

TABLE OF CONTENTS

Acknowledgments . . . . . i

Table of Contents . . . . . iii

List of Tables . . . . . iv

List of Figures . . . . . v

INTRODUCTION . . . . . 1

EXPERIMENT 1. A COMPARISON OF THE EFFECTS OF MONOTIC AND DICHOTIC  
PRESENTATION ON THE PERCEPTION OF TEMPORALLY OVER-  
LAPPED STOP CONSONANT-VOWEL SYLLABLES . . . . . 7

EXPERIMENT 2. SELECTIVE LISTENING FOR DICHOTICALLY PRESENTED STOP  
CONSONANTS . . . . . 27

EXPERIMENT 3. PERCEPTION OF STOP CONSONANTS AND VOWELS IN DICHOTICALLY  
PRESENTED CV SYLLABLES . . . . . 44

EXPERIMENT 4. EFFECTS OF DELAY BETWEEN EARS ON THE PERCEPTION OF  
DICHOTICALLY PRESENTED ISOLATED STEADY-STATE VOWELS . . . . . 53

SUMMARY . . . . . 62

BIBLIOGRAPHY . . . . . 66

LIST OF TABLES

I	Syllable pairs included on the stimulus tape in Experiment 1 . . .	9
II	Syllable pairs included on the stimulus tape in Experiment 3 . . .	46
III	Individual differences in the magnitude of the lag effect correlated across the C, CV-C, and CV-V conditions (Spearman rank correlation coefficients) . . . . .	51
IV	Individual differences in the magnitude of right-ear effect correlated across the C, CV-C, and CV-V conditions (Spearman rank correlation coefficients) . . . . .	51
V	Comparison of the C, CV-C, CV-V, and isolated vowel conditions for naive subjects. The incidence of lag effects, the incidence of right-ear effects, and the relation between the ear effect and lag effect . . . . .	58

LIST OF FIGURES

1	Spectrograms of the nine stimulus syllables . . . . .	8
2	Mean percent correct responses as a function of the interval between syllable onsets for the monotic and dichotic conditions . .	12
3	Mean percent correct responses as a function of stimulus lag or lead time for the monotic and dichotic conditions . . . . .	13
4	Mean percent correct first responses as a function of stimulus lag or lead time for the monotic and dichotic conditions . . . . .	14
5	Mean percent correct second responses for the dichotic and monotic tests . . . . .	16
6	Frequency distributions of lag effect scores, (Leading-Lagging)/ (Leading+Lagging), for the dichotic and monotic conditions . . . .	18
7	Frequency distribution of ear effect scores, (R - L)/(R + L), based on first responses in the dichotic condition . . . . .	19
8	Comparison of left-ear lag and right-ear lag trials in the dichotic condition . . . . .	20
9	Percent correct first responses by ear on the dichotic test for subject SV . . . . .	22
10	Percent correct first responses by ear on the dichotic test for subject BR . . . . .	23
11	Mean percent correct first responses by ear comparing the same delay conditions for the two ears . . . . .	24
12	Comparison of the form of the lag effect function for the two ears after a displacement of the left-ear curve 20 msec along the x-axis . . . . .	25
13	Accuracy of selecting responses by ear and by temporal order as a function of the time between syllable onsets . . . . .	30
14	Accuracy of selecting responses from the left and right ears . . .	31
15	Accuracy of selecting lagging and leading stimuli . . . . .	32
16	Mean percent correct responses on the ear-monitoring and temporal order tasks as a function of ear and relative onset time of the correct syllable . . . . .	33
17	Mean percent intrusions on the ear-monitoring and temporal tasks as a function of the ear and relative onset time of the intruding syllable . . . . .	34

18	Changes in the magnitude of the right-ear effect and lag effect as a function of interaural delay time for the ear-monitoring and temporal order tasks . . . . .	36
19	Comparison of the frequency distributions of lag effect scores obtained with ear monitoring and clarity judgments . . . . .	37
20	Comparison of the frequency distributions of ear effect scores obtained with ear monitoring and clarity judgments . . . . .	41
21	Hypothetical lag effect function with an assumed peak at 60 msec delay and the right- and left-ear curves which would result if a linearly decreasing right-ear effect were added orthogonally to the lag effect at each delay interval . . . . .	43
22	Mean percent correct first and second responses as a function of the interval between stimulus onsets for conditions C, CV-C, and CV-V . . . . .	48
23	Mean percent correct responses for lagging and leading stimuli for conditions C, CV-C, and CV-V . . . . .	49
24	Mean percent correct first responses corresponding to lagging and leading stimuli for conditions C, CV-C, and CV-V . . . . .	50
25	Mean percent correct first responses by ear for "naive" and "experienced" subjects on the isolated vowel test . . . . .	55
26	Scatter plot showing the relation between an individual's lag effect score (y-axis) and ear effect score (x-axis) for the isolated vowel test . . . . .	56
27	Mean percent correct first responses as a function of lag or lead time for seven subjects on the C, CV-C, CV-V, and isolated vowel tests . . . . .	59