Glide phonotactics in varieties of Catalan (and Spanish)*

Clàudia Pons-Moll¹, Jesús Jiménez², Maria-Rosa Lloret¹

¹Universitat de Barcelona, ²Universitat de València

claudia.pons@ub.edu, jesus.jimenez@uv.es, mrosa.lloret@ub.edu

Radboud University

Nijmegen/Molenhoek

Going Romance 29

10 December 2015

OUTLINE

1. INTRODUCTION
2. GOALS AND THEORETICAL ASSUMPTIONS
3. MAJORCAN EASTERN CATALAN: A MULTIPLE-WAY ADJUSTING VARIETY
4. CENTRAL EASTERN CATALAN: A NON-ADJUSTING VARIETY (*quick overview!*)
5. CASTILIAN SPANISH: A ONE-WAY ADJUSTING VARIETY (*quick overview!*)
6. FINAL REMARKS

---

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
Simplex 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 [d͡ʒ]ogur, [gw]eb 'yogurt', 'website'
Postvocalic simplex onset /j/	Weakening, conditioned deletion / Deletion fe[e̞]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[ɣw]ecar 'to hollow out'

---

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 (Baertsch 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$_{[-HIGH]}$ > GLIDE$_{[+HIGH]}$ > LIQUIDS > NASALS > FRICATIVES > STOPS

([e̞] & [o̞])   ([j] & [w])

→

higher sonority   lower sonority

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

GLIDE$_{[-HIGH]}$ > GLIDE$_{[+HIGH]}$ > LIQUIDS > NASALS > FRICATIVES > STOPS

([e̞] & [o̞])   ([j] & [w])

Simplified

Augmented

- [e̞] & [o̞] = centralized and open (non-high) glides, *i.e.* GLIDE$_{[-HIGH]}$
- [j] & [w] = peripheral and closed (high) glides, *i.e.* GLIDE$_{[+HIGH]}$

[For the articulatory and the acoustic differences between [j] and [e̞], 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* (Baertsch 1998, 2002)

σ

Onset   Rhyme

Nucleus Coda

M1   [M2] P M2   [M1]   […] = irrelevant here
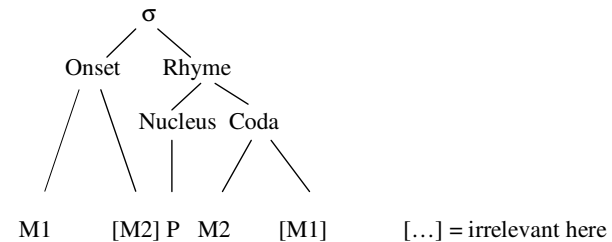
(6) *Constraint hierarchies affecting the margins (M1 & M2)*

- The constraint hierarchy governing the M1 constituent gives preference to low sonority segments (6a):

  a. Constraint hierarchy for M1 (*M1/λ)

  *M1/GLIDE$_{[-HIGH]}$ >> *M1/ GLIDE$_{[+HIGH]}$ >>
  *M1/LIQUID >> *M1/NASAL >> *M1/FRICATIVE >> *M1/STOP

- The constraint hierarchy governing the M2 constituent gives preference to high sonority segments (6b):

  b. Constraint hierarchy for M2 (*M2/λ)

  *M2/ STOP >> *M2/ FRICATIVE >> *M2/NASAL >> *M2/LIQUID >>
  *M2/ GLIDE$_{[+HIGH]}$ >> *M2/ GLIDE$_{[-HIGH]}$

(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). ($\rightarrow$ Involved in processes of lenition & in the quality of the epenthetic segments.) $\rightarrow$ Smooth VCV transitions.

(8) *Constraint hierarchy for M1 in intervocalic position* (*Vλ_{M1}V)

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

    a. Constraint hierarchy for intervocalic M1 (*Vλ_{M1}V)
    *VSTOP$_{M1}$V >> *VFRICATIVE$_{M1}$V >> *VNASAL$_{M1}$V >> *VLIQUID$_{M1}$V >> **VGLIDE$_{[+HIGH], M1}$V >> *VGLIDE$_{[-HIGH], M1}$V**

☞ Note, how...

- ***M1/GLIDE$_{[-HIGH]}$ >> *M1/ GLIDE$_{[+HIGH]}$** generally favors [j] & [w]
- ***VGLIDE$_{[+HIGH], M1}$V >> *VGLIDE$_{[-HIGH], M1}$V** locally favors [e̞] & [o̞]
    $\downarrow$
    In intervocalic position...
    Crucial interaction between both constraint hierarchies
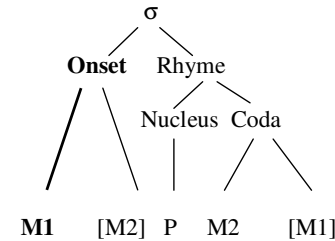
3   MAJORCAN CATALAN: A MULTIPLE-WAY ADJUSTING VARIETY

3.1   Data

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

3.1.1   The palatal glide

$\rightarrow$ SIMPLEX ONSET POSITION

(9) Word-initial position (mostly loanwords) $\rightarrow$ preservation

Most varieties		*Some other varieties*	
[j]anqui	'Yankee'	[ʒ]ogurt	'yogurt'
[j]ate	'yacht'	[ʒ]ot	'yacht'
[j]ode	'iodine'		
[j]ogurt	'yogurt'		

(10)   Intervocalic position $\rightarrow$ weakening / deletion
       (in contact with non-front vowels)

a. *Varieties A*	b. *Varieties B*		
bada[e̞]a	bada[Ø]a	'(s)he yawns'	(cf. *bada*[j], 'I yawn')
embu[e̞]a	embu[Ø]a	'(s)he mixes up'	(cf. *embu*[j], 'I mix up')
ta[e̞]a	ta[Ø]a	'(s)he cuts'	(cf. *ta*[j], 'I cut')
du[e̞]a	du[Ø]a	'(s)he was bringing'	(cf. *du*[j]*s*, 'you bring')
fe[e̞]a	fe[Ø]a	'(s)he was doing'	(cf. *fe*[j]*s*, 'you do')

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

   All varieties (A, B)

   fi[Ø]a   'daughter'   (cf. *fi*[j], but also *fi*[Ø], 'son')

   coni[Ø]era   'burrow'   (cf. *coni*[j], but also *coni*[Ø], 'rabbit')

   ve[Ø]íssim   'old MASC. SUPERL.'   (cf. *ve*[j], 'old MASC.')

   embu[Ø]i   'he mixes up SUBJ.'   (cf. *embu*[j], 'I mix up')

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

   All varieties (A, B)   *Varieties A*

   ve[Ø]a   (*vella*, 'old FEM.')   ve[e̦]ura   'old age'

   ve[Ø]et   (*vellet*, 'old man DIM.') agu[e̦]er   'thread'

   ve[Ø]ona   (*vellona*, 'old woman DIM.')

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

   Varieties A   *Varieties B*

   No **hi** [e̦] ha ningú   No **hi** [Ø] ha ningú   'There is nobody'

   No **hi** [e̦] he anat, a París   No **hi** [Ø] he anat, a París   'I didn't go, to Paris'

    (≠ *No he anat a París*)   (= *No he anat a París*)   'I didn't go to Paris'

   hi [əe̦] ha   **hi** [əØ] ha   'there is'

   hi [əe̦] hagi   **hi** [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[e̦]a ~ du[Ø]a 'I was bringing' vs. du[j]s, du[j]m   'you, we bring'

   ta[e̦]et ~ ta[Ø]et 'cut DIM.'   vs. ta[j], ta[j]s   'cut, cuts'

(15)   Phrasal phonology

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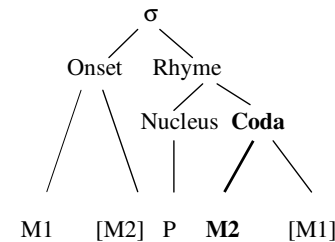
   'I have never said'   'never'

(16)   Loanwords and L2 phonology

   Juga a la Pla[e̦] ara   vs.   Pla[j]

   'Play with the Play now'   'Play (Station)'

   Estàs *on* [fae̦ɾ]

   'You are on fire'

→ CODA POSITION

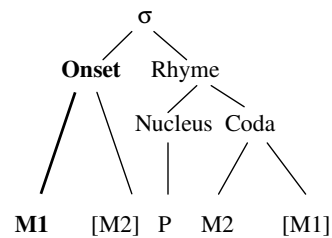(17)   Word-final and word-internal position

   All varieties (A, B)

   ma[j]   'never'   esca[j]re   'corner'

   re[j]   'king'   ca[j]re   'aspect'

3.1.2 The labiovelar glide

→ ONSET POSITION

```
              σ
            /   \
      Onset     Rhyme
       /|       /    \
      / |  Nucleus  Coda
     /  |     |     /  \
   M1 [M2]    P    M2  [M1]
```

(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. *ca*[w], '(s)he falls')
di[w]en	di[v]en	'they say'	(cf. *di*[w], '(s)he says)
cre[w]eta	cre[v]eta	'cross DIM.'	(cf. *cre*[w], 'cross')
pe[w]et	pe[v]et	'foot DIM.'	(cf. *pe*[w], 'foot')

(20)   Intervocalic position (across words) → preservation / "strengthening"

Varieties I	*Varieties II*		
es me[w] amic	es me[v] amic	'my friend'	(cf. *es me*[w], 'my')
bla[w] i blanc	bla[v] i blanc	'blue and white'	(cf. *bla*[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. *bo*[w], 'ox')
po[Ø]al	po[v]al	'bucket'	(cf. *po*[w], 'well')
es me[Ø] homo	es me[v] homo	'my husband'	(cf. *es me*[w], 'my')
co[Ø] un poc	co[v] un poc	'(s)he cooks a little'	(cf. *co*[w], '(s)he cooks')
po[Ø] immens	po[v] immens	'huge well'	(cf. *po*[w], 'well')

→ CODA POSITION

```
              σ
            /   \
      Onset     Rhyme
       /        /    \
      /    Nucleus  **Coda**
     /        |      /  \
   M1 [M2]    P    **M2** [M1]
```
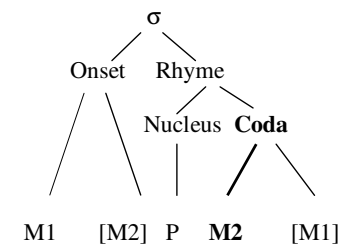
(22)   Word-final and word-internal position → preservation

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 (Vλ_{M1}V)

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

> *Descriptive generalization:* A process of weakening applies intervocalically, 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/ə₁j₂+ə/	MAX-[PAL]	*VGLIDE[+HI],M1V	ID-[PAL]	ID-[−cons]	ONSET	*M1/GLIDE[−HI]	*VGLIDE[−HI],M1V	*M1/GLIDE[+HI]
a. [ə₁.j₂ə]		*!						*
☞ b. [ə₁.ẹ₂ə]						*	*	
c. [ə₁.ə]	*!				*			
d. [ə₁,₂.ə]			*!		*			

A.   Partial rankings and ranking arguments:

   A1. *VGLIDE[+HIGH],M1V >> *M1/GLIDE[−HIGH], *VGLIDE[−HIGH],M1V
      → weakening over preservation (23b vs. 23a)

   A2. MAX-[PAL] >> *M1/GLIDE[−HIGH], *VGLIDE[−HIGH],M1V
      → weakening over deletion (23b vs. 23c)

   A3. ID-[PAL] >> *M1/GLIDE[−HIGH], *VGLIDE[−HIGH],M1V
      → 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/i₁j₂+ə/	MAX-[PAL]	*VGLIDE[+HI],M1V	ID-[PAL]	ID-[−cons]	ONSET	*M1/GLIDE[−HI]	*VGLIDE[−HI],M1V	*M1/GLIDE[+HI]
a. [i₁.j₂ə]		*!						*
b. [i₁.ẹ₂ə]						*	*!	
c. [i₁.ə]	*!				*			
☞ d. [i₁,₂.ə]					*			

B. Partial rankings and ranking arguments:

   B1. MAX-[PAL], *VGLIDE[+HI],M1V, ID-[PAL]
      → tie between weakening and fusion (24b vs. 24d)

   B2. ONSET, *M1/GLIDE[−HIGH], *VGLIDE[−HIGH],M1V
      (emergence of *M1/GLIDE[−HIGH], *VGLIDE[−HIGH],M1V)
      → fusion over weakening (24d vs. 24b)

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

> *Descriptive generalization:* A process of deletion applies intervocalically, 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/$\text{ə}_1\text{j}_2$+ə/	*VGLIDE$_{[+HI],M1}$ V	ID-[PAL]	ID-[−cons]	ONSET	*M1/GLIDE$_{[−HI]}$	*VGLIDE$_{[−HI],M1}$ V	MAX-[PAL]	*M1/GLIDE$_{[+HI]}$
a. [$\text{ə}_1.\text{j}_2\text{ə}$]	*!							*
b. [$\text{ə}_1.\text{ç}_2\text{ə}$]					*	*!		
☞c. [$\text{ə}_1.\text{ə}$]				*			*	
d. [$\text{ə}_{1,2}.\text{ə}$]		*!		*				

C. Partial ranking and ranking argument:

  C1. Demotion of MAX-[PAL]:

   MAX-[PAL] >> *M1/GLIDE$_{[−HIGH]}$,*VGLIDE$_{[−HIGH], M1}$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_1j_2+ə/	*VGLIDE$_{[+HI], M1}$ V	ID-[PAL]	ID-[−cons]	ONSET	*M1/GLIDE$_{[−HI]}$	*VGLIDE$_{[−HI], M1}$ V	MAX-[PAL]	*M1/GLIDE$_{[+HI]}$
a. [$\text{i}_1.\text{j}_2\text{ə}$]	*!							*
b. [$\text{i}_1.\text{ç}_2\text{ə}$]					*	*!		
c. [$\text{i}_1.\text{ə}$]				*			*!	
☞d. [$\text{i}_{1,2}.\text{ə}$]				*				

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

Descriptive generalization: There is preservation intervocalically, 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 intervocalically, relevant here:

→ Varieties with weakening of /j/ and preservation of /w/: Same ranking as in (23), for the weakening of the palatal glide, plus *[o̞] 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 *[o̞] 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	$*[\underset{\circ}{\text{o}}]$	MAX-[LAB]	$*VGLIDE_{[+HI], M1}V$	ID-[LAB]	ID-[–cons]	ONSET	$*M1/GLIDE_{[–HI]}$	$*VGLIDE_{[–HI], M1}V$	$*M1/GLIDE_{[+HI]}$
☞a. [ə₁.w₂ə]			*						*
b. [ə₁.o̥₂ə]	*						*	*!	
c. [ə₁.ə]		*				*!			
d. [ə₁,₂.ə]				*		*!			

E. Partial rankings and ranking arguments:

   E1. $*[\underset{\circ}{\text{o}}]$, MAX-[LAB], $*VGLIDE_{[+HIGH], M1}V$, ID-[LAB]

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

     (27d)

   E2. ID-[LAB] blocks fusion

   E3. Emergence of ONSET , $*M1/GLIDE_{[–HIGH]}$ $*M1/GLIDE_{[+HIGH]}$

     → 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	$*[\underset{\circ}{\text{o}}]$	MAX-[LAB]	$*VGLIDE_{[+HI], M1}V$	ID-[LAB]	ID-[–cons]	ONSET	$*M1/GLIDE_{[–HI]}$	$*VGLIDE_{[–HI], M1}V$	$*M1/GLIDE_{[+HI]}$
a. [o₁.w₂ə]			*!						*
b. [o₁.o̥₂ə]	*!						*	*	
c. [o₁.ə]		*!				*			
☞d. [o₁,₂.ə]						*			

F. Partial rankings and ranking arguments:

   F1. $*VGLIDE_{[+HI], M1}V \gg$ ONSET

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

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

3.2.4 Varieties with "<u>apparent strengthening</u>" of the labiovelar glide intervocalically, 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:
   $*VGLIDE_{[+HIGH], M1}V \gg *M1/GLIDE_{[–HIGH]}, *VGLIDE_{[–HIGH], M1}V$

   → Universal ranking (fixed):
   $*VFRICATIVE_{M1}V \gg *VGLIDE_{[+HIGH], M1}V$

   → By transitivity:
   $*VFRICATIVE_{M1}V \gg *VGLIDE_{[+HI], M1}V \gg *M1/GLIDE_{[–HI]}, *VGLIDE_{[–HI], M1}V$
   (Weakening is always better than strengthening)

   → Considering $*[\underset{\circ}{\text{o}}]$… and given $*VFRICATIVE_{M1}V \gg *VGLIDE_{[+HIGH], M1}V$
   (Preservation is always better than strengthening, and weakening)

(30) Illustration: *universal ranking*

p/ə₁w₂+ə/t	$*VFRICATIVE_{M1}V$	$*[\underset{\circ}{\text{o}}]$	$*VGLIDE_{[+HI], M1}V$	ID-[–cons]	ONSET	$*M1/GLIDE_{[–HI]}$	$*VGLIDE_{[–HI], M1}V$	$*M1/GLIDE_{[+HI]}$
*☞a. [ə₁.w₂ə]			*					*
b. [ə₁.o̥₂ə]		*				*	*!	
☹ 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$_{[+HI]}$ >> *VFRIC$_{M1}$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: *cantau* [w] 'sing 2P PL.', *cantau* [v] *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$_1$ > diw$_2$}+ən/	PRIORITY	*VFRICATIVE$_{M1}$V	*[o̥]	*VGLIDE$_{[+HI], M1}$V	ID- [−cons]	ONSET	*M1/GLIDE$_{[−HI]}$	*VGL$_{[−HI], M1}$V	*M1/GLIDE$_{[+HI]}$
☞ a. ['di.vən]$_1$		*							
b. ['di.wən]$_2$	*!			*					*
c. ['di.o̥ən]$_2$	*!	*					*	*	

(*Simplified tableau*)

   F. Ranking argument:

      F1: PRIORITY >> *VFRICATIVE$_{M1}$V

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

Word-initial position (##λ_{M1}V)

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

/j_1o_2/gurt	MAX-[PAL]	ID-[PAL]	ID-[–cons]	ONSET	*M1/GLIDE$_{[-HI]}$	*M1/GLIDE$_{[+HI]}$
☞a. [j_1o_2]						*
b. [$e̞_1o_2$]					*!	
c. [o_2]	*!			*		
d. [$ʒ_1o_2$]			*!			
e. [$d͡ʒ_1o_2$]			*!			
f. [$ɟ_1o_2$]			*!			

/$w_1ε_2$/b	*[$o̞̯$]	MAX-[LAB]	ID-[LAB]	ID-[–cons]	ONSET	*M1/GLIDE$_{[-HI]}$	*M1/GLIDE$_{[+HI]}$
☞a. [$w_1ε_2$]							*
b. [$o̞_1ε_2$]	*!					*	
c. [$ε_2$]		*!			*		
d. [$v_1ε_2$]				*!			

G. Partial ranking and ranking arguments:

    G1. Emergence of the *M1/λ hierarchy

    G2. ID-[–cons] >> *M1/GLIDE$_{[+HI]}$ >> … >> *M1/FRIC

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

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

/j_1o_2/gurt	ID-[PAL]	ID-[–cons]	ONSET	*M1/GLIDE$_{[-HI]}$	MAX-[PAL]	*M1/GLIDE$_{[+HI]}$
☞a. [j_1o_2]						*
b. [$e̞_1o_2$]				*!		
c. [o_2]			*!		*	
d. [$ʒ_1o_2$]		*!				
e. [$d͡ʒ_1o_2$]		*!				
f. [$ɟ_1o_2$]		*!				

/$w_1ε_2$/b	*[$o̞̯$]	MAX-[LAB]	ID-[LAB]	ID-[–cons]	ONSET	*M1/GLIDE$_{[-HI]}$	*M1/GLIDE$_{[+HI]}$
☞a. [$w_1ε_2$]							*
b. [$o̞_1ε_2$]	*!					*	
c. [$ε_2$]		*!			*		
d. [$v_1ε_2$]				*!			

H. Partial ranking and ranking arguments:

    H1. Emergence of the *M1/λ hierarchy

    H2. ID-[–cons] >> *M1/GLIDE$_{[+HI]}$ >> … >> *M1/FRIC

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

Word-final position (λ_{M2})

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

/{div$_1$ > diw$_2$}/	*M2/FRICATIVE	PRIORITY	ID-[−cons]	ID-[HI]	*M2/GLIDE$_{[+HI]}$	*M2/GLIDE$_{[-HI]}$
a. ['div]$_1$	*!					
☞ b. ['diw]$_2$		*			*	
c. ['diǫ]$_2$		*		*!		*

   I. Partial ranking and ranking arguments:

     I1. Emergence of the *M2/λ hierarchy

     I2. *M2/FRICATIVE >> PRIORITY

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

     I3. ID-[HI] >> *M2/GLIDE$_{[+HI]}$ >> *M2/GLIDE$_{[-HI]}$

       → 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$_{[+HI]}$, *M1/GLIDE$_{[+HI]}$ and VGLIDE$_{[+HI],M1}$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$_{[+HI]}$ 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$_{[+HI]}$ 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$_{[+HI]}$ and *VSTOP$_{M1}$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$_{[+HIGH], M1}$V).

— In Majorcan Catalan, the effects of *VGLIDE$_{[+HIGH], M1}$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).

REFERENCES

Baertsch, Karen (2002). *An Optimality Theoretic Approach to Syllable Structure: The Split Margin Hierarchy*. PhD dissertation, Indiana University.

Bibiloni, Gabriel (1983). *La llengua dels mallorquins. Anàlisi sociolingüística*. PhD dissertation,Universitat de Barcelona.

Bonet, Eulàlia, Maria-Rosa Lloret, and Joan Mascaró (2007). 'Allomorph selection and lexical preferences: Two case studies'. *Lingua* 117: 903-927

Dols, Nicolau (2000). *Teoria fonològica i sil·labificació. El cas del català de Mallorca*. PhD dissertation, Universitat de les Illes Balears.

Jiménez, Jesús, Maria-Rosa Lloret, and Clàudia Pons-Moll (in press). 'Adjusting to the syllable margins: glides in Spanish and Catalan'. In: Mark Gibson, Juana Gil (ed.), *Romance phonetics and phonology*. Oxford: Oxford University Press.

Kirchner, Robert (1998). *An Effort-Based Approach to Consonant Lenition*. PhD dissertation, UCLA.

Mascaró, Joan (2007). 'External allomorphy and lexical representation'. *Linguistic Inquiry* 38: 715-735.

Mascaró, Joan, and Joaquim Rafel (1981). 'La ẹ intervocàlica baleàrica'. *Randa* 11: 37-44.

Recasens, Daniel, and Aina Espinosa (2005). 'The role of contextual and prosodic factors on consonantal lenition and elision. The case of intervocalic /j/ in Majorcan Catalan'. *Journal of Portuguese Linguistics* 4: 7-37.

Uffmann, Christian (2005). 'Intrusive [r] and Optimal Epenthetic Consonants'. *Language Sciences* 29: 451-476.

CONSTRAINT DEFINITIONS

Faithfulness constraints

ID-[PAL]: Assign one violation mark for every palatal segment in S_1 whose ouptut 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 ouptut 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 ouptut 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$_{[-HI]}$: 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$_{[+HI]}$: 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$_{[+HI]}$: 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$_{[+HI], M1}$V: Assign one violation mark for every [+HI] glide syllabified in onset position and placed in intervocalic position.

└→ …

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