

## BOOK REVIEWS

**The Nature of Experience:** Riddell Memorial Lectures, Thirtieth Series. By Sir Russell Brain. (Pp. 73. 8s. 6d.) London: Oxford University Press. 1959.

Sir Russell Brain gave the Riddell Memorial Lectures at Durham University, and they are reprinted in this book. He recapitulates the reasons for believing that the external world is not as we perceive it, employing among other examples of this discrepancy, the amputee's phantom limb, first quoted in this connexion by Descartes, and the perceptual changes that occur with mescaline. He comes down plainly in favour of the sense-datum view of perception, that an external physical world exists and that what we perceive is a private perceptual world constructed by the activity of our own brain. In the latter the physical world is modified not only by the multiplicity of coding and recoding of sensory information in the nervous system, but also by factors external to our bodies. For instance, due to the time taken by light to reach us, the stars of our perceptual world are very different both in space and time from the stars of the physical world. Sir Russell draws an apt analogy with radar in which the radar screen is regarded as analogous to the perceptual world.

He finally explores the consequences of this view for the nature of art. He argues that a work of art is "an image of feeling", that is, a physical embodiment of the feelings present in the artist's perceptual world, and that it will create in others a perceptual object embodying to a greater or less extent the feelings in the artist's perceptual world which led him to create the work of art. This theme is pursued and expanded, and used to explain and justify "modern" art, both visual and poetic, and to consider some of the problems of religious experience.

Sir Russell is, he says, very much aware of his amateur status as a philosopher. It is, however, essential that specialists in biological and physical sciences should make their contribution to philosophy, and it is possible that it will be in this way that philosophy regains its reputation as a subject with which every educated person must be acquainted.

**Clinical Neurophysiology.** By John Marshall. (Pp. viii + 296; 159 figures. 37s. 6d.) Oxford: Blackwell Scientific Publications. 1959.

The dependence of neurology on the basic sciences of anatomy and physiology becomes very apparent when one tries to understand physical signs and a rational approach in therapy. Dr. Marshall's book is a clear, straightforward account of those advances and trends in neurophysiology which significantly expand and clarify neurological knowledge. The chapters follow a fairly conventional pattern beginning with the nerve impulse and ending with the special senses. The facts are put together in such a way that one can always follow the

evolution of an idea, and the choice of illustrations from the literature is particularly successful. On the whole the book is well up to date but the chapters on the cerebral cortex are rather conservative and not particularly informative.

Everyone interested in neurology will read this well produced book with great pleasure and profit even though it must be an interim report of a rapidly advancing science. The book is intended for clinicians primarily, but senior medical students could derive from it much benefit and a clearer understanding of the science of neurology.

**Physiologie du Systeme Nerveux Central,** 3rd ed. By Georges Morin. (Pp. 396; 104 figures. Fr. frs. 3,400.-) Paris: Masson. 1958.

The third edition of this textbook has corrected several notable omissions of the previous editions: in particular, the role of muscle spindles in proprioceptive reflexes is at last discussed.

This is a clearly written book on neurophysiology, and is well illustrated and attractively produced. It also keeps firmly in mind the needs of medical students, for whom the book is written, and its clinical sections are admirably done, including a short chapter on the E.E.G.

**Ein binauraler Hörsynthese-Test zum Nachweis zerebraler Hörstörungen.** By J. Matzker; Foreword by H. Leicher. (Pp. x + 117; 46 figures. DM 19.80.) Stuttgart: Georg Thieme. 1958.

This monograph puts forward a proposal to apply binaural stimulation to the diagnosis of cerebral disorder. Dr. Matzker's test consists in feeding to the two ears speech divided into two frequency bands so chosen that what is heard by each ear separately is unintelligible, while the combination of the two inputs can be understood by the normal individual. In practice the band from 500 to 800 c.p.s. is fed to one ear and that from 1,500 to 2,400 to the other, all other frequencies being suppressed. It is argued that failure to effect the synthesis must be due to interruption or disturbance of the brainstem and thalamic pathways by which stimuli from both ears are brought to converge on each half of the cortex.

Results of the test on 750 neurologically normal subjects show a proportion of failures which varies with age. In children under 14, 34% fail, a percentage which drops to 2 or 3 between the ages of 20 and 60 and then rises rapidly into old age where over 90% of the subjects fail. The author accounts for this by the supposition that in the old the essential ganglion cells degenerate, while in the young these midbrain pathways are not yet "ground-in". As he rightly says, these findings demand that the test results on cases suspected of cerebral pathology be judged in accordance with the age

of the patient. Applied to patients exhibiting a variety of intracranial disorders, the test gave a positive result in a proportion of cases varying from 84% for tumours, through 58 in hypertension to 30 in epilepsy.

Unfortunately there is no evidence, only the author's *a priori* conviction, that such failure has anything special to do with disturbance of the pathways responsible for convergence of the two inputs onto each hemisphere. The localized lesions in those cases where the pathology could be established were very variously situated. In only two cases so far, both of metastatic carcinoma, have brain-stem lesions been detected. In both the damage was microscopic, and naked-eye pathology was apparent elsewhere in the brain. The binaural test result cannot itself afford any lateral or other localizing indication, and the data from the pathological cases reported show only that cerebral disorder tends to disturb the capacity to synthesize two separate, individually unintelligible, auditory signals from the two ears. This is perhaps hardly surprising, considering how common it is to find that any stepping-up of the difficulty of a high-grade task imposed on a damaged cortex reveals its defect. It is also quite in keeping with the test results on young and old. This particular test seems to suffer from the disadvantage, not entirely shared by some others, that it is uninformative as to the whereabouts of the lesion. Nevertheless the idea of using binaural stimulation in the study of cerebral disorder is a stimulating one, and for his emphasis on this we may be grateful to Dr. Matzker.

**Pathogenesis and Treatment of Parkinsonism.** 6th Annual Scientific Meeting of the Houston Neurological Society, Texas. Compiled and edited by W. S. Fields. (Pp. x + 372; illustrated. 81s.) Oxford: Blackwell Scientific Publications; Springfield, Illinois: Charles C. Thomas. 1958.

This book, a verbatim report of a symposium by 24 authors, sets out to deal with the pathogenesis and treatment of Parkinsonism. The greater part of it is devoted to the techniques, results, and neurophysiological implications of artificially produced lesions in the region of the basal ganglia in man and in animals.

The first half of the book presents the known facts of animal experiment, namely that tremor and rigidity may be produced with difficulty in some animals by lesions, either stimulating or destructive, of the midbrain tegmentum and may be abolished by destructive lesions of the globus pallidus or corticospinal tracts. On these facts are based a number of interesting and ingenious theories, notably by Ward, on the site and mode of production of tremor and rigidity.

The second half of the book is a valuable review of the various surgical methods, past and present, used in the relief of Parkinsonism with a thoughtful chapter on selection for surgery by Schwab. Cooper's preference is for neupallidectomy or chemothalamectomy by the balloon-alcohol method and his results, based on over 700 cases, including 50 bilateral operations, are impressive (symptomatic relief 80%; mortality 2.4%; hemiplegia 3%). Meyers reports a few cases treated with ultrasound, a method capable of producing small and

precisely localized lesions. Even in the best hands only 10 to 15% of patients with Parkinsonism are suitable for surgery and it is strange that drug treatment should receive such scant attention.

**Biochemistry and the Central Nervous System,** 2nd ed. By Henry McIlwain. (Pp. vii + 288; 44 figures. 45s.) London: J. & A. Churchill. 1959.

This is the second edition, extensively revised, of this admirable book. Together with the author's volume on chemotherapy and the nervous system the two books form a most suitable and up-to-date review of the biochemistry of the central nervous system for neurologists and neurophysiologists. In this edition a quarter of the work quoted has been published in the last four years. The scope of the book is wide and such sections as those on hypoglycaemia, anticonvulsants, Wilson's disease, and the chapters on chemical factors in nervous transmission and depressants and excitants all provide concise information on subjects of direct interest to the clinician. The last chapter is on the brain and the body as a whole. We look forward in future editions to the proportionate increase in the length of this chapter relative to the rest of the book as the synthesis of knowledge progresses.

**Biology of Neuroglia.** Compiled and edited by William F. Windle. (Pp. xiv + 340; 78 figures. 63s.) Oxford: Blackwell Scientific Publications; Springfield, Illinois: Charles C. Thomas. 1958.

The increasing attention being given to the function of neuroglia cells is reflected in this report of a "Conference on the Biology of Neuroglia" which was held in March, 1956. The volume is a very fine production with wonderful illustrations, and will be invaluable to those who wish to know what is happening in this remarkable field of research.

**Nourishing Brain Cells.** By C. E. Lumsden. (Pp. 23; 14 figures. 2s. 6d.) Leeds University Press. 1959.

This is Professor Lumsden's inaugural lecture. He gives an interesting account of what is known of the function of the neuroglia.

**Le Syndrome de Guillain-Barré.** By R. Coirault, A. Larcen, and P. Davidou; Foreword by Prof. P. Garcino. (Pp. 200. Fr. fr. 2,000.-) Paris: Masson. 1958.

This book reviews the clinical and aetiological features of 46 cases of the Guillain-Barré syndrome. As the authors repeatedly stress, all their cases had acute polyradiculoneuritis with increased albumin content of the cerebrospinal fluid and no increase in the cell content. The authors argue that the picture of the Guillain-Barré syndrome has been confused, especially in the "Anglo-Saxon literature", by reports that include under this name transitional or even frankly distinct disorders. They believe that "idiopathic" cases are less common than secondary cases, and give as possible causes physical agencies, including fatigue and infections due to leptospira as well as viruses and bacteria, and occasionally even blood diseases. From the multiplicity of the apparent

causes they conclude that the aetiology may not be identical in every case even if the pathogenesis is the same.

**Sequelae of Primary Aseptic Meningo-encephalitis.** By Ragnar Müller, Ingvar Nylander, Lars-Erik Larsson, Lennart Widen, and Marianne Frankenhaeuser. (Pp. 115; illustrated.) Copenhagen: Ejnar Munksgaard. 1958.

This short monograph reviews 238 cases, children and adults, of aseptic meningo-encephalitis, and compares them with a control group of 138 matched patients who have not had the disease. The patients had a slightly greater number of headaches and E.E.G. abnormalities, and two had epilepsy, tonic pupils, and endocrine disorders respectively. In a few adults mild mental symptoms (lack of concentration and affective disorders) were noted. On the whole, however, no permanent sequels seemed to follow the disease, which can therefore still be described as benign.

**Differentialdiagnose Neurologischer Krankheitsbilder.** Edited by G. Bodechtel. (Pp. xxviii + 975; 533 figures. DM. 120.-) Stuttgart: Georg Thieme. 1958.

Neurology is by tradition more an exercise in diagnosis than anything else, but this tradition is changing so quickly that it is somewhat surprising to receive this monumental work on differential diagnosis alone. The size of the book and the 12 contributors indicate the wonderful thoroughness with which the field has been covered.

The painstaking inclusion of every possible lesion makes this a most useful work of reference for the practical physician. Thus, as an example, under polyneuritis, there are nearly 90 sub-headings in the index. The many hundreds of illustrations are of exceptionally fine quality, and must represent the collection of a life time.

This type of book is of course of only limited interest to the research worker as the references are often inadequate, but there is no pretence here of adding to existing knowledge, only an enormous accumulation of information which is clearly of very great practical value.

**Emergency War Surgery.** Nato Handbook. Prepared for use by the Medical Services of Nato Nations. (Pp. 411; 18 figures. \$2.25.) Washington, D.C.: United States Government Printing Office. 1958.

This important publication will be of great value not only to the Services but to all concerned with training doctors and laymen for civil defence.

**Sensorische Aphasien und Amusien auf myeloarchitektonischer Grundlage.** By K. Kleist. (Pp. viii + 45; 47 figures. DM 16.80.-) Stuttgart: Georg Thieme. 1959.

In this book the architecture of the cerebral cortex concerned with the sensory side of speech is considered in detail. Then a few cases of sensory aphasia are considered in which the brain has been studied carefully by serial section.

**Medulloblastoma.** By Benjamin L. Crue, Jr. (Pp. x + 206; 16 figures. 43s) Oxford: Blackwell Scientific Publications; Springfield, Illinois: Charles C. Thomas. 1958.

One fourth of all brain tumours in children are medulloblastomas. Treatment is of limited value but in the older age groups long periods of survival have been reported. To the author of this monograph this type of tumour is both a challenge and a hobby. He feels that this tumour should throw light on problems of neoplasia in general. With 400 references he has provided a useful collection of information about the subject.

**The Central Nervous System and Behaviour.** Transactions of the First Conference, 1958. Edited by Mary A. B. Brazier. (Pp. 450; 168 figures. \$5.25) New York: Josiah Macy, Jr. Foundation. 1959.

These transactions are of special interest for the authoritative and beautifully illustrated account of the development of Russian neurophysiology.

The present day work described in this field includes the demonstration of conditional reflexes by direct stimulation of the brain.

**Minds Matter. A New Approach to Mental Health.** By Beryl P. Cooper. (Pp. 62. 2s. 6d.) London: Published by the Conservative Political Centre on behalf of the Bow Group. 1958.

The Bow Group is a group of younger Conservatives who cooperate in research on political problems. In this pamphlet, the subject is the mental health services, and the author, a former hospital secretary, gives her recommendations. These are:

- (i) That certification should be abolished.
- (ii) That new hospital buildings should be "day" and "night" hospitals on the lines of the Worthing experiment.
- (iii) There should be a decentralization of administration, and hospitals should receive five-year block grants for maintenance rather than the annual grants they receive at present.

In a pamphlet of this nature, there is much that one can agree with and much that would work better in theory than practice; but all in all the author argues her case well, and the book will serve a useful purpose if it stimulates the interest of the public in the problems of mental health.

**Psychopathic Personalities,** 9th ed. By Professor Kurt Schneider; Translation by M. W. Hamilton, Foreword by E. W. Anderson. (Pp. xiv + 163. 18s.) London: Cassell. 1958.

The Department of Psychiatry of the University of Manchester has rendered this country a notable service in making this translation available. Professor Schneider's work is a classic of German psychiatry, and is a standard educational text in many countries. British psychiatry has suffered from the fact that it has not been a text here, so that much of the teaching to which the student is subjected is open to fundamental criticisms. The principal error which the British psychiatrist makes is

to try to identify the concept of psychopathic personality with one or more clinical syndromes.

Schneider himself made a great advance when he brought psychopathic personality into relation with normal variation. In his textbook he clarifies concepts with the aid of this idea, but eventually has to abandon it for descriptive purposes. Only because they are not readily applied in practical work, he finds it necessary to criticise the systematic typologies of Gruhle, Kahn, and others. His general discussion of typologies is most informative and valuable.

In the last part of his book he gives an account of some 10 different varieties of psychopath, with excellent clinical descriptions. It is a pity that from this part of the work the student might derive the idea that these types are anything better than descriptive aids, and that qualitative rather than quantitative differences might be found between them.

## BOOKS RECEIVED

(Review in a later issue is not precluded by notice here of books received.)

**Die Entfremdungserlebnisse.** By Joachim-Ernst Meyer. (Pp. viii + 64. DM 12.60.) Stuttgart: Georg Thieme. 1959.

**Surgery in World War II: Neurosurgery, Vol. I.** Prepared and published under the direction of Major General S. B. Hays; Editors for Neurosurgery R. Glen Spurling and Barnes Woodhall, with the assistance of Elizabeth M. McFetridge. (Pp. xix + 466; 130 figures. \$5.00.) Washington, D.C.: Walter Reed Army Medical Center. 1958.

**Neuroftalmologia.** By P. Ottonello and G. W. Vassura. (Pp. 611; 149 figures. Lira 15,000.) Bologna: L. Cappelli Editore. 1959.

**Diagnostic des Lésions Intra-Craniennes par les Radio-Isotopes (Gamma-encéphalographie).** By Thérèse Planiol; Foreword by Prof. D. Petit-Dutaillis. (Pp. 258; 153 figures. Fr. fr. 5,000.-) Paris: Masson et Cie. 1959.

**Recent Progress in Psychiatry, Vol. III [Journal of Mental Science].** Edited by G. W. T. H. Fleming and A. Walk. (Pp. 397. 42s.) London: J. & A. Churchill. 1959.

**Symposia on Child and Juvenile Delinquency** [presented at the American Orthopsychiatric Association]. Edited by Benjamin Karpman. (Pp. 364 + Index; illustrated. \$10.00.) Washington: Station L. 1959.

**Mental Illness in London.** By Vera Novies. (Pp. 317; 11 figures. 35s.) Published for the Institute of Psychiatry by Chapman & Hall, London. 1959.

**Les Médicaments du Système Nerveux Cérébro-Spinal.** Edited by F. Mercier. (Pp. 573; 25 figures. Fr. Fr. 5,800.-) Paris: Masson et Cie. 1959.

**Ataractic and Hallucinogenic Drugs in Psychiatry.** Report of a Study Group [*Wld Hlth Organ. Tech. Rep. Ser. No. 152*]. Pp. 72. 3s. 6d.) London: H.M.S.O.; Geneva: WHO. 1958.

**Pain,** 2nd ed. By Harold G. Wolff and Stewart Wolf. (Pp. 121; 20 figures. 32s. 6d.) Oxford: Blackwell Scientific Publications. 1958.

**The Innervation of Muscle: A Biopsy Study.** By C. Coërs and A. L. Woolf. (Pp. xv + 149; 281 figures. 42s.) Oxford: Blackwell Scientific Publications. 1959.

**Curare and Curare-Like Agents** [Proceedings of International Symposium, Rio de Janeiro, 1957, under the auspices of UNESCO]. Edited by D. Bovet, F. Bovet-Nitti, and G. B. Marini-Bettolo. (Pp. xi + 478; heavily illustrated. 85s.) London: D. Van Nostrand. 1959.

**Nurse-Patient Relationships in Psychiatry,** 2nd ed. By Helena Willis Render and M. Olga Weiss. (Pp. vii + 319. 46s.) New York—London—Toronto: McGraw Hill Publishing Co. 1959.

**Électromyographie dans les Maladies Nerveuses et dans le Cryptotétanie.** By N. Rosselle, with the collaboration of K. de Doncker, P. Jolie, and S. Ligot. (Pp. 159; 183 figures. Bel. frs. 200.-) Louvain: Éditions Nauwelaerts. 1958.

**Practical Handbook of Psychiatry for Students and Nurses,** 4th ed. By L. Minski. (Pp. 152. 7s. 6d.) London: Heinemann. 1959.

**The Nature of Stress Disorder** [Conference of the Society for Psychosomatic Research, May, 1958]. Foreword by J. Hambling; Preface by C. Newman. (Pp. 298; 16 plates, 21 figures. 25s.) London: Hutchinson Medical Publications. 1959.

**Involuntional Melancholia:** An etiologic, clinical and social study of endogenous depression in later life, with special reference to genetic factors. By Ake Stenstedt. (Pp. 71.) Copenhagen: Ejnar Munksgaard. 1959.

**Dégénérescence Hépato-Lenticulaire.** By Georges Boudin and Bernard Pepin; Foreword by Prof. Th. Alajouanine. (Pp. 250; 46 figures, 1 colour plate. Fr. frs. 3,500.-) Paris: Masson et Cie. 1959.

**Geniale Menschen,** 5th ed. By Ernst Kretschmer. (Pp. viii + 311. DM 36.-) Berlin—Göttingen—Heidelberg: Springer Verlag. 1958.

**The Effect of Advancing Age upon the Human Spinal Cord.** By L. Raymond Morrison, with the collaboration of Stanley Cobb and Walter Bauer. (Pp. x + 127; 90 figures. 48s.) Harvard University Press (London: Oxford University Press). 1959.

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The Pergamon Institute (English address: Headington Hill Hall, Oxford) announce that English editions of the *Pavlov Journal of Higher Nervous Activity and Problems of Cybernetics* are being prepared. Specimen copies and subscription rates on application.