

Headedness and licensing
constraints in the
phonotactics of (Old) French

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Introduction

- Only a subset of the data is considered (stage 1)
- Focus on the evolution of $k, g \Rightarrow t, d$ from Latin to (Old) French.
- Questions:
 - 1.a) Why does palatalization fail to apply in forms like *vinc(e)re*?
 - 1.b) Why $k, g \Rightarrow *tʃ, *dʒ$ when followed by $\langle i, e \rangle$ and $\langle r \rangle$?
 - 2) Why do k, g need to be preceded by a consonant?

Introduction

- The answers to these questions lie in the phonotactics of (Old) French:
- Conditions on the melodic content in relation to the syllabic structure:
 - **Melody:** Palatalization and vowel syncope would result in an illicit *sibilant+rhotic* cluster.
 - *tʃr and *dʒr are reinterpreted as tr and dr.
 - **Structure:** Licensing and government provide the appropriate context for the sound shift at stake (k, g > t, d).

$$\begin{aligned} C + \langle k, g \rangle + (V) + r &\neq C + \langle k, g \rangle + (V) + C_{\text{other than } r} \\ &\neq V + \langle k, g \rangle + (V) + C_{\text{including } r} \end{aligned}$$

1. The facts

- Palatalization, a common process in the evolution from Latin to (Old) French.
- $k > ts, s / \text{--- } i, e$

(1) Latin Old French

a. culcita couste

torc(e)t torst

b. grac(i)le graisle

ac(i)nu aisne

c. ancilla ancele

baccinu bacin

1. The facts

- No palatalization

(2) Latin Old French

vinc(e)re vintre

carc(e)re rechartre

plang(e)re plaindre

surg(e)re sourdre

- k, g unexpectedly turn into t, d only when preceded by a consonant and followed by a front (syncopated) vowel, plus a rhotic consonant.

1. The facts

- Observation: It's all about S+C

(3) Old French Clusters

a. couste st

 torst

b. graisle sl

 aisne sn

c. vintre *tsr (*sr)

 chartre

- The reason why *k* does not undergo palatalization in forms like *vintre* lies in the phonotactics of (Old) French.

2. Sibilants among fricatives

- (Old) French disallows any occurrence of sibilant + rhotic, although it complies with the sonority profile of a branching onset.
- But see Kaye (1992): SC clusters are always heterosyllabic (they pattern with coda+onset clusters).
- French has no sr, sr, zr, zr cluster (but has fr)
- The problem is not one of sonority or syllable structure, but of sibilants being unable to occur before <r>.
- Question: How to account for this incompatibility?

(4) Proposal (stated informally within GP)

"No governing relation holds between a sibilant and a rhotic in (Old) French"

2. Sibilants among fricatives

- Among fricatives, only strident consonants and aspirates (irrelevant here) are headed by |H| (see Backley 2011: 142, Kaye 2000, Lahrouchi & Ulfsbjorninn 2018, among others).
- The ban of adjacent stridents => headed |H| cannot branch (Lahrouchi & Ulfsbjorninn 2018).
- French has no sibl+sibl cluster (*sʃ, *sʒ, *ʒʒ...).
- English: 1. plural allomorphy: ca[ts] / do[gz] / blu[fs] / val[vz] / hor[sɪz] / wat[ʃɪz].
2. No sibilant adjacent to an aspirate: [p^hleɪs] 'place' vs. [mɪspleɪs] *mɪsp^hleɪs 'misplace'.
- S > h Lenition (e.g. Caribbean Spanish *mes* > [meh], Harris 1990: 266).

3. Headedness and Licensing

- Headed |H| cannot branch (*sib+sib) => French, English.
- Headed |H| can be followed by <t, l, n, m> but not <r>.
- Unlike lateral and nasal consonants, <r> has no Edge (|P|).

(6) Licensing constraint on SC (4 reformulated)

"Headed |H| cannot license a consonant without |P|"

- Especially when the consonant headed by |H| is flanked by consonants on both sides.

3. Headedness and Licensing

- In a CCC cluster, the medial consonant must act as a governor (See Cyran 2003, 2010).
- *st*, *sl*, *sn* clusters in forms like *taist*, *aisne* and *graisle* are heterosyllabic; the sibilant being the governee (see Kaye 1992).
- The condition in (6) excludes any sequence of strident+rhotic, hence the absence in (Old) French not only of *sr* and *tsr* (at issue here) but also *zr*, *ʃr* and *ʒr*.
- The same reasoning holds for *g* \Rightarrow *d*, rather than expected *dʒ* or *ʒ*.

4. Concluding remarks

- (Old) French prohibits any sequence of sibilant+rhotic (a few counterexamples: Sri Lanka, disruptif, dysrythmie).
- English disallows s+rhotic and affricate+rhotic, but has sr ([ʃ]ri Lanka, shrimp, shrink).
- French like English prohibits sibilant+sibilant clusters = (Headed) |H| cannot branch (Lahrouchi & Ulfsbjorninn 2018, Szigetvári 2017).

References

- Backley, P. 2011. *An Introduction to Element Theory*. EUP.
- Cyran, E. Complexity scales and licensing in phonology. Berlin: Mouton De Gruyter.
- Harris, J. 1990. Segmental complexity and phonological government. *Phonology Yearbook* 7/2: 255-300.
- Kaye, J. 1990. 'Coda' licensing. *Phonology Yearbook* 7: 301-330.
- Kaye, J. 1992. Do you believe in magic? The story of s+c sequences. *SOAS Working Papers in Linguistics and Phonetics* 2: 293-313.
- Kaye, J. 2000. *A Users' Guide to Government Phonology*. Ms., University of Ulster.
- Kaye, J. 2001. Working with licensing constraints. In: Dziubalska-Kolaczyk, K. (ed.), *Constraints and Preferences*. 251-268. Mouton de Gruyter.
- Lahrouchi, M. & Sh. Ulfsbjorninn. 2018. Formalizing headedness-driven phonotactics. Talk at RFP, Paris.
- Scheer, T. 2004. *A Lateral Theory of Phonology: What is CVCV, and why should it be?*. Berlin: Mouton de Gruyter.
- Szigetvári, P. 2017. Lenisizing English. Talk at GPRT 20, Peter-Pazmany Catholic University.