NWAV54 Project Launch

Perceptual accessibility of the Ontario-Quebec French dialect boundary

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BACKGROUND

On paper:

Laurentian French has historically been treated as a single, phonetically **homogenous** variety.
(Léon, 1968)

In experience:

Franco-Ontarians report being **misidentified** by Québécois;
L2 learners describe Ontario French as more **intelligible**.

What might drive regional differences?

Language restriction
(Mougeon & Béniak, 1991; Mougeon, 1997; Thomas, 1986)

Bilingualism
(Papen, 1998)

Milieu
(Remysen, 2016)

Direct phonetic comparisons of Ontario French and Quebec French show mixed results.

Shared variation

- /l/-elision (Poplack & Walker, 1986)
- Nasalization (Séguinot, 1968, cited in Thomas, 1989)
- Loanword adaptation (Poplack et al., 2020)

Divergences

- VOT (MacLeod, 2006)
- /ə/-deletion (Poiré et al., 2010; Uritescu et al., 2004)
- Articulation rate (Cichocki et al., 2024)

RESEARCH QUESTIONS

1. Can listeners perceive **fine-grained phonetic regional variation** in Laurentian French? If so, are perceptual boundaries structured by **province**, **contact** with English, or **milieu**?
2. How does listener background shape regional perception?
3. Is regional identification driven by acoustic variation?

PRELIMINARY (PILOT) RESULTS

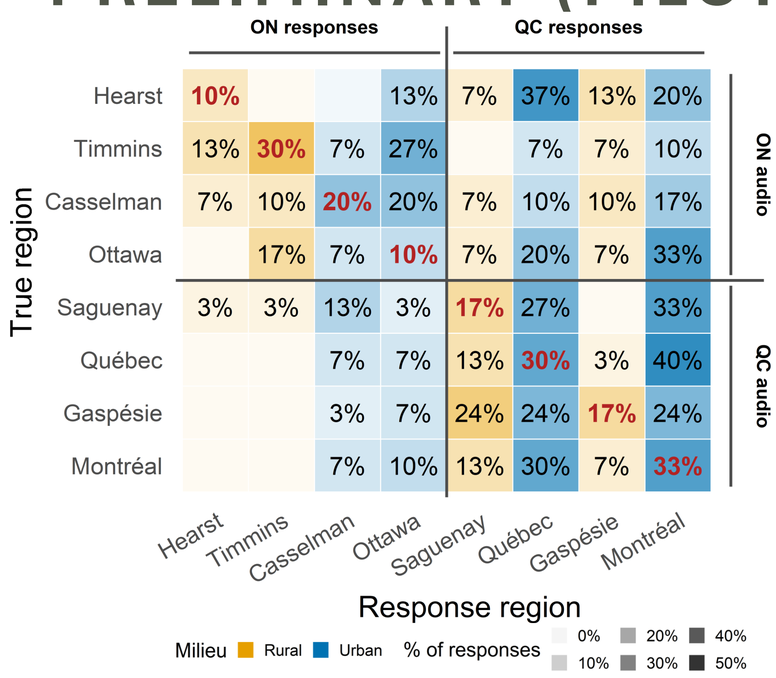


Figure 1: Confusion matrix for True region × Response region.
Chance = 12.5% (1/8 regions); n = 10.

Region-level identification is weak above chance: Timmins, Montréal, Québec

Errors cross ON → QC but rarely the other way

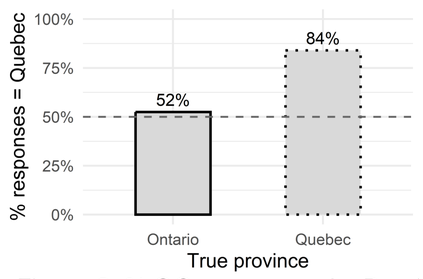


Figure 2: % QC responses by Province

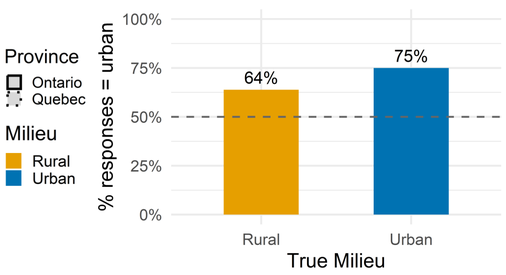


Figure 3: % urban responses by Milieu

Bias towards QC & urban responses

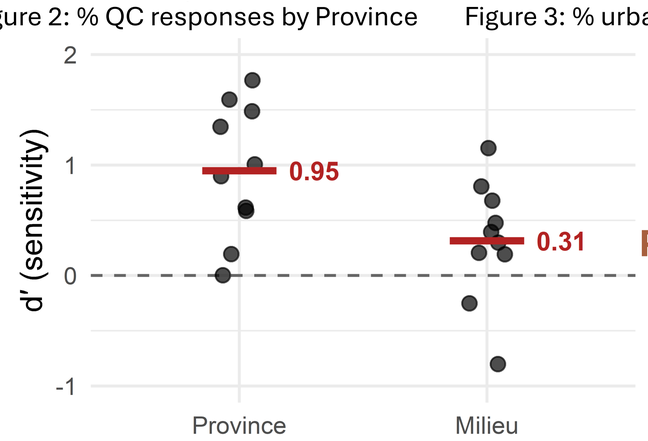


Figure 4: Sensitivity (d') to Province & Milieu.
Each point is one listener, n = 10; red line = mean, dashed line = chance.

Province is easier to hear than Milieu

METHOD

PARTICIPANTS

10 Listeners

- 8 L1–French, 2 L2–French (frequent use)
- 7 Montreal, 1 Gatineau, 1 Ottawa (1 NA)
- 6 women, 3 men (1 NA)
- 22–68 years old (median: 38)

STIMULI

48 Stimuli = 8 Regions × 6 Speakers

- L1–French
- Born/raised in each region
- Spontaneous speech (publicly available)
- ~20s audio clips

Province	Region	L1 French pop.	Speakers
Ontario	Hearst	88.4%	F32, F43, F73, M34, M45, M68
	Casselman	75.6%	F33, F38, F39, M29, M64, M68
	Timmins	37.2%	F30, F41, F79, M30, M55, M60
	Ottawa	17.6%	F21, F26, F54, F73, M19, M72
Quebec	Saguenay	97.5%	F28, F46, M43, M44, M56, M69
	Québec (City)	92.4%	F31, F50, F58, M19, M51, M82
	Gaspésie	~90%	F33, F41, F62, M45, M66, M78
	Montréal	59.9%	F24, F38, F76, M29, M55, M78

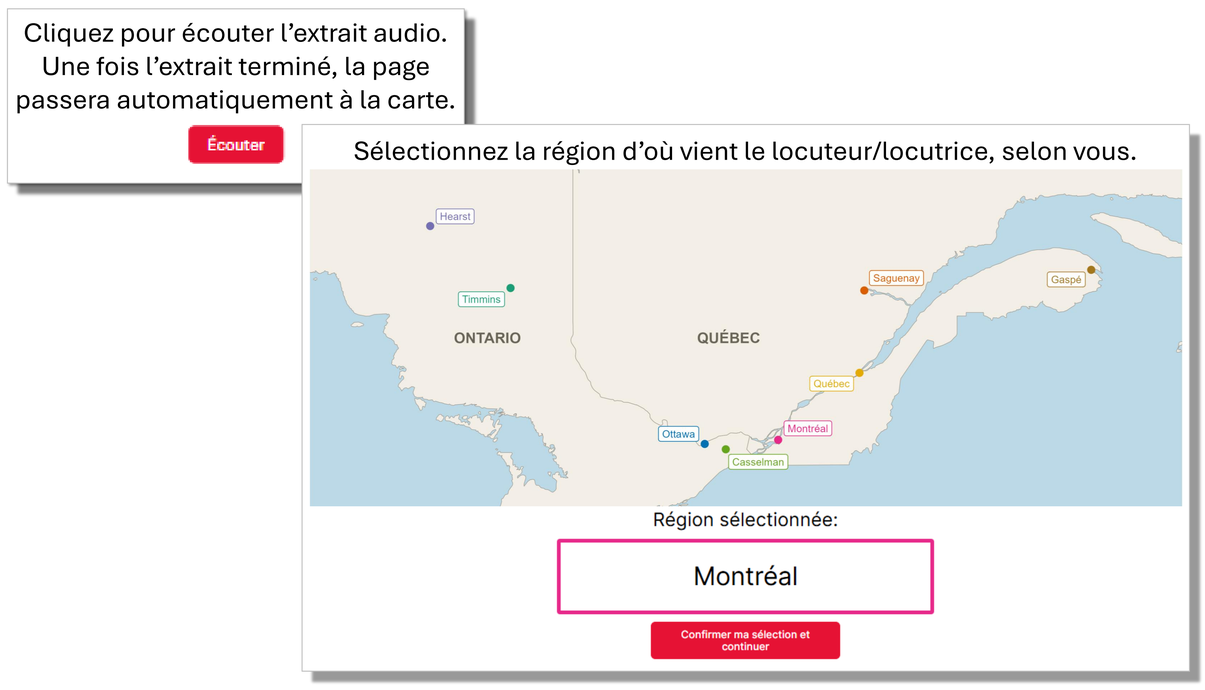
Table 1: Percentages of L1 French speakers by region (Statistics Canada, 2021; Statistique Québec, 2021) in descending order, colour-coded by milieu (urban vs. rural).

TASK

Map-based **8AFC**

(Clopper & Pisoni, 2004; Preston, 1993; Remysen, 2016)

2 Practices + **24 Trials** (random 3/6 per region)



Closing questions

Quels indices ont influence vos choix?

- ❑ Intuition
- ❑ Voyelles
- ❑ Consonnes
- ❑ Vitesse
- ❑ Mot/expressions
- ❑ Ton/intonation
- ❑ Autres: _____

Avez-vous utilisé une stratégie particulière?

- ☑ Oui
- ☒ Non

Si oui, laquelle? _____

Historique:

- Informations démographiques
- Antécédents linguistiques

NEXT STEPS

REFINE THE TASK

8AFC too hard

- Fewer options
- Free classification task (Clopper & Pisoni, 2007)

Scale up

- Larger stimuli pool (more speakers, more clips)
- More listeners (n = 40, ON & QC)

TOWARDS FULL RESULTS

Analysis plan

- Signal detection theory (sensitivity vs. bias)
- Confusion matrices + Similarity Choice Model (Clopper & Pisoni, 2004)
- Bayesian regression with listener demographics and language background, speaker effects…
- Acoustic analysis of stimuli

Revise task → Full data collection → Analysis & modelling → Acoustics

Feedback welcome!

ACKNOWLEDGEMENTS & REFERENCES

Thank you to Meghan Clayards, Morgan Sonderegger, Jeff Lamontagne, Myriam Lapierre, André Lévesque-Kinder and Yuki MacDougall.

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