The material from these first four chapters (and the related exercises on the accompanying CD-ROM) has formed the basis of a one-semester undergraduate course in acoustic phonetics to students primarily of linguistics, but also of other disciplines including computer science and psychology.

"The second part of the book provides an introduction to speech signal processing, which is intended for similar groups of students. It is therefore different from more detailed introductory texts in this area, which assume both a background in engineering / signal processing and a more sophisticated mathematical knowledge. Part of the motivation for writing this section of the book is to make many of the techniques and algorithms that are discussed in the engineering literature on speech analysis more accessible to both students and researchers of phonetics and speech science whose training is not usually in a scientific discipline. We have therefore tried to keep equations to a minimum and to assume, as far as possible, no more than a very basic understanding of algebra and trigonometry. In this part of the book we cover fundamental aspects of time and frequency domain processing of speech signals, digital techniques for combining (in digital formant synthesis) and separating (in linear predictive coding) the contributions of the source and filter to the acoustic speech signal, and techniques for the probabilistic classification of acoustic speech data that form the basis of more advanced work in automatic speech recognition."—*From the preface (abridged)*

Syntactic Theory: A Formal Introduction

Ivan A. Sag and Thomas Wasow
(Stanford University)

Stanford, CA: CSLI Publications (CSLI lecture notes, number 92), 1999, xiii+481 pp; distributed by Cambridge University Press; hardbound, ISBN 1-57586-161-5, $74.95; paperbound, ISBN 1-57586-160-7, $29.95

"Syntactic Theory: A Formal Introduction . . . marks a return to 'generative grammar' in its original sense. This book focuses on the development of precisely formulated grammars whose empirical predictions can be directly tested. There is considerable emphasis on prediction and evaluation of grammatical hypotheses, as well as on integrating syntactic hypotheses with matters of semantic analysis. Problem solving is also emphasized; the extensive problem sets draw from a variety of languages other than English. Special attention is paid to the nature of lexical entries and the organization of the lexicon in terms of type hierarchies and constraint inheritance. The theoretical perspective of the book is presented in the context of current models of language processing, which provide motivation for a constraint-based, lexicalist grammatical architecture, whose value has already been demonstrated in computer language processing applications."—*From the publisher's announcement*

Word-Order Based Grammar

Eva Koktova

Berlin: Mouton de Gruyter (Trends in linguistics: studies and monographs, edited by Werner Winter, volume 121), 1999, xv+389 pp; hardbound, ISBN 3-11-061252-0, DM 198.00

"In this book, I propose, in outline, a new theory of grammar, which I call Word-Order Based Grammar.

"In my theory, word order is the primary grammatical principle. It is accompanied by the principle of lexical valency, and the principle of the recursive expansion of the sentence.

"I offer alternative accounts of the major problems of linguistic theory in terms of word-order: for the scoping properties of the operators of natural language . . . ; for anaphoric reference . . . ; for *wh*-extraction, movement and parasitic gaps . . . ; and for word-order in general . . .

"I propose that there are five basic types of word-order: fixed deep word-order, free deep word-order, fixed surface word-order, free surface word-order corresponding to deep word-order, and free surface word-order not corresponding to deep word-order."—*From the introduction*