

# An Introduction to Descriptive Linguistics



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# Preface

Language is one of the most important and characteristic forms of human behavior. It has, accordingly, always had a place in the academic world. In recent years, however, its position has changed greatly: at one time the study of language was almost entirely restricted to specific languages, primarily those of Western Europe and classical antiquity; over the last few generations, a much broader consideration of language has taken a place at the side of the study of individual languages.

As each of the social sciences has developed, it has encountered language problems within its domain. Psychology, sociology, and anthropology have each investigated language both as a type of human activity and as a system interacting with personality, society, or culture. Language has intruded even upon technological problems, and engineers have found themselves driven to basic research on human speech. Today, as a result, we have well-established techniques for the study of language from a number of different points of view. Each of these techniques supplements all the others in contributing to theoretical knowledge and the practical problems of the day.

One approach has, however, received little attention until very recently: descriptive linguistics, the discipline which studies languages in terms of their internal structures. It differs from the other approaches in that it focuses its attention on different facets of human speech. The common general subject matter and its special competence to handle certain types of problems bring it into important relationships with many other disciplines.

Concurrent with the broadening of interest in language, there has been a fundamental change in the teaching of specific languages. Tongues which a past generation would have thought unworthy of serious attention are now taught in regularly scheduled classes. The variety of linguistic structures which must be dealt with has increased markedly, and the need has arisen for a broader perspective. Descriptive linguistics has thus become an essential concomitant to the newer language program.

This trend is evidenced by the addition of courses in descriptive linguistics in many American colleges and universities. Moreover, the courses are having a wider influence than before. Anthropologists have traditionally had some introduction to linguistic field methods in their training. Language majors have often had courses in Romance Philology or the like. These courses have been very different in content and outlook. But today the needs and interests of both groups seem to be converging, so that in many institutions they can meet in common courses in descriptive linguistics. Students in other social sciences are beginning to feel a need for a similar background. Linguistics courses are ceasing to be appendages to single specialized curricula, and are attracting an ever more diverse enrollment.

This textbook was written with this development in mind. It is not directed to prospective linguists alone; rather, widely various academic backgrounds and interests are assumed. Many of the students who use it will be particularly interested in understanding the place of descriptive linguistics among related disciplines, but will not be able to take specialized courses in these related fields. It has therefore been thought best to interpret the field rather broadly. Brief treatments of historical linguistics, dialect studies, communication theory, and acoustic phonetics have been included primarily to show their very close relationship to descriptive linguistics. In courses of more narrowly defined purpose or more restricted dimensions, these chapters can be omitted.

This book was developed out of an introductory course at the Hartford Seminary Foundation, a course designed primarily as preparation for the language problems faced by new missionaries in the foreign field, but also taken by students who are starting preparation for specific linguistic work — analysis, translation, teaching, reading education, etc. The students have exceedingly diverse backgrounds, ranging from literature or philosophy to medicine or nuclear physics, and from monolingual Americans facing their first real language learning to fluent speakers of half a dozen exotic languages. The book has grown out of a syllabus, repeatedly revised, and more than a dozen separate experiences with teaching introductory linguistics. In addition, the book in a preliminary mimeographed version has been tried in other institutions under very diverse conditions, ranging from an under-

graduate alternative requirement to a graduate course for English majors. On the whole it has proven itself in a variety of situations, and has profited by these experiments.

This textbook may be used in an upper-class or graduate single-semester course by omitting the more marginal chapters. With some supplemental reading assignments, it is adaptable for a full-year course in general linguistics. It should be used with the *Workbook in Descriptive Linguistics*, which was prepared to accompany this text and which gives carefully graded problems for analysis selected to illustrate the techniques and structures discussed and closely correlated with the treatment in this textbook. It is also desirable to have some oral instruction and practice in phonetics, which at the Hartford Seminary Foundation is given in drill sessions meeting in small groups for three hours each week. These drill sessions are devoted at first to drill on the English phonemic system and its transcription. Then attention is gradually shifted to sub-phonemic detail, and thence into more general phonetics. In the meantime, the lectures and assigned workbook problems are devoted to morphology. By the time Chapter 12 is reached and the class turns its attention to phonemics, the students have the minimum practical phonetic background necessary to understand and profit by a discussion of the phoneme principle. If the students have had a previous course in phonetics, a different arrangement might be desirable. For such students, and for instructors who prefer the traditional order, Chapters 12 to 18 are written in such a way as to be largely independent of the morphology chapters. They can accordingly be assigned before Chapter 6. (Chapter 5 might in such a case best be treated as part of the introduction.)

A great many people have made invaluable contributions toward the preparation of *An Introduction to Descriptive Linguistics*. Professor J. Maurice Hohlfeld has shared with me the teaching of introductory linguistics for a number of years. He has read the drafts of each revision of the syllabus and offered innumerable suggestions. In addition he has assisted with much of the drudgery of book production. Professor W. Freeman Twaddell had a large part in the last revision, reading the manuscript and meticulously criticizing the mimeographed version on the basis of his own experience in teaching it. So many other linguists have helped in one way or another that it is almost impossible to single out a few

for mention. However, I should like to name Professors Winfred P. Lehmann, Raven I. McDavid, Jr., and Mark Hanna Watkins, who have experimented with the book in their own classes. I am indebted to Dr. Franklin S. Cooper and the Haskins Laboratory, who permitted me to use their equipment for the preparation of the spectrograms on page 214. Professor Ku Tun-Jou and Mr. Tariho Fukuda assisted with illustrations in Chapter 21. Frances Gleason typed and retyped the manuscript and assisted in uncountable ways, not the least of which has been constant encouragement. Finally, major acknowledgement must go to the students at the Hartford Seminary Foundation, who suffered through my mistakes and taught me, in many cases, perhaps more than they themselves learned. Special appreciation goes to the few who, with courage rare among students, told me what they thought was wrong with my teaching, with the course, and with the subject in general, and to those who encouraged me by testimonies as to the value of their preparation as they became immersed in their language learning.

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*Hartford, Connecticut*  
*April, 1955*

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# Language

1.1 As you listen to an unfamiliar language you get the impression of a torrent of disorganized noises carrying no sense whatever. To the native speaker it is quite otherwise. He pays little attention to the sounds, but concerns himself instead with some situation which lies behind the act of speech and is, for him, somehow reflected in it. Both you and he have failed to grasp the nature of the phenomenon. Neither the casual observer nor the usual native speaker can give any real information about a language. To be sure, some people, Americans perhaps more than most others, have decided notions about language. But the ideas held and discussed come far short of giving a complete picture of the language and sometimes have very little relationship to the facts. Even people with considerable education are often wholly unable to answer certain quite simple questions about their language. For most people language is primarily a tool to be used, rather than a subject for close and critical attention.

It is probably well that it is so. Yet there are important human problems into which language enters intimately and on which it exerts such a profound influence that an understanding of its mechanism would contribute materially to their solutions. Moreover, every phase of human activity is worthy of study. Thus, for practical reasons, as well as to satisfy man's innate curiosity, language deserves careful and intelligent study.



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1.2 Language has so many interrelationships with various aspects of human life that it can be studied from numerous points of view. All are valid and useful, as well as interesting in themselves.

▷ Linguistics is the science which attempts to understand language from the point of view of its internal structure. It is not, of course, isolated and wholly autonomous, but it does have a clearly and sharply delimited field of inquiry, and has developed its own highly effective and quite characteristic method. It must draw upon such sciences as physical acoustics, communications theory, human physiology, psychology, and anthropology for certain basic concepts and necessary data. In return, linguistics makes its own essential contributions to these disciplines. But however closely it may be related to other sciences, it is clearly separate by reason of its own primary concern with the structure of language.

1.3 What then is this structure? Language operates with two kinds of material. One of these is sound. Almost any sort of noise that the human vocal apparatus can produce is used in some way in some language. The other is ideas, social situations, meanings — English lacks any really acceptable term to cover the whole range — the facts or fantasies about man's existence, the things man reacts to and tries to convey to his fellows. These two, insofar as they concern linguists, may conveniently be labeled *expression* and *content*.

The foreigner who hears merely a jumble of sounds has not really heard the language, not even the part of it which we have called *expression*. All that he has heard is sounds, the material which language uses to carry its message. This is not the domain of the linguist, but that of the physicist. The latter can analyze the stream of speech as sound and learn many things about it. His findings have both theoretical and practical importance; the designs of telephones, radios, and much other electronic equipment depends in an essential way upon such findings. They also contribute basic data to linguistics, and to numerous other sciences, including psychology and physiology, as well as to physics itself.

The linguist is concerned with sound as the medium by which information is conveyed. To serve in this way, speech must be something quite different from the jumble of sound apparent to the foreigner. It is, in fact, an organized system or structure, and it is this structure that lies within the subject field of linguistics.

The linguist analyzes speech as an orderly sequence of specific kinds of sounds and of sequences of sounds. It is orderly in terms of a very complex set of patterns which repeatedly recur and which are at least partially predictable. These patterns form the structure of **expression**, one major component of language in the sense that the linguist uses the term.

The native speaker has his attention focused on something else, the subject of the discourse. This may be a situation which is being described, some ideas which are being presented, or some social formula which is being repeated. None of these things are language, any more than are the sounds which convey speech. The subject of the discourse stands on the opposite side and in much the same relationship to speech as do the sounds. The speaker comprehends what he is talking about in terms of an organizing structure. This structure causes him to select certain features for description and determines the ways in which he will interrelate them. It also cuts the situation up into portions in a characteristic way. These selected features, like the sounds mentioned above, also form patterns which recur, and which are at least partially predictable. These recurrent patterns are the structure of **content**, a second major component of language as the linguist treats it.

Finally, these two structures are intimately related and interacting. Parts of the structure of expression are associated in definite ways with parts of the structure of content. The relations between these two complex structures are themselves quite complex. In every language they are different from what is found in every other language. The differences may be profound and extensive, or they may be relatively slight. But in every instance, the two structures are intricate and their relationships quite characteristic.

1.4 The native speaker uses this complex apparatus easily and without conscious thought of the process. It seems to him simple and natural. But to a speaker of another of the world's three thousand languages it may present quite a different picture. It may give an impression of being cumbersome, illogical, or even ridiculous. Actually, of course, the strange language is merely different. A true picture of language can only be had by seeing languages more objectively. Such a view will emphasize the immense complexity, the arbitrariness, and the high degree of adequacy for

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their purposes — features which are shared by all languages in spite of their divergencies.

1.5 The dual structure of language can best be made clear by an example. The more technical description which will follow later in this book will afford more refined examples, but the following will indicate something of the possibilities without involving complicated terminology or technical concepts.

Consider a rainbow or a spectrum from a prism. There is a continuous gradation of color from one end to the other. That is, at any point there is only a small difference in the colors immediately adjacent at either side. Yet an American describing it will list the hues as *red, orange, yellow, green, blue, purple*, or something of the kind. The continuous gradation of color which exists in nature is represented in language by a series of discrete categories. This is an instance of structuring of content. There is nothing inherent either in the spectrum or the human perception of it which would compel its division in this way. The specific method of division is part of the structure of English.

By contrast, speakers of other languages classify colors in much different ways. In the accompanying diagram, a rough indication is given of the way in which the spectral colors are divided by speakers of English, Shona (a language of Rhodesia), and Bassa (a language of Liberia).

English:

purple	blue	green	yellow	orange	red
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Shona:

cips <sup>w</sup> uka	citema	cicena	cips <sup>w</sup> uka
-----------------------	--------	--------	-----------------------

Bassa:

hui	ziza
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The Shona speaker divides the spectrum into three major portions. *Cips<sup>w</sup>uka* occurs twice, but only because the red and purple ends, which he classifies as similar, are separated in the diagram.

Interestingly enough, *citema* also includes black, and *cicena* white. In addition to these three terms, there are, of course, a large number of terms for more specific colors. These terms are comparable to English *crimson*, *scarlet*, *vermilion*, which are all varieties of *red*. The convention of dividing the spectrum into three parts instead of into six does not indicate any difference in visual ability to perceive colors, but only a difference in the way they are classified or structured by the language.

The Bassa speaker divides the spectrum in a radically different way: into only two major categories. In Bassa there are numerous terms for specific colors, but only these two for general classes of colors. It is easy for an American to conclude that the English division into six major colors is superior. For some purposes it probably is. But for others it may present real difficulties. Botanists have discovered that it does not allow sufficient generalization for discussion of flower colors. Yellows, oranges, and many reds are found to constitute one series. Blues, purples, and purplish reds constitute another. These two exhibit fundamental differences that must be treated as basic to any botanical description. In order to state the facts succinctly it has been necessary to coin two new and more general color terms, *xanthic* and *cyanic*, for these two groups. A Bassa-speaking botanist would be under no such necessity. He would find *ziza* and *hwi* quite adequate for the purpose, since they happen to divide the spectrum in approximately the way necessary for this purpose.

1.6 Now for a simple statement of structure in the expression part of language: The sounds used by English are grouped into consonants and vowels (and some other categories). These are organized into syllables in a quite definite and systematic way. Each syllable must have one and only one vowel sound. It may have one or more consonants before the vowel, and one or more after the vowel. There are quite intricate restrictions on the sequences that may occur. Of all the mathematically possible combinations of English sounds, only a small portion are admitted as complying with the patterns of English structure. Not all of these are actually used, though the unused ones stand ready in case they should ever be needed. Perhaps some day a word like *ving* may appear in response to a new need. *Shmoo* was drawn out of this stock of unused possibilities only a few years ago. But *ngvi* would

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be most unlikely: it simply is not available as a potential English word, though it contains only English sounds.

Six of these permissible sequences of sounds are somehow associated with the six portions into which English language-habits structure the spectrum. These are the familiar *red, orange, yellow, green, blue, purple*. This association of expression and content is merely conventional. There is no reason why six others could not be used, or why these six could not be associated with different parts of the spectrum. No reason, that is, except that this is the English-language way of doing it, and these are conventions to which we must adhere reasonably closely if we are to be understood. Sometime in the past history of the language, these conventions became established and have persisted with only gradual changes since. In their ultimate origins, all such conventions are the results of more or less accidental choices. It is largely fortuitous that the spectrum came to be so divided, that the specific words were attached to the colors so distinguished, or, indeed, that the sounds from which they were formed were so organized that these words were possible. These irrational facts, with many others like them, constitute the English language. Each language is a similarly arbitrary system.

1.7 The three major components of language, as far as language lies within the scope of linguistics, are the structure of expression, the structure of content, and vocabulary. The latter comprises all the specific relations between expression and content — in the familiar terminology, words and their meanings.

Vocabulary comes and goes. It is the least stable and even the least characteristic of the three components of language. That portion of the vocabulary which changes most freely is sometimes referred to as "slang." But even staid and dignified words are constantly being created and continually passing out of active use, to be preserved only in literature which is dated by their very presence. While certain types of words are more transient than others, none are absolutely immortal. Even the most familiar and commonly used words, which might be expected to be most stable, have a mortality rate of about twenty percent in a thousand years.

Moreover, in the life history of an individual speaker the birth and death of words is very much more frequent than in the language community as a whole. Every normal person probably learns

at least three words every day, over a thousand a year, and forgets old ones at an appreciable but lower rate. This figure must be a minimum, because most people have total vocabularies which could only be reached through even more rapid acquisition of vocabulary during at least part of their life.

We have no comparable method by which the rate of change of content structure can be estimated. The learning of new vocabulary, particularly technical terms associated with the learning of new concepts, does of course imply certain minor changes. But it is quite evident that change rarely touches the most basic features in any given language. With regard to the structure of expression the facts are clearer. Few, unless they learn a second language, will add, subtract, or change any of their basic sound patterns after they reach adolescence. Grammatical constructions may increase, but at a rate much slower than the increase of vocabulary. Vocabulary is indeed the transient feature of language.

1.8 In learning a second language, you will find that vocabulary is comparatively easy, in spite of the fact that it is vocabulary that students fear most. The harder part is mastering new structures in both content and expression. You may have to free yourself from the bondage of thinking of everything as either singular or plural. Perhaps the new language will organize content into singular, dual, and plural (here meaning 'three or more'). Or perhaps the new language will not give routine consideration to the matter. English speakers can never make a statement without saying something about the number of every object mentioned. This is compulsory, whether it is relevant or not. In Chinese, objects are noted as singular or plural only when the speaker judges the information to be relevant. The Chinese experience suggests that it actually seldom is, for that language operates with only occasional references to number.

You will have to make similar changes in habits of thought and of description of situations in many other instances. You may, for example, have to learn to think of every action as either completed or incomplete, and to disregard the time of the action unless it has special relevance. The reorganization of thinking and perception may extend much deeper than such changes. In some languages, situations are not analyzed, as they are in English, in terms of an actor and an action. Instead the fundamental cleavage runs in a

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different direction and cannot be easily stated in English. Some of these divergencies between languages have been described by Benjamin L. Whorf in a series of papers which have been reprinted under the title *Four Articles on Metalinguistics*. Every student of linguistics or languages can profit from the reading of these articles.

You will also have to reorganize your habits of making and hearing sounds. You will have to discriminate between sounds that you have learned to consider the same. You will find that others, in clear contrast in English, function as one, and you will have to learn to respond to them as to one sound. Patterns which seem impossible will have to become facile, and you will have to learn to avoid some English patterns that seem to be second nature.

The most difficult thing of all, however, is that these profound changes will have to become completely automatic. You will have to learn to use them without effort or conscious attention. In this learning process constant disciplined practice is essential. Special ability may be helpful, but probably much less so than is popularly supposed. An understanding of the basic principles of language structure — that is, the results of modern linguistic research — while not indispensable, can contribute in many ways.

1.9 As we listen to a person speaking our native language we hear not only what is said, but also certain things about the speaker. If he is an acquaintance, we recognize him. If not, we identify him as male or female and perhaps obtain some idea of his age, his education, and his social background. A person's voice serves at least two functions in communication. One is linguistic, in that it serves as the vehicle of the expression system of language. The other is non-linguistic, in that it carries information of a quite different sort about the speaker.

This distinction is made, at least roughly, even by the unsophisticated. If we are told to REPEAT exactly what another says, we will duplicate (provided our memory serves us adequately) every feature which is included in the language expression system. We can do that, if it is our own language, even without understanding the content. In repeating we will make no effort to reproduce anything beyond the linguistically pertinent features. If, however, we are asked to MIMIC another, we attempt to reproduce not only the linguistic features, but every discernible characteristic.

Few can mimic with any degree of success, whereas every normal native speaker can, perhaps with a little practice, repeat exactly up to the limit imposed by his memory span.

**1.10** The most basic elements in the expression system are the **phonemes**. These are the sound features which are common to all speakers of a given speech form and which are exactly reproduced in repetition. In any language, there is a definite and usually small number of phonemes. In English there are forty-six. These will be identified and described in the next three chapters. Out of this limited inventory of units, the whole expression system is built up. In many respects the phonemes are analogous to the elements of chemistry, ninety-odd in number, out of which all substances are constructed.

The phoneme is one of those basic concepts, such as may be found in all sciences, which defy exact definition. Yet some sort of working characterization is necessary before we go on. The following is hardly adequate beyond a first introduction to the subject, but will make it possible to proceed with the analysis and enumeration of the phonemes of English. It will be expanded and modified several times. Indeed, the very process of application in the next three chapters will constitute such emendation.

With this in mind, we may define a **phoneme** as a minimum feature of the expression system of a spoken language by which one thing that may be said is distinguished from any other thing which might have been said. Thus, if two utterances are different in such a way that they suggest to the hearer different contents, it must be because there are differences in the expressions. The difference may be small or extensive. The smallest difference which can differentiate utterances with different contents is a difference of a single phoneme. This description is best illustrated by a full-scale application in the presentation of the phonemic system of a language. Since this cannot be done in brief compass, no illustration will be given until the English phonemes are presented in Chapters 2, 3, and 4.

**1.11** There are two things about phonemes that must be explicitly pointed out in anticipation of any such presentation:

Phonemes are part of the system of one specific language. The phonemes of different languages are different, frequently incommensurable. It is for this reason that a foreigner hears only a



jumble which he cannot repeat. The sounds of the unfamiliar language do not fit into his phonemic system, and so he can comprehend no order in a simple utterance. If anything which is said about the phonemes of one language happens to apply to those of another, we must regard it as fortuitous.

Phonemes are features of the spoken language. Written language has its own basic unit, the grapheme. Something will be said about this later. If, of necessity, written words are cited as illustrations, it must be constantly borne in mind that the written form is not, and cannot be, an illustration of a phoneme. Instead, it is the spoken form which the written form is expected to elicit which illustrates the phoneme under discussion. This inevitably introduces a major difficulty into the presentation. The illustrative words have been selected with the intention that they should be as generally as possible pronounced by all Americans in the same way. Undoubtedly this principle of selection fails in some instances because of dialect and individual peculiarities of the writer and the reader. Such instances will not vitiate the argument. For some Americans other examples might be needed, but examples can be found which will lead to the same results.

1.12 The thinking that most Americans do about language is almost exclusively concerned with written English. A written language is, of course, a valid and important object of linguistic investigation. It can, however, easily mislead the unwary. Most of the misunderstandings which Americans have about language arise from a failure to keep clearly in mind the nature and limitations of a written language.

A written language is typically a reflection, independent in only limited ways, of spoken language. As a picture of actual speech, it is inevitably imperfect and incomplete. To understand the structure of a written language one must constantly resort either to comparison with the spoken language or to conjecture. Unfortunately, recourse has been too largely to the latter. Moreover, conjecture has been based not so much upon an intimate knowledge of the ways of languages in general (the results of descriptive linguistics) as to a priori considerations of supposed logic, to metaphysics, and to simple prejudice. While logic and metaphysics are important disciplines and can make significant contributions to an understanding of language, the customary manner of applying