

The politics of large numbers: A history of statistical reasoning by Alain Desrosière, translated by Camille Naish; Harvard University Press, Cambridge and London, 1998, ix + 368 pages, ISBN 0-674-68932-1. First published in French in 1993 as La politique des grands nombres: Histoire de la raison statistique.

There are a lot of jokes about statistics. There is Yogi Berra's quip that "statistics are 90% science and half luck," and my favourite, and which is along the same lines, "there are three kinds of statisticians, those who can count, and those who can't." Even Alain Desrosière, who in general is a dry writer, at least when he is translated into English, manages a pun for his title. That pun aptly describes the intent of his book, however.

On the one hand, Desrosière is interested in how the formal enterprise of statistical analysis, and represented among other things by the law of large numbers, came about. As a result, the first four chapters of the book present an early history of statistics from its academic origins at the University of Göttingen in the eighteenth century through to the works of Karl Pearson at University College London in the early twentieth century, and including those of his students such as George Yule, his son Egon, and William Gosset (Mr "student t"). On the other hand, Desrosière is also interested in the various articulations between the discipline of statistics and the state as it collects a large amount of numbers in order to monitor, survey, and discipline its population (the very word statistics derives from the German word for state). The second half of the book thus provides a discussion of first, the state institutionalization of bureaus of statistics in France, Great Britain, Germany and the United States, and typically carried out during the nineteenth century; and second, techniques of data sampling, classification, and analysis that were used, including their associated philosophical, political and technical problems.

In the Acknowledgements there is brief mention of Bruno Latour and Michel Callon, but it does not do justice to their influence on this book. Latour and Callon's actor-network theory (ANT) provides the theoretical template for Desrosière's study. Following ANT, the problem that statistics sets itself, and it is the same problem that all science faces, is bringing different things together so as to create order and stability. To do so involves persuading both humans and non-humans to become "allies" within a common network; that is, to show that they have similar interests, and are able to work together. To so involves in the vocabulary of ANT "translation," and which is defined by Callon (1980, page 211) "as creating convergences and homologies by relating things that were previously different."

The history presented in The politics of large numbers traces out precisely the multiple translations involved in constructing the present network known as statistics. Brought together are: different institutions of the state such as around public health, the police, and later those responsible for managing the economy; different intellectual concerns around astronomy, the law, pure mathematics, biology, and later sociology and psychology; different types of equipment such as Laplace's urns of black and white balls, Galton's quincunx, and later punch cards, card sorters, and the computer; and different statistical techniques which are themselves passed on ("translated") in quite different

circumstances. Regression, for example, is first used to make claims about eugenics in the late nineteenth century, is then later picked up by economists in the 1940s to test models of national accounting, and finally in the late 1950s makes its way to geography where it is used to test theories of spatial interaction. In each of these cases there is a process of translation where quite different institutions, intellectual concerns, artefacts and disciplines are made to come and work together turning the flux of the natural and social world into coherent and well ordered structures.

Desrosière's discussion of the various translations statistics has been able to achieve is both scholarly and erudite. It is also now one of a number of recent histories of statistics published over the last fifteen years that offers a critical approach to statistics. Rather than accepting that statistics is necessarily correct because it is based on the seemingly universal logic of mathematics, The politics of large numbers, and other works in the same genre, are keen to show that statistics is a contingent and local enterprise, one shot through with the peculiarities of the particular social, cultural and political context in which it is practised.

I have three main criticisms of the book. First, in spite of the guiding hand of ANT, with its emphasis on order, the book's organization is scattered. For sure, the substantive material presented is very interesting, but as a book I felt that its centre never quite held (and especially problematic is the short conclusion that promises much more than it delivers, and is not a conclusion). Second, not surprisingly, the substantive historical emphasis is on French statistical thought and institutions. Certainly, non-French statisticians and historical sources are discussed, but from reading Desrosière's book one might be forgiven for thinking that statistics is primarily French in both conception and design. Finally, the meaning of politics as it appears in the title is overly circumscribed. Desrosière means by the term the politics of the national state, and policies carried out by official agencies. But politics comes in all kinds of shapes and sizes, and consequently statistics are mobilized and fought over in a wide range of circumstances.

That said, Desrosière's book is a fine piece of work. It reminds us that statistics and statistical techniques are social inventions, and given solidarity by a set of institutional processes. To modify Yogi Berra's aphorism: statistics are 90% science and half social, but often the social is more than 50%.

References

Callon, M. 1980: Struggles and negotiations to define what is problematic and what is not: the socio-logic of translation. In Knorr, K. D., Krohn, R. and Whitley, R., editors, The social process of scientific investigation: sociology of sciences, volume IV, Dordrecht, D. Reidel, 197-220.

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