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 emerging 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 the entire field of physics is an attempt to answer them. 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, 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.

Part I of the text contains chapters dealing primarily with the structural components of language. Chapter 2, "Morphology," is concerned with the properties of words and word-building rules. Chapter 3, "Phonetics and Phonemic Transcription," introduces the physiology involved in the production of speech sounds as well as phonemic and phonetic transcription systems that are used to represent the sounds of English. Chapter 4, "Phonology," surveys the organizational principles that determine the patterns the speech sounds are subject to. Chapter 5, "Syntax," presents a study of the structure of sentences and phrases. Chapter 6, "Semantics," surveys the properties of linguistic meaning. Chapter 7, "Language Variation," deals with the ways speakers and groups of speakers can differ from each other in terms of the various forms of language that they use. Chapter 8, "Language Change," examines how languages change over time and how languages can be historically related.

Having examined certain structural properties of human language in part I, we turn to functional properties in part II. Chapter 9, "Pragmatics," explores some of the issues involved in describing human communication and proposes certain communication strategies that people use when they talk to each other. Chapter 10, "Psychology of Language," examines how language is produced and understood. Chapter 11, "Language Acquisition in Children," studies the stages involved in language acquisition by humans with normal brain function and reviews the evidence for positing a genetically endowed "Language Acquisition Device." Finally, chapter 12, "Language and the Brain," deals with how language is stored and processed in the brain.

To turn now from the particular to the general, what are some of the background assumptions that linguists make when they study language? Perhaps the most important fundamental assumption is that human language at all levels is rule- (or principle-) governed. Every known language
has systematic rules governing pronunciation, word formation, and grammatical construction. Further, the way in which meanings are associated with phrases of a language is characterized by regular rules. Finally, the use of language to communicate is governed by important generalizations that can be expressed in rules. The ultimate aim in each chapter, therefore, is to formulate rules to describe and account for the phenomena under consideration. Indeed, chapter 7, “Language Variation,” shows that even so-called casual speech is governed by systematic regularities expressible in rules.

At this point we must add an important qualification to what we have just said. That is, we are using the terms rule and rule-governed in the special way that linguists use them. This usage is very different from the layperson’s understanding of the terms. In school most of us were taught so-called rules of grammar, which we were told to follow in order to speak and write “correctly”—rules such as “Do not end a sentence with a preposition,” or “Don’t say ain’t,” or “Never split an infinitive.” Rules of this sort are called prescriptive rules; that is to say, they prescribe, or dictate to the speaker, the way the language supposedly should be written or spoken in order for the speaker to appear correct or educated. Prescriptive rules are really rules of style rather than rules of grammar.

In sharp contrast, when linguists speak of rules, they are not referring to prescriptive rules from grammar books. Rather, linguists try to formulate descriptive rules when they analyze language, rules that describe the actual language of some group of speakers and not some hypothetical language that speakers “should” use. Descriptive rules express generalizations and regularities about various aspects of language. Thus, when we say that language is rule-governed, we are really saying that the study of human language has revealed numerous generalizations about and regularities in the structure and function of language. Even though language is governed by strict principles, speakers nonetheless control a system that is unbounded in scope, which is to say that there is no limit to the kinds of things that can be talked about. How language achieves this property of effability (unboundedness in scope) is addressed in chapters 2 and 5. “Morphology” and “Syntax.”

Another important background assumption that linguists make is that various human languages constitute a unified phenomenon; linguists assume that it is possible to study human language in general and that the study of particular languages will reveal features of language that are universal. What do we mean by universal features of language?
So far we have used the terms *language* and *human language* without referring to any specific language, such as English or Chinese. Students are sometimes puzzled by this general use of the term *language*; it would seem that this use is rarely found outside of linguistics-related courses. Foreign language courses, after all, deal with specific languages such as French or Russian. Further, specific human languages appear on the surface to be so different from each other that it is often difficult to understand how linguists can speak of language as though it were a single thing.

Although it is obvious that specific languages differ from each other on the surface, if we look closer we find that human languages are surprisingly similar. For instance, all known languages are at a similar level of complexity and detail—there is no such thing as a primitive human language. All languages provide a means for asking questions, making requests, making assertions, and so on. And there is nothing that can be expressed in one language that cannot be expressed in any other. Obviously, one language may have terms not found in another language, but it is always possible to invent new terms to express what we mean: anything we can imagine or think, we can express in any human language.

Turning to more abstract properties, even the formal structures of language are similar: all languages have sentences made up of smaller phrasal units, these units in turn being made up of words, which are themselves made up of sequences of sounds. All of these features of human language are so obvious to us that we may fail to see how surprising it is that languages share them. When linguists use the term *language*, or *natural human language*, they are revealing their belief that at the abstract level, beneath the surface variation, languages are remarkably similar in form and function and conform to certain universal principles.

In relation to what we have just said about universal principles, we should observe once again that most of the illustrative examples in this book are drawn from the English language. This should not mislead you into supposing that what we say is relevant only to English. We will be introducing fundamental concepts of linguistics, and we believe that these have to be applicable to all languages. We have chosen English examples so that you can continually check our factual claims and decide whether they are empirically well founded. Linguistics, perhaps more than any other science, provides an opportunity for the student to participate in the research process. Especially in chapter 5, "Syntax," you will be able to assess the accuracy of the evidence that bears on hypothesis formation,
and after having followed the argumentation in the chapter, you will be in a position to carry out similar reasoning processes in the exercises at the end.

Finally, we offer a brief observation about the general nature of linguistics. To many linguists the ultimate aim of linguistics is not simply to understand how language itself is structured and how it functions. We hope that as we come to understand more about human language, we will correspondingly understand more about the processes of human thought. In this view the study of language is ultimately the study of the human mind. This goal is perhaps best expressed by Noam Chomsky in his book *Reflections on Language* (1975, 3–4):

Why study language? There are many possible answers, and by focusing on some I do not, of course, mean to disparage others or question their legitimacy. One may, for example, simply be fascinated by the elements of language in themselves and want to discover their order and arrangement, their origin in history or in the individual, or the ways in which they are used in thought, in science or in art, or in normal social interchange. One reason for studying language—and for me personally the most compelling reason—is that it is tempting to regard language, in the traditional phrase, as “a mirror of mind.” I do not mean by this simply that the concepts expressed and distinctions developed in normal language give us insight into the patterns of thought and the world of “common sense” constructed by the human mind. More intriguing, to me at least, is the possibility that by studying language we may discover abstract principles that govern its structure and use, principles that are universal by biological necessity and not mere historical accident, that derive from mental characteristics of the species. A human language is a system of remarkable complexity. To come to know a human language would be an extraordinary intellectual achievement for a creature not specifically designed to accomplish this task. A normal child acquires this knowledge on relatively slight exposure and without specific training. He can then quite effortlessly make use of an intricate structure of specific rules and guiding principles to convey his thoughts and feelings to others, arousing in them novel ideas and subtle perceptions and judgments. For the conscious mind, not specifically designed for the purpose, it remains a distant goal to reconstruct and comprehend what the child has done intuitively and with minimal effort. Thus language is a mirror of mind in a deep and significant sense. It is a product of human intelligence, created anew in each individual by operations that lie far beyond the reach of will or consciousness.

Bibliography