The Idea of the Normal

The Taming of Chance. IAN HACKING. Cambridge University Press, New York, 1991. xiv, 264 pp. $44.50; paper, $14.95. Ideas in Context.

Historians and philosophers of science have come to expect from Ian Hacking something akin to new archeological excavations. To be sure, his discoveries do not quite compare with the Rosetta Stone, but they certainly surpass the bits of pottery or broken arrowheads that would satisfy many other toilers in the field. Hacking has an uncanny instinct for honing in upon some critical and novel feature of the past and showing how seemingly disparate facts fall into place once we grant him his central category. He does not pretend to make a complete survey of his topic. Again like an archeologist, he respects the fragmentary record as one of the limitations of the trade. But what he digs up, and deciphers, never fails to engage and illuminate.

In this case we have "the taming of chance," an intellectual endeavor that unfolded gradually from the late Enlightenment on through to the end of the 19th century. Whereas in the 18th century, men and women of science saw chance as something to be swept under the rug, "by the end of the [19th] century chance had attained the respectability of a Victorian valet" (p. 2). More profoundly, Hacking points to the recasting of the nexus between the social and the physical sciences. In the 1830s, statisticians aspired to eliminate the random component of their social laws and achieve the determinism of Newtonian physics. By the 1930s, however, with physicists abandoning determinism, social scientists could look chance right in the eye.

Much of this builds on previous work by Hacking, particularly his celebrated *Emergence of Probability* (1975) and subsequent articles on that wonderful image of the "avalanche of numbers" that beset post-Napoleonic society. Perhaps because of the continuity, this latest offering does not exhilarate quite as much. Moreover, Hacking now has a number of cohorts in the field, in part through his own inspiration. Much of what he says about the acceptance of statistical thinking and the stimulus offered by social theorists has already been treated by Theodore Porter in his superb *The Rise of Statistical Thinking* (1986). And other material can be found in the products of the Bielefeld think tank of 1982–83, of which Hacking was a leading instigator. These are the two-volume *The Probabilistic Revolution* (1987), edited by Lorenz Kruger *et al.*, and the multiauthored book, by Gerd Gigerenzer, John Beatty, Lorraine Daston, Theodore Porter, and Zeno Swijtink, entitled *The Empire of Chance: How Probability Changed Science and Everyday Life* (1989).

Because of these other works, which Hacking wholeheartedly endorses, the initial part of his argument is not strikingly novel. As people, particularly the state, began to count, patterns emerged, whether in the number of lost letters in the Paris post office or in levels of income and emigration. Paradoxically, these social laws were discerned because of a deep-seated belief that there must be laws in the social realm analogous to laws in the physical realm. But it so happens that social laws are irreducibly statistical. This in turn helped to discredit a long-standing allegiance, on the part of natural and social scientists alike, to determinism. So the "avalanche of numbers" had the delayed effect of the "erosion of determinism."

But it did much more. The acceptance of chance in the social realm resulted in a new concept of human agency and morality. The search for an understanding of human nature à la Locke and Hume was replaced by the concept of the normal. This took place in the early 19th century, when Aldolphe Quetelet compiled statistical distributions of certain physical and behavioral traits and took the mean of the distribution to determine normality. Toward the latter part of the century, a new twist was added. Whereas Emile Durkheim sustained the established view of equating the mean with the morally just, Francis Galton sought social amelioration in reproducing those individuals who fell under the upper tail of his distributions (say, of intelligence). With either reading, the statistical (and superficial) study of human behavior came to serve the interests of state control. As Hacking remarks, the notion of the normal is "one of the most powerful ideological tools of the twentieth century" (p. 169).

One of the most intriguing themes in the book is the debate over free will and determinism. The discovery of statistical laws brought with it the problematic notion of statistical fatalism. Insofar as a constant number of murders were committed each year, it followed that no single murder was truly an act of free will. This in turn implied immunity from moral judgment. Only with the advent of quantum mechanics, it was thought, was "the world [once again made] safe for freedom" (p. 116). By highlighting these historical twists and turns, Hacking creates the impression that Westerners have never managed to square the problem of free will with ethical responsibility. Only Friedrich Nietzsche, he suggests, had a proper grip on the problem when he gleaned that necessity and chance are inseparable, like two sides of a single coin.

Reading Hacking's book is like a casual visit to the British Museum, with the contents of each room determined more by what territory happens to have been pillaged than by any schematic survey of the past. In one room we find, for example, studies of suicide by Quetelet and Durkheim, in another an assessment of the French judicial process at the time of Condorcet, and in yet another the demographics of Prussian Jews during a wave of antisemitism in the 1870s. Some of the displays are brilliant, and rich with memorable details. But though there are connections between the rooms, one still leaves with the sense of having taken a random walk rather than having a map in hand.

To be fair, Hacking, though his material is drawn from the last two centuries, disavows any claims to being a historian. He has certainly perused ample amounts of archival material, and he fills his pages with telling anecdotes. But he refuses to plod along in the systematic if not belabored fashion of the historian. Hacking is a self-styled Foucaultian, extracting epistemes if only to remind us just how bizarre the human mind can be.

The only problem with this approach, particularly for those schooled in the Anglo-American tradition, is that it seems one-sided. The theme of the taming of chance that Hacking delineates is a fascinating one, but it is only one contour among many. Hacking recognizes this and assumes from the start that there is no sense in trying to capture the past with the comprehensiveness of a photographer. The study of the past is really, much as R. G. Collingwood once suggested, a study of the human mind. In that sense, what Hacking offers the reader is well worth the price of admission. Even if he overplays certain facets of his story and underplays others, it is a story one would like to believe.

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