Article Inaugural Issue

Cognitum Hypothesis & Cognitum Consciousness: How Time and Space Conception of Idealistic Philosophy Is Supported by Contemporary Physics

Dainis Zeps*

ABSTRACT

May we imagine that materialistic and idealistic thinkers were both right in all point concerning mind and matter they have quarreled for centuries? May we imagine that in quarrel for primacy between matter and mind both claims for primacy are right and only our good will is required to accept that ultimate reconciliation? May we imagine that all thinking activity of all men on earth and elsewhere is one collective movement being seen and still in progress from our side and essentially one from the side of the universe? It is only point of good will not of reasoning itself. Neither contemporary physics is about to deny it but rather support.

Key Words: cognitum, consciousness, time, space, materialistic, idealistic.

1. Introduction

Since past, philosophers, mostly those identified as idealistic, thinking about relationship between mind and objective world in sense what to put first, mind or objectivity, gave preference to the first. And ever since an idea have been present and procured by some of them that they shouldn't be divided but actually taken as one common to notion, where it falls into two notions because of our under-standing, or rather not understanding, of the world we live in.

The idea of mind as something outside a man or brain has been present in thoughts of highest minds in different way. In Plato, soul encompasses the whole universe in Timaios. In Plotin, the notion of One that is tot of all that encompasses mind and reality in the indivisible union, the One. Many medieval theologians, e. g. Hugo de Sancto Victore, shared this view similar to Plato and/or Plotin. Common soul idea's supporter was Siger of Brabant. Starting from Berkeley (1710) a new insight, with a critical appearance, of the idea where materialistic world properly should be placed was commenced. Berkley, developed by Kant (1781), developed by Ouspensky (1911), express one idea: we are not seeing with eyes but with mind, or, what really matters for scientific goal, is what we see with mind, with whatever possible effort trying to exclude all that where we are deceived with our visional eye. Time and space ceases to belong to objectivity as by materialists but become constructs of mind.

Correspondence: Dainis Zeps, Ph.D., Senior Researcher, Institute of Mathematics and Computer Science, University of Latvia, Riga, Rainis av., 29, Latvia, LV - 1459. E-mail: dainize@mii.lu.lv Note: This work was completed in July, 2005.

Ouspensky raises argument, that physics is not possible to give adequate picture of reality because of its impossibility to abstract itself from time and space notions as it would require idealistic philosophy. Ouspensky died in 1947, only few years before Bell's theorem came into being.

We ask now, can not actually contemporary physics support views of idealistic philosophers, expressed in the following points:

- 1) The mind and the objective world is the same or, at least, by no way can be separated one from another;
- 2) Space and time, actually being constructs of mind, are more psychological notions than physical or, at least, by no discernable way can be classified as distinctly belonging to one or another;
- 3) We see only with the mind, visional seeing being for scientific inquire far too deceiving, i.e. visional seeing in no way may be used as instrument for scientific inquire; and
- 4) Universe globally is alive even if life forms eventually may as if originate from "non-alive" matter if considered immoderately locally.

2. Peter Ouspensky and His Worlds

Further we are going to interpret one particular scientist of the first half of 20th century Peter Ouspensky. He names his first mostly significant work "Tertium organum" (1911) after Aristotle (Organon) and Beckon (New organon) by this expressing his claim to be some manifestant of all ideas of idealistic philosophy. Due to fact that Ouspensky himself did not recognize physics as being possible to solve main mysteries of human existence, he is generally considered as mystic, but here we are about to ignore this fact and going to interpret him just in light of physics.

Ouspensky's some points are essential for us already here, and they should supplement the list of requirements for contemporary physics:

- 5) Science is ready to comprehend only very small portion of the reality and only phenomenal part of it, its numinal [i.e. hidden in unrecognized dimensions or elsewhere] part remaining completely hidden or obscure for it; and
- 6) Time has three dimensions e.g. spiral movement encompassing the idea, or, at least, time in no way is as simple as being one dimensional.

Further ideas of Ouspensky used in this article are connected with his higher worlds, the idea itself being used by many mystical teachings. We are going to untangle these ideas for positivistic scientific inquiry. Let us summarize the idea in a shape we are going to use it. The names of these worlds we take from Ouspensky, but they are not relevant for us for the moment, and further we try to give general idea about them too. Further goes Ouspensky (1934).

There is hierarchy of eight [or seven] worlds: 0) absolute; 1) all worlds; 2) all stars; 3) sun; 4) planets; 5) earth; 6) lunar; 7) absolute. Each world has its own three rules and inherited rules from other (more outward) worlds where the particular world is nested in. Absolute has one rule but it is not counted in [maybe must?] as inherited by other worlds.

Thus we get the following distribution of rules through worlds: absolute -1; all worlds -3; all stars -6; sun -12; planets -24; earth -48; lunar -96. We live in sublunar world and have 96 rules. If we had lived e.g. on sun, we had had only 12 rules, i.e. some higher existence but hot one, how it looks from part where we live in. The essential fact is that our world has 3 own rules, and 93 inherited rules with the following distribution of theses rules

through inherited worlds: $3^0 + 48^1 + 24^2 + 12^3 + 6^4 + 3^5 = 96$, where superscripts stand for order of inheritance (nestedness in). Thus, basic rules that guide all our world are from different worlds, and not accounting for this fact our description of the world is very complicated but merely due to fact that we do not know how to use the hierarchic structure of our world into higher worlds.

There are two general rules, the rule of three principles or three forces and the rule of seven or the octave of musical sounds. These rules were/are applied by getting hierarchy of the worlds.

By using the *law of seven* or the *law of octave* each world may be associated with one musical note with two *slowdowns* between notes *mi* and *fa*, and *si* and *do* correspondingly. According mystical teachings we live in the area of slowdown between notes *mi* and *fa*.

Besides, Ouspensky uses notion of *the ray of creation*, according which worlds are being created hierarchically starting from absolute and so on. Human being lives within this ray of creation and becomes conscious by being nested in 0) absolute, 1) galaxies, 2) Milky Way, 3) Sun, 4) Solar system, 5) Earth, 6) organic life, 7) self, or human being itself.

3. Ouspensky's Unknown 'Teaching of Old'

All his life Ouspensky (1949) was striving for the *forgotten knowledge of the past*. The knowledge he left behind himself he attributed to what he called 'forgotten knowledge'. But let us assume for a moment that he was right, at least in some points, and let us try to guess meaning of some aspects of these teachings. For example, what could correspond to his "worlds" and their hierarchy?

Let us develop some simple idea. We might imagine that our far distant in the time ancients did know physics which were organized hierarchically: let us for a while suppose they knew how to develop their physical science in some hierarchical way that every level of hierarchy had their own proper triad of principles.

If so, physics were hierarchically organized and could be organized within its description hierarchically corresponding to its complexity, i.e. there were levels with all mathematical complexity, and above these levels, were levels with symbolic and conceptual description, and above all, very simple level with symbolic description which concealed lower complex levels, but it were nevertheless precise picture of nature and reality. This outer level could be as simple as being possible to be taught and interpreted for, say, children in schools. Every more complex level came when previous were captured. Thus people possibly were educated in this far distant past. In this higher symbolic level physical things might have been designated with some symbolic names, say, worlds, suns, planets, etc. Four principles of knowledge earth, fire, ear and water may have been such descriptive symbols with some deeper meaning in their proper background. For us these symbols, after tremendous historical memory loss, came as manifestants of as if very low level of our ancients' understanding of reality. Truly, what did Plato knew?

4. Main Idea of This Work

4.1 Motivation

Let all what positivistic science tells about matter and our universe and how it came into being via BB be taken as truth; even though changing, but changing because developing. With latest developments of theoretical physics, modern physical science claims for being possible to describe whole universe with simple but powerful equations getting near the grand unification of main physical forces in nature, the dream of Einstein. Standard model of

elementary particle physics developed in superstring theory thus becoming capable to describe gravitational forces too getting its today appearance in inflational universe theory more than ever able to describe observable reality makes today's physics a forerunner of all other objective sciences only hoping for similar success.

But this all concerns positivistic science. How to reconcile it with some scientific insight that maybe wants to share views of philosophers of past hitherto qualified as idealistic? If I am positivist myself, then all is but say farewells to scientists of old times and say that their time is out. Thanks to Berkeley for him allowing the table to be where it is at least for a while whilst I or he was looking to it! Thanks to Kant for rescuing objectivity via transcendentality! Thank for enjoying us all of you; it was real fun to live with you in one world! But now times have changed and only objective science may be called science, other being relicts of past and not any more enjoying but rather getting on our nerves or even peeving us for not knowing their time and place. But let us try to think otherwise: at least for a while reading these lines. Let us not say that only positivistic science knows truth, let us admit that not all we know not even a greater part, let for a moment imagine that what we know actually is very small even incredible small portion of all what we could know. Let us imagine being positivists too but of 11th millennium. What proportion of knowledge would be that we know already today? One percent? But maybe millesimal of one percent? It would be more credible. Let us imagine that this estimate concerns physics too even that of inflational universe, superstring theories or M-theory. It doesn't work? But let us try!

But if I am not simple positivist but such who has learned to be sometimes positivist but sometimes idealist? Am I not scientist? Am I not consequent in my thinking? Am I lying to myself? But what if I have learned how to be in both positions, both positivistic and idealistic? What if I have found some people who have had that faculty too? What if I have exercised special way of thinking to get such faculty, what if I have spend years for this aim, in my own way and with help of others? What if I have learned myself together with Teihard de Chardin (1965)? together with Ouspensky? What if I have found out that people of past shared maybe this trend too, say, Plato?

Now we come to main point of our task, to say, what we are going to do in order to make some common garden for both materialists and idealists. Their main quarrel was around mind and matter how to subordinate them one to other. What we do actually in this article, we unite them and show that both sides may be reconciled around this. For positivists we must show that they loose nothing but further even get, but for idealists we give world to live in what have already belonged to them from the dim and distant past.

4.2 Main Item

How to unite mind and matter? At first, beginning with, we do the simplest thing: we equate them. The only reasonable way to do it when applying both notions to all universe or even all universes or all existence, saying, that we do not try to detach them on these highest levels of comprehension and thus they may be *pro tempore* equated or at least until the idea is exhausted. Idea of equation of mind with existence has been present always in philosophy. For us, one of best example is that of Descartes *cogito ergo sum*, which words better of all expresses the idea of thinking being equated with existence.

Let us start with some definitions. We enter a notion of *cognitum*¹ what should denote universal *ratio* in universe. We are going to say that *cognitum* is a consciousness of the universe. Besides, we use the new term *cognitum* in order to endow it with other meanings too. The main statement of our attitude would be that we identify consciousness of universe with universe itself. Thus, in our approach matter and consciousness are not the same if taken only as some parts of them but they may be identified if taken in Toto.

Thus, we call *cognitum* that common notion that stands both for mind and universe. Thus, by definition both notions are united. But, is it so unimaginable to come to this understanding via some scientific or positivistic cognition?

Since we know Bell's theorem, universe is not anymore thinkable consisting of enormous amount of particles where, symbolically, one particle does not know what occurs with other. The universe is connected via some universal informational media 'that knows all', i.e. each particle 'knows' what may occur with any other particle in the universe. Best it came expressed in string theory, where matter appeared into being as vibrations, and this media was the string itself. If matter is now consistent of vibrations, then particles of course too and two distinct vibrations of course know one about other even if they are in superposition what means actually their greatest and ultimate independence. Whole music on strings are played according some plan [implicit order of David Bohm (2002)] of all universe otherwise it would be as if matter is falling out of without somewhere universe realizing about it; and superposition is that grand principle which says that all that together consist [and live too] of whatever parts in hierarchy until inferior stock where particles live until still lower stock where quarks live until still lower stock where only information live, and all that not only consist with one in another but rather live, or read, are ruled with general rules of nature. In M-theory we speak about branes where our entire universe may be imagined as a single brane in 11 dimensional space. But brane, as positivists should state, is only mathematical notion, it may consist of as many branes in superposition in as many subsets of matter may be imagined in universe. One, two, three particles, quarks, elementary particles or whatever else clumps of matter taking separately form their own brane. Even more. Following idea of Feynman, as long as quantum mechanics laws work, taking a history in time [from state to state] of a sufficiently small particle, it coexists with all other possible histories, which are all possible ways of reaching second state from the first. Take these other histories as parallel universes or take as non-realized these histories which were not cached by 'eye' of experiment but in no way ignore them otherwise Heisenberg uncertainty principle would break down and with it quantum world laws and with it whole universe. Thus in quantum distances universe works with incredible precision where reality can not be distinguished from some as if computational process what is emulated on superstrings, i.e. branes.

On the other hand, approximation of a solution made by human being as thought in classical physics, in quantum era becomes ontological approximation or solution which itself lives somewhere in the ocean of all possible branes. This statement is best explained in Max Tegmark (2003).

Journal of Consciousness

ISSN:

¹ Cognitum is Latin form, i.e. supine, of verb cognosco = I exercise thinking, become aware of things. This verb is derived from cogito = I think. Descart's words cogito ergo sum mean I think and therefore I am. With this word is connected Greek Y Y Y WOKE = I know, and Y COLS = cognition.

Thus, cognitum hypothesis states that it is not decidable between universe and mind assuming that at quantum distances there is not decidable between the physical quantum event and the computable event.

We associate cognitum hypothesis with, what we call, cognitum *consciousness* combining this with general idea that applying cognitum idea systematically we might reach some benefits. As soon as cognitum hypothesis is proved inconsistent, or cognitum consciousness ceases to be profitable, both should be denounced.

4.3. Eventual Usefulness of the Idea of Cognitum

Development of contemporary physics show that only mind gives contribution to its development. Let us explain this statement.

What we used to think before, that investigation of objective world, what appears before us through our senses, gives us rise of understanding of the world manifested in physical science, now more and more are affected with understanding that with departing from sensible world we reach deeper and deeper understanding of nature. We have two reliable physical theories: quantum theory or theory of something incredible small and general relativity or science of something incredible large, i.e. within just these scopes where we do not live in; the scope of our senses turned out to be deceivable: they do not give us physical theories. But we have not got lesson from this: we try to combine our understanding of the world around us with time and space notions, most deceiving things for physical theories. But these extremal theories, KM and GR, show us not coincidence but a rule. Only where our mind works without impact of our other senses we start to reach results. Where time and space cease to work in usual way, but quantum rules start to work, we come to physics where we may prove theorems, even as incredible for classical physics as Bell's theorem. In quantum world only our mind works, no senses of ours may give something useful.

A different question is that of physical experiment and its role in physical science and what we 'see' with the 'eyes' of instruments, or they must be treated as tentacles of our mind, must be discussed separately. [In support of the second, it fits to take into account how long we must fumble about until we build suitable experiment, the process of which itself showing us that merely seeing with eyes here gives almost nothing in comparing with that of mind's advantages, and eye's vision is more obstructive than useful. In experiment, our mind recreates conditions where our theoretical solutions are verified, but the process of this resembles more fumbling in obscurity than clear seeing. What kind of seeing is actually required in the process of the building of physical experiment and from this our physical experience, that is of seeing with mind.]

4.4 Cognitum Hypothesis and Thinking

Let us put a very general question, why we are thinking, i.e. where from comes this ability of our's?

The mostly common answer on such a question would be: because we are highest developed creatures in universe which have gained this possibility in evolution or received it or were endowed with it in some or other way, say, from above, from God, what some religious traditions would suggest.

But now, we put to question this argument, asking, why or what for something (or someone) in the universe should endow us with the possibility to think?

We are used to think: if we have something, then someone or something gave it. Similarly with our capability to think we think that someone gave it us. But can we imagine that nobody gave it us, but it already existed in universe. Even more, actually we do not know, what the thing or concept what we call *thinking* actually is, except, that this is some higher movement in universe and we are sensitive to this movement and can touch, with our cognition tools, this 'something' and thus be sensitive to this movement. Why or what for this movement called *thinking* exist in universe, we can not ask because it is higher that us. And finally, we are not highest being in universe, but quite contrary: we are the lowest creatures yet being endowed with possibility to think. Animals reach this possibility of 'thinking' only on level of their functionality of their bodies, plants – on the level for their growing, mineral world – on the level of possession of their physical properties, e.a.

Thus, cognitum is that base level of thinking, highest or lowest or both in the union, us being on some (hopeably) rather high hierarchical stock, where thinking still reaches us in that functionality we possess. We enjoy this given us functionality highly enough even to the level that we announce us the rulers of the reason and the intellect and the mind. Not bad, not bad at all for the beginning!

4.5 Thinking and Ray of Creation

Further we take something more from Ouspensky. We are about to make radical assumptions about what concerns our thinking. See Schopenhauer (1851) too.

What we are about can be expressed simply: we unify three notions in one i.e. *time*, *thinking* and *creation*, and we say: there is only one *movement* responsible for all three. As long as we have not studied in what relation these three notions we are used to are in connection with this one movement we say that there is no great advantage in trying to separate them. Thus *pro tempore*, we have this one movement, what we call, *pro tempore*, using Latin word, *visum* or Greek word *theorema*², i.e. vision, or what can be seen. Let us justify our choices and our definitions: from point of view of *cognitum*:

- (creation): we are reached with the movement that creates us, or we come into being via this movement of *theorema* in sense of creation;
- (thinking): in the same time on our cognitive level we become aware of being capable of what we call thinking, but it is the level of creativity of *cognitum* that endow us with power of *theorema* but in sense of thinking; and
- (time): and, at last, all this occurs not in time, but time is within this process, and not having option to be more explicit, we are forced take this same movement for time, and say that we live within *theorema* in the sense of time too.

Thus, our model of universe may be expressed very simply: there is *cognitum* in process of *theorema*, i.e. it looks on itself, examines itself, and we are aware of this examination on our level of existence, on human being's level. *Cognitum* via *theorema* sees itself, and we become aware of this as being the level created by *cognitum* what we in simplest manifestation reveal as time and recognize as thinking ability, other senses becoming companions of this. *Cogito ergo sum* says much of this same.

In other words, the notions *creation*, *time*, and *thinking* (of the universe) is one and the same thing, $\delta v \delta \dot{\alpha} \tau p \dot{\alpha}$, i.e. from outside or the side of the universe, it being alive, universe

_

² Visum is Latin form, i.e. supine, of verb video = I see. Closest Greek words are $\theta \in \omega$ = I see, comprehend, and $\theta \in \omega$ = I view, inspect, examine. Noun $\theta \in \omega$ has several meanings, but one is observation, but in general exercise the power of cognition.

starts with Big Bang with (about) eight big discernable levels, but from inside, or, from side of human being, what concerns creation of universe, i.e. BB, to it correspond creation of human being, with eight discernable levels, which Ouspensky calls worlds.

4.6 Idea of One Universal Man

Idea of one *universal man* has been present in philosophy always but in quite different appearances. Only few traditions, e.g. Indians, use this word openly, namely, universal man. More widely we know notions of *common soul*, *One* of Plotin, *common subconsciousness* of Karl Jung, e.a. These views may seem quite different, but nevertheless they use common idea that we, human beings, are not separated one from another.

But what we are looking for is a man as process of its creation and from the view of *cognitum*. For our purpose we need only to be aware of some aspects of all creational process, and one of it is our multiplication, how it takes place, how from the universal man, that is one, we, that are many, come into being. Let us assume that the creational process does it, but for us being essential only fact that on level of higher world there is only one man, i.e. universal man, in the world we live in, i.e. in sublunar world, there are as many men as they are in actual reality. Maybe one more fact [from Ouspensky] we might suggest to use: before slowdown between musical notes *si* and *do*, i.e. between absolute and all worlds, there is one man, and already after second slowdown between musical notes *mi* and *fa*, i.e. between planets and earth, there are as many as actually men we perceive.

Finally, for the purpose of this article where only physical theories we are interested in, only two questions, and particularly this question of multiplicity of human beings and similarly all his ontological life, has some importance for us. The second is about our time we experience as part of our life. What concerns physics, we assume that after second slowdown, i.e. between mi and fa, time already exists as we experience it. But on level of first slowdown there must exist another time of which we may say next to nothing. Maybe ζ ω ω ω ω ω ω ω

4.7 Is Physics of Life Necessary?

We could ask where in our physical world we could put Ouspensky's many worlds, ray of creation, how to use law of musical octave outside music itself, i.e. in physics, where to put his theory on higher hydrogen? Should there be assumed necessity for another physics? maybe called *physics of life*?

In our approach of reality we assume that there could be *pro tempore* useful notion of another physics which we could call *physics of life*. This new physics should be very distant from the traditional physics, that eventually maybe could be developed, after many years, from positivistic physics, but what is not possible now because of our weak understanding of the life (as state of being alive) itself. One more aspect may add to necessity of such temporal situation, and that is due to our weak understanding of the true nature of time and space. Even more, contemporary physics shows very weak readiness to change these notions or try to develop something without space and time. We are too closely connected to the notion of movement. We can't think anything without movement. Why Parmenides could? He said nothing? We do not have that knowledge of his.

4.8 Cognitum Hypothesis and Time and Space Elimination from Inevitable Objectivity

Let us return to traditional physics and consider whole universe and its history as a single brane from the moment of its birth, i.e. Big Bang, until its complete collapse, big 'ping'

or 'crunch' how we could call it. What is before the birth of the universe? There are several approaches about this, and one of them says that the state before may be characterized as unstable. To leave this state of instability, universe must enter some more stable state, and this occurs through Big Bang. Of course, every physicist can see that this story of change from unstable state to stable may be taken as acceptable only because of no better story. E.g., better story maybe could be that before singularity there another history of universe might be, and so on. Let us discuss story about unstable state before BB. We suggest better story.

Both states should be accepted as possible but only with one assumption that that state what we called 'before Big Bang' actually is quite similar universe to our but without time and space, that it is some eventual space with all ready for it to explode, but nothing occurring in it, because of a simple reason, ... that we do not live in it, i.e., time and space is not because of us not being there. This universe which is unreachable from us is more symmetric, all dimensions are incredible small, or big? we do not have with what anything may be compared, and more likeable, because of symmetry. Actually, we can not say anything about that universe without us whether it is exploded or not, because this observation is possible only in our universe where we observe expansion of our universe what is the same movement what we called *theorema*. From traditional physics this expansion is physical time plus space expansion, for physics of life it is *theorema*.

4.9 Cognitum Hypothesis and What We Are Researching?

When we come to understanding that whole universe, and what he does, may be considered as Someone that thinks endowed with the only his activity, thinking, we actually come to understand that what we are examining, it is our brain or our cognitive ability.

This fact may cause us to fall in desperation about usefulness [or no usefulness] of our inquiring about reality. But this desperate state must not rule over us for a long time because next thought could be that we are on a right way, because if only one man is there in the world then there doesn't much matter whether we investigate our brain or universe in the whole, because both things are not distinguishable.

More deeply, this idea says us about the nature of the objectivity where it arises from. In case of many human beings there couldn't be only one common reality.

4.10 Cognitum Hypothesis and Universe as a Thinking Machine

Next thing we are to recognize is that what we found previously about hierarchy of worlds, that this is the structure of our thinking or some sort of thinking machine that our cognitive capacity uses to reveal reality. This machine researches reality, and on some level we come to recognize the machine itself what comes before us as some part of our universe or even whole universe. Further on, we come to realize that we are on right way on search of ultimate reality. We might call this machine Ouspensky's machine.

4.11 Ouspensky's Machine and Languages

Structure of Ouspensky machine shows that it could be very good suited for language investigations and their possible origin. Four levels between and two times: forward! Language machines may be very useful for us because they are those that are given us by cognitum *gratis*; we are not those who have much taken pains to reach these capabilities. This may explain Benjamin Lee Whorf's question what asked why Einstein and beggar use

the same language capability (1975). With language we get more developed thinking tool than that what we develop ourselves.

4.12 Ouspensky's Machine and Different Levels of Scientific Thinking

Ouspensky's machine could be some accessible level for man what reaching he or she could think more effectively than ordinary man who has not developed his or her thinking capability. Is it highest level? Is it in connection in some way with yλοσσολαλία? Who knows!

5. Cognitum Consciousness and Its Eventual Fruitfulness

5.1 Solving Problems of Idealistic Philosophy

Ouspensky was not right only in one point – that physics can not explain statements of idealistic philosophy. Quite contrary, it must be just physics what should make all statements come in one beautiful model, model of universe. In such eventually predictable model, time and space should be as physical as physicists would like to see them and as psychological as idealistic philosophers, say, Kant and Ouspensky, would like to apprehend them. Ouspensky could not accept idea that mind is outside the man and in the same time to be in all and everywhere. Cognitum idea is on right way to solve this and to do this subtle job with hands of physicists. Cognitum hypothesis now solves the problem with seeing. Newton and Berkeley at last may shake hands both having been right. Actually, their quarrel was around absolute time suggested by Newton, not being acceptable for Berkeley. But no problem more with them or between them, because they both were as if looking on one notion – time, but being too far one from other in cognitive sense. Newton would be angry with the idea of the time arising from nowhere, from state of instability, but he had not a slightest idea about sleeping universe without time at all (or time 'sleeping' in it). Berkeley could not bear idea of time being before creation and he was right.

5.2 Materialism and Idealism, Positivism and Subjectivity

Physics may cease to choose between positivism and not positivism, even, between materialism and idealism. Cognitum hypothesis, of course, firstly is more like to idealistic conception, but getting deeper in the idea, we should understand that physical view doesn't suffer in any place or point, and actually, if we consider physics as materialistic science, even with all superstrings and possible braids or whatever might come in the future, then cognitum hypothesis doesn't make any unbearable impact on materialism except forcing it to live in neighbourhood with idealism. They were at war, but they may be at peace – that is all the difference.

There is one interesting point concerning Kant and his idea of the *res in se*, i.e. that we can not get inside (or outside) things, *res in se* should always remain unreachable by our mind and tools of investigation. Pondering about cognitum in positivistic sense, one might say, maybe actually matter is somewhere outside cognitum, and not reachable by physics, similarly as Kant was pondering.

Subjectivity touches positivism only in one point, but if positivists could bear that their state of instability exists always, no only before big band, then they may say that eight worlds of creation of a man are too far from them to bother about them. But maybe they might become interested with the idea that life proves to be in reachability of physics, which always was considered as biggest mystery of scientific thought. Can or not cognitum consciousness give something more than merely idea of universe being alive is another thing, but we now have at least one touching point.

Even birth and death come now into one and the same world, except this only thing that materialistic thinking must get accustomed to – that of existence of one universal man. But in the model of universe even this point is without any discernable consequence, because every one can consider himself or herself as he or she being this universe man [or woman], and the model of universe should work as beautiful as with the universal man [or woman?].

References

Berkeley, George. Treatise Concerning the Principles of Human Knowledge, 1710.

David Bohm. Wholeness and the Implicate Order, Routledge, London, 2002.

Davies, P.C.W. Multiverse Cosmological Models. Australian Centre for Astrobiology, Macquarie University.

Diogenes, Laertius. Vitae philosophorum: Περὶ βίων δογμάτων καὶ ἀτοφθεγμάτων εὐδοκιμησάντων

Gibbs, Philip. Event-Symmetric Space-Time. 1998. www.weburbia.com/press/esst.htm

Guth, Alan H. Kaiser, David I. Inflationary Cosmology: Exploring the Universe from the Smallest to the Largest Scales. Science. Vol. 307, febr. 2005, pp. 884-890.

Hugo de Sancto Victore. Διδασκαλικον. in Latin. Patrologia Latina, Vol.

Kant, Emanuel. Kritik der reinen Vernunft, 1781.

Mosterin, Jesus. Anthropic Explanations in Cosmology. pp. 42.

Ouspensky, Peter. Tertium Organum. Key to Solving Mysteries of the World. In Russian. 1911.

Ouspensky, Peter. New Model of Universe.

Ouspensky, Peter. In Search of Miraculous, 1949.

Ouspensky, Peter. The Model of New Psychology. The Model of New Cosmology, 1934.

Plato, Timalos.

Prideaux, Jeff. Comparison between Karl Pribram's "Holographic Brain Theory" and more conventional models of neuronal computation.

Rashewsky, Peter. Rieman Geometry and Tensor Analysis. in Russian. 1967.

Schiller, Christoph. Motion Mountain. A hike through and beyond space and time following the concepts of modern physics. www.motionmontain.net

Schopenhauer, Arthur. Aphorismen zur Lebensweisheit, 1851.

Smythies, John. Space, Time and Consciousness. Journal of Consciousness Studies, **10**, No. 3, 2003, pp. 47-56.

Swedenborg & The Holographic Paradigm.

Swedenborg, Emanuel. Divine Love and Wisdom.

Tegmark, Max. Parallel Universes. Scientific American (May 2003), pp. 30-41.

Tegmark, Max. Parallel Universes. Science and Ultimate Reality: From Quantum to Cosmos, honouring John Wheeler's 90th birthday, J.D. Barrow, P.C.W. Davies, & C.L. Harper eds., Cambridge University Press (2003).

Teihard de Chardin, P. The Phenomenon of man. N.Y. 1965.

Wertheimer, Max. Productive Thinking. Harper & Brothers Publishers N.Y.

Williams, Alan T. Consciousness, Physics and the Holographic Paradigm.

Whorf, Benjamin Lee. Language, Mind, and Reality, 1975.