

Book Reviews

Burnham, who did much in the 1960s to explore the relation between the new psychologies and the ideals of social management gaining prominence in the "Progressive Era". Essays included here discuss the development of "expert" measurement techniques for human attributes from Cattell's anthropometric studies in the 1890s, through Goddard's (1910) use of Binet's work to classify the feeble-minded, through Yerkes's and Terman's adaptation of testing to conditions of mass mobilization in World War I, into the 1920s, when testing became bound up with recognizing environmental as well as hereditarian conceptions of deviance.

The essays give additional authority to criticisms (still unassimilated by psychologists or physicians) of inaccurate accounts: of Goddard's hereditarianism, the boost given to testing by the army in 1917-18, and the centrality of intelligence testing to the passing of the Immigration Restriction Act (1924). More substantially, these essays provide a readable review of the occupational and social circumstances in which testing achieved its lasting position in psychological practice. It comes across very strongly (as the editor emphasizes) how practical occupational difficulties fostered *specific* quantitative techniques. This is exemplified by the need facing Goddard and other specialists of feeble-mindedness to establish classifications of their charges. The authors therefore demonstrate the value to historians of attending to the way practice generates forms of understanding.

It is also a striking theme in these essays, though one developed explicitly only in Leila Zenderland's paper on Goddard, how much medicine provided occupational and cognitive models and a ready audience for the new psychological testing profession: "It was American physicians, not educators nor even academic psychologists, who first granted intelligence tests scientific legitimacy" (p.47). While it was the typically clinical problem of classification that fostered Goddard's work at the New Jersey Training School for Feeble-minded Boys and Girls, it is also interesting to note (for example) Yerkes's development of diagnostic mental testing as a service to the Boston State Hospital before World War I. Medicine was more than just metaphor or model for the psychologists, but actually constituted a substantial part of the occupational practices through which testing came into existence. Ironically (as Hamilton Cravens's essay on the Ohio Bureau of Juvenile Research in the early 1920s shows), both Goddard and the new testing soon brought psychologists into occupational conflict with traditional medicine.

The differences between individual and mass test purposes and practices are important here. A short, provocative piece by Franz Samelson describes the introduction of the multiple-choice test, "the indispensable vehicle for the dramatic growth of mass testing" (p.116), and speculates on both its social consequences and the lack of serious investigation into its worth. It would be interesting to have his ideas as to how historians could go about opening up such issues.

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NICHOLAAS A. RUPKE (editor), *Vivisection in historical perspective*, London, Croom Helm, 1987, 8vo, pp. x, 373, illus., £45.00.

The publication in 1975 of R. D. French's *Antivivisection and medical science in Victorian Society* (Princeton University Press) was a major contribution to the understanding of the development of animal experimentation, and the increased organization of those opposed to it, in nineteenth-century Britain. In particular, French detailed much of the controversy and debate that resulted in the 1876 Cruelty to Animals Act, legislation that was intended to regulate animal experimentation: the first such attempt in the world. The present volume of essays owes much to that earlier book, but now extends and explores the debates both temporally and geographically, and highlights some particular aspects of the role of animal experimentation and vivisection in scientific practice and culture.

The chapters on the national debates during the mid- and late-nineteenth century in England (Rupke), Sweden (Bromander), America (Lederer), and Germany and Switzerland (Tröhler and Maehle) provide interesting contrasts and comparisons. As emphasized by Sir William Paton in his epilogue, the role of powerfully motivated individuals is a striking feature of both sides of

the controversy in each country. British examples of passionate anti-vivisectionists, such as Cobbe, Coleridge, and Kingsford, may be familiar already: the pro-vivisectionist lobbying of Huxley, Owen (for once on the same side), and Paget probably less so. Of particular importance was the creation of the Association for the Advancement of Medicine by Research, a discreet but remarkably influential organization in the administration of the 1876 Act.

Such disputations were mirrored across Europe and in America: in Switzerland, Hoffman raised arguments, still hotly disputed, of the respective value of therapeutic efficacy and the pursuit of knowledge in the justification of experiments, which were opposed vehemently by Mrs von Schwartz and her protégé Grysanowski; in Sweden, Nordvall declaimed against the moral corruption of vivisection; whilst in America, Cannon and his colleagues attempted to deflate the anti-vivisectionist arguments by defining and imposing their own voluntary codes of practice. The influence of British experiences in these debates raises many further questions about the origin of such attitudes, an aspect that has recently been addressed by Ritvo (*The animal estate: the English and other creatures in the Victorian age*, Harvard University Press, 1987).

The book opens with essays of a more general nature. In his assessment of experimental physiology in mid-nineteenth-century France, Elliott argues convincingly that its genesis was in the veterinary schools, where the prevalent attitudes to animals owed much to military contingencies, and thus was quite distinct from the laboratories and practices of medical physiologists. Marshall Hall's lonely voice pleading for a regulatory Society for Physiological Research is heard through Manuel; Guarnieri's contribution places the indefatigable Miss Cobbe in Florence, campaigning against the German physiologist, Schiff; and an analysis by Richards of the infamous *Handbook for the physiological laboratory* provides an interesting account of the reactions of some British physiologists to the furore around them.

The final chapters deal with some special features of animal experimentation, such as the role of women in anti-vivisection movements (Elston); iconographic representations (Schupbach); an early example of cinematic portrayal and its attendant debates (Lawrence); and a summary of current legislation in Western Europe and America (Hampson), although this chapter is usefully supplemented by the recently published UFAW Handbook (*The care and management of laboratory animals*, edited by T. Poole, 6th ed., Universities Federation for Animal Welfare, 1987).

The range gives some indication of the broad questions that are explored in this collection, and the many recurrent themes that surface throughout the book: the utility of experiments versus real or apparent cruelty to animals; scientific integrity and the morality of exploiting essentially weaker creatures; and the accompanying transformation of animal protection societies (campaigning successfully against kosher butchery in Switzerland, for example) into ardent anti-vivisectionist groups. All emphasize that the question of animal experimentation has never been, and never will be, straightforward.

What could be more straightforward, however, is the definition of some of the words used in this volume. For despite its title, this is much more a historical perspective on anti-vivisection, and only Maehle and Tröhler in their chapter on animal experimentation from antiquity to the mid-nineteenth century address the problem of terminology. As they so rightly point out, "vivisection" in modern, common usage encompasses all matter of animal experimentation, unlike its original meaning that referred only to cutting (i.e., usually surgical) activities. "Vivisection" is certainly not used by practising scientists and its unfortunate use in the title may deter many who would otherwise profit from reading it. Equally important are words like "cruelty", "pain", and "experiment": these, too, are emotive words with shifting meanings, and some explicit recognition and discussion of these difficulties would have been helpful. Despite these limitations, this is a useful work, which leaves many questions unanswered and even a few unasked, thus pointing out several directions for profitable future research.

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