

Book Reviews

THE NEURON AND THE GLIAL CELL. By Santiago Ramón y Cajal. Translated and edited by Jack de la Torre and William C. Gibson. Published by Charles C. Thomas. 355 pages. \$50 Cdn. approx.

Oh, for the simple days of Neuroscientific investigation, before the advent of peptide transmitters, neuromodulators, receptors, and restriction fragment length polymorphisms — a time when the most hotly debated issue was whether the nervous system was composed of discrete neuronal elements or a syncytium of cells, as Gerlach and Golgi were trying to claim.

This excellent new translation of Ramón y Cajal's superb treatise on the structure and function of the nervous system effectively takes us back to that era. Beautifully illustrated with Cajal's own drawings, it shows this neuroanatomist's unique ability to carry a technique that we might now pass off as 'routine neurohistology', to its limits — and then some distance further. For Cajal possessed, apart from his undisputed skills as a morphologist, a desire to develop a unifying view of the nervous system of man and all other animals. He became, in essence, a philosopher of the nervous system as well as a lifelong student of its evolution.

The text is full of the man's brilliant insights, as well as his misconceptions: "Myelin is then a product of axonal secretion, and it is not possible to relegate it another origin". It contains countless picturesque descriptions of axonal and dendritic systems that, in their day, must have compensated for the lack of carefully reproduced glossy colour photo-micrographs: "... the tissues were immersed in a silver nitrate bath. Shimmering spines reflecting iridescent gold shook us to attention".

Ramón y Cajal was one of the first investigators to recognize the potential information to be gained from the study of simple or 'primitive' nervous systems. He saw the crucial importance of new methodology (much of which he himself developed) in the advancement of neuroscience, and made the statement that is as appropriate now as it must have been at the turn of the century: "... thanks to the invention of analytical methods. . . the shroud which covered the structural details of fine anatomy is beginning to rip open".

Many of Cajal's conclusions about neural and glial structure, as well as neuron and axonal response to injury, among others, have been proven valid with the passage of time and the arrival of high resolution electron microscopy. This volume provides an excellent historical perspective on modern structural and neurophysiologic studies. As Cajal himself wrote: "A comparison of yesterday's and today's science is always useful." The translators of this book are to be congratulated for providing an opportunity for us all to make such a comparison.

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REVIEW OF METHODOLOGY AND EVALUATION OF PSYCHIATRIC TREATMENT. 1983. Edited by T. Helgeson. Published by Cambridge University Press, Cambridge, New York, New Rachele, Melbourne and Sydney.

This book represents the proceedings of a workshop held in Vienna in 1981 under the auspices of the European Medical

Research Councils which is a standing committee of the European Science Foundation.

This book is intended to be a source book for those research workers already established, as well as for those contemplating research in this difficult field. It should also be of interest to others engaged in evaluating results of treatment, with regard to both patient and health administration.

I think that this book has met its stated aims very well.

Part I — deals with methods of classification of mental disorders, multi-axial classification, standardized methods of classification and biological factors in the diagnosis of depression.

Part II — is on the criteria of evaluation and comprises papers on special problems in evaluation of psychotherapy and milieu therapy.

Part III — includes papers on certain rating scales and their use in specific disorders. (Objective scales, self-rating scales and methods for measuring social adjustment.)

Part IV — considers psychophysiological and other biological methods of evaluation of psychiatric treatment.

Finally, Part V — the ethical and practical problems of therapeutic research are discussed.

Many readers not familiar with psychiatric research, and even many readers who are familiar with psychiatric research, might be surprised at the tremendous strides being made in attempting to standardize not only diagnoses but methods of evaluating psychopathology and treatment. All too frequently in the past psychiatric research has floundered on results which cannot be reproduced from centre to centre mainly because of difficulty with diagnoses and different conceptual frameworks. In some ways much of this material makes for very dry, uninteresting reading, but on the other hand it is from this painstaking work that a firm foundation could potentially be laid for more significant work.

I think a psychiatric worker would be wise to consider the material presented in a very concise fashion in this book. Picking up any modern journal, one can see where many articles could have been improved if principles espoused in this book had been followed.

I particularly enjoyed the section on multi-axial diagnostic systems. Currently in North America we are struggling with the introduction of DSM III. To see a general discussion of multi-axial symptoms from authors outside our system gave fresh insight to the whole concept of multi-axial diagnosis and its potential and problems.

Also of note was the discussion of proper selection of outcome measures. Many fine general principles were enunciated.

As with most multi-authored texts, the quality is variable but I found that the editing was quite tight. The bibliographies were excellent and would be of interest to all psychiatric researchers.

I recommend this book highly.

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