Licensing constraints and the internal structure of Laurentian French vowels

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Laurentian French (LF) poses unique challenges to phonologists due in part to its relatively large vowel system, boasting upwards of 16 contrastive vowels, giving way to several phonological generalisations which interact with each other in interesting ways. At issue in the current paper is the structure of the underlying vowel system, which remains an unsettled debate. I contend that answering this first-order question will reveal insights into phenomena that were at first difficult to account for. Further, flaws in previous analyses stem from a misanalysis of the underlying structure of LF vowels. The current analysis, couched in Government Phonology 2.0[1] (GP 2.0: Pöchtrager, 2006, 2018; see also Kaye et al, 1985, 1990; Charette, 1991 for a presentation of classical Government Phonology), proposes that high and mid vowels are treated similarly by the phonology and that differences in the distribution of tense and lax vowels arise from differences in underlying structure. Interestingly, this view does away with extrinsic rule-ordering, which is a recurring element in certain previous analyses (see Dumas, 1981; Poliquin, 2007).

High and mid vowels in LF exhibit a tense~lax alternation in final-syllable position, often referred to as the *loi de position* (Lyche & Durand, 2004): vowels are tense in open syllables (1a) and lax otherwise (1b). One notable exception is the pair /e/ : /ɛ/, both of which occur in open syllables. This is complicated by lengthening consonants (the set of voiced fricatives [R v z ʒ]), which lengthen a preceding tautosyllabic vowel (2; for simplicity, only high vowels are shown). High vowels additionally harmonise to following high vowels in closed syllables (3), even when the latter is followed by a lengthening consonant and thus tense (4):

(1)	a.	open σ	[i y u e ɛ ø o]	*vie, rue, roue, fée, fait, feux, chaud*
	b.	closed σ	[ɪ ʏ ʊ ɛ œ ɔ]	*brique, flute, coupe, faite, jeune, poste*
(2)		R-lengthening[2]	[iː yː uː]	*cire, pure, sourd*
(3)	a.	no VH	[i]…[ɛ]	*mitaine*
	b.	VH	[ɪ]…[ɪ]	*vinyle*
(4)		opaque VH	[ɪ]…[iː]	*missive*

GP has seldom been employed to understand these particular aspects of the LF vowel system (however see Gauthier, 2013 for a sketch using classical GP).

Working within the theory of vowel structure developed by Pöchtrager (2018), and taking the vowel representations proposed by Charette (*forthcoming*) as a starting point, the present paper proposes that the distribution of tense/lax vowels as well as vowel length is a function of relations between metrical points. Vowels are characterised as nuclear heads that merge with another x-point. Further, each non-head x-point must be licensed. The licensor can be the nuclear head itself, or rather the following consonant. This choice determines whether the vowel will be interpreted as tense or lax. In the spirit of Pöchtrager (2020), tenseness is conceptualised as *influence from within* and laxness as *influence from without*, hence the correlation with a following consonant (at the word edge) or a following lax vowel (in VH context). Pöchtrager (2006) also proposes a special type of licensing to represent length, called m-command. This is shown to be active and lexically specified in English loan-words (e.g. *cheap* [iː]) as well as native words (*paume* [oː]), thus unifying the account of these two previously disparate groups.

[1] A central notion in Government Phonology is that the phonology does not "see" features. Rather, the fundamental units are fully interpretable matrices, called elements. Elemental theory is therefore privative.

[2] In the spirit of Côté (2010), I recognise two classes of lengthening consonants: *R*, on the one hand, and the voiced fricatives on the other. Despite the name given here, a detailed analysis of the properties of lengthening consonants is beyond the scope of the current paper. See Côté (2010) for a detailed discussion on lengthening contexts.

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