

noam
chomsky

john lyons

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Revised Edition

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PREFACE TO THE FIRST EDITION

I should like to record here my gratitude to Noam Chomsky for reading and commenting upon the manuscript of this book. The fact that it has been read in advance by Chomsky (and corrected in a number of places) encourages me in the belief that it gives a reasonably fair and reliable account of his views on linguistics and the philosophy of language. There are of course a number of points, especially in the final chapter, where Chomsky is not in entire agreement with what I have to say. But these points of disagreement will be obvious enough either from the text itself or from the footnotes that I have added.

My main purpose in writing the book has been to provide the reader with enough of the historical and technical background for him to go on afterward to Chomsky's own works. I am aware that certain sections of my book are fairly demanding. But I do not believe that it is possible to understand even Chomsky's less technical works or to appreciate the impact his

ideas are having in a number of different disciplines without going into some of the details of the formal system for the description of language that he has constructed.

J. C. Marshall and P. H. Matthews have also been kind enough to read the book for me in manuscript, and I have made many changes in the final version as a result of their comments. I am deeply indebted to them for their assistance. Needless to say, I am myself solely responsible for any errors or imperfections that still remain in the text.

Edinburgh
October 1969

J.L.

PREFACE TO THE REVISED EDITION

In preparing this revised and enlarged edition I have left the first seven chapters almost unchanged (except for the correction of some misprints and minor errors). However, I have brought the Introduction up to date by adding a little material and changing a few phrases, and I have inserted one or two footnotes drawing the reader's attention to the appendixes. Chapter viii, on developments that have been taking place in the field of generative grammar since the late 1960s, is wholly new; and fairly extensive additions have been made to what are now chapters ix-xi.

Somewhat to my surprise, the book has been widely used by students (for whom it was not primarily intended). This being so, I thought that it might be helpful if I included, as an appendix, a semiformal account of the formalism upon which Chomsky's system of generative grammar rests and, no less important, some cautionary comments about the complexity of the relationship between generative

grammars and natural languages. Mathematically minded readers will forgive me, I trust, if I have not gone into the formalism, even in this appendix, as fully as they might have liked. If their appetite is whetted but not satisfied, they will find references to Chomsky's own more technical work in the suggestions for further reading that I have appended to the expanded and updated Bibliography.

The second short Appendix is intended to correct what many have taken to be a certain imbalance, not to say prejudice, in my presentation of Chomsky as a "modern master." On the whole, I stand by my own assessment of the significance of Chomsky's work; but I now see, in the light of what Chomsky himself says in the recently published version of *The Logical Structure of Linguistic Theory* (to which I draw attention in Appendix 2), that there may have been less difference than I thought (on the basis of his published work) between Chomsky's earlier and later views. I have also thought it appropriate that I should respond, in Appendix 2, however briefly, to some of the criticisms that Dell Hymes made in his gratifyingly lengthy and careful review of the first edition and that, in doing so, I should acknowledge my indebtedness to a scholar whose knowledge of the subject is in many respects greater than my own and who, for reasons best known to himself, considered my unambitious little book worthy of detailed comment. I have learned a great deal from his review, even where I disagree with the points that are made; and I recommend it to everyone for the background information that it contains about American linguistics and American academic life and attitudes in the 1960s, when Chomsky emerged as a political thinker and activist. I have, admittedly and by design, said relatively little about this in my book. It would have been an impertinence for a non-American to have attempted to; and, in my

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view at least, important though Chomsky's political ideas are in any portrayal of him as a man, it is his theory of language that makes him a "master of modern thought."

Sussex

March 1977

J.L.

BIOGRAPHICAL NOTE

Avram Noam Chomsky was born in Philadelphia, Pennsylvania, on December 7, 1928. He received his early education at the Oak Lane Country Day School and the Central High School, Philadelphia, and then went on to the University of Pennsylvania, where he studied linguistics, mathematics, and philosophy. It was at the University of Pennsylvania that he took his Ph.D., although most of the research that led to this degree was carried out as a Junior Fellow of the Society of Fellows at Harvard University between 1951 and 1955. Since 1955 he has taught at the Massachusetts Institute of Technology, where he now holds the Ferrari P. Ward Chair of Modern Languages and Linguistics. He is married, with two daughters and a son.

Chomsky's work has been widely acclaimed in academic circles. He has been awarded several honorary doctorates: by the University of Chicago (1967), the University of London (1967), Loyola University (1970), Swarthmore College (1970), Bard College (1971), the

University of Delhi (1972), the University of Massachusetts (1973). He is a Fellow of the American Society for the Advancement of Science; a member of the National Academy of Sciences, the American Academy of Arts and Sciences, and the American Academy of Political and Social Sciences; and a Corresponding Fellow of the British Academy. He has been a Visiting Fellow at Columbia University (1957-58), a Fellow of the Institute of Advanced Studies at Princeton University (1958-59), the Linguistic Society of America Professor at the University of California at Los Angeles (1966), the Beckman Professor at the University of California at Berkeley (1966-67). He has delivered the John Locke Lectures at Oxford University (1969), the Shearman Memorial Lectures at the University of London (1969), the Trinity College Bertrand Russell Memorial Lectures at Cambridge University (1971).

Chomsky first made his reputation in linguistics. He had learned something of the principles of historical linguistics from his father, who was a Hebrew scholar of considerable repute. (Chomsky himself did some of his earliest linguistic research, for the degree of M.A., on modern spoken Hebrew.) But the work for which he is now famous, the construction of a system of generative grammar, developed out of his interest in modern logic and the foundations of mathematics, and was only subsequently applied to the description of natural languages. Of considerable importance in Chomsky's intellectual development was the influence of Zellig Harris, Professor of Linguistics at the University of Pennsylvania; and Chomsky himself has explained that it was really his sympathy with Harris's political views that led him to work as an undergraduate in linguistics. There is a sense, therefore, in which politics brought him into linguistics.

Chomsky has been interested in politics since childhood. His views were formed in what he refers to as

“the radical Jewish community in New York” and have always tended toward socialism or anarchism. In the 1960s he became one of the leading critics of American foreign policy; and his book of essays on this topic, *American Power and the New Mandarins*, is widely recognized as one of the most powerful indictments of American involvement in Vietnam to have been published on the subject. It has been followed by several other books on political issues: *For Reasons of State*, *At War with Asia*, and *Peace in the Middle East?*

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Introduction

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Chomsky's position not only is unique within linguistics at the present time, but is probably unprecedented in the whole history of the subject. His first book, published in 1957, short and relatively nontechnical though it was, revolutionized the scientific study of language, and for many years now he has been speaking with unrivaled authority on all aspects of grammatical theory. This is not to say, of course, that all linguists, or even the majority of them, have accepted the theory of transformational grammar that Chomsky put forward some thirteen years ago in *Syntactic Structures*. They have not. There are at least as many recognizably different "schools" of linguistics throughout the world as there were before the "Chomskyan revolution." But the "transformationalist," or "Chomskyan," school is not just one among many. Right or wrong, Chomsky's theory of grammar is un-

doubtedly the most dynamic and influential, and no linguist who wishes to keep abreast of current developments in his subject can afford to ignore Chomsky's theoretical pronouncements. Every other "school" of linguistics at the present time tends to define its position in relation to Chomsky's views on particular issues.

However, it is not so much Chomsky's status and reputation among linguists that have made him a "master of modern thought." After all, theoretical linguistics is a rather esoteric subject, which few people had even heard of and still fewer knew anything about until very recently. If it is now more widely recognized as a branch of science that is worthwhile pursuing, not only for its own sake but also for the contributions it can make to other disciplines, this is very largely due to Chomsky. More than a thousand university students and teachers are said to have attended his lectures on the philosophy of language and mind at Oxford University in the spring of 1969. Few of these could have had any previous contact with linguistics, but all of them presumably were convinced, or prepared to be convinced, that it was worth making the intellectual effort required to follow Chomsky's at times quite technical argument; and the lectures were widely reported in the press.

Readers who are not already familiar with Chomsky's work may well be wondering at this point what possible connection there might be between a field of study as specialized as transformational grammar and such better-known and obviously important disciplines as psychology and philosophy. This is a question we shall be discussing in some detail in the later chapters of this book. But it may be worthwhile attempting a more general answer here.

It has often been suggested that man is most clearly distinguished from other animal species, not by the faculty of thought or intelligence, as the standard zoological label *Homo sapiens* might indicate, but by

his capacity for language. Indeed, philosophers and psychologists have long debated whether thought in the proper sense of the term is conceivable except as "embodied" in speech or writing. Whether or not this is so, it is obvious that language is of vital importance in every aspect of human activity and that, without language, all but the most rudimentary kind of communication would be impossible. Granted that language is essential to human life as we know it, it is only natural to ask what contribution the study of language can make to our understanding of human nature.

But what is language? This is a question that few people even think of asking. In one sense, of course, we all know what we mean by "language"; and our use of the word in everyday conversation depends upon the fact that we all interpret it, as we interpret the other words we use, in the same or in a very similar way. There is, however, a difference between this kind of unreflecting and practical knowledge of what language is and the deeper or more systematic understanding that we should want to call "scientific." As we shall see in the following chapters, it is the aim of theoretical linguistics to give a scientific answer to the question "What is language?" and, in doing so, to provide evidence that philosophers and psychologists can draw upon in their discussion of the relationship that holds between language and thought.

Chomsky's system of transformational grammar was developed, as we shall see, in order to give a mathematically precise description of some of the most striking features of language. Of particular importance in this connection is the ability that children have to derive the structural regularities of their native language—its grammatical rules—from the utterances of their parents and others around them, and then to make use of the same regularities in the construction of utterances they have never heard before. Chomsky has argued, in several of his publications, that the

general principles that determine the form of grammatical rules in particular languages, such as English, Turkish, or Chinese, are to some considerable degree common to all human languages. Furthermore, he has claimed that the principles underlying the structure of language are so specific and so highly articulated that they must be regarded as being biologically determined; that is to say, as constituting part of what we call "human nature" and as being genetically transmitted from parents to their children. If this is so, and if it is also the case, as Chomsky maintains, that transformational grammar is the best theory so far developed for the systematic description and explanation of the structure of human language, it is clear that an understanding of transformational grammar is essential for any philosopher, psychologist, or biologist who wishes to take account of man's capacity for language.

The significance of Chomsky's work for disciplines other than linguistics derives primarily, then, from the acknowledged importance of language in all areas of human activity and from the peculiarly intimate relationship that is said to hold between the structure of language and the innate properties or operations of the mind. But language is not the only kind of complex "behavior" that human beings engage in, and there is at least a possibility that other forms of typically human activity (including, perhaps, certain aspects of what we call "artistic creation") will also prove amenable to description within the framework of specially constructed mathematical systems analogous to, or even based upon, transformational grammar. There are many scholars working now in the social sciences and the humanities who believe that this is so. For them, Chomsky's formalization of grammatical theory serves as a model and a standard.

From what has been said in the last few paragraphs it will be clear that Chomsky's influence is now being felt in many different disciplines. So far, however, it