



California Institute
of Integral Studies

International Journal of
Transpersonal Studies

Volume 16 | Issue 2


Article 8

7-1-1997

The Self-Conscious Universe

V. V. Nalimov
Moscow State University

Follow this and additional works at: <http://digitalcommons.ciis.edu/ijts-transpersonalstudies>

 Part of the [Philosophy Commons](#), [Psychology Commons](#), and the [Religion Commons](#)

Recommended Citation

Nalimov, V. V. (1997). Nalimov, V. V. (1997). The self-conscious universe. *International Journal of Transpersonal Studies*, 16(2), 38–41.. *International Journal of Transpersonal Studies*, 16 (2). Retrieved from <http://digitalcommons.ciis.edu/ijts-transpersonalstudies/vol16/iss2/8>



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License](https://creativecommons.org/licenses/by-nc-nd/4.0/).

This Article is brought to you for free and open access by the Journals and Newsletters at Digital Commons @ CIIS. It has been accepted for inclusion in *International Journal of Transpersonal Studies* by an authorized administrator of Digital Commons @ CIIS. For more information, please contact digitalcommons@ciis.edu.

THE SELF-CONSCIOUS UNIVERSE

V. V. NALIMOV
MOSCOW STATE UNIVERSITY
MOSCOW, RUSSIA

Translated from the Russian by A. Yarkho

It is time to speak of the ubiquity of consciousness. In other words, it is time to prepare for constructing a super-unified field theory that describes both physical and semantic manifestations of the World. The first steps have been made: on the one hand, there are the theoretical developments of David Bohm; on the other hand, the experiments in the field of anomalous phenomena carried out by Brenda Dunne and Robert Jahn at the level of rigorousness required by modern science.

If we wish to progress further on this road we have to: (1) overcome some dominant limitations rooted in the paradigm of our culture; and (2) outline the contours of a self-conscious Universe. We are not yet prepared to construct a model of such a Universe, but we seem to be getting close to doing so.

I. OVERCOMING HAMPERING PREMISES

1. We are still dominated by a rigid Cartesian demarcation line between mind and matter. It was based on the proposition that matter is spatial but mind is not. Now, we can ignore this argument. We know that the spatial perception of physical reality is given not so much by the surrounding World as by the primordially built-in faculty to see the World as spatially arranged. We can also learn to perceive (spatially) the World of meanings if we succeed in constructing an image of the semantic field in a visual way. We can geometrize our ideas of consciousness and produce a language close to that of modern physics which describes mental events.

2. In order to construct an image of the semantic field we have to acknowledge that meanings are primordial by nature. Otherwise, we have to agree that elementary meanings (not yet texts) are primordially given. Here we come very close to the views of Plato which, incidentally, were not formulated by him clearly enough. It is no longer possible to treat such an approach as non-scientific: we do acknowledge the primordially given fundamental constants in physics, and their nature is mental rather than physical.

Let us assume that all meanings are primordially ordered on a Cantor linear continuum. In other words, they are packed on the numerical axis μ the way real numbers are packed there. This is only a *semantic vacuum*: the system of preferences does not yet exist. Wishing to construct a model of a text, we introduce a probabilistic measure of preference $p(\mu)$. The emerging selectivity in estimating different segments of scale μ generates a text.

Interpretation of the text $p(\mu)$ in a situation y is achieved by *spontaneous* emergence of the filter $p(y/\mu)$ interacting multiplicatively with the initial function $p(\mu)$. Bayesian theorem serves here as a syllogism. We call it a *Bayesian syllogism*. In some cases it is naturally possible (and necessary) to determine the text by a multi-dimensional distribution function $p(\mu_1, \mu_2, \dots, \mu_n)$. Thus, for instance, human Ego within our system of notions is given by a model of a multi-dimensional text.

But even more profound geometrization is possible. We may resort to the gauge theory well-known in modern physics, using the notion of metrically heterogeneous spaces. In this case, instead of constructing a model of change of the text proceeding from the change of a probabilistic measure, we shall speak of *local* changes of the metric in a semantically satiated space. Then the text will be regarded as an excited (in some way) semantic space, or, as a *semantic exciton*.

Thus we can infer from what has been said above that mental activity can be described spatially.

3. One of the serious limitations that has emerged in our time is in connection with the so-called limitative theorems. From Gödel's theorem it follows that any sufficiently rich formal system is incomplete: it contains true and false statements which are impossible to be both proven and refuted within this system; finite expansion of axioms is unable to make the system complete. Some authors believe that in the attempt to construct a unified model of the Universe we shall necessarily come across Gödel's difficulty. As a matter of fact, that is not so. We still perceive in an irrational way any sufficiently broadly conceived formal system, the more so, if it has a philosophical flavor, at least for the reason that it makes use of fuzzy meanings on the semantic continuum.

Therefore we do not see any serious obstacles to constructing an all-unified model of the Universe. At the same time we are aware of the fact that such a model must be metaphorical, even, perhaps, mythological (despite using the languages of mathematics and theoretical physics) and, certainly, not the only one.

II. OUTLINES OF A SELF-CONSCIOUS UNIVERSE

We are aware of not having a completely developed language to fulfill the task. We do not have sufficient experience either: what we need is a new type of model uniting both the experience of philosophical constructions of our Culture and that of constructing theoretical physics, cosmogony accompanied by images borrowed from structures of contemporary mathematics. However, something can be said even now.

1. As an illustration, consider the construction of a model describing the emergence of a personal rhythm as a result of the direct effect of a text on human consciousness. We know that even reading a deeply abstract text can produce in our organism biorhythms reflecting satisfaction and inner joy. That is why the famous black square by Malevich can be perceived as a work of art. In simulating this phenomenon we shall proceed from the concept of the human Ego being a semantic exciton, i.e., metrically heterogeneous state of a semantically satiated space.

As a metaphor, take the mathematical pendulum formula of $T = 2\pi\sqrt{l/g}$ assuming the constant g to be given by a space whose geometry is determined by the physical state of the world, and l , the length of the pendulum, will be determined by the varying scale of semantic space. If we are ready to assume the possibility of existence of a mental pendulum in semantic space, it will not be congruent to itself. Therefore, comprehension of a new serious idea changing metric heterogeneity of semantic space will lead to changing personal rhythms.

2. In one of our papers prepared for this symposium we tried to show that to the two forms of a priori contemplation of the World, *space* and *time* (indicated by Kant) one more should be added, namely, *number*, for the nature of number, given to us in all the variety of its manifestations, is mental. The same is certainly true of the *probabilistic* measure. We feel that the 12 Kantian categories of possible a priori synthetic judgments should be complemented by

stochasticity or, broader, by *spontaneity*. Note that at present we can speak not only of a priori spatial arrangement, but also of a much more significant phenomenon: the a priori given variety of different geometries which are attributes of space.

From what has been said, we seem to be able to draw the following conclusions: (1) As culture develops, our Consciousness expands by mastering the new fundamental a priori structures; (2) The filters, through which we perceive the World, are *mathematical* by nature, since they proceed from basic mathematical notions: space, time, number, probability and, therefore, chance. This is how our Mind is arranged, but not everybody understands this; (3) But what is mathematical filtering? Perhaps this is but a manifestation of an inborn paranoid constituent? Or the filtering is correlated to an independent reality which we are ready to call meta-consciousness regulating the World order? Is it possible to speak of the mathematical nature of the *Transpersonal*, non-personalized consciousness participating in what happens?

3. One more amendment. We know that the famous Schroedinger equation includes a psi-function. The square module of psi-function is interpreted as a probability density. The blur of a microparticle in space-time is estimated by a probabilistic measure. From the viewpoint of an experimenter, what we deal with is a measure of transition from the possible to the real. In order to perceive what has been said to be a reality of the Universe, one has to assume the existence of the *Universal transpersonal observer*. Otherwise, the concept of a fuzzy particle is a fiction present only in the mind of a contemporary physicist. In other words, a microparticle as represented by quantum mechanics simply does not exist (is not in any way manifested): it is manifested only when there is a physicist-experimenter. We can similarly speak of the human *mind*: consciousness, as it is, either does not exist in the universe or is in some incomprehensible way embodied in the Universal observer.

4. If the nature of number is mental, how can we imagine the emergence of fundamental physical constants? The Anthropic principle formed about fifteen years ago is a direct way to the recognition of the Universal observer-participant.

5. Now a few words about the biosphere: Biological evolutionism seems similar to human creativity. The emergence of a sharply standing out principle would have been ruinous for an organism. The emergence of a new species is reasonable to describe as an emergence of a new filter on the continuum of morpho-physiological attributes. It is no longer possible (after my 30-year experience of cybernetics) to think of natural selectivity without a previously given system of optimality tests. The question of how these tests are formed brings us again to the Universal observer-participant. The related subject is also the problem of the *aesthetic* in the biosphere and, even more so, in the morphology of our planet Earth. We must again come back to the ancient Greek notion of the Earth as a living organism, a Goddess named Gaia.

III. CONCLUSION

To sum up what we think now: the boundary between the animate and the inanimate becomes fuzzy. We call the animate everything which has spontaneity in it, that is, which is completely (i.e., principally) unpredictable. All the animate in its spontaneous manifestations is charged with some aspects of consciousness.

I repeat again: we are not yet ready to draw a detailed picture of the Universal, non-personalized consciousness. In the most general formulation, consciousness is a free self-consciousness. Universal consciousness is the self-consciousness of the Universe.

In our model, the human Mind consists of two layers. On the one hand, it proceeds from the primordially given semantic continuum (primarily static); on the other hand, from the dynamic

principle, Cosmic Reason. Man belongs to both worlds simultaneously. He contacts the dynamic of Cosmic Reason when he generates filters reinterpreting texts proceeding from the statically given continuum of elementary meanings. (Meanings packed on the numerical continuum may be regrouped, but that is a specific situation, a semantic revolution.) Another manifestation of Cosmic consciousness is biological evolutionism, determined by the generation of filters quantizing the continuum of morphophysiological attributes by attaching selectivity to manifestations of biological meanings.

Consciousness is fuzzy in what concerns the possibility of its manifestation. We can also speak of *quasi-consciousness* implemented directly (without resorting to the semantic continuum) in the physical reality of the World. In the microworld, this is implemented by the spontaneous behavior of particles; in the macroworld, by the spontaneous emergence of fundamental physical constants and, perhaps, in some other way.

NOTES

Presented at the symposium, "Consciousness in Physical Reality" (Charlottesville, Virginia, May, 1991). Published in 1996 in V. V. Kazyutinsky (Ed.), *Astronomiya i sovremennaya kartina mira (Astronomy and the modern World pattern)* (pp. 50-55). Moscow: Philosophy Institute.

This report is a compendium of the following works:

- (1) Nalimov, V. V. (1989). *Spontaneity of consciousness: Probabilistic theory of meanings and semantic architectonics of personality*. Moscow: Prometei, 287 p. (In Russian)
- (2) Nalimov, V. V. (1989). Can philosophy be mathematized? Probabilistic theory of meanings and semantic architectonics of personality. *Philosophia Mathematica, An International Journal for the Philosophy of Modern Mathematics*, Series II, 4(2), 129-146.
- (3) Drogalina-Nalimov, Zh. (1990). Nalimov's conception of human nature. *ReVision, The Journal of Consciousness and Change*, 12(3), 19-29.
- (4) Nalimov, V. V., & Perevozsky, T. A. (1991) Metaphysics of consciousness. *Research Notes and Memoranda of Applied Geometry for Prevenient Natural Philosophy, Post Raag Reports*, No. 239, 1-12.
- (5) Nalimov, V. V. (1991). The irrational within rational: Silhouettes of the Free University of the XXIst Century. *Chelovek (Journal of a Human Being)*, No. 4, 22-31. Also in Nalimov, V. V. (1993), *Quest for other meanings*. Moscow: Progress. (In Russian)
- (6) Nalimov, V. V. (1991). Is consciousness ubiquitous? *Chelovek (Journal of a Human Being)*, No. 6, 15-22. (In Russian)
- (7) Nalimov, V. V. (1992). Spontaneity of consciousness: An attempt of mathematical interpretation of certain ideas of Plato. In M. Carvallo (Ed.), *Nature, cognition, and System II* (pp. 313-324). Dordrecht: Kluwer Academic Publishers.