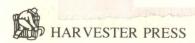
The Results of Chomsky's Revolution

Neil Smith and Deirdre Wilson





The Results of Chomsky's Revolution

Neil Smith and Deirdre Wilson



This edition first published in Great Britain in 1979 by

#### THE HARVESTER PRESS LIMITED

Publisher: John Spiers

17 Ship Street, Brighton, Sussex

© Neil Smith and Deirdre Wilson, 1979

British Library Cataloguing in Publication Data

Smith, Neil

Modern linguistics.

1. Linguistics

I. Title II. Wilson, Deirdre

410 P121

ISBN 0-85527-615-0

Manufactured in the United States of America

All rights reserved

To Saras Smith and	Theodore Zeldin	1		
10 Surus Simin und	Thoodore Zoldin	•		



## **Contents**

Introduction 9
<ol> <li>What is a Language? 13         Linguistic Rules 14         The Psychological Reality of Rules 21         Innateness and Universals 27     </li> </ol>
2. Knowledge of Language 32  Linguistic and Non-linguistic Knowledge 32  Intuitions 38  Competence and Performance 44
3. Types of Linguistic Knowledge 50  The Lexicon 52  Syntax 59  Semantics 63  Phonology 64  Interactions 65
4. Formalizing Linguistic Knowledge 75  Constituent Structure 75  Transformations 89
5. For and Against Deep Structure 100  Arguments for Deep Structure 100  Arguments against Deep Structure 114
6. Phonetics and Phonology 125 Distinctive Features 129 Phonological Rules and Underlying Forms 132 Naturalness in Phonology 136 Phonological Units 139

0		
8	( 'An	tents

Phonology and Syntax 142
The Innate Basis of Phonology 145

- 7. Semantics and Meaning 148

  Entailments and Meaning 150

  Ordered Entailments 158
- 8. Pragmatics and Communication 172

  Pragmatic Implications 172

  Pragmatic Effects of Semantic Ordering 181
- 9. Language Variation 190

  Variation in the Individual 190

  Variation in the Community 195

  Language Typology 203
- 10. Language Change 208 Language Acquisition in Children 210 Language Loss 215 Historical Change 216
- 11. Evaluation of Grammars 230

  Observational Adequacy 230

  Descriptive Adequacy 238

  Towards Explanatory Adequacy 245
- 12. What is Language? 249

  Universals and the Language Acquisition Device 249

  The Evaluation Measure and Linguistic Complexity 260

Glossary 267

Abbreviatory Notations and Phonetic Symbols 293

Further Reading 297

Conclusion 264

Bibliography 315

Index 327

#### Introduction

The publication of Noam Chomsky's *Syntactic Structures*, in 1957, marked the start of a revolution in linguistics. The effects of that revolution are still being worked out. One immediate result was that linguistics began to be of interest to philosophers, psychologists and logicians; this was largely because Chomsky was proposing to draw conclusions from the nature of language to the nature of the human language-user – conclusions which directly contradicted assumptions currently being made in philosophy and psychology, and which seemed to warrant serious consideration by philosophers and psychologists. Our main purpose in writing this book has been to give our own account of these conclusions.

Chomsky was not the first to set up links between linguistics and human psychology. However, he was probably the first to provide detailed arguments from the nature of language to the nature of mind, rather than vice versa. Before Chomsky, assumptions about psychology had often influenced assumptions about language: since Chomsky, the influence has been largely in the other direction, with arguments about the form of language being used to justify conclusions about human psychology. We might here contrast Chomsky directly with John Locke, whose account of linguistic knowledge was a special case of his account of knowledge in general; or with Leonard Bloomfield, the major figure of the American structuralist school which preceded Chomsky's, who allowed then current psychological dogma to influence his account of linguistic knowledge and language use. This reversal of the relationships between linguistics, psychology and philosophy has been one of Chomsky's main contributions to the field.

In writing this book, we had to make two choices. First, how

much attention should we give to Chomsky's immediate precursors and his present rivals: should this be a book based on historical comparisons? Second, how much should we try to give a historical treatment of the development of Chomsky's own thought? In particular, there have been substantial changes in Chomsky's technical analyses of individual points of grammar over the past twenty years, and we could have spent a lot of time criticizing each individual argument in his overall framework and tracing its development. In both cases, we have deliberately decided to avoid historical and comparative treatment as much as possible. The reason for this is that we believe Chomsky's main contribution has been as a system-builder, who has constructed a complete picture of the nature of language and of the languageuser. It is the consistency and power of his overall framework, rather than the individual arguments which make it up, that we feel makes Chomsky's work revolutionary. Many other linguists have equalled Chomsky in particular technical insights. Many philosophers and psychologists have put forward coherent views on the nature of human beings. However, no other thinker has managed to combine the two in such a way that his views on human beings can be used to reinforce his views on language, and his views on language in turn support his theory of psychology. It is some idea of this total framework that we have tried to present here.

Because Chomsky's thought is constantly developing, there is no one place to which the reader can be referred for his definitive views on language. We should emphasize that this book is not designed as a definitive summary of Chomsky's views. What we have tried to do is present a picture of language as we see it, largely under Chomsky's influence. For this reason, we have felt free to depart from some of Chomsky's published views in cases where we disagreed with them, or to suggest innovations which we felt would improve the overall theory. We have also used or adapted many arguments and examples due to colleagues in the field: in general, we have not directly attributed these arguments in the text, but have mentioned their sources in the further reading for each chapter, given at the end of the book.

It should also be emphasized that we have not tried to provide a detailed linguistic analysis of English. We have given a large number of illustrations from all levels of language, but we do not intend our descriptions to be exhaustive or definitive. The examples used are meant to show what sort of facts the theory accounts for. It should be possible in principle to extend such examples to cover a wider and deeper area, but we have concentrated on the conclusions we can draw from our examples, rather than on the data *per se*.

We would also like to point out that the analyses and examples we have provided are crucial to the understanding of the book, and the theory, as a whole. They are not meant to be skipped over: by thinking over them carefully, the reader should be able to reconstruct for himself the conclusions that we have drawn from them, and, in certain cases, to provide further evidence that would either support or refute these conclusions. To make reading as easy as possible, we have defined each technical term as it is introduced, and provided a glossary at the end of the book, in which these definitions are summarized.

We would like to express our thanks and appreciation to all those who have helped to make this book possible. Our greatest intellectual debt is obviously to Noam Chomsky. Although we have not set out to write a work of straightforward exegesis, what we have written would not have been possible without him. Many friends and colleagues have read some or all of the manuscript at varying stages of its production, or have discussed with us problems arising from it. We are particularly grateful to John Lyons. who made detailed comments on an earlier draft, and to Geoff Pullum: both of them saved us from numerous infelicities, mistakes and oversimplifications. We would also like to thank Janina Gieigo, Dick Hudson, Yamuna Kachru, Ruth Kempson, Judy Klavans-Rekosh, Dan Sperber, Julia Vellacott and Theodore Zeldin for their comments, help and advice. We are afraid to say that we have not always followed the suggestions made, and any mistakes that remain are our responsibility alone.

## 1. What is a Language?

At different times, different features of language have struck people as particularly significant, typical or worthy of attention. Any system as complex as a human language is bound to lend itself to a variety of independent approaches. For example, languages are used to communicate; one obvious line of research would be to compare human languages with other systems of communication, whether human or not: gestures, railway signals, traffic lights, or the languages of ants and bees. Languages are also used by social groups; another line of research would be to compare languages with other social systems, whether communicative or not: economic, political or religious, for example. Again, languages change through time: comparison of languages with other evolutionary systems, organic and inorganic, might also be pursued. While all of these approaches have undoubted appeal, there is an obvious logical point to be made: one must be able to describe a language, at least in part, before going on to compare it with other systems.

It seems to us that there is no way of describing or defining a given language without invoking the notion of a linguistic rule. If this is true, it is clearly important, since by investigating the nature and variety of linguistic rules we may be able to provide quite detailed evidence about points of comparison between human languages and other systems. It is for this reason that we have chosen to spend our first chapter justifying the claim that a language is definable in terms of a set of rules, arguing against some alternative conceptions of language, and examining the nature and status of linguistic rules.

### Linguistic Rules

Within modern linguistic theory, to claim that a language is rule-governed is to claim that it can be described in terms of a grammar. A grammar is conceived of as a set of rules which have two main tasks. They separate grammatical from ungrammatical sentences, thus making explicit claims about what is 'in the language' and what is not. They also provide a description of each of the grammatical sentences, stating how it should be pronounced and what it means. In other words, linguistic rules are not just the isolated and scattered maxims we memorized at school ('Prepositions are things you shouldn't end sentences with'); they combine with each other to form a system – a grammar – which gives an explicit and exhaustive description of every sentence which goes to make up a language. Throughout the book, we shall use 'grammar' to mean a set of rules with this dual function.

It is easy to see that speakers of a language often behave as if their language were rule-governed. Fluent speakers may nonetheless make mistakes in speaking, and when they do, they have no hesitation in correcting themselves. Utterances like (1) and (2), for example, are commonplace:

- (1) The thought of those poor children were really . . . WAS really . . . bothering me.
- (2) Even though they told me to, I didn't sit down and be quiet ... WAS quiet ... I mean I didn't sit down and I wasn't quiet.

Such examples give clear evidence that speakers have some means of distinguishing grammatical from ungrammatical sentences, and are prepared to correct their mistakes even when no threat to communication is involved.

It is also possible for a speaker to feel that others around him are making mistakes – although his willingness to correct them will, in many cases, be tempered by considerations of politeness at least. An English speaker who hears (3), for example, will

probably agree with the message it conveys, regardless of whether he interprets it as (4a) or (4b):

- (3) Ze pound are worthless.
- (4) a. The pound is worthless.
  - b. The pound is worth less.

However, he will simultaneously recognize that the pronunciation of *the* is incorrect, and that *are* should have been *is*. In other words, he knows not just *that* a mistake has been made, but also what the mistake is.

When speakers of two different dialects of English meet, each is likely to feel that the other is making some mistakes. Readiness to correct what sounds like a mistake is affected here, not just by considerations of politeness, but also by the fact that certain dialects are generally considered superior to others, so that speakers of standard dialects will be more likely to correct those of non-standard dialects than vice versa. In any case, the speaker of standard British English who hears (5a) and (5b) is likely to feel that they are incorrect:

- (5) a. Mr Zed's done gone mental.
  - b. Lord God, I done made a mess.

In most cases, he could also supply the standard equivalents (6a) and (6b):

- (6) a. Mr Zed has gone mental (mad).
  - b. Lord God, I've made a mess.

Similarly, speakers of the dialect which permits (5a) and (5b) would regard (6a) and (6b) as needing some correction. This case seems to show, not just that speakers of a language possess a set of rules, but that not all speakers of a language possess the same set of rules. In fact, as we shall show in the next section, it is probably quite fair to say that no two speakers of a language possess exactly the same set of rules: in other words, the rules which adequately describe a language are not the simple, prescriptive

maxims of the classroom, but a far more complex and subtle set of constructs.

The speaker who is willing to correct himself and others gives evidence that there is, for him, a right and a wrong way of saying things. However, it does not necessarily follow that in making these corrections he is applying a set of linguistic rules. He might, for example, be following a set of linguistic conventions, or habits, or customs, which he dislikes seeing disrupted. In claiming that a language is rule-governed, we are also claiming that languages are not definable in terms of linguistic habits, conventions or customs; to see why, it is necessary to look a little more closely at what linguistic rules, embodied in grammars, actually do.

So far, we may have seemed to imply that a grammar simply provides a means of registering and correcting mistakes. This copy-editing function is an important one; however, grammars are also concerned with the description of sentences which contain no mistakes at all. As mentioned earlier, a grammar must provide a means of associating each sentence of a language with its correct pronunciation and meaning. Now speakers of a language are capable of pronouncing and understanding sentences which they have never heard before. For example, many readers of this book will be encountering at least one of the following for the first time:

- (7) a. I can see a robin pecking around the ashes of the bonfire.b. Would you let us have poached egg for elevenses please, Mummy?
  - c. If you tell that joke again I shall divorce you.

However, none of these sentences is likely to present the slightest difficulty of understanding. It follows that one's ability to understand a sentence does not depend on custom, convention or habit, all of which would imply that repeated encounters with a sentence would be necessary before its correct interpretation could be established. Neither the ability to recognize a sentence as grammatical, nor the ability to produce or understand it, seems to depend on prior encounters in this way.