APPENDIX I

The languages in the appendix are in alphabetical order. For each language, I indicate the references consulted and the language family to which each language belongs. Whenever possible, I have provided a full chart of obstruent clusters in onsets. These charts are intended to be representative of the native phonotactics of obstruent clusters. Marginal clusters, clusters resulting from affixation or borrowed from other languages have been either omitted from the chart or indicated with parenthesis. If relevant, such clusters have been included and discussed. Moreover, in most of the charts, voiced obstruents have been excluded unless they form clusters with voicing assimilation or mixed voicing. Parenthesis around the clusters indicate that they are rare. For some languages it has not been possible to compile full charts due to poor data sources. I have, however, included them and provided a short description of their phonotactics as in the references.

Attic Greek

Data source: Steriade, D. (1982).

Language family: Hellenic

Onset type: 5

Onset obstruent clusters:

	p	t	k	b	d	g	p^h	t^h	k^h	s
p		pt								ps
t										
k		kt								ks
b					bd					
d										
g										
p^h								p^ht^h		
t^h										
k^h								kt^h		
s	sp	st	sk				sp^h		sk^h	
z					zd					

Cambodian

Data source: Nacaskul, K. (1978)

Language family: Austro-Asiatic (Mon-Khmer)

Onset type: 5

Onset Obstruent Clusters:

	p	t	c	k	s
p		pt	pc	pk	ps
t	tp			tk	
c	cp			ck	
k	kp	kt	kc		ks
s	sp	st		sk	

Notes: In all SS clusters, the first stop is aspirated. There are also two voiced implosives that have not been included in the chart but can form clusters.

Dakota

Data source: Boas and Deloria (1972).

Language family: Siouan (spoken throughout central and southeastern North America)

Onset type: 5

Onset Obstruent Clusters:

	p	t	k	s	ʃ	x	tʃ
p		pt		ps	pʃ		ptʃ
t			tk				
k	kp	kt		ks	kʃ		ktʃ
s	sp	st	sk				stʃ
ʃ	ʃp	ʃt	ʃk				ʃtʃ
x	xp	xt					xtʃ

Notes: The language also contain voiced, aspirated and glottalized series that do not form clusters.

Dutch

Data source: De Schutter (1994).

Language family: Indo-European (Germanic)

Onset type: 2

Onset Obstruent Clusters:

	p	t	k	f	s	x
f						
s	sp	st	(sk)	(sf)		sx
x						

English

Data source: Kenstowicz (1994)

Language family: Indo-European/Germanic

Onset type: 1

Onset Obstruent Clusters:

	t	p	k	f	s	ʃ	θ
f							
s	st	sp	sk				
ʃ							
θ							

Georgian

Data source: Chitoran (1994); Deprez (1988); Vogt (1971)

Language family: Caucasian

Onset type: 6

Onset Obstruent Clusters:

	b	d	g	pʰ	tʰ	kʰ	pʼ	tʼ	kʼ	qʼ	dz	dʒ	tsʰ	tʃʰ	tsʼ	tʃʼ	s	ʃ	χ	z	ʒ	ɣ
b			x											v		v			v	x	x	x
d			x																			x
g																			x	x		
pʰ						x											x	x				
tʰ	v					x													x			
kʰ																	x	x				
pʼ									x	x												
tʼ	v			v					x	x												
kʼ	v	v											v								v	
qʼ	v	v											v				x					
dz			x																			x
dʒ			x																			x
tsʰ	v	v				x													x			
tʃʰ	v					x													x			
tsʼ	v	v		v	v				x	x												
tʃʼ		v			v				x	x												
s				x	x		x	x	x	x									x			
ʃ				x	x	x	x	x	x										x			
χ	v	v						v									x	x				
z																						x
ʒ																						x
ɣ					v								v									

Notes: Harmonic clusters are indicated with x. These clusters form onsets both word initially and word medially. As noted by Chitoran, homogeneity of laryngeal features across a cluster is not necessarily associated with a clear phonetic behavior of that cluster as a complex segment, but rather with an ambiguous phonological status. For my purposes I consider them clusters rather than single segments. Harmonic clusters restrict the number of possible clusters. Checks in the chart indicate non-harmonic clusters.

German

Data source: Hall (1992)

Language family: Indo-European/Germanic

Onset type: 1

Onset Obstruent Clusters:

	ç	ʃ	s	f	k	t	p
ç						çt	
ʃ						(ʃt)	
s						st	
f						ft	
k			ks			kt	
p		(pʃ)	ps			pt	
t			ts				
pf			pfs			pft	
ts						tst	
tʃ						tʃt	

Notes: Parentheses indicate rare clusters. See chapter 5 for a complete analysis of German phonotactics.

Hebrew (Modern)

Data source: Galit Adam and Adam Ussishkin (p.c.)

Language family: Semitic (Afro-Asiatic)

Onset type: 5

Onset Obstruent Clusters:

	p	t	k	b	d	g	f	v	s	z	ʃ	x
p		pt	pk		pd	pg			ps	pz		px
t			tk			tg	tf		ts	tz	tʃ	tx
k			kt		kd				ks	kz	kʃ	kx
b		bt	bk		bd	bg			bs	bz		bx
d			dk			dg	df	dv			dʃ	dx
g					gd		gf	gv	gs	gz	gʃ	gx
f												
v							tv					
s	(sp)	st	sk		sd	sg						
z			zk		zd	zg						
ʃ	(ʃp)	ʃt	ʃk			ʃg						
x												

Hindi

Data source: Nagamma Reddy (1987)

Language family: Indo-Aryan

Onset type: 1

Onset Obstruent Clusters:

	p	t	ʈ	k	f	s	ʃ
f							
s	sp	st		sk			
ʃ							

Notes: The language also contains voiced and aspirated stops that do not occur in clusters.

Italian

Data source: Nespor (1993).

Language family: Indo-European (Romance)

Onset type: 1

Onset Obstruent Clusters:

	p	t	k	f	s	ʃ
f						
s	sp	st	sk	(sf)		
ʃ						

Notes: Italian has voicing assimilation in obstruent clusters. Therefore the clusters [zb zd zg] are all attested. [sf] clusters are only found in morphologically complex words.

Khasi

Data source: Henderson (1976)

Language family: Mon-Khmer

Onset type: 5

Onset Obstruent Clusters:

	p	t	k	p^h	t^h	k^h	b	d	s	ʃ
p		pt						pd		
t			tk				tb	td		
k	kp	kt			kt^h		kb	kd	ks	kʃ
p^h										
t^h										
k^h										
b		bt						bd	bs	bʃ
d	dp		dk			dk^h				
s	sp	st	sk			sk^h	sb	sd		
ʃ		ʃt	ʃk					ʃd		

Lithuanian

Data source: Tankeviciute and Strimaitiene (1990)

Language family: Indo-European (Baltic)

Onset type: 1

Onset Obstruent Clusters:

	p	t	k	s	ʃ
s	sp	st	sk		
ʃ	ʃp	ʃt			

Notes: The voiced fricative /v/ also occurs in clusters. It however seems to pattern with the sonorants as in a number of other languages.

Isthmus Zapotec

Data source: Marlett and Pickett (1987)

Language family: Zapotec/Amerindian

Onset type: 1

Onset Obstruent Clusters:

	p	t	k	s	ʃ	tʃ
s		st	sk			
ʃ	ʃp	ʃt	ʃk			

Notes: These clusters are mostly found in morphologically complex words (possessed forms of nouns). Although, rarely they are also found in mono-morphemic words. For this reason I am assuming that FS clusters are indeed well-formed in the language.

Haida

Data source: Swanton (1910); Lawrence (1977).

Language family: Isolate

Onset type: 1

Onset Obstruent Clusters:

	p	t	k	q	q̊	ts	tɬ
s	sp	st	sk	sq	sq̊		stɬ
ɬ	ɬp	ɬt	ɬk	ɬq	ɬq̊		
x							
χ							

Note: The language also contains a glottalized and an aspirated series of stops and affricates. Both series occur in FS clusters.

Mawo

Data source: Hongkai (1986); Namkung (1996).

Language family: Qiang (Tibeto-Burman)

Onset type: 3

Onset Obstruent Clusters:

	p	t	ts	tʂ	tʃ	tɕ	k	q	s	ʂ	ɕ	x	χ
k^h									k^hs	$k^hʂ$	$k^hɕ$		
q^h									q^hs	$q^hʂ$			
s	sp	st				stɕ	sk	sq					
ʂ	ʂp					ʂtɕ	ʂk	ʂq					
ɕ													
x	xp		xts	xtʂ	xtʃ	xtɕ							
χ		χt	χts	χtʂ	χtʃ	χtɕ							

Notes: A large number of the onset clusters arise from affixation. Many affixes in Mawo consist of a single fricative.

Misantla Totonac

Data source: MacKay C. (1994)

Language family: language isolate

Onset type: 1

Onset Obstruent Clusters:

	p	t	k	q	s	ʃ	ɬ	ts	tʃ
s	sp	st	sk	sq					
ʃ	ʃp	ʃt	ʃk	ʃq					
ɬ	ɬp	ɬt	ɬk	ɬq					

Nisgha

Data source: Tarpent (1989)

Language family: Tsimshianic

Onset type: 6

Onset Obstruent Clusters:

	p	t	c	k	k^w	q	s	ɬ	x	x^w	χ
p		pt	pc						px		
t				tk	tk^w				tx		tχ
c											
k							ks				
k^w							k^ws	$k^wɬ$			
q											
s	sp	st		sk	sk^w	sq					
ɬ	ɬp			ɬk							
x	xp	xt									
x^w		x^wt						$x^wɬ$			
χ	χp	χt				χq	χs	χɬ			

Notes: These are only representative. Other clusters occur that contain also the glottalized variants. The cluster [χs] was found only in one word, I will consider it marginal. SS clusters whose final member is either [k^w] or [t] are mostly the result of affixation. According to my source, the language is mostly characterized by an alternance of S and F in either order with some exceptions.

Pashto

Data source: Penzl (1995)

Language family: Indo-Iranian

Onset type: 4

Onset Obstruent Clusters:

	p	t	ʈ	k	s	ʃ	ʂ	x
p					ps	pʃ	pʂ	
t					ts	tʃ		
ʈ								
k							kʂ	
s	sp	st	sʈ	sk				sx
ʃ	ʃp	ʃt		ʃk				ʃx
ʂ				ʂk				
x	xp							

Note: Pashto has voicing assimilation in obstruent clusters. All obstruents have voiceless and voiced phonemes.

Serbo-Croatian

Data source: Hodge (1946)

Language family: Indo-European/Slavic

Onset type: 6

Onset Obstruent Clusters:

	p	t	k	f	s	ʃ	c	ć	č	b	d	g	đ	ž
p		pt			ps	pʃ			pč					
t			tk											
k								kć						
f														
s	sp	st	sk		sf									
ʃ	ʃp	ʃt	ʃk					ʃć	ʃč					
c														
ć														
č														
b											bd			
d														
g											gd		gđ	
đ														
ž										žb				
z										zb	zd	zg		
ʒ										ʒb	ʒd	ʒg		

Note: [c ć č] indicate respectively dental, alveolar and post-alveolar voiceless affricates. [đ] represents a voiced alveolar affricate. The onset clusters also includes recent loans. [v] has not been included since it patterns with sonorants.

Seri

Data source: Marlett (1988)

Language family: Hokan

Onset type: 6

Onset Obstruent Clusters:

	p	t	k	ɸ	s	ɬ	ʂ	x	χ
p		pt			ps				pχ
t							tʂ	tx	
k	kp	kt			ks				
ɸ									
s	sp	st	sk			sɬ			
ɬ									ɬχ
ʂ			ʂk						
x			xk						
χ	χp	χt	χk			χɬ		χx	

Telugu

Data source: Nagamma Reddy (1987)

Language family: Dravidian

Onset type: 1

Onset Obstruent Clusters:

	p	t	ʈ	k	f	s	ʃ
f							
s	sp	st		sk			
ʃ							
ʂ							

Notes: The language also contains voiced and aspirated stops that do not occur in clusters.

Tsou

Data source: Wright (1996)

Language family: Austronesian

Onset type: 6

Onset Obstruent Clusters:

	p	t	k	ʔ	ɓ	ɗ	f	v	s	z	ts	h
p		pt	pk	pʔ		pɗ			ps		pts	ph
t	tp		tk	tʔ	tɓ		tf	tv				th
k						kɗ		kv				kh
ʔ	ʔp	ʔt						ʔv	ʔs			ʔh
ɓ									ɓs			
ɗ												
f		ft	fk	fʔ					fs	fz	fts	
v										vz	vts	vh
s	sp		sk	sʔ	sɓ		sf	sv				
z								zv				
ts	tsp		tsk	tsʔ			tsf	tsv		tsz		tsh

Wichita

Data source: Rood (1975)

Language family: Caddoan

Onset type: 3

Onset Obstruent Clusters:

	t	k	k^w	ts	s
t					
k					ks
k^w					
ts		tsk			
s		sk			

Notes: Wichita represents a very unusual system. The obstruent system is very restricted. This results in a very restricted set of onset clusters as well. The affricate /ts/ combines with a following /k/. This may indicate that /ts/ patterns with /s/ rather than stops since no SS clusters are found in the language. The three consonantal cluster /ksk/ is also found in monomorphemic words.

Yatee Zapotec

Data source: Jager and Van Valin (1982)

Language family: Zapotecan

Onset type: 5/6 depending on the status of FF clusters.

Onset Obstruent Clusters:

	p	t	k	b	d	g	s	z	ʂ	ʐ	tʃ	dʒ
p			pk				ps		pʂ		ptʃ	
t									tʂ			
k												
b					bd	bg		bz		bʐ		bdʒ
d										dʐ		
g												
s		st									stʃ	
z				zb		zd						
ʂ		ʂt	ʂk						ʂs		ʂtʃ	
ʐ				ʐb		ʐd	ʐg	ʐs				ʐdʒ
tʃ												
dʒ												
ɣ		ɣt							ɣʂ		ɣtʃ	ɣdʒ

Notes: /ɣ/ surfaces as [χ] in the environment of voiceless consonants. Many of the sibilant clusters arise from affixation of the continuative aspect prefixes [ʂ-] and [ʐ-].

Yuchi

Data source: Wolff (1948); Crawford (1973).

Language family: language isolate (maybe Siouan)

Onset type: 1

Onset Obstruent Clusters:

	p	t	k	f	s	ʃ	ɬ	ts	tʃ
f									
s	sp	st							
ʃ	ʃp	ʃt	ʃk						
ɬ									

Notes: The language contains also voiced, aspirated and glottalized stops, as well as glottalized fricatives. Except for /t'/ and /k'/ no other stop is found in clusters. Affricates are not allowed in clusters.

Other languages in the typology for which it was not possible to construct a chart :

Language	FS	SF	SS	FF	References
Eggon	✓	✓	✓		Maddieson (1981)
Havasupai	✓				Kozlowski (1976) Seiden (1963)
Nisqually	✓	✓			Hoard (1978)

BIBLIOGRAPHY

Ansre, G. (1963). Reduplication in Ewe. *Journal of African Languages*. 2:128-132.

Bloch, B. and G. Trager (1942). *Outlines of Linguistic Analysis.* Baltimore: LSA Special Publication.

Beckman, J. (1998). *Positional Faithfulness*. Ph.D. Dissertation, University of Massachusetts, Amherst.

Benware, W. (1986). *Phonetics and Phonology of Modern German: An Introduction.* Washington, DC: Georgetown University Press.

Boas, F. and Deloria, E. (1976). *Dakota Grammar*. AMS Press. New York.

Bolozky, S. (1980). On the Monophonematic Interpretation of Modern Hebrew Affricates. *Linguistic Inquiry.*

Borowsky, T.J. (1986). Topics in the Lexical Phonology of English. PhD dissertation, University of Massachusetts, Amherst.

Borim, L. (1991). *Prosodic Structures in Takelma Phonology and Morphology.* Ph.D. Dissertation, University of Texas, Austin.

Briggs, E. (1961). *Mitla Zapotec Grammar*. Mexico.

Broselow, E. (1991). The Structure of Fricative-Stop Onsets. Paper presented at "Conference for the Organization of Phonological Features". Santa Cruz, July 1991.

Burzio, L. (1989). Prosodic Reduction. In, Kirshner C. and J. DeCesaris (eds) *Studies in Romance Languages*. Current Issues in Linguistic Theory 60. J. Benjamins Publishing Company.

Butt, M. (1992). Sonority and the Explanation of Syllable Structure. *Linguistische Berichte* 137. Westdeutcher Verlag.

Campbell, L. (1974). Phonological Features: Problems and Proposals. *Language* 50.1: 52-65.

Chierchia, G. (1983) Length, Syllabification and the Phonological Cycle in Italian. *Journal of Italian Linguistics* 8:5-34.

Chitoran, I. (1994). Acoustic Investigation of Georgian Harmonic Clusters. *Working Papers of the Cornell Phonetics Laboratory*. 9, 27-65.

Clements, G.N. (1988). The Sonority Cycle and Syllable Organization. In Dresher et al. (eds). *Phonologica 1988.* Cambridge: Cambridge U. Press.

Clements, G.N. (1990). The Role of the Sonority Cycle in Core Syllabification. In Kingston & M. Beckman (eds.). *Papers in Laboratory Phonology I: between the Grammar and Physics of Speech.* Cambridge: Cambridge U. Press. 282-333.

Clements. G.N. (1997). Berber Syllabification: Derivations or Constraints?. In Roca, I. *Derivations and Constraints in Phonology*. Oxford University Press.

Clements, G.N. & S.J. Keyser (1983). *CV Phonology: A Generative Theory of the Syllable.* LI Monograph 9. Cambridge, MA: MIT Press.

Crawford, J. (1973). Yuchi Phonology. *International Journal of American Linguistics.* 39:3, 173-179.

Davidson, L. (1999). Correspondence Relations in Verbal Paradigms: Evidence from the Second Conjunction of Catalan. Paper presented at Rutgers University of Maryland Workshop 1999.

Davis, S. (1990). Italian Onset Structure and the Distribution of *il* and *lo. Linguistics.* 28:43-55.

Dell, F. and M. Elmedlaoui (1985). Syllabic Consonants and Syllabification in Imdlawn Tashlhiyt Berber. *Journal of African Languages and Linguistics* 7, 105-130.

Dell, F. and M. Elmedlaoui (1988).Syllabic Consonants in Berber: Some New Evidence. *Journal of African Languages and Linguistics.* 10, 1-17.

Dell, F. and M. Elmedlaoui (1989). Quantitative transfer in the nonconcatenative morphology of Imdlawn Tashlhiyt Berber. *Journal of Afroasiatic Languages.*

Deprez, V. (1988). Georgian Complex Segments. *Proceedings of NELS* 16, 109-123.

De Schutter (1994). Dutch..In Koenig E. and J. van der Auwera *The Germanic Languages*. Routhledge, London and New York.

Fox, A. (1990). *The structure of German.* Clarendon Press:Oxford.

Foley, J. (1972). Rule Precursors and Phonological Change by Meta-rule. In Stockwell and Macaulay (eds.)

Fudge, E. (1969). Syllables. *Journal of Linguistics* 5:253-287.

Fukazawa, H. (1997). A Correspondence Theoretic Approach to Japanese Vocabulary Strata. In X. Li, L. López and T. Stroik, eds. *Papers from the 1997 Mid-America Linguistics Conference* (MALC): 47-58. University of Missouri, Columbia.

Fukazawa, H. (1999). *Theoretical Implications of OCP Effects Features in Optimality Theory.* Ph.D. Dissertation. University of Maryland, College Park.

Fukazawa, H., M. Kitahara and M. Ota. (1998). Lexical Stratification and Ranking Invariance in Constraint-Based Grammars, Paper presented at the 34th Chicago Linguistic Society (CLS) (to appear in *Proceedings of Chicago Linguistics Society (CLS) 2.* Kaitakusha, Tokyo.

Fujimura, O. (1995). Prosodic Organization of Speech Based on Syllable: the C/D Model. *Proceedings ICPhS 95,* Vol 3: 10-7.

Fujimura, O. (1996). Syllable Structure Constraints: A C/D Model Perspective. In B. Aagbayani & N. Harada (eds.) *Proceedings of SWOT-11 (*UCI Working Papers in Linguistics, Vol. 2, U.C. Irvine, CA):59-74.

Fujimura, O. (1997). Syllable Features and the Temporal Structure of Speech. In B. Palek, *Proceesings of LP96.* 91-111. Charles University Press.

Fujimura, O. and Lovins (1978). Syllables as Concatenative Phonetic Units. In A.Bell & J.B. Hooper (eds.). *Syllables and Segments.* Amsterdam: North-Holland. 107-120.

Goldsmith, J. (1979). *Autosegmental Phonology*. PhD dissertation, MIT. Published by Garland Press, New York.

Goldsmith, J. (1995). *The Handbook of Phonological Theory*. Blackwell Publishers.

Grammont, M. (1933). *Traité de Phonetiqué.* Paris. Libraire Delagrave.

Greenberg, J. H. (1978). Some Generalizations Concerning Initial and Final Consonant Clusters. In J.H. Greenberg (ed.) *Universals of Human Language,* vol 2: *Phonology* 243-79. Stanford: Stanford University Press. 243-79.

Hall, A. (1992). Syllable Structure and Syllable-Related Processes in German. *Linguistische Arbeiten.* Niemeyer.

Halle, M. & J.R. Vergnaud (1980). Three dimensional phonology. *Journal of Linguistic Research* 1. 83-105.

Hankamer, J. and J. Aissen (1974). The sonority hierarchy. In A. Bruck et al. (eds). *Papers from the Parasession on Natural Phonology.* Chicago: Linguistic Society.

Harris, J. (1983). *Syllable Structure and Stress in Spanish: A Non-linear Analysis.* Cambridge, Mass.:MIT Press.

Harris, J. (1994). *English Sound Structure.* Blackwell, Oxford UK and Cambridge USA.

Heike, G. (1972). *Phonologie*. Stuttgart: Metzler

Henderson, E. (1976). Khasi Clusters and Greenberg's Generalizations. *Mon-Khmer Studies*. 18-19: 61-66.

Hess, T. (1977). Lushootseed Dialects. *Anthropological Linguistics.* 19:403-419.

Hinton (1984). *Havasupai Songs. A Linguistic Perspective.* Tubingen.

Hironymous, P. (1999). *Selection of the Optimal Syllable in an Alignment-based Theory of Sonority.* Ph.D. Dissertation, University of Maryland, College Park.

Hoard, J. (1978). Remarks in the Nature of Syllabic Stops and Affricates. In A. Bell and J. Hooper (eds), *Syllables and Segments.* Amsterdam: North-Holland.

Hodge, C. (1946). Phonemes of Serbo-Croatian. *Language 22.* 112-20.

Hooper, J.B. (1976). *An Introduction to Natural Generative Phonology.* New York: Academic Press.

Hongkai, S. (1986). Notes on Tibeto-Burman Consonant Clusters. *Linguistics of the Tibeto-Burman Area.* Chinese Academy of Seoul Sciences, Beijing 9.1.

Householder, F. (1964). Three Dreams of Modern Greek Phonology. In R. Austerlitz (ed) *Papers in Memory of George C. Pappageotes* (issued as Supplement to *Word* 20.3). 17-27.

Itô, J. (1986). *Syllable Theory in Prosodic Phonology.* Ph.D. Dissertation, University of Massachusetts, Amherst. Published by Garland Press, New York, 1988.

Itô, J. (1989). A Prosodic Theory of Epenthesis. *Natural Language and Linguistic Theory.* 7:217-59.

Itô, J. and A. Mester (1998). The Phonological Lexicon. In N. Tsujimura, ed. *The Handbook of Japanese Linguistics.* Blackwell Publishers, Oxford.

Jaeger, J.J. and Van Valin R.D.(1982). Initial Consonant Clusters in Yateé Zapotec. *International Journal of American Linguistics* , vol 48, no. 2, 125-138.

James, J. R. (1969). The German Consonantal System and the Problem of Affricates. *Linguistics: An Interdisciplinary Journal of the Language Sciences*. London. Vol. 52: 45-52

Jamieson, A. (1977). Chiquihuitlan Mazatec Phonology. In W. Merrifield (ed.) *Studies in Otomanguean Phonology.* Summer Institute of Linguistics, Dallas.

Jespersen, O. (1904). *Lehrbuch der Phonetik.* Leipzig and Berlin.

Joseph, B.D. and Philippaki-Warburton, I.(1987) *Modern Greek.* Croom Helm. London, Wolfeboro.

Joel, D.J. (1966). *Paipai Phonology and Morphology*. PhD Dissertation, University of California, Los Angeles.

Kaisse, E. (1989). *The Modern Greek Continuants: On Underspecification and the OCP.* MS University of Washington.

Kato, A. (1995). The Phonological Systems of three Pwo Karen Dialects. *Linguistics of the Tibeto-Burman Area* 18:1. 63-103.

Kaye, J. Lowenstamm J. and J-R.Vergnaud (1990). Constituent Structure and Government in Phonology. *Phonology.* 7:193-231.

Kenstowicz, M. (1994). *Phonology in Generative Grammar.* Blackwell: Cambridge MA & Oxford UK.

Kingston, J. (1990). Articulatory Binding. In J. Kinston and M. E. Beckman (eds), *Papers in Laboratory Phonology I.* Cambridge University Press, 406-434.

Kiparsky, P. (1968). How Abstract is Phonology? Distributed by Indiana University Linguistics Club.

Kiparsky, P. (1979). Metrical Structure Assignment is Cyclic. *Linguistic Inquiry* 10. 421-441.

Kiparsky, P. (1981). Remarks on the Metrical Structure of the Syllable. In W. Dressler, O. Pfeiffer & J. Rennison (eds.). *Phonologica 1980.* Innsbruck: Innsbrucker Breiträge zur Sprachwissenschaft. 245-256.

Kiparsky, P. (1982). Lexical Phonology and Morphology. *Linguistics in the Morning Calm,* ed. by I.S. Yang, 3-91. Seoul: Hanshin.

Kozlowski, E. (1976). Remarks on Havasupai Phonology. *International Journal of American Linguistics.* 42.2: 140-149.

Lawrence, E. (1977). *Haida Dictionary.* Fairbanks: Alaska Native Lang. Center, Univ. of Alaska. 464

Ladefoged, P. (1982, 1993). *A Course in Phonetics.* New York:Harcourt Brace Jovanovich.

Leben, W. (1973). *Suprasegmental Phonology.* PhD dissertation, MIT, Cambridge, Massachusetts.

Legendre, G., W. Raymond & P. Smolensky 1993. Analytic Typology of Case Marking and Grammatical Voice. Proceedings of the *Berkeley Linguistics Society,* 19.

Levin, J. (1985). *A Metrical Theory of Syllabicity.* PhD dissertation, MIT, Cambridge, Massachusetts.

Lombardi, L. (1990). The Non-linear Organization of the Affricate. *Natural Language and Linguistic Theory.* 8:375

Lombardi, L. (1991). *Laryngeal Features and Laryngeal Neutralization.* PhD Dissertation, University of Massachusetts, Amherst. (Published by Garland Press, New York, 1994).

Lombardi, L. (1995). *Why Place and Voice are Different: Constraint Interactions and Featural Faithfulness in Optimality Theory*. MS. University of Maryland, College Park.

Lombardi, L. (1999). Positional Faithfulness and Voicing Assimilation in Optimality Theory. *Natural Language and Linguistic Theory.* 17: 267-302.

MacKay, C.J. (1994). A Sketch of Misantla Totonac Phonology. *International Journal of American Linguistics*, vol 60 no. 4. 369-419.

Maddieson, I. (1981). Unusual Consonant Clusters and Complex Segments in Eggon. *Studies in African Linguistics* Supplement 8:89-92.

Maddieson, I. (1984). *Patterns of Sounds.* Cambridge: Cambridge University Press.

Marlett, S.A. (1981). *The Structure of Seri.* Ph.D. Dissertation. University of California, San Diego.

Marlett, S. A. (1988). The Syllable Structure of Seri. *International Journal of American Linguistics.* 54:3, 245-78.

Marlett, S. A. and V. Pickett (1987). The Syllable Structure and Aspect Morphology of Isthmus Zapotec. *International Journal of American Linguistics*. Vol 53, no 4. 398-422.

McArthur, H. & L. (1956). Aguatec (Mayan) Phonemes within the Stress Group. *International Journal of American Linguistics.* vol 22:76-6.

McCarthy, J. (1986). OCP Effects: Gemination and Antigemination. *Linguistic Inquiry* 17. 207-263.

McCarthy, J. & A. Prince (1995). Faithfulness and Reduplicative Identity. In J.N. Beckman, L.W. Dickey & S. Urbanczyk (eds.). *Papers in Optimality Theory.* University of Massachusetts, Amherst: GLSA. 249-384.

McIntosh, J. (1945). Huichol Phonemes. *Journal of American Linguistics.*

Michelson, K. (1988). *A Comparative Study on Lake-Iroquoian Accent.* New York: Kluwer Academic Publishers.

Milliken, S. (1988). Protosyllables: Syllable and Morpheme Structure in the Lexical Phonology of English. PhD dissertation. Cornell University.

Mohanan, K. P. (1982). Lexical phonology. Phd Dissertation, MIT, Cambridge, Massachusetts.

Morelli, F (1998a). Markedness Relations and Implicational Universals in the Typology of Onset Obstruent Clusters. In Tamanji P.N. and Kusumoto K., *Proceedings of NELS 28*: 107-120. GLSA. University of Massachusetts, Amherst.

Morelli, F. (1998b). Onset Obstruent Clusters and Syllabic Obstruents in Lushootseed-Nisqually. In H. Fukazawa, F. Morelli. C. Struijke and Y. Su (eds) *University of Maryland Working Papers in Linguistics. Papers in Phonology.* Vol. 7. 110-125

Morelli, F. (to appear). Are s+STOP Clusters Really Special?. *Proceedings of LP 98.* Charles University Press.

Morelli, F. (to appear). The Relative Harmony of /s+STOP/ Onsets: Obstruent Clusters and the Sonority Sequencing Principle. To appear in Fëry C. and van de Vijver R., *The Syllable in Optimality Theory.* Cambridge University Press.

Moulton, W. (1962). *The Sounds of English and German*. Chicago: U of Chicago Press.

Murray, R. and T. Vennemann. (1983). Sound Change and Syllable Structure in Germanic Phonology. *Language* 59.514-28.

Nacaskul, K. (1978). The Syllabic and Morphological Structure of Cambodian Words. In P. Jenner (ed), *Mon-Khmer Studies VII.* 183-200.

Nagamma Reddy, K. (1987). Constraints on Consonant Sequences across some Indian Languages: a Typological View. *Osmania Papers in Linguistics* 13:39-57.

Namkung, J. (1996). *Phonological Inventories of Tibeto-Burman Languages.* STED Monograph Series, No. 3.

Nespor, M. (1993). *Fonologia.* Il Mulino. Bologna.

Ohala, J. (1990). The Phonetics and Phonology of Aspects of Assimilation. In J. Kinston and M. E. Beckman (eds), *Papers in Laboratory Phonology I.* Cambridge University Press, 258-275.

Ohala, J. and Kawasaki (1984). Prosodic Phonology and Phonetics. *Phonology Yearbook.* 113-127.

Odden, D. (1988). Anti Antigemination and the OCP. *Linguistic Inquiry* 19. 451-475.

O'Grady W., Dobrovolsky M. and M. Aronoff (1997). *Contemporary Linguistics*. St. Martin's Press. New York.

O'Meara, J. (1996). Delaware-English/English-Delaware Dictionary. University of Toronto Press.

Padgett, J. (1997). Partial Class Behavior and Nasal Place Assimilation. In *Proceedings of the Arizona Phonology Conference: Workshop on Features in Optimality Theory.* Coyote Working Papers, University of Arizona, Tucson.

Pesetsky, D. (1979). Russian Morphology and Lexical Theory. MS. MIT

Penzl, H. (1955). *A Grammar of Pashto*. Washington D.C.

Pike, K. and Pike, E. (1947). Immediate Constituents of Mazateco Syllables. *International Journal of American Linguistics* 13:2, 78-91.

Prince, A. (1997). *Stringency and Anti-Paninian Hierarchies.* Handout from the 1997 LSA Institute.

Prince, A. & Smolensky, P. (1993). *Optimality Theory. Constraint Interaction in Generative Grammar.* MS, Rutgers University, New Brunswick, NJ; University of Colorado, Boulder.

Rabel, L. (1961). *Khasi, a Language of Assam*. Louisiana State University Press.

Rood, D. (1975). The Implications of Wichita Phonology. *Language.* 51:2, 315-337.

Rubach, J. (1990). Final Devoicing and Cyclic Syllabification in German. *Linguistic Inquiry* 21:79-94.

Sagey, E. (1986). *The Representation of Features and Relations in Nonlinear Phonology.* Ph.D. diss., MIT. Published 1991 by Garland Publications NY.

Sapir E. (1922). The Phonetics of Haida. *International Journal of American Linguistics,* vol. 2:143-158

Sausurre, F. de (1914). *Cours de Linguistique Générale*. Lausanne and Paris: Payot.

Scholz, H. J. (1972). Untersuchungen zur Lautstruktur deutscher Worter. *Structura, Schriftenreihe zur Ling.. Series No: 3*

Seiden, W. (1963). *Havasupai Phonology and Morphology*. Indiana University Dissertations.

Selkirk, E.O. (1982). The syllable. The Structure of Phonological Representations. (part II), ed. by H. van der Hulst and N. Smith, *) Advances in Nonlinear Phonology* (part II),, 337-83. Dordrecht: Fortis. .

Selkirk, E.O. (1984). On the Major Class Features and Syllable Theory. In M. Aronoff & R. Oehrle (eds) *Language Sound Structure.* Cambridge, Massachusetts: MIT Press. 107-136.

Setatos, M. (1974). *Fonolojía tis kinís neolinikís.* Papazisis, Athens.

Sievers, E. (1881). *Grundzüge der Phonetik.* Leipzig: Breitkopf and Hartel.

Smolensky, P. (1995). *On the Internal Structure of the Constraint Component Con of UG*. Handout from colloquium presented at UCLA, April 7 1995.

Snyder, W. (1968). *Sound Puget Salish: Phonology and Morphology*. Sacramento: Sacramento Anthropological Society, Paper 8.

Standwell (1973) germ Kingston, J. (1990). Articulatory Binding. In J. Kinston and M. E. Beckman (eds), *Papers in Laboratory Phonology I.* Cambridge University Press, 406-434.

Steriade, D. (1982). *Greek Prosodies and the Nature of Syllabification.* PhD dissertation, MIT, Cambridge, Massachusetts.

Steriade, D. (1988). Reduplication and Syllable Transfer in Sanskrit and Elsewhere. *Phonology* 5: 73-155.

Steriade, D. (1993a). Closure, Release and Nasal Contours. In Huffman and Krakow (1993). *Nasality*. San Diego: Academic Press 401-470.

Steriade, D. (1993b). Positional Neutralization. *Proceedings of NELS 24.* Amherst, MA:GLSA.

Steriade, D. (1994). Complex Onsets as Single Segments. The Mazateco Pattern. In J. Cole and C. Kisseberth eds. *Perspectives in Phonology*. CSLI Publications, Stanford.

Steriade, D. (1995a). Underspecification and Markedness. In J. Goldsmith, ed. *Handbook of Phonological Theory*, Blackwell, Oxford.

Steriade, D. (1997). Phonetics in Phonology: The case of Laryngeal Neutralization. MS. UCLA.

Swanton, J.R. (1910). *Haida, an Illustrative Sketch.* Bureau of American Phonology, Bullettin 40, pt I. 205-282.

Tankeviciute, M. and M. Strimaitiene (1990). Initial Consonant Clusters in Prussian. *Baltistica* XXVI.

Tarpent, M.L. (1989). *A Grammar of the Nisgha Language*. University of Victoria PhD. Dissertation.

Trubetzkoy, N. (1939). *Grundzüge der Phonologie*. Güttingen: Vandenhoeck and Ruprecht.

Ungeheuer, G. (1977). Konzeption eines Informationssystems auf linguistischer Basis. *Sprache und Datenverarbeitung*. Vol. 1: 46-53

Urbanczyk, S. (1996) *Patterns of Reduplication in Lushootseed.* Ph.D. Dissertation, University of Massachussetts. Amherst.

Vogt, H. (1971). *Grammaire de la Langue Georgienne*. Oslo.

Wares, A. (1968). *A Comparative Study of Yuman Consonantism*. The Hague, Paris, Mouton.

Werner, O. (1972). Probleme der Phonotaktik. *Jahrbuch fur Internationale Germanistik*. Vol. 4 no. 1: 41-75

Whitney, W.D. (1865). The Relation of Vowel and Consonant. *Journal of the American Oriental Society,* vol. 8. Reprinted in W.D. Whitney, *Oriental and Linguistic Studies,* Second Series, Charles Scribner's Sons, New York: 1874.

Wolff, H. (1948). Yuchi Phonemes and Morphemes, with Special Reference to Person Markers. *International Journal of American Linguistics* 14. 240-243.

Wright, R. (1996). *Consonant Clusters and Cue Preservation in Tsou*. UCLA Dissertation.

Wurzel, W. (1970). Studien zur deutschen Lautstruktur. *Studia Grammatica 10*. Berlin: Akademie.

Wurzel, W. (1980). Sprachsystem und Dialektik. *Zeitschrift fur Phonetik, Sprachwissenschaft und Kommunikationsforschung* Berlin, E. Germany. Vol. 33:165-75.

Yip, M. (1988). The Obligatory Contour Principle and Phonological Rules: a Loss of Identity. *Linguistic Inquiry* 19. 65-100.

Zec, D. (1995). Sonority Constraints on Syllable Structure. *Phonology* 12. 85-129.