

BOGUS CLUSTERS AND TUSCAN ITALIAN: IMPLICATIONS FOR THE THEORY OF SONORITY

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METRICAL LENGTHENING

[ví:pera] *[vípera] ‘vipera’

[muré:na] *[muréna] ‘moray eel’

[karitá] *[karitá:] ‘charity’

This interaction is known as *metrical* or *tonic lengthening* (cf. Hayes 1995).

In Tuscan, all vowel length is a product of *Metrical lengthening*. Long vowels are otherwise illicit: [viper-átʃ:a] *[vi:per-átʃ:a] ‘bad viper’ (cf. [ví:pera]) and [alabá:ma] *[a:labá:ma] ‘Alabama’ (cf. àlabáma *Eng*).

This is different from Standardised Tuscan, a variety with metrical lengthening only in penultimate position (Savoia 2014).

METRICAL LENGTHENING AND HETEROSYLLABICITY

(1) Length is blocked before heterosyllabic structures

	Antepenultimate		Penultimate	
Stop	[dzók:olo]	‘clog’	[marmót:a]	‘marmot’
Affricate	[kʲótʃ:ola]	‘snail’	[rítʃ:o]	‘hedgehog’
Nasal	[míŋ:olo]	‘little finger’	[kán:a]	‘spliff’
Lateral	[libél:ula]	‘damselfly’	[korál:o]	‘coral’
Rhotic	[tór:iðo]	‘scorching’	[vér:e]	‘male fox’

METRICAL LENGTHENING AND CC

Unlike geminates that never permit vowel length before them, consonant clusters have variable patterning. CCs split into two types.

There are those that behave like heterosyllabic geminates:

[mósto, ménta, pólpo, tʃérvo] ‘must, mint, octopus, deer’

And those that behave like singletons:

c[á:]pra, v[é:]tro, s[ó:]brio, c[í:]clo ‘goat, glass, sober, cycle’.

METRICAL LENGTHENING AND CC

Length permitted

pr, br, tr, dr, kr, gr, kl, gl

Length banned

rp, rb, rt, rd, rtʃ, rdʒ, rk, rg, rm, rn, rl, lp, lb, lt, ld, ltʃ, ldʒ, lk, lg, lf, lv, rf, rv, lm, ln, mp, mb, nt, nd, ntʃ, ndʒ, ŋk, ŋg, nf, ns, sp, st, sk, fk ps, tl, tn, kt, pt, tm, pn, tn, tl

METRICAL LENGTHENING AND SONORITY

3) Sonority differential (Parker 2011)

$$C2 - C1 = \Delta x$$

(4) Sonority Hierarchy

Glide	8
Rhotic	7
Lateral	6
Nasal	5
Fricative	4
Affricate	3
Stop	2

METRICAL LENGTHENING AND SONORITY

(5) Sonority differential of CCs permitting length

Steep Rises:

(i) Stop - Rhotic pr :: r |7| - p |2| = Δ5

(ii) Stop - Lateral kl :: l |6| - k |2| = Δ4

METRICAL LENGTHENING AND SONORITY

(6) Sonority differential of CCs banning length

(a) Steep falls

(i) Rhotic – Stop rp :: p |2| - r |7| = Δ -5

(ii) Rhotic – Affricate rtʃ :: tʃ |3| - r |7| = Δ -4

(iii) Lateral – Stop lp :: p |2| - l |6| = Δ -4

(iv) Lateral – Affricate ltʃ :: tʃ |3| - l |6| = Δ -3

(b) Shallow fall: (i) Fricative – Stop st :: t |2| - s |4| = Δ -2

(c) Near flat (i) Lateral – Nasal ln :: n |5| - l |6| = Δ -1

(ii) Rhotic – Lateral rl :: l |6| - r |7| = Δ -1

(d) Shallow rises (i) Stop – Fricative ps :: s |4| - p |2| = Δ 2

(e) Steep rises (i) Stop – Lateral tl :: l |6| - t |2| = Δ 4

GORGIA TOSCANA AND

7) *Gorgia Toscana* distribution and realization across Tuscany

(a) Massa-Carrara/N Lucca	–	none
(b) Arezzo	–	Restricted to /k/
(c) Pisa/Livorno	–	Restricted to /k, t, d/
(d) Florence/Siena	–	Full: /p, b, t, d, k, g/ › /ϕ, β, θ, ð, h or ħ, γ/
(e) GR/Maremma	–	Full: /p, b, t, d, k, g/ › /ϕ, β, θ, ð, x, γ/ or... /ᵖϕ, ᵇβ, t ^θ , d ^ð , x, γ/

Pace Marotta (2008) who claims (based on old data) that Grosseto patterns with Livorno and Pisa. It is possible that *Gorgia* has been extended in recent decades, but essentially all stops lenite.

Marotta (2008) also reports fricativised stops as lenition outcomes in Pisa.

TUSCAN DEAFFRICATION

(8) Tuscan de-affrication

(a)	[tʃé:ra]	‘wax’	›	[la-ʃé:ra]	‘the wax’
(b)	[dʒórno]	‘day’	›	[i-ʒórni]	‘the days’

DEFINING CONTEXT OF GORGIA

(9) *Gorgia Toscana I (to be rejected)*

[+cons, -son, -cont] → [+cont] / [-cons, +cont] ___

MISPREDICTION

		Example	Counterfactual	Gloss
Cluster	Initial?			
tl	no	[atléta]	*[aθléta]	'athlete'
tn	no	[étna]	*[éθna]	'Etna'
tm	only	[la-tmé:si]	*[la-θmé:si]	'tmesis'
pn	yes	[apné:a]		'breathlessness'
		[lo-pneumáθixo]	*[loφneumáθixo]	'the tire'
ps	yes	[ípsilon]	*[íφsilon]	'Υ'
		[lo-psixoanalista]	*[loφsixoanalista]	'the psychoanalyst'
kt	no	[íktus]	*[íxtus]	'stroke'
pt	only	[lo-pteroðat:ilo]	*[loφteroðat:ilo]	'the pterodactyl'

GORGIA DEFINITION II

(11) *Gorgia Toscana II (to be rejected)*

[+cons, -son, -cont] → [+son, +cont] / [+son, +cont] __ [+son, +cont]

Misprediction: If rhotics are special in being sonorant continuants in Tuscan and *Gorgia* applies in an intersonorant context, then the rule predicts that spirantisation should apply symmetrically in ‘rhotic__vowel’ sequences. However, these contexts do not trigger *Gorgia* (or deaffrication): [kórpo] *[kórϕo] ‘body’, [sórtʃo] *[sórfjo] ‘mouse’.

GORGIA AND CCS

	<i>Gorgia</i>		<i>Gloss</i>	
pr	[pré:ɣo]	‘pray’	[leφré:ɣjé:re]	‘the prayers’
pj	[pjé:na]	‘full river’	[laφjé:na]	‘the full river’
pl	[plak:a]	‘plaque’	[laφlák:a]	‘the plaque’
br	[brú:xo]	‘worm’	[iβrú:xi]	‘the worms’
bj	[bjá:ixa]	‘chew slowly’	[leβjá:ixaθe]	‘the chewings’
bl	[blát:a]	‘bug/cockroach’	[leβlát:e]	‘the bugs’

GORGIA CLUSTERS ARE NOT DEFINED BY SONORITY

Cluster	Sonority Differential	Sonority Profile	Example	Gloss
kt	$\Delta 0$	Flat	[iktus]	'stroke'
pt	$\Delta 0$	Flat	[lo-pteroðat:ilo]	'the pterodactyl'
ps	$\Delta 2$	Shallow rise	[ipsilɔn] [lo-psixoanalista]	'Y' 'the psychoanalyst'
tm	$\Delta 3$	Steep rise	[la-tmé:si]	'tmesis'
pn	$\Delta 3$	Steep rise	[apné:a] [lo-pneumáθixo]	'breathlessness' 'the tire'
tn	$\Delta 3$	Steep rise	[étna]	'Etna'
tl	$\Delta 4$	Steep rise	[atléta]	'athlete'

THIRD PROCESS: EPENTHESIS

	<i>Epenthesis</i>	Example
(a) Liquid – Stop	no	
(b) Liquid – Affricate	no	
(c) Liquid – Fricative	no	
(d) Liquid – Nasal	no	
(e) Rhotic – Lateral	no	
(f) Nasal – Stop	no	
(g) Nasal – Affricate	no	
(h) Nasal – Fricative	no	
(i) Fricative – Stop	no	
(j) Stop – Fricative	yes	[pis]icologa
(k) Stop – Liquid	yes	[ati/e]las
(l) Stop – Nasal	yes	[ati]mosfera
(m) Stop – Stop	yes	[pe/Ø]terodattilo

PROCESSES AND ITS REJECTS: FINDING CC SETS

	Target/Filtered	Slag
<i>Metrical Lengthening</i>	Branching onset	Rime-onset, Bogus cluster
<i>Gorgia</i>	Branching onset	Rime-onset, Bogus cluster
<i>Epenthesis</i>	Bogus cluster	Rime-onset, Branching onset

From comparing these processes, their targets and the slag, one can find the unique sets of CCs. *Metrical lengthening* and *Gorgia* filters the first type: Branching onsets. *Epenthesis* filters the second set, what Harris (1994) calls: Bogus clusters. Finally, comparing the slag of *Metrical Lengthening* and *Gorgia* against that of *Epenthesis* allows one to find the unique set of rime-onset sequences.

ALTERNATIVE TO SONORITY

Singleton and Branching onset vs. Geminate

Metrical lengthening and Gorgia

Singleton

/t́opo/

mouse

[unt́o:ɸo]

a mouse

Geminate

/pápa/

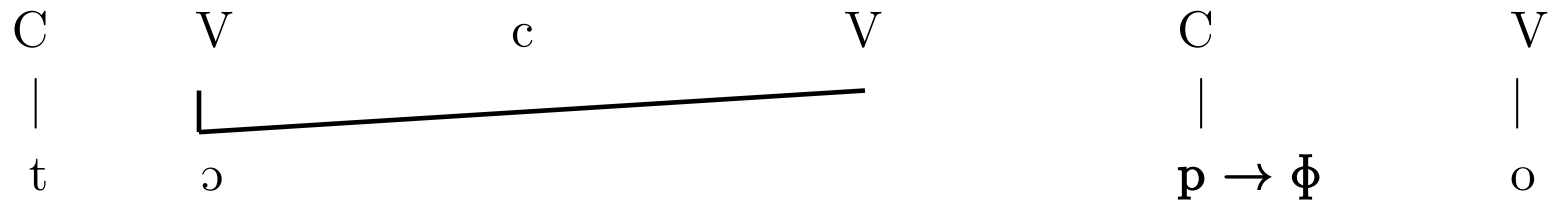
slurry

[laɸápa]

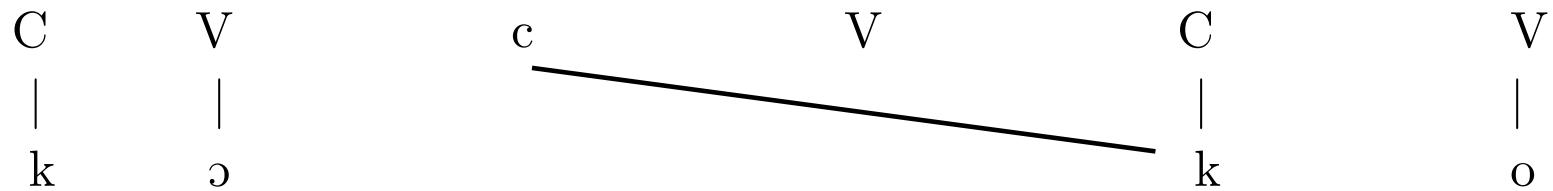
the slurry

SINGLETONS VS. GEMINATES

(19) Singleton spirantising with metrical lengthening (*tópo* ‘mouse’)



(20) Geminate length resists lenition (*cócco* ‘coconut’)

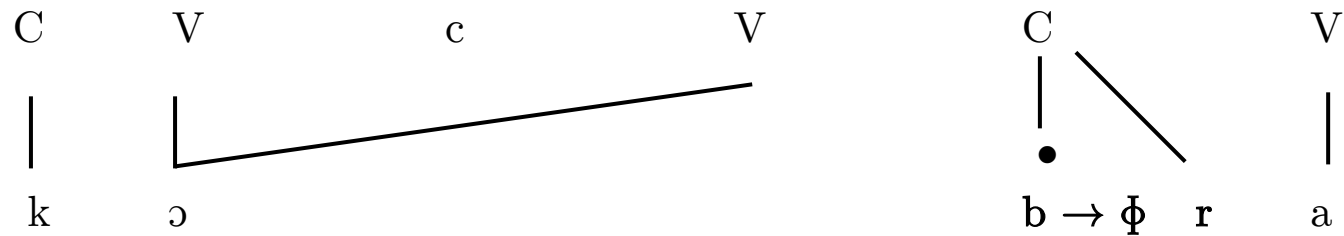


BRANCHING ONSETS ARE LIKE SINGLETONS

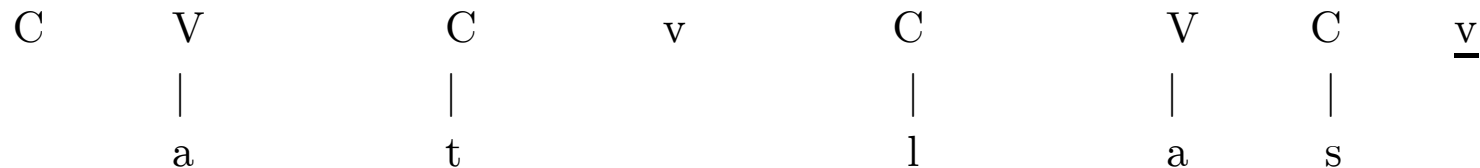
BOGUS CLUSTERS ARE LIKE GEMINATES

INTERLUDE THEORY (STERIADE 2008) AND STRICT CV (LOWENSTAMM 2003, BRUN-TRIGAUD & SCHEER 2010)

(21) Compressed Branching onset are short like singleton (*cóbra* ‘cobra’)



(22) Uncompressed Bogus clusters are ‘big’ like geminates (*átlas* ‘book of maps’)



BOGUS CLUSTERS VS. RIME ONSETS

Background: English t-glottaling Harris (1994)

petrol › [pétɹu] *[pétʔu] ‘petrol’ (cf. [kéʔəɪŋ] ‘kettering’
[bæʔɹi] ‘battery’.

Though both cluster types have intervening empty V slots

Coda-Onset: ca/rvp/a *carpa* ‘carp’

Bogus cluster: i/pvs/ilon *ipson* ‘stroke

Epenthesis: /pvs/icologa › [pis]icologa.

Considering the behaviour of [tʃ] in the same leniting environment that suggests another possible analysis: [mætʃ:əu] ‘macho’ vs. [mætʃízməu] ‘machismo’. I will leave it mysterious here.

Cluster type by process			Process		
Cluster type	Compressible	Licensed	Metrical Lengthening	Gorgia	Epenthesis
Branching Onset pr, br, tr, dr, kr, gr, kl, gl	yes	yes	yes	yes	no
Coda-Onset rp, rb, rt, rd, rtʃ, rdʒ, rk, rg, rm, rn, rl, lp, lb, lt, ld, ltʃ, ldʒ, lk, lg, lf, lv, rf, rv, lm, ln, mp, mb, nt, nd, ntʃ, ndʒ, ŋk, ŋg, nf, ns, sp, st, sk, fk	no	yes	no	no	no
Bogus cluster ps, tl, tn, kt, pt, tm, pn, tn, tl	no	no	no	no	yes

THANKS

