Can you tell by their English if they can speak Welsh? Accent perception in a language contact situation

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Outline

- Aims to gain a better understanding of accent perception in a long-term contact situation.
- Can listeners tell whether someone speaks Welsh from their English accent and how?
- Results of three inter-related studies:
  - Perception task
  - Interviews about listeners' perceptions
  - Phonetic analysis of the stimuli

Research Context

- Perception studies in SLA
  - Perception of non-native accents (e.g. Flege, 1984; Munro, 1995).
  - Global accent rating (e.g. Hazan & Boulakia, 1993).
- Bilingual contexts
  - Deviation from monolingual norms in certain contexts (e.g. Sancier & Fowler 1997: 422; De Leuuw et al. 2010).
  - Listeners' familiarity with accentual features (e.g. Sinner 2002; Tomé-Lourido 2018).

The Welsh context

- Perceptual studies showing ‘Welshness’ as a gradient property and often linked to area (Garrett et al. 1999; Williams et al. 1996).
- Production studies of specific features:
  - Home language influence on production of /r/ and Fundamental Frequency Range in NW but not other areas of north Wales (Morris 2013, 2019).
  - Little home language influence on the production of monophthongs and lexical stress in Carmarthenshire (Mayr et al. 2017; Mennen et al. fc).

Research questions

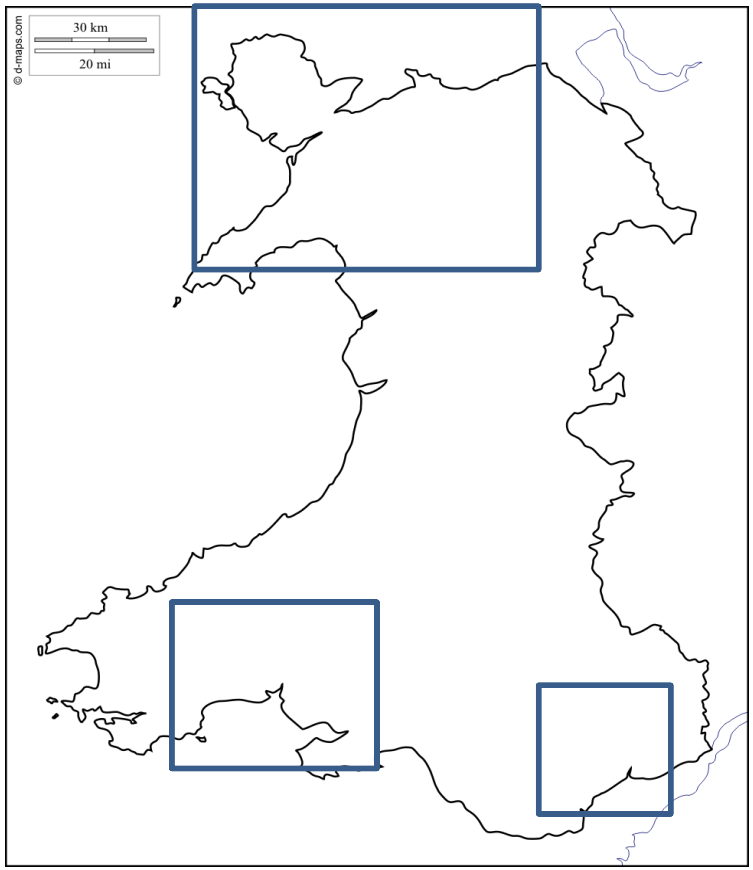
1. Is it possible to identify Welsh-English bilinguals and English monolinguals from Wales by listening to their accent in English? **(Study 1)**
2. Does accuracy and confidence in speaker identification depend on accent familiarity and/or a listener's own ability to speak Welsh? **(Study 1)**
3. Which accentual features do listeners consider when deciding that someone can or can not speak Welsh? **(Study 2)**
4. To what extent do listeners' perceptions of the accentual features of monolingual and bilingual speakers match the patterns found in the samples to which they listened? **(Study 3)**

Stimuli

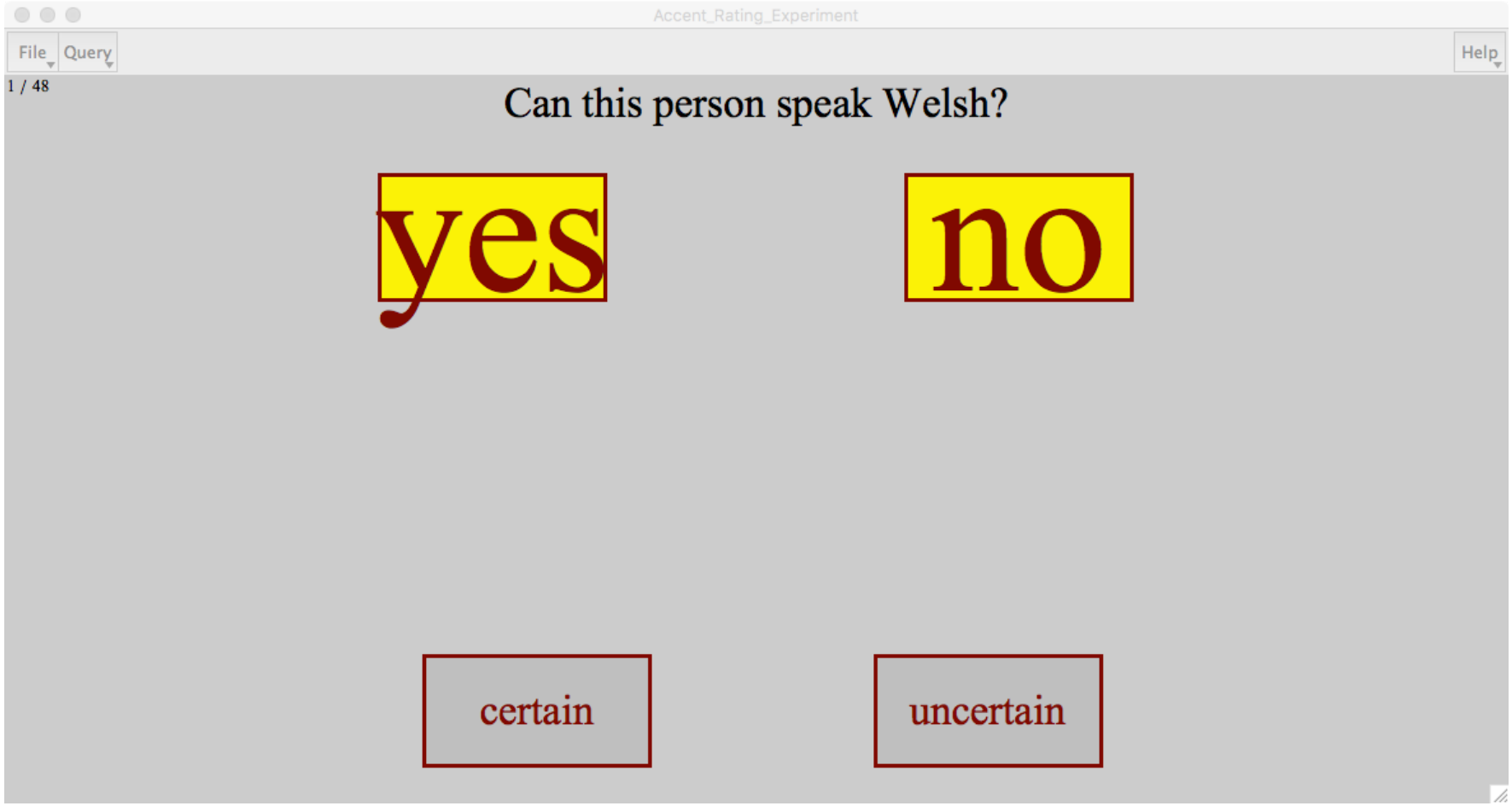
- Stimulus material: Young speakers from Carmarthenshire are recorded retelling two picture-based narratives:
  - E MONOLINGUALS, N=12
  - W-E BILINGUALS, N=12
- Extraction of two 15-second samples from each:
  - Checked for hesitation phenomena and linguistic clues.
- Perception test in Praat which asked listeners to say whether they thought the speaker could speak Welsh and whether they were certain or uncertain.

Listeners

- **Listeners**
  (1) Bilinguals from the same area (i.e. Carmarthenshire), N=19.
  (2) Bilinguals from a different area (i.e. Rest of Wales), N=20.
  (3) English monolinguals from the same area, N=15.
  (4) English monolinguals from a different area, N=21.



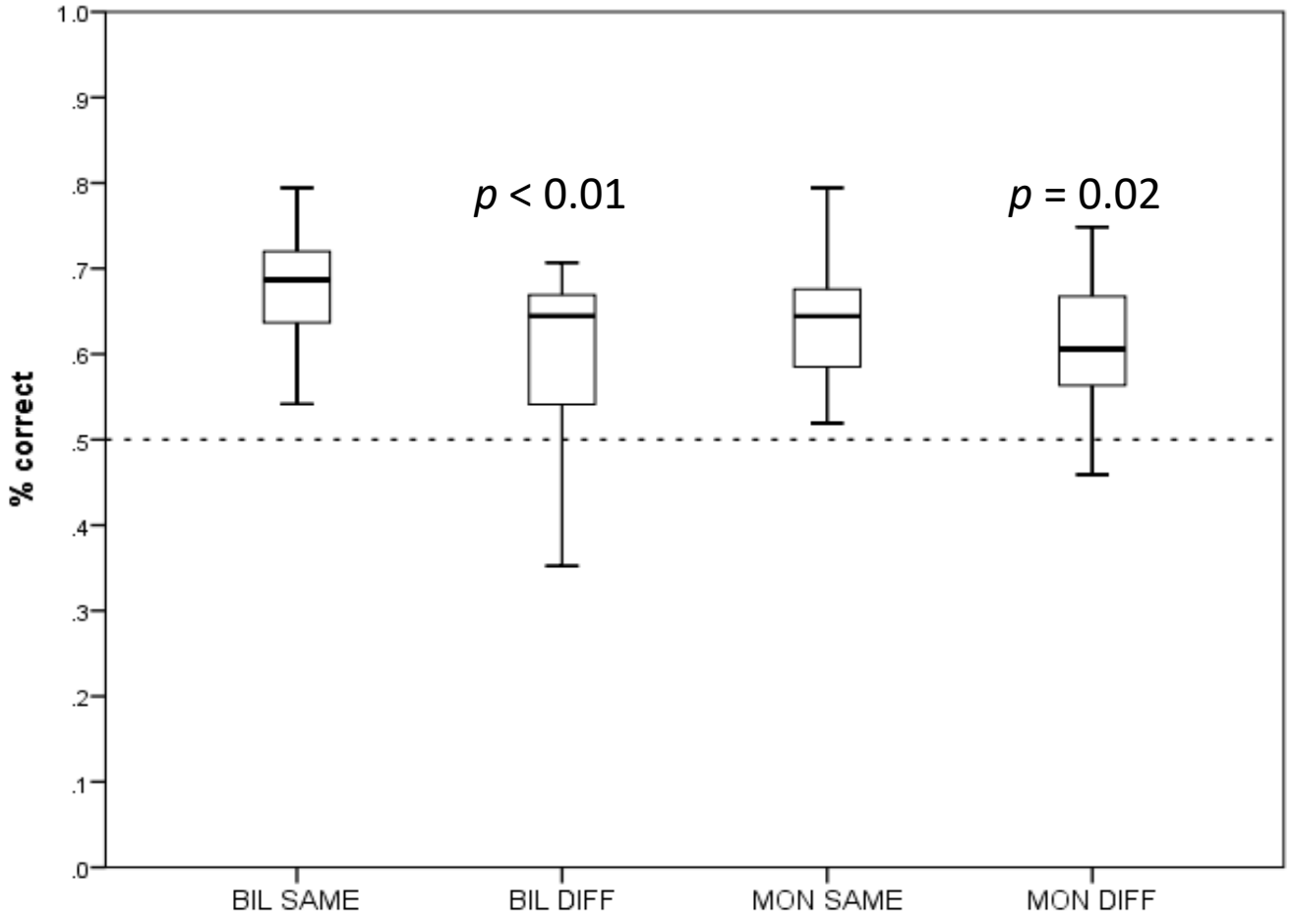
Design (3)


Accent_Rating_Experiment
File
Query
Help
1 / 48
Can this person speak Welsh?
yes
no
certain
uncertain

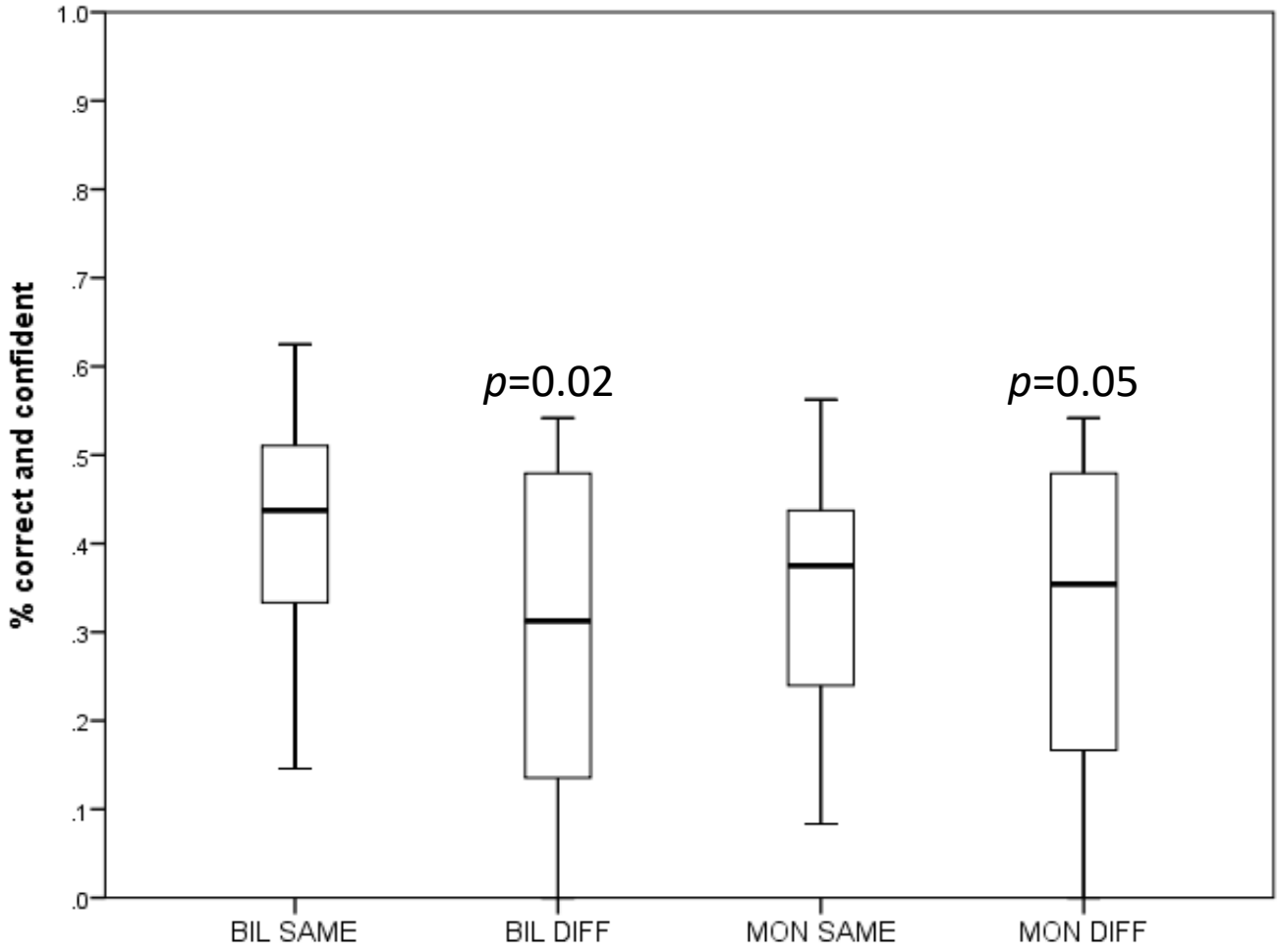
Study 1

- Can they identify Welsh speakers?
  - Separate analyses of *accuracy*, *confidence*, and *accuracy and confidence*.
  - Final mixed effects logistic regression models contained *speaker group* and *sample* as dependent variables (*participant* and *item* as random factors).
  - Following results focus on *accuracy* and *accuracy and confidence.*

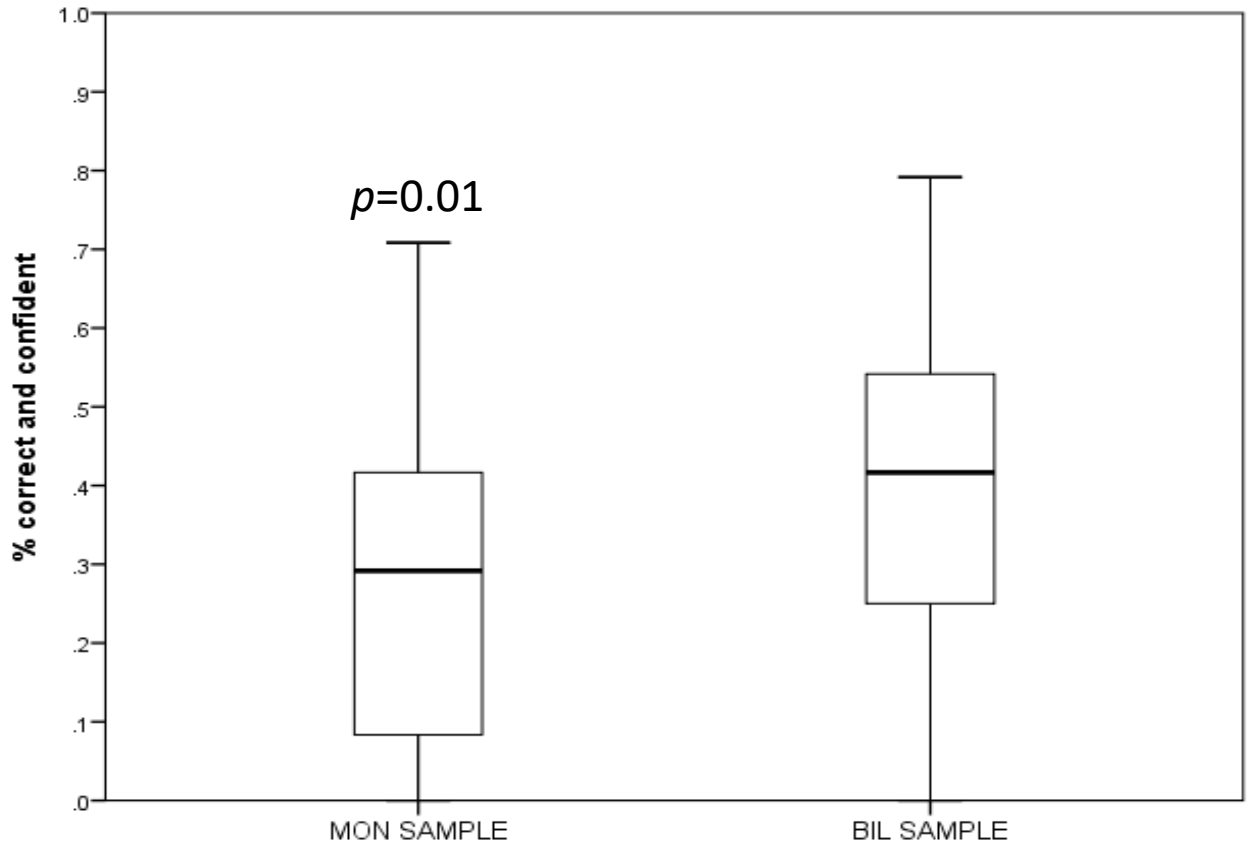
Accuracy by group



Confidence and accuracy by group



Confidence and accuracy by sample



Study 2

- What accentual features do listeners consider?
  - Brief interviews with listeners (M=4.03 minutes).
  - Content analysis of responses (Krippendorff, 2018).
  - Coding: (1) bilinguals' speech, (2) monolinguals' speech, (3) linguistic features, (4) non-linguistic comments.
  - Independent coding yielding an agreement score of 93.2%.
  - A total of 220 comments were analysed.

Listeners' comments: BIL samples

Feature mentioned	Number (%) of participants	Example
vowels	50 (66.67%)	"… those who drew their vowels out more were more likely to be Welsh speakers"
/r/	42 (56%)	"… the Welsh speakers were rolling their 'r's a bit more"
speaking rate	27 (36%)	"… it was a faster rate of speech" "… Welsh speakers speak more slowly"
intonation/ pitch	24 (32%)	"… more of a lilt in the way that they spoke" "... it seems to be more monotonous"
word-final consonants	15 (20%)	"… more enunciating their 't's and 'd's" "... a teethy kind of t"
lexical stress	13 (17.3%)	"… more emphasis on the end of words"
rhythm	6 (8%)	"... different speed between words"
other	6 (8%)	"… pronounces 'h's" "... add in a syllable, so like [ˈhɛlpə]"

Listeners' comments: MON samples

Feature mentioned	Number (%) of participants	Example
vowels	18 (24%)	"... they tended to hold out vowels for longer"
speaking rate	10 (13.3%)	"... they speak faster"
/r/	6 (8%)	"... they don't have rolled /r/s"
intonation/ pitch	3 (4%)	"... they were going up at the end of a sentence"
t-glottaling	3 (4%)	"... instead of [ðat], they say [ðaʔ]"
lexical stress	2 (2.7%)	"...less emphasis on the end of words"
h-dropping	2 (2.7%)	"... they said 'house' like [aʊs]"
other	2 (2.7%)	"...they say [ˈslipɪn] instead of [ˈslipɪŋ]"

Study 3

- Do perceptions match production?

Measures	N
SEGMENTAL	
FACE	97
GOAT	72
/r/	247
rhoticity	180
/t/	206
/h/	287
(ing)	46
SUPRASEGMENTAL	
articulation rate	2866 syllables
f0 (min)	211 tone units
f0 (max)	
pitch span	

Analysis of the stimuli

Measure	Monolingual	Bilingual	Difference
FACE	monophthong 6 (15%)	monophthong 19 (34%)	χ^2= 4.606, p= .032
/r/	approximant 135 (98%)	approximant 78 (72%)	χ^2= 35.395, p<.001
(ing)	[ɪŋ] 2 (7%)	[ɪŋ] 11 (58%)	χ^2= 14.021, p<.001
f0 (max)	Women: 295.61 Hz (SD: 38.37) Men: 116.59 Hz (SD: 12.33)	Women: 281.02 Hz (SD: 28.95) Men: 160.18 Hz (42.66)	Women: t(112)= 1.99, p= .049 Men: t(84.67)= -7.63, p<.001
pitch span	Men: 4.85 ST (SD: 0.58)	Men: 7.32 ST (SD: 3.01)	Men: t(75)= -6.41, p<.001

Summary

- Discernible differences between bilingual and monolingual speakers from the same area.
- Accent familiarity rather than being bilingual influences accuracy and confidence.
- Tendency to associate Welsh-influenced features with bilingual speakers.
- But many of these features are present in the speech of monolinguals.

Discussion and conclusions

- Listeners' perceptions of a 'Welshy' accent inherently linked to being able to speak Welsh.
- Dual influence of historic language contact and synchronic transfer from Welsh.
- Possible socio-indexical meaning of Welsh features in specific communities (cf. Morris 2019).
- To what extent do these differences constitute different varieties of Welsh English?

Diolch yn fawr!

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