utterance stereotypic jargon (with accompanying apraxia of speech). In its severest form, utterances are restricted to repetition of the same consonant vowel syllable.

In the appearance of all these forms, patients are characteristically unaware of individual errors on words (a factor that distinguishes the syndrome from conduction aphasia, in which repeated attempts are made to correct aberrant pronunciations of words). However, it is clear that lack of awareness is neither a necessary nor a sufficient condition for jargon to be produced. Jargonaphasia lends itself readily therefore to the scrutiny of psycholinguistic models of how utterances are produced.

In view of the disparate theoretical backgrounds of its potential readers, the book is inexcusably scanty in its explanation of technical symbols. There is no glossary, nor list of phonetic symbols. Their absence makes for hard reading. But a more serious difficulty is the confusion of terms from different levels of reference. For instance, Perelman and Brown speculate (p.217) that phonemic jargon may be deteriorated neologistic jargon. Later, they propose that neologistic jargon subsumes a combined phonemic and semantic deficit. Difficulty in interpretation arises because "phonemic" is used in different senses in each statement. In the first case it is used as a descriptive term for the patient's language behaviour. In the second case, it is used as an interpretive term implying a breakdown at a hypothetical linguistic level where the sound of words is integrated with meaning in an internal system.

Despite these substantial obstacles to its reading, the book makes a significant contribution to the development of ideas about jargonaphasia, and attempts to narrow the gap between the psycholinguistic "diagram-maker" and the neurologist or psychiatrist. Nonetheless, the book underlines the present lack of an adequate model of the mental operations underlying language.

RUTH LESSER
JANICE KAY

Behavioural Pharmacology. 2nd ed. By Susan D Iversen and Leslie L Iversen. (Pp 305; £7.95.) Oxford: Oxford University Press, 1981.

The first edition of *Behavioral Pharmacology* was heralded as a valuable addition to the currently available texts. The second and revised edition warrants the same accolade. The major additions to the text

have been the incorporation of a section on neuropeptides and the inclusion of separate sections dealing with the actions of particular drug groups on behaviour. The text starts with the general introduction to the analysis of behaviour and to neuropharmacology in general. The following chapters deal with the determination of drug action and the effects of the various drug groups on behaviour. Each section is clearly and concisely written so that it is understandable to a general audience seeking an introduction to behavioural pharmacology. I particularly liked the critical approach adopted to the subject and to the integrated manner in which the contents of the book were assembled. Clearly much thought and effort has gone into producing a volume of this quality. Indeed I can find nothing but praise for this text and I would strongly recommend it to all interested in this area, and to my own students as an example of how to present scientific data in a clear and concise manner.

PG JENNER

The Neurology of Aphasia. Edited by Howard S Kirshner & Frank R Freeman. (Pp 224; Dgl 72.50.) Holland: Swets Publishing Service, 1982.

This American book is twelfth in a series on neurolinguistics. Neurologists need not be disheartened at this for as the title suggests it is one of the most clinical texts on aphasia with strong emphasis on anatomical localisation and pathology. It aims to "provide a summary of the information contributed by clinical neurologists and neurosurgeons to the study of language and aphasic syndromes". To this end, the chapters are written or co-written by neurologists (and one neurosurgeon).

The book is designed to appeal not only to doctors but to non-medical specialists (psychologists, linguists, speech pathologists and therapists) who abound in the US to an extent that we do not see yet in the UK. In some respects it is thorough and detailed but parts are, for the physician, pitched at a comparatively simple level (table VIII for example consists of a page of dictionary and text book definitions of aphasia). This is only a minor disadvantage and the neurologist, particularly the average British neurologist who has received little training in higher cerebral function, can find much to please him in the book. After a rather long introductory chapter a series of authors chosen for their sub-interests within aphasiology provide what are mostly good and concise reviews. The

shorter chapters are the best and the reviewer found the following particularly valuable; Kertesz (Neuroanatomical Correlation); Duncan and Mohr (Broca's aphasia); Kirshner (Wernicke's aphasia); Rubens (Transcortical aphasia); Ojemann (Subcortical aphasias); Benson (Alexias); Woods (Acquired childhood aphasia); Heilman and Bowers (Affective disorders induced by hemispheric dysfunction). Much of what is written is available elsewhere but this book provides a good up to date summary of the neurology of language under one cover.

The general presentation is satisfactory but author references are listed at the back of the book with only one initial; Hughlings Jackson, therefore appears as J. Jackson which caused a few moments confusion. Unfortunately the reviewer's first copy had groups of pages missing with others duplicated.

JC MEADOWS

Transient Ischemic Attacks. Vol 3 of Science and Practice of Surgery. Edited by Charles Warlow and Peter J Morris. (Pp 426; SFr 185.) New York: Marcel Dekker Inc, 1982.

This small but expensive book contains a number of chapters from physicians and surgeons on the problem of transient ischaemic attacks and it illustrates well the present uncertainties surrounding the management of this common and important condition, which so often precedes a major stroke. Although equally well-informed and well-expressed the contributions from physicians and surgeons reflect very different approaches to the problem. Those from physicians tend to be cautious and critical almost to a fault; the value of even long established treatments is called into question, while those of the surgeons pay insufficient attention to the natural history of the condition. Surgical reconstruction in the subclavian/vertebral system for instance is recommended solely on the basis of angiographic abnormality.

Dr Warlow is a leading exponent of the controlled clinical trial, and is currently engaged on a prospective investigation both of medical and surgical treatments in this condition. Perhaps in the second edition of the book he will be able to find a consensus between the divergent views of his contributors.

RW ROSS RUSSELL