The Contours of a Debate

The Intelligence Men. Makers of the IQ Controversy. RAYMOND E. FANCHER. Norton, New York, 1985. xviii, 269 pp., illus. $17.95.

Raymond E. Fancher has written a balanced account of one of the bitterest scientific debates of the past century. Focusing on the nature-nurture controversy, he examines psychological conceptualizations of "intelligence" and the lives of the men who tried to measure it.

The book is aimed at the general reader interested in understanding current controversies as well as those of the past. In fact, past and present have become increasingly intertwined in the IQ debate. Recent writings exposing past errors and political biases, in particular those emphasizing psychological support of racist and class-biased social policies during the 1920's, have become potent weapons in present-day struggles pitting environmentalists against hereditarians. They have also fostered a new self-consciousness on both sides of the issue, for the historical record now suggests that the study of "intelligence" is, as Fancher argues, "unusual among scientific problems for the degree to which it interacts with the extra-scientific and sometimes even non-rational concerns of its investigators" (p. 239).

Fancher documents these interactions between the personal and the scientific through a series of biographical sketches. He begins with two 19th-century child prodigies who "grew up to develop diametrically opposed theories to account for their own—and everyone else's—intellectual abilities" (p. xv). John Stuart Mill attributed his own astonishing early accomplishments to the intense tutelage of his father. Later in life, he promoted an "associationistic psychology" that explained much of the "furniture of the mind" as experientially determined. By contrast, Francis Galton, a half-cousin of the century's most renowned scientist, Charles Darwin, credited his own early "genius" to superior inheritance obviously running in family lines. Both Mill and Galton, moreover, realized the political and moral implications of their science. Mill believed that the tendency to regard differences between "individuals, races, or sexes" as innate constituted "one of the chief hindrances to the rational treatment of great social questions, and one of the greatest stumbling blocks to human improvement." As a result, he argued that politicians had, in Fancher's words, "a moral obligation to accept the environmentalist explanation, at least as a working hypothesis" (p. 17). Galton, by contrast, envisioned an alternative utopia in which eugenic practices would eliminate most of society's problems by breeding a superior, and consequently happier, human species.

With Mill's environmentalism and Galton's hereditarianism as his base, Fancher then traces the development of techniques to measure intellectual aptitudes. Of course, assessing "intelligence" and determining its origins are actually two separate problems; as Fancher rightly argues, this has led to "two logically distinct but practically interrelated disputes" (p. xiii). He follows both disputes through the careers of psychologists most involved with mental testing: James McKeen Cattell, Alfred Binet, Charles Spearman, William Stern, Henry Herbert Goddard, Robert Yerkes, Lewis Terman, David Wechsler, Cyril Burt, Arthur Jensen, and Leon Kamin.

Fancher's striking clarity in describing tests as well as testers contributes to the current trend of demystifying psychological testing by making it accessible to the nonprofessional public. Tracing the evolution of psychometrics, he summarizes Cattell's failure to find physical tests that would predict intellectual behavior; Binet's success in measuring relative mental abilities in children of different ages; Spearman's search for a "*g*," or general intelligence factor; Stern's shift from mental ages to an "intelligence quotient," popularized as IQ in Terman's Stanford-Binet test; and Wechsler's adoption of a point scale.

Fancher contrasts the ideas of testers like Galton and Spearman, who conceived of intelligence as a single, largely inherited entity, with those of Binet and Wechsler, who had in mind something more plastic, multidimensional, and environmentally influenced. He also reviews the current state of twin studies. Galton suggested that such studies would settle the debate concerning the relative power of nature and nurture, but this has yet to happen. All studies to date have fallen far short of the ideal conditions necessary for definitive assessments; instead, recent studies offer evidence used by both hereditarians and environmentalists.

Many of the incidents recounted here will be familiar to those aware of recent literature on the history of psychology. Nevertheless, in gathering them together and filling in the gaps between them, Fancher has provided a historical overview of the contours of this debate that is not available elsewhere. His collection of biographies also brings new relationships to light. Interviews with Jensen and Kamin, for instance, add a personal dimension to a public controversy. Fancher shows how Jensen's work indirectly caused Kamin, an animal behaviorist, to examine psychological testing. Kamin had himself been something of a "calculating" prodigy as a boy and in his youth had developed what he called "a deep commitment to reforming the world" (p. 203). Responding to Jensen, Kamin exposed Burt's studies as fraudulent; he then began to explore the history of his field. In positing his own belief in "zero heritability" until opponents can prove otherwise, Kamin has become the modern-day equivalent of Mill.

Fancher's reasoned mixture of biography and history of ideas serves as a useful starting point for those interested in the complex history of testing. What we need now are studies connecting developments in psychometrics with contemporaneous developments in medicine, biology, sociology, and education in order to place these debates within their proper scientific and social contexts. We also need histories of the actual processes of bureaucratic decision-making to explain how and why psychological tests came to play their ubiquitous role in contemporary culture.

The use of such tests, even hereditarians like Jensen have recently argued, has been excessive. On the basis of such concessions, Fancher concludes that the nature-nurture controversy has once again begun to settle down to a shaky consensus attributing significant explanatory power to both sides. It now looks even more likely that in the coming years developments in genetics and cognitive psychology will lead scientists to clarify their conceptualizations of both "nature" and "nurture." Nonetheless, if the history of the past century proves anything, it is that these scientists too will have to confront the personal, social, and moral questions that have always lurked just below the surface of the IQ controversy.

LEILA ZENDERLAND
Department of American Studies, California State University, Fullerton 92634

Ethnological Displays

All the World's a Fair. Visions of Empire at American International Expositions, 1876–1916. ROBERT W. RYDELL. University of Chicago Press, Chicago, 1985. x, 328 pp., illus. $27.50.

Social Darwinism applied the theory of natural selection to human society. It was rampant in late 19th- and early 20th-century America and has by no means disappeared today. Robert Rydell presents abundant evidence that it was found in American world's fairs from the Centennial Exhibition in Phil-