P02-463

TOWARDS AN INTERDISCIPLINARY NEUROPHILOSOPHY

F. Tretter
IAK Hospital, Haar / Munich, Germany

Introduction: Science (e.g. neuroscience) aims to “explain” phenomena (e.g. consciousness). Philosophy of science analyses the structure, consistency, range etc. of the respective scientific “theories” (e.g. philosophy of physics).

Objectives: A philosophy of neuroscience could be established (Neurophilosophy) as neurobiology claims to “explain” mental states and processes. Some (analytical) philosophers (e.g. Hacker) criticize brain theories because of mereological fallacies (e.g. not the brain /neurons can “decide”, but a person), misconceptions (e.g. “information”), implicit Cartesianism etc. But also some neuroscientists devaluate philosophy (e.g. Crick, Edelman, Zeki). Obviously, a deep gap in communication between neuroscience and philosophy exists.

Aims and methods: We propose an integrated systematic programme of “interdisciplinary neurophilosophy” that could help by integrating findings of philosophy, psychology, neurobiology and systems science.

Results: For instance, it is useful to talk about the “brain” as an extremely heterogeneous interconnected system that encompasses the problem of “dynamic complexity” and to use views of “systems science” and/or “computational science” in order to understand the phenomenology of network-based neural processing and coding. Also more detailed medical / neurobiological definitions of the “conscious brain” (e.g. probably excluding the cerebellum) are important for the brain-mind debate. Additionally, psychological and psychiatric categories have to be reviewed with the aim of a functional language.

Conclusions: An institutionalized multidisciplinary neurophilosophy will help to proceed in brain-mind debate.

Sources:

Bennet, M.R., Hacker, P. (2003): Philosophical foundations of neuroscience. Blackwell, Oxford

Tretter, F., Gruenhut, C. (2010): Ist das Gehirn der Geist? Hofgrefe, Göttingen.

https://doi.org/10.1016/S0924-9338(11)72764-X Published online by Cambridge University Press