



because scientists want to enact the visions they find important that they often fall back on folk theories such as technological determinism, seeing any disagreement as an unfortunate obstacle. In contrast, policy makers and publics, but also STS scholars, tend to be comparative selectors: they see the option presented precisely as one option among others to choose from. The art of scientific governance is to help these two perspectives meet in productive cycles.

Another common theme throughout the book is Rip's claim that the governance of science is shifting towards a more reflexive mode, in the manner of Ulrich Beck's notion of reflexive modernization. Scientists are more aware of and more willing to talk about their societal responsibilities. This is not a question of individual preferences, but of institutional shifts. Through labels such as ELSA (ethical, legal and social aspects), 'responsible development' and, more recently, RRI (responsible research and innovation), reflection on the societal impact of science has become more common. Nanotechnology is a clear example of this, according to Rip, and, at the end of Chapter 6, he speculates whether the field might not exemplify a shift in the division of moral labour: whereas reflections about the social impact of science were traditionally situated outside the role of scientists, recent institutional shifts have made them a more intrinsic part of it (p. 107).

The book is an attempt to give an overview of Rip's work on nanotechnology, and it succeeds to a great extent. But, as stated, the book is a collection of earlier published material. All of these publications are relatively old, the newest being published in 2014, and vary in length (with the shortest only seven pages). Most papers are collaborations, with only two singled-authored. The editorial process has changed little in these chapters, though it would have been easy to create clearer connections and cross-references between them. Most of the work to create coherence falls on the short introduction, which therefore underdelivers. In it, Rip mainly introduces a set of concepts that are left unexplained, such as governance, macro-anthropology, mediators and even the concept of nanotechnology itself. Moreover, the order of the chapters is not always clear and some of the later chapters provide the reader with information that could have been helpful earlier. On several occasions, Rip also uses complex drawings to illustrate some conceptual points, though they typically remain elusive and unhelpful (e.g. pp. 78–9). But regardless of these minor issues, this book does provide the reader with a remarkable set of insights in the governance of nanotechnology, crucial to any student of contemporary emerging sciences and technologies.

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Simon Jarrett, *Those They Called Idiots: The Idea of the Disabled Mind from 1700 to the Present Day*

London: Reaktion Books, 2020. Pp. 352. ISBN 978-1-78914-301-0. £25.00 (hardback).

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Simon Jarrett has written a history about the ideas of idiocy and adjacent concepts, in which he demonstrates that the idiot can be seen as a crucial figure in the history of

medicalization and racialization alike. He offers a highly readable account of ideas about those they called idiots, full of surprising encounters between minds that may be familiar, if not for their ideas about idiots, and delivering a carefully optimistic message in the end. It is the idea of the disabled mind that is the subject of the book, and this idea is traced as something embedded in a variety of cultural practices. It is no small feat to pull this together into a compelling narrative.

The story is narrated in broad strokes, covering three centuries and including ideas articulated in France and the United States as well as in the United Kingdom. It is organized in three parts, telling a story in three acts: in the eighteenth century, those they called idiots were integrated in society. They were not necessarily respected, but they were accepted as a part of the communities they lived in. In the nineteenth century, they became racialized and medicalized and incarcerated in large institutions. The invention of institutional 'care' is a dark moment in this history – and the author does not hide his value judgement, referring to 'the murderous beast of the institution' (p. 305). The second act culminates in the eugenic movement, with its vision of eradicating those they called idiots altogether. But in the midst of this movement, already, new ideas about community care were articulated. The third act deals with ideas of deinstitutionalization and community care. After more than a century of harsh incarceration we are maybe completing the circle, as new ideas of deinstitutionalization have carried the promise of a reintegration of the disabled in the community, and thereby a more generous conception of community.

The author uses a wide range of primary sources. In dealing with the first period, Jarrett brings into light rarely seen sources, such as court cases, joke collections and slang dictionaries, and teases out various meanings of 'idiot' from them. This material is particularly original and substantively expands the social substratum for this history of ideas. As to the second period, it is dominated by sources more familiar from intellectual history; and for the third period, sources produced from the vast modern bureaucracy become important. An impressive aspect of the author's use of these sources is the way that the history of intellectual disablement is widened out to become a broad cultural history, which includes intellectual history, history of medicine and science and the history of social policy.

At the heart of this history is a historical phenomenon that is also considered a moral problem, which is that of institutionalization ('the great incarceration'). The large institutions for people with disabled minds are, for Jarrett, 'murderous beasts' (p. 305). The construction of them (and their equivalents for the insane) in the nineteenth century involved the exclusion of those they called idiots from their communities, where they had been regarded as a part of the social fabric in previous centuries. How was this great exclusion possible? The author claims it was possible largely through the interference of men of science, which in most cases means medical professionals. The history of the idea of the disabled mind ominously overlaps with the history of the professionalization of medicine as the book describes how medical men inserted themselves in courts of law and related bureaucracies, claiming a privileged knowledge of the mind. Though they often did so by asserting that the medical perspective represented a more humane road than the alternatives, the real consequence was to single out people who did not belong to the increasingly narrow category of normal human beings.

Thus a dominant explanation of the history the author so skilfully weaves together is to be found in medicalization, which can here be regarded as a narrative as much as a theory. Medicalization stresses the negative consequences of medical interpretations of the world. In Jarrett's history, medicine, and science more broadly, are mainly a dark force. To take but one example, the invention of the intelligence quotient in the early twentieth century is a seminal event in this story, as in Jarrett's view it 'sealed the

scientific colonization of mental deficiency' (p. 261). The invention was, writes Jarrett, 'peddled' with 'enthusiasm' by psychologists and this enthusiasm reflected the psychologists' 'desperation' to be seen as practitioners of an exact science (pp. 261–2). Here the author perpetuates Steven Jay Gould's critical perspective on intelligence testing from *The Mismeasure of Man* (1981). As a narrative this is clear and persuasive. As an explanation of the formation and development of scientific ideas it may, on the contrary, be seen as reductive. Other recent scholarship on the history of intelligence testing tends to indicate more complexity and less enthusiasm involved in the invention and spread of this technology.

That said, this is a well-informed, deeply researched and lucidly written history of the idea of the disabled mind that impresses on many levels. It can be read by the specialist and the curious beginner alike and is strongly recommended for anyone interested in the history of psychiatry, disability studies or the history of racialization.

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Nina R. Gelbart, *Minerva's French Sisters: Women of Science in Enlightenment France*

**New Haven, CT: Yale University Press, 2021. Pp. 360.
ISBN 978-0-3002-5256-9. \$40.00 (hardcover).**

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Nina Rattner Gelbart's new book is a group biography of six exceptional French women and their participation in eighteenth-century science. Elisabeth Ferrand was a superb mathematician who hosted an important salon, championed Newtonian ideas and shaped the thinking of Condillac; Nicole Reine Lepaute, wife of the famed horologist, was an astronomer whose calculations pinpointed the return of Halley's comet and the transit of Venus; Jeanne Barret disguised herself as a man to join Bougainville's voyage around the world and thereby aid her lover Commerson in collecting botanical specimens; Madeleine-Françoise Basseporte's exceptional knowledge was demonstrated in her refined botanical illustrations; Marie-Marguerite Bihéron was the inventor of wax anatomical models, designed to educate women about their bodies; and Geneviève d'Arconville translated and interrogated works on chemistry and did her own experiments on putrefaction. Every one of these women leaps off the page in Gelbart's sympathetic narrative.

Indeed, the author celebrates her identification with her subjects, addressing them by their first names in a series of imaginary 'interludes', letters in which she talks through the shape of their lives and brings them up to date with their resonance in the twenty-first century. Provocatively anachronistic, these experimental 'interludes' underline the stakes for Gelbart's feminist project: to contribute to the visibility of women in science and to celebrate her protagonists' moral qualities, such as perseverance, independence, generosity and courage. Drawing out points of biographical intersection, she imagines her six women as a 'society' of complementary intellects – even if this group never met in reality, 'I have gathered you together in my mind' (p. 259).