

About Subjectivity and Reality

Comments on the letter of Ping Sun and Ravi Prakash “Revisiting the Concepts of Subjectivity and Reality in Many-Worlds View of Consciousness and Super-Consciousness”

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The issues of subjectivity and reality are difficult for analyzing them, but they are extremely interesting and are actively debated in psychology and philosophy. The emergence of quantum mechanics significantly influenced the nature of the debate on these issues. In recent decades some authors apply the Everett's (“many-worlds”) interpretation of quantum mechanics in this context.

I attempted to approach these problems by rewording of the Everett's concept as coexistence of different “classical realities” which are separated from each other in consciousness (instead of the usual formulation that different “Everett's worlds” coexist, with a twin of each observer in each Everett's world). Starting from this formulation, it is natural to assume that the separation of alternative classical realities is just what we call consciousness. The direct consequence of this assumption is that turning off consciousness or its weakening stops separation and opens access to all or many alternative classical realities. New abilities arising in this state were called super-consciousness. These abilities include super-intuition (obtaining knowledge from “nowhere”) and control of “subjectively

perceived reality”. The resulting theory was called Extended Everett Concept (EEC).

Two remarks must be added to these short statements. First, the term ‘consciousness’ in this context means not the wide area of phenomena which is usually denoted by this word, but the most deep, or most primitive level of consciousness, that may be called perception. The term ‘consciousness’ (but not for example ‘perception’) has been chosen in EEC because it was always used in this sense in quantum mechanics, usually in the combination ‘consciousness of an observer’. Second, for emergence of super-consciousness, the consciousness should not be necessarily completely off, but may be disconnected only from a single subject. In this case super-consciousness may act with respect to this subject. For example, a scientist, after preliminary thorough study of some problem, may unexpectedly obtain spontaneous solution not in the state of intensive thinking about the problem, but vice versa, in the state of rest, when consciousness is disconnected from the problem.

In the paper (Mensky, 2011), which was discussed by Sun and Prakash, I tried to improve the correspondence between verbal formulation of EEC and mathematical formulas characteristic for quantum mechanics. Some subtle points and details of definitions accepted in EEC were not precisely formulated in (Mensky, 2011). Some of the remarks made by Sun and Prakash, resulted

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from this lack of detailed formulations in this specific paper. In the preceding works on EEC (cited in (Mensky, 2011)) and especially in the last book (Mensky, 2010) one could find quite definite answers to these remarks. Let me now comment the remarks in a more concrete way.

The concept of subjectivity

The remarks made in this part of the paper of Sun and Prakash have purely terminological origin. The authors have in mind a broader understanding of the term 'consciousness' than its meaning adopted by the EEC (as described above). "Several dimensions of consciousness" they talk about, has nothing to do with EEC. One of the most important of these dimensions, "the property of control of thoughts", was considered in one of my papers (Mensky, 1988) published in Russian many years ago in the collective volume devoted to centenary of Niels Bohr who considered this phenomenon from the viewpoint of his complementarity principle. However, this paper is not directly connected with EEC.

The concept of reality

The second block of remarks of Sun and Prakash concerns the concept of reality as this concept is presented in (Mensky, 2011). They estimate this concept as interesting, but note that it is difficult to apply it to macroscopic phenomena "where quantum theories claim to work". In this I guess incomplete or not precise understanding of the Everett's form of quantum mechanics led to some misunderstanding.

The special feature of Everett's interpretation of quantum mechanics, which is exploited in my EEC, is just its applicability to macroscopic level. According to the Everett's interpretation, the world, because of its quantum nature, may (and in fact must) exist in states which are superpositions of macroscopically distinct states. Somewhat simplifying, one may say that the state of the quantum world is adequately presented by a family of classical pictures of the world, although these pictures are macroscopically distinct and therefore inconsistent from the viewpoint of classical physics. These classical pictures of the world are treated as "equally real" or as "Everett's worlds". I preferred, in context of EEC, to call them 'classical projections' of the quantum state of the world or 'alternative classical realities' (or simply 'alternatives').

Let me tell in conclusion that I appreciate the general positive estimate given by Sun and Prakash to my paper and will certainly make use of their remarks in future to avoid misunderstanding. There is an objective difficulty for each author who works on theory of consciousness. The reason of this difficulty is great width and multidimensionality of the subject which, because of this, is to be investigated not only by psychologists, but also by philosophers, physiologists, and even by specialists in quantum theory. Harmonization of languages characteristic for these branches of science is not a simple task, and special efforts aiming for this goal are necessary.

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