

Evolution of representations vacuum
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Under the doctrine of thinkers of the ancient East [1], all existing forms from two beginnings. First by nothing it is exhibited, it is not comprehended created of it and reminds a physical vacuum. Second originate from first, is the creator of things and ministers the prototype of fields and particles.

The natural source nothing will show up.	The wet nurse of all creatures is rich
The original cause has no prompting to activity, therefore the guise of it is latent.	shapes. Routine has prompting to activity, therefore the guise of it is visible.

They together output, but signs differ. They together term "alphas": the creative beginning of a nature, moreover a headstream, mediate universal creator's (Lao-tzi).

About first it is spoken so: " it will not be identified, is not accessible and inaccessible because of deep, joint ness, an error of sense organs, instability of attention, a subtlety, a undercover, depression, state of distribution, instead of because of no development. It will be identified on manifestations" (Ishwarakrishna).

It origin cause daos's name Dao, that means the higher absolute, the organic law, the omnipresent beginning, the universal law of a motion and change of the world, a source of all appearances from which all radiates and to which all is returned.

"Will be tangent dao it invisibly, it may not be heard, it may not be figured, it extremely thin, it has no the shape, may not be termed. I, try to name it, I term it "great as the beginning." (Luyshi chunztu)

Single, eternal, immutable, but capable to appear in manifold shapes and to generate all existing. The unbounded substance, which is not comprehended by sense organs, regardless time and space.

" Objective something ordering chaotic exist, begun productive force of a nature. O celestial breadth! O silence! Independent remains and does not vary. Makes circular motion and does not peter out. Mother of the Universe therefore may be. Not knowing its personal name, I shall term as a respected name "Orbit universe"(dao), I shall term comprehensive. Multiple - and then is excluded. Exclude - and then is declinator. Declinator - and then is returning." (Dao de tzin)

"Dao - that does multitude of things, creates multitude of particulars. The boundaries doing a thing - feature. Therefore speak, that dao expresses in guises. Things have the features and may not substitute each other, therefore the originality becomes defining for things.

Time each of a non-enumerable set of things is especial, dao is completely exhausted. Doing original each of multitude of things, it should be recasted, has no a constant fashion of activity, therefore accompanies both losses, and to bloom of all businesses." (Han Fai-tzu)

"Gate a nature - nonexistence. All multitude of things leave from nonexistence. Life is not capable to become life with the help of life; it should leave from

nonexistence. Nonexistence owns natural nonexistence. You see rest, hollow, indifference, inertness - a bottom of multitude of things." (Chjuan-tzi)

The ideal daosists, perfectly wise, follows dao. "A motion of a nature is life the wise person. In rest of property his same, as at a cold; in a motion - waves as at heat. He will respond only having apprehended; only stimulated it will be stirred. Following natural laws, empty and missing, serene and indifferent, simple and pure, he is actuated by a nature."

To state the true and to negate chance, to state the order and to negate distemper - signifies to not understand the law of the sky and land, character multitude of things.

"Material the substance of a conservation law of life up to what is thin, as is small! O the smallest! O the most thin! Indications have in itself. O indiscernible! O invisible! Has in itself prototypes things. O secluded! O hidden! Has in itself a seed, and this seed is extremely initially proper. Has in itself valid information. From an antiquity till now its shapes were not reduced and consequently leave outside variously and is numerous." [1]

"Dao originally had no any demarcations; it does not have the end and beginning. Light is born from dark, cosmic - from shapeless, corporal - from a seed. Dao it is deep and bottomless, hugely and stately. But the multitude of things itself generates the changes and does not peter out is the present dao, inseparable from things." [2]

"Dao creates completeness and hollow, but it is not neither the complete, nor empty. It creates decrepitude and the death, but itself is not decrepitude and death. It creates the beginning and the end, but itself is not neither the beginning, nor the end. It creates an aggregation and a dispelling, but itself is not neither an aggregation, nor a dispelling... "(Chjuan-tzi)

"Dao is both in the sky, and on land. It so is great, that has no an exterior limit and so it is not enough that has no a limit inside itself. Therefore it is spoken, that dao is nearby but to find out it with difficulty."

"Celestial dao it is empty and shapeless. As it is empty, inexhaustibly; as it denuded shapes, without hindrance". (Guan tzi)

Let us consider now ideas Aristotel and his predecessors about hollow and an ether. On Gesiod, hollow is a place or an extent in which there is no sensible body, there is no corporal substance. But Aristotel counts illogical to suppose for hollow space and does not recognize existence of the hollow separated from things [3]. The concept of an ether is polysemantic. On the one hand, it is the first (easiest) element (stihos, a simple body) from the five: an ether, fire, air, water, land. The earth is located in water, water - in air, air - in ether, an ether - in the sky, and the sky already not in anything another. Here the Sky is Space. On the other hand, this first from bodies eternally also does not test growth and a loss, but qualitatively not changed and not subject actions are not growing old. It is distinct from four elements, occupies a upper place, "always run" during eternal time. Such ether is to a physical vacuum, a body of the Universe:

"About taken as a whole Space consists of all substance peculiar to it, wherefore we have spotted a substance as a natural and sensual body, and it may not be destroyed and not arise". [3, page 292], " all arises and flows, and nothing is firm, and only

unique thing is maintained - from what all this arises by natural (on Geraclit),... all world there where the sky is revolve, is completed by it body[3, page 445]."

On Descartes, the ether is ideally an elastic medium engaging all space. On Frennel, the ether is immobile and looks like an elastic transparent solid body. On Maxwell, "... there should be a medium or substance in which there is an energy after it has abandoned one body, but yet has not reached another, wherefore energy, as scored Toricelly, "...is quintessence of such thin nature, that it may not contain in what or a vessel, except for as in the most secret substance of the material things"...and we shall accept this medium as a hypothesis." [4, 380].

On the Einstein, "space it is impossible without ether. The modern physical encyclopedia defines vacuum, or the least on energies, a state of space as medium of fluctuating fields with major amplitude.

Further, we shall explain the model offered by the author of the given article [5, 6].

The perfect vacuum is spotted as medium in which there will be actual particles. To fields there correspond perturbations of vacuum such as polarization; to particles - the oriented local inspissations of fields; to quasi-particles - charge-neutral oscillations of density. Numbered appearances have the quantum nature leaking from substance of their primary source - vacuum. Further we apply quantization of space - time by introduction as fundamental length (the size of a mesh of vacuum) Planck length. Knots of conventionally three-dimensional spatial lattice we shall make of particles, and product of their charges, masses and lengths of waves will be equal $2e_0hc$, $hc/2G$, Gh/c^3 , and the relevant totals are equal to zero (a requirement of zero quantum numbers). Therefore, parameters of particles will be the following [7]:

To fields there correspond perturbations of vacuum such as polarization; to particles - the oriented local inspissations of fields; to quasi-particles - chargeneutral oscillations of density. Numbered guises have the quantum nature leaking from substance of their primary source - empty space. Further we apply quantization of space - time by introduction as fundamental length (the size of a mesh of empty space) Planck length. Knots of conventionally three-dimensional spatial lattice we shall make of particles, and product of their charges, masses and lengths of waves will be equal $2e_0hc$, $hc/2G$, Gh/c^3 , and the relevant totals are equal to zero (a requirement of zero quantum numbers). Therefore parameters of particles will be the following [7]:

$$\begin{aligned} \text{Charge } & j(2e_0 hc)^{0,5} \\ \text{Mass } & j (hc/2 pG)^{0,5} \\ \text{Wave length } & j(Gh/c^3)^{0,5}. \end{aligned}$$

It is possible to introduce a physical vacuum as a close-packed arrangement of such knots of alternating polarity, oscillation phases of the next knots are opposite, the standing wave of zero amplitude, that explains intangibility of vacuum therefore is formed. In pure vacuum the attractive resistance will absent, as parameters of knots are limiting also an exchange of energy with them is impossible. The uniform standing wave stipulates quasicontinuous spaces for particles which sizes in 10^{20} times exceed a step of a lattice. Velocity of transmission of perturbations is restricted to quantity c as transmission of perturbation from a knot to a knot coincides with the act of interior oscillation, that is spotted by discreteness of space - time.

The vacuum does not diffuse radiation that is why looks dark. In practice, it is absolutely transparent, does not interfere with a course of beams, does not change their direction, does not immerse their energy, does not generate chance reflections, does not immix, does not split. It is its luminosity.

The vacuum passes through itself everything, not seize to itself of anything. It is its unselfishness.

The vacuum as anything of does not exhibit substance, nothing owns and is unpretentious. It is its modesty.

The vacuum of anything from itself does not throw up, nothing immerses, and, similarly to a mirror, all returns. It is its cleanliness.

The vacuum exists and there, where nobody may survive. It is its physicalion.

The vacuum is harmless, no resentful, sociable, quiet, silent, unmartial and mild. Sending beams of the sun, streams of a rain, does not part people on right and guilty. It is its humanity.

The vacuum transmits the information with the greatest possible velocity. It is its hardness.

The vacuum does not answer on abuse and blows, resistances to nobody renders, in opponents is not. It is its softness.

The vacuum as the child does not distinguish sexes. It is its chastity.

The vacuum does not have top and a bottom, front and the back, sides too is not present. Any details does not advance, to the parts of advantages does not render also their rivalry does not suppose. It is its symmetry.

The vacuum does not hasten anywhere, to troubles is not subject, to doubts is not abandon; it is quiet and serene. It is its steadiness.

The vacuum is not afraid heat and colds, dryness and damp, disgrace and praise. It is its steadfastness.

The vacuum does not hinder with beneficences and does not encourage deeds of evil, does not encourage kindness, but also does not discontinue rendering for evil. It is its validity.

Where bodies abided in vacuum, they are on an equal footing. It is homogeneity. Any direction in it has no advantages. It is an isotropy. There is no anywhere place where there would be no empty space. It is a continuity. There is no such guise, which would specify variability of empty space. It is stability. There is no such action, which would affect its properties. This is majesty. There is nothing that has not left it. It is inexhaustibility. Being an initial substance, the vacuum defines objective nature laws. It is its impartiality. Its dullness is a component of five colors, insipidity - a bottom of five tastes, quietness - a standard of sounds, impalpability - a standard of hardness, fragrance less - a standard of smells. Its precision is a bottom of all views of measuring.

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