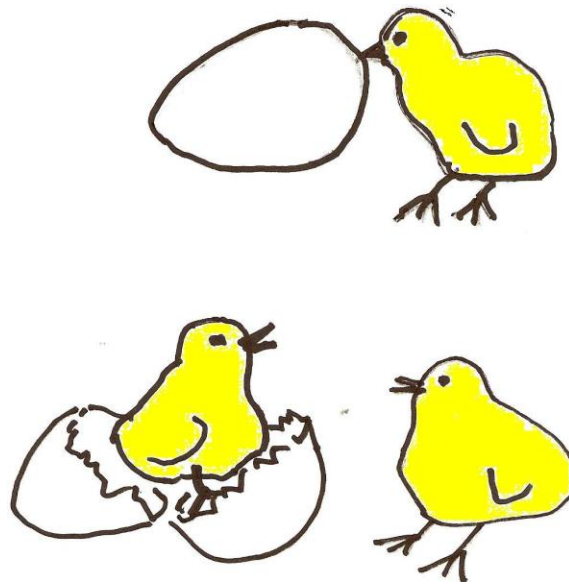


# On to what effect LHC experiment should arrive

Dainis Zeps\*



## Abstract

We consider idea of hierarchical multitime notion and of the cone of creation. Following this idea, the time used in traditional sense is only a single projection of time in the multitime. Multitime must have inner dimension upwards turning it into hierarchical structure which acts as what we call global cone of creation. On our time projection, evolution of species and BB, both global and local, in SM are examples of local cones of creation. Higgs field as symmetry breaking accounts for complementary worlds on other projections of time in multitime. We argue that time is form of referencing within matter and doesn't have any sense without matter. These are the hypothetical assumptions which may be tested, when LHC experiment shall go on.

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## **What is time?**

Time in our consciousness is something distinct from space and even more from mass. Einstein relativity forces us to connect time with space. Even more, Lorenz transforms force us to connect these three notions even more. Nevertheless, we are very reluctant to let loose time its independence, but now physics seems to come to the boundary where time can't be anymore considered as it was before, as something that we perceived and continue to perceive it on mere psychological ground. From point of view of physics, we are forced to conclude that such time does not exist.

What exists then? We put forward idea of multidimensional time with one distinguished dimension what we call upwards direction of time or arrow of time. This arrow of time does not point in some perceivable direction in the perceivable with our senses world, but in the direction of what we call creation. Trying to connect our idea with some existing ideas, our arrow of time points in the direction of what may turn out to be implicit order of David Bohm [Bohm 80] or ray of creation in some previously considered as mystic teaching [Ousp 70,50]. Multidimensional time with this distinguished dimension called upwards direction or arrow of time forms something like cone that we call cone of creation. Thus in our approach, multitime and cone of creation are the same thing.

## **What is the mass?**

Let us assume that Higgs bosons mechanism would be responsible for effect what we perceive as mass or massiveness of bodies. But what should we find looking after these particles? Particularly, when LHC will be started and experiments begin in chasing after Higgs boson? Particle physicists should demonstrate their readiness in encountering whatever unnatural phenomena and with the expectedness that the picture should be completely new in comparison with what were before. But we hope that it should give some clearness on particular question about these same Higgs bosons. That all should come and now it would be more appropriate to wait than to invent fictions of what should come. Of course.

But we would like to make some predictions on very general level and namely. First let us ask what would be world without mass, without matter at all except, say, massless photons or, not much less strange world, where matter were present, but only one speed were allowed, that of light, and Higgs field were absent. Yes, we can't say almost anything about such assumption because we live in the world with mass and matter and with familiar motions far below speed of light. But, let us look on the phenomenon called massiveness as if something that comes in the world from aside, from somewhere outside in somewhere we are and live in. It is possible, why not? the same Higgs field is this stranger that we can localize as responsible one for the presence of mass in our universe.

## **What is actually what we perceive as mass or massiveness?**

From our reference system we perceive two distinct things: time and mass. Actually they both correspond to only one thing, namely, time or multitime or hierarchical multitime. Mass what we

perceive as mass actually is time of other worlds. How to understand it? Higgs mechanism of symmetry breaking reveals us this. See lower.

## **Thus what are many worlds and what is time?**

Let us call sub-Plank world complementary world. Why? Suppose the time we are used to is not all what could be assumed as time but only its projection. Let full time be multidimensional or of that sort, and let us assume for each time projection one world being matched with, and so many worlds are actually many time projections, but all these projections correspond to one single world, sub-Plank world plus our world, but multitemporal. Thus, in such case, we would have either one world that is multitemporal, or many worlds each corresponding to some time projection, what actually must turn to be the same.

## **How Higgs boson field accounts for other projections of time in multitime?**

Our world's matter is projection of cone of creation of 'matter in general'; symmetry breaking of our world is complemented with similar symmetry breakings from other worlds leaving some part as if not compensated that forms next higher level that acts in the same way and so on up to apex of cone. Actually, behind 'matter in general' there should not be hidden anything particular except the symmetry breakings themselves. The mere hierarchy of symmetries in the cone of the creation should produce what we perceive as the matter in our multiverse.

[Actually, our approach little or up to nothing differs from what physics has today, except stronger stress on hierarchical organization of matter is made, but remembering BB matter creation mechanism, we regain hierarchy here back too. What we need today, is to build clear completely hierarchical theory of SM, where time and space were or could be excluded completely.]

It may be affirmed from local cones of creation what concerns matter formation in our local time projection. BB in SM is simpler example of cone of creation which mechanism accounts for all matter production inside the stars in our world. This mechanism produces all in our universe and there isn't anything except that that can be produced in this way. Using traditional time treating, we connect with BB one global cone of creation, i.e., that of BB itself. In our approach traditional global BB ceases to have any sense, but only in the old setting. Now multitime itself globally should work as global BB, where its temporal dimension in traditional treatment should be replaced with upward direction in multitime. Singular point in traditional BB treatment should be replaced with apex of cone in hierarchical multitime. We think that traditional time singularity in BB has nothing with expectable reality; if we could look back into 13 and a little billions of year past [if such timelines exist], we would find the same world in the same nice organization as today. The confusion in what we conclude from MBR is due to confusing our time projection as self-reference system with some assumedly existing general timeline what is highly dubitatively to be extendable for billions and billions of years. More expectable is that for sufficient distant past we should speak about many timelines, not single. But, if 'feeling of time' is connected with life, then natural

conclusion follows that there does not make any sense to speak about past before us, i.e., living creatures. In [Zeps 05] this was treated similarly.

Let us repeat once more. What accounts for matter is as if outside of the matter itself, i.e., in some Higgs mechanism, but except SM matter production mechanism there isn't any other mechanism where from matter could appear. Thus complementary mechanism of distinct symmetry breakings may could serve as a good explanation of this 'out of the things' mechanism 'of the things'. Or rather, new time concept itself must lead the way how to explain this new unusual situation in theoretical physics.

### **What crucial we gain considering our world as self-reference system with other worlds perceived as massiveness of things in our world?**

Using terminology of self-reference system approach [Zeps 07], our world is the world in the state *in se*, and *particulae collidentes* are other worlds or multiworld with other time projections. In this world, in our self-reference, we perceive phenomenon called mass or massiveness that is quantum self-reference in state *particula collidens*. If it pleases, we may assume our time as *particula in se* state, or even as quantum self-reference, if there were some sense in it, because world and its history are universal both global and local.

### **Are other worlds something distinct from our world or the same world in some entangled in multitime setting?**

How we understand things now, both aspects are present. These entangled worlds with our world may be the same world being entangled with itself. From the other hand, our time history maybe does not encompass all multiverse histories leaving many of 'worlds' informatively untouched. Using some oversimplified language, number of words is less in multitime than number of worlds on time projections. On apex of cone of creation there should be one common code for all worlds. Or more? Parallel worlds on 1-st mostly loose level of four levels [Tegm 03] should be completely independent even on level of expectable physical laws in them.

### **What is the cone of creation?**

We may start with well know examples from nature, and first two are BB, and what stands beyond evolution of species. Evolution of species is act of working of cone of creation on our projection of time or, using more general language, projection of cone of creation on our projection of time. In applying the cone of creation to our multiverse, the base of the cone, in the most general setting, should be multitime of multiverse or matter of multiverse what may be the same as we assumed higher. The arrow of multitime points into upwards direction as we use to speak, i.e., not in some particular directions of 'flowing of time' as we traditionally used to think. The apex of the cone should contain something like code of the universe. But maybe up to now our imagination may procure too poor picture about to what we should expect to be in this apex. Some say God.

## **Can causality be considered as cone of creation?**

Causality in general may be considered as base principle of creation of cones of creation. Event what we consider as cause causes other events producing cone of creation, but this would be rather only projection of some more general cone of creation on our projection of time we live. Ouspensky spoke about nomens and phenomena, where nomen should correspond to cone of creation in general, and phenomenon to the cone of events [not creation] in our time projection. In our timeline cause only causes, but not creates, as we use to say properly, because creativity aspect may be revealed only in multitime.

This picture should us enlighten somewhat about what is more real – these more general structures or their projections. Using figurative language, our projection of time is as if, say, path of a fly, whereas multitime is the space itself where this fly is flying.

## **Why we experience time as we do it? What is the real arrow of time?**

We could experience time more deeply if we could see in the time's upward dimension where time's real arrow points. But time that we experience arises due to self-referencing [Zeps 07] in multitime, where through this self-referencing mechanism we acquire our possibility to live or our feeling that we live in this world via experiencing time and space and all other we experience. But this experience is only caused by action of left part of our brain. Right cerebral hemisphere is not confined to this self-referencing and is communicating in the direction of arrow of time too. This is only the left part of brain that does not communicate in the direction of arrow of time. Our language ability and thinking is the mechanism that communicates only in the direction of the arrow of time, i.e., in the direction of the apex of cone of creation. It would be properly to say that we think in the direction of arrow of time, or that direction of thinking is the actual arrow of time.

## **Where goes theoretical physics and what is mathematics?**

The crisis of theoretical physics arises only because of the absence of good notion of time. Minkowski space-time is good compared with simpler model of Newtonian time. But now we see that physics require better notion or understanding of what was time earlier . We experience the fact that theoretical physics can explain more and more phenomena in the world and predict things with incredible precision, but picture of the world grows more and more strange and it gets more and more difficult to connect what we see with what physics says about reality. This is because of our reluctance to change notion of time. Even after invention of Minkowski space-time, the first thing was to introduce the synchronization of clocks what maybe helps to solve equations, but actually leads physics back into old time concept. With clock synchronization we return into self-referencing system where do we live and experience causal events which correspond to our existence in the setting of some traditional understanding of phenomena, but close doors to let understand nomenal world. Applying symmetry rules and symmetry breakings, laws of conservation and gauge theories we come to understanding that world of phenomena has something behind itself. Mathematics

reconstructs real world, because it is not strictly connected with time and constrained by time. It is mathematics that reconstructs real cone of creation. Thus, in questioning directly, what is cone of creation, the answer is very simple – the cone of creation in our multiverse and in the direction of arrow of time is that what has to be reconstructed by mathematics. Mathematics is reconstructing the cone of creation. Today mathematics is in the state we experience and perhaps we are only on very bottom level of understand of what should be mathematics of future. But in place of mathematics we should see not only that what we today understand under it, i.e., mathematics, but that what we should get in the future up to level that nature would allow us, leaving maybe some hidden part in the apex of this cone for ever.

In the book [Smol 07] prominent physicist Lee Smolin encourages young mathematicians not to chase after beautiful theories, such as string theory. From our point of view it is pity that such statements has been pronounced, because, as we think, beautiful mathematical theories, and string theory too, are these parts of the cone of creation that form mathematics, and theoretical physics alike, that never should become outdated. It is O.K. with mathematics, it is problems with physics with outdated time concept: that would be our answer to Lee Smolin. And mathematics should lead way to physics, which is blind without time. Another question that string theory approach should not be the only approach, but new ones should be invented more and more. No mathematical theory is unpractical or unphysical, because all they treat corresponding invariants that work in the multiverse, in the code of the multiverse, in the cone of creation.

## **Have we not rediscovered what was known already in deep past and in Medieval ages and in teachings of many mystics?**

Yes, mostly the picture of hierarchical multitime and cone of creation agree good with many teachings of past. Pseudo-Dionysius Areopagita [Areo wiki], neoplatonics such as Hugo of St. Victor [Hugo 12c], Swedenborg [Swed 01], Rudolf Steiner [Ste 95], Ouspensky [Ousp 70, 50, wiki] are these authors whose ideas were mostly ready for contemporary scientific challenge.

But, if our approach is productive, then it appears doors to new sight onto science, where religion and mystics and physics and mathematics cease to be different scientific or non- or half- or pseudo-scientific aggregations, but all they are legitimate scientific efforts and samples of cones of creation on one common bases. Non of them is somewhat weaker than other, the only difference being how deep each of these sciences are forwarded and developed. The same or something similar author wanted to express via *Cognitum* – consciousness idea in [Zeps 05].

## **In what our cone of creation approach differ from ray of creation approach [RayC wiki] of Ouspensky and Gurdjieff?**

In [Zeps 05] author came to conviction that Ouspensky's approach in [Ousp 70, 50, wiki] has relevance for contemporary physics. Here we show how this ray of creation approach actually may be developed and applied in the theoretical physics. We think that in our setting very general idea of ray of creation is now developed deeper and has led to new conclusions which were not possible for

both named authors because of lack of terminology in their days, and that picture of theoretical physics that we have today.

## **Are there other cones of creations in our world except these of BB and Darwin or de Chardin species?**

Yes. There are. All sciences or there disciplines, say, biology, organic chemistry, are cones of creation except that on the very base levels because of mediocre level of their development they can't reveal their cone nature. These are cognitive cones of creation. Of course, there are in the nature and in the physical picture of nature sufficient examples of cones of creation. Crucial fact is that we perceive world via cones of creature, where we reconstruct the world phenomena and nomens via cone of creation built in our consciousness.

It is paradox that theoretical physics with mathematics as its supporter is mostly developed discipline of sciences and thus mostly forwarded cone of creation. The fact that physics looks so strange and weakly connected with what we could accept as reality is because of its lack of proper understanding of the notion of time. Aggregating this cone of creation up to its apex we could reach real 'code of universe' that what some contemporary physicists suggest to be already reached via SM.

Another paradox is that another science that is in the worst position, what concerns its development, is philology, which has not essentially changed since times of Plato, but has best perceivable cone of creation. How to understand it? Let us take one particular language, say, English, and put it as one projection of time. Let take other, say, Latin, and take as other projection of time. Then all languages must build space for multitime. Let us consider each distinct language as specific break of symmetry. Then all languages, taken together maybe form some aggregation where some breaks of symmetry are properly complemented but some remain over. Let us forward these unbroken symmetries to next higher level and start new aggregation of breaks of symmetry and their complementation. On apex of this structure we would expect to be some higher language as some non-complemented symmetry breaking. That language maybe would be suitable to call language of angels, and suppose that Swedenborg heard just this language, when he spoke with persons he called angels. This angelic language should stand in the same time for the code of universe.

One more conclusion that should be captured from there is that mathematics should step in the future in some linguistic stage.

## **What sense does it make to take religious and mystic teachings into consideration?**

Religious and mystics teachings must have been built using the same paradigmata that exact sciences, i.e., they all are to be cones of creation. Modern sciences have emerged from these old ones, abandoning all that were hindering new scientific effort. Throwing away as if unnecessary and



outdated, it threw in wastebin many old teachings with all their as if outdated aparata. Now time comes to restore some things back, but for new scientific purpose. The author that first should be restored may could be Pseudo-Dyonisius Areopagita and his work *De Caelesti Hierarchia* [Areo wiki]. Speaking up to date, Pseudo-Denys suggested idea that world is organized hierarchically. That what was hierarchical, according Pseudo-Denys, was heaven, but in spiritual sense. Today we may name his spiritual approach multitime approach. Towards heaven means towards arrow of multitime. Moreover, Pseudo-Denys suggested that this world's life should be organized according to celestial hierarchy, and he firstly applied it to clergy and ecclesial organization on earth that should subdue all other world thus giving ideal organization of world's life. Today it may be said in this manner: knowing that all cognitive activity on most general ground is to build appropriate cone of creation, all cognitive activities, according Pseudo-Denys, could be organized in one common cone of creation. Thus, this man said more than contemporary scientist can grasp or imagine that some human being is able to think on such grand level. Moreover, Pseudo-Denys introduced epistemological notion of 'examination God by glorification of God'. How it is possible, modern science doesn't know much or almost nothing or simply denying such possibility, but one particular man, linguist Benjamin Whorf may know more [Whorf, wiki]. Pseudo-Denys did more than simply by this suggestion – he elaborated very complicate sublanguage of Greek that he used in his writings. The best way to find out what Pseudo-Denys did is to learn this complicate language and read in original. Translations of this language does not make any sense, or can give only some weak insight if we understand the idea itself.

## **How author came to the idea of this article?**

Reading in string theory about branes, author came over idea that that what string theorists call brane should appear as if two times or in two different disguises, namely, in that of temporal setting or in our space time with all additions in sense of hidden dimensions and so on, and in quite different disguise – as what we perceive as mass or inertia. The second metastasis of matter may be hidden in Higgs mechanism, thus being as if complementary state of matter itself. Matter is as if self-dual. But actually, this fact arises from two different references, the matter or multiverse being the same.

One reference system we perceive as traditional time, where the traditional time as something objective actually does not exist, but we live in the reference system, where, for example, state *in se* is procured with faculty of thinking. Thus, faculty of thinking should be primary with respect to what we perceive as time! Who of advocates of traditional time notion would accept this? Who of them understand words of Descartes *Cogito ergo sum* just in this interpretation? Moreover, this referencing, what we perceive as time, is conditioned by the same multiverse we live in, and, even more, by of what we are built and how procured to live in. Time is not stage for universe, more the less for multiverse, time is mere stage in, and mere stage for us in universe.

Second reference system is that of complementary world in the presence of mass in the universe. Both these referencings may be connected with registration of photon. See lower.

Both these reference systems are dual, the fact being of more importance for us than these systems by itself because of weak understanding of them.

Taking all together, we argue that time is form of referencing within matter and doesn't have any sense without matter. In the same time, this referencing has multistage nature, even more, this referencing is maybe as complicate as matter of the multiverse itself and thus, to distinguish between hierarchical multitime and organization of multiverse and the code of universe, makes little or no sense at all.

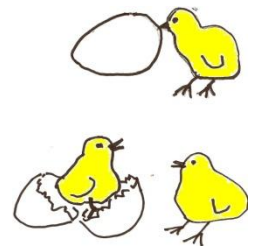
## What is registered photon and do there exist non-registered photons?

### What is dark matter?

In [Zeps 07] came to idea that our world is that of registered photon, i.e., unregistered photons don't exist. Photon is registered if it has reached its destination, say, eye of experimenter. Photon is not yet registered, if it is not yet reached destination, say, the eye of the same experimenter. We argue that second type photons does not exist. But how? you would say. A single second, say, before arriving in the eye, where it was if not in some state 'of flying toward my eye'? But, if we live in self-reference system of registered photons [or one photon], and except these references [read physical vacuum] doesn't exist anything else in our temporal universe, except maybe some our inner state *in se*, then the story about photon a second before its seeing by our eye is mere phantasy, created by our weak understanding of the nature of time. And if this state *in se* isn't any mystical else, but the same world entangled with that 'outside', then we may start to think otherwise on things like dark matter and dark energy. Namely, we might be too willing actually to register something unregistered or even unregistrable by the nature itself, if we were persistent in using outdated notion of time. If we may count unregistered photons and, God knows, maybe receive positive result, knowing in the same time that they do not exist, then we may have some effect of what may be called *holes in reference* due to misusing time notion inconsistently. Thus, if so, why dark matter and dark energy couldn't be such **holes in reference** in analogy with eventually found non-existing photons?

### What is what in the picture of two chickens?

The chicken in the first picture is the physicist before LHC experiments. He is trying Higgs bosonic field with his beak, i.e., LHC. Smashing it, he finds inside it himself, i.e., the world behind Higgs field is the same world, but rather in the new, hierarchical multitime setting. How to picture the fact that chicken's consciousness has been changed, author did not invent. It must be imagined or lived over by ourselves.



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