Metascience
DOI 10.1007/s11016-011-9587-4

Book notice

Steven Gimbel (ed.): Exploring the scientific method: Cases and questions. Chicago: The University of Chicago Press, 2011, xvii+406pp, $25.00 PB

Stathis Psillos

Exploring the Scientific Method is a very well-worked out and innovative proposal for teaching philosophy of science. The key idea is simple and very neat. Students who attend philosophy of science courses will normally have very diverse backgrounds and interests. They will be keen to study (and to learn what philosophy of science has to say about) different sciences. Why not then tailor a philosophy of science course in such a way that students can choose the science or domain in which they will (be called to) apply the core philosophical ideas, problems, and approaches they are being taught? Steven Gimbel focuses on a course that aims at the philosophical study of the scientific method. The standard topics (the various approaches to method, the issues of justification, the paradoxes of confirmation, holism, the role of models, etc.) are treated at two levels. There is first a short introduction of the main issues, which aims to flag the key players and moves (e.g., on inductivism or holism). Then, there are excerpts from some significant philosophical texts (e.g., by Aristotle, Newton, Mill, Duhem, and most of the usual suspects). All students are supposed to study these texts. But then—and this is the real innovation of the proposal—students can choose among nine tracks according to the scientific discipline they want to focus on (astronomy, physics, chemistry, genetics, evolutionary biology, geology, psychology, sociology, and economics). Each track is offered a certain assignment with a well-defined study question, the answer to which presupposes that the students read also some further selections from works by scientists (e.g., from Ptolemy's *Almagest* or Durkheim's *Suicide*). The first two themes of the book (deductivism and inductivism) are fully worked out (including the further selections from various scientific works). From then on, the selections from primary sources are omitted and students are encouraged to search for the relevant books in libraries and the internet. As the book progresses, the study

S. Psillos (✉)
Department of Philosophy and History of Science, University of Athens,
University Campus, 15771 Athens, Greece
e-mail: psillos@phs.uoa.gr

Published online: 24 June 2011

questions become more demanding and presuppose knowledge and skills already acquired. The students are asked to read selections from some of the most important books in the philosophy of science; they are also made sensitive to issues in the history of science. They are encouraged to develop their creativity and research skills. The teachers might well find Gimbel's short introductions to each major topic a bit oversimplified. But they are certainly at liberty to use their own material to introduce students to the main approaches and controversies. What is really valuable in the book is that students who are interested, say, in economics or sociology are given the opportunity to connect some major issues in the philosophy of science with the writings and arguments of economists (such as Smith and Marx) and sociologists (such as Weber and Parsons). In doing all this, students are encouraged to see the unity as well as the diversity within philosophy of science. I am sure Gimbel's innovative approach will create a new style in introducing students to philosophy of science and, in all probability, it will be soon followed by other similar books that focus on other areas in the philosophy of science.