Section I with chapters by Grunwell and Hewlett sets the theoretical framework. For any theory to have validity it should be able to account for normal development with its acquisition of a rule based system and also for pathologies, which extend from difficulties associated with deafness, including the child who cannot articulate because of bulbar involvement, and the child who has superbly imitated speech and is frequently hyperlexic but where the link to cognitive meaning is defective. For the non-speech pathologist, the terminology of linguistics can be confusing. The terms phone, phoneme, and phonology have precise definitions within theoretical linguistics and when their use is extended to clinical problems and psycholinguistic processes, they need to be used consistently within those definitions, or redefinitions should be explicit and justified.

Several chapters redraw the boundaries between terms. If 'phonology' is the set of linguistically relevant speech sounds, then it is reasonably consistent and clinically useful to use 'phonology' also as being the contrastive use of speech sounds. However, for others here 'phonology' includes 'meaning', yet meaning is separated from phonology in general linguistics, and in cognitive neuropsychology semantic meaning can be dissociated. Hewlett sets out his version of the cognitive neuropsychology model of input and output lexicons and suggests an interesting pathway for the development of automaticity and speech output pathology.

There is a lot of recent research on the early development of vocalisations and the transition between this and babble (which can be precisely defined as reduplicative 'CVCV' utterances—a period of motor rehearsal of phonemes) which is influenced by the phonetically contingent responses of the adult (adding meaning in communicative context is another dimension).² Hewlett specifically stated (p 18) that he was omitting extensive discussion of this early stage and the influences upon it, but for alert parents and clinicians it may be an early sign of pathology and is of great theoretical interest.

There is little or no mention of prosody and its development and theoretical relationship to phonology, although it is discussed in the clinical problems section where it is clear that problems of prosody frequently coexist with phonological problems. Placing specific developmental phonological disorders in the context of other language disorders is dealt with in chapter 7 where many theoretical points are made which might have come earlier in the book. The section on 'dyspraxia' makes clear that this complex clinical problem often includes difficulties beyond the 'motor programming' of speech sounds but it remains a term used clinically in different ways by different people. Apart from Hewlett's model of output, I did not gain a clear view of the relationship of theory to clinical problem and consequent logical therapeutic intervention.³

In Chapter 3 Howell and McCartney opt for a cognitive approach to active learning along the Piagetian model in their treatment strategy. They stress the importance of assessment to try to define the level of difficulty but point out that in a child with a disorder there may be several levels of difficulty and one additional problem may be integrating several aspects of linguistic development and language use. In general this was a useful chapter, although it would have been helpful to have this linked to the chapter on specific developmental language problems.

Sections II and III of the book include practical accounts of assessment and management of speech disorders in orofacial abnormalities and deafness. These chapters are well written and, together with a very good chapter by Joy Stackhouse on reading and spelling disorders, will be useful guides to clinical practice.

Finally, what are the effects of a severe speech difficulty on language and especially phonology development. This complex relationship is discussed on p 140 and further studies by Bishop have thrown light on this area.⁴

In conclusion, there are some excellent chapters which make stimulating reading but for this reader the aim of setting clinical practice in a coherent and consistent theoretical framework was not entirely achieved.

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- 1 Bates E, Bretherton I, Snyder L. *First words to grammar*. Cambridge: Cambridge University Press, 1988.
- 2 Stoel-Gammon C. Prespeech and early speech development of two late talkers. *First language* 1989;9:207-24.
- 3 Dodds B, Leahy N, Hamble G. Phonological disorders in children. *British Journal of Developmental Psychology* 1989;7:55-71.
- 4 Bishop D, Mogford K. *Language development in exceptional circumstances*. Edinburgh: Churchill Livingstone, 1988.

Pediatric Trauma. Proceedings of the Third National Conference. Edited by Arnold G Coran, Burton H Harris. (Pp 248; \$49:50 hardback.) J B Lippincott Company, 1990. ISBN 0-397-51108-6.

As the majority of paediatricians appear to have little interest in the commonest cause of death and disability of children in the developed world, a dip into this book may serve as an introduction for the uninitiated.

The book is a compilation of the major lectures given at the Third National Conference on Pediatric Trauma in Michigan in September 1989. The lectures aimed to highlight major clinical and experimental advances rather than to be a comprehensive view of the field of paediatric trauma. However, it seems a pity that there is not even one chapter on head injury, which is the commonest overall cause of death and permanent handicap after injury.

Chapters are largely divided into four groups. Firstly into those on the organisation and economics of paediatric trauma care, which although relating to US health economics systems and the geography of a continent, make intriguing reading. The second group of chapters on clinical and experimental shock is too condensed and poorly referenced for real discussion of a complex topic. In the section on the clinical management of shock, I was surprised to see no mention of the intraosseous route for venous access. Chapters on the management of abdominal trauma were however, illuminating, presenting a lucid and balanced discussion of the clinical problems as well as being well referenced. Finally, there are a group of chapters on accident prevention including a useful discussion of car restraints for infants and children. The book concludes with a thumb nail sketch of children's accidents in South Africa.

In this country we have no 'trauma surgeons' and injured children may be treated in a wide variety of specialities. Although trauma is a surgical disease, there could be a role for paediatricians at various stages of treatment.

Who should buy this book? It should appeal to a wide audience of surgeons, accident and emergency specialists, and paediatricians. However, it is not a definitive textbook and will doubtless be superseded by the proceedings of the Fourth National Conference on Pediatric Trauma in a couple of years. I would persuade your hospital librarian to buy a copy for general use rather than investing in it personally.

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Pocket Atlas of Pediatric Ultrasound. C M Rumack, J G Horgan, T C Hay, and D Kindsfater. (Pp 118; \$18 paperback.) Raven Press, 1990. ISBN 0-88167-620-9.

'This pocket atlas will be useful for all students beginning radiology studies and will serve as a guide for all ultrasonographers who rarely see children and need to know what is normal'. . . concludes the preface to this slim volume.

The authors have compiled an atlas of eight anatomical sites. These range from the mundane (brain, liver, kidney) via the intermediate (hip, cerebral Doppler) to the esoteric (spine). The format involves unlabelled sonographs in standard section accompanied by a labelled shaded diagram of the sonographic image and a useful anatomical diagram of the scanning plane.

The quality of the sonographic images is extremely variable. Several of the images of the brain sections and most of the renal and adrenal scans are excellent. In contrast, the liver/pancreas scans are of indifferent quality and the hip scans are particularly obscure. The labelling is for the most part accurate, although I noted two factual errors in the echogenic central spinal canal. Recent work has shown this feature to be the image of the interface between ventral white commissure and the anterior median fissure. More importantly, the transverse hip scan identifies the acetabular labrum as a lucent space. The labrum is composed of echogenic fibrocartilage and the structure indicated is actually the unossified hyaline cartilaginous acetabular roof, a landmark of paramount importance to the European approach to hip ultrasound.

Accuracy notwithstanding, is this a useful book? Personally I feel that ultrasound cannot be taught or even described in a vacuum, which this book is attempting to do with its absence of text and normal variants. It is essential that a paediatric ultrasonologist be aware that infant renal papillae are occasionally mistaken for dilated calyces and that the interarenal junction (not described) is not an upper pole renal scar. In the same vein I see no point in including examples of cerebral Doppler examinations unless it is to inform the reader of the feasibility of such an examination. Returning to the concluding statement of the preface, surely the authors are not suggesting that ultrasonographers 'who rarely see children and need to know what is normal', would when equipped with this volume be able to perform and more importantly interpret paediatric studies. The practitioner who finds this level of description novel and informative should, in my opinion, have the insight not to be performing unsupervised paediatric ultrasound examinations.

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