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Book Review

Quantum Closures and Disclosures

Gordon G. Globus (2003). *Quantum Closures and Disclosures: Thinking-Together Postphenomenology and Quantum Brain Dynamics* (Volume 50 in the series *Advances in Consciousness Research*). Amsterdam: John Benjamins Publishing Company.

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by **Tere Vadén**

Quantum Closures and Disclosures creates an intersection for two exciting but, at first sight, irreconcilably remote discourses: quantum brain dynamics and post-phenomenology. Quantum brain dynamics (QBD) - the application of quantum field theory to the study of the brain - is a research area initiated, in part, by Giuseppe Vitiello's book *My Double Unveiled* (2001). In contrast to classical phenomenology (or at least that of Husserl; post-phenomenologists still don't agree on Heidegger), which reserved a special transcendental task for philosophy, non-essentialist post-phenomenology is willing to engage in a dialogue with other views, including naturalism.

Professor Globus's earlier book on the connection between natural sciences and postmodern theory, *The Postmodern Brain* (1995), argued for a view in which neuroscience and Heideggerian (and also Derridean) thought are combined. In *Quantum Closures and Disclosures* the gears have shifted somewhat. No longer is standard neuroscience matched with postmodern philosophy; on the contrary, standard neuroscience is criticized through QBD. But the spirit of the undertaking remains: to find places of resonance where QBD and post-phenomenology agree and open up a common space of investigation.

However, to say that the book is an attempt to connect two distant disciplines is not the whole story.

It also presents something that, for want of a better word, could be called a "vision": an ontological view of the human condition *tout court*, and as such a view that is not included in either QBD or postmodern theory. Like all views of this magnitude, it is hard to summarize. However, the kernel of the vision is the thought that a living, quantum dynamically functioning brain is a unique locus where both the existence of a world and our experience of it are created. Globus takes from QBD the idea that there are two quantum universes, both of them *unpresent*. One of these is the quantum universe familiar from quantum mechanics ("our" universe). The other universe, called the ~universe, "interacts" with our (non~)universe in vacuum states where quanta are exchanged. The idea is that the brain, unlike any other entity, is able to control the functioning of these vacuum states. In the interaction, in the "between" of the non~universe and the ~universe, a world is "lit up" - the analogy being to Heidegger's notion of *Lichtung*, the clearing where truth happens. The *Lichtung* is constrained by the input from the "reality" of the non~universe, as well as the attunement provided by the ~universe. (The interactions between the universes, more precisely the recognitions of input by the ~universe resulting in "presence", are "traced" by holes or defaults in the non~universe; Globus's QBD is non-Hermitian, and the brain is treated as a dissipative system.) The ontological point is that presencing is achieved in a participatory process that

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Globus calls “the ~conjugate match”.

As a result of the match, the presencing quotidian world is experienced. However, ontologically it is only an illusion that is dependent on the two non-presencing quantum worlds. In this sense, our experienced world is “a veil of maya”. This claim might not be that strange, but the second conclusion is one that few in the history of philosophy have been willing to embrace: because the ~conjugate match producing presence is a unique achievement of the quantum brain, experienced worlds are Leibnizian monads.

It is almost too easy to criticize an attempt at “thinking together” of misunderstanding or even misrepresenting one of the two discourses. Therefore it is important to emphasize that there is a beauty, as well as considerable theoretical leverage, involved in presenting an ontological vision, in general, and in Globus’s view, in particular. Having said that, one obvious “cheap shot” of criticism cannot be avoided. The privileged locus of Globus’s vision is the brain that creates and sustains the possibility of a world being “lit up”. A major structural problem with such privileged loci is the question of knowledge: how do we know about the quantum brain and its true functions? The problem is evident in the way that Globus gives prominence to the scientific knowledge about brains (fundamental to the theme of the book being the catchphrase “no brain, no Dasein”). The criticism of the circularity involved in such a process of privileging is well-known from Husserl and Heidegger: the natural attitude is naïve in that it presupposes certain things (such as the brain, the psyche, and the brain-psyche correlation) as the basis for identifying objects in nature; therefore the birth of the objects (or of objectivity) cannot be explained. Husserl makes the point most lethally in his *Philosophie als Strenge Wissenschaft* (1965): naïve natural science cannot, on pain of circularity or elimination, explain experience or subjectivity, since these have not once been observed in “nature”.

As Globus argues, the quotidian world is a victim of this circularity. The question is, then, to what extent the natural sciences are imprinted with the natural attitude. Both Husserl and Heidegger thought that natural science is doomed to naïvety (especially in respect of the subject-object distinction). There might be ways of doing natural science in a non-naïve way, as some of the post-phenomenologists Globus discusses have argued, but such non-naïvety means that the circularity has to be dealt with. Here the circularity is included in the scientific knowledge/presuppositions (QBD) concerning the existence of the objects (the brain) that are used in explaining the properties (how the subjective, monadic world *and the scientific knowledge included in it* are created) of the objects themselves. Non-naïvety comes at a price; the establishment of the subject and the object has to be derived from a more primordial level that has both logical and explanatory priority. Even though Globus rightly criticizes some of the metaphysical assumptions included in Vitiello’s theory, it is not clear that his view of QBD escapes the Husserlian problem of circularity.

In any case, the criterion of success for an enterprise of “thinking together” cannot be (only) the correctness of the interpretations, but the openings, promises and discursive energizations that it enables. For researchers working with questions involving the quantum and continental themes in the philosophy of mind, Globus’s book provides ample inspiration. Even though parts of it are highly technical, it is written in an accessible way. One of the most interesting parts is Chapter 2, which includes a comparative discussion of three influential contemporary post-phenomenological writers, Hubert Dreyfus, Pauli Pykkö, and Arkady Plotnitsky. The way in which Globus charts their (and Heidegger’s and Derrida’s) post-phenomenological views is most lucid, making the chapter well suited to the purposes of a university course on post-phenomenology.

About the Author

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