Mark B. Brown: Science in Democracy: Expertise, Institutions, and Representation The MIT Press: Cambridge, Massachusetts, and London, England 2009. 354 pages

Essentialist ideas about science or democracy have made it difficult to explore the dynamics of technoscience in a democratic society. Questions concerning the interrelationship between science and democracy have recurred within science studies, as well as within political philosophy. Today, it is relatively easy to see that scientific research has become entangled with democratic processes-just think of climate change, stem cell research, nuclear technologies, etc. There still remains a challenge to combine the insights from science and technology studies (STS) with those of political science.

Mark Brown's book *Science* in *Democracy* is an important contribution to the ongoing discussions about the interaction between scientific knowledge and political processes. In the spectrum of STS literature dealing with science and politics, the book is closely related to the recent work of Bruno Latour and Sheila Jasanoff, Like Latour, Brown simultaneously addresses the notion representation in science and of politics with the aim of reconfiguring and reinvigorating the ways in which we think about science in democracy. Following the lines of Jasanoff's empirical investigations, Brown provides contemporary examples of the difficulties involved in reconciling scientific expertise with policy agendas, public debate and democratic decision-taking. Brown, in a

similar manner to Latour and Jasanoff, aims to break the widespread belief that the powers of science and politics are and ought to be separated.

Science in Democracy combines historical and recent literature on democracy with selected readings in STS. The first part of the book traces the historical origins of liberal-rationalist ideas about government and empiricalrationalist ideas about science. A diverse set of political philosophers and scientists including Niccoló Machiavelli, Robert Boyle, Isaac Newton, Jean-Rousseau. Jacques Iames Madison and Alexander Hamilton is introduced to underline certain conceptual similarities between the ways of thinking about both political and scientific representation. For example, it is pointed out that Boyle's experimental rhetoric of expert witnessing installed a socialepistemological distance between those who do and know science and those who do not. Similarly, Machiavelli's rhetoric of political expertise on governance made a difference between the knowledgeable expertise of governments and the social conventions of lay people. Early modern natural philosophers presented themselves as qualified spokespersons of nature with the general public as a silent, yet key witness. After the French and American revolutions, liberal democrats grounded political representation in public officials' competencies to promote the interests of their muted constituents.

In short, according to the liberalrationalist ideal, political expertise qualifies politicians and public servants to represent citizens, just as scientific expertise qualifies scientists to speak on behalf of nature. Political and scientific elites are constituted as centers of power/knowledge on the basis of two immobilized and virtually allcompassing entities called society and nature, both of which freely and willingly delegate their powers to their respective representatives. This entails a division of labor between science and politics. While science remains impenetrable to political interests, it still delivers useful expertise in the form of pure knowledge to democratic governments.

Challenging this notion of democracy and science, the second part of Science in Democracy draws on another group of writers, in particular Thomas Hobbes, John Dewey and Latour. Hobbes is reread to confront not only the notion of a historically given, strict boundary between science and politics, but also the postmodern idea that, essentially, science is politics by other means. Dewey, much more explicitly than Hobbes and from the perspective of democracy, saw a close link between science and politics. In the 20th century, he was one of the first and most elaborated advocates of the constructivist argument that it is the practice of politics and science that constitutes the two represented entities, public and nature, and not vice versa. Dewey thus reversed the ways we think about the representative powers of science and politics. This reversal requires us to carefully study the representational practices that make up what we today think of as politics and science-a quite familiar call for all those engaged in the field of science studies.

Students and scholars of science studies will also recognize another motivating force in the book, namely Bruno Latour's ambition to conceive of science and politics in a symmetrical fashion. There is, however, at least one issue where Science in Democracy diverges from the Latourian perspective adopted. Brown argues that, when it comes to politics, Latour remains within the basic (juridical) logic of representation as direct relation between the representatives and represented. In contrast, Science in Democracy aims at establishing a more differentiated view on democratic representation.

The book argues for a nuanced view on contemporary democratic representational practices. The goal is to conceive of democracy in a way that avoids the unachievable goals of liberal rationalism without abandoning reasoned argument or social justice. Among others, Brown suggests various modes of reinstating scientific and political authorization, producing accountability, ensuring participation, facilitating deliberation and constructing resemblance (representativity). These are the elements of democratic representation that require different types of institutional practices to be firmly incorporated in democratic societies. A citizen in a representative democracy should have access to several modes of representation, just as scientific knowledge should be included in political processes in many different ways.

Inspired by many perspectives on science and democracy, respectively, Brown's recommendations are broad and varied. The question is whether they guide future practices and studies of science and democracy. Seeing democratic representation as a multifaceted activity as well as defining the many different ways in which scientific expertise interacts with political processes, could turn out to be useful insights to build on. It seems as if the questions of science in democracy are here to stay.

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