

# EXPANSIVE AND REGRESSIVE PATTERNS IN VALENCIAN VOWEL HARMONY

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**SUBJECT:** Evolution of unstressed /a/ after the stressed mid-open vowel / / in three Northern Valencian varieties: Borriana old speakers (Borriana<sub>Old-A</sub>), Borriana young speakers (Borriana<sub>Young</sub>) and Nules old speakers (Nules<sub>Old-A</sub>).

**GOALS:** (a) To demonstrate that Borriana<sub>Old-A</sub> display Round vowel harmony from stressed / / to a posttonic /a/ at the word-level (even across clitic boundaries), whereas Nules<sub>Old-A</sub> and Borriana<sub>Young</sub> only show high coarticulation levels in this environment (similar in degree to those found across words in Borriana<sub>Old-A</sub>). (b) To show that there seems to be a path in the behavior of these varieties, from a typically phonetic process (Nules<sub>Old-A</sub>) to a phonologically ruled scenario (Borriana<sub>Old-A</sub>), and back again to the phonetic stage (Borriana<sub>Young</sub>) (see Berm dez-Otero 2007, Hualde 2011, among others)

## 0. INTRODUCTION

- (a) **Sequences analyzed** (two tokens of each context): Unstressed /a/, in the same consonantal & metrical environment, ...
- ...after the stressed mid-open vowel / /, in contiguous syllables, ...
    - Within the word, / /+a/: *pistola* 'gun'
    - Separated by a clitic-boundary, / /##a/: *dissol-la* 'solve it FEM'
    - Separated by a word-boundary, / /###a/: *dissol la farina* 'solve the flour'
  - Parallel context, involving the symmetrical stressed vowel / /, / /+a/: *tela* 'cloth'
  - Reference context for comparison, / /+a/: *sala* 'room'

## b) Sample description

8 male subjects from each variety:

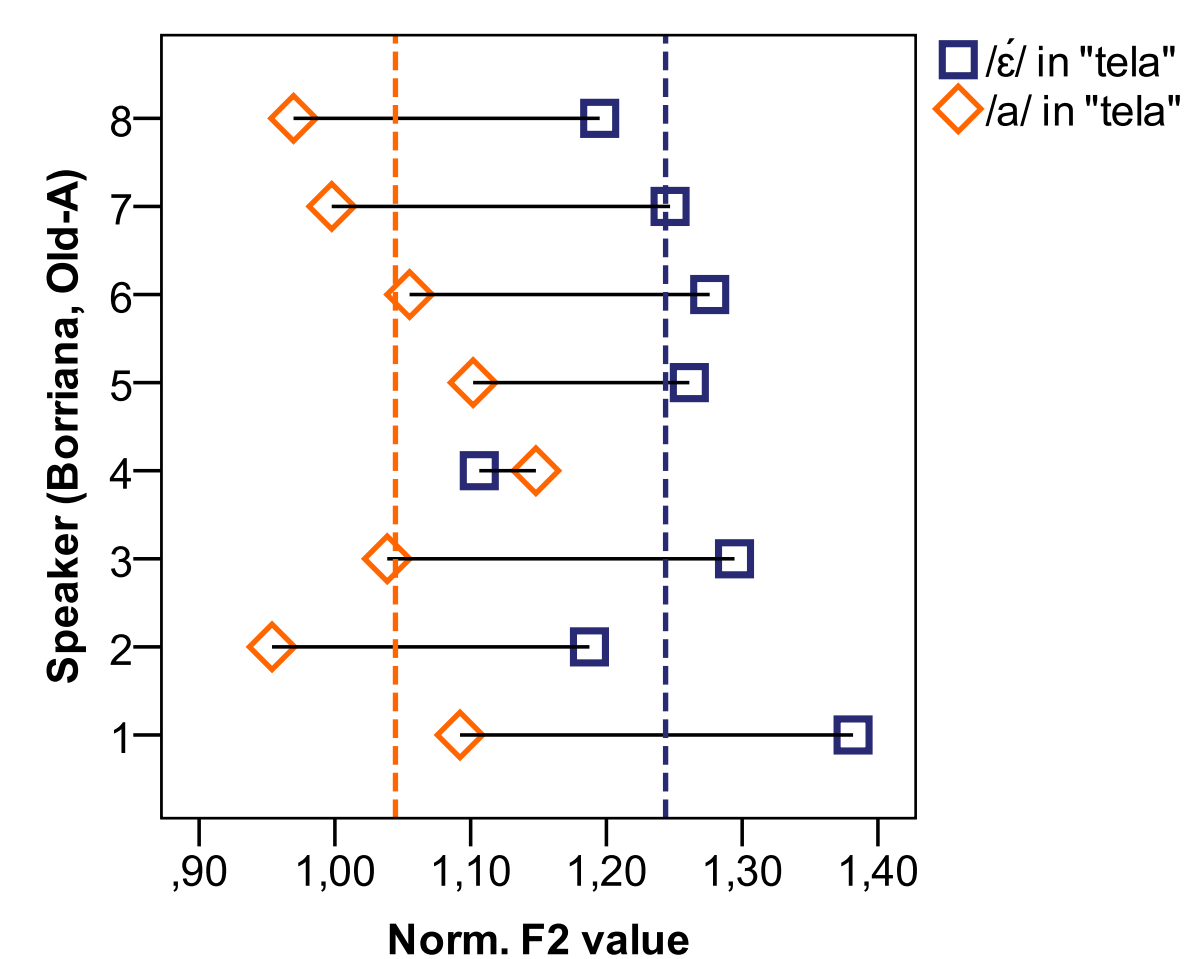
- Nules<sub>Old-A</sub> & Borriana<sub>Old-A</sub>: Ranging from 43 to 65-years old; *without* studies in Valencian Catalan
  - Borriana<sub>Young</sub>: Ranging from 16 to 18-years old; *with* studies in Valencian Catalan
- Plus: Data from previous Nules (Nules<sub>Old-B</sub>) & Borriana (Borriana<sub>Old-B</sub>) samples of speakers above 65 years are also reported (Herrero & Jim nez 2011).

c) Vowel formant values were **normalized** using Watt & Fabricius S-centroid procedure (Watt & Fabricius 2002) and submitted to statistical tests (one-way ANOVA; post-hoc Tukey).

## 1. STAGE 1: SPORADIC CHANGES: BORRIANA<sub>Old-A</sub> VARIETY, CONTEXT / / \_\_a/

➤ In the context / /+a/ *tela*, parallel to the context / /+a/, no significant changes in F2 are attested in the varieties under study.

➤ Sporadically, though, some /a/ get attracted by a stressed vowel / /, to its place of articulation, as in the pronunciation of *tela* by speaker number 4, from Borriana<sub>Old-A</sub> variety.



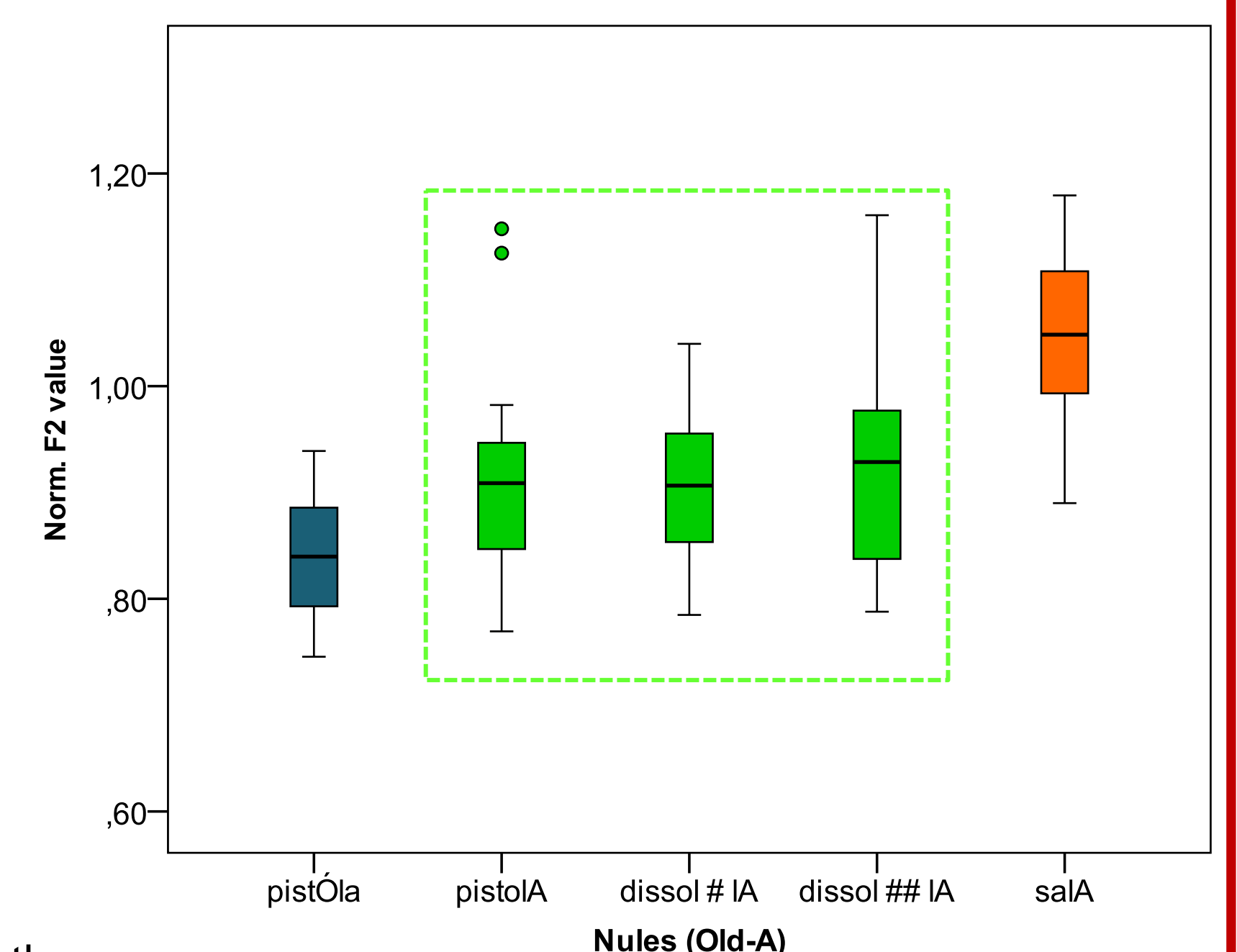
## 2. STAGE 2: CATEGORICAL POSTLEXICAL RULE: NULES<sub>Old-A</sub> VARIETY, CONTEXT / / \_\_a/

➤ Sporadic changes (stage 1) can become categorical in every environment where the two vowels are adjacent to each other.

✓ In Nules<sub>Old-A</sub> variety, due to coarticulation with the preceding round vowel / /, low vowels tend to be realized at an intermediate point between neutral unstressed low vowels (context / /+a/ *sala* on the right) and the stressed round vowel (context / /+a/ *pistola*, on the left corner).

✓ The process regularly applies at the stem-level (in *pistola*), at the word-level (in *dissol-la*) and across word boundaries (in *dissol la farina*).

✓ Although some allophones of /a/ are indistinguishable from the realizations of the preceding round vowel / /, those segments may still be interpreted as instances of the low vowel /a/: on phonetic grounds (69.74%, SD 18.68%, in an identification test) & due to analogical pressure.



## 3. STAGE 3: WORD-LEVEL RULE: BORRIANA<sub>Old-A</sub> VARIETY, CONTEXT / / \_\_a/

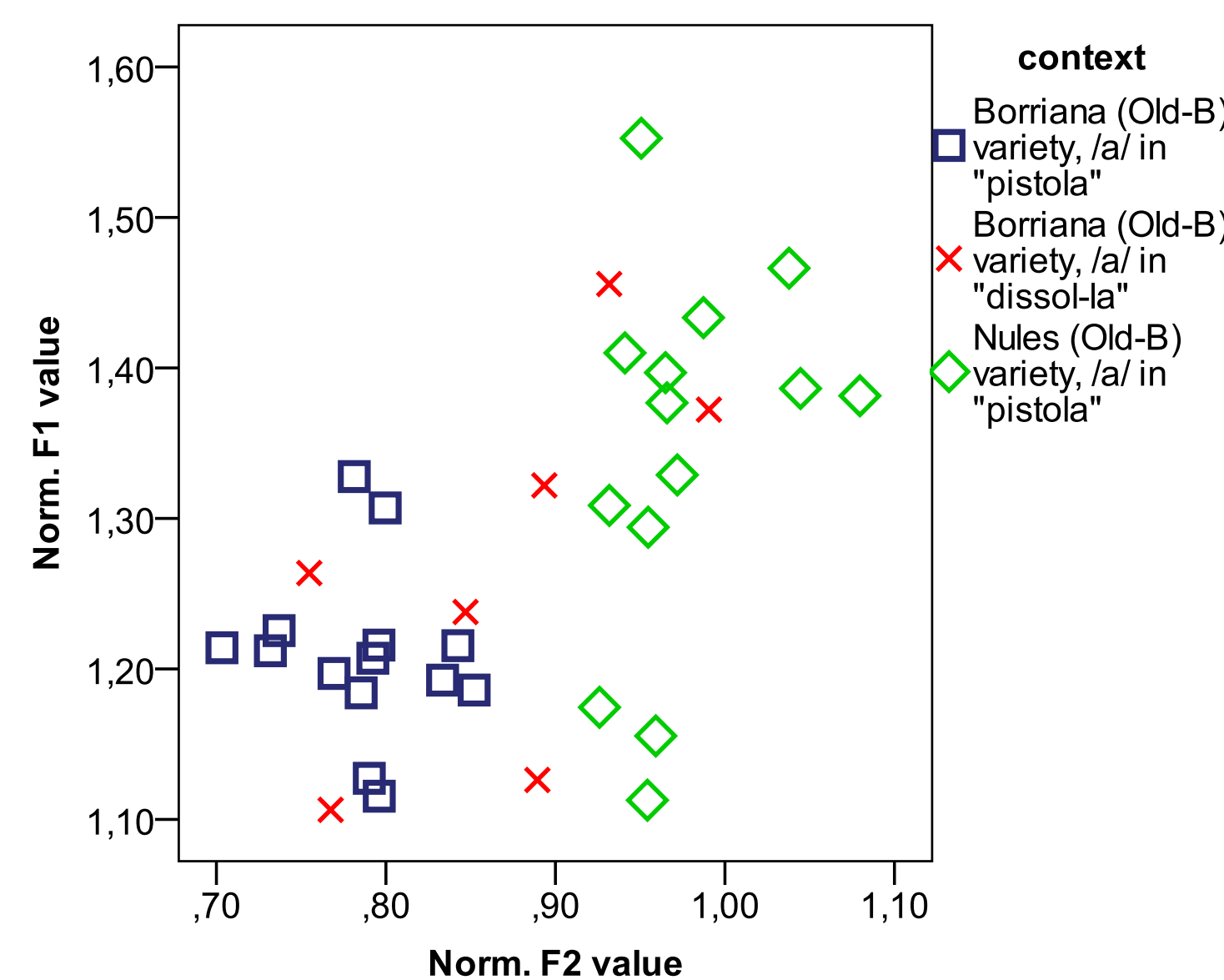
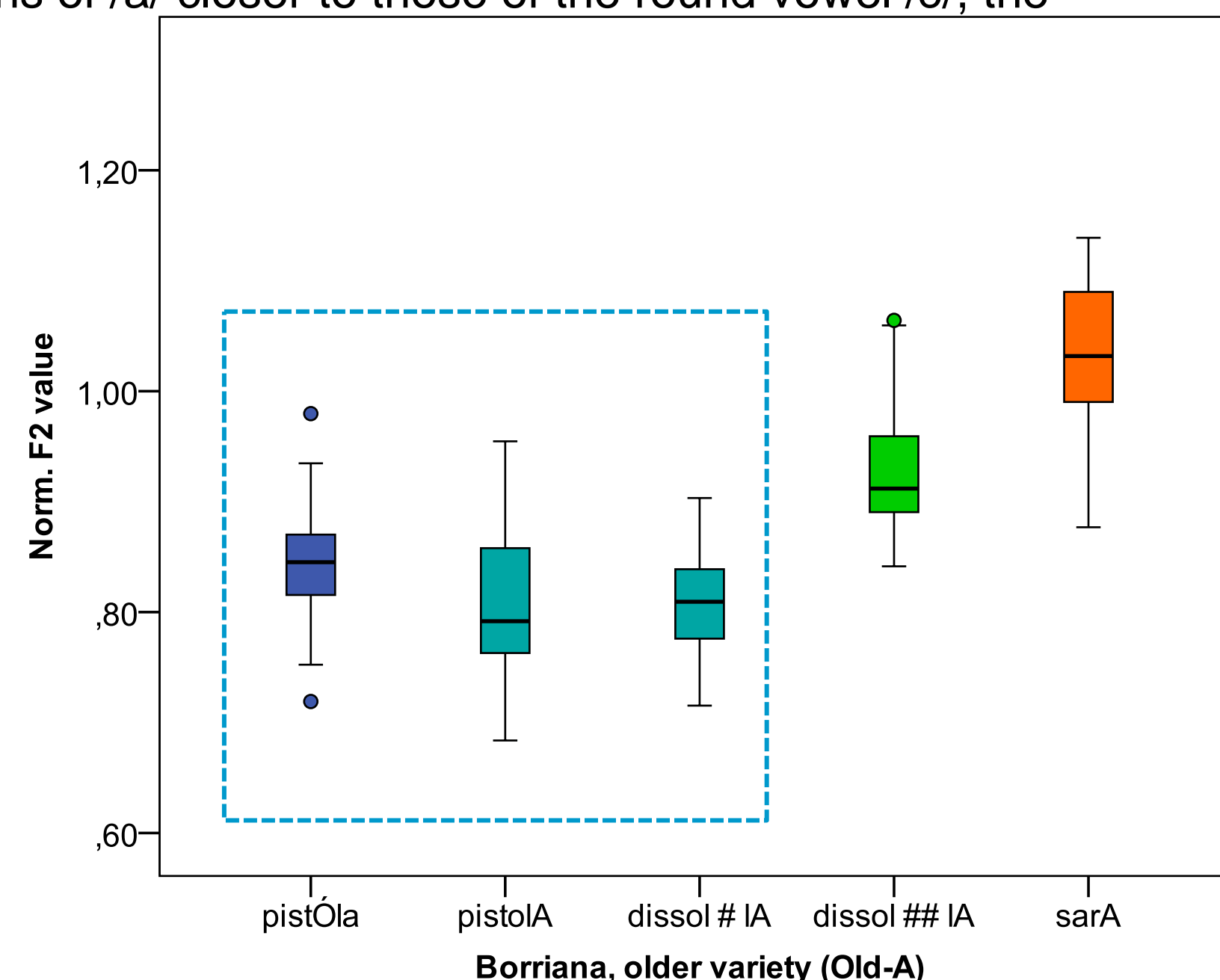
➤ At some point, departing from realizations of /a/ closer to those of the round vowel / /, the coarticulation rule may split in two different processes (Borriana<sub>Old-A</sub> variety):

✓ Across words (in *dissol la farina*), we still find high coarticulation effects, that is, partially assimilated vowels, as in stage 2 (Nules<sub>Old-A</sub> variety).

✓ At the word-level (across morphemes, in *pistola*, & across clitic boundaries, in *dissol-la*), low vowels totally assimilate to the preceding round stressed vowel. These assimilated vowels –indistinguishable from the allophones of / /– may be interpreted as variants of / / on phonetic grounds (66.23% SD 22.48%, in an identification test), but against analogical pressure.

➤ For some speakers (Borriana<sub>Old-B</sub> variety; data from Herrero & Jim nez 2011), though, total assimilation fails to apply across clitic boundaries, i.e., it only applies if the two vowels belong to the stem (STEM-LEVEL RULE).

➤ [From this stage, the assimilation process triggered by / / can analogically extend to contexts with the symmetrical mid-open vowel / /, as in *tela*, even without previous generalized coarticulation effects in the last context. Further study is required, but Barxeta Variety (Southern Valencian), could be an example of this pattern (Soler in prep.).]



## 4. STAGE 4: BACK TO STAGE 2: BORRIANA<sub>Young</sub> VARIETY, CONTEXT / / \_\_a/

➤ Young Borriana speakers display a pattern that can be considered a regression to stage 2 (two speakers still display vowel harmony, but in every word-level context, as in Borriana<sub>Old-A</sub> variety):

✓ As in Nules<sub>Old-A</sub>, at the word-level, high coarticulation effects are attested, both across morpheme boundaries (in *pistola*) & across clitic-boundaries (in *dissol-la*).

✓ Across words (in *dissol la farina*), instead, even the coarticulation rule fails to apply.

➤ Factors favoring regression to stage 1:

- Presence, in every age group, of non-harmonic speakers & non totally harmonized items (Saborit 1998, Herrero & Jim nez 2013).
- The morphological nature of *a* (either a feminine marker or a verbal affix), pronounced as [a] in many other words, can also exert analogical pressure.
- More familiarization with Catalan spelling (via schooling).

➤ [The theoretically last stage in the life cycle of phonological processes, **LEXICALIZATION** (Berm dez-Otero 2007), is exemplified by La Canyada de Biar variety (Southern Valencian; Colomina 1985, Hualde 1996, Jim nez 1998). In this variety, mid-open vowels / / and / / become close, merging thus with mid-close vowels /e/ and /o/. The process affects underlying stressed vowels, as in *tela* and *pistola*, as well as the harmonized unstressed final vowels in these words. Hence, *tela* is pronounced [t le] and *pistola* [pist lo]; ancient contrasts such as *d na* [d na] 's/he gives' vs *d na* [d no] 'woman' now appear as *d na* [d na] vs *d na* [d no]. Since the assimilation rule is no longer productive (there are no mid-open vowels to trigger the process), previously harmonized forms become opaque, closing, in this way, the life cycle of vowel harmony.]

## 5. CONCLUDING REMARKS

➤ In the varieties under study we find a gradation of changes in F2 due to the interaction between stressed mid-open vowels and posttonic low vowels:

- No remarkable changes in F2 in the low vowel: context / /+a/, among others (Nules & Borriana, all varieties)
- Partial assimilation of low vowels to / /, without morphological limitations, that is, within the word & across the board (Nules<sub>Old-A</sub> variety)
- Partial assimilation of low vowels to / / across words, but total assimilation to / /, limited to the word-level (Borriana<sub>Old-A</sub> variety) or to the stem-level (Borriana<sub>Old-B</sub> variety)
- Regression to partial assimilation of low vowels to / / within the word, with no significant changes across the board (Borriana<sub>Young</sub> variety).

➤ From stage 1 to 3, the process follows the typical pathway of phonological processes: from sporadic changes (stage 1) to categorical changes across the board (stage 2), until the process gets morphologically restricted (stage 3). Stage 4 implies a kind of regression to stage 2, due probably to sociolinguistic and analogical factors.

➤ Later developments in the conventionalization of vowel harmony, such as lexicalization, are attested as well in other Valencian varieties (La Canyada de Biar).

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