

Commentary 01 on  
Karl Jaspers Forum, Target Article 2, 17 July 1997

A METHODOLOGY FOR THE SCIENCE OF CONSCIOUSNESS?  
by Gary Schouborg

### **The Science of Consciousness and the Consciousness of Science**

*by Paul Jones*

12 August 1997

#### **Abstract**

Gary Schouborg's article is an excellent introduction to the methodology of consciousness studies, stressing the importance of materialism, dialectics and human activity for true understanding of consciousness-related phenomena. Despite of a few minor drawbacks, it may be considered one of the most consistent approaches available for today.

“The exploration of any new field is necessarily bound to the search for and development of the appropriate method. It might be formulated as a general thought that every radically new approach to a scientific problem necessarily implies the elaboration of the new techniques and new ways of investigation. The object and method of study are hence highly interrelated.”

“The work on the problem and the development of the method goes on either in parallel or at least in a common direction. The specification of the method becomes one of the most important tasks of research. Here, the method comes as both a precondition and a product, a tool and a result of the study.” [1, ch.2]<sup>†</sup>

I have quoted these two passages from L. Vygotsky to express my solidarity with Gary Schouborg's approach seeking for the general foundations of consciousness studies without restricting them to one of the narrow theoretical paradigms advocated in the contemporary science split into a handful of fighting with each other and equally abstract schools.

The first evident merits of the article reviewed are:

1. the awareness of the possibility of a centralized study of consciousness by a special science;
2. the realization of the necessity for this science to comply with the general norms of scientific inquiry;
3. the attention to the methodological basis of science in general and “science of consciousness (SOC)” in the first place.

Since consciousness is a many-level phenomenon, SOC can only coordinate the efforts of different sciences related to conscious phenomena, being in this sense interdisciplinary. It need not prescribe other sciences how they ought to deal with consciousness within their own inquiry; however, it must bring the diverse data on various aspects of consciousness coming from other sciences under a general conceptual scheme, which could serve as a methodological frame for those very sciences. The interaction of consciousness-related sciences hence would be hierarchically organized, with lower-level sciences providing the factual basis for the higher levels, while a higher-level science supplying the methodological principles to the levels below. SOC, being the topmost level of this hierarchical structure, could be thought of as representing all of the hierarchy, which may virtually include all the sciences known. In this sense, it may well play the role of philosophy. However, the same hierarchy could be unfolded with the focus on another object (say, the personality), and then SOC would occupy

---

<sup>†</sup> *Notation:* [ ] references and notes, { } paragraphs of the article reviewed.

its place on one of the lower levels of the resulting hierarchical structure, considering only one aspect of the object studied (e.g. the conscious level of the personality). Interdisciplinary nature of any science is hence not absolute, depending on the specific hierarchical structure considered.

In the view of the refoldability of the hierarchy of science described above, one might find a few weak points in Schouborg's presentation. Thus, the presence of non-science intrusions ("dialectical embrace" with philosophy, syncretic "e-claims" and ideological "n-claims") which is said to be a characteristic feature of SOC is actually a common situation with all the sciences, which are all culturally conditioned, combining all the variety of social phenomena, from sheer making money or entertainment to political intricacies, moral obligations or sublime creativity [2]. Also, such things as concentration, mindfulness and wisdom are indispensable in every science, rather than being the skills of any particular specialty. Reflectivity is common for all the sciences, as well as for the arts and philosophy – though the forms of reflection would differ, of course.

The specificity of SOC among the other sciences is not clear from the paper reviewed, much due to the intentional focus on the epistemology with no recourse to ontology of consciousness. However, one cannot distinguish one science from another knowing nothing about the objects they study; all what is left is the most general methodology of science, which is the same for all the scientific specialties. Virtually, any science is defined by its object, and, leaving the object off, one would characterize it as a science, but no more than that.

Another side of the lack of specificity is the absence of a clear understanding of the internal organization of SOC. The map of major methodologies suggested [22] is rather loose and eclectic, and no objective necessity is felt behind it: just an empirical enumeration, with no interrelationships being traced (though claimed to be outlined). In a methodological work, one might expect a more logical structure, where the hierarchy of components would follow from a fundamental idea governing the whole study.

Despite of all these drawbacks, the article is most interesting since it is based on an ideology not very common in the scientific community of today. The keywords are: materialism, dialectics and activity.

### ***Materialism***

The idea that every human experience must originate from some external object existing in a way relatively independent of any experiencing may seem quite appealing in many sciences, but very few people have ever been aware of its deeper consequences. Being materialistic is especially difficult in the sciences whose inquiry would have to penetrate into the realm of subjectivity. Is it possible to study the intimate 1st-person experiences in an objective way? Can there be any methods of study other than mere introspection? How do subjective experiences differ from the effect of environment on a physical body, or the sensations of the animals? These and other questions have to be consistently answered in any science pretending to study consciousness as an actually existing phenomenon.

Most existing treatments of the problem fail to describe consciousness in a consistently materialistic way. They either admit the existence of something beyond any scientific description, or simply deny the reality of subjectivity, reducing conscious behavior to purely physiological processes. Materialism gets often associated with reductionism, assuming that consciousness is a product of the brain and is located within the individual's body. But the specificity of subjectivity escapes clear expression in terms of individual experience, and the best one could do within this "biofunctional" paradigm is to suggest a many-level description, with the lower levels providing one of the possible implementations for the higher-level functions that are qualitatively different from any specific implementation. Then the hierarchy of the subject can be phenomenologically described in any detail – but one can never tell why one hierarchical structure is more preferable than another, and where the whole hierarchy comes from. As a result, the study would either momentarily fall into idealism, like in [3], or postpone the solution of the problem in a kind of "dual-aspect monism" or "cybernetic realism" [4].

Gary Schouborg seems to advocate a dedicatedly materialistic view on subjectivity and consciousness. He makes a smart notice that "there has been found no one who denies an

independently existing world who has actually based their action and thinking on the dictates of that denial.” {40} Everything that is in consciousness is in reality first, and the necessary link between the objectively existing world and the content of consciousness is called *experiencing*. This principle gets consistently applied to consciousness itself, so that it is meant to exist as an objective attribute of the subject and one has to experience it to become aware of it and subject to scientific analysis. This logically leads to considering reflection as one of the most important means of scientific inquiry, and all the other aspects of science (and SOC in particular) become hierarchical, including both immediate and reflective levels. Reflectivity is the key to the solution of the ontological problems of consciousness, since it is closely related to development [5]. However, Schouborg didn’t further follow this line of thought in the article reviewed, maybe intending to do it elsewhere.

### ***Dialectics***

The history of science knew many examples when originally materialistic ideas could not be unfolded into a well-founded methodology and finally got stuck in the static metaphysics, ignoring development and reflectivity. The traditional logic failed to reconcile itself with ever changing objects that might represent other objects too. The enhanced kind of materialism accounting for reflection requires a different logic, which is known as dialectics. It must be noted that both materialism without dialectics and dialectics without materialism meet the same difficulties in describing the developing world and its representation in the subject – and the only solution is to employ dialectical materialism and materialistic dialectics [6].

The paper reviewed suggests an interesting dialectical model {40} that could be correlated with the general laws of dialectics [6]. The usage of the word “consciousness” in this context indicates that Schouborg has come very close to the understanding of consciousness as a *collective phenomenon* never restricted to a single individual and existing only in the society. This ontological claim is the key to the whole Science of Consciousness, and its specific methodology.

The call for “pragmatically rational (not rationalistic) inquiry” {41} is strongly opposing the positivist tradition of the modern science, when the truth is thought to be achievable entirely within science, and verifiable (or falsified) by the logical means. The necessity of including practice in that process is rarely recognized and expressed with Schouborg’s clarity. Unfortunately, the brevity of the text didn’t permit the author to indicate that “unavoidably subjective judgment” that is claimed to be “the final judge of truth” {41} assumes a kind of objectivity, being related to the fundamental laws of social development.

### ***Activity***

The active nature of scientific inquiry extensively advocated by Schouborg is, from the viewpoint of dialectical materialism, the necessary complement to the passive cognition, implicit in most objectivist philosophies of science. The traditional assumption that the object gets somehow represented in the subject’s knowledge ignores the development of both the object and knowledge about it, and the active transformation of reality by the conscious subject. But the task of science is not merely the explanation of the world, but also the indication of the ways of its improvement. While the animal adapts itself to the environment, the subject adapts the environment to suit their needs – this is the drastic distinction of conscious behavior from the lower (organic or physical) levels. Any serious study of consciousness must account for this characteristic feature.

I will not quote the excellent observations of Schouborg on the active formation of knowledge in the scientific research – they deserve to be read in the original. It must be noted, however, that his idea of “immediate” experience {5} should be taken with care, since the reflective nature of experiencing may easily lead one to higher-level (mediated) experiences, so that any “immediateness” becomes relative, and any experience can be unfold into a hierarchy of “hidden” mediations, which are nothing else but lower-level activities [7-9]. This minor inaccuracy of Schouborg’s approach is related to the insufficient understanding that any 1st-person experience is just an interiorized 3rd-person experience, and any individual thought could be considered a dialog with oneself. The very subjectivity (and consciousness) is the result of this converting the social development into the

“internal life” of the self [1, 10].

Of course, this brief account does not describe all the findings of Gary Schouborg’s article. I would just mention the analysis of the relations between various kinds of “claims” and their relation to experiencing and conceptualization, which could be neatly fit in the general scheme of [11]. The relations between SOC and TOC, together with the general methodological map of {22}, could be correlated with the organization of science as described in [12]. Also, there are many more interesting parallels, of which enumeration would lead me to a paper much longer than the one reviewed. Commenting the writings of the others is easier than plain expressing one’s own attitudes – and I can appreciate Gary Schouborg’s attempt to formulate the methodology “that a critical mass of consciousness scientists will use it to move their inquiries forward rather than endlessly debate fundamentals.” {3} Though, in view of L.Vygotsky’s thoughts quoted in the first paragraph of this comment, fundamentals have to be debated as long as the problem exists, it is very important to accentuate the basic lines before the actual study begins, to avoid blind wandering and dead ends.

### References

1. L.Vygotsky “The history of the development of the higher psychic functions.” *Collected works*, vol.3, pp.5-328 (Moscow: Pedagogika, 1983)
2. I refer to my own experience of a physicist, as well to my observations about some other natural sciences and humanities.
3. L.M.Vecker *Psychic processes*, vol. 3 (Moscow: Leningrad Univ., 1981)
4. G.R.Mulhauser *Mind out of matter* (forthcoming in 1997, private communication)
5. P.B.Ivanov *Reflection: The ways of development* (Moscow: Moscow State Conservatory, 1984)
6. E.V.Ilyenkov *Dialectical logic* (Moscow: Politizdat, 1984)
7. A.N.Leontiev *Activity, Consciousness and Personality* (Englewood Cliffs, NJ: Prentice Hall, 1978)
8. P.B.Ivanov “A hierarchical theory of aesthetic perception: Musical scales.” *Leonardo*, vol. 27, no.5, pp.417-421 (1994)
9. P.B.Ivanov “A hierarchical theory of aesthetic perception: Scales in the visual arts.” *Leonardo Music Journal*, vol.5, pp. 49-55 (1995)
10. L.Vygotsky *Thought and language* (Cambridge, MA: MIT Press, 1986)
11. <http://unism.narod.ru/phu/lre.htm>
12. P.B.Ivanov *Dialectics of hierarchies* (Troisk, Russia: Inst. Spectrosc. Acad. Sci. USSR, 1983)

---

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

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

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

[unism@ya.ru](mailto:unism@ya.ru)