Book reviews

MIND, BRAIN AND ADAPTATION IN THE NINETEENTH CENTURY. CEREBRAL LOCALIZATION AND ITS BIOLOGICAL CONTEXT FROM GALL TO FERRIER By Robert M. Young. (Pp. xiv + 278; 28s.) Clarendon Press: Oxford. 1970. There is currently a growing convergence of interest between the neurologist and the psychologist which centres largely on what might be called the 'higher' functions of the brain. The former is moving beyond such sketchy consideration of them as might contribute to the localization of a lesion; the latter is becoming more realistically involved with the neural basis of the functions he traditionally studies. The novelty of this rapprochement is more apparent than real. Before the turn of the century many neurologists took their psychology—for what it was worth—very seriously, while psychological treatises paid more than lip-service to what was then known of the brain. The parting of the ways was due perhaps less to the impact of Freud than, paradoxically, the behaviourist attempt to objectivize and render nominally physiological the method and theories of psychology. The net result has been that psychologists and neurologists alike are now hampered by lack of appreciation of their predecessors' interactions and their relationship to the biological advances of the late nineteenth century.

Dr. Young in this fascinating and in some respects notable book thus serves not only those with a taste for history but also anyone casting about for fresh starting points for brain research. (To give but one instance, one of the most marked failures of contemporary psychology is its continued evasion of the issue of voluntary versus involuntary action. Even cursory acquaintance with the writings of Hughlings Jackson and others of his time cannot fail to suggest fresh thoughts about this.) Dr. Young deploys a wealth of carefully assembled erudition and a quantity of aptly chosen significant detail in tracing the development of views about the functions of the cerebral hemispheres and their parts throughout the period he considers. He does not pretend to cover in equal detail the whole picture of nineteenth century thinking: much, for instance, went on in Europe, and in particular in Germany, to which he makes but sparse reference. Rather his approach is thematic and two features stand out in particular. The first is the story of the multifarious effects of the doctrines of Gall on neurological concepts and research—as opposed to the schematized versions of phrenology popularized by such writers as George Combe. The second emphasis centres upon John Hughlings Jackson, especially, on the one hand, his surprising—and to his readers obfuscating—dependence on the doctrines of Herbert Spencer, and on the other the more fruitful of his influences on his colleagues at the National Hospital, particularly David Ferrier. Between these two major phases there is a curious link in the fact that Spencer, by training an engineer, embarked on his philosophical career a convinced phrenologist!

Dr. Young has uncovered and laid out afresh much of the fascinating history of nineteenth century thinking about mind and brain. The complexity of the intellectual milieu of the period, in which figures as major as Darwin, Huxley, Jackson and Ferrier intermingled with lesser but not insignificant characters like Edward Carpenter and George Henry Lewes, has for too long been subsumed into conveniently pre-digested, often misleading and infertile textbook stereotypes. Its reappraisal, with which Dr. Young has made so stimulating a beginning, could prove vitalizing to neurology and psychology alike.

R. C. OLDFIELD


Most books on 'recent advances' attempt to cover a wide field in summary form as a convenient source of references for the specialist and condensed information for the generalist. This book adopts a different approach. The editor has selected four important subjects and given his authors space to write comprehensively. The result is four extremely valuable reviews but they are definitely not for the specialist reader. William Landau gives a most interesting account of spasticity and rigidity, concluding with the useful aphorism that spasticity represents an exaggeration of reactivity at the segmental level while rigidity is the steady state of activity level in motoneurons that is increased in rigidity as a result of supraspinal facilitation.

Richard Johnson and Kenneth Johnson write on slow and chronic virus infections of the nervous system. They are justifiably cautious about extending the concept to chronic 'degenerative' diseases of the nervous system. Menkes and Eviatar provide the best short account of biochemical methods in the diagnosis of neurological disorders which is known to the reviewer. The screening tests for abnormal metabolites in the urine are simple and could be routine in a neurological ward. The extensive bibliography will be appreciated. The last chapter by Shapiro and Ausman reviews the role of chemotherapy of brain tumours. The results of a decade of study are most disappointing but this critical review should establish standards for the assessment of further drugs which are bound to follow.

This is a very worthwhile contribution to the neurologist's bookshelf.

J. A. SIMPSON


Volume 16 is a particularly successful member of this series. It records the Proceedings of the Congress held in Toronto in 1968. The 'honoured guest' was Professor Norman Dott who contributes four chapters which bring out the charm of his personality, the depth of his wisdom, and the extent of his contributions to neurological surgery.
The fact that it is now 40 years since Professor Dott exposed and wrapped a middle cerebral aneurysm in muscle, and that it is almost as long since he was the first to demonstrate an intracranial aneurysm by angiography, mark him as a pioneering frontiersman whose place is secure in the history of neurosurgical advances.

The succeeding chapters prove worthy successors to Professor Dott’s. Almost without exception, each of them records work of a high standard directed towards improving the care of the neurosurgical patient. The consistently good work of the leading Montreal and the Toronto hospitals is made plain. Articles which should be singled out for special mention are those of Charles Drake, Jules Hardy, and of Gilles Bertrand, for these all record pioneering efforts of high significance which have yet to be fully digested and integrated into everyday neurosurgical practice.

The last chapters recording seminars concerning cerebral circulation, increased intracranial pressure, and brain oedema are worthy of the rest of the volume.

The volumes in this series can always be safely recommended for purchase by neurosurgical libraries and by individuals who already possess the earlier numbers; this one stands out—it is a book which anyone interested in the subject would do well to buy. He will certainly profit from it.


This monograph for the upper cervical spinal column could hardly be bettered. The authors have called on their own experience to produce a book which will be of exceptional value especially to specialists in radiology, orthopaedic and neurological surgery. Their description of abnormalities in the region to which the book is devoted is lucid and practical; it is accompanied not only by excellent reproductions of radiographs, but also by explanatory diagrams and the various abnormalities are linked with the appropriate clinical syndromes. A complete bibliography enhances the value of this book, and it is to be hoped that it will find a large number of readers even beyond its country of origin. Perhaps its greatest value will be as a book of reference, for no condition which the reviewer has encountered in his own experience has been left out, indeed some have been added.

J. SCHORSTEIN


The editors of this book have set themselves the unenviable task of providing an ‘overview’ of neuropsychology, confined—semantically, at least—to the cortex: the result is a seemingly random collection of papers. It includes, however, a few of historical interest (Piotrowski on the Rorschach pattern of ‘typical cortical case’, and Halstead on frontal-lobe dysfunction); and some directly concerned with current clinical problems such as the psychological analysis of focal symptoms (Luria, McFie), and the relationship between visual-spatial and constructional deficits (De Renzi and Faglioni).

Part I contains useful discussions of conceptual problems in brain damage. Part II, designed to cover localization, lateralization, and general studies, in fact omits much of the relevant experimental and clinical work which has been published in the last decade. Parts III and IV introduce topics such as the role of the Cortical Function Laboratory at Denver, small-scale pharmacological studies, and litigation problems; but the data are parsimonious.

In general, a collection of papers can provide a useful source of reference data—particularly in paperback edition. The present volume, however, does not serve this function. Its survey of work in neuropsychology is neither comprehensive nor up-to-date; it cannot therefore be recommended to the clinician or the physiological psychologist.

FREDA NEWCOMBE


A 1968 symposium from Switzerland differs from many current volumes on the synapse in excluding neuro-muscular transmission. The sympathetic ganglia are classical preparations, but the amount of new work on cerebral synapses is most encouraging. The reviews are authoritative, including a particularly interesting one by Carlsson on the pharmacology of monoamine synaptic transmission. There is a first description of the freeze-etching technique applied to electron microscopy of synapses, more studies exploiting fluorescent marking of monoamine-containing neurones, and an account of the role of glycine as a spinal inhibitory transmitter. There is also a contemporary assessment of the Uchizono hypothesis on the inhibitory function of flat vesicles at nerve terminals, the nerve growth factor and its antisem, adrenergic depletion by 6-hydroxydopamine (try looking for that one in an alphabetical index), and many other subjects. This is not a systematic handbook but is genuinely an account of progress in brain research.

J. A. SIMPSON


This short book has clearly defined aims: to give practical instruction to those who nurse unconscious patients. It succeeds in this admirably. The nursing procedures are described with precision yet are leavened with humanity. The text is interrupted by some long and detailed Tables and these might have been better in an appendix for easy reference. There are refreshingly few examples of that curious prissy jargon which is sometimes found in nursing manuals.

This guide can be warmly recommended and should be used widely.

IVAN T. DRAPER