

THIRD EDITION

Communication Sciences and Disorders

From Science to
Clinical Practice

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A photograph of a long wooden bridge with railings, extending from the foreground into the distance over a body of water. The water is calm, reflecting the sky and the bridge. On either side of the bridge, there are tall reeds or grasses. The sky is filled with soft, white clouds, and the overall lighting suggests a peaceful time of day like dawn or dusk.

To Sandi, whose love and encouragement mean everything to me.

—Ronald B. Gillam

To Barbara, with love.

—Thomas P. Marquardt

In Memoriam Christine Matyear

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PREFACE

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This is the third edition of an introductory textbook that is intended to provide a foundation for undergraduate students who are enrolled in their first course in communication sciences and disorders. We revised the book with two important assumptions in mind. First, we assumed that the students who read it would have relatively little prior knowledge about the scientific study of communication, the nature of communication disorders, or the professions of audiology and speech-language pathology. Second, we assumed that if students found the content of this book to be interesting, they would be likely to enroll in courses that would examine most of the topics that are included in much greater detail.

Given these assumptions, we focused on providing the reader with a wide-angle view of communication sciences and disorders. We wanted to show the considerable forest that is communication sciences and disorders without having to focus on too many individual trees. Whenever possible, we selected a wide-angle lens rather than a narrow lens. We wanted readers to get a sense of the variety of topics that speech, language, and hearing scientists study and the variety of individuals that audiologists and speech-language pathologists treat.

The book contains basic information about speech disorders that are related to impairments in articulation, voice, and fluency; language disorders in children and adults; and hearing disorders that cause conductive and sensorineural hearing losses. We have also included basic information about speech, language, and hearing sciences and some practical information about assessment and intervention practices.

We did not want to tell readers everything we know about each topic. To this end, we describe only the most critical concepts in detail, provide many examples, and cite only seminal works. If we have selected our topics wisely and have explained them well, the content of this book will provide students with the background knowledge they need to get the most out of subsequent undergraduate and graduate courses.

Finally, we have provided students with a means for seeing and hearing the human communication disorders they are reading about. The video segments accompanying the book enable professors to provide information about common or unusual cases in a single, highly accessible format, and enables students to watch the segments many times over to make the most of the enhanced learning opportunities they provide.

The third edition of this book includes a number of changes. We reorganized the sections so that they follow the way many instructors sequence

their introductory classes. The text begins with overviews of the professions, the nature of communication across the life span, and social-cultural issues that affect communication and communication disorders. The second section examines the variety of speech disorders. We begin with a summary of basic principles of speech science, and then we provide chapters that focus on speech sound disorders in children, voice disorders, cleft lip and palate, fluency disorders, motor speech disorders, and dysphagia. The third section of the book contains chapters on language disorders in children and acquired neurogenic language disorders. The last section of the book concerns hearing and hearing disorders. We begin with a summary of basic principles of hearing science, and then provide a survey of hearing disorders and hearing testing and a summary of audiologic rehabilitation (hearing aids and cochlear implants) that includes a description of the education of students who are deaf or hard of hearing.

We want students in introductory courses to begin to understand what it means to have a communication disorder. We have added personal stories about events in our careers and case studies to the chapters to highlight the human side of the professions of speech-language pathology, audiology, and deaf education. We want these vignettes, together with the video segments, to demonstrate that the concepts and principles in the chapters relate to real people who have real needs that can be addressed by caring and well-educated professionals. We hope the students who read this book will find this subject matter to be both interesting and uplifting.

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Many people have contributed to the creation of this book. We would like to thank Tami Pyfer, Allison Hancock, and Danielle Stoddard for their helpful assistance in preparing the revised manuscript. At Jones & Bartlett Learning, Taylor Ferracane, Laura Pagluica, and Sean Fabery provided a great deal of advice and encouragement at the most critical times.

A number of people assisted us in creating the video segments. LaVae Hoffman shot and edited many of the original clips, some of which have been retained in this edition. Without her loyalty, ingenuity, and hard work, this project would not have been possible. The third edition contains a number of new videos, which were shot and edited by Tami Pyfer. We thank many of our colleagues and students who agreed to appear in the video segments. Grateful appreciation is extended to Mr. Chad Smiddy who created the embryologic morphing sequence of the human face.

Finally, the editors and authors thank those individuals with communication disorders and their family members who allowed their images and words to be included on the video segments. We applaud their continuing struggle to compensate for or overcome their communication disorders, and we share their hope that their appearance on the videos will contribute to the education of the next generation of speech-language pathologists, audiologists, and deaf educators.

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