## Patterning of laxing spreading in Quebec French

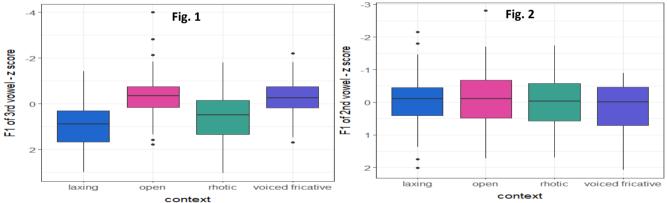
Context: QF laxing is a well-known phonological process, starting from the tense high vowels being rendered lax in some closed syllables (Walker, 1984). This process can also trigger laxing of high vowels in preceding syllables, though the nature of this process remains a source of debate, whether it is a process of coarticulation or vowel harmony or even both (Lamontagne, 2021). In addition to the nature of the process itself, the patterning that occurs for the laxing spreading is one that has been long discussed, particularly when it comes to plurisyllabics. The actual nature of the spreading has been a topic of debate, with Poliquin(2006) and Walker(1984) labelling it as vowel harmony but others like Dalton(2011) labelling it more as coarticulation.

## **Research Questions:**

- 1. Do QF high vowels lax in final closed syllables?
- 2. Does the laxing spread to other high vowels in preceding syllables?

**Methodology:** 12 participants, all having grown up in Quebec and being native speakers of Quebec French, were shown the orthographic form of 62 nonce words. The words were all trisyllabic and were categorized according to their final coda (15-16 each of voiced non-rhotic fricatives, rhotics, other consonants and null codas). The participants read the words and their voices were recorded. Next, the F1 and F2 for their pronunciation of high vowels were measured using Praat. (Boersma & Weenink, 2022).

**Preliminary Results:** While the findings do concur that high vowels become lax in closed syllables where the coda is not a voiced fricative, the actual spreading of the laxing does not appear to be regular.



Only F1 plots are shown in the abstract for space reasons; with F2 measurements being similar. Fig. 1 shows F1 measurements of /i/ in the final syllables by the type of coda of said syllables, indicating that laxing takes place in the expected context as well as with rhotics. Fig. 2 shows F1 measurements of /i/ in penultimate syllables by type of final syllable, where the final syllable contains /i/. If laxing harmony in the penultimate syllable had applied, Fig. 2 would have shown a similar pattern as Fig. 1, but it does not.

**Discussion:** This study will help determine to what extent the spreading of laxing is regular and predictable in Quebec French and thus whether the process is phonetic or phonological in nature. The results obtained indicate that the process is more phonetic due to little to no lowering or centering of the tongue occurring in non-final syllables, indicating a lack of productivity that we would expect from phonological processes. This would mean that a process long thought to have been phonological in nature is really phonetic.

## **Bibliography:**

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