Book Reviews

ANNE HARRINGTON, Medicine, mind and the double brain, Princeton University Press, 1987, 8vo, pp. xiii, 322, £24.70.

This is a remarkable book, and one that will doubtless become indispensable to students of the history of the neurosciences. It offers a comprehensive account of the growth of ideas within neurology and psychology concerning asymmetries of function between the two hemispheres of the brain, with particular reference to the latter half of the nineteenth century. Its story is likely to surprise, not only on account of repeated citations from this period of well-articulated versions of ideas often thought original to the last three decades, but by the cast of characters called upon. After the famous pioneers of localism and aphasiology, the tracing of the theme embraces largely forgotten contributions from the likes of Binet, Ribot, Maudsley, Charcot, Griesinger, Jackson, Bleuler, Janet and even, albeit tenuously, Freud. The narrative benefits greatly from a combination of sympathetic scholarship and a sensitivity to modern parallels that grace the whole work. The result is a highly satisfying demonstration of the inherently radical qualities of good historical research.

Dr Harrington approaches her subject with a scrupulous attention to the content of contemporary scientific arguments which permits credible commentaries when fluctuations do seem apparent in the debt owed by scientific opinion to the weight of available evidence. Additional influences on the propagation of early dual brain models are appraised in terms of professional needs, ideological compatability with contemporary political and theological stances, and a possibly more general human tendency to project dualisms onto the universe at large and our own natures in particular.

The contents have clearly been selected with care, to retain consistency of focus while demonstrating sustained originality. Among the riches on offer, I enjoyed especially the descriptive detail of an account of the popular impact of dualistic models eighty years ago that gave rise to the ambidextrality movement; a valuable new summary of the conceptual core of Hughling Jackson's system; and a fascinating re-evaluation of the significance of metalloscopy to the development of Charcot's thought. As a coda to the main history, Dr Harrington offers some comments on the continuing scientific and popular renaissance of interest in left and right 'brains' after a half-century of relative neglect. This account is necessarily less complete, both in its detail and in providing no complementary acknowledgement of the impact of post-1960 versions of holism, yet its grasp of the patterns of modern clinical thinking is particularly impressive.

The book is lucidly and considerately written throughout; and its readability is enhanced by minimal recourse to notes, which are always confined to the foot of the relevant page. Illustrations include a guide to relevant anatomy and clinical photographs. There is a serviceable index. The volume is well bound, enjoys excellent paper, and comes reasonably priced. Dr Harrington's researches will be of interest to, and deserve, an audience wider than that of many other works of history. This account of them can be recommended not only as a definitive study of their topical theme, but as exegesis of quite exemplary quality.

C. J. Mace Institute of Neurology

JONATHAN LIEBENAU, Medical science and medical industry. The formation of the American pharmaceutical industry. Basingstoke and London, Macmillan Press, 1987, 8vo, pp. 224, £29.50.

The scope of this book is defined by the subtitle. Within that limit, it is a valuable source of information which cannot readily be obtained elsewhere. As Liebenau points out, the development of the pharmaceutical industry from the local operations of apothecaries and pharmacists to a major form of industrial production has not only has a great influence on the ways in which medicine is practised, but has been largely ignored by historians of medicine.

The period covered is 1880–1930, and the geographical area is the United States, especially around Philadelphia. Many of the firms whose names are well known today—Smith Kline, Wyeth, Parke Davis—were well established. From small beginnings as apothecary's shops, they grew to become family manufacturing businesses and, later, substantial corporations. Other

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firms, then of equal or greater importance, have vanished, usually by merger or assimilation into competitors. Science, in one sense or another, was becoming appreciated by doctors and even by the public, and incorporated into the activities of the firms in different ways. For some, the reputation of being a "scientific" business was enough to increase status and sales. Others took science more seriously. They improved their methods of production by introducing machinery, and the quality of their products by recruiting chemists and establishing analytical laboratories, some of which later extended their activities to more innovatory research.

Many factors influenced the development of pharmaceutical businesses in this period. One was the successful treatment by Behring of diphtheria, which led to widespread demand for the antitoxin in a world with no experience of industrial-scale production of such "biological" remedies. Another was the growth of legal requirements for reliable and safe medicines, expressed in the Biologicals Control Act of 1902, and the Food and Drugs Act of 1906. A third was the combined effect of Ehrlich's discovery of the anti-syphilitic drug "Salvarsan" (arsphenamine), its manufacture by Hoechst with heavy patent protection and the problems of supply during the early part of the 1914–18 war. The demand for the only effective remedy and the difficulties, both legal and technical, of providing it was a major stimulus to the American pharmaceutical industry to extend its innovatory activities to meet national needs.

Liebenau deals with these subjects in valuable detail, concluding his account with the developments of the 1920s. Thus he leaves a great deal of modern history untouched, perhaps justifiably since the research activities of many firms were miniscule until the 1940s (according to J. F. Marion, Smith Kline had a Research and Development Staff of eight persons in 1936). It would be instructive if more information had been included about developments elsewhere; the industry's evolution in Germany, Switzerland, France and England followed courses which deserve comparison with the United States.

The book is very nicely presented, but the combination of references grouped by chapter at the end of the book with the absence of chapter numbers on each page of the text is exasperating.

M. Weatherall Charlbury, Oxon

PHINIZY SPALDING, The history of the Medical College of Georgia, Athens GA, University of Georgia Press, and London, Eurospan, 1987, 8vo, pp. xiv, 290, illus., \$35.00.

This is a brief and informative institutional history of one of the earliest medical schools in the American South. Phinizy Spalding traces the rise of the Medical College of Georgia from its tenuous beginnings in 1829, with three faculty and seven students, through its prominence in the 1850s as one of the South's major regional medical schools, to its present status as a modern medical centre. Located in Augusta, an antebellum focus of up-country economic and political life, the college initially prospered for reasons that also contributed to the success of other American medical schools in the early nineteenth century. It possessed a well-trained faculty noted for local leadership in politics as well as medicine; it rewarded the faculty's unabashed drive to make the school a successful business; and it established itself as a regional presence in medicine, in MCG's case through the respected Southern medical and surgical Journal.

But the history of MCG also was shaped by circumstances peculiarly southern. Despite attracting many able men to its faculty—Alexander Means and Joseph Jones both taught there—MCG was tied to an agricultural economy and a dispersed, rural society that inevitably diminished the authority of town-centred, academic professionals. The destruction and dislocation which followed the Civil War not only reduced the college from a regional centre to a small, struggling enterprise relying on Georgia students alone, but also exacerbated tensions between the state legislature dominated by rural interests and the decidedly more cosmopolitan outlook of academic physicians. Particularly telling in this regard is Spalding's account of the sporadic attempts by MCG and the University of Georgia to join forces. Four times between 1873 and 1931 an arrangement between these two institutions fell apart largely because MCG was unable to bring its professional aspirations into harmony with its dependence on the legislature for funds, and on local government for hospitals.