Direct dialect imitation of metrical structure across French varieties
Mariapaola D’Imperio¹,², Charlotte Graux-Czachor¹ and Caterina Petrone¹
¹Aix-Marseille Université, CNRS, LPL, UMR 7309, Aix-en-Provence, France, ²Institut Universitaire de France
mariapaola.dimperio@lpl-aix.fr, charlotte.grauxczachor@gmail.com, caterina.petrone@lpl-aix.fr

Speakers align their phonetic and phonological representations to those of their interlocutor both in direct interaction and as a result of exposure to a different variety (Goldinger, 1998). This unconscious convergence can be seen as a spontaneous imitation process, manifesting itself both at a segmental and at a suprasegmental level. Recent studies have investigated prosodic convergence concerning intonation, both at a phonetic and phonological level (Cole & Shattuck-Hufnagel, 2011; Michelas & Nguyen, 2011; D’Imperio et al. 2014; German, 2012), though no study has yet investigated rhythmic convergence.

One of the phonological differences among the languages of the world is prosodic and rhythmic structure. At the foot level, languages such as English and Italian are trochaic, while a language such as French shows an iambic structure (Hayes, 1995). Moreover, metrical and foot structure can vary among varieties of the same language in subtle ways. In French, Southern varieties show a bisyllabic foot in word-final position when a schwa is produced, which is usually missing in Central and Northern varieties (Coquillon et al., 2000), e.g. *galette* ‘cake’ /galetə/. The schwa insertion leads to the production/perception of an extra syllable, though it appears that schwa duration needs to be above a 30 ms threshold in order to be perceived by French listeners (see Bürki et al., 2011). Moreover, this newly created, metrically weak, syllable appears to be grouped with the preceding strong syllable (Selkirk, 1977) creating then a final, trochaic foot.

In this study we test whether speakers of a central, standard variety of French (Clermont-Ferrand) are able to rapidly modify the structure of word-final and word-medial syllables by inserting a schwa in the process of imitating a Southern speaker of French. Our main hypothesis is that, after exposure to a Southern variety, Standard French speakers would be able to produce a word-medial or word-final schwa, which would be absent in their typical pronunciation. Additionally, we hypothesized that a greater number of schwas would be inserted word-medially than word-finally, because of a prosodic constraint disfavoring trochaic feet at the word right edge (Stress Constraint Hypothesis). Finally, we also tested whether schwas would be longer in medial than in final-word position, and whether this measure was dependent on lexical frequency.

In order to test our hypotheses, we created a corpus consisting of 20 high-frequency and 20 low-frequency words, in which a schwa could either be produced word-medially (e.g., *cimetièrē* /simaːtʃɛʁ/ ‘cemetery’) or word-finally (e.g. *galette* /galetə/). Moreover, each sentence was repeated 5 times in order to test for exposure effects. In fact, we expected that the imitation effect would be stronger for the fifth relative to the first imitation attempt. 25 speakers of Standard French carried out both a Baseline and an explicit Imitation Task, in which they were asked to imitate utterances produced by a Southern French speaker. Our results show that metrical structure can be rapidly imitated across varieties of the same language, though the effects are mediated by positionally-dependent constraints on prosodic output (see Figure 1).
Figure 1. Total number and duration of schwas produced in the Imitation phase by position within the word (final vs. medial).

References


