Magnetic stimulation of the human nervous system

The use of transcranial magnetic stimulation (TMS) is increasing in studies of cognitive functions but the books published to date all concentrate on the clinical or physiological aspects of the technique. This is understandable because the development of TMS has been almost entirely in these areas. Mills has been a leading and longstanding contributor to this development and his book is another in this clinical neurophysiology tradition and aims to give a comprehensive review of TMS in these fields. The book covers the basics of magnetic stimulation and walks the reader through the fundamentals upon which mainly studies of the motor system rely. For psychologists the use of the book will lie mainly in the early chapters which provide straightforward and clear information on coils, EMGs and some sources of experimental artefact. The chapters on motor effects (Chapter 4), the visual system (Chapter 6) and plasticity (Chapter 17) are the ones that would be most likely to be turned to by neuropsychologists. The motor system chapter sticks to lower levels of motor function and doesn’t extend to the work of Schluter et al., though this appears in the chapter on anatomy and physiology) or Gerloff et al. This limits the book’s utility to those working on higher aspects of movement. The vision chapter is out of date and will also be of little use and the plasticity chapter is thin and again will not serve the neuropsychological community. The scope of the book if extremely broad and it is therefore inevitable that some chapters will suffer but allowing for obvious cavils (in a multi-subject book one never likes the chapters that deal with one’s own areas of activity) the book does achieve its purpose and provides a quick look-up guide as a starting point for investigations. The main strength of the book lies in where it stops — more or less at repetitive pulse TMS (rTMS). The book is really a book on single pulse TMS. This is extremely valuable at this point in time and I doubt whether such a book will be likely to appear again as rTMS becomes more widely used. I would recommend that neuropsychologists read the chapters on brain stimulation in a clinical setting (Chapter 8) and the chapter on movement disorders (Chapter 14), not for their neuropsychological content but for the clear picture they give of what can be done with single pulse TMS. The book, doubtless due to its breadth, doesn’t offer much theoretical interpretation of the findings discussed, rather it tends towards an annotated list, but to criticize it for this would again miss its purpose which is to provide a whistle-stop overview of a wide area. In this it succeeds and the book will be useful to anyone who has need of a basic reference work in TMS.

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A short history of neurology: the British contribution 1660–1910

Rather than a systematic “Short History of Neurology” this is a heterogenous collection of papers chiefly on early British neurology. They were given at a symposium sponsored by the Medical Society of London in 1998. The papers include several on the two towering figures of British Neurology, Thomas Willis and John Hughlings Jackson and range to some rather obscure figures. Most papers place little emphasis on the social and intellectual matrix of neurology (an exception is R. Martens on Willis); many presuppose
some familiarity with clinical neurology. Whereas some of the contributions require little previous knowledge of the history of biology and medicine others assume some exposure to such topics as the Galenic theoretical and experimental traditions. C.U.M. Smith places J.Z. Young's discovery of the giant squid axon in the context of the long standing support of the British Navy for biological research. The chapter by P. Koehler deals with the changing relationships of neurology and psychiatry on the continent and in the US as well as in Britain and the one by M. Bonduelle and D. Laplane discusses the "French connection". Although uneven, this little volume contains much interesting and intriguing material not readily found elsewhere. It ends with a charming chapter by R. Gordon on collecting old British neurology books.

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