

Commentary 14 on
Karl Jaspers Forum, Target Article 22, 2 November 1999
MENTAL ACTIVITY AND CONSCIOUSNES...
By Timo Jarvilehto

and
Karl Jaspers Forum, Target Article 25, 7 December 1999
IN SEARCH OF THE MIND
By Jane Cull

BETTER LATE THAN NEVER, BETTER SOMETHING THAN NOTHING

by Paul Jones

10 January 2000

One might find it remarkable that the KJF enters year 2000 discussing two articles defending the same idea that no mind can be found in the brain, and consciousness is rather to be sought in the complexity of human relations. Though differing in their line of reasoning, Timo Jarvilehto (TJ) and Jane Cull (JC) come to the statement formulated by K. Marx nearly 160 year ago and defended by many scientists and philosophers in the former USSR.

Recognizing the “non-bodily” nature of the mind, one definitively overcomes the vulgar view that consciousness could emerge in a single organism as an implication of its internal complexity; on the contrary, one asserts that no individual, however complex it may be, can develop anything like consciousness on itself, without being assimilated in a higher-level formation mediating all the processes occurring between the organism and its environment. This indispensable framework is provided to every person by culture, the embodied history of human activity.

Still, deliberately quitting with primitive materialism, one encounters a number of serious problems:

1. One has to demonstrate that the mind can be considered as a property of the material world, and there is no need to ascribe it to a mystical something beyond human understanding.
2. One has to retain the specificity of the mind as different from other life, or inanimate motion.
3. One has to explain how a conscious being could be distinguished from lower-level phenomena, and how one must behave to be called a conscious person.

In my opinion, TJ and JC suggest an acceptable answer to question 1, being less coherent in the other two.

There is no mind in the brain. As JC bluntly formulates it, if you were to open up the brain you would not find a mind in there. Firing neurons, slow potentials, chemical reactions and tissue metabolism can tell little about the conscious action they implement. One has to always go from the known activity to its organic correlates, never in the inverse direction. Moreover, the same activity can be implemented in quite different ways in different individuals, and one might expect the organic support of consciousness to be dependent on the living conditions, so that a conscious inhabitant of some other planet, or an intelligent computer, would not necessarily demand the same physiology as in humans.

Whatever happens in the human body, and in the brain, is determined by its structure (JC). The body functions differently in different environments, and, in some circumstances, it may be treated as a mere physical body occupying that much space and weighing that much (for instance, in engineering); in some other respect, it may be considered as a purely biological formation (e.g. in surgery). That is, to function as a carrier of consciousness, an individual must be put in the special conditions, which

would prompt the brain and the body to behave in an appropriate way. Certainly, the system has to achieve a rather high level of organic complexity to be able to exhibit conscious behavior, and no conditioning can make conscious an animal that is too primitive for that. This also implies the necessity, once in a while, to consciously change the design of the human body, to allow further development of consciousness.

The latter is a manifestation of the general trend: the higher levels of a hierarchy influence lower-level behavior. Thus, a person as a physical system will move differently from an inanimate body of the same form made of the same material (e.g. the dead body), which may be used, say, in criminalistics; moreover, the observable biological behavior of a conscious person is often significantly different from mere biological acts, and it is this difference that allows, for instance, a court to judge on a person's responsibility.

Not only the operation of a body as an implementation of a conscious being demands appropriate conditions, but also the very formation of a conscious person entirely depends on the environment. The hierarchy of "prompts" provided by the culture (including both material culture and social intercourse) directs the development of a child in a quite definite way, and any organic peculiarities influence the development of the personality through the (direct or indirect) society's reaction on them.

Inversely, a conscious being can exist as such only in the society, and the personality is bound to degrade without any human contact, at least very distant and indirect.

Hence the natural conclusion that

"...the human essence is no abstraction inherent in each single individual. In its reality it is the ensemble of the social relations." (K.Marx),

or:

"The thinking and consciousness subject is not a piece of flesh, but a set of relations and processes in the social system." (TJ),

and:

"The mind is not in the head, the mind is in behavior." (Maturana, as quoted by JC).

That is, consciousness is a specific way of the operation of the human (so far) society. TJ follows Marx in that there are different levels of consciousness, from a general feature of social dynamics down to individual consciousness, which may (but does not necessarily need to) be associated with a particular human body in a definite social environment. The projection of the social dynamics on the functioning of the body (and the neural processes first of all) forms subjective experience; this experience is hierarchical as well, including the reflection of the activity of the society as a whole, the activity of various social groups, and eventually the society-mediated behavior of the individual. However, the person may be unaware of many social processes, and it is only a part of them that contribute into the conscious component of a subjective experience, the rest forming the domain of the unconscious.

The important corollary is that human thoughts and deeds are not entirely arbitrary, being an aspect of a higher-level process, social dynamics. One could put it differently: a person's behavior can be called conscious only to the extent of its consistency, all the rest of behavior representing the lower-level components. Such non-conscious elements should be distinguished from the unconscious components, since the latter still reflect certain levels of social consciousness, while the former have nothing to do with social activity at all. To study consciousness and personality, one has to analyze the social relations, while the organic and physical contributions in the observable behavior are to be described in the appropriate biological or physical (chemical, ...) terms respectively.

This puts the study of consciousness in the same row as the study of any other phenomenon: there is something to study, and a number of observers, whose observations differ since they belong to different frames of reference; however, the frame-dependent aspects are never relevant for collective action, which is the only substrate for consciousness and knowledge. In the same way, the possible observer's influence on the things observed is readily eliminated by the consideration that the

required applications necessarily involve the same interference, reproducing that very set of relations between the object and the subject as an invariant, which is the basis of (inter-)mental consistency.

There may be different models of the formation of consciousness in social and individual development (but never mere biological evolution or growth). All such models have to incorporate the individual's dependence on the society as the foundation of the mind. This invokes the question of the boundaries of the person and personality. As TJ indicates, the boundary of the body should not be (mis)taken for the boundary of the conscious being (and even a mere living creature), since the functioning of such a system implies that certain parts of the environment have to be drawn into its operation as significant constituents. However, in every particular respect, one might indicate the most relevant relations that outline the personality in the *cultural space*, which is different from the physical space-time, though related to it. This is like a quantum system may be difficult to locate in the macroscopic space of the observer, while occupying a quite definite position in the Hilbert space of the possible quantum states.

Since all the cultural phenomena have to be embodied in the products of human activity, a volume in the cultural space occupied by an individual may be measured by the scope of products (both material things and cultural habits) at the person's disposal, including indirect usage through cooperation with the other individuals. The ensemble of such products constitutes the *inorganic body* of the person (K. Marx, E. Ilyenkov). The existence of a localized formation in the cultural space is a necessary premise of individual consciousness.

Certainly, the person's boundary in the cultural space may be rather diffuse – which, however, does not invalidate the very idea of localization (e.g. as a distribution with a well pronounced maximum). Under certain social circumstances, the boundary may be rather steep, acting as a kind of surface, or a membrane. In any case, it does not coincide with the boundary of the human body, which is only one of the products available.

That the mind does not sit in the human body does not mean that there is no boundary at all, and no inside and outside – merely, these are not the inside and outside of the physical body of the person. Also, though infinite extensibility is a fundamental feature of consciousness, any person is well localized at any time, in the cultural space. In any case, the mutual penetration of the system and its environment, or the mutability of their distinction, cannot be a determinative characteristic of a conscious being.

As TJ indicates, an organism cannot exist as such without its environment, and it is the processes occurring between the live body and its environment that constitute life itself. However, one could object against the identification of the system with its structure, which leads to much confusion and inconsistency. In the applications, a system is always characterized by its functioning, linking the input to the output – this systemic relation does not imply a unique internal structure, or a definite feedback configuration – though, certainly, there may be limitations on the class of structures supporting that particular kind of behavior.

TJ is right in principle, when considering the parts of the external world providing the input and output, or effectuating a feedback, as the indispensable components of the system's functionality; however, one could readily observe that this is in no way specific for the living systems, and all the inanimate systems function that way too. The principle of operational closure formulated by JC can be generalized from the nervous system to any system at all, which operates according to its internal laws until it gets subject to an external influence triggering a different mode of operation. The functioning of a mechanical watch, as suggested by TJ, may seem to be quite different from the functioning of a living organism – but let us turn to the case of a solar clock to instantly discover the dependence on the external bodies as the necessary condition of functioning, which TJ claims to be characteristic of life. A thermometer cannot show temperature without being immersed in some medium; a string cannot sound without the air, a laser cannot fire without being pumped... Well, the computers we are all working with cannot work without power supply and some control sequences fed in from the keyboard or the mouse.

It is the thing's structure that determines what it can be. It is the thing's involvement in the outer

world that makes it what it appears to be, a system. Finally, the hierarchical view is to synthesize both structural and systemic approach to tell what the thing is going to be, how it can develop. All the three aspects are necessary to understand what the thing really is.

Since we do not want to claim the whole nature live and thinking, we have to explain how life is different from not-life, and what thinking adds to mere biology. TJ has suggested that the answer is to be sought in the thing's relation to its environment; he has also indicated that the level of life should be characterized by a less rigid boundary between the two. However, he did not follow this line far enough to show the distinction between life and reason.

I doubt that one could completely characterize the levels of inanimate motion, life and reason using a single criterion – rather, there is an infinite number of possible dimensions, and the distinction is to be specially traced in every particular respect – for instance, in the definition of the “system” and “environment”. However, there may be more favorable dimensions, where the hierarchy of the physical, the biological and the conscious is much clearer than in the other aspects.

No system can be defined without specifying its relation to the environment. However, we could distinguish three general types of such relations:

1. Interaction.

The interacting systems do not play different roles in their interaction; they enter it on equal footing, and in a random manner, so that a system is indifferent to the sequence of interactions it may participate in. Thus, it does not matter for an electron whether it will first interact with a proton and then another electron, or in the inverse order – the actual succession is determined by the external (kinematic) factors that do not depend on or influence the system's functionality.

2. Metabolism.

On this level, one finds a special kind of systems, which are functionally selective and sensitive to the order of interactions they enter. That is, there is a sequence of interactions that must be regularly reproduced to maintain the system's existence, and there are interactions that must be avoided. When such systems form a higher-level ensemble, where the conditions for their existence are reproduced in a well-balanced chain of interactions, the hierarchical system thus formed can support life.

3. Activity.

On this level, the environment required for the metabolism of a special kind of live systems (“individuals”) is produced by the other systems of the same kind. That is, a thing to be consumed by an individual is to be first processed by another individual and become a product. The degree of this processing will rapidly increase due to “cascading”, when the things processed are already products of somebody else's activity. Now, every individual sees in a thing not only what it can be used for, but also its artificial origin: it *has* been made, and hence *can* be made); in the primitive forms, such an attitude may be transferred to all the world, so that natural things get treated as made by somebody. Any activity involves three kinds of things: products (something that appears as a result of activity and gets used in another activity), subjects (the individuals involved in production), and objects (something that is used for production);

The above distinction allows both to stress the difference between the physical, biological and conscious levels, and to indicate how various intermediate forms could appear in the process of their formation. There are no strict borderlines, and any real thing can mix different levels in it. Thus, a person can combine the elements of conscious behavior with numerous relics of the animal, and an inanimate thing can simultaneously be a product of some activity and hence a carrier of certain cultural functions and subjectivity. That is why the ethical aspect is so important in the philosophy of consciousness.

While TJ does not explore the ethical consequences of his theory, JC tries to suggest (mainly on her Web site) a line of behavior that seems to be compatible with her (and Maturana's) views. Her motto could be expressed in a simplified way as: “Do what you are inclined to do, since this is what your

internal structure demands.” This reflects a logically wrong implication that, since the mind is not in the individuals, but rather in their relations with the others, it cannot control their behavior or impose any restrictions on it. However, environment plays a decisive role in any system’s operation, so that quite different things can behave in a similar way under certain conditions, and the same thing can be used differently. The system of social relations external to the individual’s biological body is more important for the person’s behavior than any physiological peculiarities. However, this does not contradict the fact that the system can exhibit only the modes of behavior that are compatible with its structure: simply, the “interior” for a conscious person is different from mere biological body, including the “inorganic body” as well.

With the above considerations, it can be observed that the characteristic feature of specifically human behavior is the transformation of any aspect of the world into a product, and passing it to other people for further processing. When somebody picks an apple from an apple-tree and eats it, he/she acts as an animal (provided there is no special consumption procedure implying communication). When an apple picked from the tree is brought somewhere to feed another person, it becomes a product of the “picking-up” activity, provided the other person can perceive it as a product. Similar distinctions can be drawn on any other level; for instance, working for money is an animal occupation, while working for the well-being of the humanity characterizes for a conscious being; for another example, ne could look at a philosopher trying to deduce anything from his own experiences, denying the existence of the other people and their products, and conclude that he lacks consciousness, exhibiting a self-centered kind of behavior more appropriate for the animals.

Once again, it should be stressed that the same person will manifest behavior of different levels in the same act; however, the development of the humanity results in the increasing dominance of the conscious component. Gradually, people will learn to recognize the non-human tendencies in themselves and subject them to conscious control.

<http://unism.pjwb.org/kjf/index.htm>

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<http://unism.narod.ru/kjf/index.htm>

unism@ya.ru