

## **Prominence Assignment and Word-Level Properties in Quebec French**

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**Introduction.** Descriptions of French prominence conventionally include no lexically specified stress, but instead a post-lexical tone that is assigned to the final syllable of accentual phrases (e.g. Jun and Fougeron 1995). Recent work targeting varieties across the French-speaking world reveal that this may be categorically true in no dialects; prominence variably falls on the penult even when the final syllable does not contain a schwa (e.g. Carton et al. 1983). The /o/ in *côté* /kote/ ‘side’, for instance, can be realised with all of the hallmarks of prominence (higher pitch, longer duration and higher amplitude, Jun and Fougeron 2002). We aim to identify motivations for penultimate prominence, which we call *shift* and to get a better understanding of how the acoustic cues relate to prominence.

We propose that *shift* can serve two purposes: it signals both weight and morphological structure. First, we suggest that heavy vowels (nasal vowels and tense non-high vowels are heavy in French; all others are light) and codas attract prominence, consistent with typological tendencies (Hayes 1995). For example, *shift* is expected more often in *côté* /kote/ ‘side’ (heavy penult vowel) and *copté* /kɔpté/ ‘chimed’ (closed penult) than in *coté* /kote/ ‘coded’. Second, we propose that prominence assignment favours roots (suggestive examples in Jun and Fougeron 2002). For example, *shift* is expected more often in *collons* /kɔlɔ̃/ ‘glue.SUBJ.1.PL’ than in *colon* /kɔlɔ̃/ ‘colonist’, despite both having identical underlying phonemes.

**Methods.** We chose to examine Saguenay (Quebec) speakers since this dialect region to limit language contact and to maximise vowel weight contrasts. We extracted 1368 polysyllabic words from the right edge of accentual phrases in the read speech of 11 native speakers of French. We used mixed-effects linear regression to predict the quotient of the last two syllables’ rhyme durations (log-transformed), pitch maxima (semitones), and amplitude maxima, with random slopes and intercepts for speakers and random intercepts for words. As factors, we included vowel weight (heavy/light) and coda information (open/closed) for both final syllables, morphological information (penult is base-final or not) and prosodic controls.

**Results.** Beginning weight, we find that heavy penults (coda, heavy vowel or both) show significant increases in duration, amplitude and pitch. The same is true for closed final syllables, but open final syllables with heavy vowels only have significantly longer duration relative to other open final syllables. Turning to morphology, penults are significantly longer when base-final than when not, and heavy base-final penults additionally have higher amplitude than other heavy penults, but are significantly less likely to have higher pitch than the final syllable.

**Discussion.** Our results are consistent with weight and morphology affecting the assignment of prominence in Quebec French, and suggest a possible explanation for the common observation of non-final prominence across French dialects. We suggest that prominence signals weight, and that the morphological structure is further signalled using the acoustic cues associated with prominence. Most notably, we notably find evidence that the acoustic cues examined – generally assumed to pattern together – are in fact manipulated somewhat independently to signal multiple word-level properties at once. This finding shows that prominence plays a far broader role than that of simply signalling phrase edges, as is typically predicted. We develop this crucial result by illustrating the roles of each cue and of prominence more broadly.

## References

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