

# Silent Heads and Pwd-Edges in Quebec French



# Tommy

- ❖ 2nd year undergraduate student
- ❖ Main interest is French phonology



# Skepticism

Do silent heads exist in our brain?

- ❖ Believers: Chomsky, most profs in our dept
- ❖ Skeptics: Gillon, “It’s just an easy way out”

English syntax: silent D, silent C, pro, PRO (silent determiner phrases, not only heads)

- ❖ \*That’s a trash
- ❖ She thinks \_\_\_ she’s pretty
- ❖ \_\_\_ surrender yourself!
- ❖ I want \_\_\_ to leave

English phonology:

- ❖ [sC] clusters (Kaye 1992, Goad 2012)



# Syllables and levels of representations

- ❖ Not in SR: no syllables boundaries on a spectrogram [ ]
- ❖ Not in UR: “languages do not contrast morphemes only in terms of their syllabification” (Goad 2021). //
- ❖ Intermediate representation: < >



# Licit vs attested

- ❖ Neither licit nor attested: [wksps]
- ❖ Attested but not licit: [pnœ], [psikœlœzi]
- ❖ Licit and attested: most words



# All mathematically possible voiceless obstruent clusters

<b>[pp]</b>	[tp]	[kt]	[fk]	[sf]	
[pt]	[tk]	[kf]	[fs]	[sʃ]	
[pk]	[tf]	[ks]	[fʃ]	<b>[ʃʃ]</b>	
[pf]	<b>[ts]</b>	[kʃ]	<b>[ss]</b>	[ʃp]	[ʃs]
[ps]	<b>[tʃ]</b>	<b>[ff]</b>	[sp]	[ʃt]	
[pʃ]	<b>[kk]</b>	[fp]	[st]	[ʃk]	
<b>[tt]</b>	[kp]	[ft]	[sk]	[ʃf]	



# Distributional Evidence: clusters

- ❖ Among all nasals, fricatives, plosives, only 7 flat sonority clusters:

	Initial	Medial	Final
[mn]	Mnemonic	Amnesie	Hymn
[kt]	/	Victoire, docteur, facture	Contact, arctique, correct
[pt]	ptérodactyle	Sceptre, aptitude, optime	Concept, accept, adapt
[ps]	Psychologie	epsilon?	/
[sf]	Sphere	?	?
[sp]	Sport	Espoir, gaspille	?
[st]	Stade	Destin, festin	Christ, assiste, deteste
[sk]	Scolaire	Cascade, risqué	Masque, casque, risque



[pt]

- ❖ Chapitre vs chapter
- ❖ Baptiste
- ❖ Comptant vs content
- ❖ Comptoir



[sk]

❖ Sceptre

❖ Science

❖ ? ?



# [mn]

Among all nasals, only [m] can be a coda, and [m] is always followed by [n]

[am.ne.zi] - amnesia

[ẽ.sɔm.ni] - insomnia

[m.ne.mɔ.nik] - mnemonic

[im.n] - hymn

[ɔm.njɔm] - holding company

[amnisti] - amnesty



# The silent nucleus proposal

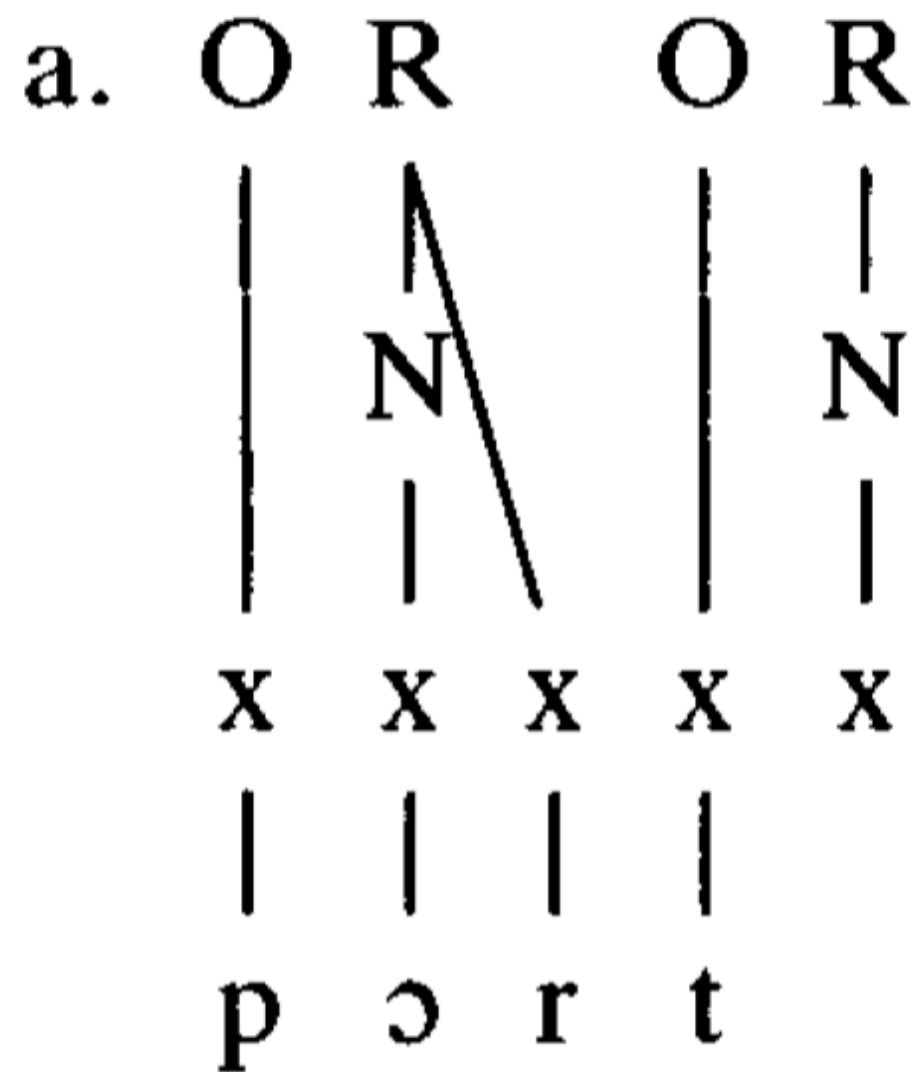
Observation:

- ❖ All Cs can be word-final
- ❖ Word-medially, C in CV**C**.CV cannot be: [f], [v], [ʃ], [ʒ], [ŋ], [ɲ]. Is it the disjunction of [non-sib fric] and [nasals]?

Theory: ALL pwd-final singleton Cs are onsets syllables with silent nuclei (Charette 1991, Goad 2021)



# (Charette 1991)





# Corpus and copyright

- ❖ Société de transport de Montréal
- ❖ Michele Deslaurier
- ❖ Her daughter voices the REM (light rail)
- ❖ I use this corpus for my research on:
  - ❖ Stress
  - ❖ Nasal vowels and prestige
  - ❖ This project



# Pwd-final and medial Cs

## Pwd-final /C/

[kə] - Cadillac, Frontenac, monk

[tə] - joliette, porte

[nə] - prefontaine

[mə] - berri-uqam

[fə] - pie-9

[zə] - de l'église

[lə] - mcgill, peel, Lasalle

[r] - pda, atwater, jolicoeur

## Pwd-medial /C/

[t̚] - Frontenac, Atwater

[l] - de castelneau

[r] - verdun

## Not sure:

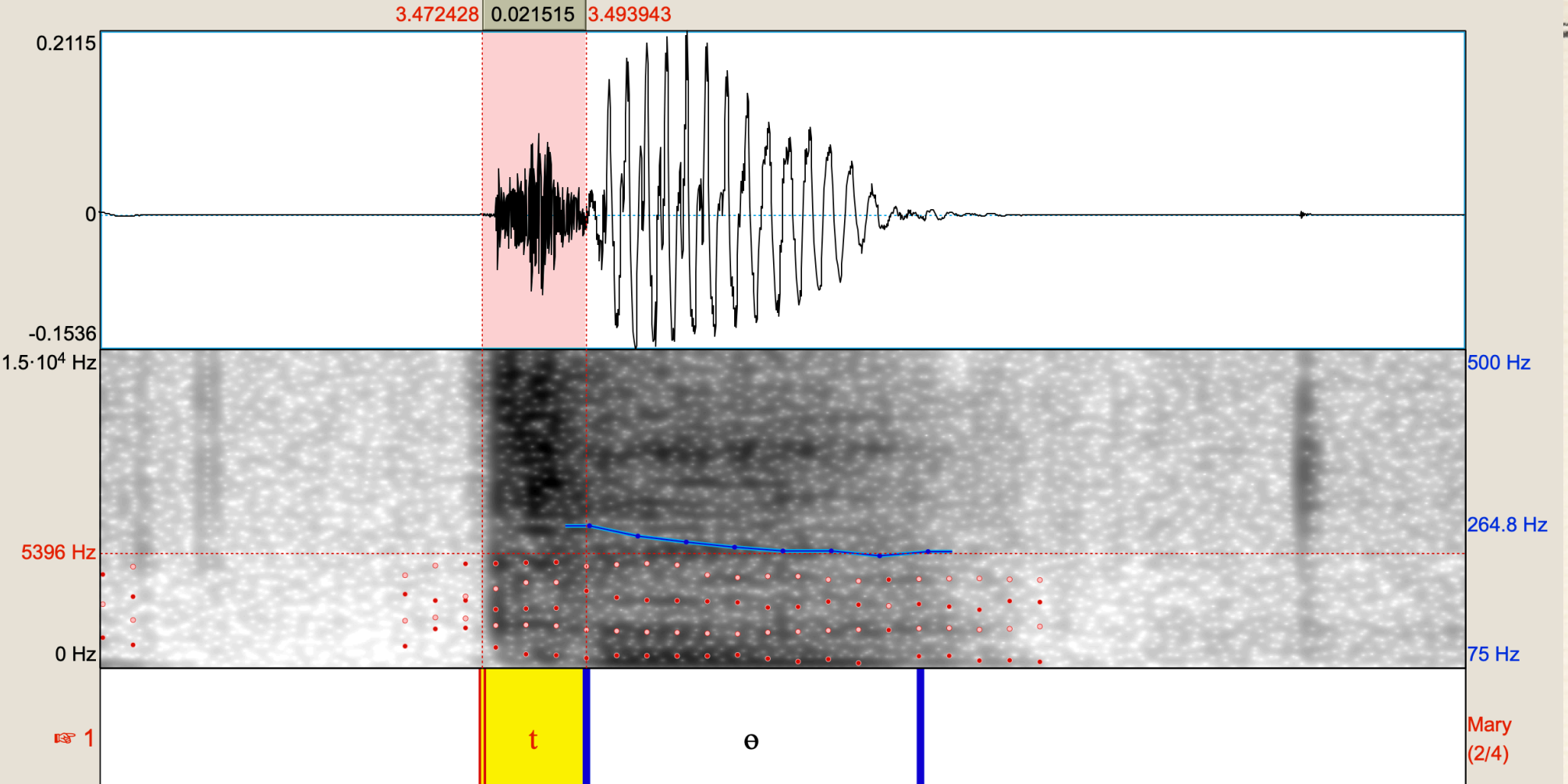
[t] - cote des neiges, cote ste catherine,  
cote vertu

[s] - place des arts, place st henri

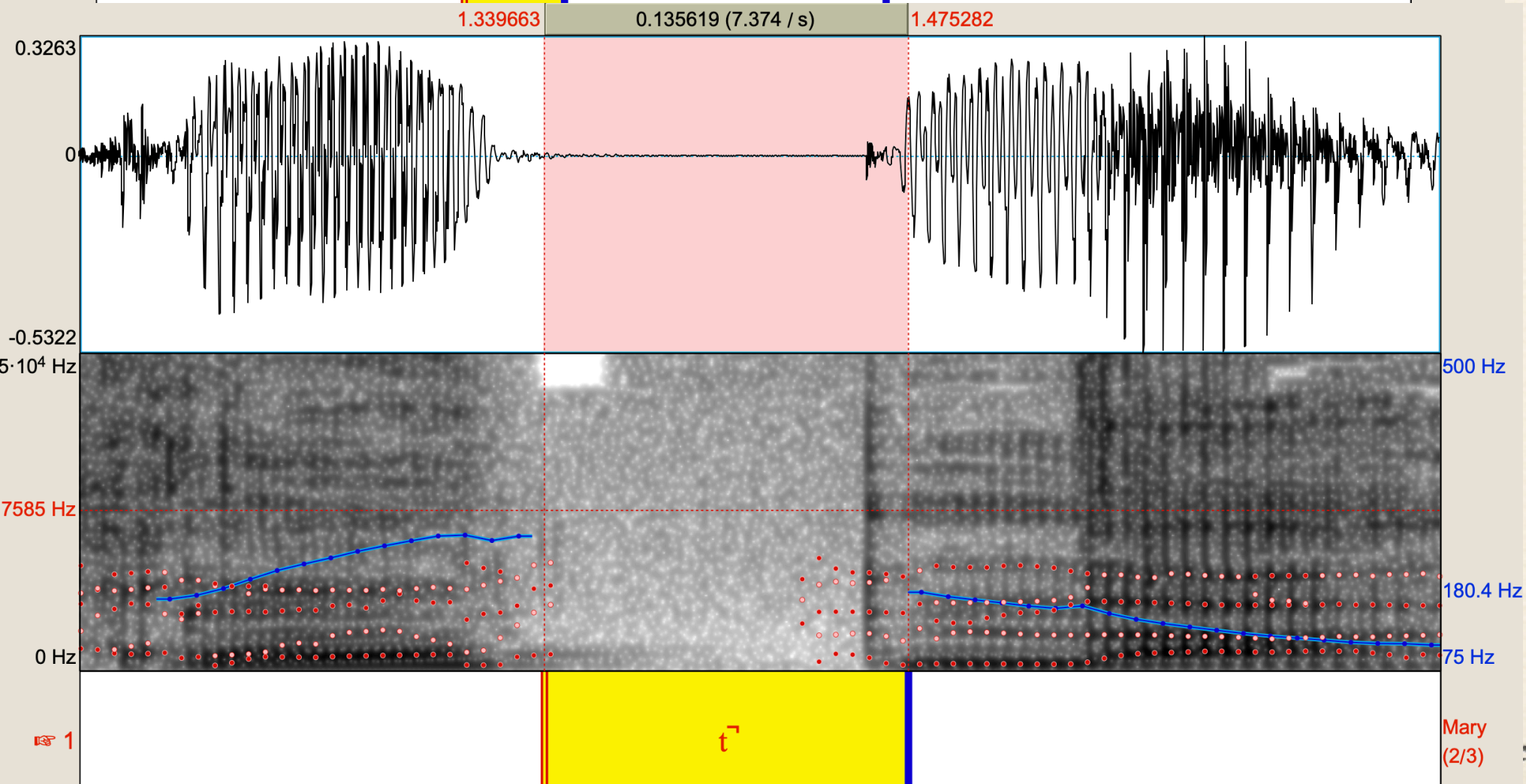
[l] - lionel groulx

[t] and [s] geminates - like coupe-papier?





[pɔrtə]



[fr̥ōöt̃nakə]



# Speech speed alternation

- ❖ Attested alternation: [pɔrt] ~ [pɔrtə]. If a Pwd ends with C in fast speech, then it would end in schwa in slow speech.
  - ❖ Unattested alternation: [frõõtˈnakə] ~ ?[frõõtənakə], **despite its spelling!**
  - ❖ Is ?[frõõtənakə] forbidden?
  - ❖ If /õ/ is long, as per (Goad & Lamontagne 2021), then <frõõ.t—.na.k—> or <frõõt.na.k—>.
- One violates the peripherality condition (Hayes 1981), the other violates Rhyme Binarity.
- ❖ Maybe all French vowels are short? Then /frõtnak/ and <frõt.na.k->.



# Interim summary

The corpus data provided evidence for:

- ❖ Silent nuclei (Charette 1991)
- ❖ Peripherality condition (Hayes 1981)







# Swear words

- ❖ [tabaɤnakl] > [tabaɤnak]
- ❖ [d̪iabl] > [d̪iab] or no change
- ❖ [kɤɪst] > [kɤɪs]
- ❖ [sibɤaɤ] > no change
- ❖ [ɔsti] > no change
- ❖ [kɑ:lis] > no change
- ❖ [sakɤəmæ:] > no change
- ❖ [mɛɤd] > no change
- ❖ [v̪iɑɤʒ] > no change




# Hypothesis 1: \*COMPLEXONSET

- ❖  [ta.baꝛ.na.kl] > [ta.baꝛ.na.k]
- ❖  [dz̥i̯a.bl] > [dz̥i̯a.b]
- ❖  [kꝛ̥i̯s.t] > [k̥i̯s.t]
- ❖  [sa.kꝛ̥ə.mǣ̃ǣ̃] > [sa.kə.mǣ̃ǣ̃]


Syllabification consistent with (Goad 2021)





## Hypothesis 2: COMPLEXONSET are ok for overt nuclei, but not empty nuclei

❖  [ta.baɤ.na.kl] > [ta.baɤ.na.k]

❖  [dzja.bl] > [dzja.b]







❖  [kɤis.t] > no change

❖  [mɛɤ.d] > no change

❖  [vjaɤ.ʒ] > no change



# Hypothesis 3: Falling Sonority Contact

- ❖  [ta.baɤ.nak.ɫ] > [ta.baɤ.nak] (rising)
- ❖  [dziab.ɫ] > [dziab] (rising)
- ❖  [kɤɪs.t] > [kɤɪs] (flat)
- ❖  [kɔɾɛk.t] > [kɔɾɛk] (flat)
- ❖  [mɛɤ.d] > no change (falling)
- ❖  [viab.ʒ] > no change (falling)

Assumes that [k.ɫ] and [b.ɫ], contra (Goad 2021), and that [k] and [b] can be codas, contra (Charette 1991)







# Can pwd-final [k] be a coda?

- ❖ (Charette 1991); (Dell 1995): No
- ❖ (Goad & Lamontagne 2021): Yes, in fact all pwd-final Cs are codas, because “vowels in final syllables are affected by following consonants in ways that are expected if these consonants are in coda”, for example, laxing, lengthening, diphthongization
- ❖ (Liu 2021): Coda, because as we saw above,



# Historic change

- ❖   $[\text{s}\epsilon\text{R.kl}] > [\text{s}\epsilon\text{R.k}]$
- ❖   $[\text{aR.bR}] > [\text{aR.b}]$
- ❖   $[\text{siR.k}] > \text{no change}$
- ❖   $[\text{tRu.bl}] > [\text{tRu.b}]$
  
- ❖ Any other words?



