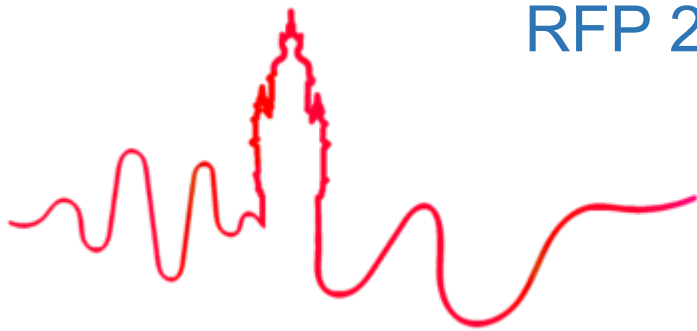


Overriding sonority preferences in the distribution of Catalan rhotics

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SUMMARY

- a) Catalan **contrasts two rhotics**, but only in **intervocalic** position: the alveolar **tap [r]** and the alveolar **trill [r]**:

pa[r]a ‘stop.IMP’

pa[r]a ‘grapevine’

SUMMARY

b) The contrast is **neutralized** elsewhere:

- **without** variation:

[r]oma ‘Rome’, **pre****[r]**omà ‘pre-Roman’,
hon**[r]**a ‘honor’

- **with** variation:

po**[r]**ta ~ **po****[r]**ta ‘door’, **co****[r]** ~ **co****[r]** ‘heart’

GOALS

1. To analyze the **distribution** of rhotics in 3 Catalan dialects:

- **Algherese** (Alghero, Sardinia)
- **Central Catalan** (eastern Catalonia)
- **Valencian**

GOALS

2. To show that the distribution of taps and trills is **predictable** from **constraints related to their sonority level and their position in the syllable** & that any **deviation** from the expected pattern derives from the action of **other constraints**.

1. THEORETICAL ASSUMPTIONS

➤ Assumed **sonority hierarchy for liquids** in Catalan (see, e.g., Bonet & Mascaró 1997, Parker 2002: 233, 2011: 1177; Pons-Moll 2011):

✓ Tap [r] > Lateral [l] > Trill [r]

1. THEORETICAL ASSUMPTIONS

➤ The **marked status** of the rhotics is **relative**, depending on their syllabic position. According to the **Split Margin approach to syllable organization** (Baertsch 2002; Baertsch & Davis 2003; Davis & Baertsch 2011): margins can be divided into two categories:

1. THEORETICAL ASSUMPTIONS

- ✓ **Margin 1** (M1: a singleton onset, the first element of a complex onset and the second element of a complex coda)
- ✓ **Less sonorous elements** preferred:
 - $*M1_{\text{Tap}} \gg *M1_{\text{Lateral}} \gg *M1_{\text{Trill}}$

1. THEORETICAL ASSUMPTIONS

- ✓ **Margin 2** (M2: a singleton coda, the second element of a complex onset and the first element of a complex coda).
- ✓ **More sonorous elements** preferred:
 - ***M2_{Trill}** >> ***M2_{Lateral}** >> ***M2_{Tap}**

1. THEORETICAL ASSUMPTIONS

- Furthermore, in **intervocalic M1** there is also a cross-linguistic preference for **more sonorous elements** as well (see, e.g., Uffmann 2007, and for Catalan, Pons-Moll 2011):

- $*VM1V_{\text{Trill}} \gg *VM1V_{\text{Lateral}} \gg *VM1V_{\text{Tap}}$

1. THEORETICAL ASSUMPTIONS

- **Underlying representations:**
 - ✓ **Intervocalic trills: lexically** marked, as **/r/** (under richness of the base, other options are possible).
 - ✓ All **other** rhotics: **/R/**, **underspecified** for the trill-tap distinction.

2. CONTEXTS WITHOUT VARIATION

- **General facts** about the distribution of **rhotics in M1**: The **trill [r]** is almost the exclusive solution, due to different conditionings:

2. CONTEXTS WITHOUT VARIATION

➤ **Rhotics in the first position of an onset (M1)** are generally realized as **[r]**, given the **preference for trills in M1**.

➤ Driving force: **Sonority-related constraints** (***M1_{Tap} >> *M1_{Trill}**).

- **[r]oma** ‘Rome’ **hon[r]a** ‘honor’

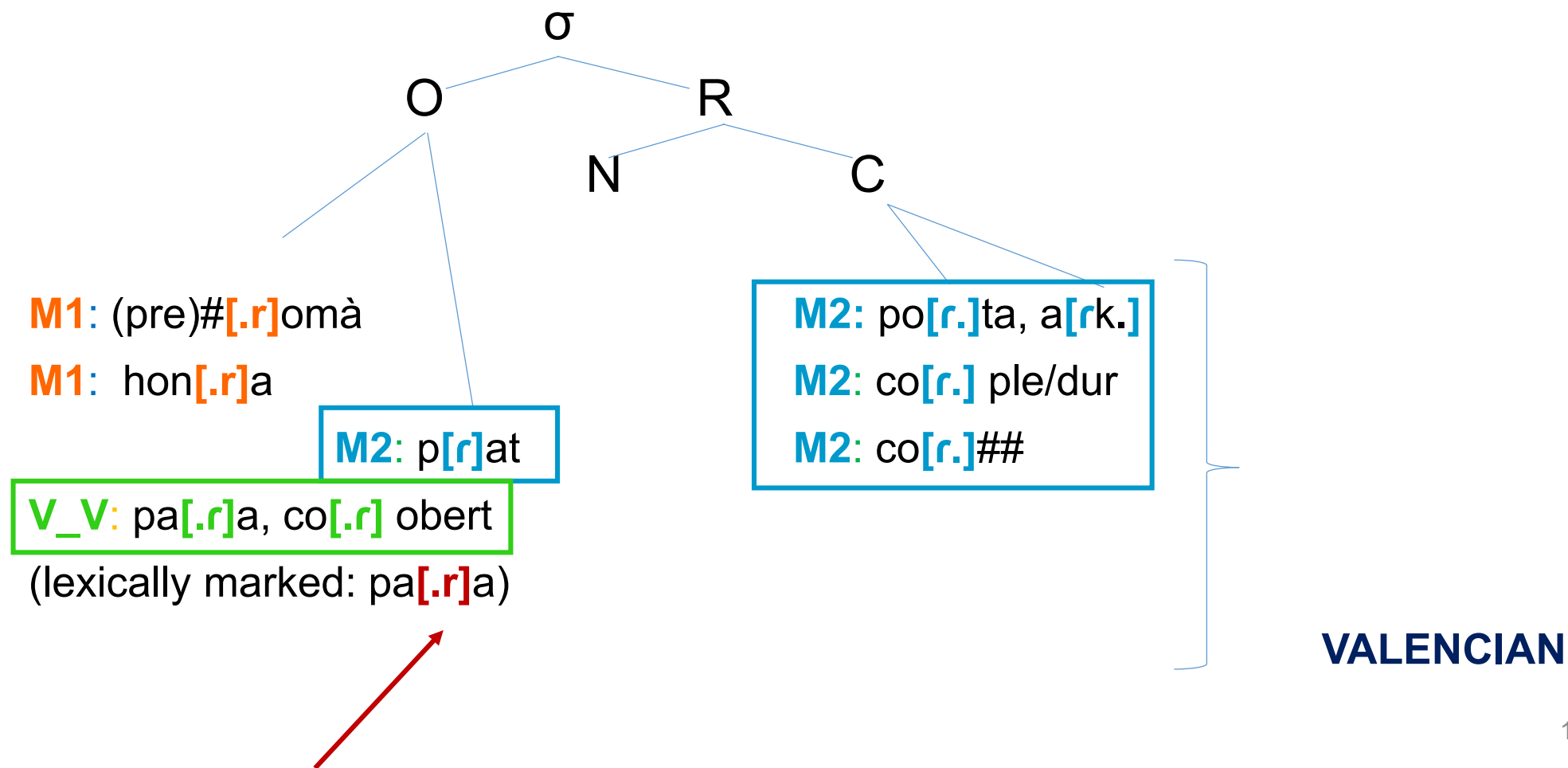
2. CONTEXTS WITHOUT VARIATION

- **Root-initial rhotics (M1)** are always maintained as **[r]**, even intervocalically: **uniformity effects**, stronger at the left edge of the root.
- Driving force: **OO-Faithfulness(left)**.
 - **pre[r]omà** ‘pre-Roman’

2. CONTEXTS WITHOUT VARIATION

- **Underlying intervocalic trills** surface as **[r]** in all dialects.
- Driving force: **IO-Faithfulness.**
 - **pa[r]a** ‘grapevine’

3. CONTEXTS WITH VARIATION



3. CONTEXTS WITH VARIATION

➤ **General facts** about the distribution of **rhotics** in **intervocalic M1 & all M2**:

✓ **Emergence of trills:**

✓ **Central Catalan** presents a **trill [r]** in some contexts in which Valencian exhibits a tap;

✓ **Algherese** enlarges even more the environments in which a **trill [r]** may appear

✓ → **alternative constraints** are at play.

3. CONTEXTS WITH VARIATION

➤ **General facts** about the distribution of **rhotics** in **intervocalic M1 & all M2**:

✓ Hence, there is an **inclusive** relationship between dialects: e.g., for the **trill**:

Valencian [r] ⊂ Central Catalan [r] ⊂ Algherese [r]

3. CONTEXTS WITH VARIATION

➤ 4 contexts with a possible **trill [r]** in Central Catalan & Algherese (**[r]** in Valencian):

1. Preconsonantal codas

2. Final rhotics

3. Resyllabified final rhotics, intervocalically

4. Second position of an onset

3.1. Preconsonantal codas

➤ Central Catalan [r] ⊂ Algherese [r]:

- ✓ With a **trill [r]** in **Central Catalan**, except when C2 is an approximant.
- ✓ Driving force: **contextually-marked constraint** demanding the coincidence in the value of the [±continuant] feature, based on general coarticulatory phonetic conditions, presumably universal (Recasens 1993: 178):
 - **po[rt]a** ‘door’ **he[rβ]a** ‘grass’

3.1. Preconsonantal codas

➤ **Central Catalan [r] \subset Algherese [r]:**

✓ **Algherese:** since /b, d, g/ display stop allophones, all preconsonantal rhotics tend to be realized as trills in this context:

- **po[rt]a** ‘door’ **he[rb]a** ‘grass’

3.2. Final rhotics

➤ **Central Catalan [r] \subset Algherese [r]:**

- ✓ Final position is regarded as **intermediate** in terms of prominence (Barnes 2008, Kaplan 2015). Typically, prominent positions tend to attract features that are more salient, stronger.

3.2. Final rhotics

➤ **Central Catalan [r] ⊂ Algherese [r]:**

✓ Driving force: **alignment of segmental prominence & positional prominence**. Hence, trills can be preferred in that position, just in especially strong syllables (stressed syllables: **Central Catalan**)...

- **co[r]** ‘heart’ **Sàsse[r]** ‘Sassari’

3.2. Final rhotics

➤ **Central Catalan [r] \subset Algherese [r]:**

✓ ...or in all final syllables, without prosodic limitations (**Algherese**):

- **co[r]** ‘heart’ **Sàsse[r]** ‘Sassari’

3.3. Resyllabified final rhotics, intervocally

➤ Only Algherese:

✓ Realized as taps in **general Catalan**.

Central Catalan:

- **co[r]** ‘heart’ **co[r]** **obert** ‘open heart’

3.3. Resyllabified final rhotics, intervocalically

➤ Only Algherese:

- ✓ In **Algherese** they surface as trills due to the activation of uniformity effects referred to the right edge of the word.
- ✓ Driving force: **OO-Faithfulness(right)**.
 - **Algherese:**
 - **co[r]** ‘heart’ **co[r] obert** ‘open heart’

3.4. Second position of an onset

➤ Only Algherese:

✓ The emergence of a **tap [r]** in **general Catalan** is in line with the preference for more sonorous segments in M2.

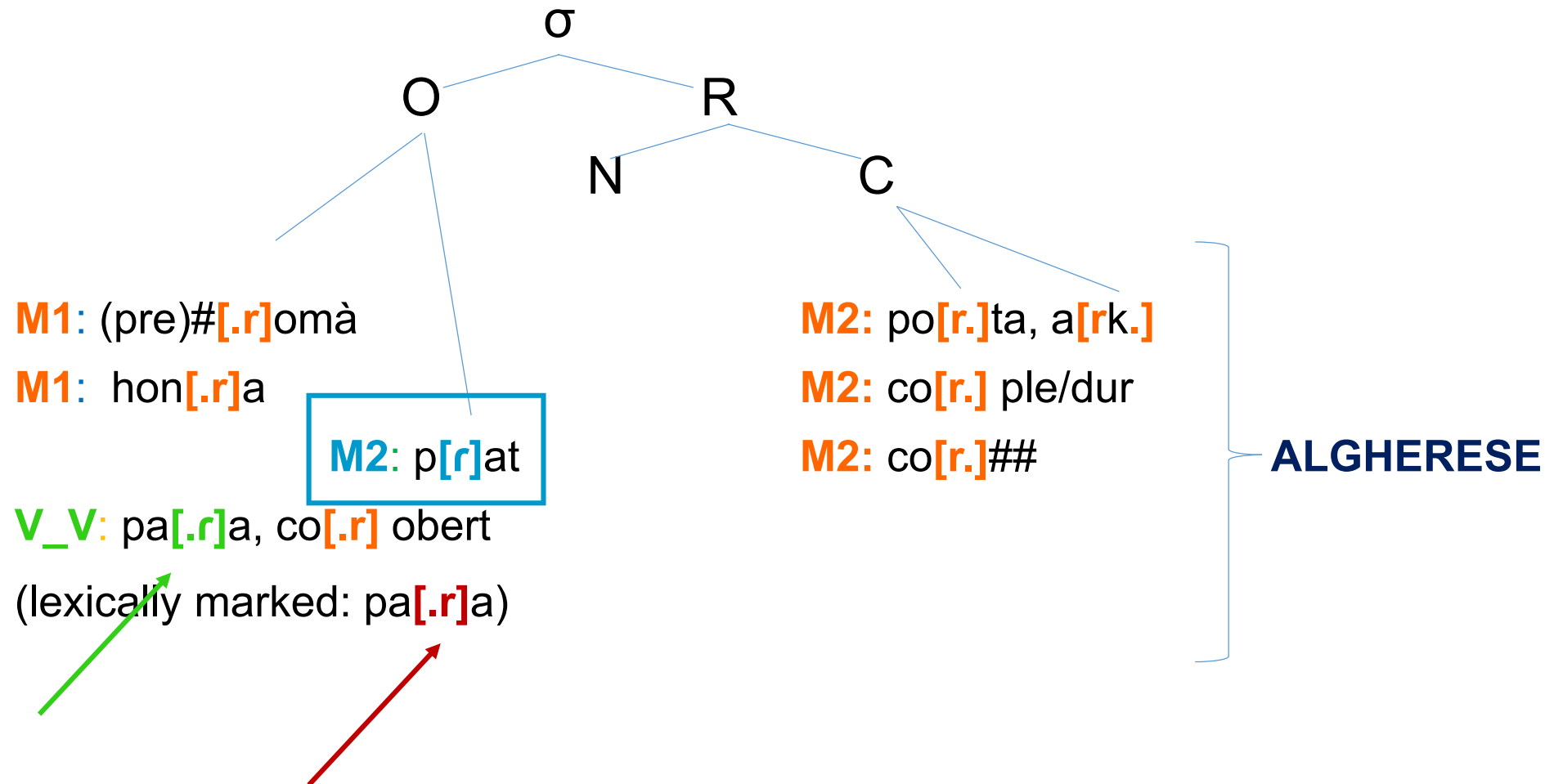
- **Central Catalan:** **t[r]enta** '30'

3.4. Second position of an onset

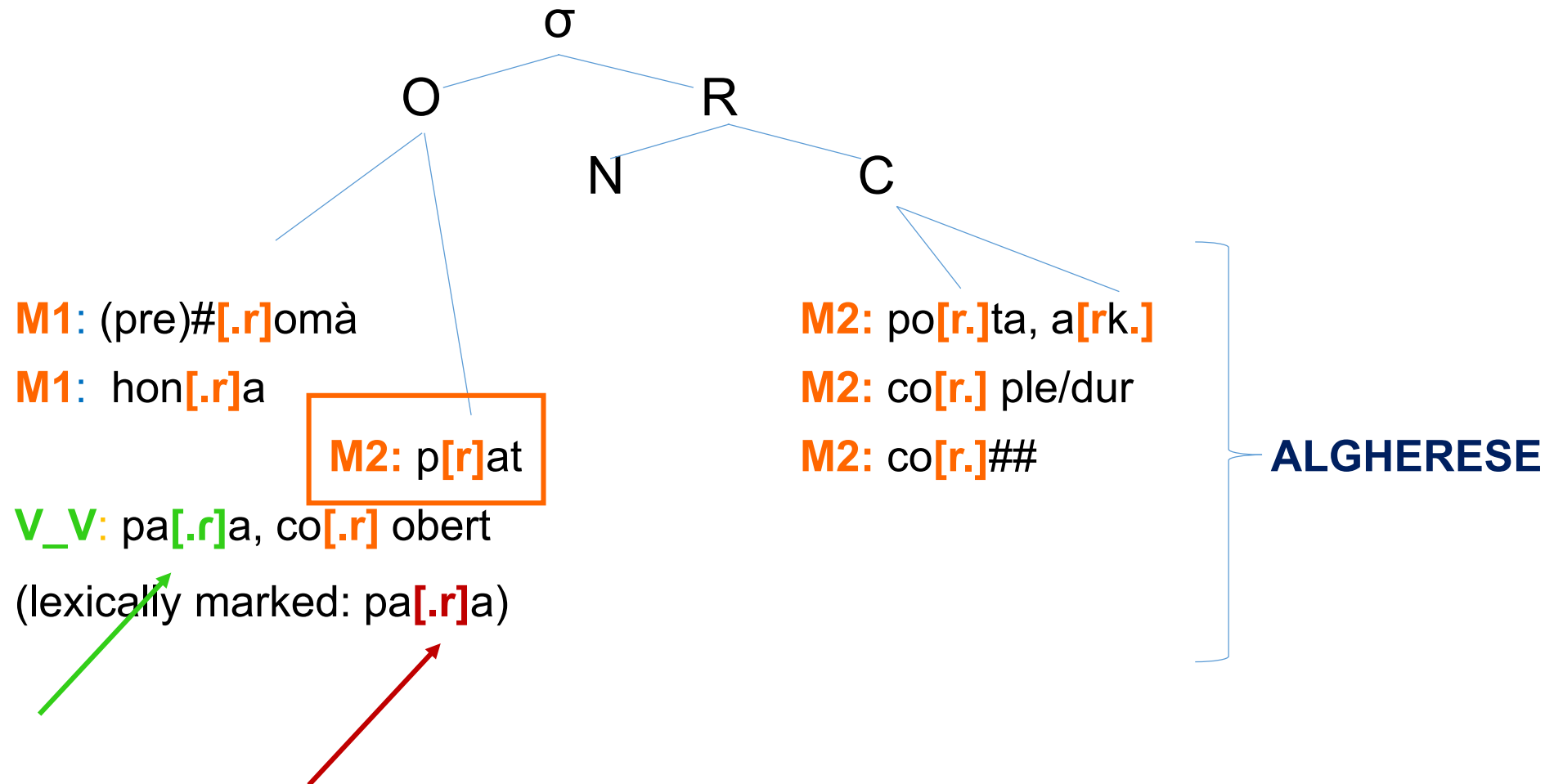
➤ Only Algherese:

- ✓ The trilled pronunciation in **Algherese** is possibly an overgeneralization of the realization of rhotics in other non-contrastive contexts.

3. CONTEXTS WITH VARIATION



3. CONTEXTS WITH VARIATION



3.4. Second position of an onset

➤ Only Algherese:

- ✓ The trilled pronunciation in **Algherese** is possibly an overgeneralization of the realization of rhotics in other non-contrastive contexts.
- ✓ Driving force: **CONSISTENCY**_{Rhotic}: “A rhotic always has the same output”:
 - **Algherese:** t[r]enta ~ t[r]enta ‘30’

4. LIQUID NEUTRALIZATION IN ALGHERESE

➤ **Algherese** presents liquid neutralization in **3 contexts** in which more sonorous elements are preferred:

1. Intervocally

2. In the second position of an onset and

3. In internal preconsonantal codas.

4. LIQUID NEUTRALIZATION IN ALGHERESE

- ✓ **Intervocally** & in the **second position of an onset**, the outcome of neutralization is a **tap [r]**. This result is just another instance of sonority adaptation to the syllable margins: a **tap [r]** is more harmonic than a **lateral [l]**.
- ✓ Driving force: **sonority-related constraints** ($*VM1V_{\alpha}$ & $*M2_{\alpha}$ rankings).
- **ma[r]a** ‘bad.F’ (cf. **ma[l]** ‘bad.M’)
- **p[r]at** (but also **p[r]at**) (cf. general Catalan **p[l]at** ‘dish’)

4. LIQUID NEUTRALIZATION IN ALGHERESE

- ✓ **Preconsonantly**, liquids are neutralized as a **lateral [l]**. Although a **tap [r]** is preferred in M2, this outcome is altogether banned from preconsonantal codas in Algherese. Hence, the second-best segment in terms of sonority, that is, a **lateral [l]**, is selected.
- ✓ Driving forces: **sonority-related constraints** (& **contextually-marked constraints**): a **lateral [l]** is more harmonic than a **trill [r]**:
- ✓ **mo[l]ta** ‘dead.F’ **mo[r]** ‘I die’

5. CONCLUSIONS

- **Predictable variability:** Catalan dialects provide rich evidence for the variability of rhotics. The attested variation is far from random: e.g., there is an inclusive relationship between the contexts in which trills can appear, in the order **Valencian** \subset **Central Catalan** \subset **Algherese**.

5. CONCLUSIONS

- **Adaptation to the syllable margins:** The realization of rhotics in Catalan mainly stems from **sonority-related segmental preferences** in the syllable margins, with trills generally preferred in M1 and taps preferred in M2 and in intervocalic M1.

5. CONCLUSIONS

- **Additional constraints:** Leaving aside the intervocalic contrasting trills (for which some kind of underlying specification is needed in all dialects), any deviation from these tendencies derives from **uniformity**, **contextually-marked** or **prominence-driven constraints** taking precedence over sonority conditions.

References

- Baertsch, K. (2002). *An optimality theoretic approach to syllable structure: The split margin hierarchy*. Indiana U dissertation.
- Bonet, E. & Mascaró, J. (1997). On the representation of contrasting rhotics. In F. Martínez Gil & A. Morales Front (eds.), *Issues in the phonology and morphology of the major Iberian languages*, 103–126. Washington: Georgetown U Press.
- Cabrera-Callís, M. (2014). Morphologically conditioned intervocalic rhotacism in Algherese Catalan. An account with lexically indexed constraints. In M.-H. Côté & E. Mathieu (eds.), *Variation within and across Romance Languages: Selected papers from the 41st LSRL, Ottawa, 5–7 May 2011*, 63–76. Amsterdam/Philadelphia: John Benjamins.
- Parker, S. G. (2011). Sonority. In M. van Oostendorp, C. J. Ewen, E. Hume & K. Rice (eds.), *The Blackwell companion to phonology*, 1160–184. Oxford: Blackwell.
- Pons-Moll, C. (2008). Regarding the sonority of liquids. Some evidence from Romance. 38th Linguistic Symposium on Romance Languages, U of Illinois, April 2008.
- Pons-Moll, C. (2011). It is all downhill from here: a typological study of the role of syllable contact in Romance languages. *Probus*, 23, 105–173.
- Recasens, D. (2014). *Fonètica i fonologia experimentals del català: Vocals i consonants*. Barcelona: Institut d'Estudis Catalans.
- Recasens, D. & Espinosa, A. (2007). Phonetic typology and positional allophones for alveolar rhotics in Catalan. *Phonetica*, 63, 1–28.
- Uffmann, C. (2007). Intrusive [r] and optimal epenthetic consonants. *Language Sciences*, 29, 451–476.



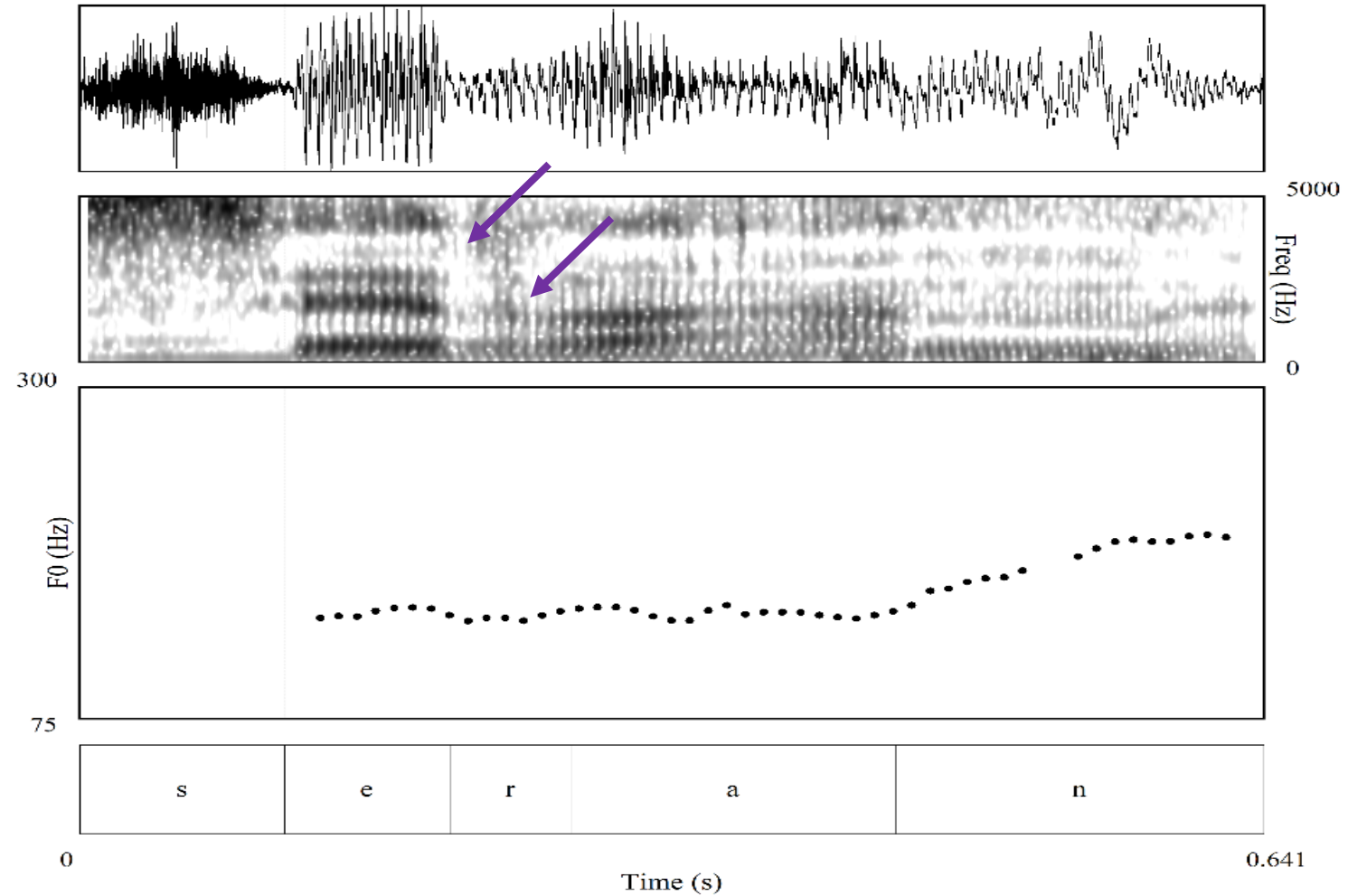
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ALGHERESE: INTERVOCALIC RESYLLABIFIED TRILLS

- **terce**[r] any
'third year'



ALGHERESE: TRILLS IN THE 2ND POSITION OF AN ONSET

- t[r]enta-u
'31'

