Velar nasal plus in the north of (ing)land

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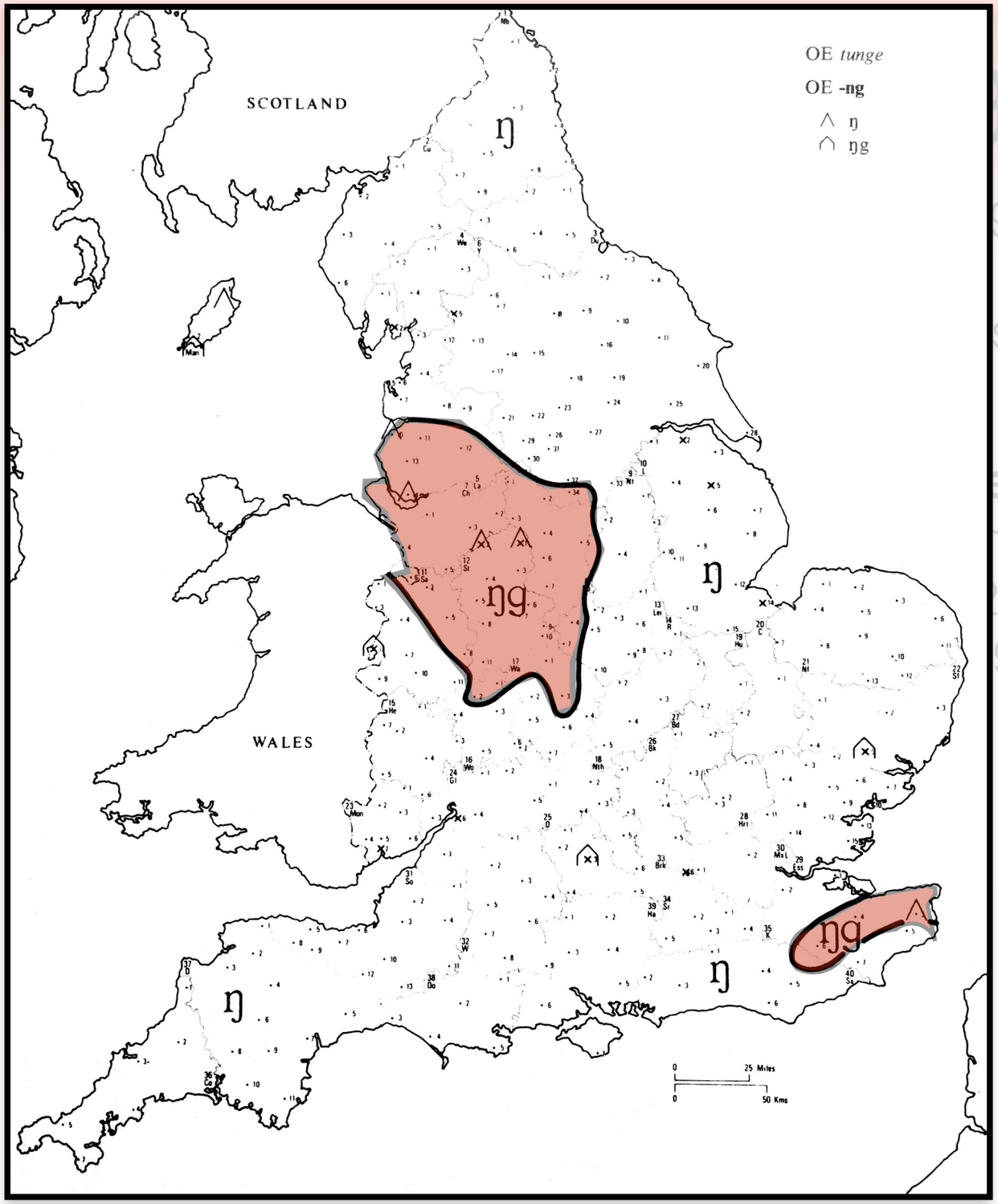
Velar nasal plus

(Wells 1982: 365)

- Presence of post-nasal /g/ in varieties spoken in the North West and West Midlands of England
    - **Liverpool** (Knowles 1973); **West Wirral** (Newbrook 1999); **Manchester** (Bailey 2015; Schleef et al. 2015); **Cheshire** (Watts 2005); **Birmingham** (Thorne 2003); **Cannock** (Heath 1980); the **Black Country** (Mathisen 1999; Asprey 2015)
- Well-attested in dialectological literature but the nature of its variation is relatively understudied
- Even has its own emoji: 🆖
- Envelope of variation can be split into two distinct environments:

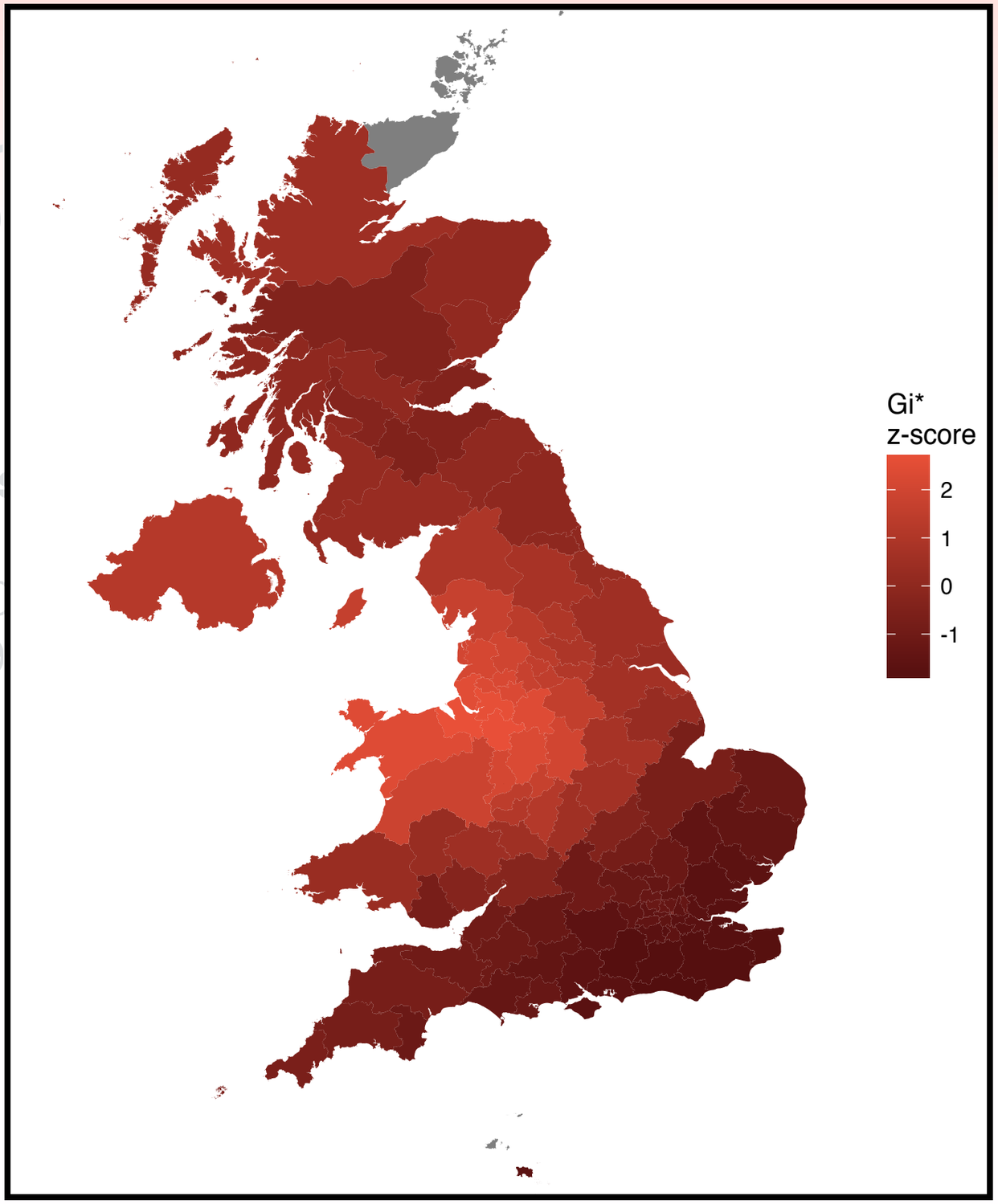
(ing) ⟶ [ɪn] [ɪŋ] [ɪŋg] e.g. *runn**ing**, wait**ing***

(ng) ⟶ [Vŋ] [Vŋg] e.g. *k**ing**, s**ing**er*



1960s

(Orton et al. 1978)



2015-17

(based on data from MacKenzie et al. 2017)

Historical origin

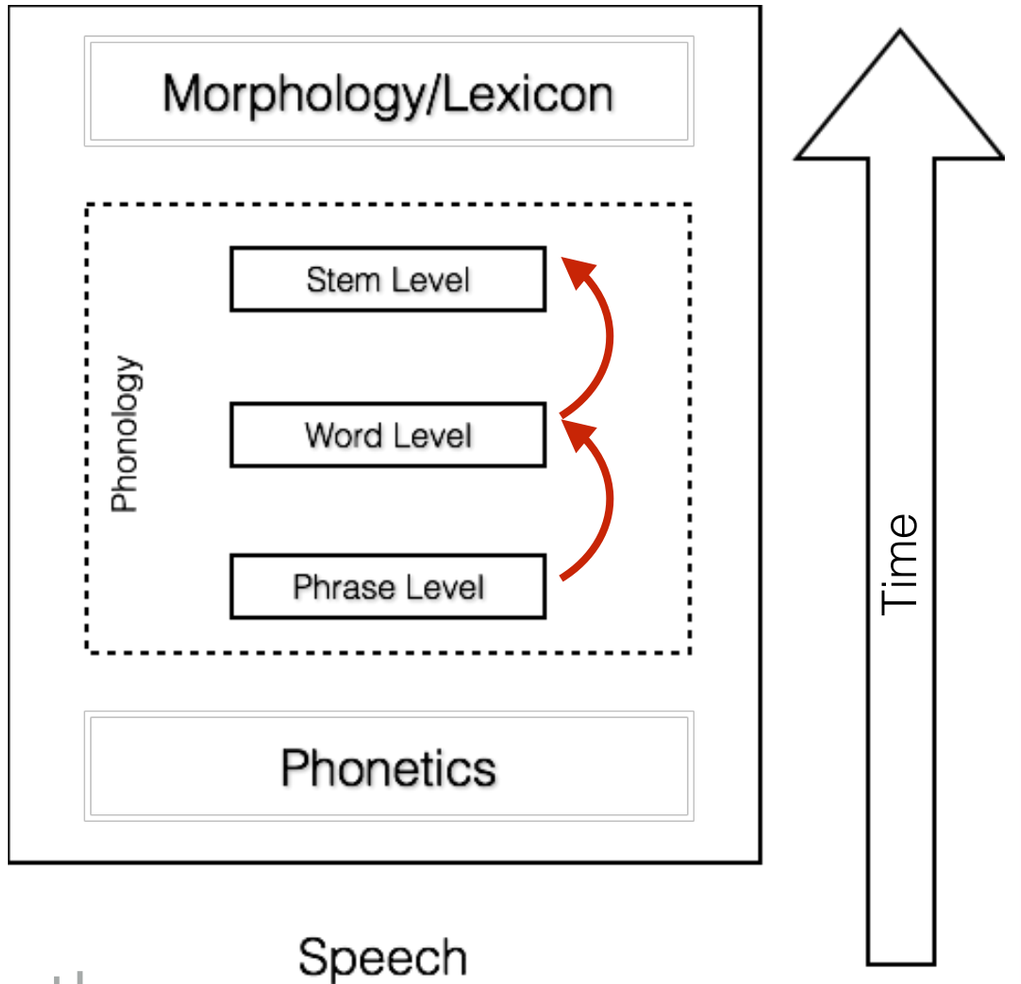
- Origins of (ing) and (ng) variation closely intertwined
- (ing) originates from two Old English suffixes: present participle *-inde* and verbal noun form -*ynge/-inge* (Visser 1966)
- Reduction (and later deletion) of the final vowels -> **simplification of the consonant clusters** leading to nasal place contrast (alveolar vs. velar) -> conflation of two forms
- Simplification of the /ŋg/ cluster never ran to completion in the North West of England, leading to surface variability between [ŋ] and [ŋg] that still exists today
    - Diachronic evidence suggests that the rule deleting post-nasal /g/ evolved in a very systematic way, following the 'life cycle of phonological processes' (Bermúdez-Otero 2011)

The life cycle of phonological processes

(Bermúdez-Otero & Trousdale 2012)

- Phonology split into three ‘cycles’
- Phonological processes begin as post-lexical rules before climbing into more embedded domains over time

1. PHRASE-LEVEL: rule can see the whole **phrase** (i.e. across word boundaries)



e.g. Jon Snow is the King in the North

The life cycle of phonological processes

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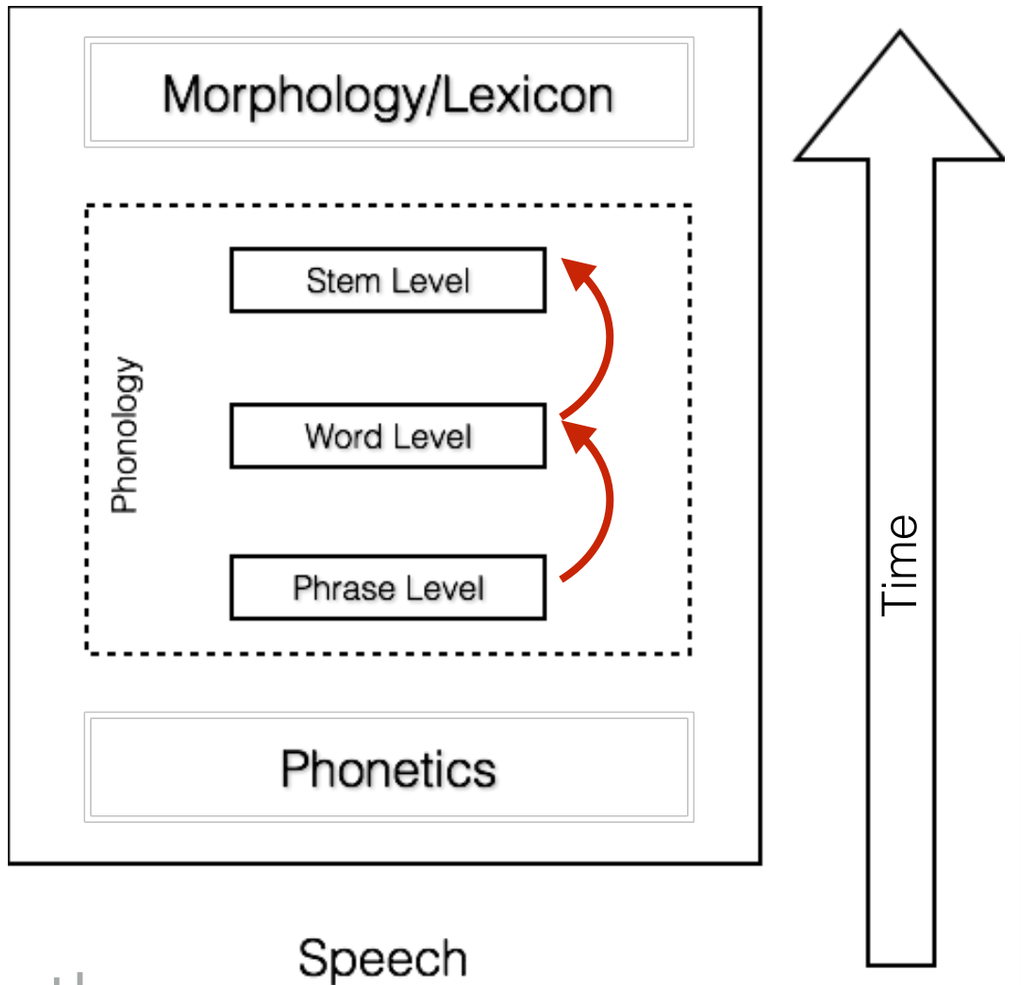

e.g. Jon Snow is the **King** in the North

e.g. Morrissey is a talented **singer** from Manchester

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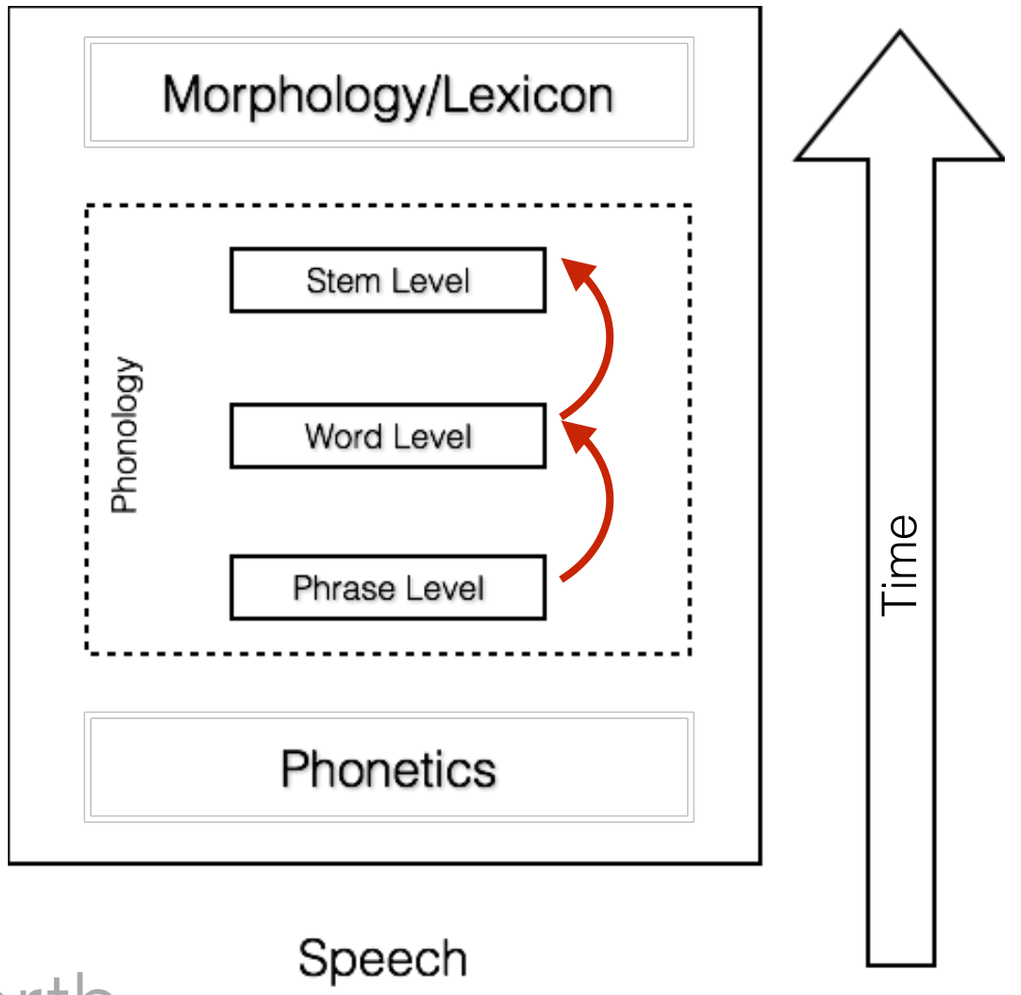
3. STEM-LEVEL: rule can only see the **stem**



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The life cycle: synchronic predictions

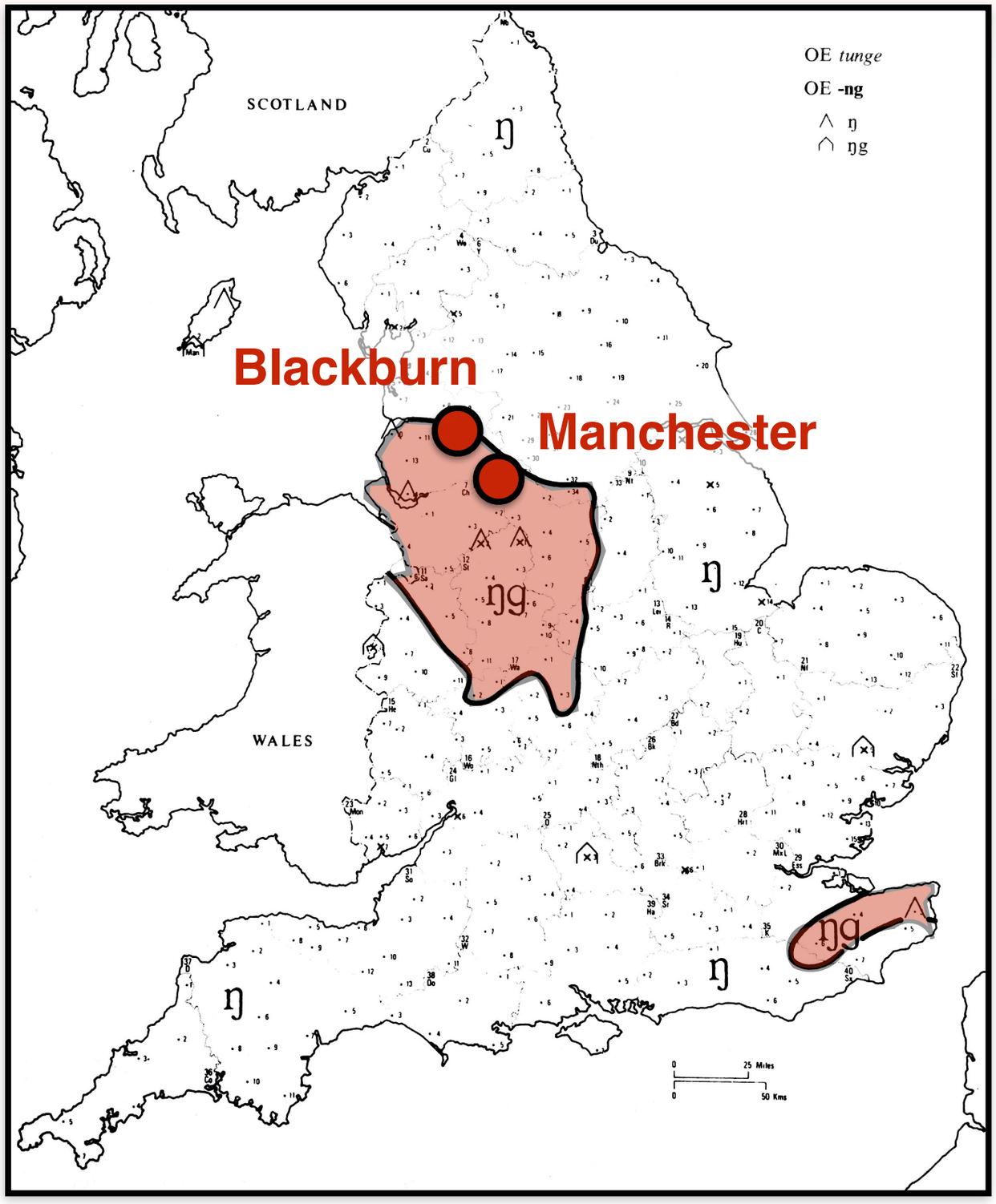
- Synchronic implication under a cyclic framework:
    - words where the /g/ is eligible for deletion (i.e. in coda position) in more cycles -> more chances for /g/-deletion to apply -> higher probability of surface [g]-absence
- /t,d/-deletion (Guy 1991) and /l/-darkening (Turton 2014, 2017) have been analysed under similar frameworks

Higher probability of deletion

Phonological computation	*finger*	*singer* _V	*sing it* _#V	*sing* ll _#ll	*sing tunes* _#C
Stem-level	/fɪŋ.gə/	/sɪŋg/	/sɪŋg/	/sɪŋg/	/sɪŋg/
Word-level	/fɪŋ.gə/	/sɪŋ.gə/	/sɪŋg/	/sɪŋg/	/sɪŋg/
Phrase-level	/fɪŋ.gə/	/sɪŋ.gə/	/sɪŋ.gɪt/	/sɪŋg/	/sɪŋg.tʃuːnz/
Chances to apply:	0	1	2	3	

Methodology

- Quantitative approach using twenty-four sociolinguistic interviews conducted with North Western speakers
    - two speakers recorded in 1971 for a real-time component
- Stratified by age and sex (all 'working class' speakers)
- Interviews typically one hour long, followed by a reading passage and word list
- Transcribed and force-aligned using the FAVE suite (Rosenfelder et al. 2011)
- All tokens coded by hand for [g]-presence
- Mixed-effects logistic regression using `lme4` in R, with random intercepts of *speaker* and *word*
- **3760 tokens of (ing) ~ 1459 tokens of (ng)**

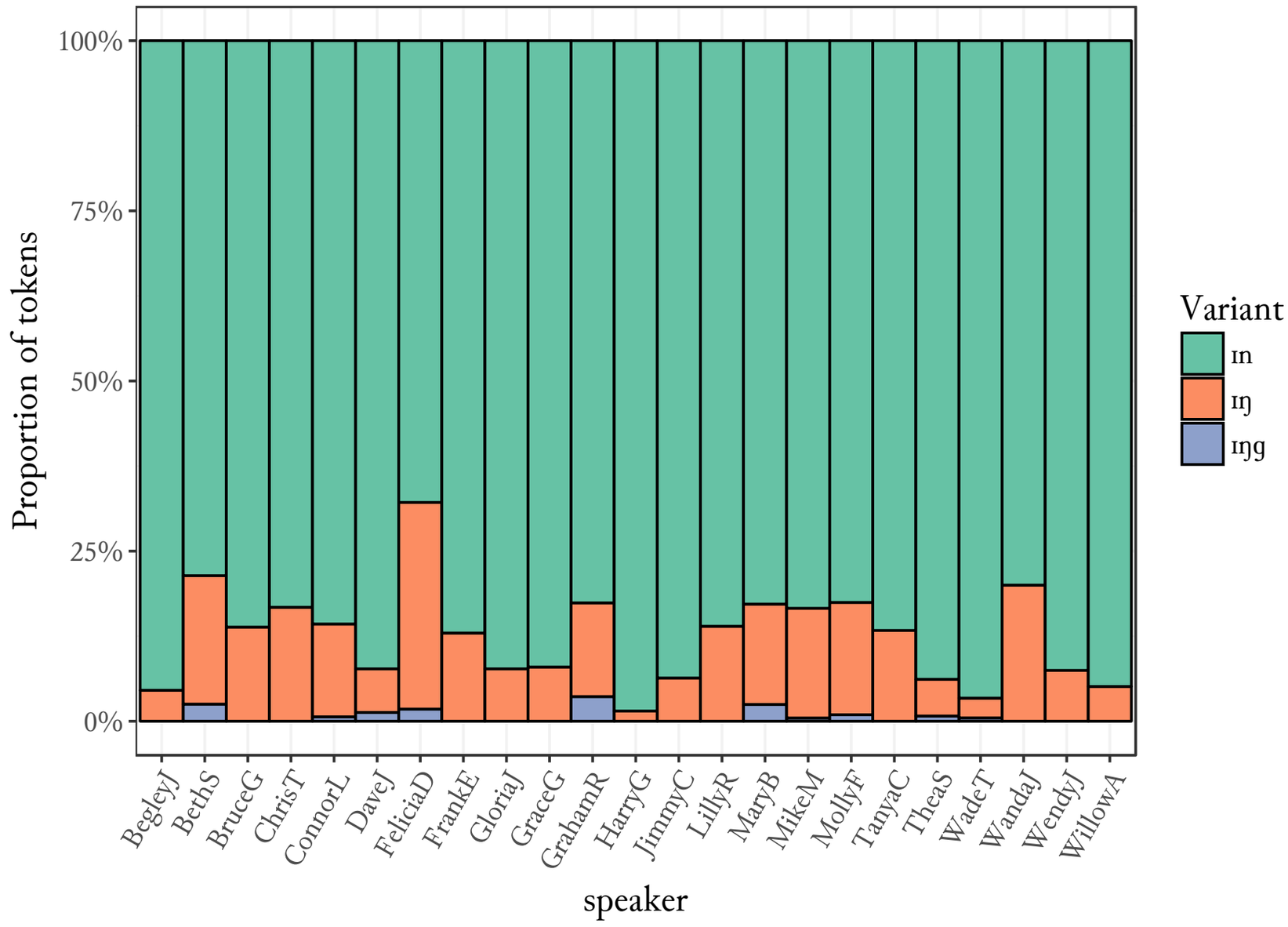


The Linguistic Atlas of England - Orton et al. 1978

Overview

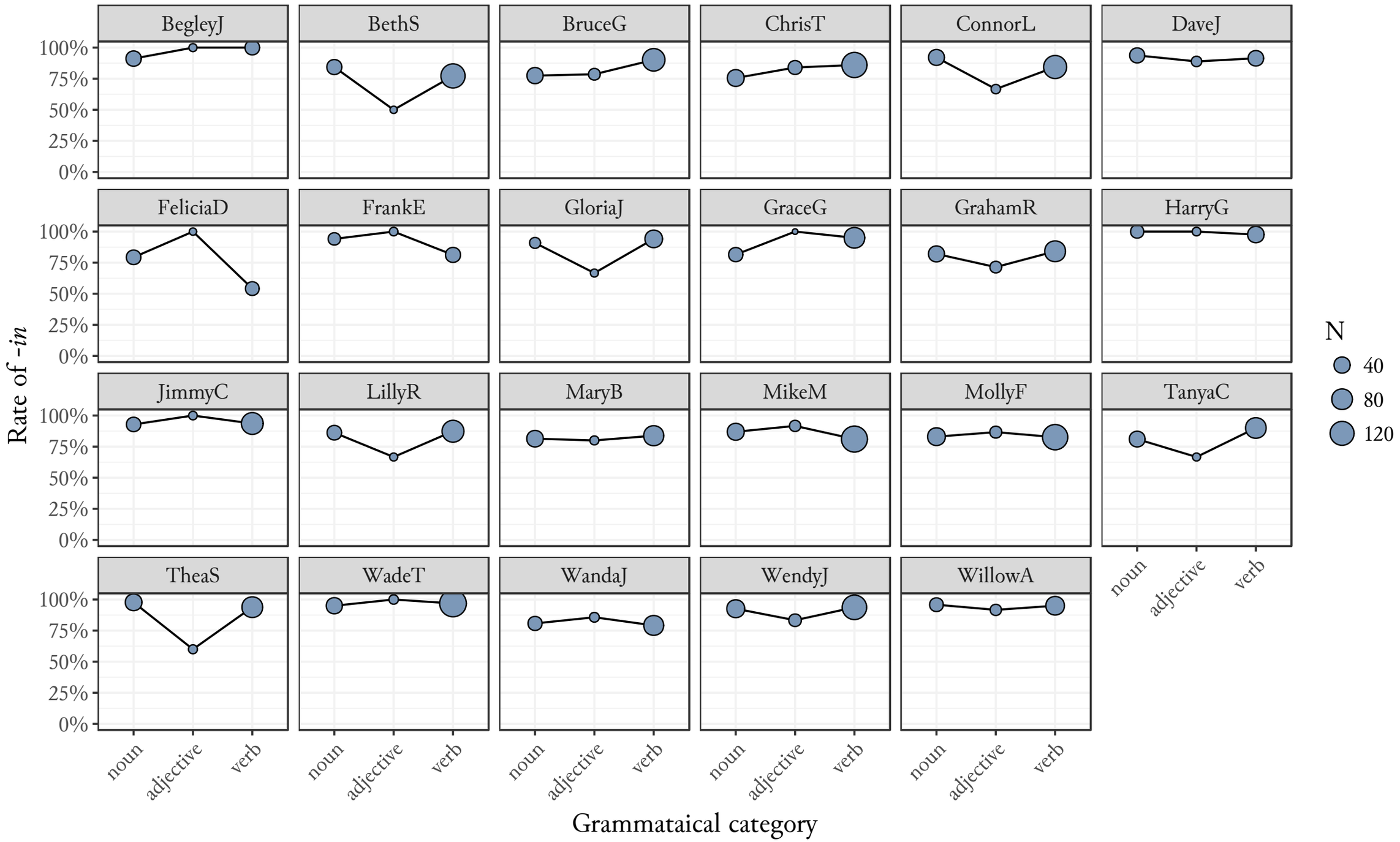
Unstressed (ing)

- [ɪŋg] almost completely absent in conversational data (0.7%)
- Even the plain velar nasal [ɪŋ] is rare (11.9%)
- Rates of alveolar *-in* are high even in contexts (and for social groups) that usually disfavour this variant
  - weak *age-grading* pattern, and only for female speakers
  - no effect of *part of speech* (cf. Tagliamonte 2004 in York)



Grammatical category

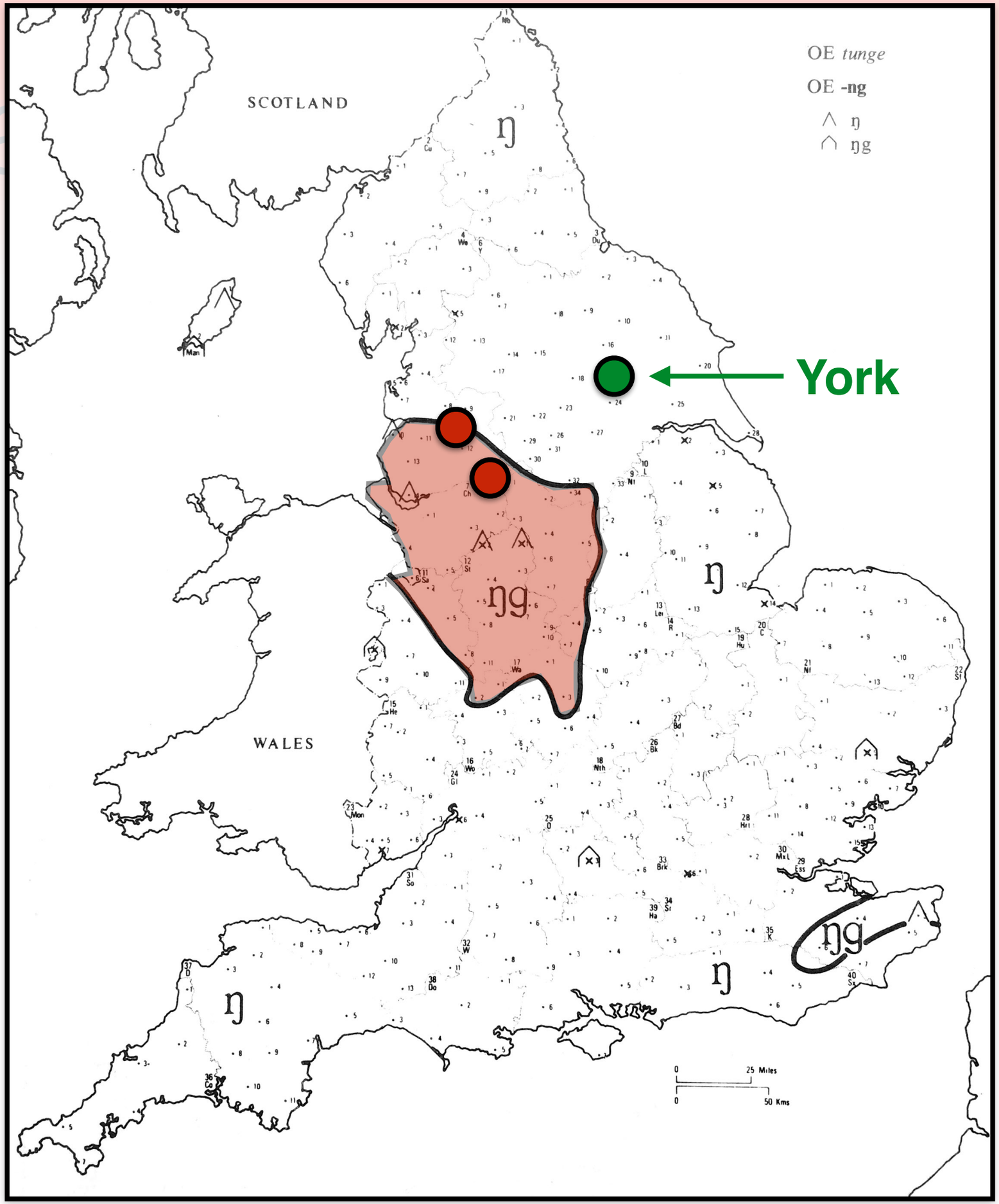
Unstressed (ing)



- Surprising given that the effect is strong both in the US (Labov 2001) and even elsewhere in the UK (e.g. York - Tagliamonte 2004)

- Absence of *part of speech* conditioning also attested in nearby community of Wilmslow (Watts 2005)

SED data from the Linguistic Atlas of England - Orton et al. 1978



Style

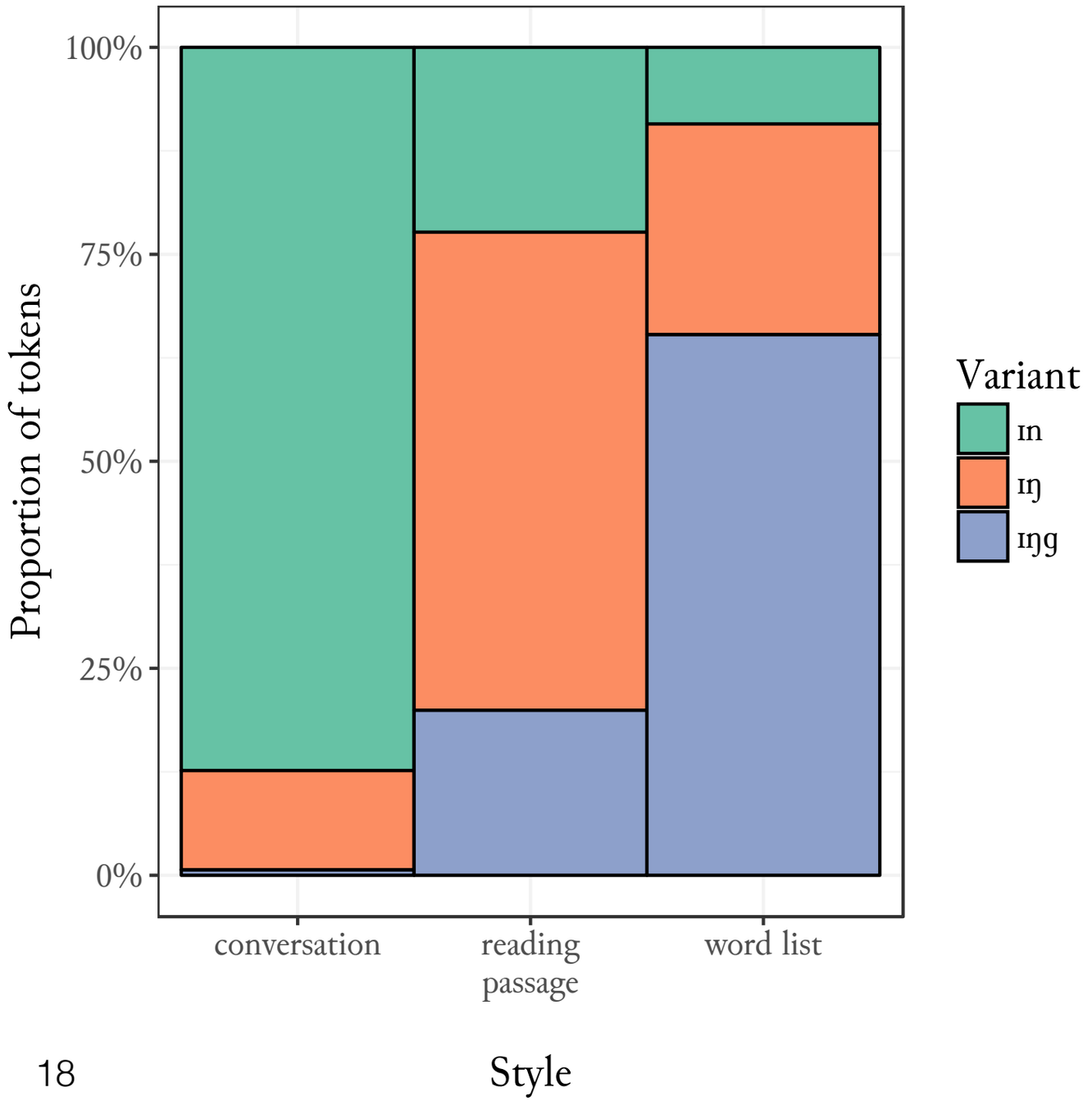
Unstressed (ing)

- Rates of velar nasal plus increase for the reading passage, but only slightly; predominantly used in word list

- Could this reflect something other than prestige (e.g. speech rate or prosody)?

- Suggestions that [ɪŋg] is seen as 'less socially attractive' than [ɪŋ] anyway (Schleef et al. 2015)

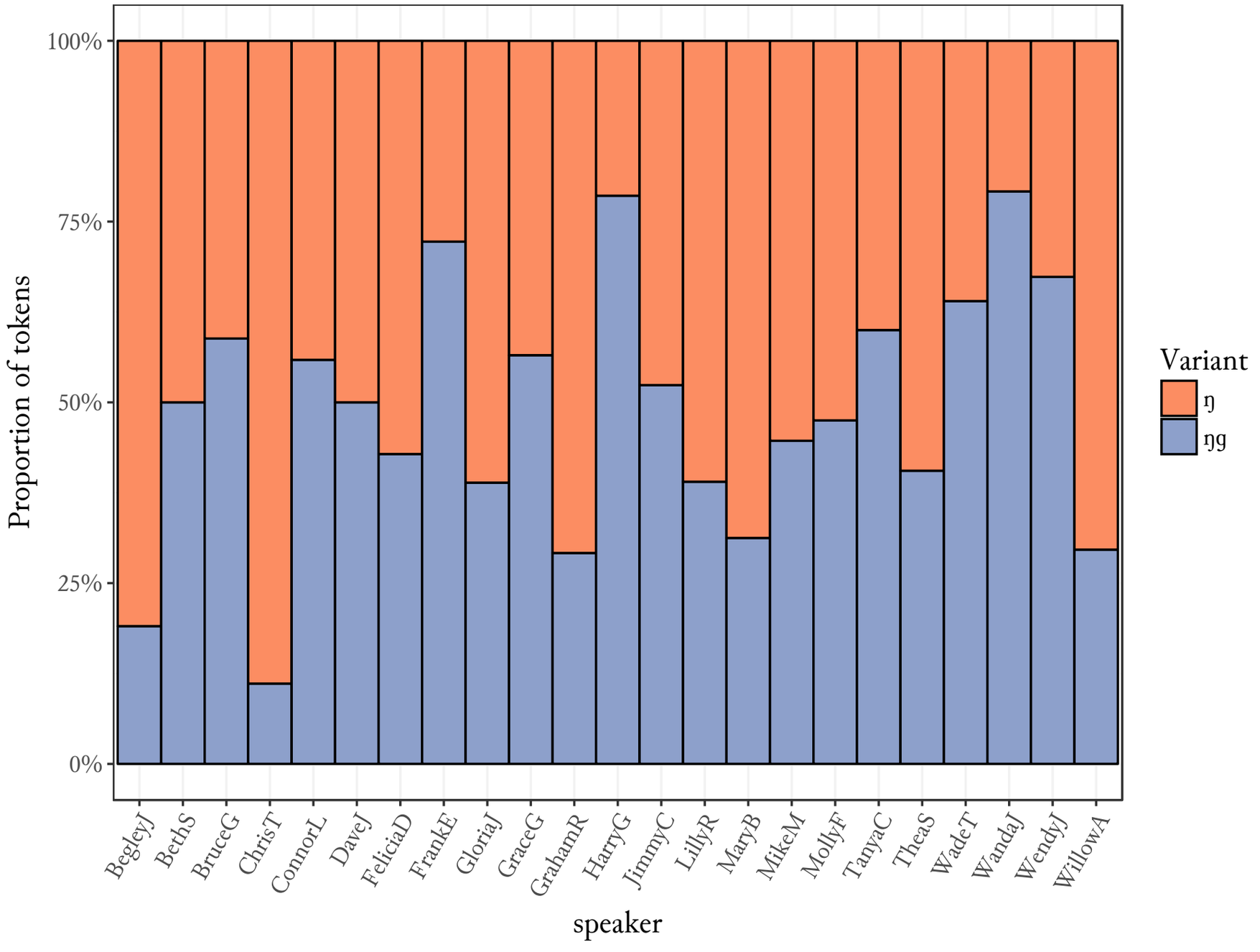
  - over-articulate and associated with an "unenergetic, uptight attitude towards life" (p. 207)



Results

Stressed (ng)

- Highly variable in conversational data, unlike (ing)
- No main effects of *age, sex, part of speech,* or *lexical frequency*
- But strongly conditioned by morphophonological factors



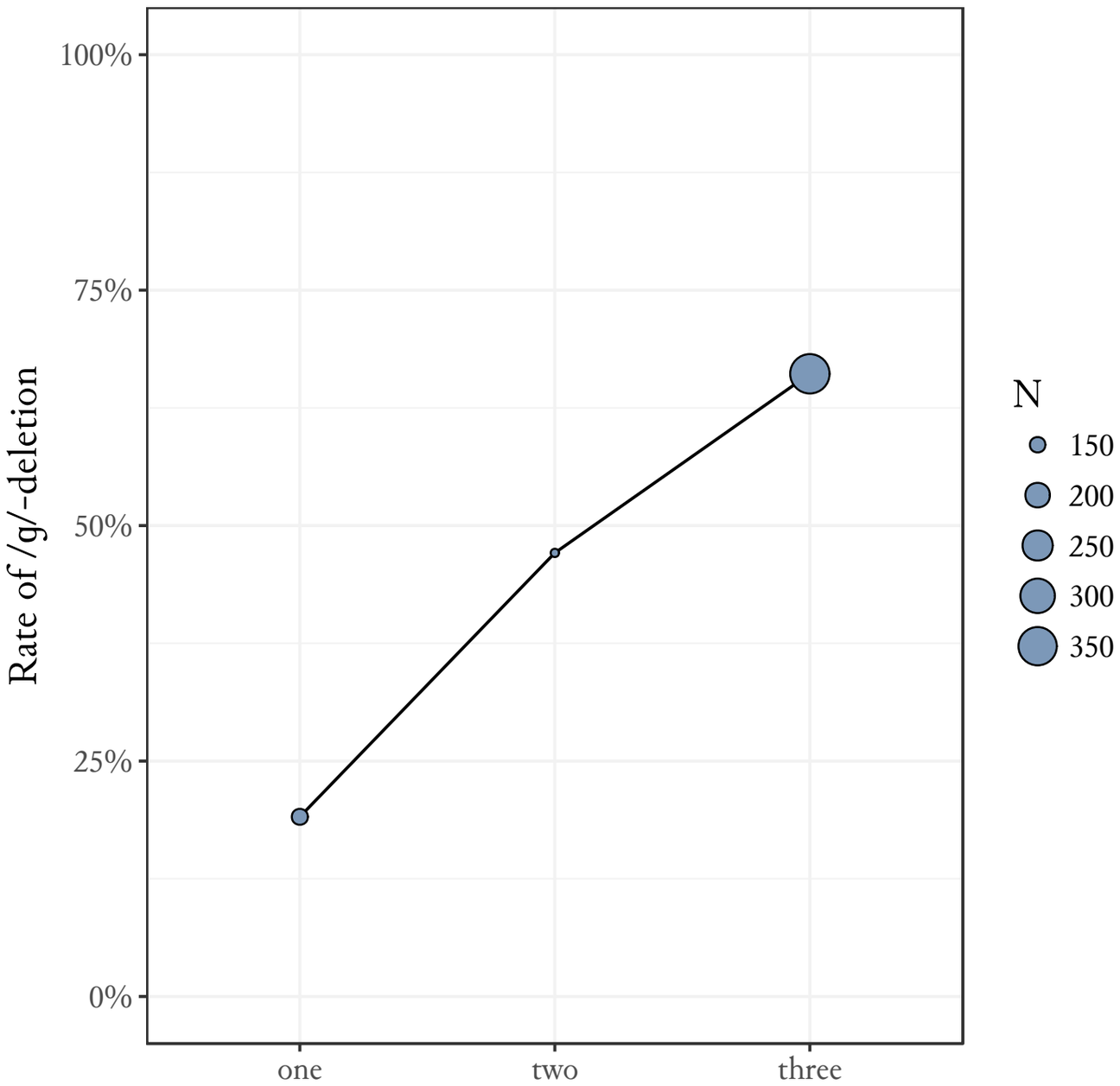
Life cycle's predictions

Morphophonological effects

- Prediction: correlation between surface rate of application and the number of cyclic levels in which the rule had *chance* to apply

- Turns out to be the strongest predictor of [g]-presence

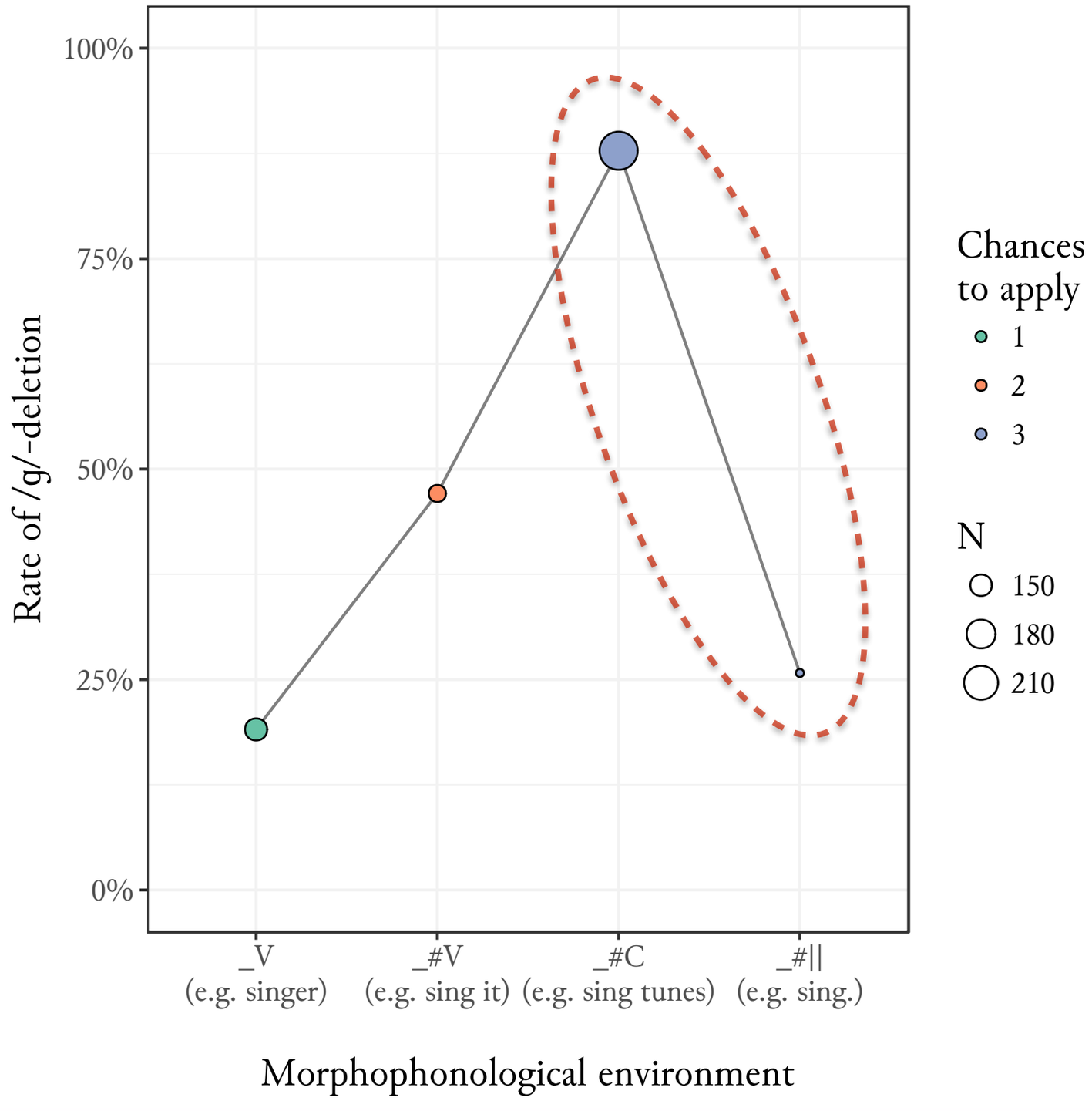
  - *one chance*: **19% deletion**
    - (SINGER-type tokens)
  - *two chances*: **46% deletion**
    - (SING#V-type tokens)
  - *three chances*: **67% deletion**
    - (SING#C-type tokens)
    - (SING#||-type tokens)



Life cycle's predictions

Morphophonological effects

- A purely cyclic account of /g/-deletion would predict comparable behaviour in pre-pausal and pre-consonantal environments
  - in both cases, the /g/ cannot syllabify as an onset in any cyclic domain, giving the rule three chances to apply
- We actually find high rates of deletion pre-consonantally (88%), as predicted, but extremely *low* rates pre-pausally (26%), contra the life cycle's predictions



Life cycle's predictions

Morphophonological effects

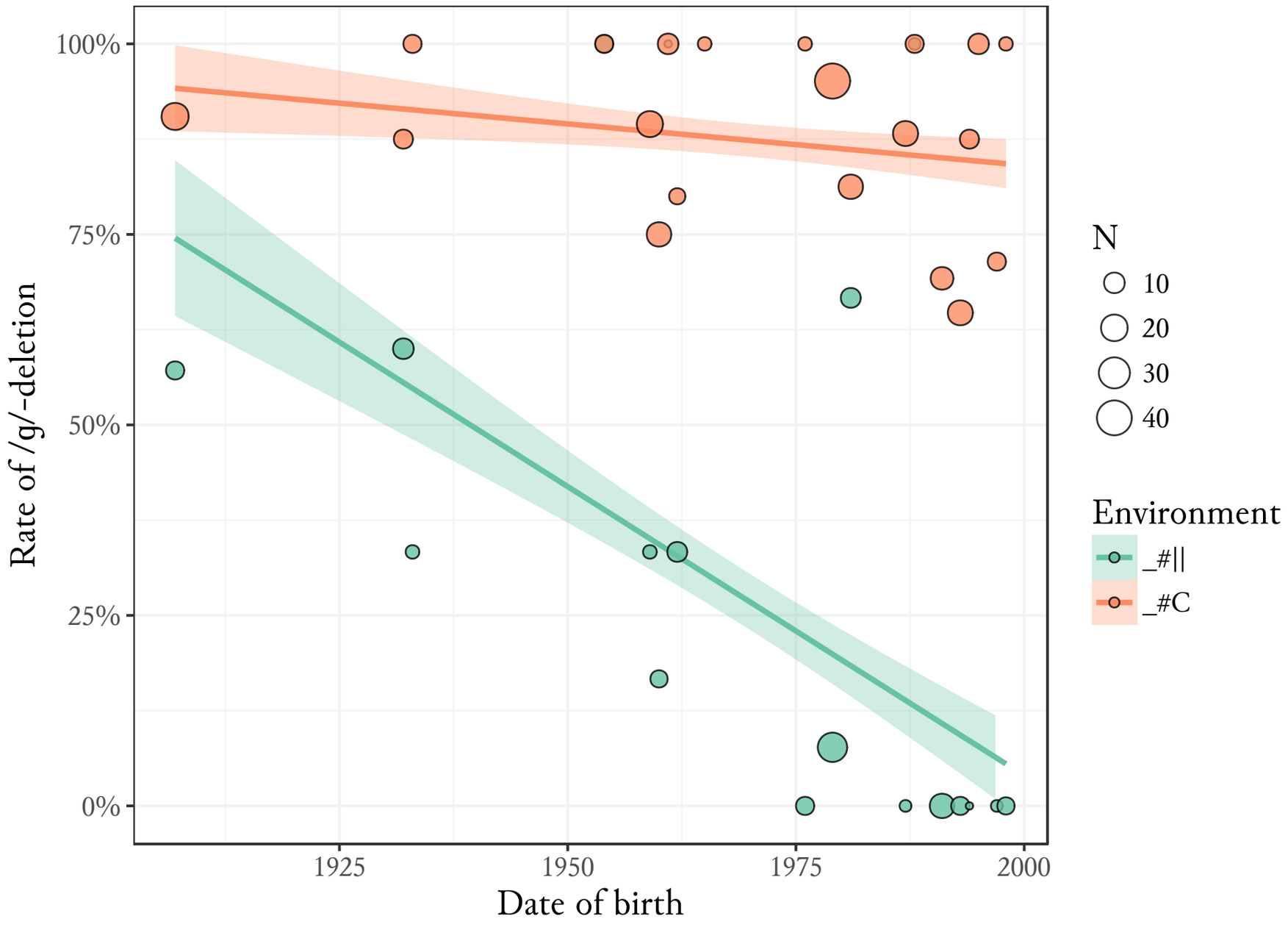
- Is this a problem for a cyclic account of /ŋg/ variation? Not if pre-pausal retention stems from a *separate innovation*…

- Despite the overall stability of (ng), pre-pausal /g/-retention does seem to be a recent phenomenon

- Almost all speakers born after 1975 actually have **categorical /g/-retention** in this environment

- No evidence of significant change pre-consonantally or pre-vocalically

Negative correlation between date of birth and pre-pausal deletion rate (ρ = -0.63)



What’s the deal with /ŋg/?

frankenstein724 17 12 9 6 5 4 4 2

It's because the "g" is not always pronounced. Think about some of the very examples you use. You'd sound pretty silly if you actually pronounced a "g" in "hanging". On the other hand, using a different word, you'd sound silly if you tried pronouncing "bingo" without the distinct "g" sound. There's no magic about when it's /ŋ/ and when it's /ŋg/ other than just being aware of what you are actually pronouncing.

As far as the /ŋk/, it's because the /k/ is, in fact, always pronounced. If you took "stinker" and transcribed it /stiŋer/, people would think you are talking about the thing a bee stings you with.

8 1 year ago

Taken from <https://www.duolingo.com/comment/17177730/A-Question-on-the-Voiced-Velar-Nasal-%C5%8B>

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the life cycle of phonological processes

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Summary

- Velar nasal plus as a realisation of (ing) is restricted to elicited speech - citation form?
- In (ng), presence of post-nasal [g] predicted almost entirely by assuming cyclic application of deletion across stem-, word-, and phrase-level domains
  - this provides empirical evidence in support of the ‘life cycle of phonological processes’ (Bermúdez-Otero & Trousdale 2012)
  - shows how diachronic and synchronic accounts can inform one another
- Evidence of a new innovation pre-pausally where post-nasal [g] is present almost categorically for younger speakers

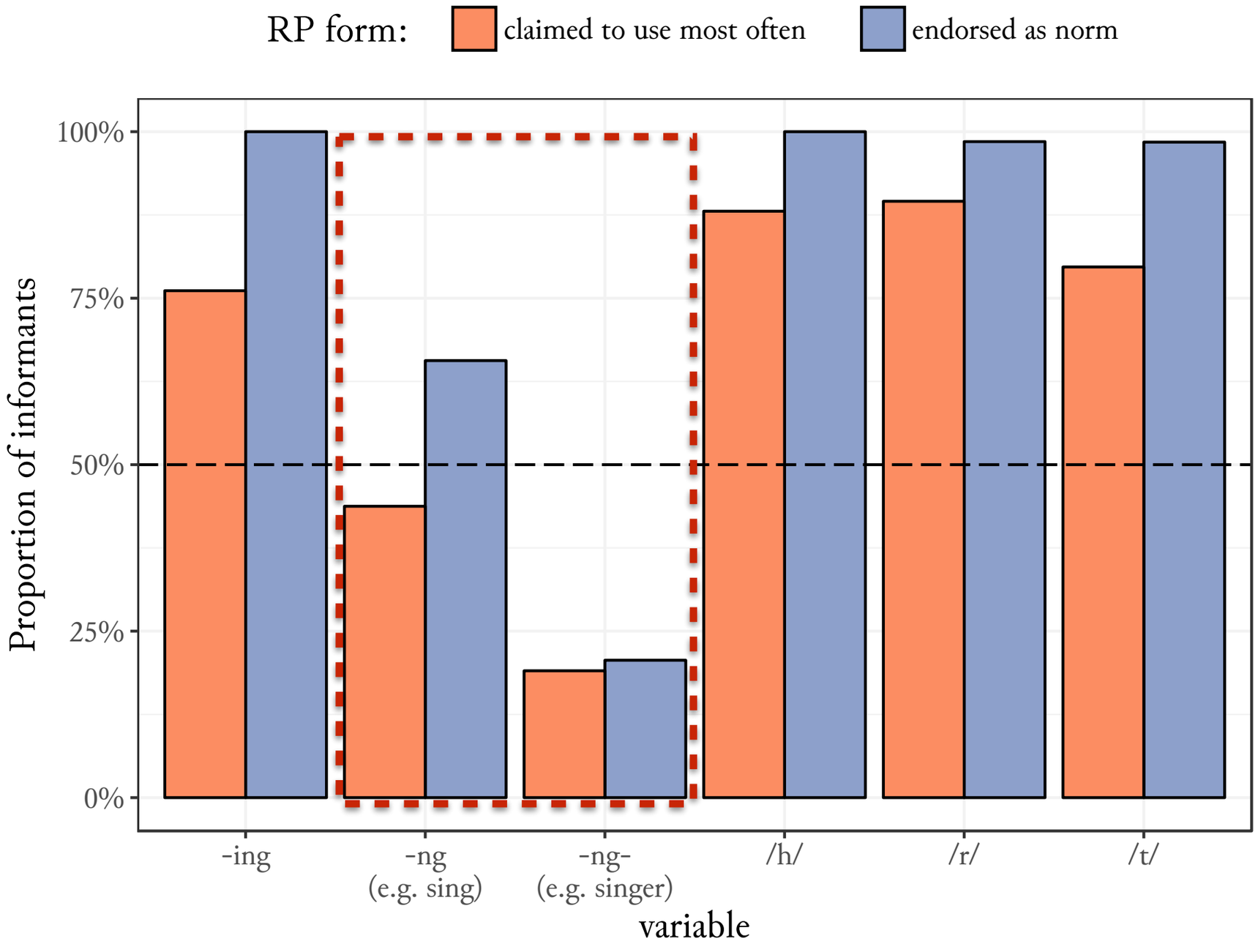
Motivations?

- Internal motivations?
  - other external sandhi processes show similar ‘instability’ and variability in pre-pausal position, e.g. /td/-deletion (see Guy 1980; Santa Ana 1996; Tagliamonte & Temple 2005) and /s/-debuccalisation in Spanish (see Harris 1983; Kaisse 1996)
  - part of a wider ‘velar fortition’ process which sees increasing ejectivisation in phrase-final /ŋk/ clusters (McCarthy & Stuart-Smith 2013)?
- External motivations?
  - could this innovation reflect a change in how velar nasal plus is socially evaluated? Are younger speakers using velar nasal plus as a way of projecting a northern identity?
  - pre-pausal position clearly the most salient environment (Dube et al. 2016) - any change in social meaning would be registered most strongly here

Motivations?

Perception of /ŋg/

- Do we have evidence of such a shift in perception?
- Not yet, but evidence from norm identification and self-report tests (Newbrook 1999) reveals strongly divided opinions about word-final (ng) tokens
  - cf. word-medial tokens, where the local [ŋg] variant is more widely endorsed as the norm
- Evidence that the evaluation had already begun to shift?



(based on data from Newbrook 1999)

Thanks for listen[ɪŋg]

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http://personalpages.manchester.ac.uk/staff/george.bailey/

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