

## Book Reviews/Comptes rendus

MARK ERICKSON, *Science, Culture and Society: Understanding Science in the 21st Century*. Cambridge: Polity Press, 2005; xi + 241 pp + References + Index.

The science known to scientists and the science understood by the public are two different sciences. This difference provides an interesting entry into the investigation of the complex relationship between science and society. Weaving through the esoteric and everyday understandings of science – from laboratory practice, academic discourse to the representation of science in the arts, popular magazines and science fiction – Mark Erickson's *Science, Culture and Society* tells a rich and riveting story about the social construction of science and scientific images in contemporary societies.

A recurring theme of the book is the entrenchment of a “standard account” of science in contemporary societies. The standard narrative of science is largely a social construct originating from and provided by formal science, which is the science taught in schools and practiced in laboratories around the world. This “essentialist” depiction of science, as the author calls it, by and large portrays a certain, progressive, and unified image of science. It often depicts an orderly and cumulative production of objective and useful scientific knowledge by indefatigable scientists.

The making of the standard account of science provides a window for readers to examine the contingent nature of the scientific image. Illustrating the translation of laboratory research into scientific publication, Erickson guides his readers through a process of simplification in which only a small fraction of laboratory reality finds its way into print. In this simplified model of science, laboratory research is presented as an activity bereft of interaction with, and interference from, social and economic environments. And when scientific findings are reported in popular magazines, the story of laboratory research is further condensed and, at times, embellished. Through a chain of translations and simplifications, the uncertain and indefinite nature of scientific research and scientific knowledge is made brief and the public is left assured with a singular representation of science that is progressive and self-regulating.

Drawing on the social constructionist perspective that has contributed to lively debates on the nature of scientific knowledge over the last three decades, this book unsettles a neutral and orderly image of science,

transforming that image to one that is interest-driven, fragmented, and at times chaotic. The author introduces to readers the rich and variegated discourses on the nature of science and scientific knowledge that have taken place in the disciplines of philosophy, history and the sociology of science. From the analyses of Ludwig Wittgenstein, Ludwik Fleck, Thomas Kuhn, and Paul Feyerabend to a plethora of social constructionist approaches, readers will find ideas that do not always sit well with the dominant ideology of science – that science is an objective knowledge acquired through a meticulous mode of investigation whose value should be spread to all institutions.

In the place of a unified image of science, Erickson argues for a more inclusive, multi-faceted, and balanced depiction of science. He asks for public participation in the construction of a richer image and knowledge of science. In fact, for readers who want to take part in this undertaking, the book provides a series of questions on the construction and understanding of the next “big” science: nanotechnology. Although urging for greater public involvement, the author does not overlook the scientific community as a partner in this endeavor. As Erickson sees it, scientists, in many ways, are also members of the non-scientific community – families, households, political groups, etc. The construction of science, accordingly, should be a joint effort between scientists, non-scientists, and the public.

Given the fact that many critical views about science are aired by scientists themselves, the invitation for scientists to work more closely with the public to draw a fuller picture of science should in principle be feasible. However, the inherent community interest of scientists to present a positive and progressive image of science may prove to be an obstacle, especially at times when the status and authority of science are in question.

Readers who hope to find in this book further debate on the social construction of scientific facts – the central issue in the so-called “science wars” – may not be able to quench their intellectual thirst. This is not the focus of the book. The author’s key concern is on trying to answer the simple question, “What is Science?” By unpacking the process that gives rise to the standard account of science, and by drawing attention to other sources and types of scientific images, Erickson leads his readers through a world of science that is deceptively simple but inherently rich. *Science, Culture and Society* is a well-written book that blends academic nuances and popular interest well. It can sit confidently on the shelf of academic libraries and comfortably at news stands.

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