condensation and flowing. Atmospherical condensation partially evaporates, partly forms temporary and permanent gutters and reservoirs, partially — seeps into the ground and forms underground waters.



If we take into account that the human body consists of 90% of water, then it's easier to catch the idea why the expression **"the water cycle on Earth"** in practice means **"the cycle of matter in the human body"**. It is equal to "a continuous mixing of the fundamental objects of matter that are the parts of the human body and fundamental objects of the Universe". :-)

The cycle of chemical elements and substances is also need to be investigated.

The body of any object is the part of Matter. The corresponding receptors enable interaction with other objects. It means that interactive objects cannot be isolated from the Universe. That`s why we can assert if there is the cycle of substances and fields in the Universe and on the Earth, there is also the cycle of substances and fields in the human body as well.

The human body consists of many atoms and molecules that constantly interact with Matter, which isn`t a part of the body. As a result, all these elements and Matter are intermixed. These are food, air, water, sunlight ... These are magnetic, electrical, electromagnetic fields of different nature ...

“But the suns explode and turn into foginess, from which appear the new planets. At this time, Matter distributes in another way. The parts of the sun fall on the planets, and old planets form the parts of suns. Some day or other, every part of a substance or every atom of the universe fall on the planets and experience the life.”

“As for Matter, it reproduces in the animal body as water in the river, approximately every two or three months.”

Konstantin Tsiolkovsky

[“A Living Universe”](#)

1923

“All matter is intermixed in the Universe. A human being or another creature is matter in fact, all they roam about the universe.”

Konstantin Tsiolkovsky

[“The Necessity to Analyze from a Cosmic Point of View”](#)

1934

“The eternal life of this piece of matter is unavoidably obvious. Actually, every living being was scattered within the universe until the birth. The parts of this being were in water, air, on the ground and outside it, but it preserved its existence.

The body of this being again will be scattered on the Earth after death. It will be the same as in the moment of birth. The second scattering also will not interrupt the life of this creature: sooner or later it must take organic form.

This second birth represents death and scattering, actually. Every death leads to one and the same thing. It turns out that birth is also a continuous process.”

Konstantin Tsiolkovsky

[“The Abandonment of Incomplete and Egoistic Compassion Instead of Malignance”](#)

1934

“We know that magnetic and electromagnetic disturbances (storms) in the atmosphere are results of outbursts on the Sun.

The consequences are northern lights, disruption of the connection on the Earth, danger to life of spacemen who are on the orbit.

The same fields interact with many other fields of our planet, including the fields of artificial nature, i.e. creations of the human beings.

Matter inside the animal is constantly changing like water in the river. This happens practically every six months. If a person has lived 60 years, then matter inside him renewed 120 times during his life."

Konstantin Tsiolkovsky

"Zest for Death. Misperception among Religious and Irreligious People"

1933

3. REACTION

**INFLUENCE is
an active impact of one object on another object.**

The impact of one object on another one is called INTERACTION.

**INTERACTION is
a philosophical category, a kind of actions that occur
as cooperation and mutual dependance between two
or more objects.**

Interaction is objective and universal form of movement, development that determines existence and structural organization of any system.

As a result of action that occurs as two or more objects have an effect upon one another, appears REACTION of the latter on this interaction.

Taking into account that the human beings are able to manifest all objects only as the bodies due to their channels for information processing and receiving, then the definition can be the following:

**REACTION is
action of the object's body an individual has
manifested as response to his external/internal
stimuli.**

4. RESPONSE

Konstantin Tsiolkovsky used in his works such terms as “response” and “irritability” instead of “reaction”. He considered exactly these words to be more appropriate for describing response of the object’s body to appearance of stimuli:

“...response of ‘dead’ nature is completely the same as of alive one. Temperature, pressure, movement, electricity, chemical influence of the environment – these things affect dead and alive matter in the same way. There is a huge amount of material about such phenomena that unequivocally confirms that external manifestations of ‘dead’ and ‘alive’ substances are similar processes”.

Konstantin Tsiolkovsky
[“The Laws of Life”](#) 1929

“...natural scientists call response to the external influences as sensitivity. From this point of view, everything is sensitive. The barometer is sensitive to air pressure, thermometer – to temperature, hygroscope – to humidity... any ... device, any machine is sensitive. Every mineral is also sensitive, because it barely responds to temperature effect, humidity, pressure, electricity, light, surrounding substance, etc. Gases, liquids, chemical changes penetrate into any stone, release their own matter and absorb one from the outside world.”

Konstantin Tsiolkovsky
[“A Living Universe”](#) 1923

“All cosmic bodies are sensitive. So, all bodies change in size, form, color, strength, transparency and any other properties, depending on temperature, pressure, lighting and in any case, on influence of other bodies.”

Konstantin Tsiolkovsky
[“Panpsychism or Everything is Sensitive”](#) March, 1926

**RESPONSE is
ability of the object`s body to respond to stimuli, and
at the same time, is quantity characteristic of this
property.**

If we conceive that response is ability of the object to react in a certain way to certain slight impact and is its quantity characteristic, then we can assert that any “fundamental” objects of matter possess this ability as well. Exactly this ability enables to investigate the same “fundamental” objects.

Since any object consists of lots of “fundamental objects”, each of which has such property as RESPONSE, then we can assert that all objects also possess this property.

“Sometimes dead bodies even are more sensitive than alive ones. So, thermometer, barometer, hygroscope and any other instruments are more sensitive than a human being. Any particle of the universe is sensitive. We think that the universe itself is also sensitive.”

Konstantin Tsiolkovsky
[“Panpsychism or Everything is Sensitive”](#) March, 1926

5. **EXCITABILITY and PERCEPTION THRESHOLD**

**EXCITABILITY is
ability of the object to respond to changes of its
properties.**

Excitability manifests itself in changes of the parameters` values of the object`s state, this is a result of its response to some impact. Excitability is a universal manifestation of the life-sustaining activity (activity) of any objects. Thus, it is ability of the objects to change because of some significant impacts. These changes can include a wide range of reactions, beginning with the diffuse reactions of protoplasm in protozoa and ending with the complex, highly specialized reactions of the human beings.

Excitability is a classic criterion, according to which the human beings differentiate alive object from unalive one.

**EXCITABILITY is a basic property,
according to which the human beings differentiate
alive object from unalive one.**

**PERCEPTION THRESHOLD is
a minimal value of stimulus that is quite enough to
manifest the object's irritability.**

**The QUANTITY (in physics) is
a physical property of object, process or
phenomenon, which can be characterized quantitatively.**

Excitability of plants and animals is similar, although its manifestation among plants differs from the usual forms of the motor and nervous activities of animals.

"...all bodies of the universe are sensitive, to be more precise, they are excitable to a greater or lesser degree."

Konstantin Tsiolkovsky

["A Living Universe"](#)

1923

*"I say once again: atoms have one origin. If some of them are alive, others also must have the same properties. All atoms are capable of living. In the animal world (in complex of atoms) we observe graduation: a complex life is constantly diminished, as the number of animals is also simplified. A human being has the highest degree of it, a dog has lesser degree, a lizard, a fish, an insect — even lesser, infusoria, bacteria, plant cells are already close to non-existence. In a word, **everything in the universe is alive, only degree of this liveliness is different**. In other words, each atom is (potentially) alive at origin, i.e. in combination it can represent not only the signs of the human life, but also the*

highest life, since in space, there are more complex and perfect beings than humans. Mathematically, every atom is ALWAYS alive in ANY combination. We conventionally call atoms inside inorganic matter as dead, and inside animals and plants they are alive for us. We consider life inside inorganic matter as non-existence (death), and inside alive matter it is real life for us. In the strict sense, there is no death, actually."

Konstantin Tsiolkovsky

"What to Do on Earth"

1928

"Excitability is the excitatory ability that living organisms have to respond to changes in their environment. The term is used for both the physiological reaction to stimuli and for the pathological, abnormal or excessive sensitivity to stimuli. It is usually used to refer to anger or frustration. In individuals with autism disorder for example, they tend to be marked by aggression patterns. Excitability can be a growing response to the objective stimuli of hunger or thirst in animals or humans which then reaches some level of awareness of that need.

Excitability may be demonstrated in behavioral responses to both physiological and behavioral stimuli including environmental, situational, sociological, and emotional stimuli.

Plants and animals have similar excitability indicators, although such of plants differ greatly from the usual forms of motor and nervous activities of animals. Excitation state is the response of plants to stimulus that is a temporary intensification of the functioning of vital cells, tissues, and organs. The degree of excitation, as a rule, is proportional to the number of stimuli (stimulus force multiplied by the time of its action). The excited area of the tissue or the organ acquires a negative charge in relation to the unexcited areas as a result of the change in ion permeability of the cell membranes in the place of irritation. Excitation will be local in the case of weak stimuli, in the case of sufficiently strong ones it will be distributed to the nearest cells as biocurrents (see Bioelectric Potentials, Membrane Excitation Theory) with the phytohormones. Thus, multicellular algae (nitella, etc.), very sensitive plants (mimosa, flytrap),

and conductive tissues of the ordinary plants have activity potentials similar to such of the animal tissues. The excitation speed spread of plants depends on the type and state of the plant, tissue and properties of stimulus. Geotropic and phototropic excitations are the most slowly spreading (about 1 cm/h), excitation connecting with a translocation over the phloem (tens of cm/h) is faster, excitation connecting with the water flow along the xylem (5-10 m/h) is even faster and finally, the action currents spreading along the satellite cells are the fastest (50-100 m/h). Very strong irritations deteriorate vital activity of the plant. The higher the physiological activity of stimulus, the sooner appears switch from stimulative to depressive doses and concentrations.

Every plant cell contains all genetic program of growth and development. At the same time, it has a high selective response to external and internal stimuli, depending on its function and specialization. At every stage of the plant development, original needs and changing environmental conditions require complex and coordinated activity of all cells, tissues and organs. Plants achieve such consistency thanks to the regulation system, which includes plasma, hormonal, vascular and bioelectric connections and unites billions of plant cells into the whole organism.”

[Great Soviet Encyclopedia](#)

6. IRRITATION

An individual should differentiate such concepts as EXCITABILITY and IRRITATION.

**IRRITATION is
a subjective characteristic of the object with tendency
to inadequate and excessive reactions to the normal
stimuli.**

7. SENSIBILITY

Sensibility is a quantitative characteristic Based on this idea, we will interpret the next definitions.

7.1. Sensibility of object

SENSIBILITY of object is a quantitative characteristic of the object's ability to react to the certain slight influence in a particular way.

The object's sensibility indicates that it has:

- At least one receptor that is able to react to at least one type of stimulus;
- the information transfer channel from receptor to the control unit;
- the control unit over the object that forms reaction to various stimuli.

7.2. Sensibility of the measuring tools

SENSIBILITY of the measuring tools is a quantitative characteristic determined by the output signal change in relation to the measured quantity change ratio.

Additional concepts are often used when describing various technical means:

- **Absolute sensibility** is the output signal in relation to the absolute change ratio of a measured quantity.
- **Relative sensibility** is the output signal in relation to the relative measured value change ratio.
- **Sensibility threshold** of the measuring tool (threshold sensitivity) is a characteristic of the measuring tool as the smallest physical quantity change, beginning from which it can be measured by this tool.

8. SENSITIVITY

**SENSITIVITY is
ability of an individual to reflect the results of
manifestation (perception) as FEELINGS.**

"A human being is the most sensitive among creatures we know."

"We can call happiness or grief, suffering or delight, pleasure or unpleasantness as sensitivity of higher animals."

"A human being can describe his sweets and sorrows. We believe that he feels in the same way."

Konstantin Tsiolkovsky

"Panpsychism or Everything is Sensitive"

March, 1926

"In the case of matter irresponsiveness, there will be no sense for it to exist. But if its part is responsive, then how can we doubt that other parts do also have this characteristic! Obviously, the part of matter inside alive bodies is able to sense. So, other parts also have such ability, otherwise, it will contradict this unity.

Finally, every alive organism consists of matter, i.e. it is constantly changing, like water in the river. It turns out that dead matter becomes alive inside the organism.

The dead takes on life, the alive becomes dead. Both death and life are only transformations of matter, changing one form into another."

Konstantin Tsiolkovsky

"My Philosophy"

1932

8.1. SENSATIONS

The initial complexity of objects` evolution leads to the density of some of their parts and appearance of FLESHES (BODIES) with RECEPTORS (body units) and the BRAIN (body control unit) that allow these objects to form their reaction to various stimuli of their bodies as SENSATIONS. The object`s FEELINGS enable researcher to indicate that it has:

- Many RECEPTORS (body units) that are capable of responding to many types of stimuli;
- lots of channels for receiving and transmitting information from RECEPTORS (body units) to the BRAIN (object control unit) as well as response signals for the body as reaction to different stimuli;
- BRAIN is the unit for analysis and generalization (systematization) of the incoming information, which creates:
 - SENSATIONS, based on information from the receptors;
 - REACTIONS of the body to different stimuli.

SENSATION is
a subjective evaluative reaction of the BODY to
different stimuli. It is based on the processing of data
coming from the BODY receptors as response to
appearance of various stimuli.

A REACTION of the body is
action of the individual's body in response to external
and/or internal stimuli. On the one hand, this action
is based on SENSATIONS one has manifested. On the
other hand, on the information from genetic
memory .

A GENOTYPE is
a complex of genes of the certain human body, which
is the unique characteristic of it.



The terms the author connected with the MEMORY concept he described in more detail in the XIX "MEMORY" Volume of "The New Cosmic Philosophy" book series (author's note).



The terms the author connected with the GENOTYPE concept he described in more detail in the IX "ENTITIES" Volume of "The New Cosmic Philosophy" book series (author's note).

SENSATIONS are always tightly connected with the BODY of an individual. There are no OBJECTS as such in the World (in the broadest sense of this word). The brain of an individual creates objects as reflections of SOMETHING, based on the information coming from receptors of the certain body of an individual. The information processing unit forms returned signals as response to stimuli alongside with reflections created from the coming information of receptors.



The receptors on the limbs of one's body fix appearance of a temperature stimulus and transmit information about the temperature magnitude in the area where receptor is located. When the information processing unit receives this data, it compares it with the database. In the case of exceeding a certain threshold of values, it generates a command to the muscles of a limb to contract and jerk away. The Body has many kinds of sensations. Nowadays many scientists from different places of the world are working on the study of various sensations. These are thermotherapy (sensation of warm), and nociception (sensation of pain), and proprioception (sensation of the limbs' position), and many other types of sensations.



The examples of SENSATIONS are sensations of ***pain, cold, warmth, balance, color, light, sound, taste, smell ...***

8.2. FEELINGS

A further complexity of the object's BODY will be a reason for creation of its ORGANISM, in which many material (beings) and immaterial objects (entities) will incarnate. So, it allows some incarnated objects to use the BODY as the instrument for cognizing the World (in the broadest sense of this word) and for forming their attitude towards reflected objects, processes and phenomena as FEELINGS, based on the generalization of SENSATIONS the body of object has manifested.

That's why we can assert that FEELINGS aren't connected with the BODY of an individual, they are in possession of other objects that are the parts not of the BODY but of one's ORGANISM. By the way, the organism represents ENTITIES that were incarnated into the BODY of an individual.

FEELING doesn't refer to the BODY, and many people use in their everyday speech the following phrase "the sixth sense ...". By "the sixth sense" we mean intuition. And intuition isn't a reaction of the individual's BODY to external stimulus, it is something different...

If the object has FEELINGS, a researcher can assert that it also has:

- The FLESH (BODY) with receptors (body units) that are able to react to lots of stimuli types;
- many channels for receiving and transmitting information from RECEPTORS (body units) to the BRAIN (body control unit), also it has returned signals of the body as reaction to various stimuli;
- the BRAIN that is the unit for analysis and generalization (systematization) of incoming information that forms:
 - SENSATIONS on the basis of information coming from receptors;
 - REACTIONS of the body to different stimuli;
- the ORGANISM with material and/or immaterial objects incarnated into it;
- the incarnated objects are able to control the object's body and form FEELINGS on the basis of generalized SENSATIONS, which the object's body has manifested.



The terms the author connected with the ORGANISM concept he described in more detail in the VI "ORGANISMS" Volume of "The New Cosmic Philosophy" book series (author's note).



The terms the author connected with the INCARNATION concept he described in more detail in the XXI “INCARNATION” Volume of “The New Cosmic Philosophy” book series (author`s note).

**FEELING is
a subjective evaluative attitude of an individual
towards different objects, processes, phenomena he
has reflected. It is based on the generalization of
SENSATIONS this individual has manifested.**

“Animals are similar to machines, but they respond to the external effects of forces and substances in more sensitive way, i. e. stronger, more obvious, more complicated way. That`s the whole difference, the quantitative one, but there is no difference in fact. From this point of view, we can only say that all the bodies of the universe are sensitive, or to be more precise, rather irritable, responsive to a greater or lesser degree.”

Konstantin Tsiolkovsky

[“A Living Universe”](#)

1923

“...all the universe is alive, and there is nothing except life in it. But its degree or sensibility is infinitely diverse and depends on the combination of atoms.”

Konstantin Tsiolkovsky

[“Synopsis of the Cosmic Philosophy”](#)

1935



The examples of FEELINGS are feelings of ***insecurity, solicitude, inspiration, joyfulness, hapinness, compassion, shame, uncertainty, disgust...***

8.3. EMOTIONS

**EMOTION is
a name for energetic force of a subjective evaluative
attitude of individual's ENTITY to objects, processes,
phenomena he has reflected.**

**EMOTION is
an energetic object created by the entity of an
individual on the basis of generalizing ultimate lots of
SENSATIONS and FEELINGS. It reflects the POWER
of a subjective evaluative attitude of the ENTITY to
different objects, processes, phenomena.**

There are good reasons why people say:

- A strong FEELING;
- A weak FEELING;
- A short-time FEELING;
- A prolonged FEELING.

Every FEELING has its own energy. Every FEELING is purely subjective. As a result, the power of this FEELING is also subjective, i.e. EMOTION is subjective as well.

“Energy is the property that must be transferred to an object in order to perform work on, or to heat, the object. Energy is a conserved quantity; the law of conservation of energy states that energy can be converted in form, but not created or destroyed...”

“In physics, power is the rate of doing work, the amount of energy transferred per unit time. Having no direction, it is a scalar quantity.”

Wikipedia — free encyclopedia

“Energy is also matter, but it is more primitive.”

“The Prime Cause”

Konstantin Tsiolkovsky, 1918

*“In general, matter, force, gravity and energy are one and the same things.
There is no matter without energy and vice versa.”*

“The Fundamental Hypotheses of Physics”

Konstantin Tsiolkovsky. August 25, 1933

8.4. The main distinctive features between FEELINGS and SENSATIONS

- SENSATIONS represent the result of processing information coming from the Body receptors in response to different stimuli. They are purely subjective and show evaluative attitude of the Body to various stimuli;
- FEELINGS represent the general result of processing information, the basis of which is GENERALIZATION of SENSATIONS. They reflect subjective evaluative attitude of the certain ENTITY of individual to different objects, processes, phenomena;
- SENSATIONS represent appearance of Stimuli inside the Body;
- FEELINGS represent the generalization of SENSATIONS.

8.5. The main similar features between FEELINGS and SENSATIONS

Both feelings and sensations:

- Can be expressed by different words;
- represent the result of information processing;
- represent a subjective and evaluative attitude to different objects, processes and phenomena.

8.6. The expression of FEELINGS and SENSATIONS with the help of words

In the language of any nation there are hundreds and even thousands of words are used to express different feelings and sensations.



I feel (*cheery, happy, thankful, sympathetic, satisfied, confident, contented, tender, careful, adored, welcoming, friendly, consoled, inspired, energetic, responsible, respected, active, pleasantly agitated, in high spirits, at home, safe, enthusiastic, delighted, passionate, full of enthusiasm, close, accepted, beloved, sad, sorrowful, disappointed, angry, furious, alone,*

despaired, afraid, worried, confused, bewildered, upset, offended, anxious, guilty, panic, jealous, envious, bored, irritated, greedy, lazy, tired, curious, hateful, offcast, embarrassed, helpless, humiliated, rivaling, criticizing, arrogant, doubtful, dejected, flurried, frustrated, haughty, mischievous, indifferent, nervous, intense, spiteful, dissatisfied ...)



I feel (*peace of mind, trust, fascination, hope, approval, pity, shame, disgust, horror, apathy, desire, hostility, nostalgia, depression, uncertainty, emptiness, alienation, "down" ...*)

Every feeling comes with lots of sensations, on the basis of which it is generalized.

An individual can express SENSATIONS and FEELINGS, using one and the same word.

It is important to bear in mind the difference between them –

FEELING is the generalization of SENSATIONS.

So, broadly speaking,

Individuals are able to manifest lots of SENSATIONS and FEELINGS.

8.7. The main difference of Emotions from Feelings and Sensations

EMOTIONS cannot be expressed with the help of words or text.

8.8. SENSITIVITY is near of MATTER

“Just imagine several identical persons: one and the same weight, size, complexity; equal organs and brain (psychic) abilities. Basically, people don’t differ from each other: neither anatomist nor ordinary observer will find any difference between them. However, when one of them suffers, the others experience nothing. Other people don’t necessarily experience the feeling of another person (there is some sympathy in the message, but it isn’t identical with the feelings of “the Self”). Why does one feel happy while the other one is indifferent or even sad? Their external and internal forms are completely the same! The reason is the difference in weight, not in quantity and quality, but in entity. If the mass of one person penetrates into another one, then the first person will experience some feelings.

Thus, feeling of this matter depends on the type of animal where it exists. In short, feeling is in the same place with a mass. If there is another mass, so, there is another matter. When we move from one place to another, our feelings ambulate with us. If we are on the moon now, our feelings are also with us.

One and the same mass can experience diverse sensations, depending on the type of its form: from non-existence to plant, animal, human being and even higher forms of existence.

Imagine that firstly we create Ivanov from this mass, then we destroy him and create Petrov, then Nikolaev, then animal or fish, etc. Mass in the same in every case, and it will have a certain feeling: it will feel like a human being, like an animal or a fish.

Both large and small masses are able to feel.

No matter how little the animal, it is able to sense. Therefore, a small mass is able to sense as well.

The atoms and their feelings are in the same place. Feelings depend on their environment. The diversity of the environment influences the diversity of sensations. As the membrane makes all kinds of sounds, depending on the type of its vibrations, so does the atom sense in different ways, depending on its oscillations. The oscillations depend on the type of organism and its part where the atom is located."

Konstantin Tsiolkovsky

["What Does it Feel"](#)

1934

"Matter is the carrier of feelings, since there is nothing except matter. What does feeling belong to? Feeling appears with matter and atom. The atom or the part of it can be called as primal (primitive) or the simplest spirit, but we saw that every atom represents unity of simple parts. The participation of the unknown simple depends on atoms the scientists are familiar with.

The number of primitive spirits depends on the number of the real atoms. A primitive spirit wanders in the universe and creates different alliances. In the world, we know alliances only. The sense of life of a real atom depends on the complexity of alliance where it resides: the more complex the alliance, the more complex the activity and sensation of the atom."

Konstantin Tsiolkovsky

["The Citizens of the Universe"](#)

1933

The objects from “the immaterial” world can possess different channels for receiving and processing information of such physical quantities, about which the human beings know nothing at all and that’s the reason why these quantities have no names nowadays.

As a result, their SENSATIONS, FEELINGS and EMOTIONS can be different from that of the human beings, different according to diversity and intensity.

We can only suggest that some objects from “the immaterial” world can read the human thoughts, and very much more ...

8.9. “The fundamental” objects and sensibility

“The rest of animals: the lower their organization, the less sensitive they are. Plants are even less sensitive. It is a continuing ladder. It reaches the boundary of alive matter, because there is no such boundary at all. It’s artificial as all its boundaries.”

“Sensations of the lower animals aren’t so strong. We don’t know how to call them and don’t have a clue what are they, actually. The feelings of plants and non-organic bodies are obscure as well. The depth of their sensibility is equal to zero. I am fonded on the idea that sensitivity ceases with death or change from organic to inorganic form. If it ceases unconsciously because of a cardiac arrest, then it completely disappears with a full destruction of the living.”

“Dead body is deprived of feeling, but response is still present, it’s less intensive but more explorable for a scientist than for an average human being.”

“Using screech and moving, the higher animals force us to think that their feelings are similar to ours. But the lower animals cannot do even that things. They just run away from everything harmful (tropism). The plants often aren’t able to do even that. Does it mean that they have no feelings? There is also no information about the inorganic world, but it doesn’t necessarily mean that it hasn’t the lowest form of sensitivity. Only sensitivity degree of different parts of the universe is different and continuously varies from zero to an indefinitely large value.”

Konstantin Tsiolkovsky

“Panpsychism or Everything is Sensitive”

March, 1926

“What do we face? Just hydrogen components (aggregates). They differ from each other not by quality, but by quantity only. That’s why their properties also must have only quantitative differences. For instance, animals are able to sense, they experience pleasant and unpleasant things. Animals and all non-organic bodies cannot be deprived of a similar property. These sensations differ only in terms of quantity. They can be expressed by numbers – from 0 to infinity number. In a point of fact, hydrogen atom is also the citizen of the universe. Of course, it doesn’t have a huge number of properties of plants and animals, even of the lowest ones, but there is something in common with animals in an infinitely small degree.”

Konstantin Tsiolkovsky

“Space is the Animal”

1932

It appears that any “fundamental object” is sensual. The question is how it can be expressed quantitatively and what device is appropriate for measuring it.

The different “particle accelerators” like LHC (Large Hadron Collider) and many other devices experiment with “fundamental” objects and influence them, using various methods ... hold on to these objects, focus them on the certain places, accelerate them ... Making such experiments is dangerous without clarification of some philosophical aspects... The excitation of these “fundamental” objects could be expressed as EMOTIONS ... Using these objects, the humankind is already familiar with nuclear and hydrogen bombs they have created.

8.10. Mockery of the modern methods for investigating “fundamental” objects

Once I heard such a request: “Explain please in lay terms the working principle of the Large Hadron Collider”.

I explained in lay terms:

Imagine that during archeological excavations you have found two artifacts (artificially created objects with unknown purposes). They represent metal balls about 10 cm in diameter, and there is some “rustling” inside (“moving”, “humming”, etc. Choose the word you like.). Any attempts to break up this covering were ineffective. Attempts to saw it with a diamond-slitting wheel, or

with a laser beam, any attempts to melt this covering also resulted in nothing ...

Finally, you make a decision to put two guns front to front, loading them with these artifacts and to simultaneously shoot. Artifacts will collide in the air; their coverings will fall to pieces and their cores fall down on the ground. You will try to gather all remainings after collision and then will conduct a detailed investigation. The modern “scientists” stick to the point of view that a good researcher really can restore not only PRECISE state of the details as they were before explosion (despite the fact that not all parts will be found after collision), but also INTENDED PURPOSE of these artifacts and their WORKING PRINCIPLE.

That`s all ...

This is the working principle of the Large Hadron Collider ...



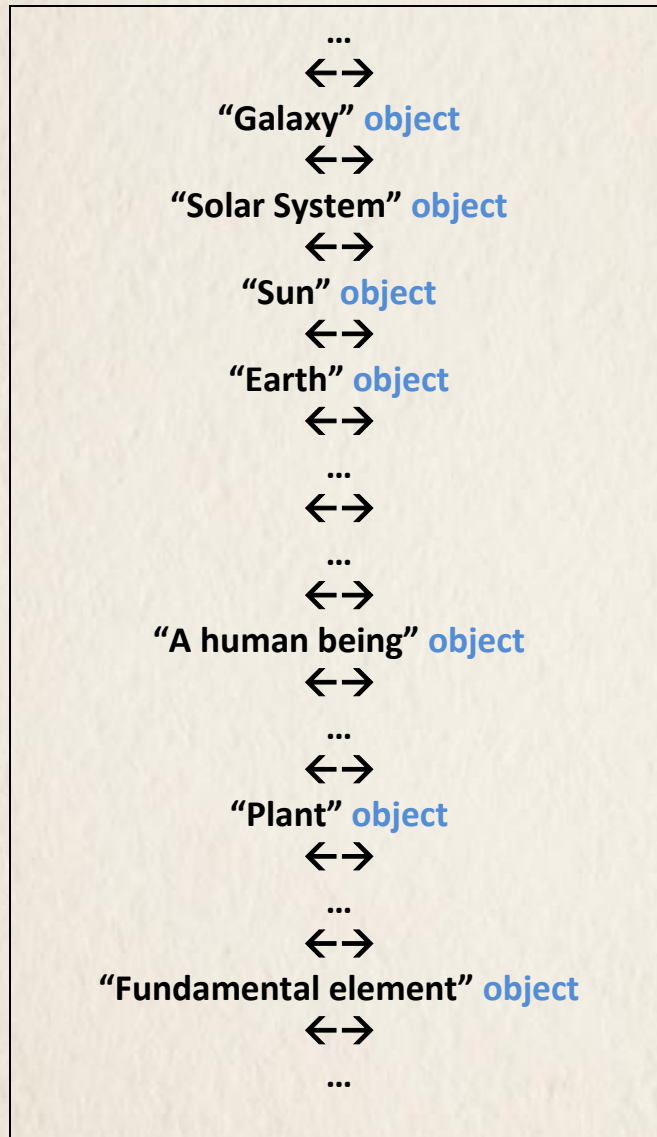
The Large Hadron Collider (LHC) is the world`s largest and most powerful particle collider, the most complex experimental facility ever built, and the largest single machine in the world. It was built by the European Organization for Nuclear Research (CERN) between 1998 and 2008 in collaboration with over 10,000 scientists and engineers from over 100 countries, as well as hundreds of universities and laboratories. It lies in a tunnel 27 kilometres (17 mi) in

circumference, as deep as 175 metres (574 ft) beneath the France–Switzerland border near Geneva. A collider is a type of a particle accelerator with two directed beams of particles. In particle physics, colliders are used as a research tool: they accelerate particles to very high kinetic energies and let them impact other particles. Analysis of the byproducts of these collisions gives scientists good evidence of the structure of the subatomic world and the laws of nature governing it. Many of these byproducts are produced only by high-energy collisions, and they decay after very short periods of time. Thus, many of them are hard or nearly impossible to study in other ways.

As on November 2009, the project budget came to **\$6 billion** — so large sum was invested in the development of this construction, which has lasted seven years. The particle accelerator was created under the guidance of CERN.

8.11. The hierarchy of objects according to sensibility intensity

The complexity of objects leads to increase of the number of their receptors, sensations, feelings, and emotions as well.



So, we can presuppose that EMOTION of the Earth is vastly superior to intensity of emotion of any human being, and emotion of the Sun even is more powerful, etc.

Looking at this hierarchy, it may seem that “fundamental” objects cannot have large values of intensities of their FEELINGS and EMOTIONS. But it appears that it's an erroneous idea ...



Let's suggest that “fundamental” element has intensity of feelings that is 10^n times weaker than intensity of human feelings. But the device of human beings uses 10^{10n} of these “fundamental elements”. It turns out that this device will have intensity of feelings that is 10^{10} bigger than intensity of feelings of a human being.

“Everything is continuous and unified. Matter is also unified as its response and sensibility. The sensibility degree depends on the combination of materials. The alive world represents a continuous ladder by its complexity and accomplishment, descending to ‘unalive’ matter. The intensity of feelings is also a kind of similar ladder, which doesn't disappear even on the boundary of the alive. If response is present, that is a mechanical phenomenon, then why will sensitivity disappear — a phenomenon called mental by mistake? All phenomena go in parallel, and never leave either the alive or the unalive. Although, on the other hand, the unalive has a little amount of sensations, so, we can consider them to be absent. If a white dust falls on a black paper, it wouldn't be the reason to call it white. A white dust is sensitivity of the ‘unalive’.

Mathematically, all the universe is alive. Only higher animals can manifest the intensity of feelings in all their glory. Any atom of matter experiences different feelings in accordance with the surrounding environment. When penetrating into the highly organized creatures, it lives and feels pleasant and unpleasant

things; entering the inorganic world, it sleeps, it is in a dead faint and nonexistence.

Wandering inside the body of some animal, it lives the lives of brain, bone, nail, epithelium, etc. So, one day it thinks, another day it lives like an atom enclosed in stone, water or in the air. Then it sleeps, being unaware of time, then it lives for the moment like the lower beings, then realizes the past and imagines the future. The higher organization of the creature, the further spreads the idea of the future and the past."

Konstantin Tsiolkovsky

"Panpsychism or Everything is Sensitive"

March, 1926

8.12. The reason for matter to exist – a constant improvement of the object`s sensibility

“...feeling indicates the presence of matter. And vice versa — matter indicates the presence of feeling, so, there is a life. It turns out that life is everywhere. It is rather diverse in terms of quantity. The diversity of numbers influences the diversity of life intensity. Thus, all the universe with all its parts is alive, although, alive in different ways — in point of intensity or quantity. Every particle lives its own life, depending on the surrounding and affecting particles: one life is for hydrogen, another for a particle of gold, the third one for a drop of water, the fourth one for a plant cell, the fifth one for the cells of an animal, the sixth for the cells of the higher beings, and so on ad infinitum.”

Konstantin Tsiolkovsky

[“The Main Physical Theories”](#)

August, 25 августа 1933

“Where is the beginning and the end of feeling the life, ability to think, to feel joy and sorrow, to respond to influence of nature?

Is only individual able to think or is this ability limited to a dog, or a rat? Who can deny that in nature, there is a continuous chain, the components of which differ only in terms of quantity.

One more thing: is it possible to point out the border of feeling the life, joy and sorrow? And various creatures also differ only in terms of quantity.”

Konstantin Tsiolkovsky

[“The Theories of Life”](#)

1929

9. The researchers` considerations about LIFE

9.1. Nikola Tesla

“Thus, atom is the invisible element of the Universe, which constantly beats about space — a toy of the external effects, it`s like a boat in a rude sea. Stop moving means death. A quiescent matter, if it could exist at all, would be unalive matter. Unalive matter! There is no logism in the world with a deeper philosophical meaning. Professor Dewar used such a strong expression when describing his amazing experiments with liquid oxygen that he handled like the water and forced the air to condense at a normal pressure and even to harden with the help of intense freezing. He said that these experiments must demonstrate the last slight stirrings of life, the last tremor of a dying matter. But the human eyes will not see such a death. There is no death of matter, because everything must move in the infinite Universe, everything must vibrate, in other words, everything must live.”

Nikola Tesla

[“The Thoughts About Eyesight”](#)

9.2. Konstantin Tsiolkovsky

K. Tsiolkovsky described in detail the significant importance of this theme for the humankind in his work “Ethnics of the Earth”, and I represent the text of this article below, since there is no other better way to describe this idea ...

“I draw on pure and natural sciences only. Although the modern knowledge is in full swing now and infinitely far from its limit, still much in science is unclear, contradictory, completely incomprehensible, but there is no better information yet.

People will arrive at more complete conclusions in thousand or million years, at a brand-new science. But we still don't know this science and cannot draw on its results.

On the basis of the infinity concept, we can broaden our knowledge, keeping with a materialistic monism, but in this case, we don't mean to make these conclusions. (Oral representation).

All the people were in Sun's interior before their time, however, they came to life. There are lots of animals, so, all matter of the Earth or another celestial body can come alive. Thus, all is alive in the bud.

- *Let me say: only 12-20 elements from 92 are constituents of the organic world, as a result, the rest 60 elements are inorganic ones.*
 - *In fact, 92 elements decompose into hydrogen and vice versa. Consequently, the elements run into one another and that's why all they are participants of life. In addition, there are different conditions on other planets, and other bioelements, for which life on the Earth isn't suitable, but other planets with other temperatures and conditions are what they actually need. So, all matter in the bud is alive, because it can take the shape of an animal.*
- *Alright! What does feeling belong to, actually? To an animal as such or to the part of it, to a large or a small mass?*
 - *The animal is able to feel, regardless of its size. The difference between feelings of animals is quantitative, not a qualitative one, i.e. one has stronger sensations, and the other one — weaker. Any mass, no matter how small it is, is capable of sensing.*
- *From your point of view, not only bacteria but every atom is able to feel.*
 - *Yes, it is so. The atom is the main elementary being, and not an animal or its cell.*

- *Then it turns out that the animal represents not the unified whole, but association of the living beings.*
 - *Right you are. The animal cells are separate beings and every cell has its own sensations.*
- *Could you prove it?*
 - *Surely! Separate any cell from a certain organism, place it in a friendly environment and you will observe its life and even reproduction.*
- *But how can we explain the organism integrity?*

O The organism integrity resembles to the unity of an organized society with lots of members having their public and private (individual) lives. This is a rather exact comparison. For example, the members of society die, but society represents the unified whole. The cells also die, but the organism lives for long. The organism is integral like the state. The government is the major structure in the state, and in the case of an animal it is will (brain). A long individual existence is difficult and sometimes impossible for a cell, so, being cast out from the society, a citizen just can die. There are many ill-structured societies and lower beings. The same situation is in a wild tribe.
- *Ok, we assume that cell is alive. And what about its parts?*
 - *They are also alive. The cell is able to divide. Every part will grow as the integral element and will even reproduce then.*
- *How many cells a one cell is able to divide in?*
 - *The cell is also a complex organism, although division is an infinite process, up to the atom, but too small parts lose the properties to make the whole, just as a separate individual doesn't make the state. But the state can split and reproduce to the whole, just like a part of cell or the lower animal (regeneration).*
- *It means that atom is also a creature, even of a low order?*

- Yes, it is, but it has not all properties of the cellular organisms.
- So, atom is the simplest creature?
 - Yes, so much as it is fisible.
- So, from your point of view every animal is a collection of the simplest creatures, each of them is able to feel. Let's take, for example, the hydrogen atom to be the simplest being. All hydrogen atoms are equal. Why do similar animals have different feelings? At last, the entire universe consists of the hydrogen atoms. Hence, all its parts are similarly sensitive. It turns out that feeling is the common property of matter, so, is there nothing unalive? Is it so?
 - The latter is mathematically correct, but there are various conditions outside every volume. Life is the arena of stormy and complex chemical activity. It is very diverse in terms of force and complexity. As a result, sensation of the atom is more or less stormy, or more or less complex. It's an example for you. The gramophone plate (membrane) is the same. Depending on oscillation, it speaks, then it sings, then it plays, then makes different noises and cacophony, it makes all sorts of sounds, actually. And what kind of diversity is between them! Atom has the same mechanism. Its sensation is fully dependent on the environment, on the ethereal or other waves and on the cocurrent chemical activity. The things are going more complicated in the lives of the complex animals and their feelings are stronger.
- Well! The atoms are continuously leaving the animal, but they are replaced with their new variants. During the life cycle, the organism regenerates many times, depending on its size and structure. It turns out that atom will live a month in the human being organism, and then will become inorganic or another creature.
 - What do we face? The citizens die or move to another state, but the desolate state is the same: France is France, England — England.

- *Why don't we notice it. I am absolutely sure that I can feel from the birth and till now, and I will feel till my death — till breath my last. How can I deny it when my own memory proves this!*
 - *Unfortunately, it's a mere illusion. Atom penetrates into, for example, every present moment, the entire game of the brain. But it created and saved impressions of the previous years. Although the atom has just penetrated into the brain, now it experiences a memory game. So, a citizen with knowledge of the history of his country, so to speak, has personal rueful feelings of it.*
- *I find it hard to believe.*
 - *Me too, but the logic is irrefutable ... The easier the structure of lower animals, the less visions of the past and the future they have. Their memory is short. It doesn't extend even among the higher animals until birth. The same is with their visions of the future. It isn't like the thought about death. This is a tragic (albeit misleading) privilege of a man. Animals have no thoughts and ideas about death. They are kinda of immortal and sure-footed. It's a case when instinct was ahead of the weak human mind. Children feel the same as our animals-ancestors and up to a certain time they also feel immortal — at least they don't know about death and, as a result, don't feel down.*

Summary.

- 1. Any matter can become alive substance (bioelement).**
- 2. Any matter can take the shape of an animal.**
- 3. Mass indicates the presence of feeling. I move and my feeling does the same. I am on the Mars and my feeling is also there.**

4. *A small mass also is able to feel.*
5. *There exist all the parts of an animal. The animal represents a complex of creatures that are connected (or organized) into the one system.*
6. *The cells of organism are alive creatures.*
7. *The part of cell is also a living being.*
8. *Very small part of cell loses its integral properties in the same way as the separate citizen doesn't have a well-organized state.*
9. *Atom is the citizen and simple being at the same time. It is also the citizen of the Universe.*
10. *Death is a conventional concept and represents simplification of the matter combinations. The death of an animal is example of extraordinary and rapid simplification of the matter structure. The disease is an example of slow simplification. Another example involves old ages. All is subjected to simplification and conditional death, except an ideal atom. There is no destructive death as such, there is simplification only.*
11. *Birth is a kind of complication. Carbon or another element can be formed from hydrogen, molecules — from elements, organic matter — from molecules, plants, animals, people and higher beings — from organic matter. All these processes represent birth.*
12. *Both death and birth are just transformations: a complication or simplification of the matter combinations. These notions are conventional, and the content is only one: there is no death, no destruction of matter activity.*

All described above clarifies that everything on the Earth is alive. But some beings are unconscious and cannot take care of themselves, while others, e.g. a

human being, are able to understand the environment and take care of themselves.

As long as I am a human or a higher being, I know that my life consists of many images. There is no necessity for bad images. Then I will not take their forms and suffer. What are these bad forms? These are forms of animals and unsuccessful people. They must be destroyed without sufferings. If such will arise, then I will fall under them. I have nothing to gain from it. But we know that we can painlessly destroy other forms, stopping their reproduction.

This is morality (ethics) of the Earth, which is beneficial to everyone and everything, i.e. destruction of the bad forms and any kind of suffering. You musn't hurt neither yourself nor any other existing being, ortherwise, you should help the weak to allay their tortures. The destruction of the imperfect and unconscious has the same goal: my and public good.

Actually, it`s ethnics of both earth and cosmic space."

Konstantin Tsiolkovsky

"Ethnics of the Earth"

1934

10. "ALIVE" and "UNALIVE"

10.1. What objects are ALIVE from humans` point of view?

The answer is very simple ...

**The human beings consider those objects ~~ALIVE~~,
the reaction of which to any stimuli they are able
to see (sense).**

Otherwise, they consider this object to be UNALIVE.

Then are the concepts "ALIVE" and "UNALIVE" subjective ones? Because every human being has his own material world, as a result, one person is able to see and sense reaction of the object to this or that influence, while another person isn't able to do it. Thus, the first person considers the object as ALIVE, and the second person – as UNALIVE one.

"I'm not only a naturalist, but also a panpsychist who recognizes existence of the universe sensibility. I consider this property to be the integral part of matter. Everything is alive, but conditionally we consider alive objects only those with intense sensibility. Since under favorable conditions all matter can always turns into organic state, we can say that inorganic matter in its bud is (potentially) alive."

Konstantin Tsiolkovsky
"Monism of the Universe"

1923

"In alive and unalive Universe, we observe only such processes as moving of the entity and physical-chemical phenomena. That's why there is no qualitative difference between alive and unalive. Everything is alive, but in different ways. The difference is only in quantity, form, intensity. The words alive and unalive are purely conventional."

Konstantin Tsiolkovsky

"Ethnics or Natural Basis of Morality"

1902-1903

"But the Universe (cosmic space) represents alive mass that completes its feasibility. It is so in the terms of mathematics, because there is no matter without ability to take the shape of an animal, of a person or even of a higher being. And one more reason is no qualitative difference between the organic and inorganic: the boundaries between them are conditional and indefinite. In fact, one and the same forces and laws manifest themselves both in the alive and in "the unalive". We conditionally call intense mechanical, physical and chemical phenomena inside an animal as existence, and weak manifestations of the same forces as non-existence or death.

So, from a mathematical point of view, the cosmic space is alive mass. A small part of it always exists conditionally. But this part merges into a conditional non-existence in order to give way to another part of matter. So, all parts of the cosmic space step by step take a complex image and conditional existence. The non-existence glides as a faint. It is unreal, actually. The lifetimes of any particular mass of matter merge into one existence. So, feasibility of the world still consists in the ability of every single part to live an organic life for countless times. Indeed, the continuous mixing of matter during periods of destruction and creation of celestial bodies doesn't dispense any single part of the substance from participation in the animal life. Even the centers of suns, planets and nebulosities cannot avoid it."

Konstantin Tsiolkovsky

"Cosmic Mind and Mind of its Creatures"

1933

10.2. ALIVE

**ALIVE is
a subjective characteristic of the object's state,
the body reaction of which an individual is able
to manifest as sensations.**

If lots of physical quantities, which the object under investigation forms as reactions to internal or external stimuli are the parts of “the material” World of a certain individual, i.e. an individual is able to manifest these physical quantities as sensations, then he is able to characterize the object under investigation as ALIVE.

Of course, one can use special instruments (delicate instruments for measuring different physical quantities).

Firstly, it worth mentioning the following: the results of measurements must be manifested by an individual as sensations, even if using measuring instruments.

10.3. UNALIVE

**UNALIVE is
a subjective characteristic of the object's state,
the body reaction of which an individual is unable
to manifest as sensations.**

10.4. All Matter is ALIVE

On the grounds that

- UNALIVE is a subjective characteristic of the object given by an individual;
- Any SOMETHING, which was manifested by an individual, is able to respond;
- Excitability is the traditional criterion, according to which the human beings now differentiate “alive” from “unalive”;
- There are no objects without EXCITABILITY, there are objects with the PERCEPTION THRESHOLDS (minimal values of excitants, according to which one can identify the object's excitability).

We can assert:

The division of one and the same Matter into “ALIVE” and “UNALIVE” is subjective ...

All Matter is ALIVE.

MATTER consists of ALIVE objects only.

And one`s reffering this or that object to ALIVE or UNALIVE is connected with sensibility of one`s channels for information processing or with the features of measuring instruments. And nothing more ...

“Actually, we have a chain of creatures, from the sensible to the unicellular ones. Where is the end of sensibility and life? Where is their end link? We don`t know this, so, it is everywhere, but in various extents. The more diverse the numbers, the more various the organisms` sensations by intensity.

.....

Conditionally, inorganic matter is alive. It doesn`t experience any time or any sensations as the animals do. This is something too weak: mathematically, it is life. But it is so weak that we call it non-existence for reason.

.....

All bodies are responsive, i.e. their properties undergo perceptile or imperceptible changes because of natural forces or changes in living conditions. This is a common property for all bodies, it`s like the animal reflectivity. The

same general property of sensibility refers, probably, to all the bodies of the universe.

Firstly, unalive matter produces barely sensible mechanisms, then these mechanisms become more complex and reflect the universe in more and more detail, more and more correctly (at first, as dull and irregularly shaped mirrors, then as polished spherical and flat ones). The human science already begins to put it into practice. The more mature beings from other planets did a great job in this sphere. This knowledge provided them with a technical power. Here is one of the supreme properties of the cosmic space: birth of the superb and powerful mind on their planets. The conclusion of that mind: in order to feel good, there must be no sufferings in the world."

Konstantin Tsiolkovsky

"Accomplishment of the Universe Laws"

1934

11. LIFE

**LIFE is
a conventional name of the object`s state from the
moment of one`s fixing the birth of the object body
until the moment when he fixes the fact of its death
(dying).**

There is a word combination “conventional name” in this definition, because all matter is initially ALIVE.

Many modern scientists mean by LIFE only the protein bodies or something like “hydrocarbon” body of the human being. But such understanding of LIFE is already dangerous not only for the human beings, but for the Earth in whole.

The most appropriate tragicomic definition of the word LIFE I found on the Internet. For the time being, it sounds like:

“LIFE is a fatal sexually transmitted disease.”

The film of Krzysztof Zanussi (2000)

Why is “for the time being”? Because the word combination “sexually transmitted” can disappear any time soon.

11.1. A LIFE CYCLE

When discussing the objects created by individual (individuals), we can talk about the LIFE of the object being created or the LIFE CYCLE of it.

**A LIFE CYCLE is
a time period from the moment of one's decision to
create the object till the moment of its total
requisition of use.**

11.2. ACTIVITY

What do the objects actually do during their whole lives? Exactly, they perform ACTIVITIES, i.e. interact with the certain purposes.

**ACTIVITY is
an interacting process between objects in order to
fill any of their demands.**

11.3. The cycle of LIFE in the Universe

“Under suitable conditions, life on every planet is dawning, existing billions of years, and then it could fade or move to other areas of the universe where it happen to be.

On some planets it rises, on others – fades. Generally, a cosmic space is full of life. Life is all pervasive in this sense.

Life has always been in cosmic space and is similar to the universe, it also has no beginning and no end. It is eternal in this sense.”

Konstantin Tsiolkovsky

[““Life in the Universe” - A. L. Andriyenko`s Opinion About Typewriting”](#)

1932

12. LIVELINESS and its measuring among objects

*“If we recognize that some part of the universe is alive (human being, plant and other creatures), then all it is also alive. Only **the degree of this liveliness** is different. If we express the degree of sensation and liveliness of a person with a billion, then the degree of liveliness of other simpler combinations of atoms, for example, plants, animals, stones will be expressed in smaller numbers, units or unit fractions.”*

Konstantin Tsiolkovsky

[“The Purpose to Work”](#)

November 29, 1930

Since EXCITABILITY and PERCEPTION THRESHOLD are fundamental properties of ALL objects, then if we measure PERCEPTION THRESHOLDS of different objects and compare them, it will be possible to discuss the level of LIVELINESS of one object in relation to other objects.

For measuring the degree of LIVELINESS, we can do the following:

- Introduce a new type of physical quantity: **LIVELINESS**;
- Introduce a magnitude of this quantity – **Nata**;

And try to measure LIVELINESS of any object.

1. Let`s choose such type of physical quantity as temperature.

2. Measure the perception threshold of an individual and object under investigation.
3. Define perception thresholds` ratio, and what will correspond to the degree of LIVELINESS of cognizable object in relation to an individual.

Surely, the degree of LIVELINESS can be defined according to any type of physical quantity (frequency, speed, temperature, etc.) for every human being body individually and he will be able to individually define LIVELINESS of any object according to the certain type of physical quantity in relation to himself.



If the degree of LIVELINESS equals to 1 Nata, that means that the perception threshold of cognizable object equals to an individual`s one, and their degrees of LIVELINESS are the same according to a certain type of physical quantity.

- If the degree of LIVELINESS less than 1 Nata, then the perception threshold of cognizable object is less than the perception threshold of an individual, whose degree of LIVELINESS is bigger than that of an object according to a certain type of physical quantity.
- If the degree of LIVELINESS is more than 1 Nata, then the perception threshold of cognizable object is more than the perception threshold of

an individual, whose degree of LIVELINESS is less than that of an object according to a certain type of physical quantity.

Since measurement of the LIVELINESS degree can be defined according to any type of physical quantity, then it is quite reasonable to introduce such a concept as the degree of absolute liveliness.

LIVELINESS of an object is the sum of the measured PERCEPTION THRESHOLDS ratios of cognizable object according to the various types of physical quantities to the measured PERCEPTION THRESHOLDS of an individual (a certain human being) according to the same types of physical quantities.

13. The INTERCONNECTION of all objects in the Universe

There is a new crabbled concept in the modern scientific literature such as QUANTUM STATE (entangled quantum states, quantum entanglement, quantum correlations, quantum nonlocality, quantum mechanical entanglement, nonseparability).

QUANTUM STATE refers to the state of an isolated quantum system. A quantum state provides a probability distribution for the value of each observable, i.e. for the outcome of each possible measurement on the system. Knowledge of the quantum state together with the rules for the system's evolution in time exhausts all that can be predicted about the system's behavior.

“Entangled state refers to the state of a composite system, which cannot be divided into separate, completely independent parts, in other words, it's an inseparable (indiscerptible) state.

Entangled (it is the established term, although I would prefer the term “interlinked”) states can appear in a system, the parts of which are interacted, and then this system fell into noninteracting subsystems. For example, if an electron collides with an atom, appears entangled state where the state of electron will correlate with the state of atom as a result of their interaction.

Entangled state cannot be represented as a complex of states of separate parts of the system because of correlations between them."

Mikhail Zarechny

"Invisible Profundity of the Universe. Quantum and Mysterious
Picture of the World. The Structure of Reality. The Way of a Human
Being."

2009

The key problem of the modern science consists in the fact that scientists refer this phenomenon only to the world of elementary objects, having no clue that it can also be observed in the macroworld.

The CORRELATION (cohesion) of all objects of the Universe is a phenomenon when all states of objects appear to be interdependent. Such correlation is preserved even if certain objects are spread in a space beyond any known interactions.

Defining a value of INTERDEPENDENCE (cohesion) between various macroobjects with tools requires special scientific researches, although many facts prove the EXISTENCE of such interdependence between macroobjects (the human bodies) and such information can already be documented even today.

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