

# Placename Mutation Variation in Wales & Patagonia

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## Background

- Welsh (spoken in Wales and Patagonia) uses initial consonant mutations

Radical	Nasal Mutation	Soft Mutation
/p/	/m/	/b/
/t/	/n/	/d/
/k/	/ŋ/	/g/
/b/	/m/	/f/
/d/	/n/	/ð/
/g/	/ŋ/	∅

- Nasal Mutation with locative particle *yn* 'in'

**Bangor** ['bangɔr] → *ym* **Mangor** ['mangɔr]  
'Bangor' 'in Bangor' [4]

- Variation/potential lack of Nasal Mutation in spoken Welsh [1], [2], [4], [5], [6]
- Anecdotal speaker intuitions:
  - Welsh placenames mutate
  - Non-Welsh placenames don't i.e. *ym Mhwllheli* (Pwllheli) but \**ym Mharis* (Paris)?
- What about Patagonian Welsh?



## This Study

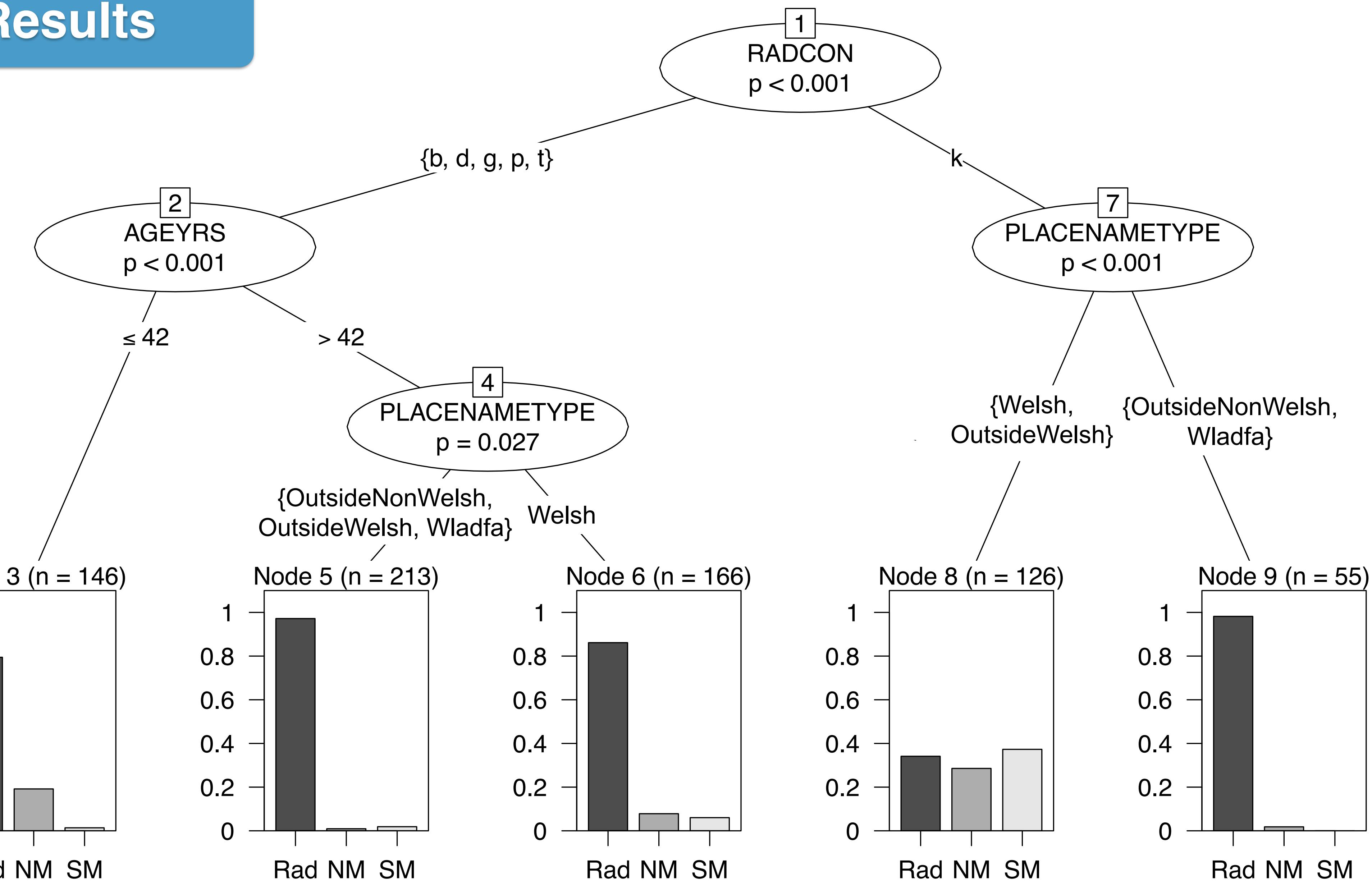
How do speakers mutate placenames following *yn* 'in' in Wales and Patagonia?

## Data/Methods

- Corpus data: Bangor Siarad/Patagonia [3]
  - Wales: 151 speakers, 40 hours
  - Patagonia: 94 speakers, 21 hours
  - 706 tokens in total (419 Wales, 287 Patagonia)
- Coded all placenames following *yn* 'in'
  - Country (Wales, Patagonia)
  - Age, Sex
  - Radical Word
  - Radical Consonant (/p t k b d g/)
  - Placename Type
    - Welsh (Caerdydd)
    - Wladfa (Gaiman)
    - Outside-Welsh (De Affrica)
    - Outside-non-Welsh (Paris)
  - Mutation result (Radical, Nasal, Soft)
- Statistical methods: Classification tree (*cTree*), random forest (*cForest*) for validation



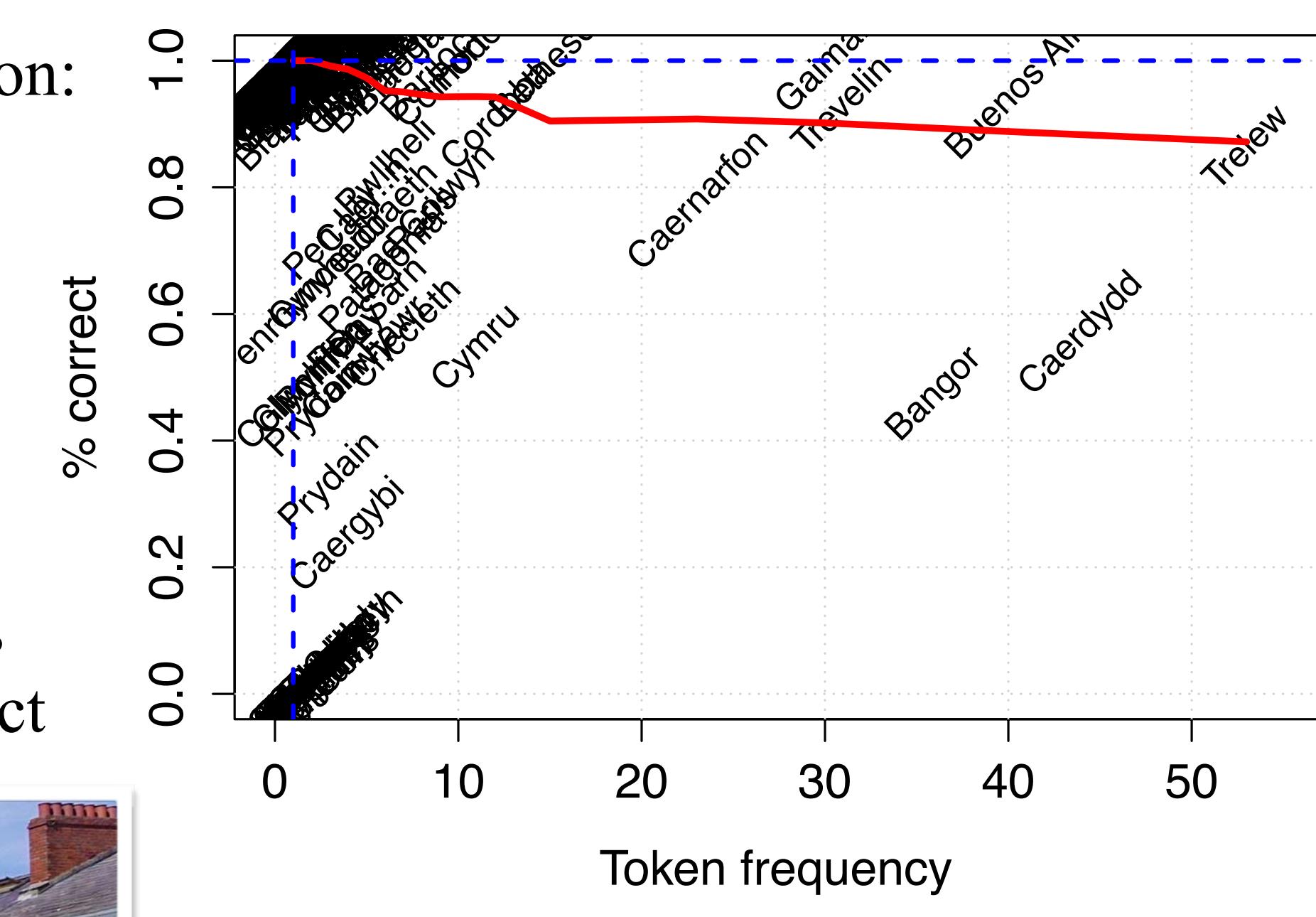
## Results



- Random forest accuracy: 0.893 (better than baseline)
- Variable importance: RadCon (0.050) > Age (0.025), PlaceNameType (0.023) > Sex (0.003), Country (0.003)

## Discussion

- No statistically-significant difference in how Welsh and Patagonian speakers mutate placenames after *yn* 'in'
- Most important factors:**
  - Radical consonant:** speakers more likely to mutate /k/ than other initial consonants
  - Age:** for non-/k/ initial consonants, speakers younger than 42 more likely to mutate
  - Placename Type:**
    - /k/: Welsh/Outside-Welsh mutate more than Outside-Non-Welsh/Wladfa
    - non-/k/: speakers older than 42 are more likely to mutate Welsh place names
- Soft Mutation**
  - More common than Nasal Mutation for /k/
  - For /k/ Welsh/Outside-Welsh placenames, Soft Mutation most common outcome!
  - Some placenames seem especially prone to Soft Mutation:  
Caernarfon → 'yn Gaernarfon' (20/23)  
Caerdydd → 'yn Gaerdydd' (16/44)
- Effect of individual placenames**
  - Some placenames with high token frequencies are less accurately predicted by the model
  - Place(name)s of cultural importance for Welsh speakers
  - Speakers mutate them more than the model would expect



	Rad	NM	SM	Total
Caernarfon	3	0	20	23
Bangor	17	14	5	36
Caerdydd	7	21	16	44

## Conclusions

- No difference** between Patagonian and Welsh speakers
- Placenames beginning with /k/ more likely to mutate
- Geographical & cultural location matters**
  - More geographically/linguistically 'Welsh' more likely to be mutated
- Younger speakers** (<42) more likely to mutate non-/k/-initial placenames
- Soft Mutation** important part of the *yn* 'in' mutation paradigm
- Future directions:
  - *fy* 'my' and Nasal Mutation; placenames after *i* 'to' (said to trigger Soft Mutation)



[1] Ball, Martin J. & Nicole Müller. 1992. *Mutation in Welsh*. New York: Routledge. | [2] Ball, Martin J. 1985. Radio Cymru: Programme style and linguistic variation. *Journal of Multilingual and Multicultural Development*, 6(2), 157-163. | [3] Deuchar, Margaret, P. Peredur Davies, Jon Russell Herring, M. Carmen Parafita Couto & D. Carter. 2014. Building bilingual corpora. In Enlli Môn Thomas & Ineke Memmen (eds.), *Advances in the Study of Bilingualism*. Bristol: Multilingual Matters. | [4] Hammah, S.J. 2013. *The Phonology of Welsh*. London: Oxford University Press. | [5] King, Gareth. 2003. *Modern Welsh: A Comprehensive Grammar*. New York: Routledge. | [6] Thomas, Peter Wynn. 1984. Variation in South Glamorgan Consonant Variation. In Martin J. Ball & Glyn E. Jones (eds.), *Welsh Phonology*. Cardiff: University Press. 208-236. | Images: https://strawberryjamandbrusselssprouts.wordpress.com/, http://porthmadog-wales/, http://musicour.eu/, https://wikipedia.org/

## References