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# Objectivity in Science

New Perspectives from Science and  
Technology Studies

# **BOSTON STUDIES IN THE PHILOSOPHY AND HISTORY OF SCIENCE**

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Editors

# Objectivity in Science

New Perspectives from Science  
and Technology Studies

 Springer

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# Chapter 1

## Introduction: Objectivity in Science

Jonathan Y. Tsou, Alan Richardson, and Flavia Padovani

While few would question the importance of the objectivity of science for providing a well-supported factual basis upon which policy decisions can be reliably made, it is far from clear what scientific objectivity is or how it should be achieved. In recent decades, questions regarding the objectivity of science have become increasingly salient in framing public debates about science and science policy: for example, can we trust medical research when it is funded by pharmaceutical companies? Or, whose research in climate science meets the standards of scientific objectivity? At the same time, the objectivity of science has become an increasingly important topic among historians and philosophers of science, as well as researchers in related fields in science and technology studies. In the wake of Karl Popper's (1972) account of objective knowledge and Thomas Kuhn's (1977) landmark analysis of scientific values in connection with issues of scientific objectivity and rationality, philosophers of science have attempted to clarify questions concerning the role of values in theory choice, the distinction between epistemic (or "cognitive") and non-epistemic (or "social") values, and the ways in which different kinds of

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