

# Emerging from below the social radar:

Evaluation of post-nasal [ŋ] in the  
North West of England

GEORGE BAILEY  
*University of Manchester*

8<sup>th</sup> Northern Englishes Workshop  
Newcastle University  
27<sup>th</sup> March 2018

ŋg

# Social meaning

- Foundational conceptualisation of the speech community:
  - “Regardless of the linguistic differences among them, the speech varieties employed within a speech community form a system because they are related to a shared set of social norms” (Gumperz 1964)
  - “The speech community is not defined by any marked agreement in the use of language elements, so much as by participation in a set of shared norms” (Labov 1972)
- Important to supplement production data with studies investigating social meaning and the indexicality of variable linguistic features
  - **ING** - Trudgill (1972) on production; Campbell-Kibler (2011) on perception
  - **TH-fronting** - Baranowski & Turton (2015) on production; Levon & Fox (2014) on perception
  - **T-glottalling** - Straw & Patrick (2007) on production; Schleeef (2017) on perception

# Post-nasal [g]

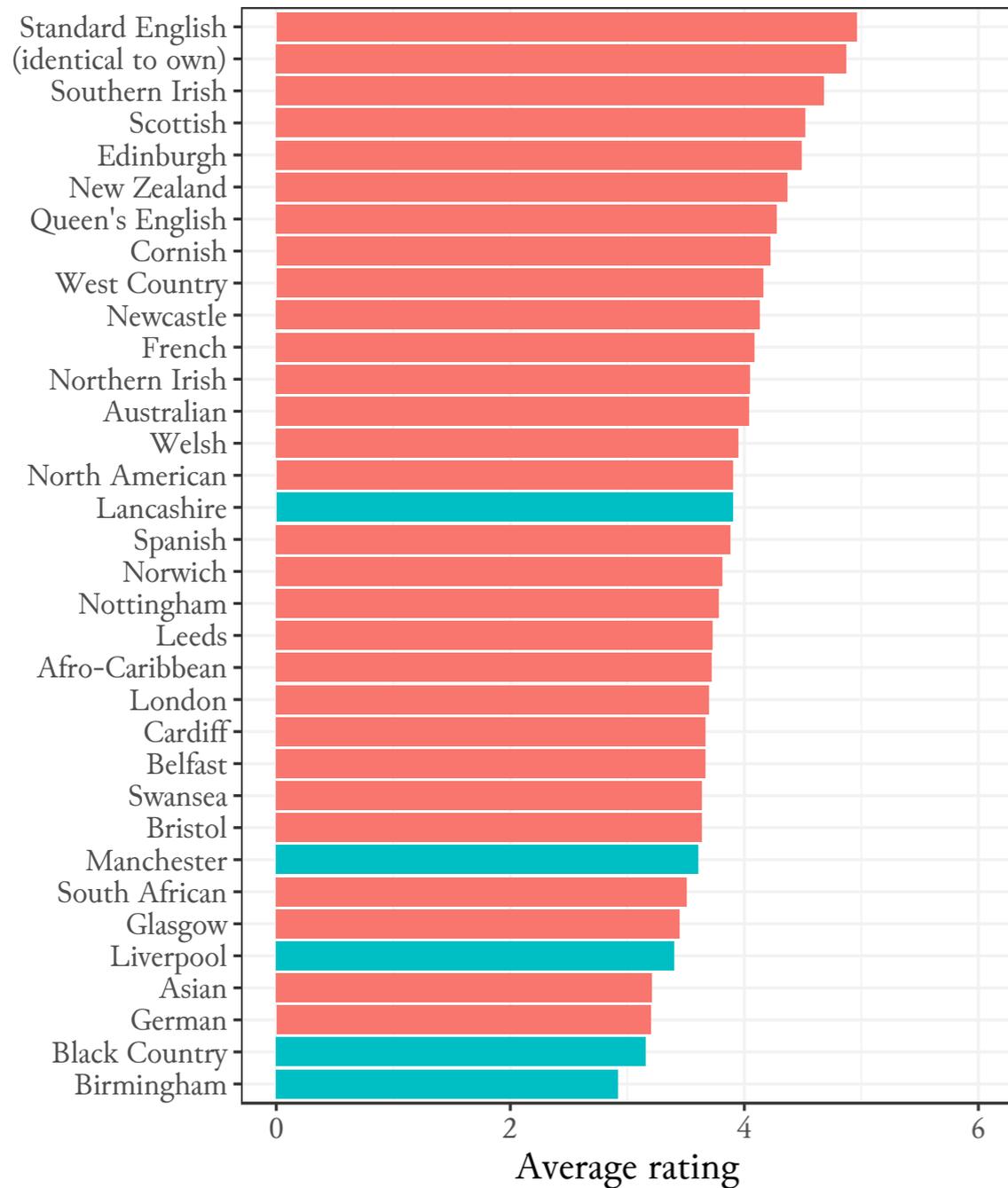
- Variable presence of post-nasal [g] in words like *sing*, *wrong*, *hanger* etc.
  - *sing* [sɪŋg]~[sɪŋ] *wrong* [ɹɒŋg]~[ɹɒŋ] *hanger* [hæŋgə]~[hæŋə]
- Characteristic feature of the North West and West Midlands of England (Wells 1982; Trudgill 1999; Hughes et al. 2012; MacKenzie et al. 2018)
- Notated using (ng)
  - **important**: different from (ing)
  - even though [g] can also be present as a realisation of unstressed *-ing*, the two environments behave very differently and should be treated separately

# Motivations for the study

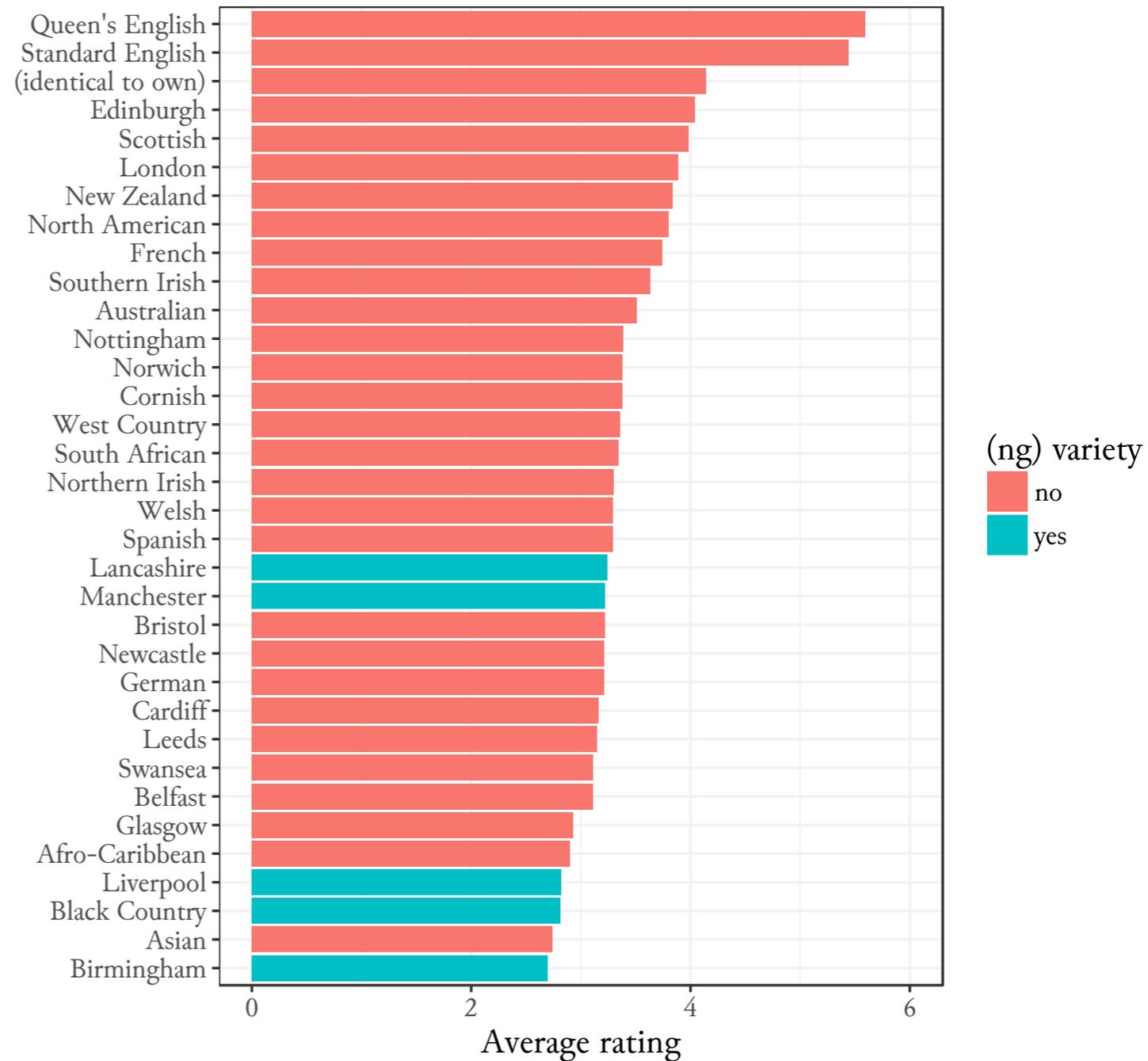
- Studies such as Coupland & Bishop (2007) reveal listener attitudes towards regional varieties...
  - ▶ e.g. Irish rated 3rd for social attractiveness (cf. Newcastle 10th; Birmingham 34th)
- ...but we know relatively little about the exact features in each variety that contribute to these attitudes, or at least to the salience of that dialect
  - ▶ one solution: collect real-time reaction data (see Montgomery & Moore *forthcoming*)
  - ▶ alternatively: conduct matched-guise studies of individual features

# Haters gonna hate

## Social attractiveness



## Prestige



(based on data from Coupland & Bishop 2007: 79)

# Motivations for the study

- (ng) is an interesting case study of social meaning for a number of reasons:
  1. rare case of a regional variant being favoured in more formal speech styles (Mathisen 1999; Bailey 2015)
    - based on this, [ŋg] claimed to be locally prestigious (Beal 2008)
  2. [g]-presence is diachronically conservative and reflected in orthography
    - [ŋg] once present in all varieties before undergoing widespread deletion (Bermúdez-Otero & Trousdale 2012)
  3. conflicting reports regarding its social profile
    - [ŋg] favoured by working classes (Watts 2005)
    - but equally: “not perceived as a crashing local-accent feature which ambitious upwardly-mobile northerners might want to try to modify or eliminate” (Wells 1997: 43)

# Methodology

# Experimental paradigm

- Matched-guise approach, using the ‘newscaster’ paradigm (e.g. Labov et al. 2006, 2011)
  - subjects told that the speaker is auditioning for a role as a news presenter - shown to prime overt sociolinguistic norms
  - particularly applicable in Northern English contexts - see linguistic prejudice against the BBC’s Steph McGovern as well as in other professional contexts, e.g. teaching (Baratta 2017)

Yes, people *still* discriminate against northern accents

## BBC Breakfast presenter Steph McGovern sent £20 by viewer to correct her 'terrible' northern accent

Steph said she received a letter from someone so outraged by her 'affliction' that they offered to pay for her to have 'correction therapy'

## BBC Breakfast's Stephanie McGovern: They said I was too northern for TV but I won't change my accent

From a working class childhood, she went to work at 18 and then studied science at university while doing three jobs

## Does having a northern accent make you sound thick? Angela Rayner hits back at trolls

Angela Rayner, MP for Ashton-under-Lyne in Tameside, has complained that she has been receiving a barrage of abuse from online trolls whenever she appears on TV and radio interviews

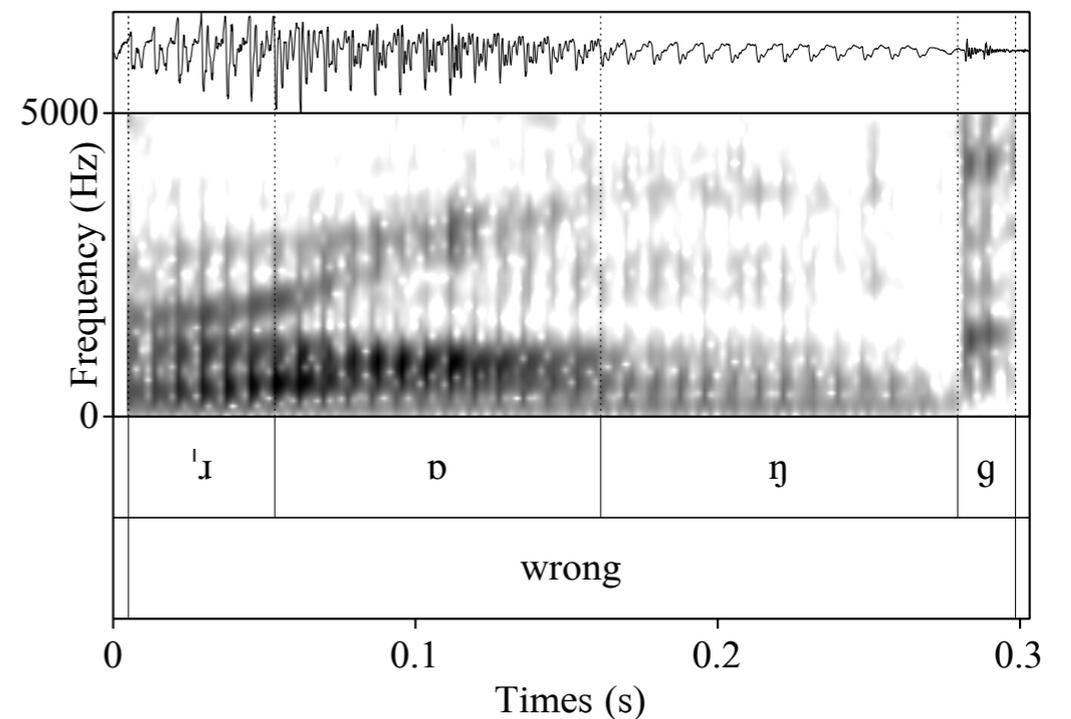
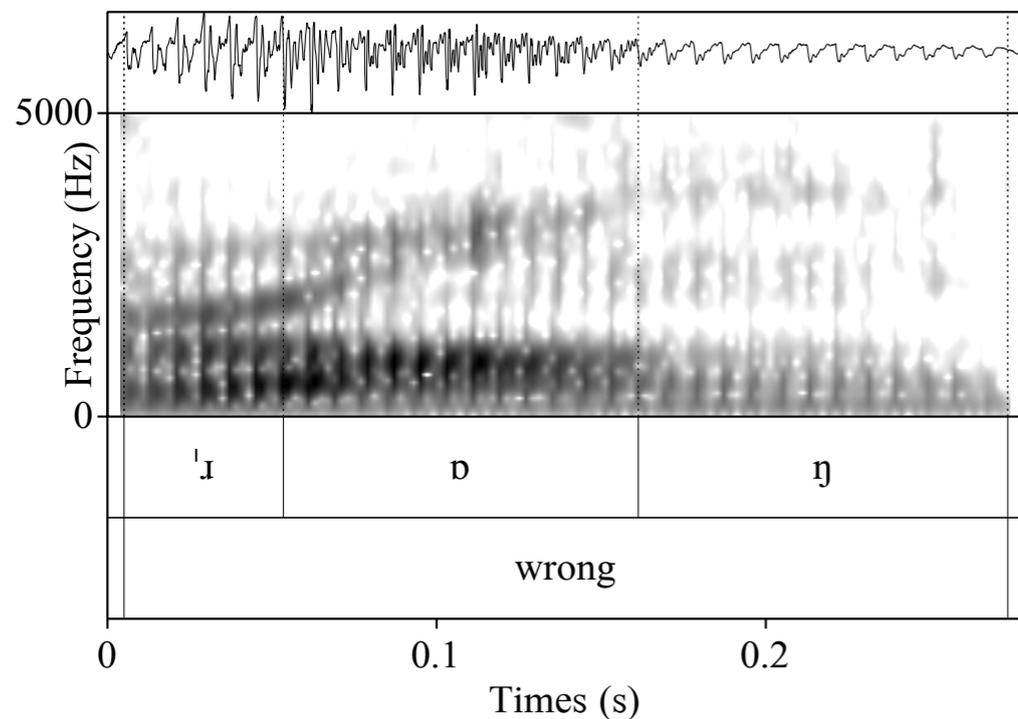
## Angela Rayner Called 'Thick As Mince' In Abusive Emails About Her Accent

Snobbery allegedly comes from within Labour too.

## Teachers with Northern accents are being told to 'posh up', here's why

# Matched-guise technique

- Each recording contains two headlines and two tokens of (ng)
- Each passage read out once with [g]-presence, once with [g]-absence, by a 56 year-old female speaker of Manchester English
- Recordings cross-spliced in Praat so that the two passages are identical except for [g]-presence/absence
  - any differences in how they are evaluated can be attributed to the variable presence of post-nasal [g]



# Matched-guise technique

'Difference score' calculated for each pair of guises:

In other news, weather experts warn that increased levels of global warming have led to the highest temperatures ever recorded in Spri**[ηg]**.

In other news, weather experts warn that increased levels of global warming have led to the highest temperatures ever recorded in Spri**[η]**.

Rating of [ηg] passage

subtracted by

Rating of [η] passage

positive value indicates  
*higher* rating for [g] guise

value of 0 indicates no  
difference in rating

negative value indicates  
*lower* rating for [g] guise

# Rating scales

- Subjects rated each recording on 4 7-point Likert scales:
  - **professionalism, education, and formality**
    - measures of overt prestige (e.g. Labov et al. 2006, 2011; Levon & Fox 2014; Schleeef et al. 2015)
  - **northernness**
    - to gauge the salience of (ng) as a characteristic feature of northern dialects

# Stimuli

Three headline groups containing tokens of (ng) in different phonological environments

- **Word-final pre-consonantal**

- ▶ strongly [g]-**disfavouring** in speech production (Knowles 1973; Watts 2005; Bailey 2015)
- ▶ e.g. *The government is demanding that zoos increase security after the latest incident saw an escaped gorilla attack a young**ng** child.*

- **Word-medial pre-vocalic**

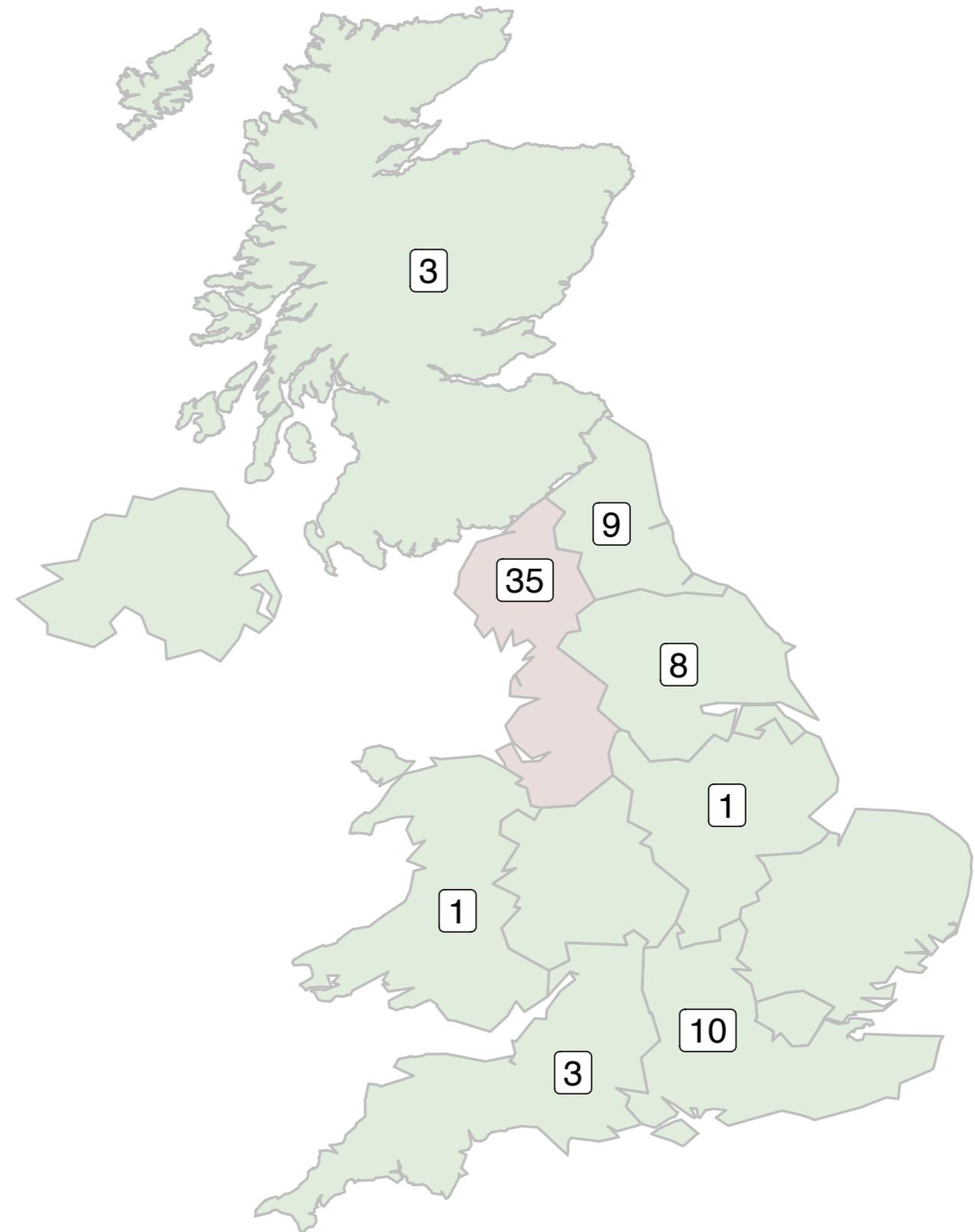
- ▶ strongly [g]-**favouring** in speech production (Knowles 1973; Watts 2005; Bailey 2015)
- ▶ e.g. *In sport, Liverpool today dropped more points in the absence of their star player Sadio Mané, leading to claims that the club are too reliant on the right wing**ng**.*

- **Phrase-final**

- ▶ change in progress: increasingly [g]-favouring over time (Bailey *submitted*)
- ▶ e.g. *Scientists working on the Large Hadron Collider have today found new evidence that reveals what the universe was like at the time of the Big Bang**ng**.*

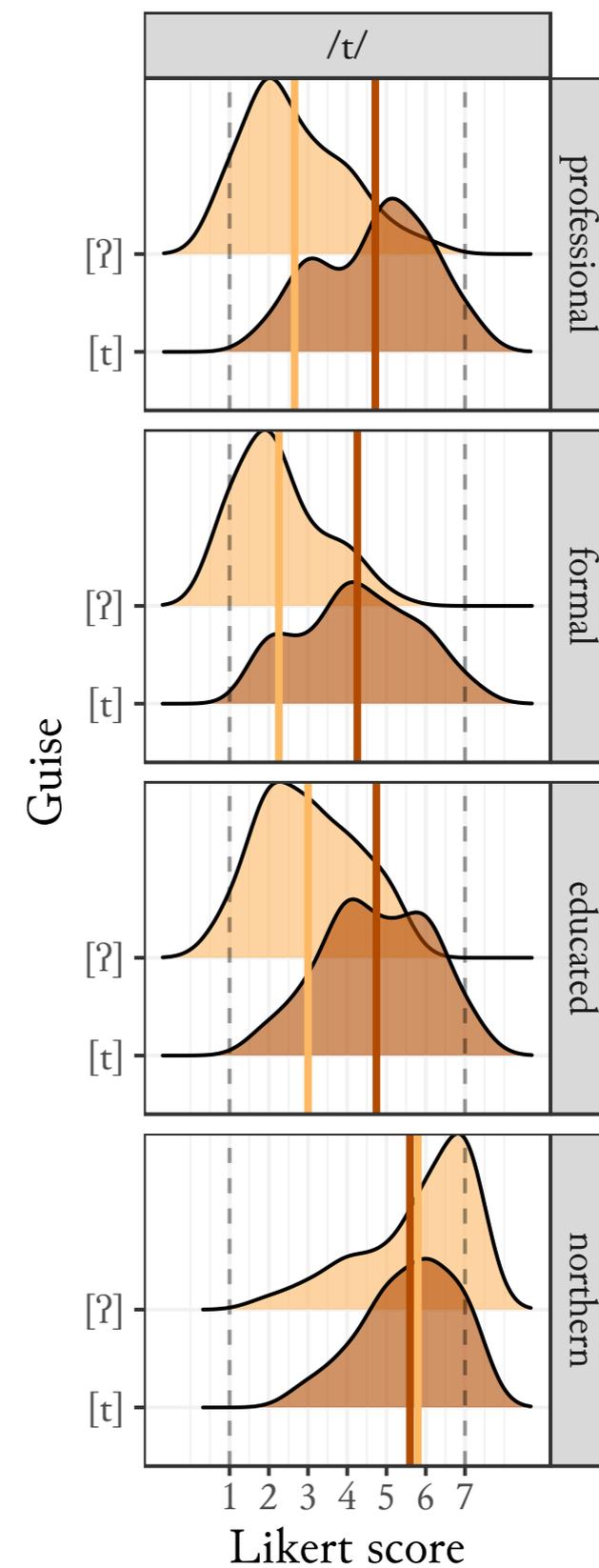
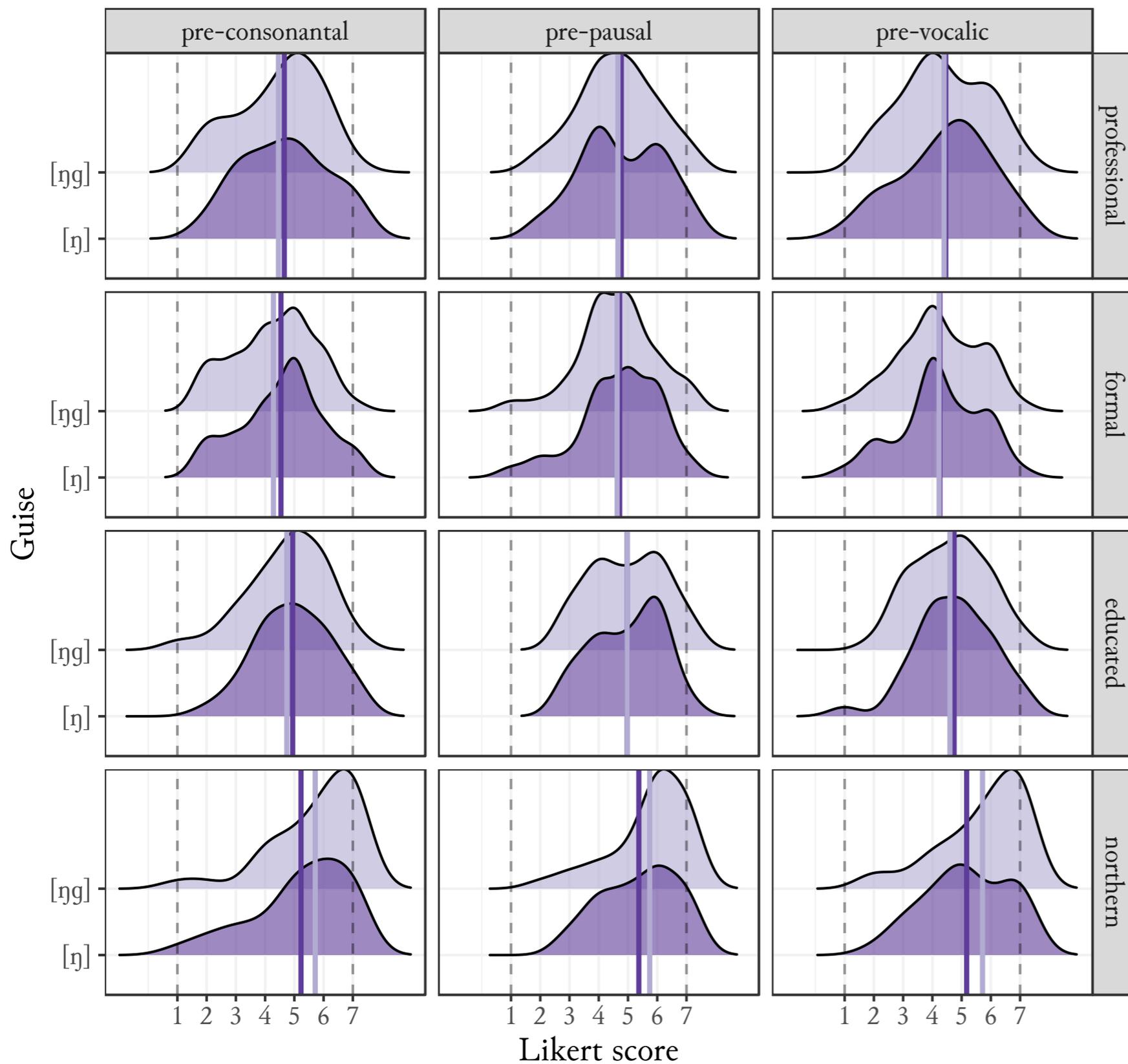
# Subjects

- Survey distributed online and completed by 71 subjects
- 35 North West ~ 36 elsewhere
- Analysis today focused on subjects from the North West
- 17 young (aged 19-27,  $\sigma = 23$ ),  
18 old (aged 30-73,  $\sigma = 57$ )



# Results

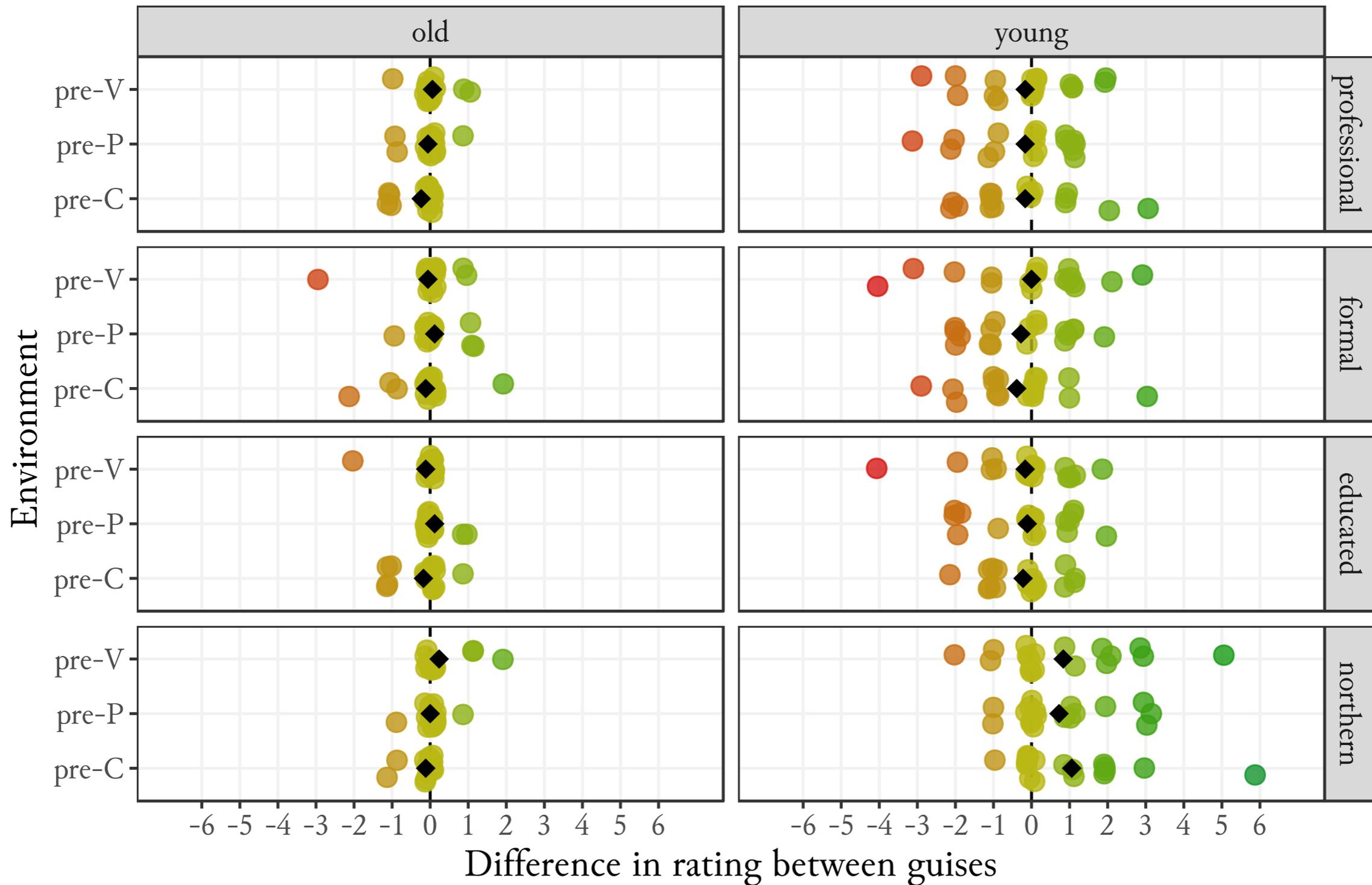
# Absolute ratings



# Absolute ratings

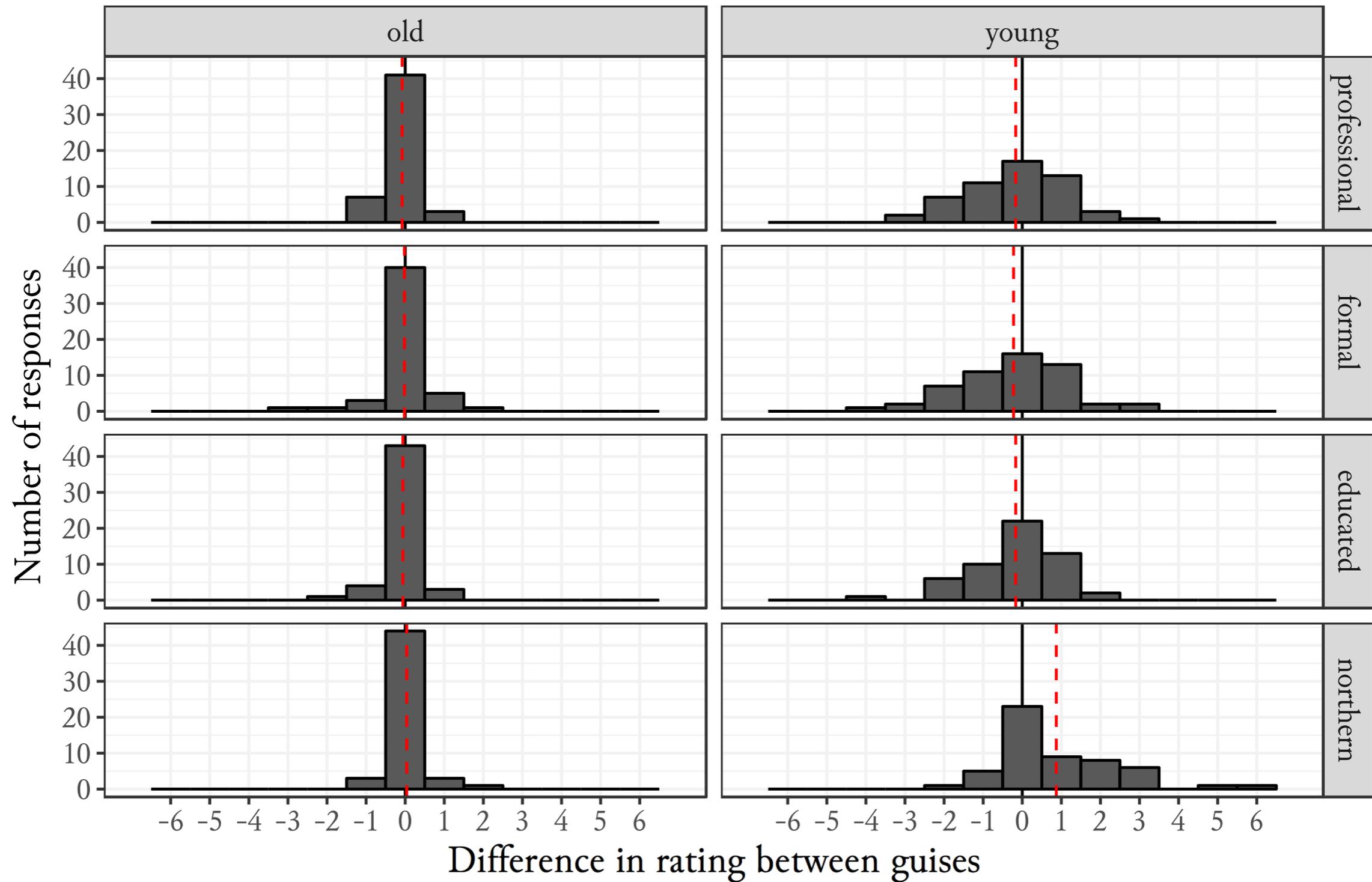
- Results seem to indicate that (ng) is not socially salient enough to elicit strong reactions
  - average rating of [ŋg] not significantly different from the average rating of [ŋ]
- But what happens when:
  - a. old and young age groups are considered separately?
  - b. 'difference scores' are used - rather than absolute ratings - for greater insight at the level of the individual?

# Difference scores



← higher rating for [ŋ] | higher rating for [ŋg] →

# Difference scores



← higher rating for [ŋ]

higher rating for [ŋg] →



# Mixed-effects linear regression

- To test the significance of these effects, two mixed-effects linear regression models were fit to the data using `lme4` in R:
- **northern** difference scores - to test the increase in value
- **professional** difference scores - to test the increase in *variation*
  - ▶ in this case, only the magnitude of the  $[\eta g] \sim [\eta]$  difference score is important, so the polarity was removed
  - ▶ i.e. the model doesn't distinguish between **-3** ( $[\eta]$  more professional than  $[\eta g]$ ) and **+3** ( $[\eta g]$  more professional than  $[\eta]$ )
  - ▶ in both cases, the magnitude of the difference (deviance from neutrality) is the same
- Both models include fixed effects of *age group*, *environment*, and their interaction
- Plus a random intercept of *subject* due to the within-subjects design

# Mixed-effects linear regression

- Results indicate a significant effect of *age group* in both models
  - for **professional** difference scores:  $\beta = 0.82$ ,  $p < 0.001$
  - for **northern** difference scores:  $\beta = 1.17$ ,  $p = 0.004$
- There is no significant effect of *environment*, nor a significant interaction between *age group* and *environment*
  - the evaluation of [g]-presence - in particular this change in evaluation across generations - is uniform across all environments

# Discussion

# Salience and indexicality

- Two important aspects of this difference between young and old subjects (assuming an apparent time hypothesis):
  1. Increased sensitivity to the dialectal status of [ŋg] over time
    - ... which means (ng) is more accessible to evaluation, but...
  2. The content of evaluation among young subjects is highly variable

# Saliency

## 1. Increased sensitivity to the dialectal status of [ŋg]

- Saliency crucial to the ‘sociolinguistic monitor’ - the cognitive mechanism that gives rise to social meaning and language evaluation (Labov et al. 2006, 2011)
- No change in (ng)’s phonetic saliency but possible change in its *social* saliency
  - “the relative ability of a linguistic variant to evoke social meaning” (Levon & Fox 2014: 193)
- Could arise through increased mobility and therefore more contact with non-northern speakers
- Or through increased rates of [g]-presence in production - makes speakers more aware of its absence among their non-northern peers

# Indexicality

## 2. Content of evaluation among young subjects is highly variable

- Increased sensitivity to the northern status of [ŋg], but no agreement on *what* this meaning should be
- Subjects who rate [ŋg] as **less** professional than [ŋ]:
  - negative social meaning arises through second-order indexicality with northernness (Silverstein 2003) and the fact that an RP-norm still pervades English professional contexts
- Subjects who rate [ŋg] as **more** professional than [ŋ]:
  - orthographic influence? [g]-presence more closely reflects the orthography where <g> is also present
  - generalisation that lenition output is stigmatised (e.g. /h/-dropping, /td/-deletion, /t/-glottalling etc.) - prescriptivist notion that dropping sounds is characteristic of 'lazy' speech
  - association between: WL style <> citation form <> clear speech <> 'correctness'

# Language regard (Preston 2010, 2011)

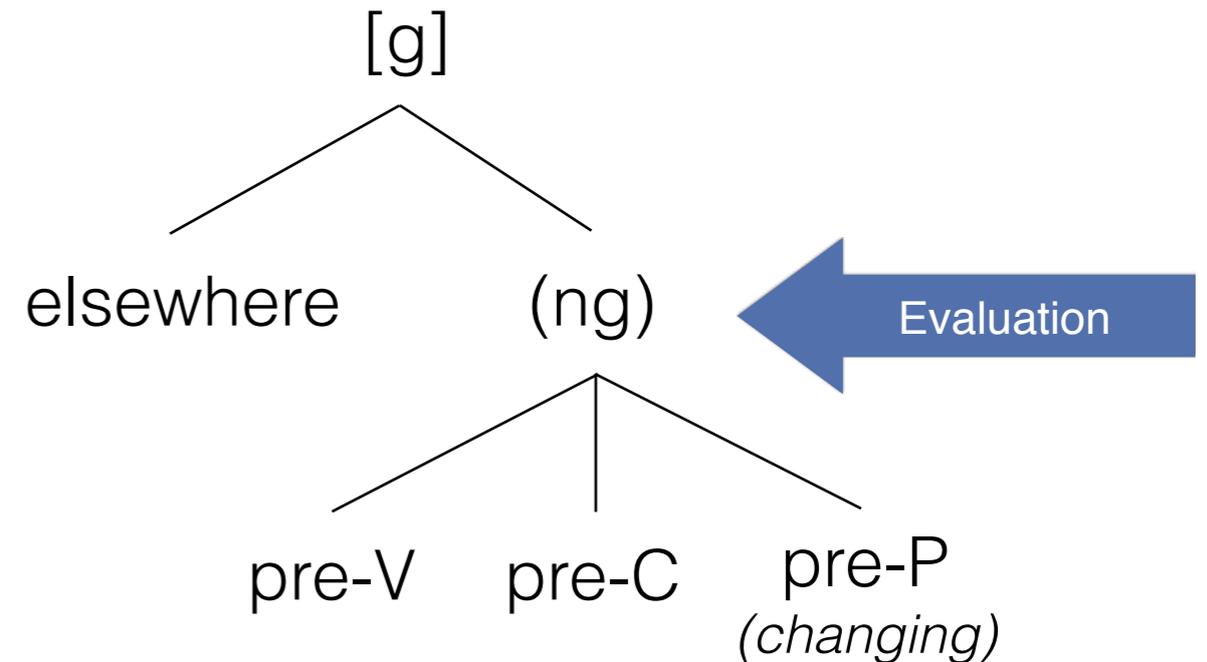
- Preston (2010, 2011) outlines the cognitive mechanisms that give rise to social meaning as a four-step process:
  1. **noticing**: listeners must first **notice** the variant...
  2. **classifying**: then **classify** it as belonging to a particular regional variety, social group, or register of speech based on past experience...
  3. **imbuing**: then **imbue** the form with social meaning according to the characteristics they associate with the groups/styles in (2)...
  4. **reacting**
- The results here point to inter-speaker variation at two of these stages:
  - older subjects are less likely to **notice** the form, or if they do, are less likely to **classify** it with northern varieties of BrE
  - variation among younger subjects with respect to the meanings imbued at stage 3

# Granularity of social meaning

- No significant effect of *environment*, or interaction between *environment* and *age group*
- The overall alternation between [ŋ]~[ŋg] has accrued social meaning over time
  - but this isn't concentrated on a particular environment
  - despite the fact that a change is taking place in pre-pausal contexts
- Suggests that this change isn't evaluation-driven - **progressing fully below the radar**

# Granularity of social meaning

- What objects of linguistic variation are subject to evaluation?
- Eckert & Labov (2017):
  - evaluation attaches to the realisations of individual phonological units
  - not to more abstract components of linguistic variation, e.g. chain shifts
- Finds support from (ng):
  - the concrete phonetic element - alternation between [ŋ]~[ŋg] - is beginning to accrue social meaning
  - but the more fine-grained change conditioned by pause/prosody is not
- Evaluation attaches at an intermediate level of granularity



# Conclusions

- Earlier claims that [g]-presence is locally prestigious - based primarily on stylistic stratification - are way off the mark
  - high word-list [g]-presence likely to reflect prosody rather than formality
- (ng) seems to be a case of incipient social meaning
  - north westerners are increasingly aware of [ŋg] and its status as a feature of the local dialect
  - but this does not yet translate to uniform evaluation across the speech community
- Does it reflect inter-speaker variation with respect to norm orientation? Knowles (1978) describes (ng) as a ‘conflict of local and national norms’
  - some subjects aligning with local norms, others with national norms?
  - cf. the traditional formalisation of the ‘speech community’ in adhering to a set of shared social norms (Gumperz 1964; Labov 1972)
- Or a more general trend — as reported by Coupland & Bishop (2007) — towards decreasing stigma of northern accents more generally?

# Future work

- Is this a characteristic feature of incipient social meaning more generally?
- Or does it only occur in cases where antagonistic forces promote both variants in an alternation?
- Return to this variable in the future for a longitudinal analysis
  - with time, will north westerners settle on a shared norm with respect to (ng)?

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# Thanks for listening!

george.bailey@manchester.ac.uk

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

 @grbails

Thanks to Maciej Baranowski and Ricardo Bermúdez-Otero for their helpful comments, and to my (very professional) newsreader

# Mixed-effects linear regression

(a): professional	Estimate	Std. Error	Estimated df	t-value	p-value	
<b>Intercept</b>	0.2353	0.1656	88	1.4213	0.1589	
<b>Age group</b>						
<i>young</i>	0.8203	0.2309	88	3.5532	<0.001	***
<b>Environment</b>						
<i>pre-pausal</i>	-0.1176	0.2028	66	-0.5802	0.5633	
<i>pre-vocalic</i>	-0.0588	0.2028	66	-0.2901	0.7724	
<b>Age x Environment</b>						
<i>young:pre-pausal</i>	0.0065	0.2828	66	0.0231	0.9816	
<i>young:pre-vocalic</i>	-0.0523	0.2828	66	-0.1849	0.8537	

(b): northern	Estimate	Std. Error	Estimated df	t-value	p-value	
<b>Intercept</b>	-0.1176	0.2799	64	-0.4203	0.6754	
<b>Age group</b>						
<i>young</i>	1.1732	0.3903	64	3.0056	0.0035	**
<b>Environment</b>						
<i>pre-pausal</i>	0.1176	0.2732	66	0.4307	0.6678	
<i>pre-vocalic</i>	0.3529	0.2732	66	1.2920	0.1999	
<b>Age x Environment</b>						
<i>young:pre-pausal</i>	-0.4510	0.3809	66	-1.1839	0.2398	
<i>young:pre-vocalic</i>	-0.5752	0.3809	66	-1.5099	0.1349	