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WORKING PAPERS IN LINGUISTICS NO. 12

by

Ilse Lehiste, David Meltzer,  
Linda Shockey and Richard Gregorski

COMPUTER &  
INFORMATION  
SCIENCE  
RESEARCH CENTER

THE OHIO STATE UNIVERSITY COLUMBUS, OHIO

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Computer and Information Science Research Center  
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## 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 four of the papers contained in this report was partly supported by the Office of Science Information Service, National Science Foundation under Grant No. GN-534.1.

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## Introduction

This issue of Working Papers in Linguistics is devoted to work in the area of experimental linguistics. The five papers included in the current volume were supported, in part, by the National Science Foundation under Grant GW-534.1 from the Office of Science Information Service to the Computer and Information Science Research Center, The Ohio State University. They are presented here together as a progress report of research completed in this area since the publication of Working Papers in Linguistics No. 9 (July 1971). It is expected that all papers will be eventually published through normal channels.

The first three of the papers deal more or less explicitly with problems of the temporal organization of speech. The first paper is mainly a survey paper; however, the last third of the paper reports the results of an experiment concerning the perception of syntactic units. The second paper deals with durational patterns characterizing the production of monosyllabic English words whose syllable nuclei consist of vowels and resonants. It is argued that vowels and resonants fuse into syllable nuclei that function as a whole with regard to certain timing rules. The third paper presents some durational data gained from the analysis of repeated productions of Estonian words with contrastive quantity. It should be added at this point that I have some reservations concerning the normalization procedure which I used in the second half of the paper; the statistical interpretation of the results should therefore be viewed with some caution.

The fourth paper concerns the perception of synthetic vowels produced on our Glace-Holmes synthesizer. The last paper in the series deals with the perception of place of articulation cues; theoretical implications of the results of this paper are treated in the first article in this volume. Appendices and figures for a paper can be found at the end of the paper.

I. Lehiste

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