

Review of “Who Rules in Science?”,
by James Robert Brown

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For *Science & Society*
March 30, 2002

Biographical Information

The author is a Professor of Physics at New York University. His main research interests are in statistical mechanics and quantum field theory. He is co-author with Roberto Fernández and Jürg Fröhlich of *Random Walks, Critical Phenomena, and Triviality in Quantum Field Theory* (Springer, 1992), and co-author with Jean Bricmont of *Fashionable Nonsense: Postmodern Intellectuals' Abuse of Science* (Picador USA, 1998).

Who Rules in Science?: An Opinionated Guide to the Wars, by James Robert Brown. Cambridge, Massachusetts and London, England: Harvard University Press, 2001. \$26.00. Pp. xi, 236.

James Robert Brown, a philosopher of science at the University of Toronto, has produced a lively, engrossing overview of the philosophical and political issues at stake in the current debates about science, popularly (though misleadingly) known as the “Science Wars”. Brown doesn’t pull any punches in stating his own views, but he always takes care to present fairly even those arguments with which he disagrees. And he’s an equal-opportunity debunker: scientists, sociologists and his fellow philosophers all come in for (mostly justified) criticism. All in all, *Who Rules in Science?* is a superb introduction to current controversies in the philosophy of science, aimed at the general educated public.

One merit of this book is its nuanced treatment of politics. Traditionally (though this has been changing in recent years), most philosophers addressed the epistemological foundations of science without mentioning political or social questions. Conversely, sociologists, anthropologists and cultural-studies commentators on science have frequently given the impression that science is nothing but the continuation of politics by other means. Eschewing both extremes, Brown carefully analyzes the specific ways in which politics and society do and do not affect scientific work (and vice versa).

In the first chapter, Brown recalls an irony of history. Many people on both sides of the current “Science Wars” seem to take for granted that scientists and their allies are politically on the right, while critics of science are on the left. In the “Two Cultures” debate of the 1950s, by contrast, the literary establishment was stigmatized as instinctively conservative or even reactionary, while scientists were seen as generally left-wing. Of course this too was an exaggeration; but many prominent British scientists of the 1930s and 1940s were in fact Marxists, and the logical-positivist philoso-

phers of the Vienna Circle were fervent anti-Nazis and social democrats. Brown observes that philosophical and political attitudes are, in reality, only weakly correlated, and he discerns (with admitted oversimplification) at least four broad constellations of thought: “pro-science Right”, “anti-science Right”, “pro-science Left” and “anti-science Left”. Brown makes no effort to disguise his own identification with the pro-science Left. Indeed, one goal of his book is to rehabilitate among leftists a view of science that is broadly supportive though not uncritical.

Discussions of science are frequently plagued by confusion resulting from the fact that the term “science” has at least four distinct meanings: it denotes a worldview giving primacy to reason and observation and a methodology aimed at acquiring accurate knowledge of the natural and social world; it denotes a corpus of currently accepted substantive knowledge; it denotes the community of scientists, with its mores and its social and economic structure; and it denotes applied science and technology. Very frequently, valid arguments against “science” in one of these senses are taken — invalidly — to be arguments against “science” in a different sense. Thus, it is undeniable that science, as a social institution, has been closely linked to the economic and military powers-that-be and frequently plays an odious role. It is equally true that technology has complex (sometimes disastrous) social effects and that it rarely brings the miracle solutions promised by its most enthusiastic advocates. (Nevertheless, technology is often blamed for effects that arise more from the social structure than from the technology itself.) Finally, science, considered as a body of knowledge, is always fallible and subject to revision, and the errors of scientists are sometimes due to all sorts of social, political, religious and philosophical prejudices. Brown makes clear that he favors reasoned critiques of “science” understood in all these senses. But, he observes, such critiques provide no support for an attack on science understood as an enterprise aimed at acquiring objective (albeit incomplete and revisable) knowledge of the world.

The bulk of Brown's book is an investigation of the extent to which science does or does not make good on its central claim: to provide reasonably reliable (though not infallible) objective knowledge of the world. In so doing, he provides an admirably clear introduction to most of the central debates in the contemporary philosophy of science. Chapter 3 concisely explains the views of the logical positivists, Karl Popper and Thomas Kuhn. Among the topics discussed are the (attempted) distinction between observational and theoretical terms, verificationism, falsificationism, the theory-ladenness of observation, and the (alleged) incommensurability of paradigms. (This chapter should be required reading for all social scientists who use the word "positivist" as a pejorative epithet roughly synonymous with "naive realist". In fact, the positivists were ardent anti-realists, as Brown stresses.) Chapter 5 discusses realism and anti-realism, objectivity and subjectivity, the role of values in science, and global versus local constructivism. Chapters 4 and 6 analyze the views of two very different wings of social constructivism: the postmodernists and the sociologists of science. The latter discussion is particularly incisive. Chapter 7 asks whether good reasons can be causes of belief (Brown argues yes, and labels his position anti-naturalist).¹

In the remainder of the book, Brown returns to place science in a larger social and political context. Chapter 8 analyzes proposals to "democratize science", sorting out the various different meanings that this phrase can have. Chapter 9 discusses "science with a social agenda", as exemplified by Williams Jennings Bryan on evo-

¹I personally find the second half of this conclusion less than compelling. Yes, good reasons can be causes of belief; but this is perfectly compatible, in my view, with a naturalist account. It suffices to note that human beings are a species with an evolved propensity to adopt, at least in some circumstances, those beliefs that are supported by good reasons. (Alas, this propensity coexists with a contrary propensity to adopt those beliefs that make us feel good, whether or not they are supported by good reasons. The latter propensity may well be stronger, as evidenced by the near-universality of religion in human societies.)

lution, Stephen Jay Gould on IQ, and feminist critiques of the “man-the-hunter” theory of human origins. A brief but insightful Afterword addresses the damage done to scientific objectivity when research is increasingly funded by private interests.

This book is exactly what it advertises itself as: an opinionated guide to the “Science Wars”. Probably no one will agree with all of Brown’s opinions; but he is indisputably a trustworthy guide.

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