

WORLD = TIME

Mario S. Milushev

E-mail: mmilushev@abv.bg

According to the modern physics **an universal natural Force** (the concept of the Great Oneness) should have exist, which must be resultant of all physical forces and be the cause of all events in the Universe.

According to the Newton's physics, **all events happen in Space and Time**. It is presumed that the very **Space and Time are non-relative to the events** and, based on this presumption, every physical force is viewed in its relations with the other forces.

Today, this concept is considered out-moded – in the modern (Einstein's) physics, **Space and Time obtain the character of a Space-Time Continuum** and are **subject to this uniting natural Force**.

However, if we assume the latter, we should make the conclusion that **this Force might exist without the medium role of Space-Time**, which is ineligible, because it means that this Force might have a **metaphysical essence**, baffling any measurement (but measures of space and time a basic for the physics).

The paradox could be overcome if we assume two new theses.

First thesis: not the physical forces (especially, gravity) deform Space-Time, but, on the opposite – **Space-Time deforms the forces**, i.e. **the very Space-Time is a natural force**.

Second thesis: the notion **Space-Time Continuum is not correct**. Space and Time are not equal – one of them is not self-governing and independent, but is **a derivative of the other**.

Proving the theses: The analysis of the so-called natural forces (electro-magnetic, nuclear, and gravitation) shows that their influence could be eliminated on certain conditions. The same applies to the Space: movement in it **is possible** in any direction – forward, backward, up, down, stray, fixed in a point (immovable), etc, i.e. **the freedom of movement in the Space is unlimited**.

In Time the movement is possible from a beginning to an end, but the opposite – from an end to a beginning, **is not**. It is also impossible to stop immovable in Time. Hence, **the movement in Time is not free, but compulsory**.

Conclusion: Space and Time should not be entered into an equal in rights continuum, which, in its turn, to be dependent on a certain natural Force (uniting the known physical forces – electro-magnetic, nuclear, gravitation, etc.). Space should be viewed as a **derivative** of Time. Time, on its part, obtains the character of a primal, only and almighty force: **the uniting natural Force**.

Key words: *science, philosophy, physics, temporology, time, space, continuum, nature, force, world.*

1. INTRODUCTION

Even though we are proud with the fact that we are the most perfect beings in the nature, we realize that there exists some force that we are dependent on. It creates, guides, and destroys us. Some call this force “**fate**”, others – “**God**”, still others defines it as “**the thing in itself**”, fourth group describes it by a complex physical formula, and so on.

The stronger our desires and the higher our aims, the greater becomes the necessity to get to the bottom of this force so that we can learn to control it and to eliminate its detrimental impacts. Not of particular tendencies of its. But the **force in its totality, the entire force**.

2. ON THE FORCE IN BROADEST TERMS

We shall not examine separately the different interpretations available for “force”. We shall define force in brief – it is a condition, a reason. Which reason gives rise to events, changes, processes.

Forces in nature – various. Physical, chemical, political, strength of will, of habit, of logic, of beauty; all in all, the notion of force has a broad meaning. Which, however, is **the greatest force** in the world?

And one more condition. Force, the essence of which we are trying to discover, has to be liable to **measuring**. Will, for example – one of the key concepts in philosophy – cannot play the role of a universal force, because it is not liable to measuring (we do not have a **formal measure** of will).

It is logical to turn to the science that deals with the study of the fundamental forces in nature – physics. According to it there exist four fundamental forces: gravitation, electromagnetism, strong and weak nuclear interaction, which forces should be separate manifestations of the one and only force. For the time being we have not managed to reduce the forces listed above to **one**, even though the unified nature of the electromagnetic and the weak nuclear interaction has been proved.

Will, however, the knowledge of only the purely physical manifestations of force lead up to the solution of our existential problems? Because, if we succeed with **The great unification** theory, will the force in result, that is supposed to be the greatest force in nature, have solely a physical dimension? What would **the force of gravity** tell us about **the force of morality**? Will the force that is a result of the four physical forces known by now be able to play this complicated role – a unifier of **all forces**?

Therefore, besides a purely physical dimension of force, we will search for a **more general** one.

3. SPACE-TIME CONTINUUM

Physics study the particular things and their properties in so far as they are temporally and spatially defined. To this effect, space and time are understood as formal apriori conditions for all possible phenomena. That is to say, perceiving all possible phenomena is possible only through the figure of **the space-time continuum** (a relatively new expression). Therefore force, the subject of our search, should be “locked up” in the

space-time.

However, we arrive at a paradox thereby. It turns out that “the attribute” of force – the space-time – is more universal than the force itself!

On the contrary, if we accept (according to contemporary physics) that mass (and, or energy), force, more generally speaking, deforms (predetermines) space and time, we arrive at the conclusion that it is the more general category, i.e. **in certain cases it could exist without them!** But then this means that it will acquire the characteristics of a metaphysical object (and physics will feel the ground slipping from under its feet – as we mentioned above, we come to “will” in a purely philosophical sense.)

Perhaps the paradox will be overcome, if a quantitative characteristic is given to **the very** space-time, if it is “invigorated”.

In this case space-time acquires the characteristics of a **force**.

4. SPACE OR TIME?

It is a brave idea to assert that **space-time is force!** However, here we shall go still further. A more careful scrutiny of the expression “space-time continuum” reveals that it has some unclear points. **Two separate** categories are included in it – space and time. The world (the all), however, **is one** and unified and cannot consist of two independent of each other original causes. Therefore, one of the categories should not be considered as independent, but as a **derivative** of the other.

Let us juxtapose space and time by common feature. In this case we are interested in which of the two is “more forceful”. **Force** – in possibly the most general aspect – is our basic criterion in this case (some force causes our existential problems and gaining knowledge of it will help us solve them, no matter what its nature is – some physical force or a superrational substance).

So, which is primary (as an expression of force): space or time?

It can easily be ascertained that motion in space **is possible** in every direction – forward and backward, up, down, on one side, and so on. Graphically this motion can be presented in the following way:

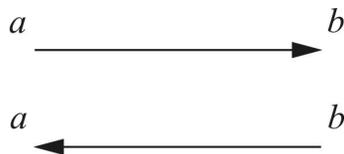
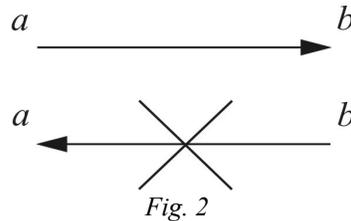


Fig. 1

where a is an initial point, and b is a final one.

In space motion is possible in one of the directions – from a to b as well as the other way around – from b to a . Therefore there is a **total** freedom of moving in space.

In time motion is possible from beginning to end. But motion in the other way around – from end to beginning – is not:



Therefore freedom of motion in time is limited.

What follows from this circumstance?

The analysis of the space-time continuum expression leads us to the conclusion about the natures of time and space differing from one another. Besides being a measure of continuity, time acquires the character of a force as well. Not just any kind of force...

5. TIME AS HYPOSTASIS

Every interpretation of the concept of time is inevitably confronted with the contradiction of language, with its many meanings, and consequently – with its impossibility to express them synonymously. The author is familiar with more than 35 interpretations of the phenomenon – from *Heraclitus* to *Bernard Muntian*: from the attributive universal form of matter according to materialism (one-dimensional, asymmetric, and irreversible), through *Newton's* absolute time to the theological notion of time as a transient and ultimate form of the manifestation of eternity; from *Kant's* views that time (as well as space) is an a priori form of sense, ideal and existing in itself in human mind and not as a definition of things, to its complete subjectivization by existentialists.

However, in our case it is more important to ask ourselves: isn't namely the utmost polysemy of the concept of time the faultless criterion for the **synonymous** designation of probably the most indefinable? Because, by way of the reverse logic – namely because of its utmost polysemy, time can be accepted as the most universal, **the most common phenomenon altogether**. A phenomenon corresponding to our ideas of the possibly greatest force – such as it should be in order to deserve its name and our respect. This possibly greatest force pervades us inexorably, it disposes of us and we are not able to oppose it. To this effect we understand irreversibility in the direction of time. We cannot go back in time. Moreover, our movement forward is not free either – we cannot foresee what will happen to us in the future. **Fate!** What a huge difference in comparison to our freedom of moving in space!

Through the traditional notion of time – a measure of continuity – we make reference to one of the many manifestations of its essence. However, in our case we hypostasize, and we do it consciously. From a measure of events, motions, processes we turn time into the events, the motions, the processes themselves; we assume that **it causes them**. We stop thinking of it as “a formal a priori condition for all events altogether” and endue it with the statute of a primary reality, a unity and an essence of objective and subjective.

6. WORLD = TIME

In what other way and how more figuratively can we imagine the unknown and mysterious essence of the world, which is in us at the same time and is also intangible and mysterious, if not as the omnipotent and implacable time? Intangible – it cannot be seen, touched, held. Time not as continuity in the trivial sense of the word, not as that rigorous sequence of events, known to science, not as the weather forecast for the next day, not as an a priori notion. Not as an element of the space-time continuum. But as all of them – cause and effect, a measured thing and the measure of it. As the all that is unified by its nature. As force, essence, quality, substance.

It turns out that time is not something indefinite, immaterial, which cannot be touched, cannot be held in one’s hand. “Time” (adj.) is the stone that we claim to be material as well as the hand that holds it, the thought about it, and so on. Everything at the present moment is the Time at the present moment! Time is not only the abstraction that we have agreed to call “time”, but also **everything** that we see and feel on the whole. It is **the matter... The visible, tangible one** and in this mode of its we call it material (stuff). It is also that which defines matter (as “matter”) – **the mind**. We can call “time” (adj.) everything by and large – the whole world. **THE WHOLE WORLD IS COMPOSED OF TIME ONLY** (whatever this should mean).

(The hypothesis of the substantial essence of time is not new. The problem is how the essence is seen. For example, time is constituted **not as the only** substance, but **as one of the many** – such as it is asserted to exist – together with matter, mass, energy, etc. The result – there appears a greater confusion, instead of clarity. The situation is additionally complicated by the attempts doomed to failure at their very beginning to philosophize by means of scientific terms otherwise limited in amount.)

We have agreed on the concept of world as a generalized concept of the all. “World”, however, sounds **impersonal**. It is, as is called grammar, a noun. But time – what is it?

We would say: “**Time**” is the proper name of the world. Saying “a man” is one thing, and saying “Adam” is another. That is to say, through the concept of time the world can be **individualized**.

Time becomes that utmost general concept, which consolidates all sides of reality. It becomes a formal science (physical) concept – a **force**. And something more than a physical force, it becomes a force in a common to all mankind, subjective sense – a **fate**.

We believe there is no other concept that could include the two forms of way of existence so different from one another – physical and psychic. All in all, time is the most many-sided essence we know. It is in us and we are in it.

Normally, we would search for the unknown and mysterious nature of the world somewhere in the indefiniteness and we would not be sure whether we should find it. However, it is in us, in front of us, behind us now. It was also in the past, it will also be in the future – in all times. **In Time.**

7. SPACE

As it became clear, the expression “space-time continuum” is inexact – space and time are placed on an equal ground in it. Time, however, has a property that space does not possess – **irreversibility**. Therefore, one cannot put a sign of equality between them. It is logical to assume that space is in a **state of subordination** toward time. We think that **a space without a time cannot exist**. We cannot imagine an absolutely motionless and empty space independent of time. (We will need time to fix its immobility.) We need time in any situation – to feel, realize, give a meaning to anything. **Thinking itself** is in time. We cannot think “timelessly”, we cannot free our thought from time; thought is time.

As for the **space dimensions** there arises the question of **why they are three** and not some other number. Restraining the number of space dimensions is not obligatory. We can assume that, as subjects, we have mastered only three of the potentially infinite number of space dimensions. (For, if an impression is created in us that the progress of processes in the three-dimensionness that is subordinate to us corresponds to objective truth, then for other more advanced beings, let us say using six dimensions, truth might look differently.)

Furthermore, there arises a suspicion with regard to the **uniformity of space dimensions**. Each one of them could be replaced with another. However, uniformities in nature **do not exist**. There are no two absolutely identical things in the world (*Leibniz*). Otherwise, they would be indiscernible from one another. Perhaps this is the right place to use the so called *Occam*’s “razor”?

Hence, it is relevant to accept that space dimensions **are not** three independent dimensions, but **separate manifestations of the one and only dimension – of Time**. More precisely, they are that **same** dimension, only **multiplied**; thus, they play a special role. By them the subject lends “**content**” to **Time**, it becomes **visible, tangible and subject to manipulation**.

Space dimensions are **subject constructs**. (These are just **coordinates** relative in their characteristic; “to coordinate” – to harmonize, i.e. they have the characteristic of a convention). Worlds are constructed with multiple space dimensions – 6, 10, or more. (This is the way it should be, because there is no logic in the space dimensions being only three.)

Extendability is relatable to the present. **It itself is the present.** Actually, space is time, only perceived not as duration, but as **one-time-ness** (the **whole time** included in a single moment). One can put it this way: **Space is the form of Time!**

8. SUBJECT AND TIME

We maintain that the world **exists objectively** (in harmony with the “common” sense) and it is not a product of our mind only (as *Berkeley* claims). We are **inside** of it. We **are dependent** on it. It should not be so, if it was only a subjective idea of ours. (We would be its creators, sovereign masters and in this capacity of ours we would feel like gods. Unfortunately that is not the case.) **Since we cannot control the world of our own free will, then it has an objective character only.** No matter how it presents itself to us – as the unknowable “thing in itself” (according to *Kant*), or as a combination of fields, material (stuff), energy (according to physics).

However, the opposite statement – the world is a **subjective reality** – makes sense, too. If we did not exist, we would not be able to register its presence. Whether it exists or not in this state of its that is unknowable to us, would be uninteresting. (Modern philosophy follows this kind of logic – the subject makes the world. There is no object without a subject, because only a subject is able to define an “object”.)

And yet, which is the true situation: does the world exist objectively or is the subject the one who defines its boundaries? For only one of either assumptions leads to contradictions.

The case “**World=Time**” leads to the following idea: the world **does really exist objectively** (in a physical sense). However, only as time (whatever that could mean). That is to say, “real” objective reality – let us say under the form of a combination of atoms – **is hardly likely to exist.** Perhaps only **the thing** we presently call time exists. In our turn we, the subjects, **are capable** of “seeing” that thing – time, of turning its otherwise one-dimensional invisible continuity into a visible – extendability (one-time-ness). That is why (probably) we call ourselves subjects. Because we are capable of adding multidimensionness of the one dimension of time. We “**stop**” time, “freeze” it into a three-dimensional “refrigerator”. We score “victory” over the absolute determining effect of “linear” time – the strictly defined sequences of events. As a result, we obtain the possibility of choice (freedom), which extendability gives us – a general view of the processes in the world. To put it in a different way – we make the otherwise invisible time **visible, tangible**, knowable.

The greater the subject’s strength – **subjectivity** (not subjective attitude, which is different), the greater his/her ability to perceive time as an object. And vice versa. Once the subject loses that strength, he/she (in the sense of a particular, unique, matchless being) **dies**. To put it in a different way – he/she turns into a **sheer continuity – in nothing.**

The “stronger” the subject (the more power he/she possesses), the greater the degree in which he/she “gains a victory over” time. But not in the sense of destroying it.

“Gaining a victory over” time, the subject accumulates strength in him/herself. Time which up to this moment has been of predominantly objective (determining) character toward this subject, becomes intrinsic to him/her, and the subject can dispose of it as he/she wishes (for example to achieve happiness). (Which was our purpose in the beginning.)

9. TIME AS MOTION AND STATE (MEASURED AND MEASURE)

We are used to maintaining that time is a measure for motion. And that for time to exist, there must be first an event, a process, a **motion**.

Here we claim the opposite – **time is necessary for the presence of motion**. That is to say, **time becomes a more general concept than motion**. It is what precipitates motion itself, and not the other way around.

According to some statements it is not necessary to use the figure of time to express motion through it. The problem with such statements is that expressing (comprehending) motion is achieved by means of a measure, and the measure for motion is “time”. (If we ignore the measure for motion then we ignore the concept as well, i.e. the understanding for motion.) That is to say, **time is not only the motion, but also the state** – the measure of itself. Because the absence of an event **is also an event**. The absence of an event is accounted for by time; however, the absence of time cannot be accounted for by the happening of an event. (The fact that the clock has stopped does not mean that time is not passing. On the contrary, we need time to determine that the clock has stopped. If I did not exist before my birth date it does not mean that there had not been time before that.) **It is namely by means of time that the nothing**, for example, can be understood as nothing – the absence of something. Because if there is no time through which we can specify the presence of the nothing, then **there will be even no nothing**.

One has to take into consideration the fact that both motion and state are **relative**. They are in correlation to one another. Motion without state is not possible, and vice versa.

It seems that in modern physics this characteristic is not accounted for: substances of the measured system, respectively – the measuring one. It is taken for granted that these are **two** different substances not correspondable to one another.

Substance, however, (we maintain that) is **only one**. (There is only one thing that can be a reason only of itself – the world; the all in its wholeness.) And if measurements are to be done (to put it in a different way – a cognitive process in a physical sense to be accomplished), then this otherwise unified and indivisible substance needs to be artificially, formally, fictitiously, **conventionally divided**. One of its halves to assume the role of a known object (measured), the other – of an observer (a knowing subject). For that very reason, according to us, there is the difficult situation with ambiguities in logics. (Hence – dualism, antinomy, aporias, the thing in itself, otherness, “matter and spirit”, and so on.)

We have made the specification above in order to express the opinion that may be we are on the wrong way when we perform measurements following the “classical” method – by accepting the measured and the measuring for two non-relatable substances distinguishing from one another.

“Classical” coordinate system – used by science nowadays. Measure and measured are different things non-relatable to one another:

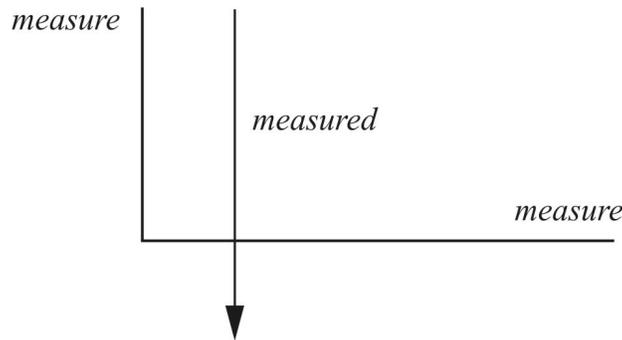


Fig. 3

An example is given below which should enable searching for a solution in this direction. It could be seen in the diagram how measured and measuring – the separate parts of the one and only substance – correspond to each other, and the possibilities of defining the one through the other (for a physicist this diagram should mean a lot):

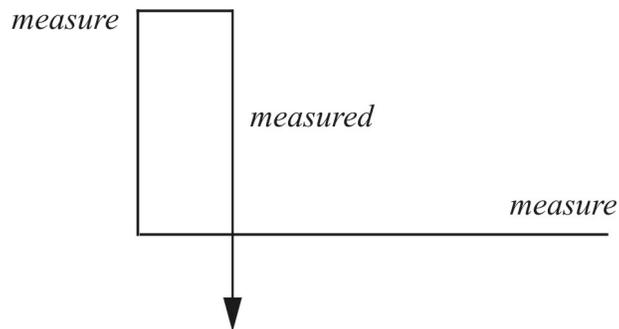


Fig. 4

As it was said before, one needs to take into consideration the circumstance that the measuring possesses **the same substantial properties** as the measured. Therefore we should bear this point in mind. It is obligatory that it is reflected in the result, if we would like to achieve a “real” **objectivity** (in the sense above).

10. CONSIDERATIONS

The present considerations in maintenance of the theses “World=Time” (according to the author) are only some of the more significant ones. (The reader could complete this list):

- Nowadays **knowledge** does not represent a unified system. There are insurmountable boundaries between its separate areas with the distance between philosophy and physics being the greatest. (In this context *Newton's* motto is often quoted: “Physics, beware of metaphysics”, which lately has been paraphrased into: “Metaphysics, beware of physics.”) Things should not be like this, however, when a single goal is pursued – knowing the one, the only and unified world. World that contains everything in itself – energy and information, content and form, whole and parts, body and spirit. Such is the attempt we are making here – to find the **possibly most general – with the greatest volume – philosophical category** which will also be **maximum specific – with maximum content** (a formal science term). This category, in our opinion, is **Time**. In this case **we are not interested in** what time is according to the current views about it – property, measure, motion, event or process. We simply give a **new meaning** to it proceeding from its constituting role in every single phenomenon, fact, process. That is to say, time is a more general concept than those mentioned. Besides having the greatest volume, time is also a specific concept, it can be expressed even by a **number**. Which means that a connection can be found between “the mathema and the dogma”. To put it in a different way, time is (probably the only, excluding space in accordance with the considerations already presented) metaphysical phenomenon that has **physical** dimensions as well.

- Philosophical concepts that we are accustomed to use: matter, will, spirit, thing in itself, etc. are indefinite and that is why the hypotheses, related to them are not verifiable. (The concept of spirit, for example, a basis of *Hegel's* philosophical system has rather religious shade; for him mathematics cannot “get a share”.) Unlike them time is a subject of science. That is to say, **the hypothesis of time can be subject to examination through theoretical and experimental methods**. And if there is something “real” that science takes the trouble to deal with (but perhaps it is not aware of it) that is namely time (and not some other essences – matter, atoms, forces and so on.)

- Discrepancies in Newton's and Einstein's theories: each one of them proposes an understanding about the nature of space and time that is incompatible with the other. According to the first theory time is only absolute, according to the second – only relative. Here we maintain that time is **both absolute and relative** (i.e. in this sense both theories are correct). Space, however, is **only relative** – it is not possible to localize an object according to absolute space criteria; every observer has his/her own system of reference. (In **outer space there is no** “up”, “down”, “on the side”. However, there is a clearly expressed “arrow of time”.)

- It is not clear why space dimensions should be exactly **three** in number. (Is the number “three” really a magic number?) It would be more proper to accept that the dimension, the “initial” dimension, is **one** – that of time. From one we get two, three and so on – the whole sequence of natural numbers. And we draw from it as many

dimensions as we need, in as many space dimensions we want to see the world – 3, 6, 12, 24, etc. (Provided that we have this possibility, of course.)

- **Corpuscular-wave dualism** – an inexplicable logical and experimental paradox (if the impulse is measured, the location cannot be measured, and vice versa – quite right). We are far from the thought of advising the scholars, moreover in such a highly specialized area of knowledge – quantum mechanics; however, we will dare expressing an opinion. This dualism is probably due to the use of the “double standard” – space and time, viewed as categories that are independent and unrelated to each other. Physics does not need to use a measure for space and a separate one for time, especially if there is a possibility to draw one from the other. That is to say, **a single universal measure** is to be used in the one, only and unified objective reality.

- If we accept the idea of atomism as being fundamental in science (physics), it will be necessary to make new claims with regard to the understanding of atoms. (Classical atomism is beneath criticism; “atom” is simply a convenient work tool.) We should not view them as something extendable, definite and invariable (infinitesimal particles that the whole world consist of), but as dynamic, changing objects, i.e. changes are performed in the very atoms – from being **indivisible** they become **divisible** and so on. (Nevertheless, what is determining is the role of time, and only then comes that of space – in which, it is assumed, the very atoms are situated, i.e. they are **subjective constructs**.)

- Whether a physical, objective reality exists, or on the contrary – everything has a subjective character? As it was already emphasized, here we are paying attention mainly to the relation **determining-determined** and we are not looking for arguments in maintenance of whether the world is objective or not, material or not, spiritual or not. **What is important is the relation cause-effect.** (Lately there has been suggested the idea that determinability is an exception rather than a rule, that chaos rather than order reigns in nature. The question is: **how** do we understand determinability? All in all: **who** asks the question? Because the opposite of determinability is freedom. If I put events in order this does not mean that I am determining myself. On the contrary. For that reason I do not dare to call freedom chaos.)

- Time is not constituted as **force** of only a physics nature here (as energy, let us say). This kind of force is an **isolated case**. Time can also exist in the form of a force that, from the point of view of physics might not correspond to the ideas of a force, quite the contrary – it might be a manifestation of a psychic weakness. That is why we attach to the notion one more, **subjectivist meaning – fate**. One can get free from the impact of any physical force, but not from that of fate. Therefore we should search for the solutions of **our existential problems** not anywhere else, but **in time**. Only time (the mastering of its force – our free movement in the past and the future, and not of some other force) can help us gain victory over death, materialize the idea of Heaven, and so on. (We deliberately use this vocabulary “of olden times” that has acquired rather the characteristics of symbolic folklore! Our purpose is to put emphasis on the pragmatic, or rather the **technological moment** that we believe the formulation “World=Time” connotes.) That is to say, time in this case is understood literally as well as figuratively – it is **the all**. (How to translate the ambiguities found in spoken language into exact scientific language is another question.)

- Time includes the purely rational, the logical and the psychic, the sensual. That is to say, by exploring it we can reach to the most secret and inaccessible sides of the objective and subjective reality – to the unified physical force as well as to the essence of the human soul. And it is precisely such kind of impossibility that the science and philosophy of today at the root of which are positivism, rationalism, logicism, etc. demonstrate. Their critics (mainly from the field of phenomenology, existentialism, etc) are right in their search for an alternative of knowledge. Time is the factor of all possible phenomena – from the realm of the physical reality as well as from the realm of the psyche. It might be said that it is the most comprehensive **cultural phenomenon** altogether.

- In the dialectical logic there is the understanding that the nature of things is contradictory. One thing “is” and at the same time “is not”. Not only does this understanding run counter to formal logic, but it also takes philosophy away from science instead of bringing it nearer science. The correlation “World=Time” offers a possibility of overcoming the above shortcoming. In formal logic it is asserted that one thing cannot “be” and the same time “be not”. This is true. However, with the same degree of confidence we can argue that the assertion of the dialectics is also true: “one thing is and the same time is not”. Why? In the above-mentioned assertion there is inserted “at the same time”. That is to say, “at the same time” appears to be more general than “is” and “is not”. To put it in a different way, **if time is the all, then in it** – “at the same” time one thing can be, but can also be not. Hence, the assertion: “one thing is, and at the same time is not” becomes true and non-contradictory. Because it is viewed in the context of the one, the unified, “the same” time. Which is, that is to say, one-time (simultaneous). (It is the all, everything is in it: it “is” as well as “is not”.) The past and the future are in time. So, if for us an event occurred yesterday, and today it is only history, for the whole time which includes in itself both the past and the present, this “particularity” is not of significance. That is to say, formal logic is valid – the event can be said that it “is” and at the same time (as present) “is not”. However, if one takes a view from the stand of the whole time, **the contradiction is removed**.

- “Zenon’s arrow”: it is claimed that there are aporias, i.e. inextricable contradictions. This is due to the consideration of things from their “spatial” side, priority is given to immobility, deadness. (It is asserted, for example, that the arrow is to found at one or another **place**.) It is normal to arrive at a logical paradox which, in fact, is a consequence of the imperfections of the logic itself. Statics should not be an argument of dynamics.

- An interesting question: why has a time machine been not invented up to this moment? (“Time machine” in the sense of a machine for movement **in** time – is can be seen that the popular expression is not exact.) There is not even some project. That is strange, having in mind that all different kinds of machines are already invented, including machines for moving in space. Why do machines for moving in time not exist? The answer probably is: since everything is time, **every single thing** is a time “machine”! The automobile is not only (or because it is) a machine for moving in space, but also a machine for moving **in time**. Moving in space we actually move in time. For these very reasons a time machine is not created yet – all machines are “time machines”.

11. CONCLUSION

The supreme purpose of reason is to reveal the essence of the world. Thus, it would solve all our problems, as it was mentioned in the beginning. The problem here is that in order to know a given thing entirely, it has to be **completed**. Substance, however, is active, developing. It cannot be known until its development has completed. (How can a sprinter who has not crossed the final line yet measure his/her time?) Otherwise, a double nonsense is found – **we are trying to know something that we are a part of but which is still unknown to itself**.

There is no incognizability in general – some “thing in itself”. On the contrary, **substance is cognizable**. The problem is that it is developing and the cognitive process is the essence of its development. And it is only Time that can predict how it could develop. Because only Time contains “future”...

BIBLIOGRAPHY

BECKER, IM., Aristotelis Opera, Vol. 1, Berolini, 1960.

BEUTLER, R. THEILER, W. Plotins Schriften, Bd. 4, Hamburg, 1967.

CASSIRER, E. Philosophie Der Symbolischen Formen, Zweiter Teil, Darmstadt, 1964.

HARTMAN, N. Philosophie Der Natur, Berlin, 1950.

ROBINET, A. Correspondance Leibniz – Clarke, Paris, 1957.

RUSSELL, B. The Human Knowledge, Its Scope And Its Limits, London, 1948.

SPENGLER, O. Der Untergang Des Abendlandes, Bd. I, Munchen, 1923.

<http://www.chronos.msu.ru/>

АРМАНД, А. Д. Дуализм времени. [cited 20th April 2007]. Available

<http://www.chronos.msu.ru/>

АСКОЛЬДОВ, С. А. Время и его преодоление. [cited 20th April 2007]. Available

<http://www.chronos.msu.ru/>

ВЛАДИМИРСКИЙ, Б. М. Собственное время и информационные процессы в нервной системе. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>

ГАНСВИНД, И. Н. Дж. Т. Фрейзер и его теория времени. [cited 20th April 2007].

Available <http://www.chronos.msu.ru/>

ГАНСВИНД, И.Н. Необратимость. [cited 20th April 2007]. Available

<http://www.chronos.msu.ru/>

- ГРОСС, Дэвид. Грядущие революции в фундаментальной физике. Институт теоретической физики Кавли, Санта-Барбара, Калифорния, США.
- ГУЛАРЯН, А. Б. Информационная природа времени. Орловского государственного агроуниверситета. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- ДЗЮБА, С. В. Онтология в теории времени и гипотеза о психофизиологической природе течения времени.
- ЕРШКОВ, С. В. Топологические аспекты динамического подобия в моделировании времени. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- ЗАСЛАВСКИЙ, А. М. Время, сознание, пространство. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- ЗАСЛАВСКИЙ, А.М. Метафизика и системный анализ. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- ИЛЬИН, Н. Преодоление безвременья. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- КАЗАРЯН, В. П. Понятие времени в структуре научного знания. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- КАЗАРЯН, В.П. Конструкции времени и пространства в физике. “Концепции современного естествознания” под ред. С.А.Лебедева. М. 2002. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- КЛАЙН, М. Математика поиск истины, 1988.
- КОГАНОВ, А.В. Время как объект науки. Мир измерений, № 2–3, 2002, 18–22. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- КРОНИКОВСКИЙ, Ф. К вопросу о дуализме времени. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- ЛЕВИЧ, А.П. Мотивы и задачи изучения времени. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- ЛЕВИЧ, А.П. Новый Акрополь, 2003, № 1, 12–15. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- ЛЕВИЧ, А.П. Природные референты “течения” времени: становление как изменение количества субстанции. Ежегодник ИФ РАН "Философия науки". Вып. 6. М.: Изд-во ИФ РАН. 2000.

- ЛОЛАЕВ, Т. П. Пространственно-временная структура вселенной и закон ее функционирования, Владикавказ, 1999. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- ЛОЛАЕВ, Т.П. Почему время принципиально необратимо, Вестник Владикавказского центра, №2, 2001. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- ЛОЛАЕВ, Т.П. Пространство как функция материального объекта. Философские исследования, №4, 2000. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- МИЛУШЕВ, М. Идеи. 1999.
- МОСКВИН, В. А. ПОПОВИЧ, В. В. Философско-психологические аспекты исследования категории времени. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- ПАВЛОВ, Д. Г. Четырёхмерное время как альтернатива пространству-времени Минковского. Московский Государственный Технический Университет, НИИЭМ, [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- СИЛИН, А.А. Время, феномен или ноумен? [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- Стенограмма программы ГОРДОН телеканала НТВ "Что есть время?", 16.07.03. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- СТРАХОВ, Н. Н. О времени. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- ТУРСУНОВ, А. Человек и мироздание, 1986.
- ХАСАНОВ, И.А. Проблема времени в современной науке. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- ШУЛЬМАН, М. Х. О численности, протяженности и длительности. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>
- ШУЛЬМАН, М.Х. О физической сущности времени, движения и материи. [cited 20th April 2007]. Available <http://www.chronos.msu.ru/>