WORKING PAPERS IN LINGUISTICS NO. 6

by

Charles J. Fillmore, Ilse Lehiste,
David Meltzer, Marcel A. A. Tatham, and
Sandra Annear Thompson

TECHNICAL REPORT NO. 70-12

September, 1970

## Foreword

The Computer and Information Science Research Center of The Ohio State University is an inter-disciplinary research organization which consists of the staff, graduate students, and faculty of many University departments and laboratories. This report presents research accomplished in cooperation with the Department of Linguistics.

The work of the Center is largely supported by government contracts and grants. The preparation of the papers contained in this report was partly supported by the Office of Science Information Service, National Science Foundation under Grant No. GN-534.

Ilse Lehiste

Ilse Lehiste
Chairman
Department of Linguistics

Marshall C. Yovits
Director
CIS Research Center

Table of Contents


| | Page |
|---|---|
| Foreword | ii |
| List of Working Papers in Linguistics, Nos. 1, 2, 3, 4, and 5 | iv |
| "On Generativity," Charles J. Fillmore | 1 |
| "Relative Clause Structures and Constraints on Types of Complex Sentences," Sandra Annear Thompson | 20 |
| "The Deep Structure of Relative Clauses," Sandra Annear Thompson | 41 |
| "Speech Synthesis Project," David Meltzer | 59 |
| "A Speech Production Model for Synthesis-by-rule," Marcel A. A. Tatham | 66 |
| "Translation of A Model of Speech Perception by Humans, by Bondarko et al.," Ilse Lehiste | 88 |

List of WORKING PAPERS IN LINGUISTICS

No. 1

"The Grammar of 'Hitting' and 'Breaking'," Charles J. Fillmore, pp. 9-29. (To appear in Studies in English Transformational Grammar, R. Jacobs and P. Rosenbaum, eds., Ginn-Blaisdell, 1970.)

"The English Preposition WITH," P. Gregory Lee, pp. 30-79.

"Relative Clauses and Conjunctions," Sandra Annear Thompson, pp. 80-99.

"On Selection, Projection, Meaning, and Semantic Content," D. Terence Langendoen, pp. 100-109.

"Some Problems of Derivational Morphology," Sandra Annear Thompson and Dale Elliott, pp. 110-115.

"The Accessibility of Deep (Semantic) Structures," D. Terence Langendoen, pp. 118-127. (To appear in Studies in English Transformational Grammar, R. Jacobs and P. Rosenbaum, eds., Ginn-Blaisdell, 1970).

"Review of Haim Gaifman, 'Dependency Systems and Phrase-Structure Systems,' Information and Control 8 (1965), pp. 304-337," James T. Heringer, pp. 128-136.

"Diphthongs Versus Vowel Sequences in Estonian," Ilse Lehiste, pp. 138-148. (To appear in the Proceedings of the VI International Congress of Phonetic Sciences, Prague, 1967.)

No. 2

"Lexical Entries for Verbs," Charles J. Fillmore, pp. 1-29. (Also in Foundations of Language 4 (1968), pp. 373-393.)

"Review of Componential Analysis of General Vocabulary: The Semantic Structure of a Set of Verbs in English, Hindi, and Japanese, Part II, by Edward Herman Bendix. I.J.A.L. Vol. 32, No. 2, Publication 41, 1966." Charles J. Fillmore, pp. 30-64. (Also in General Linguistics 9.41-65 (1969)).

"Types of Lexical Information," Charles J. Fillmore, pp. 65-103. (To appear in Semantics: An Interdisciplinary Reader in Philosophy, Linguistics, Anthropology and Psychology, Jacobovits and Steinberg, eds., Cambridge University Press; and Proceedings of the Balatonszabadi Conference on Mathematical Linguistics, Kiefer, ed., D. Reidel.)

"'Being' and 'Having' in Estonian," Ilse Lehiste, pp. 104-128. (Also in Foundations of Language 5 (1969), pp. 324-341.)

No. 3

"Do from Occur," P. Gregory Lee, pp. 1-21.

"The Syntax of the Verb 'Happen'," Dale E. Elliott, pp. 22-35.

"Subjects and Agents," P. Gregory Lee, pp. 36-113.

"Modal Auxiliaries in Infinitive Clauses in English," D. Terence Langendoen, pp. 114-121.

"Some Problems in the Description of English Accentuation," D. Terence Langendoen, pp. 122-142.

No. 3 (continued)

"Some Observations Concerning the Third Tone in Latvian," Ilse Lehiste, pp. 143-158.

"On the Syntax and Semantics of English Modals," Shuan-fan Huang, pp. 159-181.

No. 4

"Copying, and Order-changing Transformations in Modern Greek," Gaberell Drachman, pp. 1-30.

"Subjects, Speakers and Roles," Charles J. Fillmore, pp. 31-63.

"The Deep Structure of Indirect Discourse," Gregory Lee, pp. 64-73.

"A Note on Manner Adverbs," Patricia Lee, pp. 74-84.

"Grammatical Variability and the Difference between Native and Non-native Speakers," Ilse Lehiste, pp. 85-94.

"Temporal Organization of Spoken Language," Ilse Lehiste, pp. 95-114.

"More on Nez Perce: On Alternative Analyses," Arnold M. Zwicky, pp. 115-126.

"Greek Variables and the Sanskrit ruki Class," Arnold M. Zwicky, pp. 127-136.

"Review of W. F. Mulder, Sets and Relations in Phonology: An Axiomatic Approach to the Description of Speech," Arnold M. Zwicky, pp. 137-141.

No. 4 (continued)

"A Double Regularity in the Acquisition of English Verb Morphology," Arnold M. Zwicky, pp. 142-148.

"An Annotated Bibliography on the Acquisition of English Verbal Morphology," Mary Louise Edwards, pp. 149-164.

No. 5

Twana Phonology, Gaberell Drachman, pp. i-286, Ph. D. dissertation, University of Chicago, 1969. [Limited printing; not sent out to everyone on the mailing list.]

# Introduction

This report deals with two aspects of research conducted in the Department of Linguistics under Grant No. GN-534, from the National Science Foundation. One of the aspects concerns itself with (i) the form and information content of lexical entries in a transformational grammar of English, (ii) the mechanism for lexical insertion in such a grammar, and (iii) the nature of the syntactic apparatus in terms of whose operations the lexical insertion process and the treatment of lexical information is to be carried through. The doctoral dissertation of S. A. Thompson was completed under this project; the present volume contains two articles based on the dissertation. Fillmore's paper on grammaticality deals with related issues.

The second aspect deals with communication by spoken language. During the past year, major efforts have been made to build up a facility for speech synthesis. This volume contains a detailed progress report (paper by David Meltzer). In connection with the building up of facilities, we have begun to identify research problems for which the synthesizer will serve as a tool. The goal is the testing of hypotheses about speech production and perception. A survey of various production and perception models has been made. Concrete results include the paper by M. A. A. Tatham on speech production models, and the translation (from the Russian, by I.

Lehiste) of a monograph by Bondarko et al., presenting a new model for speech perception.