

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)

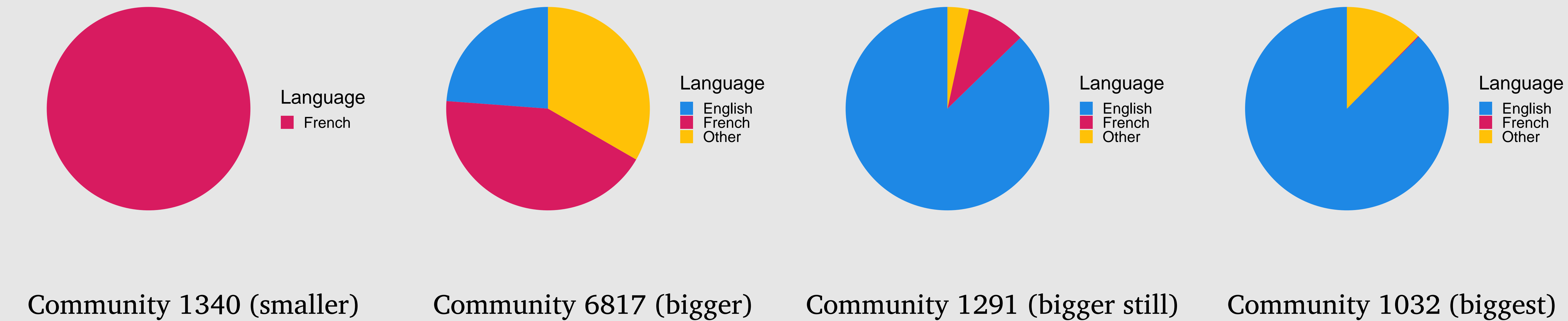
Detected community is significant ($P < 0.0005$, $V \approx 0.63$ compared to $P < 0.0005$, $V \approx 0.59$ for city and $P < 0.0005$, $V \approx 0.36$ for province)

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

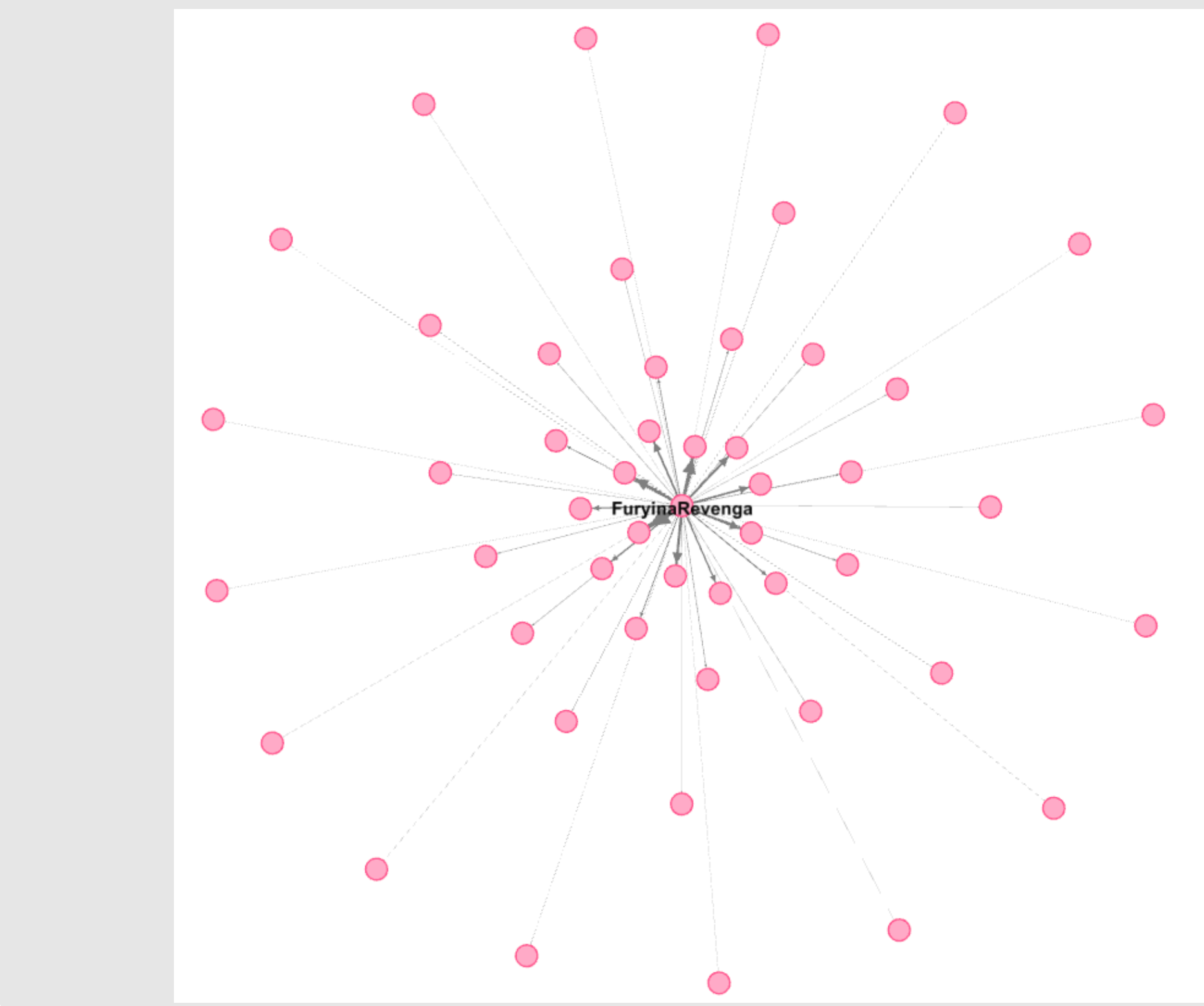
Only the smallest communities are French dominant; All communities with > 1,000 members are English dominant

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



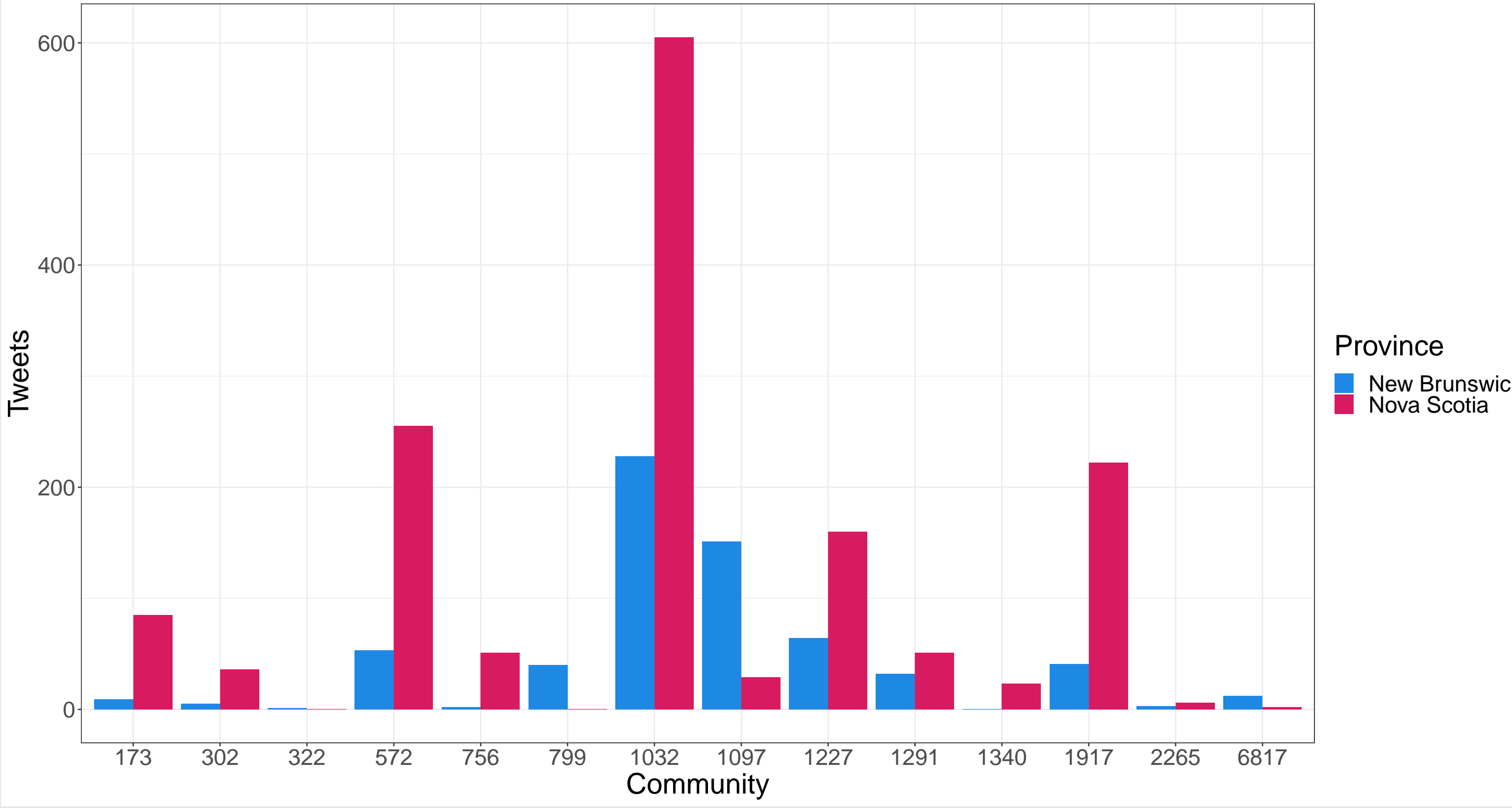
The outlier

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

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