

Usage and abuse

Dorothy Nelkin

Value-Free Science? Purity and Power in Modern Knowledge. By Robert N. Proctor. Harvard University Press: 1991. Pp. 352. \$34.95, £27.95.

How often have we heard this refrain? It is not science that is the source of problems but only its abuse; science, in itself, is neutral if uncontaminated with values; science can be used for good or for evil, to cure or to kill, to develop or to destroy. In *Value-Free Science?*, Robert Proctor takes on the ambitious task of tracing the history of the idea of neutrality in science, explaining its origins and its role. He argues that neutrality has been the bargain struck by scientists to pay for social legitimation in the eyes of the Church and, later, of the state. Value-free science, in effect, has been the price of autonomy, serving to shield science from outside control.

He documents this theme starting with the platonic separation of theory and practice. He describes how the practical vision of knowledge, expressed in the philosophy of Francis Bacon, required a negotiation that would permit freedom of inquiry as scientists participated in public affairs. He explores the subsequent separation of fact and value, reviewing weberian concerns about academic freedom, censorship and the inclination to pass off political opinion as fact. His most powerful analysis emerges from his work on Nazi Germany, demonstrating the implications of using neutrality as a way to escape explosive political questions.

Proctor believes that claims of neutrality arise as a response to broad changes in the social and economic context of science and, in particular, the challenges associated with the rise of industrial, military and state support. When social movements such as marxism and feminism questioned the autonomy of science, claims of neutrality became a protection. In effect, value neutrality has served as an ideology of 'science under siege', allowing scientists to maintain autonomy in response to pressure by governments for censorship, by industry for practical results, and by social movements for relevance. The exclusion of values, of morality from science, acts as a shield, a way to avoid external intervention in the affairs of science. But, more than a shield, says Proctor, this ideology is also a weapon that has been used against feminists, social darwinists, socialists and others who have tried to politicize science. Just as the natural philosophers maintained autonomy by avoiding matters of morals and religion, so modern scientists have tried to define themselves

as outside the political and moral arena.

Proctor sees today's perpetuation of the ideal of neutrality as a way to blunt social criticism, to maintain the existing structure of power. Essential to his argument is the difference between neutrality (whether science takes a stand) and objectivity (whether science merits claims to reliability). By conflating objectivity with neutrality, scientists have maintained an ambiguous position, avoiding political commitment while engaging themselves in practical affairs: "Science . . . serves two masters; the cause of truth, but also the practical needs of those who pay." Proctor's concern lies in the hypocrisy of this position; although claiming neutrality, science is in fact serving special interests and reinforcing social patterns of dominance and exclusion.

Part of Proctor's mission is to influence the sociology of science. He applauds the recent efforts to examine the social construction of scientific ideas; "science is not a self-sustaining filiation of disembodied ideas but a social process with material and social prerequisites." But he would go well beyond this approach, for he sees fundamental problems in the very structure and practice of

science. Thus, he calls for a "moralistic science theory", a science based on advocacy and commitment. This, he claims, would not compromise objectivity. It simply means that science must "pay attention to the concrete forms of suffering and injustice in the world". Challenging the legacy of "detached indifference" as a political ideology, a way to camouflage interests and escape from commitments, he seeks to base science on "politicized moralism". For in any case, there is much evidence of the politicization of science, for example, in its engagement with military developments, hereditarian studies and agricultural research.

Unfortunately, Proctor's analysis stops at this point. After reviewing an enormous amount of material on the history of neutrality, synthesizing a vast and often diffuse literature on the relationship of science to power, and offering a powerful critique of the ideological dimensions of scientific claims, Proctor stops. He neither provides us with a "moralistic science theory" nor tries to develop its agenda. What would science look like if it were to evolve as he would have it? How would it be organized and supported? What problems should it address? Without working out either a theory or an agenda, this book becomes more of a moral outcry than a political analysis. Yet it raises provocative questions for others to explore. □

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An Arctic route to the East



The quest for the Northwest Passage was one of the greatest navigational challenges for early mariners. For more than 500 years explorers tried in vain to find a commercial route to the markets of the Orient and it was not until 1906 that Roald Amundsen successfully navigated the passage. This illustration shows the British explorers John Ross and William Edward Parry encountering Greenland Inuit in 1818, and the contrast in clothing indicates how badly prepared the officers were. *Northwest Passage* by E. Stuzik and M. Beedell beautifully chronicles these early ventures. Published by Cassell, price £16.95. □