

# Glide phonotactics in varieties of Catalan (and Spanish)\*

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Going Romance 29

10 December 2015

## OUTLINE

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## 1 INTRODUCTION

- The palatal glide /j/ and the labiovelar glide /w/ display a vast array of variation in Catalan & in Castilian Spanish, depending on *a*) the syllabic position and *b*) the segmental context in which they occur.
- This variation comprises various processes of strengthening and weakening:

### (1) Summary of glide outcomes

Position Variety	Majorcan Eastern Catalan	Central Eastern Catalan	Castilian Spanish
Simplicex coda	Preservation re[j], ca[w] 'king', '(s)he falls'	Preservation re[j], ca[w] 'king', '(s)he falls'	Preservation re[j], fa[w]na 'king', 'fauna'
Word- initial simplex onset	Preservation [j]ogurt, [w]eb 'yogurt', 'website'	Preservation [j]ogurt, [w]eb 'yogurt', 'website'	Strengthening [dʒ]ogur, [gw]eb 'yogurt', 'website'
Postvocalic simplex onset /j/	Weakening, conditioned deletion / Deletion fe[e]a, fi[Ø]a / fe[Ø]a, fi[Ø]a '(s)he was doing', 'daughter'	Preservation fe[j]a '(s)he was doing'	Strengthening ma[j]o 'May'
Postvocalic simplex onset /w/	Strengthening / Preservation, conditioned deletion ca[v]en / ca[w]en, bo[Ø]et 'they fall', 'ox DIM.'	Preservation ca[w]en 'they fall'	Strengthening a[yw]ecar 'to hollow out'

\* This work has been supported by the projects FFI2013-46987-C3-1-P (Spanish Government) and 2014SGR918 (Catalan Government), and it is inscribed within the research group GEVaD (<http://www.ub.edu/GEVAD/>).

## 2 GOALS AND THEORETICAL ASSUMPTIONS

### 2.1 GOALS

- To outline a typological comparison of the glide phonotactic patterns attested across some Catalan and Spanish varieties. (Main focus = Majorcan Eastern Catalan)
- To suggest a formal account of these patterns, framed within Optimality Theory, and more specifically within the Split Margin approach (Baerstch 2002) to syllable organization.
- To show that, to formalize the whole variation, both *a*) markedness constraints related to intrasyllabic organization (Baerstch 2002) and *b*) markedness constraints referring to the harmony of segments in intervocalic position (Kirchner 1998; Uffmann 2005) are necessary.

### 2.2 THEORETICAL ASSUMPTIONS

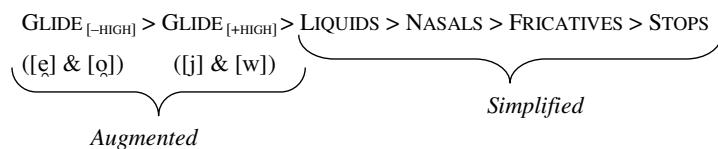
#### 2.2.1 Assumptions about the sonority scale

##### (2) Assumed sonority scale

GLIDE<sub>[−HIGH]</sub> > GLIDE<sub>[+HIGH]</sub> > LIQUIDS > NASALS > FRICATIVES > STOPS  
 ([e] & [ø])    ([j] & [w])



##### (3) Sonority distinctions (relevant for Majorcan Catalan)



- [e] & [ø] = centralized and open (non-high) glides, i.e. GLIDE<sub>[−HIGH]</sub>
- [j] & [w] = peripheral and closed (high) glides, i.e. GLIDE<sub>[+HIGH]</sub>

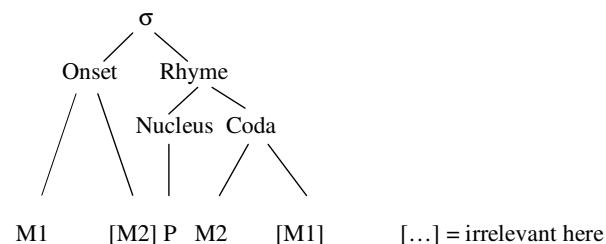
[For the articulatory and the acoustic differences between [j] and [e], see Mascaró & Rafel (1981) and Recasens & Espinosa (2005).]

#### 2.2.2 Formal assumptions

##### (4) The Split Margin approach to syllable organization

The Split Margin approach refines Prince & Smolensky's hierarchy (1993/2004) by establishing a straightforward correlation between the constituents of the syllable. This hierarchy identifies three types of constituents that behave alike (5) and which are logically targeted by three distinct universal hierarchies (6): M1, which stands for a singleton onset, for the first element of a complex onset and for the second element of a complex coda; M2, which stands for a singleton coda, for the second element of a complex onset and for the first element of a complex coda; and P, standing for the peak.

##### (5) Associated syllabic constituents (Baerstch 1998, 2002)



##### (6) Constraint hierarchies affecting the margins (M1 & M2)

- The constraint hierarchy governing the M1 constituent gives preference to low sonority segments (6a):
  - Constraint hierarchy for M1 (\*M1/λ)
 
$$\begin{aligned} *M1/GLIDE_{[-HIGH]} >> *M1/GLIDE_{[+HIGH]} >> \\ *M1/LIQUID >> *M1/NASAL >> *M1/FRICATIVE >> *M1/STOP \end{aligned}$$
- The constraint hierarchy governing the M2 constituent gives preference to high sonority segments (6b):
  - Constraint hierarchy for M2 (\*M2/λ)
 
$$\begin{aligned} *M2/STOP >> *M2/FRICATIVE >> *M2/NASAL >> *M2/LIQUID >> \\ *M2/GLIDE_{[+HIGH]} >> *M2/GLIDE_{[-HIGH]} \end{aligned}$$

## (7) Segmental preferences in intervocalic position

In intervocalic position (and also in postvocalic and preglide position), elements of high sonority are preferred, because this simplifies the articulatory gesture (Kirchner 1998; Uffmann 2005). (→ Involved in processes of lenition & in the quality of the epenthetic segments.) → Smooth VCV transitions.

(8) Constraint hierarchy for M1 in intervocalic position ( $*V\lambda_{M1}V$ )

- The constraint hierarchy governing the VM1V constituent gives preference to high sonority segments as well (8a):

a. Constraint hierarchy for intervocalic M1 ( $*V\lambda_{M1}V$ )  
 $*VSTOP_{M1}V \gg *VFRICATIVE_{M1}V \gg *VNASAL_{M1}V \gg *VLIQUID_{M1}V \gg$   
 $*VGLIDE_{[+HIGH], M1}V \gg *VGLIDE_{[-HIGH], M1}V$

⌚ Note, how...

- $*M1/GLIDE_{[-HIGH]} \gg *M1/GLIDE_{[+HIGH]}$  generally favors [j] & [w]
- $*VGLIDE_{[+HIGH], M1}V \gg *VGLIDE_{[-HIGH], M1}V$  locally favors [ɛ̃] & [ø̃]

↓  
In intervocalic position...

Crucial interaction between both constraint hierarchies

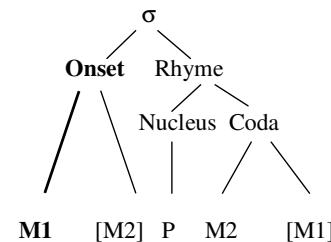
## 3 MAJORCAN CATALAN: A MULTIPLE-WAY ADJUSTING VARIETY

## 3.1 Data

[Data from Bibiloni (1983), Dols (2000) and personal inquiries]

## 3.1.1 The palatal glide

→ SIMPLEX ONSET POSITION



## (9) Word-initial position (mostly loanwords) → preservation

Most varieties	Some other varieties
[j]anqui	‘Yankee’
[j]ate	‘yacht’
[j]ode	‘iodine’
[j]ogurt	‘yogurt’

(10) Intervocalic position → weakening / deletion  
(in contact with non-front vowels)

a. Varieties A	b. Varieties B	
bada[ɛ̃]a	bada[∅]a	‘(s)he yawns’ (cf. <i>bada[j]</i> , ‘I yawn’)
embu[ɛ̃]a	embu[∅]a	‘(s)he mixes up’ (cf. <i>embu[j]</i> , ‘I mix up’)
ta[ɛ̃]a	ta[∅]a	‘(s)he cuts’ (cf. <i>ta[j]</i> , ‘I cut’)
du[ɛ̃]a	du[∅]a	‘(s)he was bringing’ (cf. <i>du[j]s</i> , ‘you bring’)
fe[ɛ̃]a	fe[∅]a	‘(s)he was doing’ (cf. <i>fe[j]s</i> , ‘you do’)

- (11) Intervocalic position → deletion  
(in contact with the front vowel *i*)

*All varieties (A, B)*

fi[Ø]a	'daughter'	(cf. <i>fi[j]</i> , but also <i>fi[Ø]</i> , 'son')
coni[Ø]era	'burrow'	(cf. <i>coni[j]</i> , but also <i>coni[Ø]</i> , 'rabbit')
ve[Ø]íssim	'old MASC. SUPERL.'	(cf. <i>ve[j]</i> , 'old MASC.')
embu[Ø]i	'he mixes up SUBJ.'	(cf. <i>embu[j]</i> , 'I mix up')

- (12) Intervocalic position → deletion (and weakening)  
(in contact with the front vowel *e*)

<i>All varieties (A, B)</i>		<i>Varieties A</i>	
ve[Ø]a	( <i>yella</i> , 'old FEM.')	ve[e]ura	'old age'
ve[Ø]et	( <i>vellet</i> , 'old man DIM.')	agu[e]er	'thread'
ve[Ø]ona	( <i>yellona</i> , 'old woman DIM.')		

- (13) Intervocalic position (clitic sequences) → weakening / deletion (as in (10))

<i>Varieties A</i>	<i>Varieties B</i>	
No <b>hi</b> [e] ha ningú	No <b>hi</b> [Ø] ha ningú	'There is nobody'
No <b>hi</b> [e] he anat, a París (# <i>No he anat a París</i> )	No <b>hi</b> [Ø] he anat, a París (= <i>No he anat a París</i> )	'I didn't go, to Paris'
<b>hi</b> [əe] ha	<b>hi</b> [əØ] ha	'there is'
<b>hi</b> [əe] hagi	<b>hi</b> [əØ] hagi	'there is SUBJ.'

(Cf. **hi** [əj] va 'he goes there'; **hi** [əj] veu, 'he is able to see')

## → Productivity of the processes of weakening and deletion

- (14) Morphophonemic alternations (inflection & derivation)

du[e]a ~ du[Ø]a	'I was bringing'	vs.	du[j]s, du[j]m	'you, we bring'
ta[e]et ~ ta[Ø]et	'cut DIM.'	vs.	ta[j], ta[j]s	'cut, cuts'

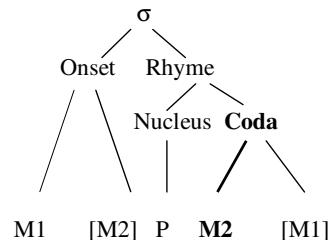
## (15) Phrasal phonology

ma[e] he dit	vs.	ma[j]
'I have never said'		'never'

## (16) Loanwords and L2 phonology

Juga a la Pla[e] ara	vs.	Pla[j]
'Play with the Play now'		'Play (Station)'
Estàs on [faeṛ]		
'You are on fire'		

## → CODA POSITION

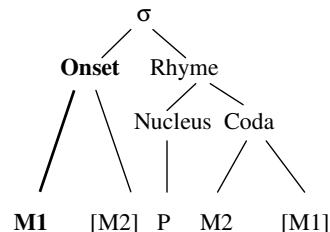


## (17) Word-final and word-internal position

<i>All varieties (A, B)</i>			
ma[j]	'never'	esca[j]re	'corner'
re[j]	'king'	ca[j]re	'aspect'

### 3.1.2 The labiovelar glide

→ ONSET POSITION



- (18) Word-initial position (mostly loanwords) → preservation

All varieties (I, II)

[w]ep!	'hey!'
[w]eb	'website'
[w]isky	'whisky'
[w]atsapp	'whatsapp'
[w]ifi	'Wi-Fi'

- (19) Intervocalic position → preservation / “strengthening”

Varieties I	Varieties II		
ca[w]en	ca[v]en	'they fall'	(cf. <i>ca</i> [w], '(s)he falls')
di[w]en	di[v]en	'they say'	(cf. <i>di</i> [w], '(s)he says')
cre[w]eta	cre[v]eta	'cross DIM.'	(cf. <i>cre</i> [w], 'cross')
pe[w]et	pe[v]et	'foot DIM.'	(cf. <i>pe</i> [w], 'foot')

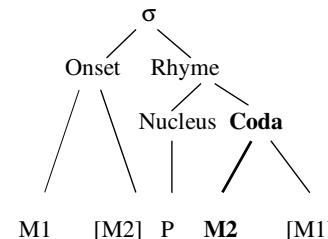
- (20) Intervocalic position (across words) → preservation / “strengthening”

Varieties I	Varieties II		
es me[w] amic	es me[v] amic	'my friend'	(cf. <i>es me</i> [w], 'my')
bla[w] i blanc	bla[v] i blanc	'blue and white'	(cf. <i>bla</i> [w], 'blue')

- (21) Intervocalic position → deletion / “strengthening”  
(in contact with a labial mid back vowel)

Varieties I	Varieties II		
bo[Ø]et	bo[v]et	'ox DIM.'	(cf. <i>bo</i> [w], 'ox')
po[Ø]al	po[v]al	'bucket'	(cf. <i>po</i> [w], 'well')
es me[Ø] homo	es me[v] homo	'my husband'	(cf. <i>es me</i> [w], 'my')
co[Ø] un poc	co[v] un poc	'(s)he cooks a little'	(cf. <i>co</i> [w], '(s)he cooks')
po[Ø] immens	po[v] immens	'huge well'	(cf. <i>po</i> [w], 'well')

→ CODA POSITION



- (22) Word-final and word-internal position → preservation

All varieties (I, II)			
bo[w]	'ox'	co[w]re	'to cook'
po[w]	'well'	mo[w]re	'to move'
me[w]	'my'	pa[w]ta	'pattern'

→ Productivity of the process of strengthening

Dubious: see (31).

### 3.2 Descriptive generalizations and analysis

#### Intervocalic position ( $V\lambda_{M1}V$ )

**3.2.1** Varieties with weakening of the palatal glide (see 10a: *bada[ɛ]a*) and conditioned (apparent) deletion (see 11: *fi[Ø]a*; see 12: *ve[Ø]a*)

*Descriptive generalization:* A process of weakening applies intervocally, unless the palatal glide and the adjacent vowel are similar enough (i.e. share the feature [palatal]), in which case a process of fusion (“apparent deletion”) is triggered.

(23) Weakening in contact with a non-front (non-palatal) vowel

$f/\text{ɛ}_1\text{j}_2+\text{ə}/$	MAX-[PAL]	*VGLIDE <sub>[+HIGH], M1</sub> V	ID-[PAL]	ID-[c-cons]	ONSET	*M1/GLIDE <sub>[-HIGH]</sub>	VGLIDE <sub>[-HIGH], M1</sub> V	*M1/GLIDE <sub>[+HIGH]</sub>
a. [ɛ <sub>1</sub> .j <sub>2</sub> ə]		*!						*
b. [ɛ <sub>1</sub> .ɛ <sub>2</sub> ə]						*	*	
c. [ɛ <sub>1</sub> .ə]	*!				*			
d. [ɛ <sub>1,2</sub> .ə]			*!		*			

A. Partial rankings and ranking arguments:

A1. \*VGLIDE<sub>[+HIGH], M1</sub> V >> \*M1/GLIDE<sub>[-HIGH]</sub>, \*VGLIDE<sub>[-HIGH], M1</sub> V  
→ weakening over preservation (23b vs. 23a)

A2. MAX-[PAL] >> \*M1/GLIDE<sub>[-HIGH]</sub>, \*VGLIDE<sub>[-HIGH], M1</sub> V  
→ weakening over deletion (23b vs. 23c)

A3. ID-[PAL] >> \*M1/GLIDE<sub>[-HIGH]</sub>, \*VGLIDE<sub>[-HIGH], M1</sub> V  
→ weakening over fusion (23b vs. 23d)

A4. ID-[PAL]  
→ fusion only possible when both adjacent segments share the feature [palatal] (see the following tableau)

(24) Fusion (apparent deletion) in contact with a front (palatal) vowel

$f/i_1j_2+\text{ə}/$	MAX-[PAL]	*VGLIDE <sub>[+HIGH], M1</sub> V	ID-[PAL]	ID-[c-cons]	ONSET	*M1/GLIDE <sub>[-HIGH]</sub>	*VGLIDE <sub>[-HIGH], M1</sub> V	*M1/GLIDE <sub>[+HIGH]</sub>
a. [i <sub>1</sub> .j <sub>2</sub> ə]		*!						*
b. [i <sub>1</sub> .ɛ <sub>2</sub> ə]							*	*!
c. [i <sub>1</sub> .ə]		*!					*	
d. [i <sub>1,2</sub> .ə]							*	

B. Partial rankings and ranking arguments:

B1. MAX-[PAL], \*VGLIDE<sub>[+HIGH], M1</sub> V, ID-[PAL]  
→ tie between weakening and fusion (24b vs. 24d)

B2. ONSET, \*M1/GLIDE<sub>[-HIGH]</sub>, \*VGLIDE<sub>[-HIGH], M1</sub> V  
(emergence of \*M1/GLIDE<sub>[-HIGH]</sub>, \*VGLIDE<sub>[-HIGH], M1</sub> V)  
→ fusion over weakening (24d vs. 24b)

**3.2.2** Varieties with generalized deletion (see 10b: *bada[Ø]a*; 11: *fi[Ø]a*, 12: *ve[Ø]a*).

*Descriptive generalization:* A process of deletion applies intervocally, unless the palatal glide and the adjacent vowel are similar enough (i.e. share the feature [palatal]), in which case a process of fusion is triggered. (The last process is identical to the one found in varieties with weakening / fusion.)

## (25) Deletion in contact with a non-front (non-palatal) vowel

f/ə <sub>1</sub> j <sub>2</sub> +ə/	*VGLIDE <sub>[+HIGH]</sub> , M <sub>1</sub> V	ID-[PAL]	ID-[–cons]	ONSET	*M <sub>1</sub> /GLIDE <sub>[–HIGH]</sub>	*VGLIDE <sub>[–HIGH]</sub> , M <sub>1</sub> V	MAX-[PAL]	*M <sub>1</sub> /GLIDE <sub>[+HIGH]</sub>
a. [ə <sub>1</sub> .j <sub>2</sub> ə]	*!							*
b. [ə <sub>1</sub> .ɛ <sub>2</sub> ə]				*	*	*		
c. [ə <sub>1</sub> .ə]			*				*	
d. [ə <sub>1,2</sub> .ə]	*	!	*					

C. Partial ranking and ranking argument:

## C1. Demotion of MAX-[PAL]:

MAX-[PAL] >> \*M<sub>1</sub>/GLIDE<sub>[–HIGH]</sub>, \*VGLIDE<sub>[–HIGH]</sub>, M<sub>1</sub> V >> MAX-[PAL]

→ deletion over weakening (25c vs. 25b)

## C2. ID-[PAL] prevents from fusion

## (26) Fusion in contact with a front (palatal) vowel

f/i <sub>1</sub> j <sub>2</sub> +ə/	*VGLIDE <sub>[+HIGH]</sub> , M <sub>1</sub> V	ID-[PAL]	ID-[–cons]	ONSET	*M <sub>1</sub> /GLIDE <sub>[–HIGH]</sub>	*VGLIDE <sub>[–HIGH]</sub> , M <sub>1</sub> V	MAX-[PAL]	*M <sub>1</sub> /GLIDE <sub>[+HIGH]</sub>
a. [i <sub>1</sub> .j <sub>2</sub> ə]	*	!						*
b. [i <sub>1</sub> .ɛ <sub>2</sub> ə]				*	*	*		
c. [i <sub>1</sub> .ə]			*				*	
d. [i <sub>1,2</sub> .ə]			*					

D. Partial ranking and ranking argument:

## D1. Emergence of MAX-[PAL]

→ fusion over deletion (26d vs. 26c)

**Summary:**

- In contact with a non-front vowel → different rankings / different outcomes (weakening vs. deletion)
- In contact with a front-vowel → different rankings / identical outcomes (fusion = fusion)

**3.2.3 Varieties with preservation** of the labiovelar glide (19a: *ca[w]en*; 20a: *es me[w] amic*) and **conditioned deletion** (21a: *bo[Ø]et*; *es me[Ø] homo*).

*Descriptive generalization:* There is preservation intervocally, unless the labiovelar glide and the adjacent vowel are similar enough (i.e. share the feature [labial]), in which case a process of fusion is triggered.

Reminder! Different fates for the palatal glide intervocally, relevant here:

→ Varieties with weakening of /j/ and preservation of /w/: Same ranking as in (23), for the weakening of the palatal glide, plus \*[q] and MAX-[PAL] → MAX-[LAB]; ID-[PAL] → ID-[LAB].

→ Varieties with deletion of /j/ and preservation of /w/: Same ranking as in (25), for the deletion of the palatal glide, plus \*[q] and MAX-[PAL] → MAX-[LAB]; ID-[PAL] → ID-[LAB] BUT NO demotion of MAX-[LAB].

Note how this last pattern (with deletion of /j/ and preservation of /w/) makes it necessary to split MAX(F) into MAX-[PAL] and MAX-[LAB] (i.e. they need to be freely rankable in order to explain the opposite behaviors).

(27) Preservation (in contact with a non-labial mid back vowel)

p/ə₁w₂+ə/t	*[ø]	MAX-[LAB]	*VGLIDE <sub>[+HI], M₁V</sub>	ID-[LAB]	ID-[–cons]	ONSET	*M₁/GLIDE <sub>[–HI]</sub>	*VGLIDE <sub>[–HI], M₁V</sub>	*M₁/GLIDE <sub>[+HI]</sub>
a. [ə₁.w₂ə]			*						*
b. [ə₁.Q₂ə]	*						*	!	
c. [ə₁.ə]		*				!			
d. [ə₁,₂.ə]			*			!			

E. Partial rankings and ranking arguments:

E1. \*[ø], MAX-[LAB], \*VGLIDE<sub>[+HIGH], M₁V</sub>, ID-[LAB]

→ tie between preservation (27a), weakening (27b), deletion (27c) and fusion (27d)

E2. ID-[LAB] blocks fusion

E3. Emergence of ONSET, \*M₁/GLIDE<sub>[–HIGH]</sub> \*M₁/GLIDE<sub>[+HIGH]</sub>

→ preservation (27a) over other strategies (27b, c, d)

E4. ONSET is decisive for the first time.

(28) Fusion (“apparent deletion”) in contact with a labial mid back vowel

b/o₁w₂+ə/t	*[ø]	MAX-[LAB]	*VGLIDE <sub>[+HI], M₁V</sub>	ID-[LAB]	ID-[–cons]	ONSET	*M₁/GLIDE <sub>[–HI]</sub>	*VGLIDE <sub>[–HI], M₁V</sub>	*M₁/GLIDE <sub>[+HI]</sub>
a. [o₁.w₂ə]			!						*
b. [o₁.Q₂ə]	!						*	*	
c. [o₁.ə]	!				*				
d. [o₁,₂.ə]					*				

F. Partial rankings and ranking arguments:

F1. \*VGLIDE<sub>[+HI], M₁V</sub> >> ONSET

→ fusion (28d) over preservation (28a)

F2. ID-[LAB] satisfied by the candidate with fusion

3.2.4 Varieties with “apparent strengthening” of the labiovelar glide intervocally, without cases of deletion (19b: *ca[v]en*; 20a: *es me[v] amic*; 21a: *bo[v]et*; *es me[v] homo*).

(29) Ranking paradox:

→ Ranking for the weakening of the palatal glide:

\*VGLIDE<sub>[+HIGH], M₁V</sub> >> \*M₁/GLIDE<sub>[–HIGH]</sub>, \*VGLIDE<sub>[–HIGH], M₁V</sub>

→ Universal ranking (fixed):

\*VFRICATIVE<sub>M₁V</sub> >> \*VGLIDE<sub>[+HIGH], M₁V</sub>

→ By transitivity:

\*VFRICATIVE<sub>M₁V</sub> >> \*VGLIDE<sub>[+HI], M₁V</sub> >> \*M₁/GLIDE<sub>[–HI]</sub>, \*VGLIDE<sub>[–HI], M₁V</sub>

(Weakening is always better than strengthening)

→ Considering \*[ø]... and given \*VFRICATIVE<sub>M₁V</sub> >> \*VGLIDE<sub>[+HIGH], M₁V</sub>

(Preservation is always better than strengthening, and weakening)

(30) Illustration: *universal ranking*

p/ə₁w₂+ə/t	*VFRICATIVE <sub>M₁V</sub>	*[ø]	*VGLIDE <sub>[+HI], M₁V</sub>	ID-[–cons]	ONSET	*M₁/GLIDE <sub>[–HI]</sub>	*VGLIDE <sub>[–HI], M₁V</sub>	*M₁/GLIDE <sub>[+HI]</sub>
a. [ə₁.w₂ə]			*					*
b. [ə₁.Q₂ə]		*					*	!
c. [ə₁.v₂ə]	!				*			

(Simplified tableau)

## (31) Some empirical observations:

- The strengthening of the labiovelar glide in intervocalic position is a dubiously productive process (at least synchronically), since loans or learned words such as *Hawaii*, *Power* or *PowerPoint* are usually realized with [w]. (Also across words: *Glasgow ha guanyat* ‘Glasgow has won’.)
- This strengthening is not common in word-initial position, where it would be more justifiable (see 18) because the affected segment is not preceded by a vowel.
- There is an intricate diachronic evolution of words containing the alternation [v] ~ [w]:
  - first stage*: intervocalic [v] (*be[v]en* ‘they drink');
  - second stage*: intervocalic [w] (*be[w]en*, as in other Catalan varieties), probably by analogy to the form *be[w]* ‘(s)he drinks’;
  - third stage*: intervocalic [v] (*be[v]en*), maybe because of a previous stage with \*M1/GLIDE<sub>[+HI]</sub>>> \*VFRICATIVE<sub>M1</sub>V (cf. quality of the epenthetic consonants: *ra[v]ó* ‘reason’; *lle[v]ó* ‘lion’, etc.)

## (32) Subsequent assumptions about the UR:

- We assume that the underlying representation of forms showing the alternation [w] ~ [v] (as *di[w]* ~ *di[v]en*) displays two allomorphs, one with a final voiced labiodental fricative (/div/) and the other with a final labiovelar glide (/diw/).
- All instances of [v] in intervocalic position (alternating with [w] in word-final position) can be interpreted allomorphically: *cantaw* [w] ‘sing 2P PL.’, *cantav* *això* ‘sing 2P PL. this’, *cantau-ho* [v] ‘sing 2P PL. it’ (2P PL.: /w/ ~ /v/).

- We presume that the two allomorphs appear with the lexical precedence ‘fricative>glide’, as in {/div/>/diw/} for the stem of *diuen* (on lexically ordered allomorphs, see Bonet *et al.* 2007 and Mascaró 2007).
  - There is an independent argument for giving precedence to the fricative: the labiodental fricative is the variant appearing in onset position, which, as known, is a neutral position that favors faithfulness and thus avoids alterations (Beckman 2001).
  - The preference for the dominant allomorph is ensured by the constraint **PRIORITY**: “Respect lexical priority (ordering) of allomorphs” (Bonet *et al.* 2007: 902; Mascaró 2007: 726).

## (33) Selection of the allomorph with final /v/

/{div <sub>1</sub> > diw <sub>2</sub> }+ən/	PRIORITY	*VFRICATIVE <sub>M1</sub> V	*[q]	*VGLIDE <sub>[+HI]</sub> , M1V	ID- [-cons]	ONSET	*M1/GLIDE <sub>[-HI]</sub>	*VGLIDE <sub>[-HI]</sub> , M1V	*M1/GLIDE <sub>[+HI]</sub>
☞ a. ['di.vən] <sub>1</sub>	*								
b. ['di.wən] <sub>2</sub>	*!			*					*
c. ['di.ən] <sub>2</sub>	*!		*				*	*	

(Simplified tableau)

## F. Ranking argument:

F1: PRIORITY >> \*VFRICATIVE<sub>M1</sub>V

→ selection of the preferred allomorph, in spite of having an intervocalic fricative

Word-initial position (##λ<sub>M1</sub>V)

(34) Varieties with intervocalic weakening and word-initial preservation of /j/ + intervocalic preservation and word-initial preservation of /w/

/j <sub>1</sub> o <sub>2</sub> /gurt	MAX-[PAL]	ID-[PAL]	ID-[–cons]	ONSET	*M1/GLIDE <sub>[+H]</sub>	*M1/GLIDE <sub>[+H]</sub>
a. [j <sub>1</sub> o <sub>2</sub> ]					*	
b. [ɛ <sub>1</sub> o <sub>2</sub> ]					*!	
c. [o <sub>2</sub> ]	*!			*		
d. [ʒ <sub>1</sub> o <sub>2</sub> ]			*			
e. [dʒ <sub>1</sub> o <sub>2</sub> ]			*			
f. [ʃ <sub>1</sub> o <sub>2</sub> ]			*			

/w <sub>1</sub> e <sub>2</sub> /b	*[ɔ̃]	MAX-[LAB]	ID-[LAB]	ID-[–cons]	ONSET	*M1/GLIDE <sub>[+H]</sub>	*M1/GLIDE <sub>[+H]</sub>
a. [w <sub>1</sub> e <sub>2</sub> ]						*	
b. [ɔ̃e <sub>2</sub> ]	*!					*	
c. [e <sub>2</sub> ]		*			*		
d. [v <sub>1</sub> e <sub>2</sub> ]			*				

## G. Partial ranking and ranking arguments:

G1. Emergence of the \*M1/λ hierarchy

G2. ID-[–cons] >> \*M1/GLIDE<sub>[+H]</sub> >> ... >> \*M1/FRIC

→ preservation (34a [1<sup>st</sup> & 2<sup>nd</sup> tableaux]) over strengthening strategies (34d [1<sup>st</sup> & 2<sup>nd</sup> tableaux], e, f)

(35) Varieties with intervocalic deletion and word-initial preservation of /j/ + intervocalic preservation and word-initial preservation of /w/

/j <sub>1</sub> o <sub>2</sub> /gurt	ID-[PAL]	ID-[–cons]	ONSET	*M1/GLIDE <sub>[+H]</sub>	MAX-[PAL]	*M1/GLIDE <sub>[+H]</sub>
a. [j <sub>1</sub> o <sub>2</sub> ]						*
b. [ɛ <sub>1</sub> o <sub>2</sub> ]					*!	*
c. [o <sub>2</sub> ]					*	*
d. [ʒ <sub>1</sub> o <sub>2</sub> ]						
e. [dʒ <sub>1</sub> o <sub>2</sub> ]						
f. [ʃ <sub>1</sub> o <sub>2</sub> ]						

/w <sub>1</sub> e <sub>2</sub> /b	*[ɔ̃]	MAX-[LAB]	ID-[LAB]	ID-[–cons]	ONSET	*M1/GLIDE <sub>[+H]</sub>	*M1/GLIDE <sub>[+H]</sub>
a. [w <sub>1</sub> e <sub>2</sub> ]							*
b. [ɔ̃e <sub>2</sub> ]	*!					*	
c. [e <sub>2</sub> ]							
d. [v <sub>1</sub> e <sub>2</sub> ]							

## H. Partial ranking and ranking arguments:

H1. Emergence of the \*M1/λ hierarchy

H2. ID-[–cons] >> \*M1/GLIDE<sub>[+H]</sub> >> ... >> \*M1/FRIC

→ preservation (35a [1<sup>st</sup> & 2<sup>nd</sup> tableaux]) over strengthening strategies (35d [1<sup>st</sup> & 2<sup>nd</sup> tableaux], e, f)

## Word-final position ( $\lambda_{M2}$ )

(36) Selection of the allomorph with final /w/ (cf. (33))

$/\{ \text{div}_1 > \text{diw}_2 \} /$	*M2/FRICATIVE	PRIORITY	ID-[–cons]	ID-[H]	*M2/GLIDE <sub>[+H]</sub>	*M2/GLIDE <sub>[–H]</sub>
a. ['div] <sub>1</sub>	*!					
b. ['diw] <sub>2</sub>		*			*	
c. ['dig] <sub>2</sub>		*	*	*		*

I. Partial ranking and ranking arguments:

I1. Emergence of the \*M2/ $\lambda$  hierarchy

I2. \*M2/FRICATIVE >> PRIORITY

→ selection of the second choice allomorph (36b) over the default allomorph

(36a)

I3. ID-[H] >> \*M2/GLIDE<sub>[+H]</sub> >> \*M2/GLIDE<sub>[–H]</sub>

→ general preservation of high glides (36b) over lowered glides, more harmonic as M2 (36c)

## 4. CENTRAL EASTERN CATALAN: A NON-ADJUSTING VARIETY

- Always preservation of the glides, as M2 & also as M1.

→ Central Eastern Catalan is a faithful variety in which the markedness constraints \*M2/GLIDE<sub>[+H]</sub>, \*M1/GLIDE<sub>[+H]</sub> and VGLIDE<sub>[+H],M1</sub>V are consistently outranked by the relevant faithfulness constraints.

(For more, see Jiménez *et al.* in press.)

## 5. CASTILIAN SPANISH: A ONE-WAY ADJUSTING VARIETY

- M2: Always preservation of the glides.  
→ The markedness constraint \*M2/GLIDE<sub>[+H]</sub> is outranked by the relevant faithfulness constraints.
- M1: Always strengthening (via splitting of /w/ both in word-initial and intervocalic position; via affrication of /j/ in word-initial position and via fricativization in intervocalic position)  
→ Word-initial M1: /j/ & /w/ maximally reinforced. \*M1/Glide<sub>[+H]</sub> is located at the top of the ranking, crucially above the relevant faithfulness constraints.  
→ Intervocalic M1: /j/ & /w/ reinforced, but not maximally. In our approach, this is due to the conjoined action of \*M1/GLIDE<sub>[+H]</sub> and \*VSTOP<sub>M1</sub>V at the top of the ranking as well; as a result, neither the best consonants (an affricate or a stop) nor the worst ones (glides) in M1 are available as intervocalic M1.

(For more, see Jiménez *et al.* in press)

## 6. FINAL REMARKS

- The Split Margin Hierarchy (Baertsch 2002) induces most of the variation that Catalan & Spanish display:  
→ Less sonorous segments are preferred in M1.  
→ More sonorous segments are preferred in M2.
- We must consider, though, segmental strings to incorporate specific requirements affecting intervocalic onsets, where more sonorous segments are also preferred.
- The behavior of /j/ in Majorcan Catalan shows that the intervocalic position is not a structural version of M2, but a position with specific demands; in this case, an even lower degree of stricture than in M2 (due to \*VGLIDE<sub>[+HIGH],M1</sub>V).
- In Majorcan Catalan, the effects of \*VGLIDE<sub>[+HIGH],M1</sub>V are so strong, that not only a process of weakening (lenition) applies, but also various processes of contextually conditioned and not conditioned deletion (at the expense of violating ONSET).

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## CONSTRAINT DEFINITIONS

### Faithfulness constraints

- ID-[PAL]: Assign one violation mark for every palatal segment in  $S_1$  whose ouput correspondent in  $S_2$  is not palatal (see McCarthy & Prince 1995).
- ID-[LAB]: Assign one violation mark for every labial segment in  $S_1$  whose ouput correspondent in  $S_2$  is not labial (see McCarthy & Prince 1995).

ID-[–cons]: Assign one violation mark for every [–consonantal] segment in  $S_1$  whose ouput correspondent in  $S_2$  is not [–consonantal] (see McCarthy & Prince 1995).

MAX-[PAL]: Assign one violation mark for every palatal segment in  $S_1$  that has no correspondent in  $S_2$  (see McCarthy & Prince 1995).

MAX-[LAB]: Assign one violation mark for every labial segment in  $S_1$  that has no correspondent in  $S_2$  (see McCarthy & Prince 1995).

PRIORITY: Respect lexical priority (ordering) of allomorphs (Bonet *et al.* 2007: 902; Mascaró 2007: 726).

### Markedness constraints

\*M1/GLIDE<sub>[–HI]</sub>: Assign one violation mark for every [–HI] glide syllabified as the first element in an onset (it belongs to a universal constraint hierarchy; see Baerstch 2002).

└→ \*M1/GLIDE<sub>[+HI]</sub>: Assign one violation mark for every [+HI] glide syllabified as the first element in an onset.  
└→ ...

\*M2/FRICATIVE: Assign one violation mark for every fricative syllabified as the first element in a coda (it belongs to a universal constraint hierarchy; see Baerstch 2002).

└→ \*M2/GLIDE<sub>[+HI]</sub>: Assign one violation mark for every [+HI] glide syllabified as the first element in a coda.  
└→ ...

\*VFRICATIVEV: Assign one violation mark for every fricative syllabified in onset position and placed in intervocalic position (it belongs to a universal constraint hierarchy; see Kirchner 1998, Uffmann 2007).

└→ \*VGLIDE<sub>[+HI]</sub>, M<sub>1</sub>V: Assign one violation mark for every [+HI] glide syllabified in onset position and placed in intervocalic position.  
└→ ...

\*[Q]: Assign one violation mark for every glide specified as labial and [–HI] (feature co-occurrence / inventory constraint)