



Background

Language contact

- Many have theorized about the distinction between borrowings and one word code switches (i.e., nonce borrowings), typically distinguishing by frequency or linguistic intergration [6, 7, 10, 11]
- This distinction requires a strong theory of what a language is to begin with

Maritime provinces of Canada

- Where Acadian French is spoken as opposed to Quebec French [5]
- Unlike in Quebec, French is a clear minority language in the Maritime provinces [3, 5]
- English-origin features thus commonly appear in Acadian French [4, 9]

The use of lol generally

- In English, lol is often considered a discourse marker [1, 12]
- No work has been done on the use of English lol in French

Research Question

Does the lexical linguistic variable (lol) in French tweets vary according to detected community?

Methods

Data

- Directed tweets from the Maritime provinces of Canada between Jan-Feb, 2017
- Network constructed using X tweets from Y users
- Communities detected using the Louvain algorithm [2] to find the maximum modularity Q [8]

Linguistic variable: Lexical (lol)

- As used in French tweets
- Variants include lol and its French equivalents mdr ‘mort(e) de rire’ and ptdr ‘pété(e) de rire’

Independant variables

- Primary: Detected community
- Secondary: Time zone, province, city, part-of-speech

General results (Fisher’s exact and Cramér’s V)

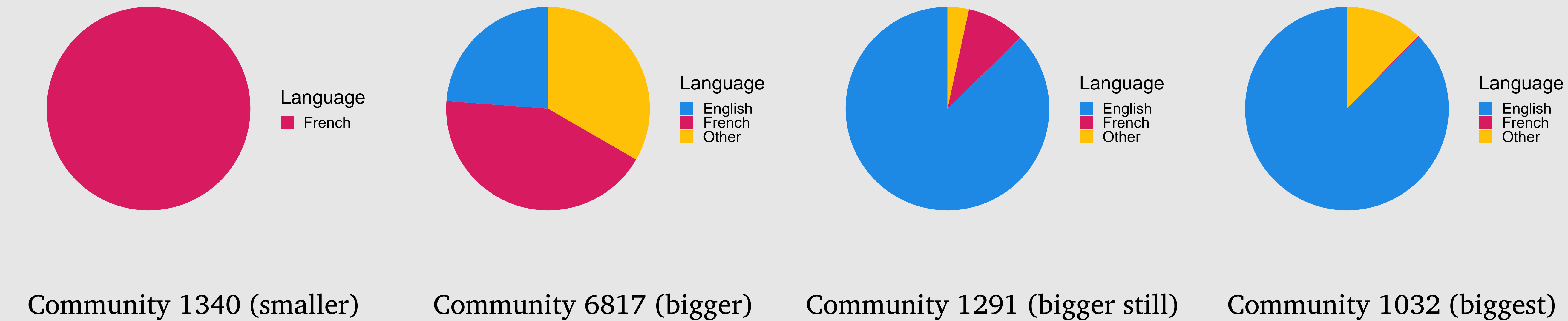
Detected community is significant ($P < 0.0005$, $V \approx 0.63$ compared to $P < 0.0005$, $V \approx 0.59$ for city and $P < 0.0005$, $V \approx 0.36$ for province)

Communities without lol								Communities with lol							
French tweets only				Whole community				French tweets only				Whole community			
Community	lol	mdr	ptdr	Mode	D (spread)	Members	Density	Community	lol	mdr	ptdr	Mode	D (spread)	Members	Density
173	0	1	1	lol	0.350	2,480	0.000	302	1	0	0	lol	0.272	17,279	0.000
322	0	1	0	mdr	0.000	19	0.053	756	1	18	16	lol	0.694	980	0.001
572	0	1	0	lol	0.179	3,601	0.000	799	3	32	0	mdr	0.180	33	0.030
1291	0	11	0	lol	0.321	1,073	0.001	1032	2	0	0	lol	0.188	22,531	0.000
1340	0	23	0	mdr	0.000	33	0.036	1097	4	0	0	lol	0.152	2,955	0.000
1782	0	0	1	ptdr	0.000	2	0.500	1227	1	0	0	lol	0.153	2,214	0.000
2305	0	1	0	mdr	0.000	4	0.250	1917	1	5	0	lol	0.481	4,432	0.000
6445	0	1	0	mdr	0.000	2	0.500	2067	6	13	8	mdr	0.616	44	0.023
6744	0	3	0	mdr	0.000	12	0.083	2265	1	3	1	lol	0.440	242	0.004
								6817	7	2	0	lol	0.245	592	0.002

Importance of community size

Only the smallest communities are French dominant; All communities with > 1,000 members are English dominant

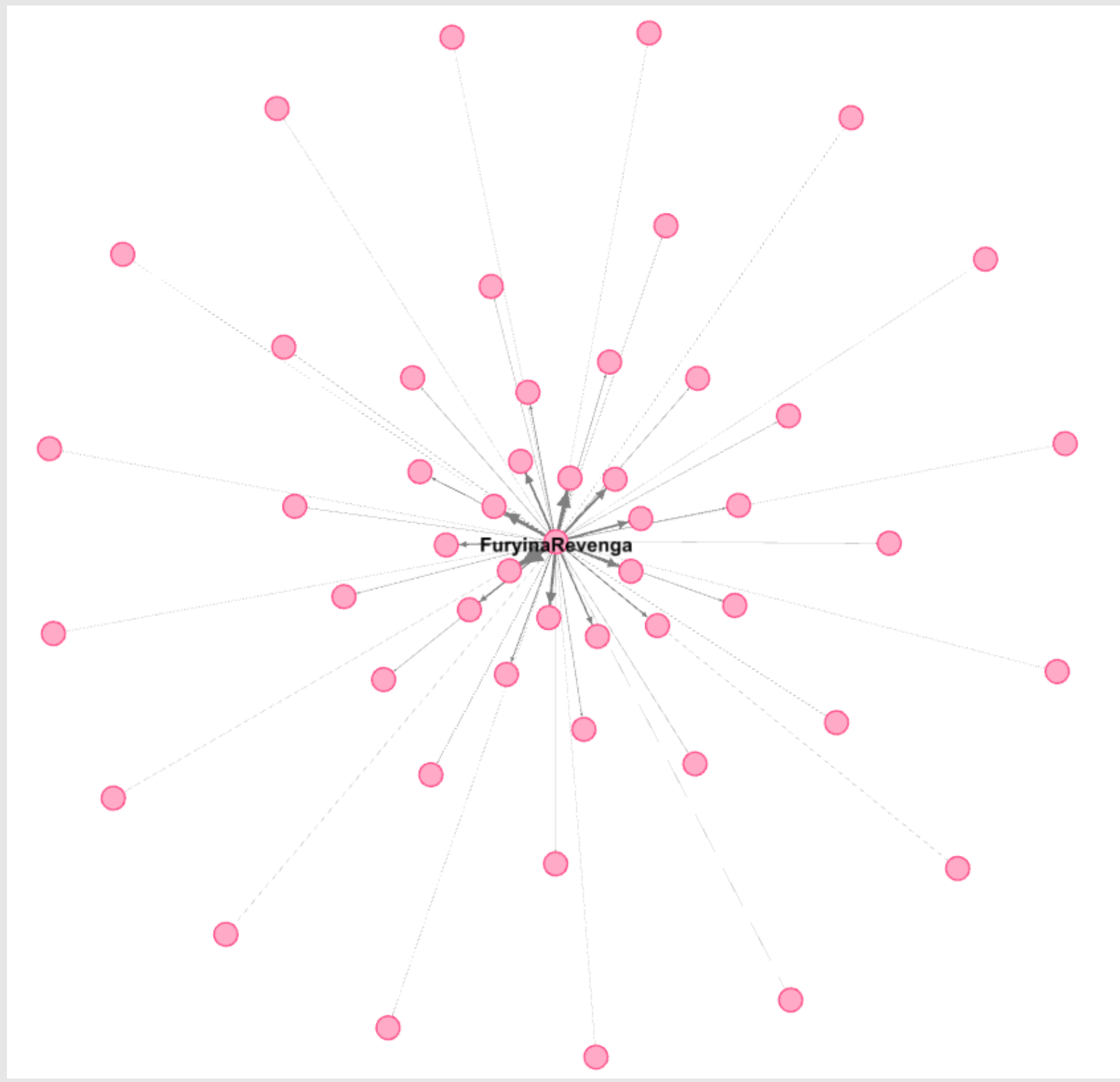
- Having even a moderate English presence leads to a mode of lol overall and usage of lol in French tweets (e.g., community 6817)



The outlier

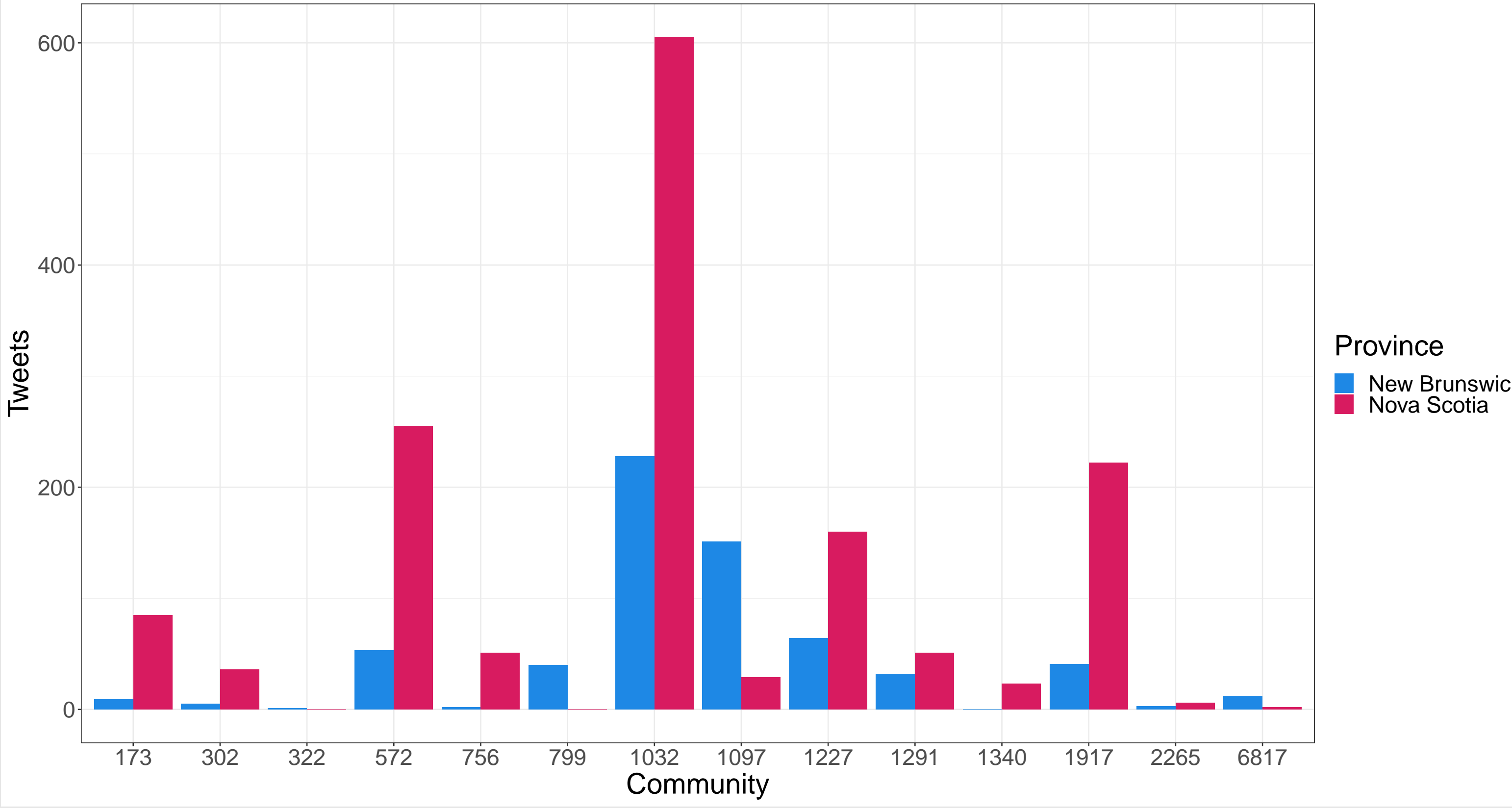
The only French user of (lol) in community 1340:

In-degree = 0, out-degree = 50



There’s a statistical relationship between community and province

($P < 0.0005$), though its far from exclusively one province per community



Conclusion

The lexical variable (lol) as used in French tweets *do* vary according to detected community

- The higher the presence of English, the more likely the use of the variant lol

Discussion

In online communities, French can be locally dominant but otherwise a minority, just as in geographical Maritime communities

- This appears to impact the way (lol) is used from community to community

Some users produce *only* the variant lol in French tweets

- e.g., bloggercharles in the large, heavily English community 1097
- These users may not have mdr in their mental grammars

The methods used here highlight the importance of interactions more than other community concepts

- Detected communities are complementary to other concepts
- e.g., Detect communities first, then do an ethnography

References

[1] Naomi S. Baron. “See You Online: Gender Issues in College Student Use of Instant Messaging”. English. In: *Journal of Language and Social Psychology* 23.4 (Dec. 2004), pp. 397–423. issn: 0261-927X. doi: [10.1177/0261927X04269585](https://doi.org/10.1177/0261927X04269585).

[2] Vincent D. Blondel et al. “Fast unfolding of communities in large networks”. In: *arXiv:0803.0476v2* (July 2008). issn: 1742-5468. doi: [10.1088/1742-5468/2008/10/P10008](https://doi.org/10.1088/1742-5468/2008/10/P10008).

[3] Philip Comeau. “A window on the past, a move toward the future: Sociolinguistic and formal perspectives on variation in Acadian French”. Anglais. Ph.D. Toronto, ON, 2011.

[4] Ruth King. “Chiac in context: Overview and evaluation of Acadie’s joul”. English. In: *Social Lives in Language: Sociolinguistics and multilingual speech communities*. Ed. by Miriam Meyerhoff and Naomi Nagy. Vol. 24. IMPACT: Studies in Language and Society. Amsterdam; Philadelphia, PA: John Benjamins B.V., 2008, pp. 138–178.

[5] Ruth King. *The Lexical Basis of Grammatical Borrowing : A Prince Edward Island French Case Study*. English. Amsterdam Studies in the Theory and History of Linguistic Science. Series IV, Current Issues in Linguistic Theory. Amsterdam: John Benjamins Publishing Co, 2000. isbn: 978-90-272-3716-3.

[6] Yaron Matras. *Language Contact*. English. Cambridge textbooks in linguistics. Cambridge: Cambridge University Press, 2009. isbn: 978-0-521-82535-1.

[7] Carol Myers-Scotton. “Code-switching as indexical of social negotiations”. English. In: *The Bilingualism Reader*. Ed. by Wei Li. London, UK: Routledge, 2000, pp. 127–153. isbn: 978-0-203-46134-1.

[8] M. E. J. Newman and M. Girvan. “Finding and evaluating community structure in networks”. English. In: *arXiv: cond-mat/0308217* (Feb. 2004). issn: 1539-3755, 1550-2376. doi: [10.1103/PhysRevE.69.026113](https://doi.org/10.1103/PhysRevE.69.026113).

[9] Marie-Ève Perrot. “Le trajet linguistique des emprunts dans le chiac de Moncton: quelques observations”. French. In: *Minorités linguistiques et société* 4 (2014), pp. 200–218. issn: 1927-8632. doi: [10.7202/1024698ar](https://doi.org/10.7202/1024698ar).

[10] Shana Poplack. “Sometimes I’ll start a sentence in Spanish y termino en español: toward a typology of code-switching”. English. In: *The Bilingualism Reader*. Ed. by Wei Li. London, UK: Routledge, 2000, pp. 205–240. isbn: 978-0-203-46134-1.

[11] Shana Poplack, David Sankoff, and Chris Miller. “The social correlates and linguistics processes of lexical borrowing and assimilation”. In: *Linguistics* 26.1 (1988), pp. 47–104. doi: [10.1515/Ling.1988.26.1.47](https://doi.org/10.1515/Ling.1988.26.1.47).

[12] Sali A. Tagliamonte and Derek Denis. “Linguistic Ruin? Lol! Instant Messaging and Teen Language”. English. In: *American Speech* 83.1 (2008), pp. 3–34. issn: 00031283. doi: [10.1215/00031283-2008-001](https://doi.org/10.1215/00031283-2008-001).