REVIEW

DEFINING THE FIELD: A COMPREHENSIVE INTRODUCTION TO SOCIOPHONETICS

Sociophonetics: An Introduction By Erik R. Thomas Basingstoke, Hampshire, U.K.: Palgrave MacMillan, 2011. Pp. xiv + 356. ISBN 978-0-230-22456-8; \$105 (pbk \$35)

> Reviewed by PAUL REED, University of South Carolina

Sociophonetics: An Introduction by Erik R. Thomas is an introductory textbook that defines the field of sociophonetics and gives a thorough entrée for both beginning students and more seasoned researchers looking for additional skills. It explores and explains the basics of phonetic measurement and gives invaluable insight on how to perform a sociophonetic study. The explanations of acoustics are comprehensible to anyone familiar with linguistics in general. Furthermore, the use of clear and well-explained illustrations, charts, and figures adds to one's understanding. For example, because of these features, Thomas's descriptions and explanations of topics as varied as Source-Filter Theory, nasalization, and ToBI (Tones and Break Indices) transcription are some of the clearest and most approachable in a phonetics book that I have ever read.

The 12 chapters of the book cover all the major aspects of sociophonetics. In chapter 1, "The Place of Sociophonetics," Thomas outlines the background and development of the subfield. The two subsequent chapters show the fundamental division of phonetics in general and sociophonetics in particular into matters of production and perception. Chapter 2 explains speech production, giving the reader a very approachable explanation of basic acoustics, acoustic measurement, and Source-Filter Theory. Chapter 3 is an overview of speech perception, which—as Thomas laments—has received much less attention in sociophonetics (and sociolinguistics generally). He explains the necessary particularities of perception, including auditory transfer, the scales used to model how a listener actually hears speech, and the various experimental methods for studying perception.

The next four chapters provide a fairly comprehensive treatment of the primary variables that sociophoneticians analyze: consonants, vowels,

> American Speech, Vol. 89, No. 1, Spring 2014 Copyright 2014 by the American Dialect Society

prosody, and voice quality. In chapter 4, Thomas explains each of the major consonantal classes and how to measure them, encouraging readers to look for new ways to examine past findings. For example, locus equations are measurements of F2 transition from a consonant into the vowel, comparing the onset and steady state after occlusives. Plots of onset F2 versus steady-state F2 yield slopes that are accurate predictors of stop place of articulation. Sussman, Hoemeke, and Ahmed (1993) found cross-linguistic differences in the slopes of the "same" phoneme, and Thomas rightly states that this could be a rich field of study for dialectal variation. Chapter 5 demonstrates how previous research has approached vocalic variation and how measurements are performed, highlighting many understudied areas that are ripe for attention. For example, with regard to undershoot, the phenomenon by which a speaker does not reach a particular articulatory "target," Thomas explains how to make and display undershoot measurements useful in sociolinguistic research.

Perhaps the most significant contributions of the book are to be found in chapters 6 and 7. Prosody is covered in chapter 6. Here, Thomas deftly covers global speech features, such as pauses and speech rate; lexical prosody, including tone, pitch accents, lexical stress, and rhythm; intonation, with a complete yet approachable introduction to ToBI transcription; and finally other postlexical prosodic variables, such as declination and preboundary lengthening. Within each subsection, he gives an introduction and overview, constantly showing how the particular topic can be utilized in research. Voice quality, one of the most understudied topics in sociolinguistics, is the focus of chapter 7. This is probably the most technical chapter in the book, as measuring voice quality is complicated and labor-intensive. Yet, as with the rest of the book, the explanation is detailed enough to be both useful and accessible, and more importantly, it shows how different measures focus on different aspects of voice quality. The coverage is quite thorough, and the chapter issues a call to action for incorporating voice quality into more sociolinguistic research.

The final five chapters delve into the theoretical side of sociophonetics. Chapter 8 calls for a more holistic type of sociophonetic investigation that incorporates more variables into research projects. Thomas notes that most studies include one or two variables, but the inclusion of more variables is crucial to a better understanding of how variables relate to one another and how they fit into larger systems. He states, "A holistic approach will provide more complete answers to the questions that sociophoneticians ask about language" (251), and the notes that some studies of production and perception have successfully incorporated investigation of multiple variables. Chapter 9 discusses variation and the cognitive processing of sounds, exploring how

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findings from sociophonetics are making inroads into changing and refining traditional phonetic theory. Here, Thomas explains the crucial nature of variation and how variation demonstrates that not all phonetic features are automatic, such as the variability in contrast cues for voicing (there are multiple ways that a language can use to demonstrate contrast between voiced and voiceless segments), gestural phasing, and undershoot. He then moves to the theories that have been proposed to help explain how consciously controlled variation arises, with introductions to Prototype Theory and Exemplar Theory.

The focus of chapter 10 is sound change. Traditionally, phoneticians have viewed change as driven by purely linguistic features, such as ease of articulation or misunderstandings/misperceptions. More recently, social factors have become more central to phonetic analyses, although not without controversy. Thomas surveys some common sound changes and phonetic explanations of them. He then covers sociolinguistic explanations of change and how changes are propagated. He explores in depth vowel shifts and mergers, as these are they primary focus of sociolinguists studying vocalic change. In chapter 11, "Social Factors in Phonetics," Thomas discusses how social factors are integral to phonetics and linguistics more generally. He covers different kinds of variation, from intraspeaker to group to cognitive variation. Each of these has shed considerable light on language variability, reinforcing the idea that language is never monolithic, even within a single individual.

The book concludes with chapter 12, "Lateral Transfer," a new theoretical footing where language is viewed not as a modular system, but rather as a web of interconnected processes that continuously influence one another, suggesting that the strict division of phonetics and phonology described in chapter q is untenable; processes can and do transfer from one to the other easily and readily. Here, a clear case is made for how sociophonetic insight can inform and transform linguistic theory, as lateral transfer places interconnectedness at the center of all linguistic inquiry. Throughout the book, but especially chapters 8-11, it becomes obvious that the social and linguistic aspects of language are so interconnected that a modular view is hard, if not impossible, to support. Thomas writes, "A view of language incorporating lateral transfer assumes that every aspect of language is psychologically associated both with its linguistic specifications and with the circumstances of its use. Sociophonetics, then, considers specification of social indexing to be every bit as much a part of grammar as specifications for whether a segment is coronal or [+ voice]" (307). Thus, all aspects of language are influenced by other linguistic aspects as well as social aspects, and so, "the social and structural sides of language are so tightly interwoven, so subject to lateral transfer, that you can't study one without encountering the other" (307). While maintaining an emphasis on cognition, lateral transfer allows linguistics to shed the rigid division of language into separate static domains and look at language as a dynamic, evolving system.

Sociophonetics: An Introduction is a valuable addition to anyone's library. One small shortcoming is that there is little discussion of sociophonetic recording. Quality recordings are crucial for acoustic measurement, especially the fine-grained measures required in reliable sociophonetic research; a section on best practices for recording would have enhanced this otherwise thorough introduction. Thomas does mention that such a treatment would be book length in and of itself, but a chapter devoted to recording practices would have been helpful. Regardless, this book has incredible breadth and depth and yet remains accessible to less-seasoned researchers. Its most vital contribution to the field is how it defines sociophonetics, indentifies its place, and, most importantly, demonstrates how it can inform and drive linguistic theory. The final five chapters, with their more theoretical focus, undoubtedly set this book apart from other introductory phonetics and sociophonetics books. Thomas demonstrates that sociophonetics is more than just acoustic measurement in sociolinguistics; rather, it is a discipline at the forefront of linguistic investigation.

REFERENCE

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DOI 10.1215/00031283-2726422