PREFACE

This book is based primarily on material that I presented to high school English teachers participating in an eight-week NDEA Institute held at The Ohio State University during the summer of 1968. The limitations on the scope of this book are therefore explained in part by the limitations on what can be accomplished in thirty fifty-minute lectures, although considerable material that was not presented in those classes has been added. Like the course at the Institute, this book is designed to provide an appreciation of the structure and complexity of the English language, not a systematic description of that structure, or even of a small part of it. In addition, it is meant to provide an awareness of the various theoretical issues concerning the nature of language that are being debated among grammarians today. The study of grammar, and particularly the study of English grammar, is once again a vigorous and flourishing discipline on university campuses, and, for the first time, in governmental and industrial research centers. Not surprisingly, therefore, our understanding of language

has been greatly widened and deepened of late, so much so that it is now being asked to what extent this new knowledge and understanding should be incorporated into primary and secondary school curricula, either to supplement or to replace the present English grammar curricula in the schools.

In fact, the effort to devise and to teach the "new English" curricula in the schools is already well underway. As can be imagined, the overall picture is both confused and confusing; textbooks and textbook series wholly dedicated to new approaches have been written and have been widely adopted. Traditional English grammar texts have been "updated" by the appendage of supplementary sections of more current vintage. NDEA Institutes, such as the one at which I taught, are being held across the country to acquaint English teachers with new approaches not only to grammar, but also to rhetoric and literary criticism. Naturally, there has been considerable objection to and criticism of these new approaches—both the material that has been worked into these texts and courses, and the way in which the "gospel" is being spread. The objections that have been made by linguists and serious English scholars generally have centered on the fact that, despite our collective advance in understanding, the gap between what we know about language and what remains to be learned has barely been narrowed. Moreover, there is little that can be called a "common body of knowledge" concerning the nature and structure of language. Even linguists who share a particular theoretical framework, or who work within similar frameworks, have profound disagreements over extremely fundamental issues; about all that can be agreed upon are the nature and the difficulty of the unsolved and open questions concerning language. Therefore, it may be claimed, we are in no position to make fundamental changes in the English grammar curriculum parallel to those that have been and are continuing to be made in the mathematical and physical sciences curricula. What can be, and what needs to be, changed are the attitudes of teachers (and of students) toward language

and toward grammar. Teachers and students need to be made much more sensitive to the complexity and intricate beauty of English as a whole. They need to develop an appreciation of language akin to the appreciation of art and music that we expect any cultured person to develop. It is with this need in mind that the present book is being written.

The title of this book is the same as that used by two distinguished grammarians of the recent past, William Dwight Whitney and Otto Jespersen, for short introductions to English grammar. The three books are, however, very different from one another in content. Whitney's, written in 1877, is an old-style school grammar book designed mainly to inculcate the fundamentals of spelling, pronunciation, and style. Jespersen's, written in 1933, is a one-volume summary of his monumental seven-volume grammar of English, which manages to touch on just about every imaginable topic of English grammar. This book aims to be neither prescriptive nor comprehensive, but simply attempts to discuss some basic properties of English grammar in the light of recent developments in the theory of language. Certain sections of the book contain material that is more difficult or that is less directly related to the main purposes of the book. These sections are marked with a dagger (†) and may be omitted without loss of continuity. Finally, each chapter is followed by a set of problems and suggestions for further study. Again, the more difficult problems are indicated by a dagger.

I wish to recognize here a tremendous intellectual debt to my former colleague in the Department of Linguistics at Ohio State, Professor Charles J. Fillmore, whose ideas underlie much of the present work. To my linguistic mentors at M.I.T., particularly Professors Noam Chomsky, Morris Halle, and Jerrold J. Katz, I am indebted for many fundamental ideas and assumptions. Wayles Browne, Samuel R. Levin, George Miller, and Jay Keyser are to be thanked for supplying numerous helpful suggestions regarding many details of the presentation. Finally, I would like to thank Professor Wilfred Eberhart of the

College of Education, The Ohio State University, for administering a well-run Institute, and my wife, Sally, for taking the time to audit the course, and whose notes (not mine!) form the basis for this book.

New York City   D. T. L.
January 1970

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1

INTRODUCTION

1. The Goals of Linguistics

Grammarians make a distinction between universal grammar, the body of rules accounting for the properties that past and present languages of the world have in common, and the grammar of a particular language such as English. There are several possible ways of viewing the relationship between universal grammar and the grammars of particular languages. One is to consider universal grammar to be a sort of lowest common denominator of the world's grammars, with the grammar of a particular language consisting of universal grammar plus its own idiosyncratic rules that make the language it describes distinct from all other languages. Another way is to think of universal grammar as containing all possible rules for all possible languages, and to maintain that the grammar of a particular language is arrived at by eliminating all but a relative handful of the rules of universal grammar. At the moment, linguists have no empirical evidence that would

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lead them to prefer one of these viewpoints over the other; the only bases we have at present from which to choose are taste and faith. However, one aspect of the relationship of universal to particular grammar does have a clear empirical basis: the human child uses universal grammar to arrive at the grammar of the language or languages in which he becomes fluent.

Many persons—linguists, psychologists, and philosophers among them—have expressed amazement and awe at the speed and accuracy with which children acquire fluency in the language of their parents and peers. Bertrand Russell has characterized the learning of language as the most outstanding intellectual achievement that most people ever make. Individual intelligence seems to have little to do with language acquisition except perhaps to speed it up or slow it down somewhat and to dictate in part the ultimate size of the vocabulary acquired. Eric Lenneberg, who has studied the relationship between language acquisition and measured IQ, observed that not until one reaches an IQ of around 40 or lower is language acquisition seriously retarded or prevented. Conversely, even the most intelligent of apes is completely incapable of ever acquiring the rudiments of language. Human beings are constructed to learn to speak and comprehend language, much as they are constructed to walk upright on two feet, and the conclusion we are entitled to draw from this observation is that, somehow, universal grammar is inherent in the human organism at birth.

To acquire fluency in a particular language, say English, a child has to be exposed to people who speak that language. Depending on the viewpoint one holds concerning the relationship of universal to particular grammar, one believes either that the child uses the bits and snatches of language that he encounters to form hypotheses about the idiosyncratic rules of English grammar, or that he uses this experience to reject those rules of universal grammar that do not seem necessary. In either case, the grammar that the child works at and refines from birth to six years becomes steadily more

and more like the grammar of the language of his experience. This can perhaps be most easily appreciated by considering the child's progress in acquiring the sounds and rhythms of human speech.

Many infants, several months before they utter their first "word," make noises that we call babbling. Listening carefully to these noises, one finds that he can hear many of the sounds that go into the makeup of English words, and many of the rhythms and "melodies" characteristic of English sentences. But one can hear other sounds and rhythms too, sounds which are never part of English words and sentences, and some linguists claim to have encountered all possible speech sounds in the babbling of infants (which if true might lend support to the second of our two viewpoints concerning the relationship of universal to particular grammar). It is as if the child were tuning up his vocal apparatus in anticipation of his having to use it for speech, much as an orchestra gets ready for a concert. Later, once the child has begun to speak, he stops making those speech sounds which are not used in the formation of English words, and he even encounters some difficulties in making some that are used, notoriously the r sound in words like red. But unless there are physical deformities of the vocal tract or certain mental and emotional difficulties, the child eventually acquires an adultlike pronunciation of all the speech sounds and rhythms of English; at the same time, he loses the ability to acquire other languages without, at least initially, a noticeable accent.

The goal of the linguist is twofold: to arrive at a statement of the rules that form the basis of a person's ability to speak and comprehend a particular language, and, by the study of many languages and of the human organism itself, to arrive at a statement of the rules of universal grammar. (Over the years, linguists have developed various notational schemes for making these statements as precisely and concisely as possible; in this book we shall not be particularly concerned with formal notation, and shall be largely content with informal exposition. If, however, the reader learns or happens

to know already one of these schemes, it should not be difficult to translate the informal statements in this book into formally expressed rules.) In most grammatical discussions, this one included, the goals have been made somewhat more modest: to arrive at a statement of the rules that are necessary for the explicit construction of sentences of a language, omitting the problem of formulating the rules for constructing larger linguistic entities, such as paragraphs or discourses, and omitting the problem of accounting for how people actually manage to use sentences appropriate to the situational context in which they are uttered. The reason for this is simply that the obstacles confronting anyone who even wants to make a start at tackling the latter two problems are so disproportionately immense at present that it is usually not thought to be worth the effort. The first problem, that of formulating the rules for the construction of sentences, at least has the virtue of being approachable.

The goal of the linguist can be paraphrased as making explicit what every fluent speaker of a language knows implicitly about that language. This suggests that the teacher of English grammar in the primary and secondary schools has, or should have, a parallel goal: much in the manner of Socrates in the dialogue *Meno*, making the student aware and appreciative of what he knows implicitly by virtue of his being a fluent speaker of his language. This contrasts sharply with the goal that many grade-school and high-school teachers of English hold: the implanting of a body of preselected rules that supposedly govern the structure of "correct" English sentences and connected prose. Part of the reason for this, no doubt, is the assumption many teachers have that their students do not know English and that it is their duty to teach it to them.

I do not mean to disparage this assumption, for it can be justified on several independent grounds. First, the language in which particular students are fluent may differ so substantially from standard English (a term that will be discussed below) that they need to be taught standard English as a

second language, much in the way that modern foreign languages are taught. Second, the teacher may have no evidence that particular students, especially recalcitrant ones, are fluent in any language at all; such students use language fluently only with their peers and those adults that they do not perceive as authority figures, and typically a teacher is construed as one of the latter. Third, standard written English diverges considerably from even standard spoken English, so that students who are fluent speakers are not automatically able readers nor, more crucially, able writers. Moreover, standard English, particularly standard written English, is a somewhat artificial language when compared with true dialectal versions. The reason for this is that the standard language has come under conscious scrutiny and conscious manipulation by generations of critics, primarily teachers and professors of English but also journalists and other lay persons with the appropriate prestige and interest. To a considerable extent, therefore, the rules of grammar that govern standard English are arbitrary and conventional rather than natural; they must be taught outright, not by the mental midwifery of the Socratic tradition.

But even if we concede that there must be a certain amount of explicit teaching of the rules of standard English in the schools, the bulk of the time should be spent exploring the structure of the language in which the students are already fluent, in a way that will lead them to an appreciation of its nature and a consequent respect for its proper use in the communication of thoughts, ideas, and feelings. Almost all, if not all, the normative rules being explicitly taught today have to do with relatively superficial aspects of the language, the trimmings, and do not touch at all those aspects of grammar that have to do with the fundamentals of communication. But it is the latter that students should be continually made aware of.

Languages change over time, and not just trivially by the addition of some vocabulary items and the loss of others. The rules of grammar which govern the structure of sentences

also change, most commonly by children arriving at grammars that differ ever so slightly from those of the previous generation. A standard language admits of change somewhat more grudgingly than nonstandard ones do, thanks to the conservative influence of tradition—that is to say, adults pass judgment on changes made, and children either ultimately learn to comply or stop trying to acquire the standard.

2. The Aims of This Book

In this book we shall be dealing primarily with contemporary standard American English, but we shall be examining its essential properties (as was indicated in the Preface) and not, except casually, the properties that depend upon the rules that are usually explicitly taught. Nor shall we pay attention to the fascinating and important topic of how this language has changed over the years. We begin by providing a few somewhat oversimplified definitions of theoretical concepts in linguistics, in order to guide our subsequent discussion.

By grammar, we mean the entire set of rules governing the properties of sentences in a language. It is generally agreed that there are three major aspects to the structure of sentences, so that grammar is conventionally subdivided into three components, one for each aspect. First, a sentence has a meaning, and the rules of grammar that govern the meaning of sentences are said to constitute the semantic component of the grammar (the Greek word *sēmantikos* means "significant"). Second, a sentence has a syntactic structure, which can be thought of as the parsing or diagramming of the elements contained in it. The rules of grammar that convert the representations of the meaning of sentences into their syntactic structures constitute the syntactic component of the grammar. Finally, a sentence has a phonological component, which consists of the rules that convert syntactic structures into speech.

In short, we say that a grammar has three components:

its semantics, syntax, and phonology, and their interrelationship can be diagrammed as in Figure 1.
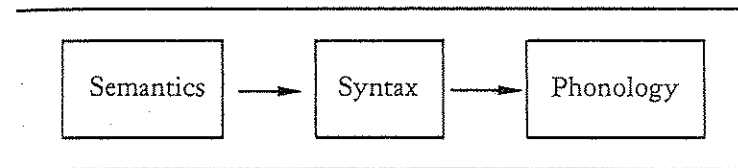
Figure 1.   Interrelations among the components of a grammar.

In this book, we shall be concerned exclusively with semantics and syntax; this is a self-imposed limitation having to do with space, not because phonology is in any way less important or interesting than the other two branches of grammar. These same subdivisions are, of course, also appropriate for universal grammar.

In the course of our discussion, we shall have occasion to use certain technical terms. In particular, for the meaning of a sentence or discourse, we shall often speak of its deep structure; for the syntactic structure of a sentence or discourse, we shall use the expression surface structure. This use of these terms follows basically that of the contemporary linguist Noam Chomsky, whose work has made them quite well known and widely used.

To illustrate the structure and complexity of a few of the rules of English syntax, and of some of the artificiality and unnaturalness of a few of the normative rules of standard English syntax, I have devised a little game, called "The Walrus and the Alligator," which is modeled after a similar game, "The Old Woman and the Alligator," devised by Roger Brown with a similar purpose in mind. An account of Professor Brown's game can be found in an article by George Miller, "Psycholinguistic Approaches to the Study of Communication," in David L. Arm (ed.), *Journeys in Science*. Our game will be found in the next chapter.

SUGGESTIONS FOR FURTHER STUDY

1. For an important discussion of universal grammar and its relation to particular grammars, see Noam Chomsky, *Aspects of the Theory of Syntax*, Chapter 1. Also see Paul Postal, "The Method of Universal Grammar"; Emmon Bach and Robert Harms (eds.), *Universals in Linguistic Theory*.

2. The results of Lenneberg's research on the relationship of IQ to language acquisition are reported in his article, "A Biological Perspective of Language," in Eric Lenneberg (ed.), *New Directions in the Study of Language*. For a comprehensive survey and study of what is currently known about the biological bases of language, see Lenneberg, *The Biological Foundations of Language*.

3. Any similarity between the acquisition of language and the acquisition of the ability to walk was explicitly denied in one of the classical works of modern linguistics, Edward Sapir, *Language*, Chapter 1. Evaluate Sapir's arguments in

the light of Lenneberg's work and the discussion in this chapter.

4. Some of the most important recent research on the nature of language acquisition by children has been reported in Frank Smith and George Miller (eds.), *The Genesis of Language*, and in Thomas G. Bever and William Weksel (eds.), *The Structure and Psychology of Language*. Also see John Lyons and R. J. Wales (eds.), *Psycholinguistics Papers*; Leon A. Jakobovits and Murray S. Miron, *Readings in the Psychology of Language*.

5. For some views by linguists on the teaching of language, particularly grammar, in the schools, see J. Emig, J. Fleming, and H. Popp (eds.), *Language and Learning*. The essays by Dwight Bolinger, H. A. Gleason, Jr., Martin Joos, and Peter S. Rosenbaum are particularly recommended. See also Neil Postman and Charles Weingartner, *Linguistics: A Revolution in Teaching*; H. A. Gleason, Jr., *Linguistics and English Grammar*.

6. The classic introduction to grammar, in the three-fold sense described here, and to the study of language change, is Leonard Bloomfield, *Language*. No subsequent introduction to the subject matter of linguistics has even come close to replacing it, although an excellent introductory work has just appeared, John Lyons, *Introduction to Theoretical Linguistics*. Other recent introductory works, less comprehensive, include Dwight Bolinger, *Aspects of Language*; Ronald Langacker, *Language and its Structure*; D. Terence Langendoen, *The Study of Syntax*; Peter Rosenbaum and Roderick Jacobs, *English Transformational Grammar*.

7. The most comprehensive treatment of English phonology to date is to be found in Noam Chomsky and Morris Halle, *The Sound Pattern of English*. For phonology in general, see Robert Harms, *Introduction to Phonological Theory*.

2

"THE WALRUS AND THE ALLIGATOR"

"The Walrus and the Alligator" is played by two persons. "Walrus" is to say any declarative sentence he pleases, and "Alligator" must respond in a particular way to each sentence that Walrus says. To show how the game is played, I provide here a few illustrative sets of statements by Walrus and replies by Alligator.

1. WALRUS: I like ice cream.
   ALLIGATOR: Don't I?

2. w: You don't seem to understand me.
   A: Do you?

3. w: Your father can do a hundred push-ups.
   A: Can't he?

4. w: Louise is intelligent.
   A: Isn't she?

5. w: We won't tolerate such nonsense.
   A: Will we?

Most of you who have studied English grammar will no doubt have recognized that Alligator's task is to provide the "tag question" appropriate to Walrus's statement as if he were Walrus himself, and all of you who are fluent speakers of English will likely have no difficulty at all in playing the part of Alligator. For example, if Walrus were to say to you:

6. w: The sky looks threatening.

I am certain that you would unhesitatingly reply:

A: Doesn't it?

The question that I should now like to pose is, How much English grammar does one have to know in order to play the part of Alligator? The answer is, Quite a bit. In particular, Alligator must obey the following rules:

a. He must determine the person, number, and gender of the subject of Walrus's statement, and then select the appropriate personal pronoun. This is easy in statements 1, 2, and 5, since the subject of the statement is already a personal pronoun; the task is a little trickier in 3, 4, and 6. Alligator must recognize that *father* designates a male, that *Louise* is used of females, that *sky* is neuter, and that each of these is third person singular.

b. Alligator must determine whether Walrus's statement contains a so-called helping verb. If it does, then his reply makes use of the same helping verb, as in 2 through 5; if not, he must use the form of the verb *do* which is the same in tense and number as the main verb in Walrus's statement, as in 1 and 6.

c. He must figure out whether Walrus's statement is positive or negative; his reply will be the opposite. If the reply is negative, then the contracted form of the negative word, *n't*, is attached to the helping verb or form of *do*.

d. The elements of Alligator's reply must appear in this order: first, helping verb or form of the verb *do*; second,

n't, if any, attached to that verb; third, subject pronoun. In other words, the helping verb and subject pronoun are "inverted."

It is a worthwhile conceptual exercise for this day and age to consider the problem of instructing a computer to play the role of Alligator. Those of you who are familiar with the current state of the art of computer programming undoubtedly know what a difficult problem this would be, especially when you realize that the task is to respond to *any* declarative sentence in English. Humans have very little difficulty—but that they may have some difficulty with particular statements by Walrus will now be shown.

As a homework exercise, I gave my forty-six students, all of whom were junior high school and high school teachers of English,[1] a set of ninety-one statements uttered by a hypothetical Walrus. The first five of these had correct Alligator replies, as in examples 1 through 6 in this chapter. The students were asked to play Alligator for the remaining eighty-six examples, and to write their replies directly below each statement. I should now like to discuss some of the more interesting of these Walrus-Alligator exchanges (at this point I should like to express my gratitude to my assistant, William Roberts, and to his wife, for making the tabulation).

The first interesting collection of examples has to do with the use of the verb *have*. Consider the following:

7. w: I have to go home now.
   A: Don't I?   36 replies
   Haven't I?   9 replies
   Do I?   1 reply

8. w: I've been waiting a long time.
   A: Haven't I?   45
   Have I?   1

9. w: I have five cents in my pocket.
   A: Haven't I?   26
   Don't I?   20

10. w: I've got five cents in my pocket.
    A: Haven't I?   35
    Don't I?   8
    Have I not?   1
    Have I?   1
    no reply   1

11. w: I haven't got five cents to my name.
    A: Have I?   38
    Do I?   6
    Haven't I?   2

12. w: I have not five cents to my name.
    A: Have I?   29
    Do I?   17

Quite clearly, the group seems to have been divided on whether or not, in certain constructions, the verb *have* is a helping verb. From example 8 it is clear that, when used to indicate perfect aspect, *have* is universally considered a helping verb (one person seems to have got part *c* of the rule, the part involving negation, wrong in examples 7, 8, and 10, and two people got it wrong in 11, but we shall disregard this). From examples 9 and 12, we see that opinion is most sharply divided when *have* is used alone to indicate possession. By a relatively small majority, *have* is taken to be a helping verb in these cases, although I have a feeling that these results are like having only the upstate New York vote count—once the New York City count is in, the swing would be to the other side (my own Alligator response would be "Don't I?" to example 9 and "Do I?" to 12). When *have* is

used together with *got* in Walrus's statement to indicate possession, then the swing is very sharply toward considering *have* a helping verb, although a minority held out for the other view even here. On the other hand, the *have* of *have to*, meaning *must*, is overwhelmingly (by a four-to-one margin) considered not to be a helping verb. The one person who refused to give a reply to example 10 felt that 10 wasn't good English and therefore shouldn't be dignified by a reply (although he or she did, apparently, reply to 11).

On the basis of these results, I think it is fair to conclude that the standard English treatment of *have* is not fixed, and that although there are clear preferences for treating it as a helping verb in certain constructions and not in others, the minority views, wherever they exist, cannot be regarded as nonstandard.

The next set of examples has to do with the expletive *there*.

13. w: There's a book on the table.
    A: Isn't there?   44
       Isn't it?   1
       Is there?   1

14. w: There isn't any chalk on the rack.
    A: Is there?   46

15. w: There is no chalk on the rack.
    A: Is there?   45
       Isn't there?   1

16. w: There happen to be six books on the table.
    A: Aren't there?   26
       Don't there?   18
       Don't they?   2

From all these examples, we see that for purposes of Alligator's response, *there* is taken to be the subject of Walrus's statement, even though the "logical subjects" of those sentences are different (although one person responded to the logical subject of 13 and two persons to that of 16). The responses to 16 are particularly interesting; they indicate that

a majority disregarded entirely the verb *happen* (but *not* its tense and number), and responded with the present plural form of *be*! The logic of this decision, in any event, is clear; since *happen* does not materially contribute to the meaning of 16, the sentence might just as well have been "There are six books on the table," to which Alligator's reply would necessarily be "Aren't there?" A considerable minority, nevertheless, did follow the usual rules in forming their responses.

Next we consider some examples with a variety of helping verbs.

17. w: I must go home now.
    A: Mustn't I?   42
       Don't I?   2
       Must I not?   1
       Won't I?   1

18. w: I may not see you tomorrow.
    A: May I?   32
       Will I?   13
       Won't I?   1

19. w: I may see you tomorrow.
    A: Won't I?   17
       May I not?   11
       Mayn't I?   10
       Might I?   3
       Mightn't I?   2
       Can't I?   1
       Shall I?   1
       Will I?   1

20. w: You ought not smoke.
    A: Ought you?   35
       Should you?   9
       Had you?   1
       Shouldn't you?   1

21. w: You ought to smoke.
    A: Oughtn't you?   26

Shouldn't you?   19
Hadn't you?   1

I must confess that I hadn't expected the large number of different responses to these statements, particularly to 19, which set a record of eight different replies. The bewildering array in 19 is probably due in part to a feeling of dislike for the expression "Mayn't I?" which is called for by the rules and which ten persons did use. The most conservative way out is to reply "May I not?" a response that eleven settled upon (note that when *not* is not contracted, it is not inverted along with the verb but remains after the subject pronoun). A plurality, but not a majority, had a different solution: they found a helping verb similar in meaning to *may*, but whose negative form did not strike them as sounding odd. Seventeen chose *will*, two *might*, and one *can*. The reason *will* was chosen most frequently is that the meaning of Walrus's statement is equivalent to "It may be that I will see you tomorrow." Finally, five persons broke the rule regarding negativity and answered without using *not*, or *n't*, but, significantly, they also chose different helping verbs—three opted for *might*, one for *shall*, and another for *will*.

The responses to sentence 21, though less spectacular, can be similarly explained. A significant minority were not content with the expression *oughtn't*; nineteen substituted for it *shouldn't*, and one *hadn't*. The few deviant responses to 17 indicate that just a handful of persons did not care for *mustn't*; a different helping verb was chosen by three persons, and one used the locution "Must I not?" Finally, the responses to 18 and 20 indicated some dissatisfaction with the use of affirmative *may* and *ought* in reply to Walrus sentences in which these occurred with the negative. *Will* was used for *may* by fourteen persons (one of whom violated the rule regarding negativity); ten used *should* for *ought* (again with one person using the negative); and one used *had*.

The next two examples set a trap.

22. w: I'm not going to the store now.
    A: Am I?   46
23. w: I'm going to the store now.
    A: Aren't I?   28
       Am I not?   17
       Ain't I?   1

As any good dictionary will tell you, *ain't* was formerly the standard contracted form of *am not*; however, its later use in place of *isn't*, *aren't*, *hasn't*, and *haven't* led to its elimination from standard English, with the result that there is at present no totally acceptable standard contraction of *am not*. As the response to sentence 23 shows, *aren't* is now used with a first person singular subject by a majority of speakers of standard English.

The next set has to do with negativity.

24. w: The boy never watched his sister.
    A: Did he?   46
25. w: The boy watched his sister at no time.
    A: Did he?   38
       Didn't he?   8
26. w: The boy rarely watched his sister.
    A: Did he?   41
       Didn't he?   5
27. w: The boy watched his sister infrequently.
    A: Didn't he?   43
       Did he?   3
28. w: The boy often watched his sister.
    A: Didn't he?   46
29. w: The boy watched no one.
    A: Did he?   36
       Didn't he?   10
30. w: No one watched my sister.
    A: Did he?   23
       Did they?   17

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            Didn't they?      4
            Didn't he?        2
   31. w: No one watches TV any more.
        A: Do they?          26
           Does he?          17
           Don't they?        2
           Doesn't he?        1
```

These results indicate that there were some differences in the criteria used to judge the negativity of Walrus's statements. From example 24 we learn that *never*, just like *not*, necessarily makes negative the statement it occurs in; from 28 we see, not surprisingly, that *often* keeps its statement affirmative. Differences arose over the interpretation of sentences containing *at no time*, *rarely*, and *infrequently*. A very considerable majority judged sentences with *at no time* and *rarely* in them negative, whereas the sentence with *infrequently* was judged positive. A minority in each case, however, held out for the opposite opinion. (We could, I suppose, take the point of view that they simply made mistakes, and that if they had a chance to do the exercise over again, they would agree with the majority opinion. But this is not supported by the comments that these teachers wrote in the margin, nor by their general discussion with me in class. By and large, they stood quite vigorously by their responses as Alligator.)

Example 29, in which a negative direct object occurs, was judged negative by roughly a four-to-one margin, and 30 and 31, with negative subjects, were judged negative by somewhat wider margins. The latter two examples are interesting in another respect, because they show a splitting of opinion regarding the number of the expression *no one*. In example 30, twenty-three persons took it to be singular, and twenty-three others took it to be plural—an even split. In 31, eighteen persons decided it should be singular and twenty-eight plural. That more persons took it to be plural in 31 than in 30 is especially surprising, since in 31 the verb in Walrus's statement agrees in number with the subject *no one* and is singu-

lar, whereas the verb shows no agreement at all in 30! It is in these cases, and the cases illustrated by the next group of examples, that a conflict between the normative grammar for standard English and the internalized grammar that most people acquire outside of school arises with special force. Normative grammar dictates that the expressions *no one* and *everyone* are always referred to by a singular pronoun, such as *he*, and that if used as a subject, the verb agrees with it as a singular. Most people also internalize the second part of this, but by and large they acquire naturally a grammar in which the pronoun that refers to these expressions is in many cases a plural one, such as *they*. My English-teacher students were in a bind as Alligators in this exercise, and it is not surprising that the responses were as divided as they were.

The next group of examples continues this theme.

```
   32. w: Everyone likes me.
        A: Don't they?       34
           Doesn't he?       12

   33. w: Everyone likes one another here.
        A: Don't they?       34
           Doesn't he?       10
           Do they?          1
           Does he?          1

   34. w: All the students like one another here.
        A: Don't they?       46

   35. w: Everyone likes himself here.
        A: Doesn't he?       45
           Don't they?       1

   36. w: Everyone likes everyone here.
        A: Don't they?       31
           Doesn't he?       14
           Doesn't she?      1

   37. w: Not everyone likes himself here.
        A: Does he?          43
           Doesn't he?       3
```

38. w: Not everyone likes everyone else here.
    A: Do they?   34
        Does he?   12

39. w: Few people like me.
    A: Do they?   39
        Don't they?   7

40. w: A few people like me.
    A: Don't they?   46

41. w: Seldom did anyone say anything.
    A: Did they?   22
        Did he?   19
        Didn't he?   3
        Didn't they?   2

From examples 32, 33, 36, and 38 on the one hand, and 35 and 37 on the other, we find that when *everyone* is treated semantically as a collective expression, about 70 percent of the respondents refer to it with the plural pronoun, and that when it is treated as a singular, nearly 100 percent refer to it with the singular pronoun (there was one holdout for a plural *they* in response to 35). The *anyone* of 41 is treated just as the *no one* of 30—half use the singular pronoun for it, and half the plural. As would be expected, the subject quantified by *all* was considered plural by everyone.

A very small minority treated 37, with a negative subject, as a positive sentence, but for some reason no one did this to 38. The presence of *seldom* in 41 was handled just as that of *rarely* in 26, all but five considering the resulting sentence negative. Finally, examples 39 and 40 illustrate the tendency to take the quantifier *few* as negative in force, but to take *a few* as positive.

The next examples have to do with the problem of identifying the subject of a sentence containing a parenthetical expression.

42. w: I believe that Dr. Spock is innocent.
    A: Don't I?   36
        Isn't he?   10

43. w: Dr. Spock, I believe, is innocent.
    A: Isn't he?   43
        Don't I?   3

44. w: Dr. Spock is innocent, I believe.
    A: Isn't he?   38
        Don't I?   7
        Isn't it?   1

45. w: I don't think that Dr. Spock is innocent.
    A: Do I?   37
        Is he?   8
        Don't I?   1

46. w: Dr. Spock, I don't think, is innocent.
    A: Is he?   34
        Isn't he?   9
        *Do he?[2]   2
        Do I?   1

If we examine 42 and 45, we observe that only four-fifths of the respondents consider *I* to be the real subject and *think* the real verb of sentences that start off with *I think* and *I don't think*; the remaining one-fifth or so hold that the subject and verb of the subordinate clause are the real subject and verb in these sentences. The negativity of the sentence as a whole, however, is determined by the presence or absence of a negative with the verb *think*, as example 45 shows. We call the expression *I think* a parenthetical expression, since as far as its form goes, it is inserted at various points in a sentence without being closely connected with any one part of the sentence; compare 43, 44, and "Dr. Spock is, I think, innocent." In these sentences, *Dr. Spock*, and not *I*, is considered the subject by a considerable majority, but there are a few holdouts for *I*. The same is true for 46; two persons gave the aberrant response "Do he?" to protest, I think, what they consider to be an ungrammatical statement on

[2] An asterisk preceding an expression indicates that the expression is ungrammatical.

Walrus's part (I sympathize; 46 doesn't strike me either as particularly good English).

The next collection has to do with the problem of determining the gender of the subject.

47. w: One of my friends is coming.
    A: Isn't he?   37
       Isn't she?   9

48. w: The child is crying.
    A: Isn't he?   31
       Isn't it?   13
       Isn't she?   2

49. w: The baby is crying.
    A: Isn't he?   30
       Isn't it?   16

50. w: The boat is sinking.
    A: Isn't it?   45
       Isn't she?   1

51. w: The *Queen Mary* has made her last voyage.
    A: Hasn't she?   41
       Hasn't it?   5

52. w: The *Queen Mary* has been scrapped.
    A: Hasn't she?   30
       Hasn't it?   16

53. w: My cousin is handsome.
    A: Isn't he?   46

54. w: My cousin is pretty.
    A: Isn't she?   46

55. w: My cousin speaks Chinese fluently.
    A: Doesn't he?   46

56. w: My cousin married a son of a millionaire.
    A: Didn't she?   46

57. w: My uncle's spouse won't eat caviar.
    A: Will she?   44
       Won't she?   2

58. w: My father's only child is brilliant.
    A: Isn't he?   25
       Isn't she?   17
       Aren't I?   2
       Am I not?   2

If one does not know the gender of a person referred to by a noun, he will generally use a masculine pronoun, such as *he*, to refer to him. Thus, in example 55, in which Alligator has no information about the gender of Walrus's cousin, everyone used *he* to refer to him. That nine persons used the feminine pronoun in response to 47 is explained by the fact that in doing this exercise the students pretended they were Walrus as well as Alligator; those nine presumably feel that they have only female friends. Examples 48 and 49 illustrate the possibility of using the neuter pronoun to refer to a young human whose gender is not known, but it will be noted that the respondents preferred the use of a non-neuter pronoun by a two-to-one margin. Conversely, we can use the feminine pronoun to refer to ships, as is illustrated by 50–52, but as 50 shows, all but one of the respondents must be landlubbers. Even though a feminine pronoun was used in Walrus's statement 51 to refer to the *Queen Mary*, five persons used *it* in their response. In the absence of such a pronoun in Walrus's statement 52, one-third of the group used the neuter pronoun.

The respondents were able to use indirect evidence about the gender of the subjects of Walrus's statements in examples 53, 54, 56, and 57. Since the adjective *handsome* is typically only predicated of males and *pretty* of females, everyone used *he* in 53 and *she* in 54. In 56, they used the information that the subject had a male spouse and therefore must be a woman; similarly in 57. In order to interpret the results of 58, which are very interesting, I must point out that the class was made up of thirty-two women and fourteen men. Apparently, about half of the women must have calculated who the expression *my father's only child* necessarily refers to and, identifying with Walrus, used *she* in their response. Four persons went

so far as to use the first person subject in their reply, which
I think is surprising.

The next set of examples has to do with *either . . . or* and
neither . . . nor subjects.

59. w: Either the fellows or the girls will stay.
     A: Won't they?   46

60. w: Either John or Tom will stay.
     A: Won't he?   40
        Won't they?   6

61. w: Either John or Sue will stay.
     A: Won't they?   22
        Won't she?   19
        Won't he?   3
        Won't he or she?   1
        no reply   1

62. w: Either Sue or John will stay.
     A: Won't he?   23
        Won't they?   20
        Won't she?   1
        Won't she or he?   1
        no reply   1

63. w: Either Sue or the boys will stay.
     A: Won't they?   46

64. w: Either the girls or John will stay.
     A: Won't he? ·   24
        Won't they?   21
        no reply   1

65. w: Neither John nor Tom stayed.
     A: Did he?   32
        Did they?   13
        Didn't they?   1

66. w: Neither John nor Sue stayed.
     A: Did they?   24
        Did she?   18
        Did he?   2

        Didn't they?   1
        no reply   1

67. w: Either all the boys or none of them will stay.
     A: Will they?   27
        Won't they?   17
        Will he?   2

68. w: Either none of the boys or all of them will stay.
     A: Won't they?   42
        Will they?   4

There is a normative rule for standard English that the
verb agrees in number with that part of the *either . . . or*
subject which is nearest to it; all of Walrus's statements in
this section sidestep this matter since they contain verb forms
that are uninflected for number. The problem faced by Alli-
gator is whether to extend this rule to cover the gender and
number of the pronoun that refers to an *either . . . or* sub-
ject. We observe that generally fewer than half did so. Ex-
ample 59 presented no problem; since both parts of the subject
are plural, the pronoun must be plural. In 60, however, al-
though both parts of the subject are masculine singular, not
everyone chose to use a masculine singular pronoun—six per-
sons used the plural *they*, following the very convenient rule
to always use a plural pronoun when referring to an *either
. . . or* expression.

If we examine 61 and 62, we observe that about half de-
cided to use *they* when the two parts of the subject differ
in gender (slightly more when the female part is next to the
verb), while the other half used the singular pronoun corre-
sponding in gender to the part nearer the verb. Three per-
sons, however, used the masculine singular in 61 and one
person the feminine singular in 62, using the singular pro-
noun agreeing in gender with the part farther from the verb.
One person hit upon the clever solution of repeating the dis-
junction in the pronominal response, while yet another copped
out. Unfortunately, the exercise did not provide such a sen-
tence as:

69. w: Either Sue or Mary will stay.

It would have been useful to have had the results of 69 to compare with those of 60.

Examples 63 and 64 contain a disjunction of singular and plural subjects. In 63, a unanimous *they* response was obtained to a disjunction in which the plural part was next to the verb; in 64, with a masculine singular part next to the verb, a slight majority used *he*, the remainder used *they*, with one person again abstaining. Examples 65 and 66 are the only ones dealing with *neither . . . nor* subjects. With both subjects masculine singular, this time only slightly more than two-thirds of the respondents used *he*; compare this result with that of 60. Similarly in 66, in which there is a disjunction of a male and a female, more respondents chose *they* than in the parallel *either . . . or* example 61. An explanation for this is proposed in Chapter 6.

Finally, examples 67 and 68 test how the respondents determine the negativity of a sentence in which half of the subject is negative. From 68 we learn that if the positive part of the subject is closer to the verb, the sentence is nearly universally judged positive; only four persons held otherwise. If the negative part is closer to the verb, less than a two-thirds majority considered the sentence as a whole negative. Two persons, moreover, treated *none of them* as deserving a masculine singular pronoun.

The last group of examples deals with the problem of determining the person, number, and gender of subjects quantified by *all*, *none*, and *each*.

70. w: All of us will stay.
    A: Won't we?   44
       Won't they?   2

71. w: None of us will stay.
    A: Will we?   42
       Will he?   2
       Shall we?   1
       Won't we?   1

72. w: Each of you will stay.
    A: Won't you?   44
       Won't he?   2

73. w: Each of the fellows will stay.
    A: Won't he?   30
       Won't they?   16

74. w: Each of us is staying.
    A: Aren't we?   34
       Isn't he?   11
       Won't we?   1

As 70 illustrates, subjects quantified by *all* pose no problems; the pronoun used to refer to them agrees with the person and gender (it must be plural) of the expression quantified. I am at a loss to explain the response "Won't they?" that two persons gave, which strikes me as a completely counter-intuitive tag question to 70; if anything, "Won't you?" would have sounded better. When the subject was quantified by *none*, again nearly everyone used the pronoun agreeing with the expression quantified. One person fussily corrected my use of *will* to *shall* for first person subjects, and another treated the sentence as positive (compare examples 30 and 31). Two replied with "Will he?" which certainly is not nearly so bad as the "Won't they?" of 70.

When the subject was quantified by *each*, there was a somewhat greater tendency to use the third person singular pronoun in response. Two-thirds used the third person singular when the expression quantified was third person plural (73), but only about one-quarter did so when it was first person plural (74) even when the verb in Walrus's statement was third person singular. Only two respondents used the third person pronoun when the expression quantified was second person plural (the verb in 72 does not happen to show agreement—I do not know how much influence this had on the respondents); everyone else used the second person.

I think that by now the reader will agree that the Walrus and Alligator game can be used quite constructively—to re-

veal some of the fascinating range and depth of the rules of grammar that everyone follows when he speaks and writes English, and to reveal the many differences in detail that seem to exist among individual speakers. Some of these differences, I have argued, can be attributed to disparities between the normative grammar learned and taught in the schools and the grammars that everyone has internalized from his extracurricular activities (particularly in the preschool years). That this same conflict rages in the heads of junior high and high school teachers should be clear from the results of my class exercise. I encourage others to try the game; they will be convinced that the same holds true for themselves.

PROBLEMS AND SUGGESTIONS FOR FURTHER STUDY

1. Why would the Walrus and Alligator game not be of particular interest if played in French or German?

2. George Miller, in the reference cited at the end of Chapter 1, suggests that a game like "The Walrus and the Alligator" can be played by six-year-olds just as well as by adults (at least, they should be able to play Alligator). Try it out on any six-year-olds you can persuade to cooperate.

3. If you have access to a computer whose time you can waste, you might try to program it to play Alligator. Naturally, you will have to restrict drastically the class of sentences you use as input. I, for one, would be interested in learning what success you obtain.

4. If you decide to play the game with your friends or students, be sure to include sentences like those in exercises 17–21, using the helping verbs *can, could, shall,*

should, might, dare, and *need.* The results should be interesting.

5. Account for the origins and widespread use of the locution "Aren't I?" This topic has received some discussion in the literature.

6. Compare your response and those of the people with whom you play the game to Walrus's statement in 16, and to the following statement:

   75. w: Six books happen to be on the table.

7. As Walrus, try using examples like 42–46 with expressions such as *I suppose, I imagine, I would guess,* in place of *I think.* What sorts of results do you get?

8. Jeffrey Gruber, in his monograph "Functions of the Lexicon in Formal Descriptive Grammars," has observed that if a person or animal is referred to by name, it is generally not referred to by the neuter pronoun. Test this observation, using examples like:

   76. w: My parrakeet is sick.
   77. w: Tweety, my parrakeet, is sick.

9. What responses do you get to:

   78. w: Two plus two is four.
   79. w: Two plus two are four.

   Make sure to separate these examples when you play, so that Alligator's response to one is not unduly influenced by his response to the other.

10. Like the names of ships, the names of countries evoke the feminine pronoun. Test the strength of this, using examples like:

    80. w: America will always defend her overseas interests.
    81. w: America supports the United Nations.

    The fact that some countries have masculine symbols can

create a "conflict." I am told that a recent President once made an affirmation like "I assure you that Uncle Sam will always stand behind her commitments."

11. Can you think of any other cases of conflict between normative English grammar and grammar acquired outside of school which would be illustrated by "The Walrus and the Alligator"?

12. What do you think is measured by multiple-choice examinations concerning knowledge of normative English grammar, particularly those that have been used by college entrance examination boards? To what extent do you think that good performance on these exams correlates with collegiate success? With the student's overall "command" of the English language in reading, writing, public speaking, debating, and conversation? With the degree to which he complies with authority?