A COURSE IN MODERN LINGUISTICS

CHARLES F. HOCKETT

PROFESSOR OF LINGUISTICS AND ANTHROPOLOGY
CORNELL UNIVERSITY

THE MACMILLAN COMPANY

NEW YORK

© THE MACMILLAN COMPANY 1958

ALL RIGHTS RESERVED—NO PART OF THIS BOOK MAY BE REPRODUCED IN ANY FORM WITHOUT PERMISSION IN WRITING FROM THE PUBLISHER, EXCEPT BY A REVIEWER WHO WISHES TO QUOTE BRIEF PASSAGES IN CONNECTION WITH A REVIEW WRITTEN FOR INCLUSION IN MAGAZINE OR NEWSPAPER.

PRINTED IN THE UNITED STATES OF AMERICA SECOND PRINTING, 1959

LIBRARY OF CONGRESS CATALOG CARD NUMBER: 58-5007

A COURSE IN MODERN LINGUISTICS



THE MACMILLAN COMPANY
NEW YORK • CHICAGO

DALLAS • ATLANTA • SAN FRANCISCO
LONDON • MANILA
IN CANADA

BRETT-MACMILLAN LTD.

GALT, ONTARIO

PREFACE

This book is intended for those college students who take an introductory course in linguistics. If others find interest or entertainment in the work, the author will be delighted; but it is not a "popularization," and the general reader must in all fairness be warned of this. Simplicity of presentation has been sought, but not a false simplification of subject matter.

The duty of the writer of a textbook is not to explore frontiers or indulge in flights of fancy, but to present, in as orderly a way as he can, the generally accepted facts and principles of the field. This has been my aim; the tenor of the book is conservative. Nonetheless—and for this I must apologize—on some topics my enthusiasm and involvement have certainly led me to speak more emphatically than our current knowledge warrants.

Terminological innovations have been avoided as much as possible. Complete avoidance has been unattainable, because it is essential to discuss all aspects of the field in a consistent terminology, and no complete and consistent terminology has existed.

Although I have intended no adherence to any single "school" of linguistics, the influence of American linguistics, and especially that of Leonard Bloomfield, will be apparent on every page.

Linguistics is too rich a field for adequate coverage of all topics in an elementary course. The decision concerning what to include and what to omit, however, rests properly with the instructor. I have, therefore, tried to include adequate elementary treatment of all topics but two: the history of linguistics, and the detailed survey of the languages of the world. The omission reflects my own opinion that neither is a

viii PREFACE

desirable topic in an elementary course; the colleague who disagrees has access elsewhere to several first-class discussions of each.

I owe a great debt to a number of my colleagues who offered me advice on one or another portion of the book, or who read an earlier version in its entirety. This earlier version was used for two successive years in our introductory course at Cornell University, and the reactions of the students have been invaluable to me. Of my colleagues, I must especially mention Frederick B. Agard, Harold B. Allen, J Milton Cowan (who taught the Cornell course during the trial runs). Gordon H. Fairbanks, Murray Fowler, Robert A. Hall, Jr., Eric P. Hamp, Sumner Ives, Norman A. McQuown, William G. Moulton, W. Freeman Twaddell. Oscar Cargill and Norman E. Eliason were especially helpful during later stages of the work. Any deficiencies remaining in the book are due to my own obstinacy, not to any inadequacy in the scholars just named. I wish also to offer my sincere thanks to the Rockefeller Foundation, for grants with which the writing was begun; to the Center for Advanced Study in the Behavioral Sciences, where the writing was completed; and, above all, to Cornell University, which, with a magic seemingly unique, makes itself a congenial home for the scholar in linguistics.

CHARLES F. HOCKETT

Ithaca, New York

CONTENTS

1.	INTRODUCTION	1
	SIGNALLING VIA SOUND: PHONOLOGY	
2.	PHONEMES	15
3.	PHONEMIC NOTATION	27
4.	ENGLISH INTONATION	33
<i>5</i> .	ENGLISH ACCENT	47
6.	ENGLISH JUNCTURE	54
7.	PHONETICS	62
8.	CONTOID ARTICULATIONS	69
9.	VOCOID ARTICULATIONS; TIMING AND COORDINATION	77
10.	PHONEMIC ARRANGEMENTS; REDUNDANCY	84
11.	TYPES OF PHONEMIC SYSTEMS	92
12.	PHONEMIC ANALYSIS	102
13.	PHONEMES AND SOUND	112
	PHONOLOGY AND GRAMMAR: LEVELS	
	OF PATTERNING	
14.	MORPHEMES	123
15.	MORPHEMES AND PHONEMES	130
16.	THE DESIGN OF A LANGUAGE	137
	GRAMMATICAL SYSTEMS	
17.	IMMEDIATE CONSTITUENTS	147
	FORM CLASSES AND CONSTRUCTIONS	157
- X-1		ix
		TV

19.	WORDS	166
	MORPHOLOGY AND SYNTAX	177
	SYNTACTICAL CONSTRUCTION-TYPES: ENDOCENTRIC	183
	SYNTACTICAL CONSTRUCTION-TYPES: EXOCENTRIC	191
	SENTENCES AND CLAUSES	199
24.	INFLECTION	209
	KINDS OF SYNTACTICAL LINKAGE	214
	PARTS OF SPEECH	221
27.	GRAMMATICAL CATEGORIES	230
	DERIVATION	240
29.	SURFACE AND DEEP GRAMMAR	246
<i>30</i> .	SUBSTITUTES	253
<i>31</i> .	THE GRAMMATICAL CORE	261
	MORPHOPHONEMIC SYSTEMS	
<i>32</i> .	MORPHOPHONEMICS	271
<i>33</i> .	TYPES OF ALTERNATION	277
<i>34</i> .	CANONICAL FORMS AND ECONOMY	284
<i>3</i> 5.	SECONDARY EFFECTS OF PHONEMIC SHAPES	293
	IDIOMS	
<i>3</i> 6.	IDIOM FORMATION	303
<i>3</i> 7.	TYPES OF IDIOMS	310
	SYNCHRONIC DIALECTOLOGY	
<i>3</i> 8.	IDIOLECT, DIALECT, LANGUAGE	321
<i>3</i> 9.	COMMON CORE AND OVERALL PATTERN	331
40.	AMERICAN ENGLISH STRESSED SYLLABICS	339
	LINGUISTIC ONTOGENY	
41.	LINGUISTIC ONTOGENY	353
	PHYLOGENY	
42.	PHYLOGENETIC CHANGE	365
43.	OLD AND MIDDLE ENGLISH	372
44.	KINDS OF PHYLOGENETIC CHANGE	380

CONTENTS		xi
<i>45</i> .	MECHANISMS OF PHYLOGENETIC CHANGE	387
46.	INNOVATION AND SURVIVAL	393
47.	THE CONDITIONS FOR BORROWING	402
48.	KINDS OF LOANS	408
49.	ADAPTATION AND IMPACT	417
<i>50</i> .	ANALOGICAL CREATION	425
51.	FURTHER VARIETIES OF ANALOGY	432
<i>52</i> .	THE NATURE OF SOUND CHANGE	439
<i>53</i> .	COALESCENCE AND SPLIT	446
<i>54</i> .	THE CONSEQUENCES OF SOUND CHANGE	452
	LINGUISTIC PREHISTORY	
<i>55</i> .	INTERNAL RECONSTRUCTION	461
<i>56</i> .	DIALECT GEOGRAPHY	471
<i>5</i> 7.	THE COMPARATIVE METHOD	485
<i>5</i> 8.	RECONSTRUCTING PHONEMICS	493
<i>5</i> 9.	RECONSTRUCTING MORPHOPHONEMICS AND	
	GRAMMAR	505
<i>60</i> .	FURTHER RESULTS OF THE COMPARATIVE METHOD	512
61.	GLOTTOCHRONOLOGY	526
	WRITING	
<i>62</i> .	WRITING	539
	LITERATURE	
<i>63</i> .	LITERATURE	553
	MAN'S PLACE IN NATURE	
64.	MAN'S PLACE IN NATURE	569
	APPENDIX OF LANGUAGE NAMES	587
	BIBLIOGRAPHY	599
	INDEX	607

INTRODUCTION

1.1. This book is about *language*, the most valuable single possession of the human race.

Everyone, in every walk of life, is concerned with language in a practical way, for we make use of it in virtually everything we do. For the most part our use of language is so automatic and natural that we pay no more attention to it than we do to our breathing or to the beating of our hearts. But sometimes our attention is drawn: we are struck by the fact that others do not speak quite as we do, or we observe a child learning to talk, or we wonder whether one or another way of saying or writing something is correct.

Beyond this, many people have professional need to know something about language—as opposed to simply being able to use it. Here are some examples:

- (1) The speech correctionist, since his job is to help people overcome difficulties or impediments in their use of language.
- (2) The teacher of English composition, for a somewhat similar reason.
 - (3) The foreign language teacher.
- (4) The literary artist, who must know his medium and its capacities just as a painter must know pigments, brushes, and colors; the literary critic for a similar reason.
- (5) The psychologist, who knows that language is one of the vital factors differentiating human behavior from that of rats or apes.
- (6) The anthropologist, both because language is part of what he calls "culture," and because in his anthropological field work he is often confronted by practical problems of a linguistic sort.

- (7) The missionary, who may have to learn some exceedingly alien language, for which there are no ready-made primers or dictionaries—learning it not just for the management of everyday affairs, but well enough to deliver sermons and make Bible translations.
- (8) The historian, because his sources of information are documents; that is, written records of past speech.
- (9) The philosopher, particularly in dealing with such topics as logic, semantics, and so-called "logical syntax."
- (10) The communications engineer, part of whose business is to transmit messages in spoken form (telephone, radio) or in written form (telegraph, teletype) from one place to another.

For all these people, and for others who could be added to the list, knowledge of the workings of language is a means to some end. For a small group of specialists, knowing about language is an end in itself. These specialists call themselves *linguists*, and the organized body of information about language which their investigations produce is called *linguistics*.

The relationship between linguistics and the various other fields in which some knowledge of language is useful is much like that between, say, pure chemistry and chemical engineering. Suppose that an industrial plant has been using a natural dye to color certain products. Something happens to threaten the source of the dye or to increase its cost prohibitively. It then becomes the task of the chemical engineer to find an effective substitute which requires only easily available and relatively inexpensive raw materials. In his efforts to solve this problem, he calls on all sorts of known facts of pure chemistry, many of which were discovered with no such application in view.

Similarly, suppose that an American oil company wishes to develop an oil-field in a region where the prevalent language is one not ordinarily taught in American schools. At least some of the company's personnel must learn the language. There will be no ready-made stock of experienced teachers for the purpose, as there are for such languages as French and German. Nor can one simply hire an inhabitant of the region to serve as a teacher, since native control of a language does not in itself imply conscious understanding of how the language works, or ability to teach it—any more than having cancer automatically makes one a specialist in cancer diagnosis and therapy. But there are linguists who are skilled at finding out how a language works, at preparing

teaching-materials in it, and at supervising the tutorial work of native speakers. In all of this, such linguists draw on the results of pure linguistic research.

Of course, this proper relationship between "pure" and "applied" does not always work out smoothly. Sometimes those faced with a practical language problem do not bother to consult the "pure" linguists. Sometimes they ask for help, but get none. This is occasionally because the particular linguist is not interested, but more often because the organized body of information which linguists have so far gathered has nothing to contribute to the problem at hand. When this happens, the "applied" people sometimes forge ahead on their own and find a workable solution. Many a key contribution to linguistics has come about in just this way, from fields as diverse as classical philology and electrical engineering. Anything which anyone discovers about language is grist for the linguist's mill. It is his job to work every new discovery into his systematic account of language, so that those who come later will not waste their time exploring territory that has already been clearly mapped.

The above considerations reveal one reason why, in this book, we shall deal with language in the frame of reference and the terminology of linguistics, rather than in those of anthropology, philosophy, psychology, foreign language teaching, or the like. Only in this way can we be sure of serving the interests of all those readers who are, or may later become, specialists in one or another of these fields. If we were to present, say, a "psychologized" linguistics, we might serve the psychologically trained reader somewhat better (though this is not certain), but we would be doing a comparable disservice to the anthropologist, the communications engineer, the foreign language teacher, and so on.

Another and more fundamental reason is that language deserves autonomous treatment. The objective study of human language does not achieve its validity merely through actual or potential "practical" applications. Anything which plays as omnipresent and essential a role in human life as does language merits as careful study as possible. The more we can understand its workings, the better we shall understand ourselves and our place in the universe.

1.2. Sources of Difficulty. Linguistics is not an inherently difficult subject, but there are several points which often make trouble for the beginner. In part, these are merely matters of terminology; in part,

however, they have to do with the difference between the lay attitude towards language and the orientation of the specialist.

(1) The linguist distinguishes between language and writing, whereas the layman tends to confuse the two. The layman's terms "spoken language" and "written language" suggest that speech and writing are merely two different manifestations of something fundamentally the same. Often enough, the layman thinks that writing is somehow more basic than speech. Almost the reverse is true.

Human beings have been speaking for a very long time, perhaps millions of years. Compared to this, writing is a recent invention. As late as a century or so ago, millions of people in civilized countries could not read or write—literacy was a prerogative of the privileged classes. Even today, there are large numbers of illiterates in some parts of the world. Yet there is no human community anywhere which does not have a fully developed language. Stories of peasants whose vocabulary is limited to a few hundred words, or of savages who speak only in grunts, are pure myth.

Similarly, the child learns to speak his language at an earlier age than he learns to read and write, and acquires the latter skills in the framework supplied by the former. This in itself is one of the reasons why we tend to misunderstand the relationship between language and writing. When we begin to learn to speak, the problems involved can hardly be discussed with us, since the discussion would require the very skill we have set out to achieve. But when we begin to learn to read and write, our teachers can talk with us about the task. Thus we grow up with a vocabulary for saying things about reading and writing, but with none for dealing with language itself. Of course the relationship between writing and language is close; it is only natural that we should transfer the vocabulary fitted to the discussion of writing to our remarks about language. For example, we constantly talk about spoken words (which can be heard but not seen) as though they were composed of letters (marks on paper which can be seen but not heard).

The change of orientation which is required in this connection is not an easy one to make. Old habits die hard. Long after one has learned the suitable technical vocabulary for discussing language directly, rather than via writing, one is still apt to slip. It should afford some consolation to know that it took linguistic scholarship a good many hundreds of years to make just this same transition.

(2) Much of the time devoted by the layman to language is taken up by the problem of "correctness." Is it more "correct" to say it is I than it's me? To whom than who to? What renders ain't incorrect? Are "incorrect" forms to be avoided under all circumstances?

It may come as a shock to learn that the linguist is not particularly interested in such questions. This statement must not be misunderstood. It does not mean that the linguist is an advocate of incorrect forms, or that he denies the reality of the distinction between correct and incorrect. As a user of language, the linguist is bound by the conventions of his society just as everyone else is—and is allowed the same degrees and kinds of freedoms within those conventions. In using language, he may be a purist or not. But this has little if any relationship to his special concern, which is analyzing language.

As an analyst of language, the linguist is bound to observe and record "incorrect" forms as well as "correct" ones—if the language with which he is working makes such a distinction. A particular linguist may become interested in the whole phenomenon of correctness, and may study this in the same objective way in which he might examine Greek verbs, or French phonetics, or the child's acquisition of speech. If he does, he may soon discover that he needs help. The sociologist or anthropologist, for example, is better prepared than he to explain the special secondary values attached to certain patterns of behavior, be they ways of speaking or points of table etiquette.

(3) The organization of affairs in our schools is such as to suggest a very close tie between language and literature. A high school English course is apt to devote some time to grammar and some time to Tennyson. The typical college French department offers instruction in that language, and in French literature, as well as—more rarely—a few courses in phonetics, philology, or the like.

The tie between language and literature is naturally close—the literary artist works in the medium of language just as the painter works in the medium of colors and the composer in that of sounds. Nevertheless, the study of the two must not be confused. A painter and a chemist are both interested in pigments. The painter's interest focusses on effective selection and placement of different colors and textures on his canvas. The chemist's interest is in the chemical composition of the pigments, whether used in one way or another by the painter. Some physicists are specialists in sound; even when they deal

with the kinds of sounds produced by musical instruments, their interest is very different from that of the composer, the performer, or the musical audience. Similarly, the raw-materials of the literary artist are of concern to the linguist, but he is concerned with them whether they are used for literary purposes or otherwise.

Unlike the phenomenon of correctness, literature is apparently universal. Some sort of literature is found in almost every known human society, and its study is proportionately important for an improved understanding of human nature.

(4) A number of factors conspire to give us a false notion of the relationship between language, or grammar, and logic. If we carry this notion with us into our study of linguistics, we are apt to expect some results which are not attainable, and to miss the point of some of the results actually attained.

One of these factors is the common assumption that any usage which is not "logical" is therefore wrong. To say he don't is "illogical," for example, since don't is a contraction of do not, and we do not say he do.

Such a comment reflects the fact that, in historical origin, the disciplines of grammar and of logic were close. More sophisticated reflections of this are sometimes to be found in the opinions of contemporary philosophers. One of these recently criticized linguists for their insistence that, in a sentence like *John saw Bill*, only *John* is the subject. The critic wanted to assert that both *John* and *Bill* are subjects, since the sentence says something about both.

Again, we often feel, as we study some language other than our own, that its ways are most peculiar. What sense is there in the French habit of saying Je veux de l'eau 'I want some water' with the definite article before eau 'water,' but Je ne veux pas d'eau 'I don't want any water' without the article?

There are really two different points at issue here. One is the extent to which we can expect a language to be "logical" in the sense of "consistent and sensible," and the extent to which languages differ in this regard. The other is whether the linguist, in analyzing and describing some particular language, should work in terms of some preconceived notion of abstract logic or should accept what he finds.

The answer to the first point is that every known language shows certain consistencies and many arbitrary inconsistencies. We do not see the arbitrary features of our native language, because we are used to them. Those of some other language, studied when we are adults, stand out like sore thumbs. We are quite right in doubting the sense of the French habit mentioned above: though regular, it is entirely arbitrary. But we should not be right were we to conclude that French is "less logical" than English. Is it not, in the last analysis, perfectly arbitrary that we should say *I want some water* with *some*, but should switch to *any* in making the statement negative, *I don't want any water*?

The answer to the second point is that linguistic research can accomplish nothing unless it is strictly inductive. Philosophical speculation about what language ought to be is sterile. In describing a language we must report actual usage, as determined by observation. In describing speech behavior in general, we must be most concerned with those features which have been empirically discovered in all the languages on which we have any information.

Thus if we observe that certain speakers of English say I do, I don't, he does, and he don't, we can only conclude that in their particular variety of English don't functions as the contraction of does not as well as of do not. (This does not render he don't "correct": its standing as "correct" or "incorrect" is here beside the point.) When we assert that John, and only that, is the subject of the sentence John saw Bill, we are not contradicting (nor confirming) what a logician may want to say about this sentence. The linguistic use of the term "subject" has relatively little to do with the logician's use of the same term; the linguist uses this term, and others, to describe how sentences are put together, rather than to describe what sentences are about and whether or not they are true.

From the linguist's point of view, the "logical" approach to language is too narrow. Language is not used just to make assertions of fact. It is used for lies as well as truth, for nonsense as well as for sense, for persuasion as well as for instruction, for entertainment as well as for business, for making war as well as for making love. Language is as broad and deep as the whole fabric of human existence; our approach to it must be comparably catholic.

1.3. Languages and Speech Communities. The linguist's range of study is not just English or just the politically important languages of the world, but every language about which we have, or can obtain, information.

The number of languages spoken in the world today is some three or

four thousand. Precisely how many we cannot say. One reason is lack of accurate information on the languages of certain regions, particularly South America and parts of the Western Pacific. Another more fundamental reason is that, even when our information is adequate, we cannot always judge whether the speech of two groups should be counted as separate languages or only as divergent dialects of a single language.

Each language defines a speech community: the whole set of people who communicate with each other, directly and indirectly, via the common language. The boundaries between speech communities are not sharp. There are people, bilinguals or polyglots, who have a practical command of two or more languages and through whom members of different speech communities can establish contact. Most polyglots belong primarily to one speech community, and have only partial control of any other language, but there are occasional exceptions.

In many cases the boundaries of a speech community coincide with political boundaries. Thus in aboriginal times the Menomini language was spoken by all the members of the Menomini tribe, in what is now northern Wisconsin and Michigan, and by no other community. This state of affairs held for many an American Indian tribe in earlier days, and is still to be encountered in many parts of the world. But to this generalization, also, there are exceptions. Switzerland, a single political unit, includes speakers of four different languages: French, German, Italian, and Ladin or Rhaeto-Romance. Contrariwise, English, a single language, is spoken not only in Britain and in many parts of the British Commonwealth, but also in the United States.

Some speech communities of today are extremely large. English has several hundred million native speakers, and millions with some other native language have learned English for business, professional, or political purposes. Russian, French, Spanish, German, Chinese, and a few others also have vast numbers of speakers. Some specialists say that "Chinese" is a group of related languages rather than a single language, but if we break these up then at least one of them, Mandarin Chinese, still belongs in the above list. In general, speech communities of such large proportions have come into existence only recently, as a result of historical developments in the past five hundred years or so.

At the opposite extreme stands a language like Chitimacha, an American Indian language which in the late 1930's had only two speakers left. When a language reaches such straits as this, it is doomed