

The Articulatory Basis of Locality in Phonology

by

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Notes:

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A hyperlink () located on the upper right-hand corner of Page 1 of each chapter links that chapter back to this page.

Dedication

to my parents,

Ioannis and Ioanna

and

to my sisters,

Anthippi and Ioulia

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Preface

This book is about the notion of locality in phonology. Sounds assimilate in terms of their phonetic properties to other sounds. There appear to be restrictions on how far two sounds can be to show assimilatory interaction. These restrictions constitute the locality conditions that this book attempts to understand and define.

The work reported here is my 1996 Ph.D. dissertation, completed in the Department of Cognitive Science at Johns Hopkins University, which I have been given the privilege to publish as such. The text is almost identical to that of the dissertation, with the exception of an updated bibliography, an index, an expanded section on vowel harmony in chapter 2, and pointers to subsequent publications for the reader interested in the development of this work. These publications refer to work by the author or others whose work builds on this dissertation.

New York City, New York
February 1999

A. I. G.

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I have benefitted from liberal access to the researchers at Haskins Laboratories, New Haven, Connecticut, and particularly from discussions with Catherine Browman, Carol Fowler, and Louis Goldstein. All have contributed to my thinking in essential ways. Maureen Stone and her Vocal Tract Visualization Laboratory, at the Medical School of the University of Maryland, Baltimore, helped me to become aware of the cross-sectional dimension of articulation, ultimately leading to the development of a chapter in this work. John McCarthy at the University of Massachusetts, Amherst, Donca Steriade at the University of California, Los Angeles, Lisa Zsiga at Georgetown University, and Cheryl Zoll at the Massachusetts Institute of Technology also provided cogent advice. Finally, I wish to thank the [department of Cognitive Science](#) at Johns Hopkins University for providing me with a fertile environment offering all the essential ingredients necessary for allowing me to profitably ‘boil in my own water’.

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Illustrations

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Abbreviations

!		fatal constraint violation
+		morpheme boundary
*		ungrammatical form
#		word boundary
μ		mora
σ		syllable
a:		long vowel
ā		long vowel
aa		long vowel
alv		alveolar (constriction location)
ant		Anterior
ATB		across-the-board application of rule
ATR		Advanced tongue root
C		consonant
CD		constriction degree (of gesture)
CL		constriction location (of gesture)
cont		Continuant
Cor		Coronal
eps		cycles per second
crit		critical (degree of constriction)
dent		dental (location of constriction)
dist		Distributed
Dor	Dorsal	
Hz		Hertz
IPA		International Phonetics Association
Lab		Labial

Lar	Laryngeal
LDC-spreading	long distance consonantal spreading
OCP	Obligatory Contour Principle
Phar	Pharyngeal
pl	plural
PrWd	prosodic word
rd	Round
RTR	Retracted tongue root
sg	singular
SPE	Sound Pattern of English
TB	tongue-body
TT	tongue-tip
TTCA	tongue-tip constriction area
TTCO	tongue-tip constriction orientation
V	vowel
VEL	velic (gesture)
$x \gg y$	constraint x is ranked higher than constraint y
/x/	underlying representation
X	skeletal slot
[x]	phonetic representation
☞	locator of optimal candidate
...	variable content
–	morpheme boundary
→	'becomes' (from underlying to surface form)