

Book Review

Mary Jo Nye: *Michael Polanyi and His Generation: Origins of the Social Construction of Science*, Chicago: University of Chicago Press, 2011, 405 pp. [ISBN 0226610632]

by Carsten Reinhardt

Mary Jo Nye's book studies three generations of scientists, philosophers, sociologists, and historians who shaped the field of science studies from the 1930s to the end of the twentieth century through the lens of one crucial protagonist, the chemist-turned-philosopher Michael Polanyi. To the first generation belonged Polanyi himself as well as Ludwik Fleck, Karl Mannheim, and John D. Bernal. The second enrolls Thomas S. Kuhn, Jerome Ravetz, and many others, while the third, the '1960s' generation is exemplified by Harry Collins, Steven Shapin, and Bruno Latour. Nye's main thesis is that the 1960s reorientation towards a social epistemology – exemplified by the works of Kuhn and later the strong program of the Edinburgh school – has its roots in the 1930s. Thus, the catastrophic events of the mid twentieth century, the clashes on ideological grounds, and the struggling of scientists to defend their autonomy in these times had deep consequences on the developments of the 1960s and 1970s. In analyzing these, Nye centers on the life and career of Michael Polanyi.

Probably, there is no other case more suitable for Nye's aims than Polanyi's. He was a wanderer between many worlds, moving from Hungary to Germany, and later emigrating to England, at the same time changing from being a laboratory scientist to studying economics and philosophy. He became most famous for his notions of personal or tacit knowledge, but his fame rests with sociologists and historians of science, and not so much philosophers. This is an irony as he despised of history, and was always watching out for finding the foundations of truth, which according to him were not determined by social factors. However, and this is an important argument of Nye's narrative, Polanyi was an experienced actor and keen observer of laboratory practice on both its cognitive and social levels. Thus, arguably, Polanyi was one of the few in his generation who was able to connect the social and the epistemic, and he did so in original, though controversial, ways. To un-

derstand how he did come to his conclusions, and how they were received in the community, is the single most important aim of Nye's book.

Although Nye follows Polanyi's path closely, this is not a traditional biography. The first four chapters embed Polanyi in his surroundings: Budapest ca. 1900, Berlin's scientific culture of the interwar years, and Manchester during and after World War II. Characteristically, the chapters are not always restricted to the respective period of Polanyi's stay itself, but Nye's approach includes the continued experiences over the decades to come. Thus, she expands Polanyi's formative period in Austria-Hungary through the 'refugee generation' to England and the United States of America of the 1950s. In the middle part of her book (chapters five to seven) Nye centers on systematic issues: Polanyi's liberal economic leanings and studies, the arguments exchanged with the British Marxists, especially John D. Bernal and his *Social Function of Science*, and a comparison of the political underpinnings of Popper, Polanyi, and Kuhn's approaches in the philosophy of science. The last part (chapters eight and nine) is about Polanyi's most important book, *Personal Knowledge* of 1958, and the 'paradoxical legacy' of Polanyi in the works of the social constructivists of the 1970s.

Michael Polanyi and his generation is a masterful study of how Polanyi's concepts were molded by their context. In analyzing the complex interplay of theories, practice, and social life in Polanyi's career, Nye exposes the experiences of her subject, encompassing the 'hard' sciences as well as economics, philosophy, religion, and much else. But there Nye does not stop. She systematically places Polanyi's scholarship in the context of his major contemporaries. In doing so, she introduces, among many others, the basic outlines of Kuhn, Popper, Imre Lakatos, Mannheim, Robert K. Merton, and Friedrich von Hayek. All of these are succinctly explained, and put into the perspective of Polanyi's interests. However, this is not a textbook on the classics of science studies. Quite to the contrary, it is a piece of scholarship that brilliantly achieves a deeper understanding of how a major classic of science studies came into being, and has been shaped by its receptions. Thus, Nye's is a crucial work on the social construction of science studies.

Carsten Reinhardt:

*Institute of Science & Technology Studies, University of Bielefeld, 33501
Bielefeld, Germany; carsten.reinhardt@uni-bielefeld.de*