What to do with politicized science?

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The difficulties met by much of the efforts to deploy scientific knowledge in democratic societies, and their relative failure to bring about effective public engagement with science, most notably in relation to such recent issue as climate change, often serve as a springboard to proponents of a reactivation of the Enlightenment project. Centred on such moral values as objectivity, rationality, and trust in the scientific method as the surest way to truth, this latter view conceives of sound expert advice to those in

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power as the foundation of democracy (Oreskes and Conway, 2010). Critics have repeatedly pointed out that such an advocacy of science’s independence from society might do more harm than good, and is misconceived. More than two decades ago, science students suggested that exposition and discussion of scientific knowledge in public is a necessary step in the production of knowledge, for it is the moment when uncertainty is dealt with and incontrovertible facts are constructed (Bucchi, 2008). In other words, knowledge-making does not end when expert consensus is reached: knowledge claims are stabilised in public forums. Therefore, the project of isolating knowledge-making from society, in the hope of preventing its contamination with politics, is problematic, because it enshrines instability within knowledge claims, thus paving the way for the instability of the social order (Nowotny et al., 2001). The challenge, however, is to find ways to:

…institutionalize polycentric, interactive, and multipartite processes of knowledge-making within institutions that have worked for decades at keeping expert knowledge away from the vagaries of populism and politics. (Jasanoff, 2003: 235)

It is also to invent means to accommodate the multiplicity of social perspectives involved in the politics of science. Mark Brown’s Science in Democracy takes up this challenge. Bringing forward a conception of ‘democracy as an institutionally differentiated system of collective representation’ (p xiii), it suggests that existing institutions should be transformed and new ones invented, to multiply the sites and modes of representation available to experts, non-experts, and politicians alike.

At the core of the debate outlined above, Brown identifies a conception of representation understood in rationalist terms. To self-appointed defenders of pure science, on the one hand, scientists produce representations which are mirror images of nature providing unmediated access to reality. Such value-free science, which does not privilege any perspective, is accordingly taken to faithfully represent the public interest. Citizens should thus simply place their trust in science, and let themselves be represented by elite experts with a privileged access to popular will and the public interest, just as scientists are an elite enjoying privileged access to the truths of nature. On the other hand, advocates of participatory democracy tend to conceive political representation as an exact reflection of popular will and common sense. In this view, representation of the people by an elite is ultimately a subversion of the democratic ideal, and lay participation is seen as the antithesis of elite rule.

In contradistinction to this juridical model of representation, which fosters irresolvable controversies, Brown theorises one of ‘democratic representation’. Whereas in the juridical model, representation is black-boxed as a synonym for substitution, in the model elaborated here it is conceived as a relationship of mediation with a transformative effect on both the representative and the represented. Representation is thus unpacked as a sophisticated composite, whose different parts are aspects of the relationship between constituents and their representatives, namely ‘authorization, accountability, participation, deliberation, and resemblance’ (p 206). Democratic representation is forwarded as a means of responding to politicised science through institutionalising the politics of science, in a range of institutions that would each provide citizens with access to different modes of representation (Chapters 9 and 10).

In order to work through this model, Brown looks at canonical texts in political and democratic theory (Machiavelli, Hobbes, Dewey, Madison, Rousseau) through the lens of science and technology studies (S&TS), whilst submitting important texts in the field of S&TS (most notably Bruno Latour’s) to symmetrical treatment. This enactment of the principle enunciated in the preface to the book, that it is intended to examine and question the supposed boundary between science and politics, allows Brown to highlight what went into the construction of taken-for-granted ideas and institutions, in relation to the politics of science, and to suggest renewed readings of these authors. For instance, offering an exciting reading of Machiavelli, the first chapter invites us to consider him as the inventor of a rhetoric of expertise made of humility and social distance, and as the advocate of ‘the institutional requirements for its successful use’ (p 42), thus articulating ‘distinct norms and purposes for science advisors and political actors’ (p 24), which still resonate today. The other side of Brown’s approach is exemplified in the important Chapter 7, where Latour’s work is read as one in democratic theory. Given the centrality of the concept of representation in Latour’s joint exploration of sociotechnical networks, Brown locates several themes previously identified in Machiavelli, Hobbes or Dewey, and which he himself uses when theorising democratic representation. Yet, he remarks that Latour’s account of representation is stuck in the common juridical view of representation as substitution, which reduces representation to questions about the absence or presence of the represented, and prevents our understanding of the necessary institutional differentiation of representation. To Brown this shortcoming originates in Latour’s generalised symmetry principle, which obscures asymmetries between science and politics, examined in the following chapter (Chapter 8), in an effort to understand the politicization of science and what it means.

Overall, Science in Democracy is intellectually invigorating and succeeds in putting S&TS in conversation with political sciences. Scholars in both fields should profit from this useful contribution to
the literature on the relationship between experts and society. However, one is left wondering if a more comparative approach would not have contributed to enlarging the scope of the study, thus enhancing its ‘power of proposition’. Despite a few hints at examples taken from the United Kingdom or Germany, it remains centred on the institutional landscape as it prevails in the United States. But this lack of a comparative perspective can also be welcomed, as an invitation to expand on the propositions made in this book.

References

The sociology of scientific work

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The Sociology of Scientific Work: The Fundamental Relationship Between Science and Society by D Vinck

The title of this book is at the same time well chosen and a little misleading. Misleading because a few crucial themes in science studies such as ‘truth’, ‘objectivity’ or the difference between ‘scientific’ or ‘profane’ claims are not examined in depth. Yet, the book is dedicated entirely to the sociology of science, and even better said, the sociologies of science.

It is an ordered compilation of the thousand and one ways to analyse science. Structuring such syntheses is indeed a difficult task. The structure of the book pleasantly combines two threads: one historical and the other which covers its object from macro- to microsociology. The reader begins with institutional theories, more ancient and global, or ‘macro’, and finishes with ethnmethodology and the finely detailed studies of scientific activity. The transition between these currents occurs more or less within the sixth chapter. One may regret that its title, ‘Society’s influence on knowledge content’, does not reflect the conceptual transition happening in the chapter: relinquishing the ‘social influences’ and the ‘causal’ social theories.

Indisputably, this book is a very detailed inventory of the different sociological works about science. The bibliography is thorough; it recalls forgotten, often uncited, and unjustly unappreciated authors. The sociologies presented extend even towards a historical sociology briefly depicted in the first chapter. But the main originality of this book is its commitment to privileging exhaustiveness to the mutual critique of the different points of view presented. Conceptual criticism is reduced to a few lines here and there as the book progresses and a few pages at the end of the book. Sharply contrasting claims follow each other chapter after chapter. These cover science, its organizations, collectives, scientists, practices, instruments, and publications etc. switching from deterministic social studies to the most constructivist and pragmatic analyses.

This absence of criticism of the results presented tends to transform science into a plural social object. One may regret the resulting fuzziness of important distinctions between different constructivist views. For instance, the reader has to wait until the end of the book and an insert on page 244 to realize how the notion of ‘cause’ has been clearly suspended by some of the often cited authors. This absence also has another ‘relativistic’ effect: all points of view seem equal and necessary to account for ‘science’. For Merton science and its claims are the result of power struggles and social positions. For Latour, and more ‘interpretationist’ and pragmatic authors, they are the unforeseeable result of the scientific activity and proofs scientists use to test nature. Is it possible to juxtapose these claims without recalling in detail why these different views have come to such opposite analyses? Which particular problems, which answerless questions lead them to invert the fundamental hypotheses of their predecessors?

Does everyone have to make his or her own choice, blindfolded so to speak? If the author withdraws from weighing the differences between scientific positions, comparing their respective worth,

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