



Phonemic overlap in Canarian Spanish – the case of postvocalic voicing

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Dialect: Galdar, Gran Canaria

process: post-vocalic non-continuant voicing

previous reports: Oftedal 1986 on V_V voicing
my data: recordings of several speakers from 2014/15

accompanying: spirantisation, coda consonant deletion

effect: left-hand blocking, chain shift with underapplication
part of a general lenition pattern

THE DATA

/p/ a[b]asionado 'enthusiastic'
/t/ fone[d]ica 'phonetics'
/k/ la fre[g]uencia 'the frequency'

/p/ tengo una [b]rima 'I have a cousin'
/t/ juntos y [d]al 'together and so on'
/k/ otra [g]lase de 'other type of'

The process is well extended, both in young and in older speakers
It applies regardless of the word boundary (phrase-level process)
Not strictly intervocalic: applies when followed by a glide or a sonorant
Similar in application to spirantisation: blocked by nasals and post-pausally

BLOCKING ENVIRONMENTS:

VOICING		SPIRANTISATION	
im[p]ortante 'important'	en[t]onces 'so / then'	in[b]olucrado 'involved'	en[d]oso 'endorsement'
en un ban[k]o 'in a bank'	un [p]ueblecito 'a small village'	el Con[g]o 'Congo'	un [b]uen... 'a good'
#[p]ago 'leg'	#[t]omo 'I take'	#[b]ago 'vague'	#[d]omo 'I tame'
#[k]oma 'eat' subj.		#[g]oma 'tyre'	

There is an important difference in terms of process advancement
Spirantisation applies all the way except following a pause or a homorganic S
Voicing only after a vowel. All other segments to the left block the process.

el [t]riple 'three times' super [k]ómodo 'very convenient'

When a seg to the left is deleted, creating a context for voicing, it fails to apply:

e(s)ta(s) son la(s) caracteri(s)tica(s) 'these are the features'
die(z) primo(s) 'ten cousins'
por pensa(r) tontería(s) 'for thinking about silly things'
e[h]ele(h)tre(s) 'it's the stress'
te interesa(s)te 'you got interested'

No such effect ensues in the case of spirantisation: lo(s) [ð]os 'the two'
Because the two processes overlap, they should be analysed together as a part of a general lenition process.

DISTRIBUTION OF VOICED AND VOICELESS STOPS AND APPROXIMANTS IN CANARIAN

Peninsular			Gran Canaria		
[p t k]	[b d g]	[β ð γ]	[p t k]	[b d g]	[β ð γ]
#_	#_		#_	#_	
N_V	N_V		N_V	N_V	
S_V		S_V	S_V		S_V
V_V		V_V	V_V	V_V	V_V
V_S/N		V_S/N	V_S/N	V_S/N	V_S/N

In Peninsular Spanish there is a contrast [p t k] - [β ð γ] between sonorants with the exception of post-nasal/homorganic lateral
Voiceless-voiced stop contrast is only preserved word-initially after a pause and after nasals

In Canarian, this contrast is more multifaceted:
Phonemic overlap – allophones of two different phonemes overlap: [bdg] can be allophones of both /ptk/ and /bdg/
Strong contrast between voiceless stops and voiced approximants in S_V, weak stop-approximant contrast in postvocalic environments (perceptual considerations?)

Further overlap: [β ð γ] can be allophones of both /bdg/ and /ptk/
A more robust general contrast, but neutralisation in most contexts

Gran Canaria with merger		
[p t k]	[b d g]	[β ð γ]
#_	#_	
N_V	N_V	
S_V		S_V
		V_V
		V_S/N

Functional considerations: Weak minimal pairs?

la cama [la gama] vs. la gama [la γama]
cuatro [kwadro] vs. cuadro [kwaðro]
paco [pago] vs. pago [payo]
literatura [literadura] vs. litera dura [litera ðura]
grato [grado] vs. grado [graðo]
la boca [la boka] vs. la boca [la βoka] ...

PHONOLOGY

general spirantisation

Constraint ranking:
*[+cont][-cont, -nasal] >> Ident(cont)

Positional markedness excludes other environments (left-hand blockers)
Spirantisation manifested as feature adjacency

Derivation of the word *mago* 'magician'

mago	*[+cont] [-cont, -nasal]	Ident (cont)
b. mago	*!	
c. ☞ mayo		*

postvocalic voicing

Constraint ranking:
*V[-cont, -voice] >> Ident(voice)

Derivation of the word *máquina* 'machine'
*I assume that spirantised segments are approximants

makina	*V [-cont, -voice]	Ident (voice)
a. mákina	*!	
b. ☞ mágina		*

*See Mascará (1991) for arguments concerning the treatment of /l as +/-continuant

Both voicing and spirantisation are part of lenition processes that penalise oral constriction, voicing and aperture are promoted in sonorant contexts, in line with lenition scales

The two processes combined:

makina	*V [-cont, -voice]	*[+cont] [-cont, -nasal]	Ident (cont)	Ident (voice)
a. mákina	*!	*		
b. ☞ mágina		*!		*
c. ☞ máyina			*	*

Only **underlying** g spirantises

Question to be answered by phonological analysis:

Why does spirantisation not apply in derived voiced stops?

SYNCHRONIC CHAIN EFFECT: A → B → C

Solved by: Constraint conjunction (Kirchner 1997, Moreton & Smolensky 2002, Lubowicz 2002)

Conjoined faithfulness constraints: Ident(voice) & Ident(cont), multiple feature changes are disallowed, the constraint can be demoted

makina	*V [-cont, -voice]	Ident (voice) & Ident (cont)	*[+cont] [-cont, -nasal]	Ident (cont)	Ident (voice)
a. mákina	*!		*		
b. ☞ mágina			*		*
c. máyina		*!		*	*

OTHER PROBLEMS:

Consonant deletion as a blocker

Coda consonants are weakened and deleted both inside words (optionally) and across word boundaries

After coda deletion the following stop becomes postvocalic, voicing does not apply

The undominated position of the *V [-cont, -voice] constraint makes it impossible to stop voicing in OT

pensar tonterias	*V [-cont, -voice]	*C]Coda	Ident(voice)	Max(seg)
a. pensar tonteria		*!		
b. ☞ pensa tonteria	*!			*
c. ☞ pensa donteria			*	*

No stratum junction

Deletion is in a counter-feeding relationship with voicing, but both processes are phrase-level (resyllabification, application across wd# but notpost-pausally)

Non-locality

Local onjunction cannot be invoked because deletion applies to a different segment than voicing: Ident (voice) & Max(seg) is too strong

No harmonic mapping can predict waiting with deletion until the end of phonology

POSSIBLE APPROACHES:

Containment / turbidity, covert structure, ~stray erasure, difference between the projected and the pronounced (Prince&Smolensky 1993, van Oostendorp 2006, Trommer 2011)

pensar tonterias	*V [-cont, -voice]	*C]Coda	Ident(voice)	Max(seg)	Parse(seg)
a. pensar tonteria		*!			
b. pensa tonteria	*!			*	
c. pensa donteria			*!	*	
d. ☞ pensa[r] tonteria[s]					*

Gestural masking. Cross-tier gestural overlap may lead to apparent deletion in perceptual terms (Browman & Goldstein 1990, Bradley 2007) Requires empirical evidence, but would be in line with the observed variability and the gathered phonetic evidence