

Werner Callebaut, *Taking the Naturalistic Turn, or, How Real Philosophy of Science Is Done: Conversations with William Bechtel ... [et al.]*. Chicago and London: University of Chicago Press, 1993, xxii + 553 pp.

In 1984, Werner Callebaut started interviewing philosophers and sociologists of science for radio broadcasts in Belgium. He continued to do so in the United States during a sabbatical leave in 1985. In this book Callebaut creates the effect of genuine face-to-face discussions between twenty-four participants by combining separate interviews and additional material provided by the interviewees when the book was compiled (revisions or expansions of their earlier statements, reactions to the statements of other participants). Among the participants are Donald Campbell, Patricia Churchland, Jon Elster, Ronald Giere, Philip Kitcher, Bruno Latour, Richard Lewontin, Thomas Nickles, Alexander Rosenberg, Michael Ruse, Dudley Shapere and Elliot Sober.

In the first part of the book ('Talking about it', chapters 2-5) the participants discuss the advantages of a naturalized philosophy of science. They see themselves as philosophers of a third generation, who react to a reaction. The first generation consisted of logical positivist and Popperians. The second generation, led by Thomas Kuhn, urged for a new rapprochement between history and philosophy of science. The philosophers of the third generation react to both movements while continuing to be inspired by them. They are in favour of a historically, sociologically and psychologically informed image of science. So they regret the positivists' and Popperians' alienation from both the history of science and science as currently practised, but they want to keep up their high standards of clarity and rigor.

A naturalistic approach sheds new light on several key issues in the philosophy of science. In the fourth chapter of the book this is illustrated by means of three topics (explanation, reduction and realism) which have been of continued relevance since the heyday of logical positivism.

The fifth chapter deals with the new roles and tools of philosophy of science. It is suggested that philosophers must become therapists with respect to scientific method and research strategy, underlaborers helping the scientists solve theoretical questions. The semantic (structuralist, model-theoretic) view of theories is promoted by many participants as the adequate instrument for studying the fine-grained structure of various sorts of scientific theories. Therefore it is regarded as the major new tool

for philosophers of science fulfilling their new role.

Because of its metaphilosophical character, the first part of the book is of interest for all philosophers of science. The second part ('Doing it', chapters 6-9) is mainly of interest for scholars in philosophy of biology and related domains. In this part, the twenty-four naturalistically oriented participants discuss topics in the philosophy of biology (e.g., the unit-of-selection controversy), topics in evolutionary epistemology and issues related to development, learning and culture. They reveal how they came to their positions, how and why they disagree with each other, and what they believe to be the most significant problems.

Chapter 10 ('Philosophy moves along') deals with future developments. Besides a section on the future of science studies, this chapter contains sections on evolutionary ethics, on (the absence of) feminist science studies and on the consequences of naturalized philosophy of science for philosophy education (how much science should one have mastered before being in a position to address philosophy of science issues competently?).

Erik Weber
Postdoctoraal onderzoeker NFWO