

## BOOK REVIEWS

PRESCOD, STEPHEN, V. **Audiological Handbook of Hearing Disorders**, London, Ontario: Von Nostrand Co. (1978)

— Reviewed by HOLLIS CORBIN

The author states that "for some time clinical audiologists confronted with a vast variety of hearing impairments in clinical situations have been at a loss to find a source that would simply and adequately direct them in handling such problems . . ." His purpose in writing the book is to fulfil this need.

The book is arranged in a logical fashion from outer ear to central auditory system. Each chapter describes a number of disorders in some cases or an individual discussion of complex disorders, such as Meniere's disease, in other chapters. Each Chapter contains a brief description of the etiology and pathology of the disorder as well as a discussion of the otological and audiological management. In addition there is a quick reference table at the end of the chapter which summarizes the important information.

Unfortunately, in at least one area the book falls short of an adequate definition of a diagnostic technique. An example is the purpose given for the radiological technique known as posterior fossa myelography in the chapter on Acoustic Neuroma. The definition is incomplete and misleading. In addition, there is no mention of newer clinical techniques, such as brainstem audiometry, which is becoming an important clinical tool in the diagnosis of acoustic neuromas.

The final chapter entitled "Special Tests: Problems and Safeguards" describes some of the problems, limitations, as well as the combined value of the many "special" tests used in audiology.

The author has attempted to provide the clinical audiologist with a clear, concise reference for use in solving everyday clinical problems. However, it is felt the book is better suited for otolaryngologists and their residents, as well as audiology students and those who require easily obtainable one-source audiological information.

KATZ, JACK, (Ed.), **Handbook of Clinical Audiology**, 2nd edition, Williams & Wilkins (1978), 623 pp.

Reviewed by K. K. CHARAN, Ph.D.

Those who are familiar with the first edition (1972) of the Handbook will find in the new edition a remarkable improvement in quality and scope. Like its predecessor, this book is destined to become the most popular single reference for practicing audiologists and students. It is a comprehensive text. Forty-three contributors have participated in preparing 49 chapters. Twenty-two chapters and about half of the authors are new to this edition.

In the words of the editor, this book attempts to provide "within one set of covers, a summary of current state of science — art of clinical audiology". This attempt is very successful so far as the survey of the current practices and the state of art is concerned. There is, however, not enough science. It is disappointing to find so few references to the recent research in psycho-acoustics and auditory physiology. This lack of scientific background tends to make audiology seem like a dull profession. Perhaps for this reason, much of the book lacks brilliance. There are also a few scattered errors in the use of correct psychoacoustic terminology. At times, proper explanation is lacking. For example, in the chapter on masking, no distinction was made between critical bands and critical ratios. In the same chapter, just after the statement that the interaural attenuation ranges between 40 to 80 dB, the formula used only the 40 dB value without any explanation.

The main emphasis of this book (over 75%) is towards diagnostic evaluation of auditory dysfunction, aural rehabilitation being relegated to a minor role. Most of the chapters read like review articles, providing some basic concepts and practices along with general literature reviews covering references to 1976. With so many contributors one cannot expect all chapters to be of equal quality. However, this book seems to be very well edited. The use of terminology is consistent throughout and there is very little overlap or conflict among the chapters. The book has an exceptionally complete subject index at the end. One can locate items easily in the index, since the same term is very often listed under different headings.

The Handbook is divided into 11 sections. The section on "Basic Evaluation" covers pure tone and speech audiometry, and is probably the weakest part of the book. This area is usually covered much better in elementary texts. The chapter on the calibration of pure tone, speech and noise signals is well written, although not enough details of the ANSI standard are included.

The next three sections, making about 25% of the book, cover differential tests of cochlear and retrocochlear dysfunctions, evaluation of central dysfunction and evaluation of pseudohypacusis. These sections provide perhaps the best available review of these topics in a single book. The section on physiological tests includes electrodermal audiometry, electroencephalic responses audiometry, electrocochleography, acoustic impedance and electronystagmography. These chapters are adequate, but too little space is provided for brainstem audiometry, which is becoming increasingly common in audiology clinics.

The section on hearing aids is relatively large and covers most of the important aspects. The chapter on earmolds by Lybarger includes material which has not been published elsewhere.

Other sections include evaluation of children and elderly, conservation of hearing in schools and industry, management of the hearing-impaired and communication training. Otological, neurological and medical considerations constitute still another section.

The editor of the Handbook has provided a valuable service in collecting so much material within one set of covers. Some will find this book quite useful in teaching audiology students. Practicing audiologists will find it an invaluable reference source.

HARFORD, E. R., F. H. BESS, C. D. BLUESTONE, AND J. O. KLEIN (EDS.).  
**Impedance Screening for Middle — Ear Diseases in Children.** New York: Green & Stratton (1978).

Reviewed by P. KILENY, Ph.D

This volume represents the proceedings of a symposium on "Impedance Screening in Children" held at Vanderbilt University Medical School, Nashville, Tennessee, in June, 1977. Its objectives were to develop a set of "interim guidelines or recommendations" and to consolidate the current knowledge on this subject.

The book is divided into six sections. The recommendations of the symposium, which are both cautious and realistic, are listed in the first section. The need for further attempts to correlate otoscopic results and myringotomy findings with results of impedance measurements is recognized and stressed.

The second is an introductory section dealing with the epidemiology, methods of identification and complications of middle ear disease. The chapters included in this section provide good reviews of these subjects. The chapter dealing with methods of identification (G. Lidén) compares audiometric tympanometric and otoscopic results on several patients.

Section 3 deals with impedance screening for infants. The first chapter is an excellent overview of often neglected theoretical considerations and of pitfalls in the interpretation of infant tympanograms by Robert H. Margolis. Other topics discussed in this section are methodological considerations in neonatal acoustic reflex recording, and the relative value of tympanometry in the detection of middle ear effusion in infants. Several of the authors contributing to this section suggest that tympanometry has a negligible value in infants aged 3 months and younger. The correlation between tympanometry and otoscopy is poor in this age bracket with pneumatic otoscopy appearing to be more valid in detecting middle ear effusions.

The topic of section 4 is impedance screening for preschool-age children. The authors of the opening chapter (Paradise and Smith) make a plea for a better validation of screening techniques for preschoolers. The remaining chapters discuss topics such as effects of sex, race and age on the incidence of middle ear disease (3 year old white males appeared to be a higher risk than other children), and studies comparing tympanometry results to those of otoscopy. It is interesting to note that a good agreement was obtained between physicians and between otoscopy and tympanometry results when the physicians were asked to make a decision concerning necessity of treatment based on otoscopic findings rather than make a diagnosis. Ipsilateral and contralateral acoustic reflex thresholds in preschoolers and the effects of ear canal volume are an additional topic of discussion in this section.

Section 5 opens with a chapter discussing the current state of the art of impedance screening in schools (by Denzil Brooks). One of the points stressed in this paper is the necessity for re-screening of children who have failed an initial screening within a 6-8 week period. The cost factor in setting up an impedance screening program in the school systems is also explored. Additional topics covered in this section are: the results of a school screening program suggesting the effectiveness of impedance as a screening tool with a reasonable cost factor; an analysis of the clinical significance of negative middle ear pressure suggesting among others that middle ear effusion is not always associated with a flat tympanogram, and several other papers dealing with the feasibility of middle ear impedance measurement as a screening tool in school-age populations. For various reasons not all authors contributing to this section viewed middle ear impedance measurement as a valid screening tool for middle ear disease. Among the reasons cited are the following: there is at present insufficient information on the sensitivity and specificity of this measurement in screening situations and that it is too complex to be used for screening purposes.

The last section of this collection of papers centers around the topic of impedance screening for so-called "special populations". The introductory chapter (written by Northern) provides the reader with a good review of the various measurements comprising the impedance test battery and an up-to-date review of the literature dealing with applications of the impedance test battery in special populations such as American Indian, Eskimo, deaf children, the developmentally handicapped, children with craniofacial deformities, etc. The remaining chapters, discuss some of the same issues already mentioned in previous sections: the accuracy of tympanometry in detecting middle ear disease, and the correlation between tympanometry and otoscopy in these special populations.

As is the rule in proceedings of symposia, the quality and the relevance of the information conveyed varies from paper to paper. The reader will not find a significant amount of new technical or scientific information on the subject of impedance measurement or its interpretation. However, this book provides a substantial amount of information on various screening programs, controversial and opposing views on criteria for pass/fail, and several critical comparisons of tympanometry results with otoscopy results. Doubtlessly, this volume raises many unanswered questions, and may prompt the reader to re-evaluate the traditional methodologies in use today. This book should be a valuable addition to the library of audiologists who are preparing to direct screening programs.

SCHIEFELBUSCH, RICHARD L. (Ed.). **Bases of Language Intervention**. Baltimore: University Park Press (1978). 476 pp, \$14.50.

— Reviewed by GAIL KAMITOMO

This book is the first in a series of books published by University Park Press on Language Intervention. It is composed of nine chapters written by current researchers, with an introduction and summary written by Dr. Schiefelbusch. Schiefelbusch states in the introduction that the plan of the book was to “. . . explore several fields and topical areas that contribute directly to the feasibility of language intervention . . . ” (p. 3). The editor does not claim to have covered all topics relating to this area, however, he has attempted to incorporate much of the descriptive and experimental research that current interventionists use.

The book is divided into three main sections. The first five chapters comprise the academic bases, including the topics of neurological processes, audition and speech perception, cognitive factors, semantic and syntactic development, and pragmatics of language; the second section presents the technical bases covering assessment, planning and programming for language intervention, and speech and language generalization; and the third section includes a rather provocative presentation of miniature linguistic systems. The last fourteen pages consist of a detailed index of the topics covered.

The chapters are well written and generally easy to follow. The chapters by Miller, Ruder, and Wetherby on assessment, planning and programming, and miniature language include easy-to-follow charts and figures which summarize and clarify the written text. All of the chapters have cited relevant research which have been conducted in each of the areas. Each chapter is concluded with an extensive bibliography for those who wish to read in greater depth. A few of the authors such as Rosenberger who discussed neurological processes and Davis who discussed audition and speech perception point out that current knowledge and research in the areas as it related to language intervention is limited.

I do not feel that this book could be used as an introductory language textbook, as most of the authors have assumed a certain amount of previous knowledge. However, the book would be very useful as a resource and supplementary textbook for students of language intervention. It is felt that much of the information which is presented in this book has been previously published, however, the book brings together a wide variety of the literature into a single volume, and allows the reader to become exposed to the most current data which were available when the volume was published. The reviewer feels that the editor accomplished his purpose, and provided the reader with a good basis from which to view past and current work in language intervention. It also provides the clinician with information which would be useful in planning, reorganizing, and/or supplementing what one currently uses in language intervention programming.

GESCHWIND, NORMAN. **Selected Papers on Language and the Brain**. **Boston Studies in the Philosophy of Science**, Volume xvi. Boston: D. Reidel Publishing Company (1974). 549 pp., \$26.00

Reviewed by P. STEWART

Within this volume, Geschwind attempts to relate the anatomical organization of the brain to higher brain function and dysfunction as it is manifested behaviorally. Included in the focus of these papers are communication related areas such as aphasia, apraxia, agraphia, and alexia.

The information presented does not appear to directly lend itself to practical therapy application. Rather, the book provides an anatomical and academic explanation of behavioral syndromes.

The papers are presented utilizing a lecture type format. The topic is clearly stated, with focal points emphasized. This is followed, in the majority of cases, by an historical review, as well as the author's interpretations of supporting and conflicting literature. Diagrams are used occasionally. The brief appendix included at the end of the first paper, provided some basic technical background in neuroanatomy. This proves useful throughout the rest of the book. Bibliographies accompany each paper. There is no subject index. Instead, an index of names used as references throughout the book is included.

Dr. Norman Geschwind is a clinical neurologist at Harvard Medical School. He authored or co-authored all of the papers in the book, within a time period of eleven years prior to the date of publication.