

**The unpublished Scots  
phonological material from the  
*Linguistic Survey of Scotland***

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**The Linguistic Survey of Scotland (LSS)**

Conducted by the University of Edinburgh in the 1950s,  
consisting of two strands:

- Gaelic Section (Ó Dochartaigh 1994-1997)
- Scots Section, results published as *The Linguistic Atlas of Scotland* (LAS, Mather & Speitel 1975, 1977, 1986)

The LSS represents a huge achievement in the dialectology of Scotland, without which we would know much less about the traditional dialects of Scotland, many of which are extinct or have been subject to levelling

## LSS: Scots Section

### Lexical Questionnaires

- Two semantic questionnaires sent to locations across Scotland, Ulster and far northern England to school teachers, to be distributed to speakers of the local dialect; selection of results published in Mather & Speitel (1975, 1977; LAS1, LAS2)

### Phonological Questionnaire

- A separate investigation, with data gathered by fieldworkers in face-to-face interviews, using the direct questioning method (relying on informants readily distinguishing between Scots and Scottish Standard English)
- *How do you pronounce 'stone'?* (example answer: [ste:n])
- Answers were transcribed phonetically in specially designed notebooks, these data forming the basis of Mather & Speitel (1986; LAS3)

## LAS3: Contents

188 locations in Lowland Scotland, north Northumberland and east Ulster

786 (mostly monosyllabic) words for each location

- *Phonemic* transcriptions (by phonological environment) of stressed vowels
- Polyphonemic analysis of stressed vowel systems (don't ask...)
- Default consonant skeleton for each word across all locations (e.g. /d\_g/ for 'dog')
- Notes for each location on any departures from the default consonant skeletons and selected phonetic features of consonants
- Symbol maps of number of vowel phonemes per environment, number of vowel phonemes per polyphoneme, and of the polyphoneme found in each word

## Example data: Tranent (22.1 East Lothian)

Section	\I\	\E\	\A\	\O\	\U\	\Y\	\W\	\EI\	\OE\	\WU\
0	i	e e	a	ɔ ɔ* ɔ̃	ü ju*	ē	Λ	ēi		
1	i	e e	a	ɔ ɔ̃ ɔ̃*	ü jü* jü*	ē	Λ	ēi		
2	i	e	ā	ɔ ɔ̃	ü jü	ē	Λ	ēi ae	ɔ ɔ̃ e	ΛU
3	i	e e e	ā	ɔ ɔ̃	ü jü	ē	Λ	ēij* āē		
4	i	e	ā	ɔ ɔ̃	ü ju*	ē	Λ	ēc		ΛU*
5	i	e e	ā	ɔ ɔ̃	ü ju*	ē	Λ	ēi		ΛU
6	i	e e	ā	ɔ ɔ̃	ü jü*	ē	Λ	ēi		ΛU
7	i	e e e	ā	ɔ ɔ̃	u	ē	Λ	ēij*		ΛU
8	i	e e		ɔ ɔ̃ ɔ̃*	ü	ē	Λ	ēi* ai ai		
9	i	e e		ɔ ɔ̃	ü	ē	Λ	ai	ɔ ɔ̃ e	ΛU
10	i	e e		ɔ ɔ̃ ɔ̃	jü*	ē	Λ*			

### SECTION 0

/i/ beet heat leet meat  
 meet sweat wet<sup>1</sup> wheat  
 /e/ bait beat bet gait gate grate  
 great late mate slate wait  
 /ɛ/ hot let met wet<sup>2</sup> wretch  
 /a/ fat pot salt sat  
 /ɔ/ water what  
 /ɔ̃/ fault  
 /ō/ boat coat cot knot lot note  
 rot throat  
 /ü/ about out  
 /ju/ duty  
 /ē/ bit boot foot fruit get put  
 root sit what wit witch  
 /Λ/ but cut nut putt  
 /ēi/ bite doit quite white

### SECTION 4

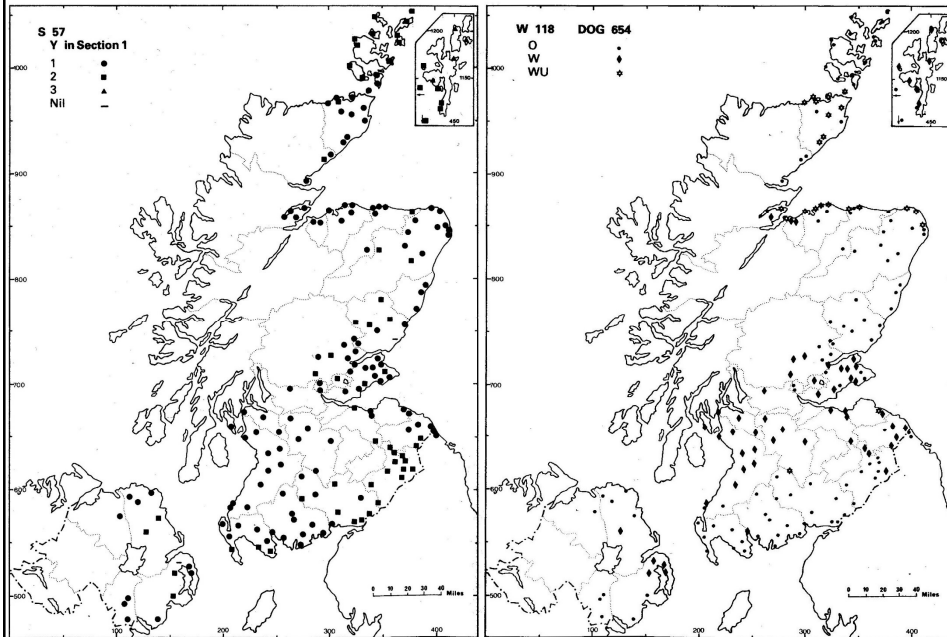
/i/ blaze breathe breeze deave  
 freeze grieve leave pease  
 please sieve  
 /e/ bathe clothes grave knave  
 lave praise raise save use<sup>1</sup>  
 /ɔ ɔ̃/ calve calves cause halve tawse  
 /ō/ drove<sup>1</sup> drove<sup>2</sup> frozen nose rose  
 /ü/ booze move prove smooth  
 /ju/ news  
 /ē/ brother bruise buzz has live  
 Liz mother nieve other was  
 /Λ/ glove love poison  
 /āe/ drive five rise size  
 /Λu/ loosen

### NOTES

Section 0: /-t/ may be realised as [-ʔ].

a /#-/	f /j-/
b /s-/	g /t-/
c /skl-/	h /-nz/
d /d-/	i /-ʃ/
e /-n/	

## Example maps from LAS3



## Problems with LAS3

Even within the Scots-speaking area, the geographical coverage of LAS3 is patchy

- e.g. no locations in Argyll, Peeblesshire, Selkirkshire, or parts of the Central Belt, Aberdeenshire, Shetland and Ulster

Only part of the survey wordlist was used in LAS3

- substantial sections covering unstressed vowels, deictics and pronouns were left out, and words not fitting the default consonant skeleton were excluded (such as any forms of *daughter* without /x/, e.g. /doθər/)
- Johnston (1997: 505): “At the time of the SND (Dieth 1932: 113; Grant 1931: xxxv), the cluster /xt/ in a few specific words such as *might*, *daughter* was realised as [θ] in north-eastern dialects. This feature is now highly recessive, and may survive, if at all, only in Angus ... **LSS vol. 3 failed to find any examples of this change.**”

## Problems with LAS3

The data were systematised in a subjective, idiosyncratic way, so that important phonetic information is lost, and minimal information is given on the pronunciation of consonants

- e.g. vowels before voiced and voiceless labial and velar stops and nasals are grouped together, obscuring potential lengthening effects
- e.g. LAS3 24.9 Newcastleton, Rox. *great* [greːt] > /greːt/, *part* [peːrt] > /pɛrt/, *tread* [trɛːd] > /træːd/;
- “His [r] is a uvular trill”
- E.g. the pronunciation of /r/ in most dialects is unknown

This systematisation runs through all the data and presentation of it

- The LAS 3 maps can only be interpreted in light of the systematisation, and even then it's not always clear what they show, or how important it is...

## What about the original data?

Held by the University of Edinburgh Centre for Research Collections in the Celtic and Scottish Studies archive

- thanks to Rachel Hosker and Cathlin Macaulay for access to these materials

Fieldworkers' notebooks for the 188 published locations, containing the original *phonetic* transcriptions in full (not just vowels) of the whole wordlist

- containing the full list of 982 words (786 in LAS3)
- including sections covering unstressed vowels, pronouns and deictics left out of LAS3
- all words are transcribed phonetically, in full, including consonants and unstressed vowels, so that we need not rely on the idiosyncratic LAS3 phonemic interpretation of the data

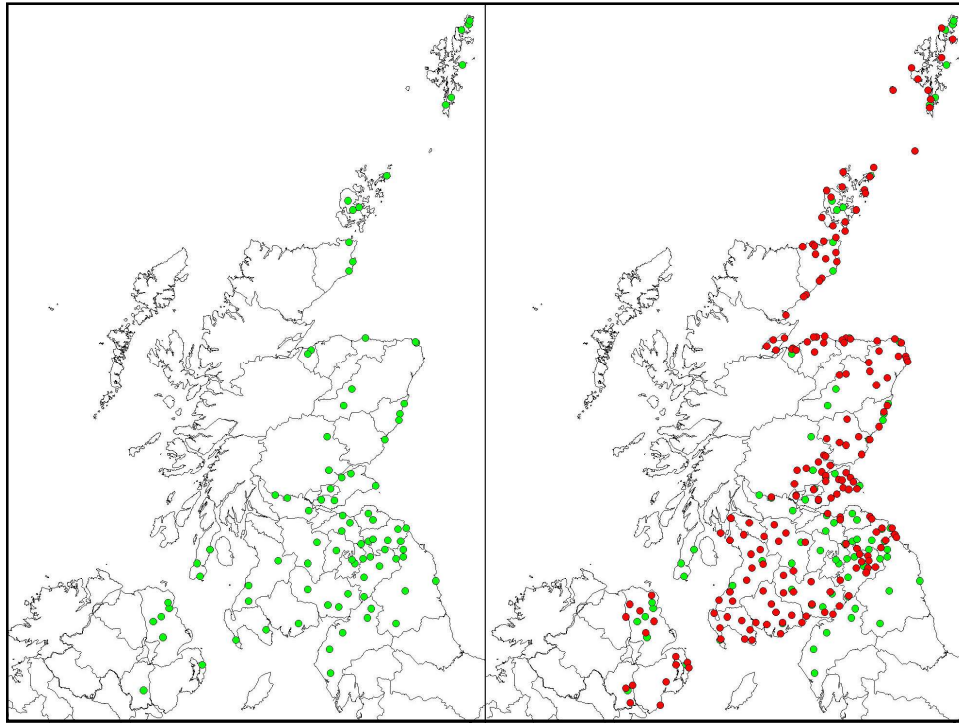
## And there's more...

Fieldworkers' notebooks for an additional 105 locations, most not included in LAS3

- many of these use a slightly different wordlist and constitute a parallel survey rather than rejected data collected for LAS3
- including locations in e.g. Argyll, Peeblesshire, Selkirkshire, inland Aberdeenshire, Unst, Whalsay, the Glens of Antrim, Northumberland and Cumberland, mostly not covered by LAS3

The unpublished materials also include phonetic transcriptions of the long *Survey of English Dialects* (SED; Orton & Dieth 1962-71) questionnaire

- 14 locations across Lowland Scotland (mostly south of the Clyde-Forth isthmus)
- there are no published SED returns for Scotland (other than the few bits of data in Glauser 1974)
- substantial phonetic, lexical, and morpho-syntactic data which is strictly comparable with data gathered for dialects across England



## Tranent (22.1 East Lothian)

<p>[smədɔ̃ pət] - v. hot</p> <p>[piwip] - blue semit - thin blue - Tranent <small>word.</small></p> <p>Depth measured in fathoms</p> <p>"Brushing" - blowing down road head to ker bures further in.</p> <p>[pɪs taim] (pis taim)</p> <p>[pɪs taim] [tʃæk taim] zones</p> <p>[lausɔ̃ taim]</p> <p>[ən əlɔ̃ əð lɛx] -</p> <p>[græt sin] - great seam - nearest surface</p> <p>Start from bottom upwards root wd. not last - take it in [lɛfts] - 6' high.</p> <p>[pɛ/θɪz] - made of thos (6') + 3' oil or thaus + dross - rubbish (dures)</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;"></td> <td style="width: 40%;">016 water</td> <td style="width: 40%;">wətəɪ</td> <td style="width: 10%;"></td> </tr> <tr> <td style="vertical-align: top;">gräb</td> <td>017 bait</td> <td>bɛɪt</td> <td></td> </tr> <tr> <td></td> <td>018 wait</td> <td>wɛɪt</td> <td>stəɪ</td> </tr> <tr> <td style="vertical-align: top;">wɪtɪm</td> <td>019 gait</td> <td>gɛɪt</td> <td></td> </tr> <tr> <td></td> <td>020 boot</td> <td>bɛɪt</td> <td>ɛ</td> </tr> <tr> <td></td> <td>021 cut (ankle)</td> <td></td> <td></td> </tr> <tr> <td></td> <td>022 root</td> <td>rɛɪt</td> <td></td> </tr> <tr> <td></td> <td>023 fruit</td> <td>frɛɪt</td> <td></td> </tr> <tr> <td></td> <td>024 foot</td> <td>fɛɪt</td> <td></td> </tr> <tr> <td></td> <td>025 sit</td> <td>sɛɪt</td> <td></td> </tr> <tr> <td></td> <td>026 bit</td> <td>bɛɪt</td> <td></td> </tr> <tr> <td></td> <td>027 wit</td> <td>wɛɪt</td> <td></td> </tr> <tr> <td></td> <td>028 witch</td> <td>wɛɪtʃ</td> <td></td> </tr> <tr> <td></td> <td>029 bet (sb.)</td> <td>bɛɪt</td> <td></td> </tr> <tr> <td style="vertical-align: top;">sin</td> <td>030 met</td> <td>mɛɪt</td> <td></td> </tr> </table>		016 water	wətəɪ		gräb	017 bait	bɛɪt			018 wait	wɛɪt	stəɪ	wɪtɪm	019 gait	gɛɪt			020 boot	bɛɪt	ɛ		021 cut (ankle)				022 root	rɛɪt			023 fruit	frɛɪt			024 foot	fɛɪt			025 sit	sɛɪt			026 bit	bɛɪt			027 wit	wɛɪt			028 witch	wɛɪtʃ			029 bet (sb.)	bɛɪt		sin	030 met	mɛɪt	
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## Poyntzpass (31.1 Armagh), Fair Isle (1.10 Shetland)

1236 limpet	lɪmpɪt		Unstressed Subj. — c-ame/s-aw	
1237 bullock	bʌlɒk		1301 I	i
1238 peeper	pɪpɪ	gɒk.	1302 we	ʃə
1239 paper	pɛpɪ	gɒk.	1303 you (s)	ɪt
1240 pepper	pɛpɪ		1304 you (p)	ðeɪ
1241 beaker	bɛkɪ		Stressed Subj. ' — c-ame/s-aw	
1242 baker	bɛkɪ		1309 I	hi
1243 beater	bɛtɪ	nɪ ɪntɪkɪtɪz	1310 we	ʃə
1244 better	bɛtɪ	[bɛtɪ] = mɪ ɪnto bɛtɪ.	1311 you (s)	hɪt
1245 fatter	fɛtɪ	fɒlɪ [fɛtɪ] fɒlɪ [fɛtɪ]	1312 you (p)	ðeɪ (u)
1246 father	fɛtɪ		Unstressed Obj. He s-aw/g-ave it/c-ame with —	
1247 bathur	bɛtɪ		1317 me	ɪm
1248 Dover	dɒvɪ		1318 us	ɪt
1249 drover	dɒvɪ		1319 you (s)	ɪt
1250 awful	ɒfʌl		1320 you (p)	ðeɪm

### The LSS Scots audio recordings

The primary LSS data are the phonetic transcriptions, responses to the questionnaire not being audio-recorded at the time

But audio-recordings were later made of selections of the wordlist, and of short stretch of conversation, at many (though not all) locations

- typically Sections 0 (-t) and 2 (-#) and a selection of other words

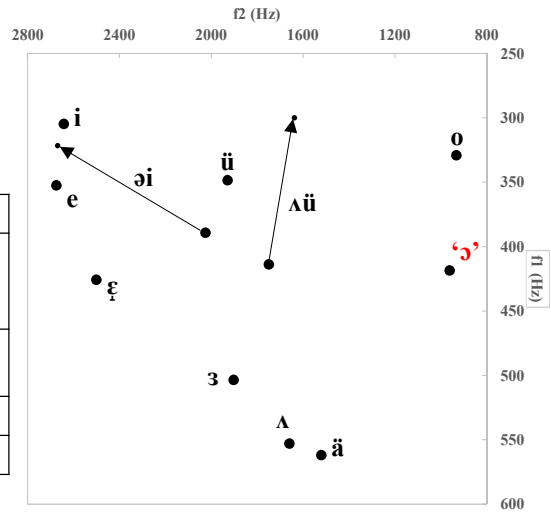
These are also held in Celtic and Scottish Studies and many have been digitised

- These audio recordings, though somewhat limited in length and coverage provide a unique comparison and check on the phonetic transcriptions
- I have not yet explored these in detail

## Kingarth by Rothesay, Isle of Bute (17.1)

LAS3 identifies 10 vowel phonemes before /t/ in the Bute dialect:

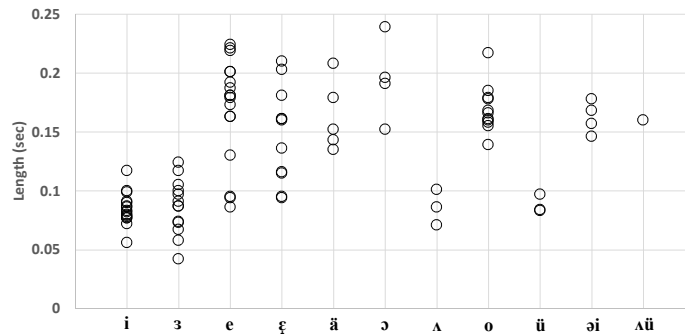
i	<i>meet</i>	Λ	<i>but</i>
ɜ	<i>bit</i> <i>boot</i>	o	<i>fault</i> <i>cot</i> <i>coat</i>
e	<i>mate</i> <i>bait</i>	ü	<i>out</i>
ε·	<i>met</i>	əi	<i>bite</i>
ä	<i>fat</i>	Λü	<i>colt</i>



## Kingarth by Rothesay, Isle of Bute (17.1)

All vowels before /t/ are transcribed as short (in LAS3 and in the original notebook)

- all monophthongs except /ɜ/ and /Λ/ appear to follow the SVLR
- the audio-recording of the dialect shows that this is a considerable idealisation, with a clear distinction between long (/e ε ä ɔ o/) and short (/i ɜ Λ ü/) vowels before /t/






## My work on the LSS Scots phonetic materials

I have catalogued all the phonetic notebooks and had them digitally scanned (funds provided by PPLS, work directed by Rachel Hosker at the CRC)

I am making a detailed catalogue of the wordlist audio-recordings and how they correspond to the notebooks

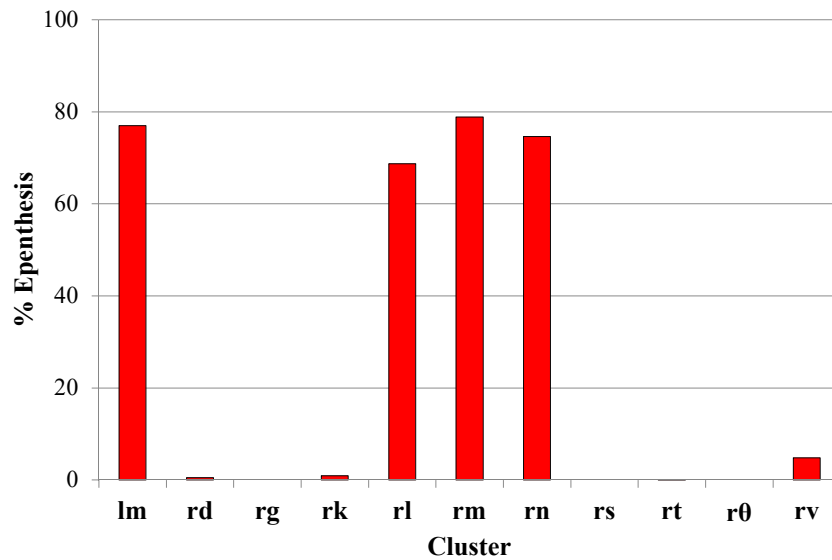
Plan: a protected, online database, linking location information, original transcriptions, and analyses

- hopefully including the audio-recordings of the wordlists
- new phonological analysis (maybe even leading to a new ‘polyphonemic’ analysis!) and cartographic analysis of the data
- these two things are linked, as a ‘polyphonemic’ analysis of the data at each location could allow for automated mapping of many patterns

Word	No.	LAS3	Polyphoneme	Image	Phonetic	Sound
<i>bite</i>	058	ei	EI	b <sup>h</sup> ei <sup>t</sup>	b <sup>h</sup> ei <sup>t</sup>	
<i>meet</i>	002	i	I	mi <sup>t</sup>	mi <sup>t</sup>	
<i>mate</i>	011	e <sup>ə</sup>	E	me <sup>ə</sup> t	me <sup>ə</sup> t	
<i>late</i>	012	e. <sup>l</sup>	E	le <sup>l</sup> t	le <sup>l</sup> t	
<i>bait</i>	017	e <sup>ə</sup>	E	be <sup>ə</sup> t	be <sup>ə</sup> t	
<i>great</i>	008	e. <sup>ə</sup>	E	gr <sup>h</sup> e <sup>ə</sup> t	gr <sup>h</sup> e <sup>ə</sup> t	
<i>let</i>	031	æ	E	le <sup>h</sup> t	le <sup>h</sup> t	
<i>bit</i>	026	ɪ	Y	bi <sup>t</sup>	bi <sup>t</sup>	
<i>boot</i>	020	ø	Y	bø <sup>t</sup>	bø <sup>t</sup>	
<i>but</i>	053	ʌ	W	bʌ <sup>t</sup>	bʌ <sup>t</sup>	
<i>fat</i>	038	ɑ	A	fɑ <sup>t</sup>	fɑ <sup>t</sup>	
<i>fault</i>	040	ɑ	A	fɑ <sup>t</sup>	fɑ <sup>t</sup>	
<i>cot</i>	043	ɔ	O	kɔ <sup>t</sup>	kɔ <sup>t</sup>	
<i>coat</i>	048	ɔ <sup>ə</sup>	O	kɔ <sup>ə</sup> t	kɔ <sup>ə</sup> t	
<i>throat</i>	050	ɔ <sup>ə</sup>	O	θrɔ <sup>ə</sup> t	θrɔ <sup>ə</sup> t	
<i>out</i>	051	u	U	u <sup>t</sup>	u <sup>t</sup>	
<i>duty</i>	064	ɪu	U	dɪu <sup>ti</sup>	dɪu <sup>ti</sup>	
<i>nowt</i>	063	ou	WU	nəu <sup>t</sup>	nəu <sup>t</sup>	

## Epenthesis in liquid+C clusters

e.g. *film, world, farm, burn* (Maguire 2017)

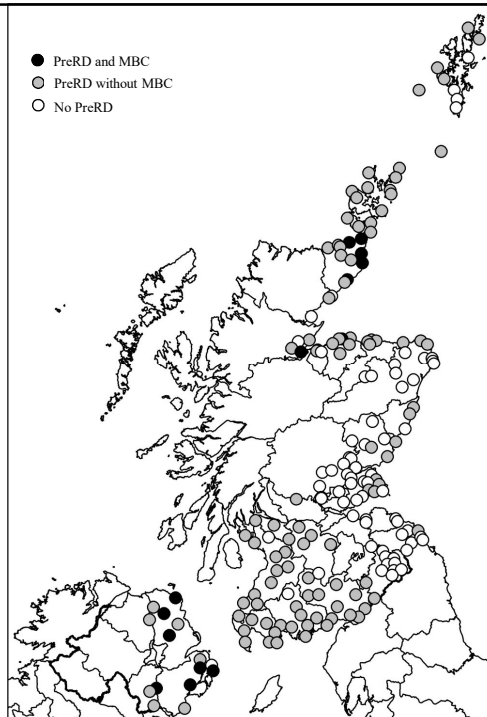


## Pre-R Dentalisation

PreRD refers to the pronunciation of /t d n/ as dental before /r/ and /ər/ (e.g. *try, better* 'more good')

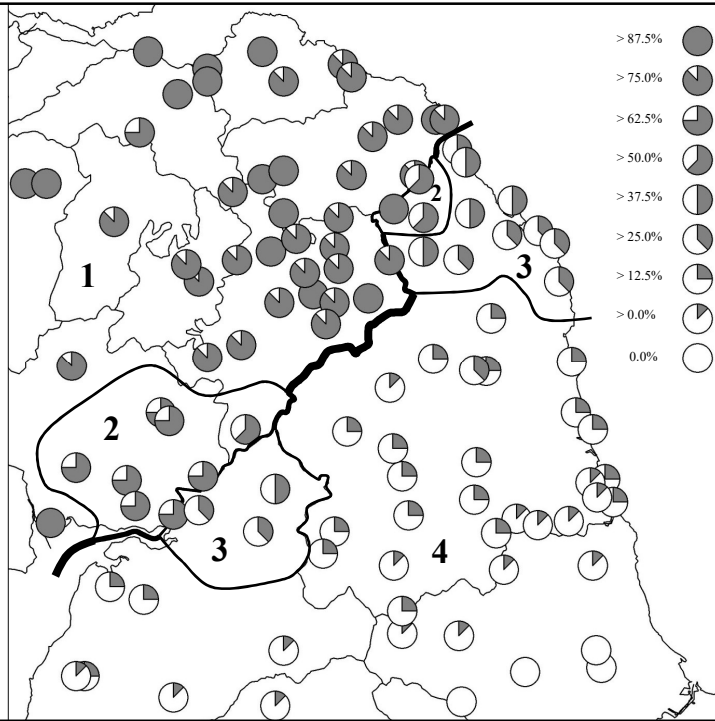
Characteristic of Irish English, but of uncertain origin; probably from n. England, rather than Irish as many have assumed (Maguire 2012b)

The unpublished LAS3 data reveals for the first time that the feature is/was widespread in Scots too, confirming the British origin of this feature of Irish English (Maguire 2016)



## The Scots-English Border

The close network of published and unpublished locations allows a detailed picture of cross-border linguistic relations and divisions to be drawn based on 22 phonological variables (Maguire 2015)

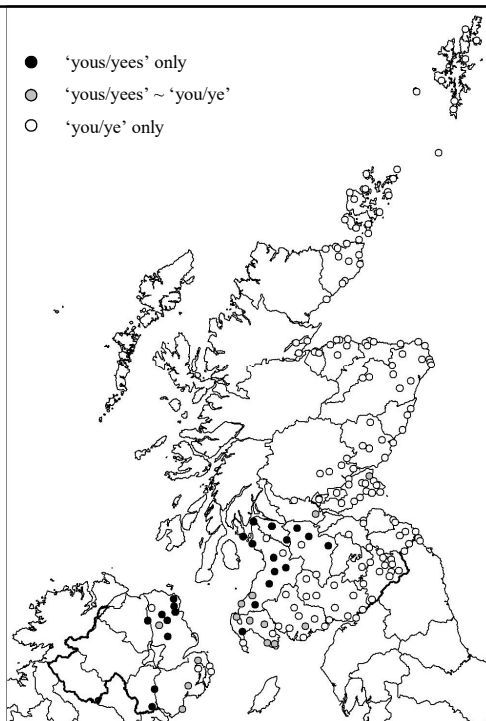


## *yous*

Like English, many Scots dialects lost the distinction between sg. and pl. for the 2<sup>nd</sup> person pronoun ('you/ye')

A new form, 'yous/yees', has developed and become widespread, and is suspected of originating in Irish English

The unpublished LAS3 data shows that it is present in Ulster and in traditional dialects in SW Scotland and around Glasgow, indeed suggesting a spread from Ireland (Maguire 2012a)



## With thanks to...

- Rachel Hosker, Cathlin Macaulay, Caroline Milligan, Stuart Robinson, Hannah Wood, Arron Mark, Margaret Mackay, Ronnie Cann, John Joseph, and Heinz Giegerich

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