Contents

e. Word Intelligibility and the Context Effect:	
Summary	9
o. The Segmentability of Speech	10
The segmentability of speech	11
"Ideal" segments	15
Acoustic segmentation	17
From discrete input to continuous output	19
A hierarchical model of speech	28
Summary	33
ree. Words in Context: A Review	35
Word boundaries	35
Phonemic changes	37
Coarticulation and assimilation	38
"Relaxed" articulation of contextualized words	48
Duration	51
Formant frequencies	62
Fundamental frequency and intensity	63
Prosodic redundancy	66
Intelligibility of isolated, contextualized and	
excised words	72
Overview of chapters four to seven	75
Summary	77
r. Experiment I: The Intelligibility of Isolated	
ualized Words	79
Experimental design	80
Subjects	81
Test materials	82
Preparation of test tapes	83
Conduct of the experiment	84
Results	85
	o. The Segmentability of Speech The segmentability of speech "Ideal" segments Acoustic segmentation From discrete input to continuous output A hierarchical model of speech Summary Tee. Words in Context: A Review Word boundaries Phonemic changes Coarticulation and assimilation "Relaxed" articulation of contextualized words

Discussion	90
Summary	98
Chapter Five. Experiment II: The Intelligibility of Words as	
a Function of their Position in an Utterance	101
Design and conduct of the experiment	102
Results	105
Discussion	111
Summary	124
Chapter Six. Experiment III: The Intelligibility of Vowels	
as a Function of Context	126
Test materials	130
Preparation of the test tapes	134
Subjects	135
Conduct of the experiment	136
Results	138
Acoustic data: duration	141
Acoustic data: formant frequencies	159
Acoustic data: fundamental frequency	170
Acoustic data: relative intensities	178
Discussion: isolated vowels	181
Discussion: intact presentation (conditions A to D)	187
Discussion: excised and randomized presentation	189
Summary	206
Chapter Seven. Experiment IV: The Intelligibility of Plosives	
as a Function of Context	208
Preparation of the test tapes	209
Experimental set-up	21o
Acoustic cues for plosive consonants	211
Acoustic data	221
Perceptual data and discussion (post-vocalic plos-	
ives)	236
Syllable-initial plosives	243
Summary	246

Chapter	Eigh	t. Conclusion	249
	Spe	ech production models	250
	Spe	ech perception models	256
	The	value of variability	262
Appendix	I		
	1.	Number of correct responses to the fifty words in	
		Experiment I, and the duration of isolated and	
		contextualized realizations	267
	2.	Subject responses	269
Appendix	II		
	1.	Number of correct responses to the thirty-six test	t
		words in Experiment II, and the duration of iso-	
		lated and contextualized realizations	279
	2.	Subject responses	283
Appendix	III		
	1.	Experiment III: Confusion matrices	296
	2.	Duration of test stimuli in Experiment III	311
	3.	Formant frequencies of the test vowels in Experi-	
		ment III	316
Appendix	IV		
	1.	Durational data for the test syllables in Experi-	
		ment IV	320
	2.	Experiment IV: Confusion matrices	325
	3.	Incidence of voiced and voiceless responses in	
		Experiment IV	333
Reference	es		335