
This book provides a useful and thorough overview of a number of different aspects of autism. The contributing authors are all American, and most hail from the east coast. After an introduction and overview by Isabel Rapin, the book commences with a discussion of the genetics of autism by Joseph Piven and Susan Folstein. They report the evidence showing that autism is a highly heritable condition as well as data indicating that the liability is not for autism per se but for a more broadly dendritic or preverbal effect. Most promising is the evidence that autism-related abnormalities are found in the cerebellum and limbic system (hipocampus and amygdala). Subsequently Jocelyn Bachevalier describes the contribution of medial temporally to major neurobehavioral problems in primates. Memory deficits in autism are described by Ronald Killiany and Mark Moss. Jeremy Schmahmann describes the possible role of the cerebellum in autism and George Anderson details the neurochemical findings.

Finally, Margaret Bauman and Thomas Kemper write an epilogue. One of the things that they say in this epilogue is that “Virtually all the authors have been made to contribute a chapter on the clinical and neurobiological features of autism without a clear framework with which to fully understand the implications of these observations”. At present this is the crux of the issue. Despite a welter of studies and data there is little integration across descriptive levels and disciplines. The focus in this book on the cerebellum and temporal lobe structures and the possible effects on memory and affect, expression, recognition and regulation suggest the possibility of an integrative theory. Understandably, this is never fleshed out, but it would have been nice had the contributing authors been made to consider explicitly how the genetic, neurochemical, neurophysiological and neuroanatomical findings might be interrelated. Perhaps the most striking omission from the book concerns the recent burgeoning evidence for a lack of the theory of mind in individuals with autism and the implications these findings have for neurobiology of the condition.


My initial reaction on being asked to review this book was one of interest to see how it compared to the new edition of McAlpine’s Textbook of MS or the recent excellent supplement to one of Neurology devoted to the disease. However, my task was made much more difficult by the instant realisation that it was almost five years out of date. A note added in proof refers to a paper from 1991, but the bulk of the references are concerned with data from the late 1980s, with only a handful of papers cited from 1990. This is a shame as the editors have gathered an eminently selected group of authors, largely from North America, to contribute to the volume, including John Prineas, Don Paty and Jack Antel. I am still left with a tirade on the clinical usefulness, or otherwise, of experimental allergic encephalomyelitis or the lack of benefit on disability from beta-interferon. Unfortunately so much has happened in MS research over the past five years that this book has been consigned to the history of MS section on the bookshelf.


This collection of papers is a result of the 4th Triennial Meeting of the International Basal Ganglia Society held in 1992. The editors are to be congratulated on the breadth of the content of the citation of 1993 references. However, as with all books of this type there are problems of coherence and repetition. Although several of the chapters provide excellent little reviews (for example Chapter 15 by Ferrante et al), many of them provide limited data that cannot be easily accommodated into a clear framework (for example Chapter 19 by Block et al). Introductory chapters to each of the seven sections by the editors would greatly help in this respect. In addition many of the chapters cover common ground, unnecessarily repeating themselves—for example, chapters 37, 38, 39 and 57 a all discuss in detail the evidence that the subthalamic nucleus is pivotal to the functioning of the BG and thus their role in the development of abnormal movements. Strictly editing of these chapters would have strengthened the value of this book. Overall the book clarifies many of the issues that are currently at the forefront of basal ganglia (BG) research. For example, the concept that the BG consist of a series of parallel pathways is challenged anatomically, electrophysiologically and pharmacologically. Furthermore it is becoming clear that LTP and LTD may be a feature of the normal striatum and dependent on its dopaminergic innervation. In addition this dopaminergic innervation is not only a classical synaptic phasic one but can also influence the striatal neurons and their impinging cortical afferents by a paracrine tonic release of dopamine. This may be important in the normal functions of the BG especially with respect to their role in non-motor functions and the clinical pathophysiology of BG related disorders.

Therefore this book provides much useful information, but is more of interest to the scientist than clinician. Furthermore its size and price limits its appeal, and so those to whom the book most appeals will have either contributed to it or be in possession of more recent reviews and papers.


This book is dedicated to the memory of Dr Richard Heikkila, who pioneered much of the early work on MPTP induced parkinsonism. It is therefore a great shame that it does not serve as a better tribute to him. The book is presented in an attractive format by the editors Schneider and Gupta. Most of the chapters are concerned with a detailed consideration of the specific areas of the disease. However, some of the chapters, focussing on the effects on nigrostriatal dopamine receptors, discuss the known effects of neurotoxins on the nigrostriatal system, and thus are a little out of place in an otherwise interesting volume. Some of the chapters are of importance and the book is thus a useful volume with a number of contributions from the world’s leading Parkinson’s disease researchers. The book is, however, disappointingly out of date with the latest epidemiological, pathological and clinical research that has been published in recent years. Overall the book provides an up-to-date overview of important topics in Parkinson’s disease research and may serve as a useful introduction to the reader for the remainder of this book is based on a series of excellent papers presented at the 2nd Annual Meeting of the Movement Disorder Society, held in London in 1993. It is thus a timely and important addition to the literature on Parkinson’s disease. The book comprises 118 chapters and is divided into three parts: Clinical Aspects, Basic Science and Management and Treatment of Parkinson’s Disease. The chapters are well illustrated and contain a wealth of information and references that will be of interest to both research workers and clinical practitioners. The book is an excellent resource for all those involved in the study or management of Parkinson’s disease and is highly recommended.


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The Basal Ganglia IV. New Ideas and Data on Structure and Function

Roger Barker

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