much of the first five chapters, whilst the material relating more specifically to speech control and its pathology is of more interest. Chapter 6, on treatment of the dysarthrias, is worthy of the attention of a wide variety of readers. It emphasises that specific rehabilitation and treatment of this particular motor skill, which may be severely disabling, is beginning to be under-pinned by a physiologically rational approach and may sometimes be rewarding.

This volume will be of interest to some specialist libraries, but it is to be hoped that Dr Netsell will, in a few years time, produce a book describing his subject in more particular detail than he has been able to here.

RJ GREENWOOD

Differential Approaches in Microsurgery of the Brain. By Wolfgang Seeger (Pp 414; \$98.00.) Vienna: Springer-Verlag, 1985.

This book is designed as an illustrated manual of microvascular neurosurgery, in which alternative surgical approaches to a number of central and basal intracranial lesions are discussed, together with the factors outlining the choice of approach. Professor Seeger largely achieves his aim, but perhaps could have done so rather more concisely.

The book takes the form of a series of carefully labelled figures, some 200 in all and most of them comprising multiple line drawings, apparently the work of the author exclusively. The routes of approach to lesions, principally arteriovenous malformations or benign neoplasms are shown, usually as line diagrams of coronal or sagittal sections. These are accompanied by drawings of the appearances through the microscope at surgery ("microsurgical topography"): in many cases these illustrate several stages of a procedure. The figures are comprehensively labelled, and some are accompanied by a very limited commentary on the facing pages. There is an introductory section which discusses and illustrates the anatomical basis on which the main material of the book is classified; anterior, middle and posterior segments of the dorsal cisterns and fissures, middle and posterior segments of the lateral cisterns (the cerebellopontine cisterns fall into this latter category), and anterior, middle and posterior segments of the basal cisterns.

The quality of the drawings of microsurgical topography is quite outstanding and must surely place the author high among the ranks of surgical artists. How-

ever, CT scans and angiograms have also been transcribed as line drawings or simple sketches. This is much less successful; the displacements illustrated will be familiar to many readers, the quality of the drawings is variable, and they contribute relatively little.

The arguments for and against particular routes of approach are tabulated in note form among the figure labels, sometimes with unfamiliar abbreviations, and this does not always make for clarity. Since the "differential approach" forms the basis of the book, this element could usefully have been expanded in the form of a short paragraph on the facing page, where ample space is available. The orientation of most, but by no means all diagrams is adequate.

The quality of translation into English is not always adequate, for example "basal" for basilar artery, "thick calibrated vessels", "sugillations" in the wall of the third ventricle.

The aim of the book is to consider alternative approaches to problematical lesions, and it is not designed for the novice micro-neurosurgeon. By implication it would be used for reference when surgery for less familiar lesions is planned. However, the indexing and chapter headings provide insufficient information to provide easy access. For example, a glomus jugulare tumour and an acoustic neuroma are illustrated, but receive no mention in the index or chapter headings. Again, the relative merits of the sitting and lateral decubitus positions for CP angle surgery are not considered.

Although this book is clearly based on very considerable surgical experience and perception, its style will not appeal to all readers and anyone considering purchasing it would be well advised to assess it for themselves with some care.

AJ STRONG

Surface Dyslexia: Neuropsychological and Cognitive Studies of Phonological Reading. Edited by KE Patterson, JC Marshall, M Colheart. (Pp 544; £29.95.) London: Lawrence Erlbaum Associates, 1986.

Surface Dyslexia serves as the sister volume to *Deep Dyslexia* (1980) edited by the same authors. Both books are concerned with how a printed word is translated into its sound counterpart, distinguishing at least two separate processes whereby reading is accomplished. The earlier volume is concerned with deficits in reading based on processes which "look up" a particular

word-sound rendering from a store of known words, the entry being specific to that word. Such processes appear necessary to explain how uniquely spelled words (eg yacht, cache) are read. In contrast *Surface Dyslexia* concentrates on processes that utilise sub-word size components; these letter(s) to sound correspondences overlap with many words and appear necessary for reading nonsense syllables such as "blimp" and "slunk".

The book comprises a collection of original contributions from many of the leading research workers in the field. As such, it provides the latest state of the art, complete with extensive references after each chapter. The emphasis is most definitely cognitive rather than neurological, the authors sharing a common information-processing approach to the study of abnormal and normal reading processes. The focus of such approach lies in fine-grained quantitative analysis of individual case studies whereby a particular stage in the reading process is pinpointed by experimental manipulation of the relevant variables. Gone are the days when a patient might be reported in descriptive terms for "interest's sake"; model building and complex theories are most definitely the stuff that the modern cognitive neuropsychologist's dreams are made of.

The book is well organised into six sections, each of which is provided with a brief introduction. A general overview is given at the beginning, along with a minimal process model of reading (illustrated on the book jacket cover) to which all, or most, contributors roughly adhere. I particularly enjoyed the historical review introducing the first section and welcomed the inclusion of a phonetic alphabet in American, British English and French presented at the beginning of the book.

Three case studies (Part I) by D Bub *et al*, F Newcombe and JC Marshall, and E Saffron illustrate the diversity of patterns that may emerge in surface dyslexic patients. In contrast the four case studies in Part II (by J Kay and KE Patterson, H Kremin, DI Margolin *et al*, and MC Goldblum) provide a warning to those who may fall into the trap of equating symptoms with deficits. These latter patients' reading problems appear to reflect more general difficulties with naming, as attested by their accurate comprehension of many of the words they mispronounce. At this point in the book it may be worthwhile consulting T Shallice and R McCarthy's (p363) classification of patients who read from sound in order to aid the reader conceptualise the different subtypes of patients.

Surface dyslexia in an orthographically

Book reviews

regular language, Spanish, (J Masterson *et al*), in a syllabic orthography, Kannada, (P Karanth) and in the dual writing system of Japanese (S Sasanuma) form the basis of the third section. J Masterson, CM Temple and U Frith each contribute to a section (IV) on surface dyslexia and the development of reading. The latter two chapters are particularly clearly written and complement each other: the one (by Temple) illustrating how the information processing approach can be applied to individual case studies of children and the other (by Frith) defines the progression of the different stages or strategies that occur in the acquisition of reading skills.

Section V contains two excellent reviews of normal data in relation to current models of reading (by KE Patterson and S Morton and L Henderson). In contrast T Shallice and R McCarthy draw on data from published dyslexic patients to conceptualise a multi-level model of how reading is achieved through print to sound conversion. Also included in this section is a chapter by J Deronesné and MF Beauvois who present an individual case study, not of a surface dyslexic, but a patient who has a specific deficit in their phonological reading. Their conceptualisation of the stages involved in print-sound conversion has similarities with Templin's chapter.

A neurological appendix (Part VI) presents CT scans of a number of patients described in the book.

Surface Dyslexia is definitely a specialist volume and should provide an excellent reference text for those actively involved in reading research. For the rest, however, I suspect they will have to await a more simplified summary of the field.

DM BAXTER

to provide a rationale for the use of CT in each area but most lack clinical and radiological conviction and there is no advice on whom to scan, when or especially why.

By far the largest section deals with cranio-cerebral and spinal injuries but at an elementary rather than specialist level and does not improve on the accounts available on other standard texts. Frequent references are made to the merits of the digital radiograph as a simple means of screening for injuries of the cervical spine, pelvis, abdomen and chest. In practice many body scanners as yet fail to produce digital radiographs of sufficient quality to exclude significant trauma. The chapter on abdominal and retroperitoneal injuries shows many clear pictures but failed to convince me of either the merits of CT scanning in the diagnosis of abdominal wall trauma or of the need to assess the extent of the damage surrounding an injured but functioning kidney where a therapeutic issue is not involved. The book does make well the point that CT scanning may avoid the need for an invasive technique such as angiography in many cases. The authors also suggest that peritoneal lavage should be delayed until after CT scanning of the abdomen because any residual fluid may be misinterpreted as blood. In most cases in Britain this delay, because of lack of availability of scanners, would cause more harm than good. Although the text is heavily biased towards CT scanning and tries to convince the reader of the value of scanning in limb injuries there is the rather incongruous advice that with a suitable skull fracture and clinical signs, CT scanning may not be required for an emergency life saving operation. It seems incongruous that if scanning time is available for limb injuries it may not be available to examine a critically head injured patient.

The book has little to offer the specialist within the neurosciences but it does provide a concise overview of the potential usefulness of CT scanning in trauma and will be of help to the trainee radiologist or traumatologist.

E TEASDALE

Computed Tomography of Trauma. Edited by Martin Heller, Hans-Holger Jend, Harry K Genant. (Pp 128; DM 98.00.) Stuttgart: Georg Thieme Verlag, 1986.

This inexpensive short volume provides a well illustrated comprehensive catalogue of the computed tomographic appearances of injuries in all parts of the body. The translation from German makes the English rather difficult and the text does not read easily. On the other hand each chapter is divided conveniently into easily identified sub-sections such as *anatomy*, *classification of fractures*, *examining techniques*. This facilitates the identification of aspects of special interest. Sections on "evaluation" attempt

outlined in the preface, the aim is to place advances in the neurosciences into a clinical context and this is achieved in the main. The particular emphasis in this volume being on neuromuscular disorders. As is often the case, the volume could be further improved with a more generous number of illustrations.

The rewards gleaned from any text of review articles depend on one's own interests and expertise. The initial chapters on muscular dystrophy and the molecular basis of inherited neurological diseases are of interest and serve as a helpful introduction for the uninitiated into recombinant DNA techniques, gene probes, and gene linkage. These techniques potentially will lead to isolation of the gene products responsible for various inherited disorders.

Following these chapters is an excellent contribution from Professor Newsom-Davis on myasthenia gravis and the Lambert-Eaton syndrome with explanations of how basic medical research has led to major developments in patient management. These two conditions serve as excellent models of organ-specific autoimmunity in man, and the discussion is therefore also of general application.

The physiology of calcium channel control and clinical pharmacology of calcium antagonists are reviewed by Professor Greenberg. Already well established in cardiology, neurological indications for these drugs are given with interesting prospects for potential use in ischaemia and epilepsy.

There follows a chapter on recent aspects of multiple sclerosis. In many ways I found this the least satisfactory chapter. Although genetics, immunology and imaging in multiple sclerosis are all mentioned, some of the more interesting developments are not fully covered. Magnetic resonance imaging, has made a considerable impact on the study of multiple sclerosis and promises to assist in the evaluation of therapeutic trials (a difficult area for clinical evaluation alone due to the variability in clinical course) and this technique is only briefly touched upon.

There are two chapters on movement disorders of the head and neck and neuromuscular control of speech which fit well together. The former chapter provides a simple taxonomy of the various tremors, grimaces and dystonias which affect the head and neck, a subject many find confusing. The latter chapter was perhaps less easy to immediately extrapolate to a clinical setting.

In reviewing new developments in epilepsy management the choice of drug and the surgical management of the epilepsies are stressed. The merits of anterior temporal lobectomy and amygdalohippocampectomy

Current Neurology. Vol 6. Edited by Stanley H Appel. (Pp 361; £58.00.) Chicago: Year Book Medical Publishers Inc. Distributed by Wolfe Medical Publications Ltd. 1986.

This is an excellent addition to the *Current Neurology* series and a useful text in any library, either personal or departmental. As