and should be required reading for all psychiatrists.

J. A. G. WATT

Developmental Dysphasia

The child who is slow to talk makes his parents anxious and induces a sense of frustration in his doctors and teachers. Reassurance and encouragement are fortunately sufficient in most cases. But in those instances where there is a true dysphasia, every stage of the child’s management from diagnosis to treatment is difficult. For the doctor it is often made more difficult by the scarcely penetrable maze of jargon used by some aphasiologists. Zangwill’s introduction to this study is a model of comprehensibility, and the other authors are generally successful in conveying their meaning without recourse to idiosyncratic terminology.

The closely allied condition, developmental dyslexia, has gone through various phases of acceptability to gain neurological respectability. Perhaps this short and essentially practical book will do the same for developmental dysphasia.

IVAN T. DRAPER

An Introduction to the Psychotherapies

One of the aims of this textbook is to make the concept of psychotherapy understandable to beginners and in attempting this task the editor has incorporated contributions from seven skilled practitioners of psychotherapy and behaviour therapy.

Despite its title, the book is not essentially about different schools of psychotherapy but rather about various models of intervention in different settings, using a psychodynamic or behavioural approach or a combination of both, and, since practice cannot be divorced from theory, each contributor also offers an outline of his theoretical model.

The quality of contributions is generally high, especially those chapters dealing with behaviour therapy, individual long-term psychotherapy, family therapy, and sex therapy. Although brief or focal psychotherapy is discussed, this topic perhaps deserved a chapter in its own right. Each contributor offers an excellent list of references.

This textbook will certainly be of use to beginners and those colleagues who are interested in knowing something about psychotherapy.

J. D. TEMPLETON

Human Neuropsychology

This relatively small book has 10 chapters on the major topics in neuropsychology relevant to the neurologist’s practice. Each one is broken up into short, easily accessible sections so that a brief reference allows one to grasp the essentials of that subject with an outline of anatomy, clinical considerations, and animal experiments, and a generous list of references. In the preface the authors acknowledge a lack of comprehensiveness—for instance, there is no section on dementia—saying that its scope reflects their particular interests. This alone is a monument to their industry. Unlike many books on neuropsychology, this one is easily read and there is a commendable absence of specialised language.

IVAN T. DRAPER

Letters

F discharge method in measurement of proximal conduction times
Sir.—In a recent report on the characteristics of the F response Yates and Brown (1979) concluded that “caution should be exercised before the F discharge is accepted as a method for measuring proximal conduction times in human motor nerves.”

This statement, based on only one partially examined observation of the above authors and a theoretical argument, is unjustified. Furthermore, the literature reviewed in their discussion is limited to those reports which favour their conclusion.

Observation “Trains of 100 to 200 stimuli result in F discharges from less than one half of motor units”, thus they might not excite the motor units antidromically with the shortest conduction time as the method requires. This observation is of value only when the F wave motor nerve conduction velocity (MNCV) estimations are based on “less than 10 stimuli” as in some of the reports mentioned by the above authors. Reports on F wave MNCV measurement based on more than 20 to 100 F waves, which is our practice, are not cited (Panayiotopoulos et al., 1977; Panayiotopoulos and Scarpalezos, 1977).

It has been shown that one to three out of 20 F waves have the shortest latency. Therefore, accurate F wave MNCV measurements are achievable provided that adequate numbers of F waves are used (Panayiotopoulos et al., 1977, see also references in Panayiotopoulos, 1978). Moreover, the argument of the authors that “the stimulus trains are too long, the test may be too uncomfortable and require too much time to be practical” does not prove to be justified upon closer examination. One hundred stimuli, for example, given at one stimulus per two seconds, require 3.5 minutes and are much less uncomfortable than the universally applied multistimulus test of myasthenia. It has also been shown that the MNCV in the distal segments of the nerves is practically the same for both the M and F wave methods (Panayiotopoulos et al., 1977; Kimura, 1978; Panayiotopoulos, 1979).

Theoretical argument “All motor units should have a more or less uniformly short central delay in healthy and disease.” This has recently been dealt with (Kimura, 1978; Panayiotopoulos, 1978) in view of the same argument raised by Young and Shahani (1978). I should like to add in this letter that the margin of error introduced by theoretically possible differences in the central delay (which is the time required for the antidromic activation of motor neurones) would be negligible particularly in F wave MNCV measurements of the peripheral nerves of the lower limbs. This is better understood in the following example: a 2 ms difference in the central delay, which is nearly impossible (Kimura, 1978) would introduce a 6 m/s difference in MNCV estimations of the tibial nerve in a subject with an L1-knee distance of 700 mm, F wave and M response latency of 38 and 9 ms respectively, from stimulation at the knee. However, errors of this order are quite common in the classical M response method (see Panayiotopoulos, 1978): a difference of 0.5 ms between onset of M response at
knee and ankle would introduce an error of 6 m/s in MNCV estimations of the tibial nerve segment knee to the ankle. Consequently, the objections raised by Yates and Brown (1979) cannot be accepted. The F wave, as the M response, method has a number of indispensable applications in clinical neurophysiology.

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References


SIR,—It was not our intention to suggest that the F discharge method for measuring proximal conduction times should be abandoned. Clearly the method is helpful. We wanted simply to look critically at some of the physiological determinants behind the F discharge, emphasise those areas where there are valid questions and uncertainties, and focus on some of the limitations in the use of this method.

To our knowledge no one has measured directly the central delays for F discharge motoneurones in any significant numbers of units in man, or for that matter, in an experimental model like the cat. Therefore, there must be a measure of uncertainty about the order of central delay in motor units particularly in pathologic states where even less is known about possible mechanisms for the backfiring of motor neurones. There is little argument, however, that even substantial differences in the central delays of different motor units may make little practical difference to the estimates of proximal conduction times or velocities, particularly if the length of the peripheral nerve is long as in the posterior tibial nerve in the lower limb.

One of the most serious possible errors in the F discharge method is whether the F discharge motor units represent the shortest latency motor fibres comparable, therefore, to those motor unit potentials that determine the maximum M response conduction velocity. In our investigation in healthy subjects it was our observation that only about one half of motor units have an F discharge, even in response to long stimulus trains (100-200 stimuli). Even this limited sample, however, probably provides a representative range of conduction velocities comparable to the conduction velocity range for all the motor fibres included in the maximum M response. How representative the F discharge is of the fastest conduction velocity motor fibres depends on the frequency of motor unit discharge, selection by stimulus intensity of particular conduction velocity motor fibres, and the stimulus train length. In our view, stimulus trains that are too short may not recruit a sufficiently large and representative number of motor unit potentials in the F discharge. Therefore, it is our suggestion that at least 50-100 stimuli be used to obtain the F discharge and the stimulus intensity be at or near supramaximal intensity. It is our experience that healthy subjects and even more frequently patients with a peripheral neuropathy find these stimulus trains can be uncomfortable, particularly when part of a large and extensive peripheral electrophysiological investigation.

In summary, we feel that the F discharge test is a useful method to measure proximal motor conduction times but has important theoretical and, at times, practical limitations. It is not our intention to suggest abandonment of this test, but rather to introduce a critical note of caution and direct our attention to some of the possible errors in interpretation of this test.

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Letters and notices

The Fifth Asian and Oceania Congress on Neurology will be held from 18 to 21 November 1979 at the Philippine International Convention Center, Manila. The theme will be Neurology in the Health Care Delivery System in Asia and Oceania. The host society is the Philippine Neurological Association, and information can be obtained from Rooms 11-12, Makati Medical Center, Amorsolo Street, Makati, Metro Manila, Philippines.

The Second International Child Neurology Congress will be held in Sydney, New South Wales, Australia from 26 to 30 November 1979.

The Second International Symposium on Developmental Disabilities will be held at the Sasakawa Hall, Tokyo on 20-23 November 1979 under the sponsorship of the Japanese Society of Child Neurology. Members of the Organising Committee cordially invite paediatricians, neurologists, and all colleagues working in this field to the Symposium. Free communications will not be accepted. The languages used will be English and Japanese and simultaneous translation from English to Japanese and from Japanese to English will be available. The registration fee is 10,000 yen. Applications should be made to the Secretariat, The Second International Symposium on Developmental Disabilities, c/o Department of Pediatrics, Tokyo Women's Medical College, 10 Kawadacho, Shinjuku-ku, Tokyo 162, Japan.