

Reviews & Notices

Wagenknecht, Susann, Nancy Nernessian and Hanne Andersen, eds. *Empirical Philosophy of Science: Introducing Qualitative Methods into Philosophy of Science*. Switzerland: Springer International Publishing, 2015. 171 pp. ISBN 2192-6255.

The subtitle *Introducing Qualitative Methods into Philosophy of Science* captures the essence of what this book aims to accomplish. Qualitative methods comprise interviews, field observations, history, laboratory experiments, etc. and everything else besides the usual rigors of logico-positivism, e.g. the ahistorical, or the logical structures which saw minimal relation with the actual scientific enterprise or real science. This particular orientation of philosophy of science then puts its emphasis on what science means to philosophy and not the other way around. Thereon, we see the emergence of a *naturalized* philosophy of science. We earlier saw this in my previous reviews on Gooding (1990) and Nernessian (1984). The main orientations of these opera are carried on in this present opus.

What do philosophers gain from empirical work? How can empirical research help to develop philosophical concepts? How do we integrate philosophical frameworks and empirical research? What constraints do we accept when choosing an empirical approach? What constraints does a pronounced theoretical focus impose on empirical work? These are some of the fundamental issues examined in this opus, though not exhaustively, considering the limitations of the format. The first question is tackled in the article *Prolegomena to an Empirical Philosophy of Science* (Osbeck and Nernessian). The second question is tackled in the article *Feeling with the Organism: A Blueprint for an Empirical Philosophy of Science* (Mansnerus and Wagenknecht). Both articles are headlined in the opus as *Part I: Foundations*.

Philosophical conceptualization and empirical data interact mutually in a dialogic manner, a sort of exchange, e.g. between abstract and concrete. This

communication draws its ‘energy’ from what the authors describe as a ‘feeling with’ the empirical phenomenon with the philosopher as investigator.

Part II: Case Studies is composed of four articles: “Modeling as a Case for the Empirical Philosophy of Science” (Svetlova), “Reductionism as an Identity Marker in Popular Science” (Riesch), “An Empirical Method for the Study of Exemplar Explanations” (Goddiksen), and “Longino’s Theory of Objectivity and Commercialized Research” (Jukula). These papers cover issues as varied as the epistemic character of modeling practices in finance, the representation of reductionism in popular science, the study of explanations in science textbooks, and the investigation of commercialized biomedical research. On the whole, the authors configure their texts with personal experience (practitioners) using qualitative methods e.g. ethnography, text analysis, etc. Empirical approaches provide fresh impulse in philosophical theorizing by providing background information that support and specify theoretical positions. Reductionism involves a wider social identity. Any deeper exploration of philosophical concepts by practicing scientists will have to take into account sociological factors that will positively shape interpretations. To the philosopher, a scientific explanation is not easily understood.

The last two papers in *Part III: Empirical Philosophy of Science and HPS* are “History and Philosophy of Science as an Interdisciplinary Field of Problem Transfers” (Thoren) and “Context-Dependent Anomalies and Strategies for Resolving Disagreement” (Allochin). History of science and philosophy of science do not merge easily though contacts are fruitful via problem transfers leading to an interdisciplinarity. Philosophical accounts are more complete and applicable when they articulate the normative achievements by scientists. A philosophy of science which is abstract fails to recognize scientific operations and analogies.

This 171-paged opus can best be appreciated by maximizing the use of *References* which accompanies every article. The curious reader then can proceed to explore wider horizons on his/her own, stimulated by the cursory ideas spread in an enriched philosophy of science which this opus brings.

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