Laurentian French Affrication: A match theory approach

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Introduction Laurentian French Affrication (LFA) is a phonological process where coronal stops (/t/, /d/) become affricates ([ts], [dz]) when they are immediately followed by a high front vocoid (/i/, /y/, /j/, /ɥ/). This process systematically occurs word internally (as in (1)) but has been described as an optional process in the word external sandhi (as in (2)) (see Brasseur (2019), Dow (2019), Guzzo (2022), Kim (2001), Walker (1984) and many more).

(1) *Petit:* /pɜ**t**it/ → [pɜ**ts**it]
(2) *Huit images:* [ɥi**t**imaʒ] → [ɥi**ts**imaʒ] OR [ɥi**t**imaʒ]

The analysis developed here uses a match theory (Selkirk, 2011) approach to account for the occurrence of LFA in the word external sandhi based on data from Beausoleil and Newell (2023). **Background** Beausoleil and Newell (2023) investigate the reported optionality of LFA in the word external sandhi using phonetic evidence from audio recordings. They show that LFA between words is only optional in certain syntactic environments. In addition to these optional environments, they identify five environments where LFA systematically occurs between words and two conditions where LFA is blocked. The authors present an analysis based on the syntactic environments using CVCV phonology (Lowenstamm 1996; Scheer, 2004) to motivate the process in Laurentian French for the systematic and blocked environments. They also offer some discussion of the optional cases but leave any theoretical explanation of them for future research. **Proposal** Adopting a match theory framework allows the syntactic hierarchy to directly correlate to the phonological phrasing hierarchy (Selkirk, 2011). My analysis assumes that the process of coronal affrication before high front vocoids is phonologically motivated based on typological data from Hall and Hamann (2006). This analysis accounts for all of the data present in Beausoleil and Newell (2023). I argue that if a coronal stop is followed by a high front vocoid within the same phonological phrase, affrication will occur. In other words, LFA will trigger between phonological words within the same phonological phrase. A tableau showing a match theory constraint ranking required to account for some of the data is shown in (3).

(3)

[DP de [NP [AP petit][NP ivrogne]]]]	BinMin(φ,ω)	Match(XP,φ)
☞ a. (φ de (φ petit ivrogne))		*
b. (φ de (φ petit) (φ ivrogne))	**!	
c. (φ de petit) (φ ivrogne)	*!	**
d. (φ de petit ivrogne)		**!

The tableau in (3) results in an output where *petit* and *ivrogne* are adjacent phonological words within the same phonological phrase, causing LFA to occur. From this, I show that all systematic cases of LFA identified in Beausoleil and Newell's data fit this assumption. Under my approach, a systematic absence of LFA in what appears to be a target environment can be explained using phase theory (Kratzer and Selkirk, 2007). This phase boundary necessitates the creation of a phonological phrase boundary, blocking LFA from occurring. The optional cases from Beausoleil and Newell (2023) are accounted for under this analysis by virtue of interspeaker variation in their constraint rankings selecting different optimal candidates. For example, in (2), some

speakers may prioritize isolating the noun from the NumP phrase blocking LFA while others may have grammars that prioritize binary phrases and allow LFA to occur. The match theory analysis developed here accounts for the systematic LFA environments, the environments where LFA is blocked, and all optional data of Beausoleil and Newell (2023).

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