

Keywords: onset, coda, cues, assimilation, neutralization, functionalist analysis

(prominence privilege)

가 ,

’ , , ,

’ ,

(Beckman 1996),

’

(asymmetries)

’

가

’

가

가 , 가 ,

(1) IDENT-*Position*(F)

Let β be an output segment in a privileged position P and α the input correspondent of β . If β is $[\gamma F]$, then α must be $[\gamma F]$.

(“Correspondent segment in a privileged position must have identical specification for [F].”) (Beckman 1996)¹

가 가

(perceptual specification) (perceptual

result) 가

2.

가 가

() 가

¹ ‘Position’

, IDENT-ONSET(F), IDENT- σ_1 (F) (1)

가

(2) (3) 가

(2) (Lombardi 1991; Wetzels and Mascaró 2001)

run[d]e	‘round (pl.)’	run[t]	‘round (sg.)’
lo[b]es	‘of praise’	lo[p]	‘praise’
ra[d]es	‘of advice’	ra[t]	‘advise’
Sär[g]e	‘coffins’	Sär[k]	‘coffin’

(3)

(Kenstowicz 1994; Grijzenhout and Krämer 1999)

hiu[z]en	‘houses’	a[s]en	‘ashes’
hiu[s]	‘house’	a[s]	‘ash’
hiu[sk]ammer	‘living room’	a[z]bak	‘ashtray’
hiu[zb]aas	‘landlord’		
pa[t]	‘toad’	pa[d]ən	‘toads’
la[t]	‘lath’	la[d]ən	‘laths’
pu:[s]	‘cat’	pu:[z]ən	‘cats’
vo[s]	‘fox’	vo[s]ən	‘foxes’

(Raphael 1981).

가

가

가

가

가
가

가

VOT

(closure voicing), (closure duration),
 (V₁ duration), F₁ (F₁ values in V₁),
 (burst duration and amplitude),
 F₀ F₁ (F₀ and F₁ values at the onset of voicing in V₂)
 (Wang 1959; Raphael 1981; Westbury and
 Keating 1986; Kingston and Diehl 1994, 1995).

가

(4) (Steriade 1997)

a.

() *abra, aba, apra, apa*

F₁ , , VOT ,
 F₀ F₁

b.

() *bra, ba, pra, pa; asbra, asba, aspra, aspa*

, VOT ,
 F₀ F₁

c.

() *ab, ap*

F₁ , , ,

d.

() *absa, apsa*

F₁ , , ,

e.

() *asbta, aspta*

,

f.

() *asb, asp*

,

g.

() *bsa, psa*

,

⁵ If the nucleus has just one position, the same cannot be said of the onset and the rhyme, for in many languages these positions can host several segments (Goldsmith 1990).

(canonical onsets)

가

IDONSLAR

가

(5)

(Gussman 1992; Bethin 1992)

[stobow̃]	‘with you’	[zbratem]	‘with(my)brother’
ža[b]a	‘frog’	ža[pk]a	‘small frog’
ró[zg]a	‘rod’	ró[štšk]a	‘small rod’
wo[d]a	‘water’	wó[tk]a	‘vodka’
ne[ptk]a	‘twit, gen.sg.’	[bzd]ura	‘nonsense’

Lombardi (1995)

(IDONSLAR)

(AGREE)

가

가

(6)

(Lombardi 1995)

- a. IDLAR: (Consonants should be faithful to underlying laryngeal specification.)
- b. IDONSLAR: (Consonants in the position stated in the Laryngeal Constraint should be faithful to underlying specification.)
- c. *LAR: (Do not have Laryngeal features.)
- d. AGREE: (Obstruent

⁶

‘s’가

(syllable node)가
(Steriade 1982; Borowsky 1986),

가

‘s+obsturent /p, t, k/’
(word node)

가

clusters should agree in voicing.)

(7) (Lombardi 1995)

	AGREE	IDONSLAR	*LAR	IDLAR
a. /psdura/				
psdura	*!		*	
bzdura			***	**
pstura		*!		*
b. /bsdura/				
bsdura	*!		**	
bzdura			***	*
pstura		*!		**
c. /bzdura/				
bzdura			***	
psdura	*!		*	**
pstura		*!		***

/psdura/, /bsdura/, /bzdura/
 AGREE IDONSLAR /d/가
 [bzdura]가

IDONSLAR (8)

가
 AGREE가

(8) (Lombardi 1995)

/tsvay/ 'two'	IDONSLAR	*LAR	AGREE	IDLAR
tsvay		*	*	
tsfay	*!			*
dzvay		**!		*

IDONSLAR

가 (4b)
VOT
V₂ F₀ F₁

4.

Passy (1890)

가
Passy (1890) Boersma (1997)가
Passy (the principle of economy)
(the principle of emphasis)
(the maximization of information flow)
(maximization of recogni-

tion)' 가 . 가
 가 ,
 . 가 가
 ,
Boersma (1997) Passy (1890)
 가

(9) 가

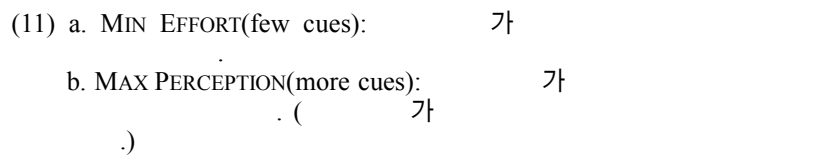
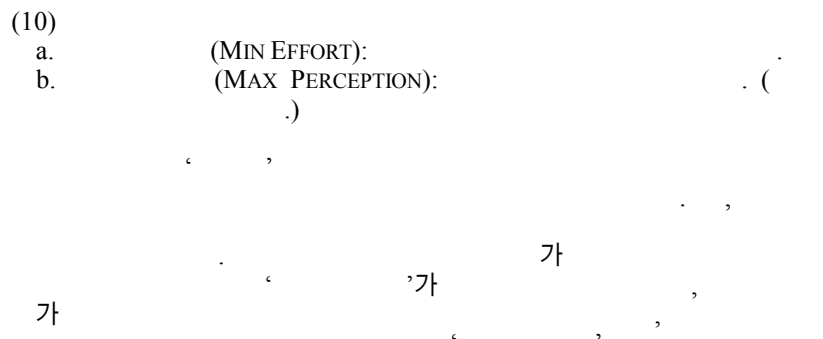
a. .

b. .

c. . 가

e. . 가

f. .



가 (Gesture Overlap)

가

(Browman and Goldstein 1990).⁷

(Kingston 1990; Ohala 1992),
(Jun 1995)

가

(Kingston 1990).

(가) 가

(4)

) 가 F₁ 가

(12) GESTURE OVERLAP(few cues)⁸: 가

⁷

(Browman and Goldstein 1990).

⁸ GESTURE OVERLAP

- (11a) 가 (AGREE)⁹
- (9a) 가 가
- (13) *MARKED(few cues): 가
- (14) *LAR(few cues): 가
-
- ⁹ AGREE
- ¹⁰ (burst) 가 (Lamontagne 1993).
- (Hoard 1978).
- ¹¹ Iverson and Salmons (1995) 가 가 (aspiration) 가

- (13) (11a) (14) 가 , (14) ,
 가 , ,
 .
 , 가
 가 , 가
 (11b) ,
 ,
 (11b)가 ,
 ,
 가
 (more cues) , MAX PERCEPTION
 IDONSLAR
 ,
 가
 (15) a. MIN EFFORT(few cues): 가
 (i) GESTURE OVERLAP:
 (ii) *MARKED(few cues): 가
 *LAR(few cues): 가
 b. MAX PERCEPTION(more cues): 가
 (가
 .)
 가
 ,
 *LAR
 *LAR(few cues) 가 ,

5.

가

가
가

MIN EFFORT(few cues)
*LAR(few cues)

(16)

(16)

	MAX PERCEPTION (more cues)	*LAR(few cues)	MAX PERCEPTION
a. /rad/			
rad		*!	
rat			*
b. /gut/			
gut			
kut	*!		*

가

Diagram illustrating the relationship between /gut/ and /rad/ cues in the context of MIN EFFORT and *LAR (few cues).

Top row: /gut/ cues (left) and /rad/ cues (right).

Bottom row: *LAR (few cues) (left) and /rad/ cues (right).

Central label: (GESTURE OVERLAP)

Annotations: MIN EFFORT (above the central area) and *LAR (few cues) (below the central area).

[rat]

가	/gut/	가
		MAX PERCEPTION(more cues)

가 , ‘ ’ 가
가 ()
가 (17)

(17) GESTURE OVERLAP, MAX PERCEPTION(more cues) >> *LAR(few cues) >> MAX PERCEPTION

(18)

	GESTURE OVERLAP	MAX PERCEPTION (more cues)	*LAR (few cues)	MAX PERCEPTION
a. /psdura/				
psdura	*!			
bzdura			**	***
pstura		*!		*
b. /bsdura/				
bsdura	*!		*	
bzdura				*
psdura	*!			*
c. /bzdura/				
bzdura			**	
psdura	*!			**
pstura		*!		***

가 가
가 (18c)) ((18a)
(more cues) MAX PERCEPTION
(*LAR(few cues)) (MAX PERCEPTION)
가
([bzdura]가 가

6.

가

가

- BECKMAN, JILL. 1996. *Positional Faithfulness*. PhD Dissertation. University of Massachusetts, Amherst.
- BETHIN, CHRISTINE. 1992. *Polish Syllables: The Role of Prosody in Phonology and Morphology*. Columbus: Slavica.
- BOERSMA, PAUL. 1997. Inventories in functional phonology. Ms. ROA 232-1197.
- BOROWSKY, TONI. 1986. Topics in the Lexical Phonology of English. PhD Dissertation. University of Massachusetts.
- BROWMAN, CATHE, and LOUIS GOLDSTEIN. 1990. Tiers in articulatory phonology, with some implications for casual speech. In John Kingston and Mary E. Beckman (eds.). *Papers in Laboratory Phonology I: Between the Grammar and Physics of Speech*, 341-376. Cambridge: Cambridge University Press.
- DUEZ, DIANE. 1995. On spontaneous French speech: aspects of the reduction and contextual assimilation of French Stops. *Journal of*

- Phonetics* 23 (4): 407-428.
- GOLDSMITH, JOHN. 1990. *Autosegmental and Metrical Phonology*. Oxford: Blackwell.
- GREENBERG, JOSEPH. 1978. Some generalization concerning initial and final consonant clusters. In Joseph Greenberg (ed.). *Universals of Human Language: Vol. 2. Phonology*, 243-280. Stanford: Stanford University Press.
- GRIJENHOUT, JANET, and MARTIN KRÄMER. 1999. Final devoicing and voicing assimilation in Dutch Derivation and cliticization. Ms. ROA 303-0399.
- GUSSMAN, EDMUND. 1992. Resyllabification and delinking. *Linguistic Inquiry* 23: 29-56.
- HOARD, JAMES. 1978. Remarks on the nature of syllable stops and affricates. In A. Bell and J. B. Hooper (eds.). *Syllables and Segments*, 59-72. Amsterdam: North Holland.
- IVERSON, GREGORY, and JOSEPH SALMONS. 1995. Aspiration and laryngeal representation in Germanic. *Phonology* 12: 369-396.
- JUN, JONGHO. 1995. *Perceptual and Articulatory Factors in Place Assimilation: An Optimality Theoretic Approach*. PhD Dissertation. UCLA.
- KENSTOWICZ, MICHAEL. 1994. *Phonology and Generative Grammar*. Oxford: Blackwell.
- KINGSTON, JOHN. 1990. Articulatory binding. In John Kingston and Mary E. Beckman (eds.). *Papers in Laboratory Phonology I: Between the Grammar and Physics of Speech*, 406-434. Cambridge: Cambridge University Press.
- KINGSTON, JOHN, and RANDY DIEHL. 1994. Phonetic knowledge. *Language* 70: 419-454.
- KINGSTON, JOHN, and RANDY DIEHL. 1995. Intermediate properties in the perception of distinctive feature values. In Bruce Connell and Amalia Arvaniti (eds.). *Papers in Laboratory Phonology 4*. Cambridge: Cambridge University Press.
- LAMONTAGNE, GREG. 1993. *Syllabification and Consonant Cluster Conditions*. PhD Dissertation. University of Massachusetts, Amherst.
- LOMBARDI, LINDA. 1991. *Laryngeal Features and Laryngeal Neutralization*. PhD Dissertation. University of Massachusetts, Amherst. Published by Garland, 1994.
- _____. 1995. Positional faithfulness and the phonology of voicing in optimality theory. Ms. University of Maryland, College Park.
- OHALA, JOHN. 1992. The segment: primitive or derived? In Gerard J. Docherty and D. Robert Ladd (eds.). *Papers in Laboratory Phonology II: Gesture, Segment, Prosody*, 166-183. Cambridge: Cambridge University Press.
- PASSY, PAUL. 1890. *Etude sur les Changements Phonétiques et Leurs*

- Caractères Généraux*. Paris: Librairie Firmin-Didot.
- RAPHAEL, LAWRENCE. 1981. Durations and contexts as cues to word-final cognate opposition in English.' *Phonetica* 38: 126-147.
- RUBACH, JERZY. 1990. Final devoicing and cyclic syllabification in German. *Linguistic Inquiry* 21(1): 79-94.
- SLIS, IMAN. 1986. Assimilation of voice in Dutch as a function of stress, word boundaries and sex of speaker and listener. *Journal of Phonetics* 14: 311-326.
- STERIADE, DONCA. 1982. *Greek Prosodies and the Nature of Syllabification*. PhD Dissertation. MIT.
- _____. 1995. Neutralization and the expression of contrast. Ms. UCLA.
- _____. 1997. Phonetics in phonology: the case of laryngeal neutralization. Ms. UCLA.
- WANG, WILLIAM. 1959. Transition and release as perceptual cues for final plosives. In I. Lehiste (ed.). *Reading in Acoustic Phonetics*. Cambridge, Massachusetts: MIT Press.
- WESTBURY, JOHN, and PATRICIA KEATING. 1986. On the naturalness of stop consonant voicing. *Journal of Linguistics* 22: 145-166.
- WETZELS, LEO, and JOAN MASCARÓ. 2001. The typology of voicing and devoicing. *Language* 77(2): 207-244.

e-mail: jonakim_99@yahoo.co.kr

Received: April 12, 2004

Accepted: May 17, 2004