

PREFACE

All speech, written or spoken, is a dead language, until it finds a willing and prepared hearer.

—Robert Louis Stevenson

Thank you for listening to what we have to say. We hope that this text finds many who are willing and prepared to hear. We are excited to offer you a text that reviews the basic and advanced information on speech sound disorders. A unique feature of this book is its modular organization. It is organized to serve as both an introduction text and an advanced text for graduate seminars.

In most university programs in speech–language pathology, students take an introductory undergraduate course and an advanced graduate course on speech sound disorders. When vastly different books are used at the undergraduate and graduate levels of instruction, some students may fail to see continuity from their undergraduate knowledge base to the more advanced graduate information. Also, for most students, several years will have elapsed since their undergraduate study before they take the graduate seminar on speech sound disorders. Almost all students need to review the undergraduate material before they can effectively participate in a graduate seminar and understand and integrate the material presented at the two levels of instruction. Unfortunately, not all graduate texts summarize the basic information for a review at the graduate level. Also, sometimes opinions differ as to what is basic and what is advanced. Simply omitting certain materials from a text because it is judged basic or advanced makes it harder for the instructors to use a text, especially if they disagree about the distinction the author or authors have made.

The modular organization of this text helps resolve this problem to some extent. To supplement a text, graduate seminar instructors typically use multiple sources, including other books and journal articles. We do not pretend that our distinction between basic and advanced information will be acceptable to all instructors. However, we do hope that the organization of the book will make it easier for students and instructors to use material as they see fit at the two levels of instruction. For example, those who wish to avoid theoretical or more complicated information in their undergraduate classes can easily skip the advanced units or use that information selectively. All graduate students can find the basic information in the text so they can review the assigned chapters before their participation in graduate seminars. We are grateful to the students, instructors, and reviewers who have affirmed our organization of the text as a unique and useful feature.

Besides giving the book a two-tier organization, we have tried to use a student-friendly writing style. We have minimized the use of jargon, and all relevant technical terms are introduced and defined. Our goal was to write the book in a way that makes it easier for students

to understand phonology's basic vocabulary, approaches, perspectives, theories, and assessment and treatment techniques for speech sound disorders. Some students and our reviewers have repeatedly confirmed that we have succeeded in writing a user-friendly text.

Those who are familiar with the second edition of the text will notice the change in the title of the book. We have changed the title from *Assessment and Treatment of Articulation and Phonological Disorders in Children* to *Assessment and Treatment of Speech Sound Disorders in Children*. This change reflects the current trend in the profession to use the term *speech sound disorders* to include both articulation disorders and phonological disorders. It is also a change recommended by our reviewers and instructors in universities.

This third edition includes substantial and significant revisions and additions to reflect advances in the study and treatment of speech sound disorders. In addition to updating research in each chapter, we have added two new chapters to this edition.

We have written a new introductory chapter (Chapter 1) to define and describe speech sound disorders and to distinguish articulation disorders from phonological disorders. We give a brief historical account to help students understand what theoretical trends have forced the distinction. In this new chapter, we also provide a brief overview of the different types of speech sound disorders discussed in the clinical and research literature.

The second new chapter, Chapter 9, addresses the issue of phonological awareness as it relates to speech sound disorders. Our second edition included basic perspectives on this popular topic, but the growing body of information justified an entire chapter. We discuss the relevant issues related to the definition, description, and development of phonological awareness skills in children learning their speech sounds. We give an overview of phonological intervention and offer a critical review of the research literature on the necessity of teaching phonological awareness skills to children with speech sound disorders.

The remaining chapters have all been revised to reflect recent trends, research, and theories. We have reorganized several chapters to facilitate a better flow of information. Chapters that provide background information that may not be covered in detail by most instructors have been summarized more succinctly. As recommended by several of our reviewers, we have placed our comprehensive treatment approach chapter ahead of the chapter on specific treatment programs.

Chapter 2 gives an overview of the anatomy and neuroanatomy of speech production. The chapter in this new edition provides information in a more succinct form than the chapter in the earlier edition. We have retained all the illustrations that are helpful to students in visualizing anatomic structures and their relationships.

Chapter 3 offers the basic perspectives on phonetics and phonology of speech sound disorders. We explore the interrelatedness and interaction of these two disciplines that contribute to an understanding of speech sound disorders. We have added new sections to clearly highlight the differences in how linear and nonlinear phonological theories handle speech sound production, learning, disorders, and assessment and treatment of those disorders. The advanced unit of Chapter 3 includes phonetic, linear phonological, and nonlinear phonological theories and their critical evaluation.

Chapter 4 describes the typical learning of speech sounds as reported in normative research. It includes research on infant speech perception, as well as the extensive normative information on phonological patterns during the early years of speech sound learning and their eventual disappearance. The early speech learning stages have been revised to be

consistent with current research and thinking. A discussion of variables related to typical learning of speech sounds, previously offered in a separate chapter, is now included in this chapter to better integrate the normative information. The advanced unit of this chapter is devoted to an examination of methodological and theoretical issues in studying speech sound learning, including infant speech perception.

Chapter 5 includes an examination of the relation between culture and communication. The chapter addresses bidialectal and bilingual issues associated with the typical learning of speech sounds and clinical issues related to assessment and treatment of speech disorders in ethnoculturally diverse children. In the advanced unit of this chapter, we discuss theories and hypotheses that have been advanced to explain speech and language learning in bilingual children.

Chapter 6 examines assessment approaches and methods, providing a comprehensive framework for assessing speech sound disorders in children. We have added current methods of analyzing assessment data including whole-word measures, error frequency and distribution approaches, and nonlinear methods. We have omitted the summaries of many articulation and phonological assessments and instead referred the reader to ASHA's online directory of assessment instruments for the latest and most current information. We incorporate preferred terms in the diagnosis of speech sound disorders. The advanced unit of this chapter continues to include an overview of speech sound disorders associated with organic and neurogenic problems; however, in this edition we have focused exclusively on those found in childhood.

As previously indicated, we have reorganized the order of Chapters 7 and 8 at the recommendation of our reviewers, who suggested going back to the way we sequenced them in the first edition. Chapter 7 now includes our comprehensive, step-by-step program that takes advantage of research evidence in the treatment of speech sound disorders in children of varied backgrounds. We continue to emphasize that the program, although detailed and specific, is adaptable to include such specific strategies as treating individual sound production, concurrent and variable treatment, phonological process elimination, minimal pairs approach, maximal oppositions or multiple oppositions, sound and word complexities, phonological constraints, and so forth.

In Chapter 8, we have made extensive changes and provide the reader with an overview of some now classic and some newer treatment approaches. We have eliminated various programs that have fallen out of favor in clinical practice or include published components that are no longer readily available. To help clinicians make informed decisions on treatment selection, this chapter also offers a brief evaluation of the research evidence supporting each approach.

We have added text boxes and various activities in each chapter to help the student integrate newly learned information. The text also now includes a companion CD that includes a modifiable PowerPoint outline of each chapter. Instructors may find this a useful feature for their lecture preparation. The CD also includes a variety of resources previously found in the resource manual, *Articulation and Phonological Disorders: Assessment and Treatment Resource Manual*, that accompanied the second edition. Clinically friendly materials such as diagnostic reports; sound evoking techniques; baseline, treatment, and probe documentation forms; sound stimulability recording forms; informal screening measures; and the like are now located in the CD that accompanies the third edition.

We would like to extend our deepest gratitude to the book reviewers, who provided us with valuable feedback; their suggestions helped guide many of the changes found in this third edition. We have made rigorous efforts to incorporate all of the proposed changes. We would also like to thank the many children in our professional lives, who have taught us more about speech sound disorders than any research study ever could. Their uniqueness affirms that all children are individuals and cannot be put into a universal framework. Their uniqueness makes assessment and treatment of speech sound disorders stimulating, exciting, and extremely rewarding. The delight that comes in helping children achieve better communication with the important people in their lives is immeasurable. We hope that our presentation of speech sound disorders excites and prepares the clinician to take on this gratifying and worthwhile endeavor.