

[14.4.06 - 01:15]

Dear professor J.D. Barrow,

I would like to offer you my hypothesis for your consideration. I read both your books "The theory of everything" and „The origins of the universe" and I value the immense work you have been done. I sincerelly admire you. My hypothesis is most simmilar to your ideas and thought trends and I am convinced you will understand it at once. I believe you can help me to improve it and possibly resolve the hints of proofs or maybe even to suggest practical testing. My hypothesis is abot the matter: from where, how and why did it come into existence? What is it's essence. And if it is so complex after 15 billions of. years, what was its formation "at the beginning"? But is the matter really what we perceive or could it be something else, something different?... The science says all the matter consists of **6 quarks and 6 leptons**. The physicists are saying these simple particles are behaving as waves and at other times as particles of matter. According to my hypothesis these 12 particles are built from different atributal quantums, these particles consist of time  $t$  and length  $x$ . To describe the hypothesis it may be useful to put together certain constructions - however they need some corrections and finishing touches. "Before" the Big Bang the universe did not have to be in a singular state. It may have had a "history" of different states gradually comming to the current state  $t = 0$ . Let us assume the last state before Big Bang was or - so taht the space was three dimensional and the time was three dimensional as well. The universe before the moment  $t = 0$  (and also after it) consists of two-quantums. Both quantums: length and time are simmilar to two images on one coin. The matter in previous state of universe does not exist, or does exist in the same form. In the previous universe the time did not flow. For some unknown reason Big Bang happened. How big is this Big Bang in the state ? I assume what happened was a "splitting" of one previous state at two states in equilibrium. I call these ones as "residual time-space" and "state-matter". How big was the universe before  $t = 0$  in state ? How big were the two split parts in  $t = 0$  ?? If we consider the idea the original universe was of a "unit size" - then after the Big Bang the universe is not spreading (widening) but this "unit" is shrinking. For 15 billions of. years the unit is shrinking: the original meter has a size of  $10^{27}$  "m" . The quasar was originally a size of "common" star and after its light arrives (on a foton the time is not "moving") into our "shrinken meter" it seems larger. Returning to the subject: if in time  $t = 0$  the state of the universe was in "some unit size", maybe it splits at two states - or maybe just a part of it split at two. If the state is indefinitely big - then this split-off part from the state may be a "unit", size - unit, thus singularity. The Big Bang was not only splitting at two specific states - residual time-space and matter, it may have been also a moment the law unifying the four powers- interactions came into existence. I assume the matter-state consist of length  $x$  and time  $t$ . The particles are "made" of quantum by overplating (multiple curving) and distorting a discreet portion of time-space. The heavier the particle is the more thorough is the overplating of the time-space structure. This is ruled by universal law which unifies the four known powers-interactions. This law I call the "parabolic equation"  $x^2 = 2t$  which is simmilar to the marvelous equation of Gregory Chaitin  $y^2 + x = q$  also reminding of which is the movement equation of Einstein -at the wiew of quantums  $m, x, t$ , (matter, time, length).

The equation  $x^2 = 2t$  as a parabolic equation may be that rule as a denominator of all physical laws - all complex law may have come up from this simple "law of the universe". This rule is also the denominator of all formulas for elementary particles and exchanging particles (and also of the interactions). The particles came into existence trough configuration of quantums of length and time by deforming the waves, deforming a piece of Higgs field and multiple "toppling" of wave, deforming the time-space. Thus a shape came into existence called matter. Further twisting of the time-space resulted in creation of atoms and ... chemistry. This multiple toppling and overplating happens under a denominator  $x^2 = 2t$  - and from this rule came out four more complicated powers. For the gravitation - as "first deconnected power" - the matter does not need to be showed in all various shapes and it suffices and marking it as a "common" particle. Let us say this expression is possible matematically and for the visual image to be expressed in this way: Originally after splitting of the universe at two parts it will (symbolically) this toppling of the wave be imaginatged as going somewhat backwards (reversed flow of the time) and going further forwards. I have found out substitutional expressions for basic particles (and exchangeable particles), expressions consisting of two symbols, of two true elementary

quantums  $x$  and  $t$ , and I put these into all interactions I found them in the available literature. And "my" constructed interactions put into two-symbol systems agree with physical equations (except of some areas where also the science of physics encounters problems of diversion of the theory and practical observations). I find it remarkable that two symbol formulas are irreplaceable, original, and do not have variants. They allow to build elements (compounds I did not try it yet). Even if the whole construction of two-quantum universe would be wrong, the new description system of two-symbol description language (0,1) may be useful for building "new matter" and chemical "new forms". P.S. Somewhere in your book there is a sentence: A good theory should clarify at least one constant. I try this. The gravitational constant expressed by  $x$  and  $t$ : (rate shift  $10^{-2}$  as a shift on a light cone - by reason of choice of units - I explain later...) or after an adjustment (parabolic equation).. P.P.S. I have some difficulty getting my ideas to be translated. My translator is not a physicist, he is a philosopher and a chemist. Is my text sufficiently clear and understandable ??? Thanks for your attention. A remark for the (any) reader: Broader explanation of the hypothesis you can find on the Czech pages of this web, if you are interested and get it translated in English, please send me a copy. Thank you very much. E-mail: [j\\_navratil@volny.cz](mailto:j_navratil@volny.cz).

\*\*\*\*\*

[7.6.07 - 08:14]

Mirek.. Now I will try to give sensible interpretation of my opinion which reflects your question: „*What is the reason of the existence of the universe and why was it created?*“

It is extremely tough question and I do not know the answer. What I know are just my speculations – guesswork. They are just my train of thoughts. Those thoughts are derived just from what I have read. From all such kind of quality there come my constructions of the „reality“ of the universe. Even the word „reason“ reflects somehow the fact, the reality that time is „flowing“. Thus without time flowing even the word „reason“ would be with no any sense. (thereby by this I derived that the word „reason“ has got its „reason“ in the time flow) What reason we are talking about? Again I am in a plunge. The expression „to be created“ is also difficult to grasp. Everything what we observe all around us is the universe in some certain quality or stage of its evolution but by principle it can be in even less level of complexity than it is. In what kind of quality the universe could be? Physicists say that after Big Bang the universe was „just“ much more smaller, „just“ younger and „just“ with the matter in form of photons-radiation. But it was „our“ universe in the Big-Bang moment but it was not „the same“ universe. Present state of the universe only developed itself from the after Big-bang state. There in that singularity „reportedly“ universe has been originated, thus time, space and matter were originated. Thus – the term „existence“ is one thing and „a state“ of that existence second thing. Still and all the time just states of existence are changing. Future states of existence are coming, present ones become non-existent. Prigogine says that „*universe is not, universe is happening*“. Universe keeps itself but its new states of existence are coming and last states die into no being. The question „why“ universe exists actually means: Why yesterday already doesn't exist and why still future state also doesn't exist yet. So that the question: *why universe exists* points to the time flow, to the never ending changes of the matter and to the never ending changes of the space. One question leads to another one: Why are changes from existence to no-being happening and vice versa ? Existence and no-being are not important but what is important is never ending flow of the changes. We can imagine for ourselves flow of existence as the flow of zeroes and unities where zeroes represent no-being and unities states are those of existence. We (as people) can perceive only those bounds with quality of unities but gaps between them – then states of no-being are imperceptible. Thus more important question is why no-being has to be changing to existence and vice versa, thus why changes are happening whatsoever. Even it is evident that these changes of states have got one important property. They cannot be repeated never. Each of them represents original and no copy does exist. On succession of the states of existence there are so called „stop-states“ and no such one can be compared to another one. The present is the state of „existence“ and state of no-being is the state before it and afterwards. (These states „before“ and „afterwards“ are states of no-being .... Prigogine) Should I carry on with philosophy modifying just my speech we would get ourselves to the stadium where even the word „existence“ will miss the sense in the same way like state which was now

presented fully in existence and already doesn't exist. We would get ourselves just to alternation of never ending existence and no-being and led ourselves to the situation in which we are scanning only unities in that series and omit zeroes. Thus – we all live in succession only of those states which bear „colour“ of existence. ( there is similarity of this which is spoken in the universe; matter and antimatter, universe and antiuniverse etc.etc.) So that more senseful is the question „why there changes of the sates happening whatsoever“??? If principle of changes of the states would not be possible we could not ask a question why there is alternation of existence and no-being, thus why universe exists. So that : universe exists because there exists principle of states alternation, principle of changes. Wherever there is not principle of changes there existence is equal to no-being. This principle of the „states alternation“ is then modified to the“ principle of alternation symmetry with asymmetry“ and in this way „evolution of various states“ can be guarantied. First principle that was mentioned here includes just simple alternation of two states i.e. unities and zeroes, then existence with no-being. Second principle which is already modified and enhanced says that beside alternation of the states will arise additional succession of the new kind of the new states, so called stop states including new principle of alternation symmetries with asymmetries.(states of conservation with states of disturbances of conservation). Physics admits both principle of conservation (momentum, matter, energy) and disturbance. Maybe there exists another until present unknown modification of that principle, I don't know. The question why universe exists can be reduced to the question „*why does universe exist right in this moment, in present time and its „stop state“ by which it's fully described?*“. State is an „artifact“ and change is „the recipe for process“ or also the“law“ in other words. We can say that the universe represents essence of „artifact and law“. Universe = artifact multiplied law. Actually I did not answer your question „why universe was created“. I have answered this question only indirectly. Universe was not created ,universe just „alternates states“ . States in succession of one after another one and also states on the floors of succession. One of the state of existence is non-existence. One state in succession of unities and zeroes is zero. Succession of lower order gives birth to successions of the upper orders. At the beginning there was just one principle and this principle is multiplied into series of principles. The same concerns artifacts.

07.06.2007

Translated 2015