

traditions of knowledge in the world and it is a major process of achieving this level of knowledge.

So, instead of running for the materialistic approach, Science should find a way to interlink Vedic Science with it so that purest form of knowledge can be achieved. Science is a means and method to understand and utilise the

powers manifest in the physical world. The Veda is a record of experiences and powers and states of consciousness that make up all of existence, both the seen and unseen. While the starting point of science is objective reality, the Veda launches on its journey with the subjective view as starting point. While science depends on limited reason, the Veda has its intuition and other means of acquiring knowledge and power and joy.

Talk 8: (Hall 1)

Consciousness as a Problem of the Psychological Science



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Abstract

The article discusses the problem of the genesis of consciousness as the ontological characteristics of a person. On the basis of the interpreted concept of hylomorphism (Aristotle) and the theory of change (Prigozhin), it is suggested that the matter, the objective world are originally capable of self-organization and self-formation. It is reasoned that, unlike as suggested by the views of Plato and Aristotle, self-formation gives to the matter, the objective world the ability to generate both *ens originarum* (primordial being) (genetically original relations between the form and the matter) and *ens summum* (entities of higher order). Based on above, it is concluded that the consciousness of a person is a relation between an ideal and a real forms of the objective activity as his/her existence and represents the highest being of the objective world.

Key words: consciousness, self-formation, primordial being, genetically original relation, hylomorphism, substrate relation, reflexive relation.

Introduction

Absence of an acceptable theory of consciousness in philosophy and psychology is related, in our point of view, to an erroneous approach. The attempt to comprehend the consciousness as a *relation to* the objective world (from the epistemic point of view) engenders many issues. In particular, it seems impossible to establish the natural source of the origin of consciousness. Besides, that attempt brings about a lot of controversial concepts concerning the absence of the qualitative difference between an animal and a human. From that point of view, a historical specificity of a human is denied; an adaptive nature of existence, the same as an animal's, is ascribed to a human being. Finally, and probably, most importantly, it is impossible to overcome the verge of contraposition of the natural and artificial in a person, even if few would dispute that the human being is a product of nature, a natural being. An assertion of a social and biological nature of a human is more common, with a failure to establish the relation between the biological and the social aspects in a person.

From our point of view, solution of the issue could be found in the ontological point of view, through consideration of the consciousness as an internal (existential) relation *inside* the objective world itself. Such approach allows establishing a genetic relation of the consciousness of a human with the internal ontological relation of the objective world itself.

Human being as scientific problem

Some researchers believe that “... the humankind in general goes through a certain transitional period ...” [1, p.62]. It is hard to disagree

with that point of view. To us, it means that the moment came when the idea of an adaptation exhausted itself as an explanatory principle of a human existence. There is a strong need in a scientific explanation of the origin of a human being who is able to generate forms of his/her own existence just as the nature generates its forms of existence: “... form (*forma* in Latin) is a pattern of organizing and a pattern of existence of a subject, a process, a phenomenon ...” [2, p.383].

Contemporary theories of a human are unable to help in solving this problem since they are based on the assumption that a person acquires forms of his/her existence externally, as the products of somebody's work that are external to him/her. Unfortunately, all more or less known systems of education are based on that assumption. At best, the source from which an individual takes his/her forms, is presented as the society or the culture. At worst – heredity: “... the individual finds the abstract form ready-made; the effort to grasp and appropriate it is more the direct driving-forth ...” [3, p.77].

Since the culture, the society and the genetics act as external factors for a human being, that eventually leads to a paradox. Instead of becoming the sources of development of the abilities of a human being, they become his/her limits and borders which an individual is not able to overpass. However, as a human being is a product of the nature and bears its primary ability – the ability of self-formation, i.e. the ability to generate his/her new forms as his/her new possibilities, the *first problem* emerges:

“ ... since the world that surrounds us is not constructed by anyone, a need arises to provide such description of the world... which would explain the process of self-construction ... ” [1, p.47].

Solution of the first problem allows solving the **second problem**: despite acting as a subject in the history, generating specific historical forms of his/her social and cultural environment, in the society the human being acts as an object formed by the social and cultural environment. What seems interesting to us is the point of view about existence of a substantial contemporary psychological issue: “ ... the main sores of the world order...: expansion of the techniques of *channeled alteration of the human psyche and behavior* ... ” [4, p.15].

Based on that three problems, the motivation of writing this article lies in the need to solve a psychological and pedagogical problem of upbringing a person who would be able to generate the forms of his/her own existence and generate social and cultural environment through such self-generation. That is, the need of upbringing of a person who would be able to overcome any natural and sociocultural limits and borders.

In our opinion, the necessary solution may be found as a result of reconstructing the history of origin of consciousness: “ ... History of development of life ... maps out for us the way that brought us to establishment and arrangement of the consciousness [5, p.8] as a fundamental ontological human quality: “ ... The limit dividing a human being from animals is the consciousness, or, more precisely – reflexive consciousness ... ” [6, p.18].

That can be done only with the use of the historical method based on the conviction that the consciousness is a product of implementation of a certain internal factor of the developing objective world (matter) and is not brought to the nature as an alien givenness from some external sources. Everything in the history is the products generated by the internal origin (being) of the developing world itself: “ ... In Aristotle the cause of production and generation is the essence ... ” [3, p.156]. If the basic fundamental relation of the form and matter is to be understood as an internal origin (being) of an integral objective world, i.e. to maximally enhance the understanding by Aristotle himself of that relation: “ ... According to Aristotle, for our cognition the singular existence is a combination of the “form” and the “matter”. In the plane of existence, the “form” is the essence of an object. In the plane of cognition, the “form” is a notion of an object ... ” [7, p.12], it may be affirmed that at the dawn, at the very beginning, at emergence and in the process of formation of the objective world, a certain proto-consciousness existed as an ontological characteristics of the entire integral objective world.

But it is only in a human being that it was fully fulfilled and acquired its full-fledged universal generating existence.

Hylomorphism and solving the problem of a human being

In our postindustrial time, it is time to admit that the conventional (since classical times) division of scientific theories into idealistic and materialistic ones is fundamentally erroneous. That error may be eliminated by applying a concept of the Aristotle’s hylomorphism and then expanding it to the entire integral objective world: “ ... the meaning of Aristotle’s *hylomorphic* understanding of the soul and body as

elaborated in the treatise *On the Soul*, especially where the relation is the relation of the form to the matter in the constitution of an individual organism ... ” [8, C.17]. For the science that would mean that originally the internal world is both not material (not real) nor ideal. Originally, the world potentially and actually is an ideal-material integrity.

The point is that the peculiarity of the inanimate nature is that its internal ideal-material origin is hidden by the external material origin.

That means that the scientific reconstruction of the history of the objective world has to begin with the construction of its ideal-material essence. This is when the logic of reconstruction has to show how the hidden internal-ideal aspect gradually emerges outside and shapes, along with the reality “as it is”, an ideal reality.

With all that, the process of historical development of the ideal-material world has to be considered as a process of fulfillment of the internal principle of the internal hylomorphic essence in the result of which the form that originally existed only directly with the matter as with its body, its carrier, its substrate, and was inseparable, indivisible from it, gradually and consistently separated and divided from its substrate and transformed into a relatively autonomous, substrate-less, ideal reality.

Relation between the form and the matter as the essence of the objective world

If the Aristotle’s hylomorphism is to be interpreted as an assertion of the formal-material essence of the world as a whole and expand that provision to the entire integral objective world, to all specific historical forms of the objective world, including the human being, there emerges a possibility to bring out the consciousness as the essence of the human being from the essence of the integral objective world.

As argued by Alfredo Ferrarin in his *Hegel and Aristotle*: “ ... For Aristotle, all that is under investigation is the composite of soul and body ... ” [3, p.226]. Also, “ ... this inseparability of soul and body is the ... activity ... ” [3, p.343].

If we adopt this reasoning and take into consideration that the provision of the originality of the unity of the form and matter is primary for that assertion, we can also believe that the genetically original primary structure of the form/matter relation acts as the essence of the subjective world. That means that actually “ ... “nature contains the Idea in itself” ... ” (Hegel) ... “ [3, p.401]. With that, “ ... Aristotle does not deduce reality from ideality ... ” [3, p.299]. Originally, both reality and ideality of the objective world potentially coexist as the equal components of its essence.

That is when we can say that the ability of the objective world to self-develop represented as transformation of potentiality into actuality is given through this structure: “ ... For *all* substances, essences are the causes that make potentiality actual; the “proximate matter and the form are one and the same thing, the one potentially, the other actually” ... ” [3, p.175].

This self-development represents a historical process of generation by the objective world of newer forms, where “ ... every form becomes matter to the superior form ... ” [3, p.404].

For a human being that means that “... Man makes himself what he ought to be...” [3, p.305].

At the historical border of the transition from an organism to a human being a qualitative self-change of the essence of the objective world takes place that affirms such qualitative difference of a human being and the human world from an organism and the animal world that: “... Hegel discards the deceiving emergence of similarity between men and apes: the gap between man and animals is absolute, not a matter of degree...” [3, p.386].

Problem of the origin of the primordial being of the objective world

Normally in the cases like that, during a reconstruction of the development processes, an origin problem arises. In particular, the problem of the primary connection between the form and the matter. It is clear that pointing to a divine origin of such primary connection would not work for a scientific synthesis [7] [9]. To the same extent, the genetic mechanism of inheriting such primary connection is hardly suitable.

It is necessary to find a “materialistic” explanation of the origin of primary forms and primary substrates. Such explanation exists: “... How a structure can emerge from chaos? There are considerable advances in finding the answer to this question. We now know that the nonequilibrium – a flow of matter or energy – may act as a source of order...” [1, p.36].

The antiquity’s tradition was to consider the matter as a passive, inactive reality [7] [9]. The same point of view migrated to the conventional science: “... the paradox of the conventional science. It opened to the people the dead, passive nature, whose behavior may be with good reason compared to a behavior of an automatic machine...” [1, p.45].

In reality, however, the nature initially has a certain activeness, productive ability. I. Newton already shared that point of view: “... for Newton, the nature was not just an automatic machine but a carrier of a proactive productive origin...” [1, p.9]. Moreover, it is currently considered that “... the matter becomes “proactive”: it generates irreversible processes and the irreversible processes organize the matter...” [1, C.37].

To the question of the origin of the form, Aristotle gave the following answer: “... Where does the “form” come from in the matter? ... what the “form” comes from is neither an absence of the “form” nor the already existing, actual “form”, but is something in the middle between the absence (“voidness”) of the “form” and the actual “form”. This “in the middle” between the absence of existence and the actual existence is, according to Aristotle, the existence “in possibility”...” [7, p.14].

Unlike Aristotle (and, of course, Plato), who believed that “... the “form” of each object is eternal: it does not emerge and does not die...” [7, p.13]; “... It is Aristotle who insists that forms are non-generated..., and that matter in itself is unknowable...” [3, p.165], the contemporary synergetics claims the opposite. It claims that the matter itself bears in itself possibilities of emergence of forms and, under certain conditions, generates its own forms which, in turn, act as determinants of its own

development: “... It is the form of development which acts as the factor directly determining a specific process of development, the turning of undetermined variability of the developing object into direct pre-conditions of a new one and their fulfillment...” [10, p.33].

It follows herefrom that, generally speaking, there is no such thing in the nature as the form-less, structure-less matter: “... The presence of the space-time structure is a universal and fundamental property of the matter...” [11, p.17].

That way, the problem of the primary form is solved not by bringing it to the objective world, to the matter from the outside, but by generating by the matter itself of its own forms, all its essences. Such mechanism of self-formation works at all levels of development of the objective world: “... at any level, be it the theory of elementary particles, chemistry, biology or cosmology, the development of science takes place in a more or less paralleled manner. In any scope, the self-organization, complexity and time place play an unexpectedly new role...” [1, p.51].

This suggests that the nature, the objective world is actually a reason of itself: “... Under the name of self-causation (*causa sui*) I [*B.Spinoza*. – *V.A.*] I imply that whose essence involves existence...” [12, p.3].

One of the creators of the contemporary synergetics A.R.Prigozhin notes the self-organization ability of matter as a forms-generating process. He “... emphasizes a possibility of *spontaneous* emergence of order and organization from disorder and chaos in result of the *self-organization* process...” [1, p.18]. It is exactly in result of self-organization that the matter acquires diversity and thus new possibilities: “... it is the organization that endows the system with its inherent diversity...” [1, p.24].

At the core of the self-organization ability lie so-called dissipative structures. It is believed that therein emerge irreversible processes which “... are the sources of order...” [1, p.25].

“... We now know that new types of structures may emerge spontaneously far from the nonequilibrium. In strongly nonequilibrium conditions a transition from the disorder, the thermal chaos, to the order may take place. There may emerge new dynamic states of the matter reflecting the interaction of the given system with the environment. We named such new structures “*dissipative structures*”...” [1, p.54].

Also, “... irreversible processes generate high levels of organization...” [1, p.25].

Under nonequilibrium conditions, the function of entropy changes cardinally “... entropy is not just an uninterruptible sliding of the system to the state void of any organization whatsoever. Under certain conditions, the entropy becomes the progenitor of the order...” [1, p.25]; “... Under nonequilibrium conditions, the entropy may produce not the degradation but the order, the organization, and, eventually – life...” [1, p.26]; “... notion of the entropy as the source of organization means that the entropy loses the quality of a stiff alternative arising before systems in the process of evolution: as some systems devolve, the others evolve and achieve the higher level of organization...” [1, p.26].

That way, the synergetics [1] [13] gives us reasons to believe that under certain conditions the matter is able to generate the forms that determine its own existence.

The act of development (self-development) of the matter may now be presented as follows: “ ... According to the theory of change generated from the notion of the dissipative structure, when the system in a highly nonequilibrium state is affected by fluctuations that threaten its structure, a critical moment arises – the system achieves the point of bifurcation. ... in the point of bifurcation, it is essentially impossible to predict to which state the system will pass. The accidentality pushes what remained of the system to the new path of development and after a path (one of many possible paths) is chosen, the determinism comes into effect – and it goes on before the next point of bifurcation ... ” [1, p.28].

The inference of the authors seems notable. It is straightforwardly directed against biological or social reduction of a human being, which is very important from the point of view of the problems presented by us at the beginning of this article: “ ... The authors of the theory caution against taking genetic or socio-biological explanations of mysterious or obscure aspects of social behavior. A lot of what is normally attributed to the action of mysterious biological strings is in reality generated not by “selfish” determinist genes but by social interactions *in nonequilibrium conditions* ... ” [1, p.29].

The methodological conclusion made by the authors also seems very important to us: “ ... In our days, the main emphasis of research shifted from substance to relation, connection, time ... ” [1, p.49]. This emphasis is what beacons us in the process of solving the problem of the human being who generates his/her own forms.

Simultaneously, a prospect emerges for solving a pertinent problem of our time, that is the problem of correlation of the approaches of the natural science and humanitarian ones: “ ... the clash between what is conventionally called “two cultures”, - between natural sciences and the humanitarian knowledge ... ” [1, p.52].

History as the process of transformation of the substrate connection into a reflexive relation

The basic premise of the analysis of the consciousness origin history is that of the integral world as originally having internal and external forms already at the very beginning of its own historical development process. For that matter, the historical development itself could begin only when the primary being of the world had been fulfilled as the basis relation (a direct connection at first) of the form and matter.

That is exactly the consequence of the *interpreted* concept of the Aristotle’s hylomorphism [7] which asserts the fundamental structure of inter-correlated form and matter as the essence of all things in existence and the objective world. If we recall the never finished “Dialectics of Nature” by F.Engels [14], it may be taken in consideration that the objective world, the matter in its development, in its historical evolution, goes through certain stages of development itself. These are the so-called

historical forms of the (objective) world (mechanical, physical, chemical, biological, social form of the objective world etc.).

Also, “ ... the higher kind contains in itself the lower, and that the lower exists potentially in that which follows ... ” [3, p.333].

Each historical form of the objective world is characterized by its unity (total affinity of all its particular singularities) being provided by its internal form-generating being. It is that internal potential formedness that allows speaking about the general way of existence of specific definite components of the matter.

Each form of the objective world has its own internal essence (internal form). This internal form pre-conditions a characteristic external form that presents a particular type of interaction of characteristic objects.

At the stages of inanimate nature, the internal form of the objective world exists directly inside the external form, is directly merged with its external form, indivisible from its external form, does not have its own autonomous reality and is hidden from cognition by the external form. Here the internal form (principle of interaction of inanimate objects) cannot be in principle detached from its external form without disrupting the objective world itself.

At the stages of the animate nature, the internal form exists already not as form of the body’s substrate but as the form of the body’s activeness. The real form of activeness of an animate creature, its actual behavior processes and their actual results become the external form of the internal form. With that, the internal form of activeness is determined by the internal form of the animate body’s substrate (its structure). The form of activeness of the animate body exists in a form of the body as in its substrate and is determined by the form of the body’s substrate. Without its substrate, outside of the body, the activeness form cannot exist. By destroying the form of the body we destroy the form of the body’s activeness. The form of the animate body’s activeness is indivisible from the form of the animate body. The form of activeness directly coincides with the form of the body, representing one and the same thing. The form of the body’s substrate is the substrate of the form of the body’s activeness.

This direct substrate connection between the activeness form and the animate body form cannot be broken without destroying the body itself, i.e. without killing an animate creature.

With emergence of the human being in the history, this direct connection between the activeness form and the animate body form is disrupted. However, the disruption of direct substrate connection does not mean disconnection from the nature; it means liberation from the dependence on nature: “ ... This liberation is not *epy* liberation from nature but from our dependence on its immediacy and externality ... ” [3, p.356].

The *expedient activeness* of the organism transforms into the *goal-setting activity* of a human being. The substrate connection transforms into a substrate-less relation that represents a mediating work of the reflexive consciousness. In its turn, the mediating activity of the consciousness

produces and reproduces an ideal realm in which now exists the form of the body's activity "alienated" from the acting body.

Consciousness as reflexive relation between ideal and real forms of the human goal-setting activity

As noted above, " ... In our days, the main emphasis of research shifted from substance to relation, connection, time ... " [1, p.49]. That position is very close to our research approach. In this connection, it has to be noted straight away that we consider consciousness as relation. It is not, however, the relation to the reality (as epistemological relation), but the relation inside the reality itself (as ontological relation): " ... Consciousness is not the knowledge about existence and not the relation to it but the conscious (i.e., not instinctive, as in animals) existence ... " [6, p.181].

With that, " ... The human being exists as a person, as a subject of the activity aimed at the surrounding world and at himself/herself, since and as long as he/she actively produces and reproduces his/her real life in the forms created by himself/herself, by his/her own labor ... " [15, pp.219-227].

Such point of view inevitably follows from recognizing the genetically original basic relation between the form and the matter (relation between ideality and reality) as the essence of the objective world and the human being.

We thus believe that the issue of consciousness has to be tackled not as epistemological (issue of cognition) but as ontological (existential issue). As all things in the objective world, its essence also develops through transformation. Being a genetically original substrate connection between the form and the matter, at the transition from the organism to the human being it is transformed into a relation between the ideal and real forms of his/her existence. If the existence of the human being is to be understood as his/her activity, action: " ... True existence of the human being... is his/her action ... " [16, p.172] " ... what a person does is what he/she is ... " [17, p.154], the internal relation between the real and ideal forms of the essence of the substantive work of the human being becomes his/her essence that expresses the essence of the subjective world.

Thus, consciousness as a correlation between ideal and real forms inside the human existence reproduces genetically original relation between form and matter inside the existence of the objective world.

There a certain sense in considering the consciousness as a relation. This sense comprises the following.

Firstly, in that case the consciousness becomes a substantial criterion of differing a human being from the rest of the animate and inanimate world.

Secondly, consciousness acquires existential status correlated with the essence of the integral objective world.

Thirdly, consciousness as reflexive activity acts as a mechanism of generation of ideal forms from real forms and as a mechanism of determining real forms by ideal forms.

Fourthly, the internal mechanics of the origin of ideal reality is exposed.

However, in order for the internal relation of the objective world to acquire a status of human consciousness, the history had to disrupt the genetically original substrate connection between form and matter and transform it into a reflexive relation between ideal and real forms of the goal-setting activity.

It is at that historical point of bifurcation that the organismal expedient activeness went through a qualitative transformation and was transformed into a human goal-setting activity: " ... the activity is in no way a particular form of activeness (e.g., its "human form" etc.). It is impossible to come to the activity by trying to construct it from activeness, no matter how hard we try ... " [18, p.169].

The problem of consciousness is not just the problem of origin of consciousness in history, but also another problem, possibly just as important – the problem of origin of consciousness in ontogenetic aspect. The problem of ontogenesis of consciousness is the problem that seems to be the most important to us in the contemporary psychological and pedagogical science.

Just like in the history of consciousness, the most important problem in ontogenesis of consciousness is the problem of origin. In these terms, the works of A.R.Prigozhin throw light on a possible solution. It becomes clear at least that at the very beginning of the ontogenetic path it is necessary to set the need of emergence of *irreversible processes* of the development of a child and thus begin to form a so-called "*arrow of individual time*" (Fernand Braudel).

Unlike "human-less" concepts of Ch. Darwin and S. Freud, this article asserts and substantiates the special role of the human being in the history of nature. His qualitative difference from other animate creatures. Works of Ch. Darwin and S. Freud have virtually downgraded the status of human being to that of an organism. If Ch.Darwin writes directly about that: " ... The Simiadæ then branched off into two great stems, the New World and Old World monkeys; and from the latter, at a remote period, Man... proceeded.... " [19, p.273], S.Freud, manipulating the notion of unconscious, is not able to explain why the human nature has animal origin: " ... we have to distinguish two classes of instincts, one of which, the *sexual instincts* or Eros The second class of instincts was not so easy to point to On the basis of theoretical considerations, supported by biology, we put forward the hypothesis of a *death instinct*" ... " [20, p. 73].

CONCLUSION

In fact, the human being, unlike all animate creatures, is able (thanks to his consciousness) to voluntarily create conditions for emergence of new forms thus overcoming the adaptive nature of animals... As the other creatures only passively (involuntarily) participate in the process of emergence of new forms, fully submitted to the element of external conditions: " ... In nature (inorganic and organic) transformation of a possibility to a reality takes place in a spontaneous manner ... " [21, p.271].

Also, we have to note the most important fact which remains beyond the field of vision of those prone to reduce a human being: “... a human being as a subject (or, rather, a full-fledged human being) does not descend from the monkey; it is only his organic corporality which does. As a subject, the human being descends not only from and not so much from the monkey as from the entire Existence, from its universal definitions and their universal logic – dialectics ...” [22, p.499].

Nevertheless, all of that does not mean that the human being controls probabilistic irreversible processes. Having his consciousness, he is only able to control the conditions of emergence thereof.

Afterword

Novelty of my sentence consists in understanding consciousness *not as the external relation* towards *substantival world*, in as *the internal relation* in the most *substantival world*.

It follows from this that the mechanism of construction by the man of forms of the own existence is necessary.

But first of all theoretical justification of the possibility of such mechanism is necessary.

The analysis of history of science shows that the individual man always received forms of the own existence from the outside as certain cognitive projection of the hyperform unavailable to individual construction existing out of and irrespective of it.

And only Aristotle's hylomorphism gives the theoretical chance to the form to arise along with the man. But mechanism of the form origins at Aristotle are described foggy, not specifically and not clearly. Its essential refining is required.

Besides, Aristotle has two as if the points of view contradicting each other. On the one hand, the form is not capable to exist out of and irrespective of the body; on the other hand, the form is capable to exist out of and irrespective of the body.

For myself I draw conclusion that these both points of view absolutely correct, but they are characteristic of different stages of evolution.

Forms, inseparable from the body and *inbuilt in reality of substrate* of the body, are characteristic of organisms of plants and animals. And the "autonomous" forms which are not real and being *in the relation towards reality of substrate* of the body are characteristic of the man.

Such *relation of ideal and real forms* which arises along with emergence of the man *and is reflexive consciousness*.

The consciousness represents *Tätigkeit* of the reflexion [*Tätigkeit* (but not activity of the organism)], which purpose are ideal forms, and its result – real forms.

From this point of view, consciousness is the creative mechanism of creation of ideal forms which, in turn, act as determinants of real forms.

The man having consciousness is capable to create ideal forms as the new own opportunities, and then to determine them real forms of the own existence.

Such understanding of consciousness sets new tasks which require non-standard solutions.

But the understanding of consciousness as reflexive relation between ideal and real forms opens new opportunities for designing of technologies of creative education.

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