LINGUISTICS

An Introduction to Language and Communication

Sixth Edition

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The MIT Press Cambridge, Massachusetts London, England

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This book was set in Times New Roman on 3B2 by Asco Typesetters, Hong Kong. Printed and bound in the United States of America.

Library of Congress Cataloging-in-Publication Data

Linguistics : an introduction to language and communication / Adrian Akmajian ... [et al.]. — 6th ed.

p. cm.

Includes bibliographical references and index.

ISBN 978-0-262-01375-8 (hardcover : alk. paper) — ISBN 978-0-262-51370-8 (pbk. : alk. paper)

1. Linguistics. I. Akmajian, Adrian.

P121.A4384 2010

410—dc22 2009028422

10 9 8 7 6 5 4 3 2 1

Acknowledgments

For this sixth edition we would like to thank the many students whom we have taught and from whom we have learned. We would also like to express our special thanks to our colleagues Henry Byerly, Massimo Piattelli-Palmarini, Merrill Garrett, and Nicholas Farmer, and to David Hill for help with the index. Finally, thanks to Anne Mark, for her editing skills and excellent feedback during the preparation of the manuscript.

Note to the Teacher

This sixth edition of our text evolved from our continuing collaboration in teaching introductory linguistics at the University of Arizona. Classroom experience, as well as valuable feedback from students and colleagues, revealed ways in which the material from the fifth edition could be further improved.

Like the fifth edition, this one is divided into two parts. Part I deals with the structural and interpretive parts of language: morphology, phonetics, phonology, syntax, semantics, variation, and change. Part II is cognitively oriented and includes chapters on pragmatics, psychology of language, language acquisition, and language and the brain.

In this edition all of the chapters have been either updated or revised. Many of them include sections on special topics of particular interest. which are set off at the end of the chapter so that the flow of discussion is not disturbed. Chapter 2, "Morphology," stresses the creative aspect of English vocabulary (or the vocabulary of any language, for that matter). The primary transcription system used in chapter 3, "Phonetics and Phonemic Transcription"—indeed, throughout the book—remains the International Phonetic Alphabet, although other commonly used transcription systems are also provided. Chapter 4, "Phonology," discusses full and reduced vowels and their relationship to metrical feet. This discussion will permit students to understand the patterns of full and reduced vowels in English and consequently to write any English word they know how to pronounce. Chapter 5, "Syntax"; chapter 6, "Semantics"; chapter 8, "Language Change"; chapter 9, "Pragmatics"; chapter 11, "Language Acquisition in Children; and chapter 12, "Language and the Brain," have been reworked and updated.

Despite these revisions, certain aspects of the text remain unchanged. First, as in earlier editions, the chapter on morphology appears before

the chapters on phonetics and phonology. Though this is not the "traditional" order of presentation, we have found it desirable for two reasons. First, it enables us to introduce students to the various fields of linguistics by virtue of the information encoded in words. And second, words and their properties are intuitively accessible to students in a way that sounds and their properties may not be.

Second, we must emphasize once again our concern with imparting basic conceptual foundations of linguistics and the method of argumentation, justification, and hypothesis testing within the field. In no way is this edition intended to be a complete survey of the facts or putative results that have occupied linguists in recent years. On the contrary, we have chosen a small set of linguistic concepts that we understand to be among the most fundamental within the field at this time; and in presenting these concepts, we have attempted to show how to argue for linguistic hypotheses. By dealing with a relatively small number of topics in detail, students can get a feeling for how work in different areas of linguistics is done. If an introductory course can impart this feeling for the field, it will have largely succeeded.

Third, we have drawn the linguistic examples in this edition, as in earlier ones, almost exclusively from English. Once again we should note that we recognize the great importance of studying language universals and the increasingly significant role that comparative studies play in linguistic research. However, in presenting conceptual foundations of linguistics to students who have never been exposed to the subject before, we feel it is crucial that they should be able to draw upon their linguistic intuitions when required to make subtle judgments about language, both in following the text and in doing exercises. This is not merely for convenience, to set up as few obstacles as possible in an introductory course; rather, we feel it is essential that students be able to evaluate critically our factual claims at each step, for this encourages a healthy skepticism and an active approach toward the subject matter. Given that the majority of our readers are native speakers of English, our focus on English examples provides benefits that we feel far outweigh the lack of data from other languages. Obviously, the general principles we discuss must be applicable to all languages, and some teachers may wish to emphasize universals and crosslinguistic data in their lectures. Such material can be found in A Linguistics Workbook: Companion to Linguistics, Sixth Edition, by Ann K. Farmer and Richard A. Demers, also published by the MIT Press.

LESSON PLANS

We have organized this book to give teachers maximum flexibility in designing a linguistics course for their own (and their students' own) special needs. The individual chapters are designed with numerous subsections and in such a way that core material is often presented first, with additional material following as special topics. In this way, teachers who can spend only a week on a certain chapter are able to choose various subsections, so that students are exposed to the material most relevant for that particular course—in short, the book can be used in a modular fashion. We will take up some specific examples.

For teachers working in the quarter system, this book can be used easily for a one-quarter course. For a course oriented toward more traditional topics in linguistics, the following is a possible format (with variations depending on the teacher):

Chapter 2: Morphology

Chapter 3: Phonetics and Phonemic Transcription

Chapter 4: Phonology Chapter 5: Syntax

Chapter 7: Language Variation Chapter 8: Language Change

The chapters cited do not depend crucially on the ones that have been skipped over; thus, we have ensured that a traditional core exists within the book.

For a one-quarter course with an emphasis on psycholinguistics, cognitive science, or human communication, the following is a possible format:

Chapter 2: Morphology

Chapter 5: Syntax Chapter 6: Semantics Chapter 9: Pragmatics

Chapter 11: Language Acquisition in Children

Chapter 12: Language and the Brain

Teachers working within the semester system (or teaching courses that run two quarters in the quarter system) will find that the book can be used quite comfortably within a 14- or 15-week term. For example, for a one-semester linguistics course oriented toward more traditional topics, the following is a possible format:

Chapter 2: Morphology

Chapter 3: Phonetics and Phonemic Transcription

Chapter 4: Phonology Chapter 5: Syntax Chapter 6: Semantics

Chapter 7: Language Variation Chapter 8: Language Change

Chapter 9: Pragmatics

Obviously, teachers with other interests will pick different modules. For example, for a course with a psycholinguistic, cognitive science, or human communication orientation, the following choice of topics seems reasonable:

Chapter 2: Morphology

Chapter 5: Syntax Chapter 6: Semantics

Chapter 9: Pragmatics

Chapter 10: Psychology of Language

Chapter 11: Language Acquisition in Children

Chapter 12: Language and the Brain

In short, by varying the selection of chapters, subsections, and special topics, teachers from diverse backgrounds and in diverse academic departments will be able to design an introduction to linguistics that is custom-made for their purposes.

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PART I

THE STRUCTURE OF HUMAN LANGUAGE

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Introduction

In this section we will examine the structure of human language, and in doing so we will discover a highly complex system. Beginning students of linguistics are often surprised to find that linguists spend considerable time formulating theories to represent and account for the structure (as well as the functioning) of human language. What is there, after all, to explain? Speaking one's native language is a natural and effortless task, carried out with great speed and ease. Even young children can do it with little conscious effort. From this, it is commonly concluded that aside from a few rules of grammar and pronunciation there is nothing else to explain about human language. Analogously, it's like saying that since it's easy for sighted people to see objects in the world, there's nothing interesting to be learned from studying the visual system.

But it turns out that there is a great deal to explain. If we "step outside" language and look at it as an object to be studied and described and not merely used, we discover an exciting sphere of human knowledge previously hidden from us.

In beginning the study of the structural properties of human language, it is useful to note a common theme that runs throughout part I: the structural analysis of human language can be stated in terms of (1) discrete units of various sorts and (2) rules and principles that characterize the way these discrete units can be combined, recombined, and ordered. In the sections on morphology (chapter 2), phonetics (chapter 3), phonology (chapter 4), and syntax (chapter 5), we will discuss the significant discrete units that linguists have postulated in the study of these subareas of linguistics. In addition to isolating discrete units such as morphemes, phonetic features, and syntactic phrases, we will be discussing the rules and principles by which words are formed, sounds are combined and varied, and syntactic units are structured and ordered into larger phrases.

In addition to discussing the core areas of morphology, phonology, syntax, and semantics (chapter 6), we will discuss two subfields of linguistics that draw heavily on those core areas, namely, language variation (chapter 7) and language change (chapter 8). In these chapters we will consider the ways in which language varies across individual speakers and dialect groups (regionally, socially, and ethnically) and how languages vary and relate to each other historically. Thus, having isolated important structural units in chapters 2–5, we will then examine how such units can vary along a number of dimensions.

The subfields represented in chapters 2–6 form the core of what has classically been known as *structural linguistics* (as practiced in the United States from the 1930s to the 1950s), and they continue to form a central part of *generative linguistics*, the theoretical perspective we adopt here. The latter dates from the publication of Noam Chomsky's 1957 work *Syntactic Structures* and has been the dominant school of linguistics in the United States since that time. It has also come to be a dominant school in Western Europe and Japan and has increasing influence in several Eastern European countries as well.

Assuming that the majority of our readers are native speakers of English, we have drawn the language data used in this book almost exclusively from English (see *A Linguistics Workbook: Companion to* Linguistics, *Sixth Edition*, also published by the MIT Press, for exercises based on over 20 languages). We encourage you to use your native linguistic judgments in evaluating our arguments and hypotheses. It is important that you test hypotheses, since this is an important aspect of doing scientific investigations. We should also stress that the general aspects of the linguistic framework we develop here are proposed to hold for all languages, or at least for a large subset of languages, and we encourage you to think about other languages you may know as you study the English examples.

What Is Linguistics?

The field of linguistics, the scientific study of human natural language, is a growing and exciting area of study, with an important impact on fields as diverse as education, anthropology, sociology, language teaching, cognitive psychology, philosophy, computer science, neuroscience, and artificial intelligence, among others. Indeed, the last five fields cited, along with linguistics, are the key components of the field of cognitive science, the study of the structure and functioning of human cognitive processes.

In spite of the importance of the field of linguistics, many people, even highly educated people, will tell you that they have only a vague idea of what the field is about. Some believe that a linguist is a person who speaks several languages fluently. Others believe that linguists are language experts who can help you decide whether it is better to say "It is I" or "It's me." Yet it is quite possible to be a professional linguist (and an excellent one at that) without having taught a single language class, without having interpreted at the UN, and without speaking any more than one language.

What is linguistics, then? Fundamentally, the field is concerned with the nature of language and (linguistic) communication. It is apparent that people have been fascinated with language and communication for thousands of years, yet in many ways we are only beginning to understand the complex nature of this aspect of human life. If we ask, What is the nature of language? or How does communication work? we quickly realize that these questions have no simple answers and are much too broad to be answered in a direct way. Similarly, questions such as What is energy? or What is matter? cannot be answered in a simple fashion, and indeed research in physics is carried out in numerous subfields, some of which involve investigating the nature of energy and matter. Linguistics is no different: the field as a whole represents an attempt to break down the broad questions about the nature of language and communication into smaller,



Figure 1.1 A competence model

more manageable questions that we can hope to answer, and in so doing establish reasonable results that we can build on in moving closer to answers to the larger questions. Unless we limit our sights in this way and restrict ourselves to particular frameworks for examining different aspects of language and communication, we cannot hope to make progress in answering the broad questions that have fascinated people for so long. As we will see, the field covers a surprisingly broad range of topics related to language and communication.

Chomsky (1965, 1972) proposes that three models are central to the general study of (spoken) language. The first he calls a model of linguistic *competence*, because it models what fluent speakers know when they know a language: "At the crudest level of description, we may say that a language associates sound and meaning in a particular way: to have command of a language is to be able, in principle, to understand what is said, and to produce a signal with the intended semantic interpretation" (1972, 115). Such a model can be represented as in figure 1.1.

Following Chomsky, linguists often call the model of competence in a language—the model of what speakers know when they know a language—a grammar of that language: "We will say that a grammar of a language L generates a set of pairs (s, I) where s is the phonetic representation of a certain signal [sounds] and I is the semantic interpretation [meaning]" (1972, 116). Linguistics traditionally concentrates on building a model of competence at the various levels of language organization—sounds, words, sentences, meaning, and use—as well as how languages vary from one another and evolve over time. We cover these subjects in chapters 2–9.

The second model Chomsky calls a model of linguistic *performance*, because it models how speakers actually use their linguistic competence. Such a model reflects not just a speaker's knowledge of his or her language, but also extralinguistic influences on speaking such as memory limitations and the speaker's purposes: "To study a language, then, we must attempt to dissociate a variety of factors that interact with underlying competence to determine actual performance" (1972, 116). Chom-