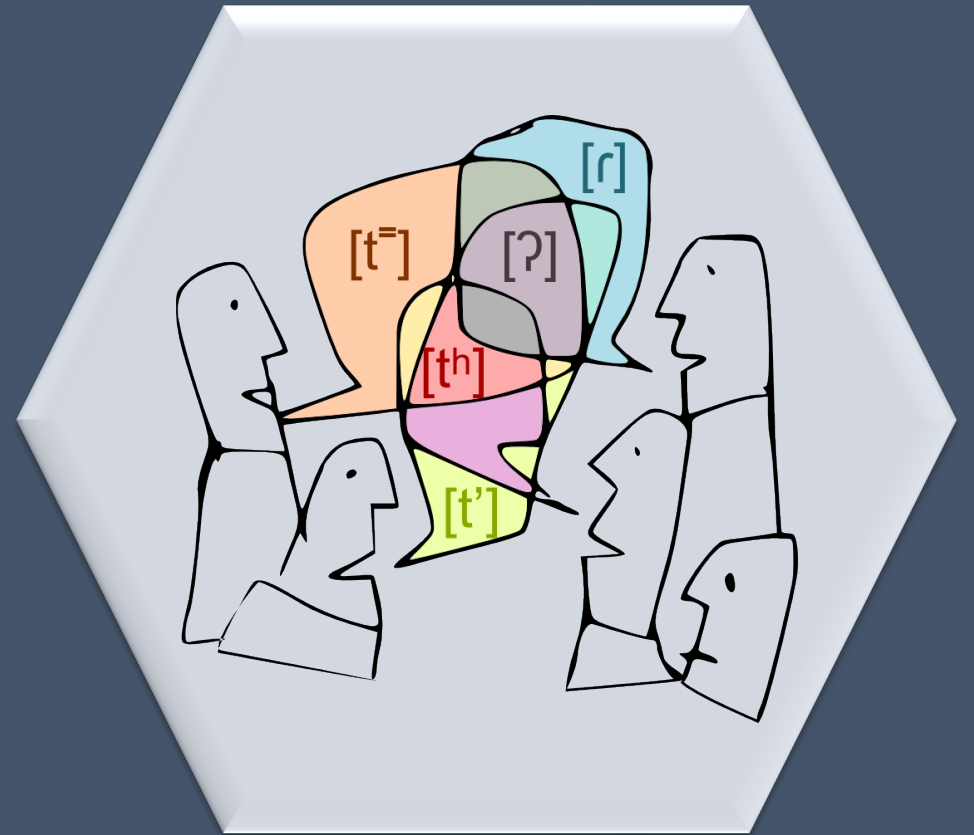# What is accent variation and what role does it play in language?

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Embracing Linguistic Diversity, 23 April 2021

Outline

1. What is an accent?

2. How do we use accent variation as speakers and listeners?
    2.1. Accent variation in comprehension
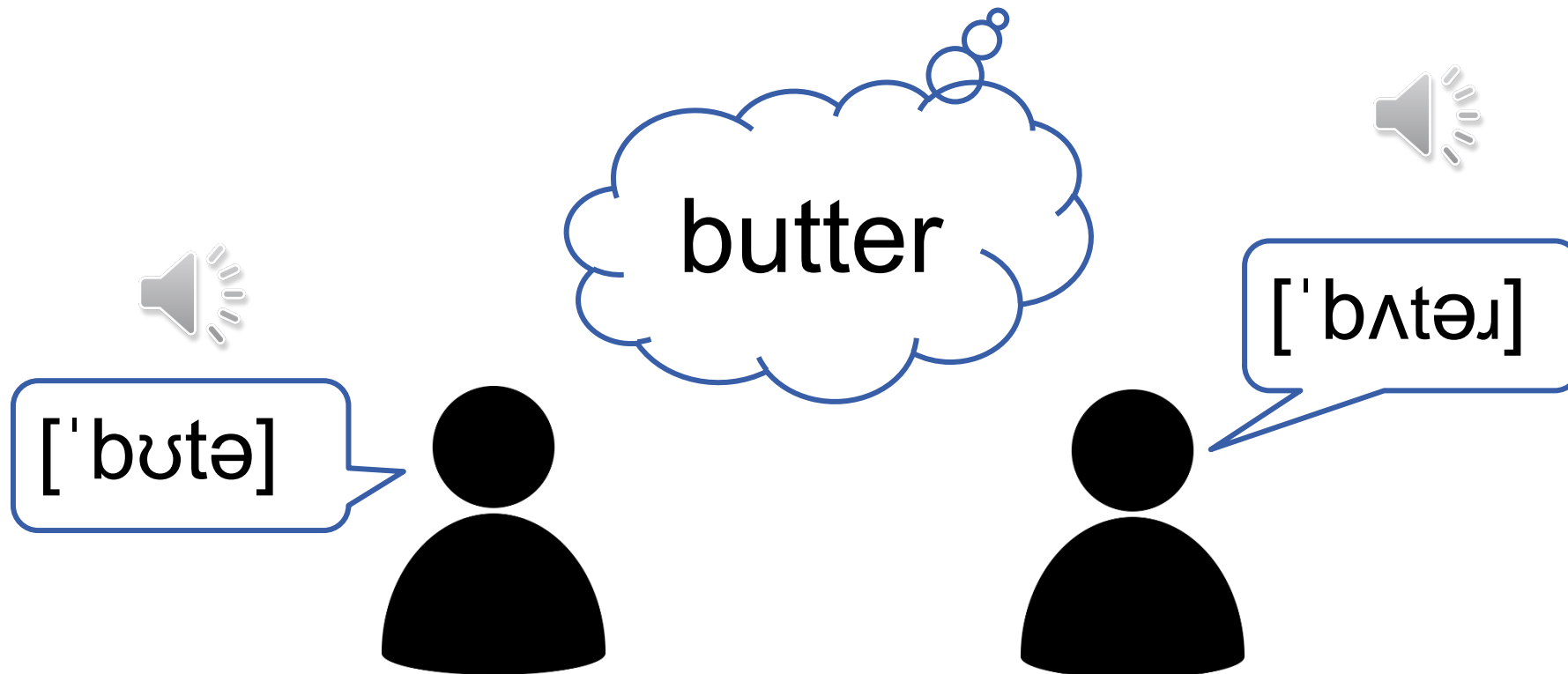   2.2. Accent variation as a source of bias

3. Why is this relevant in the University context?
4. What can we do at LCS and LC?

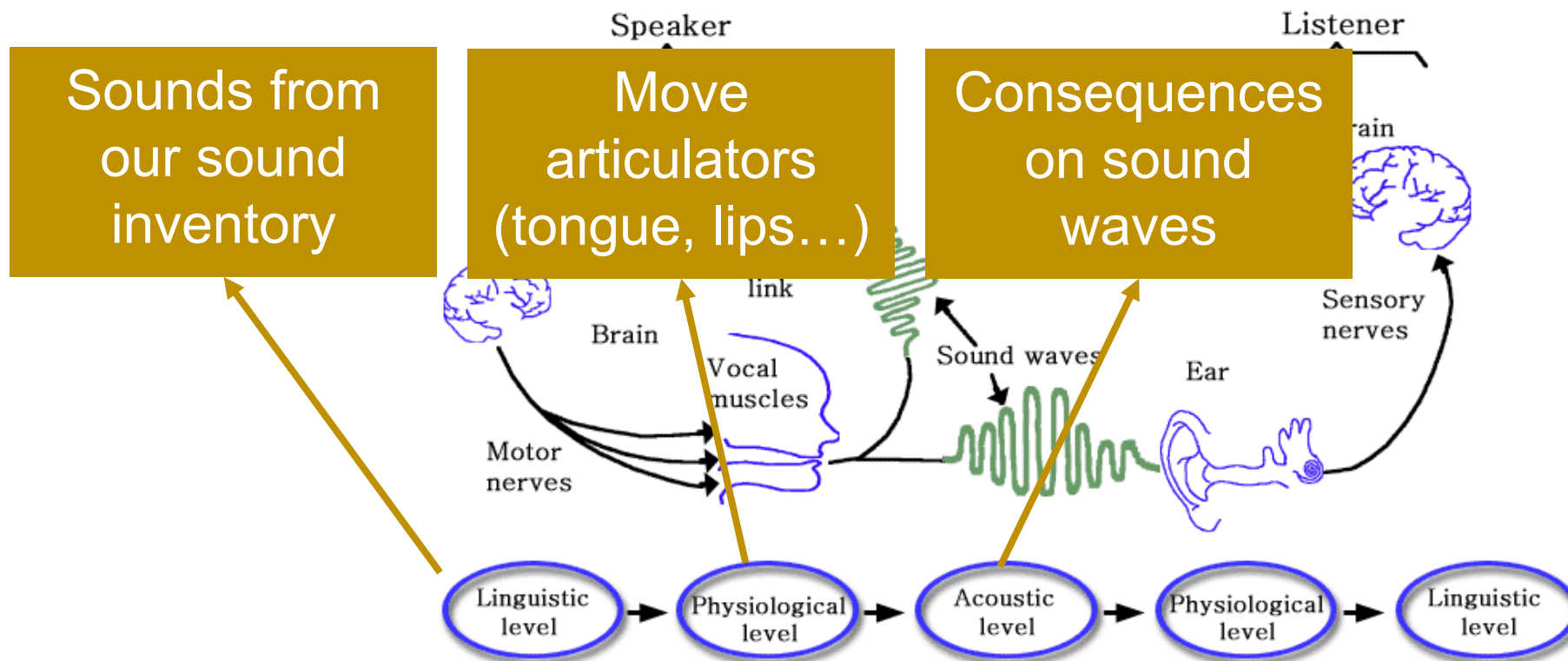# 1. What is an accent?

Accent variation

Variation at the level of pronunciation: vowels, consonants, rhythm, intonation, etc.

Where does an accent take place?

Variation at the level of pronunciation: vowels, consonants, rhythm, intonation, etc.

The Speech Chain

Speaker   Listener

Sounds from our sound inventory

Move articulators (tongue, lips…)

Consequences on sound waves

Brain

link

Sound waves

Sensory nerves

Vocal muscles

Ear

Motor nerves

Linguistic level → Physiological level → Acoustic level → Physiological level → Linguistic level

Denes & Pinson, 1993

2. How do we use accent variation as speakers and listeners?

As speakers

We use variation in language

- to express, construct and negotiate our **identity** in the languages we speak.

- to show **affiliation** to people or groups of people (e.g., Milroy, 1980; Eckert, 2000; Bucholtz 1998, 1999) or the opposite!

As listeners

The speech signal carries **linguistic** and **non-linguistic** information

This is butter

- Emotion
- Attitude

- Personal identifier: recognizing someone we know

- Age
- Sex and gender
- Regional and social background

How do we deal with variation in comprehension?

2.1. Variation in comprehension

What else do we do with non-linguistic information?

2.2. Variation as a source of bias

2.1. Accent variation in comprehension

How do we deal with variation in comprehension?

Variation in comprehension: Foe?

Hearing speech produced in an **unfamiliar accent** has a processing cost, Adank et al. (2009); Floccia, et al. (2006).

But listeners can **rapidly adapt** to novel talkers and accents.
e.g., Bradlow & Bent (2007), Baese-Berk, Bradlow & Wright (2016).

Photo by Priscilla Du Preez on Unsplash

Variation in comprehension: Or friend?

When listening to a **familiar accent**…

- We can use regularities in the accent to **predict** what comes next.
- **Perceived information** about the speaker facilitates comprehension.
  e.g., gender (Strand, 1999), region (Niedzielski, 1999), age (Koops et al., 2008)

Ma, Correll, & Wittenbrink (2015). The Chicago Face Database
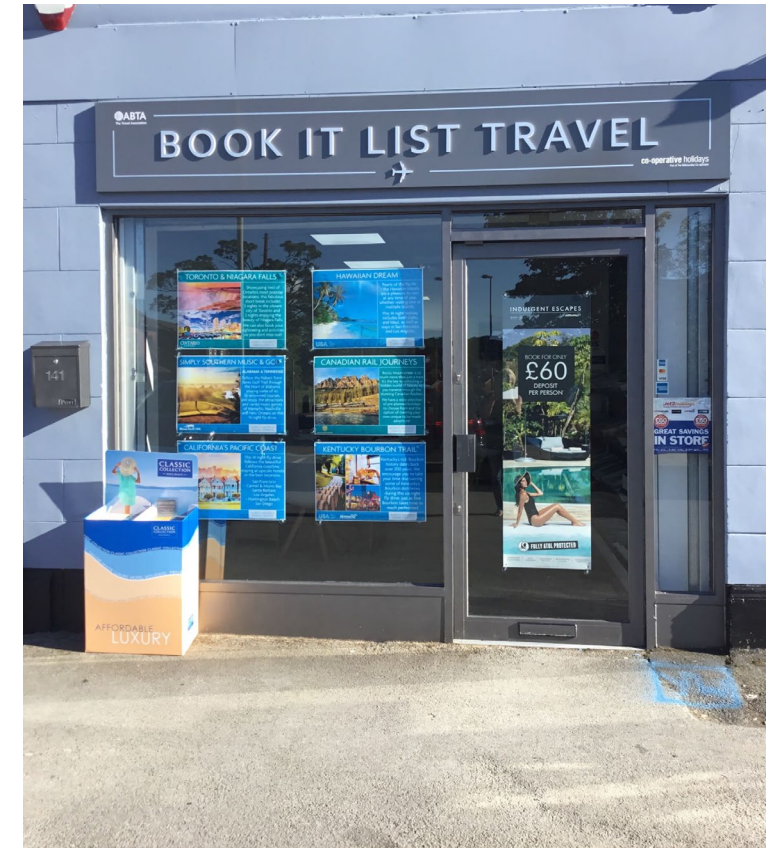
Koops et al., 2008

Tracking variation in comprehension

Tomé Lourido, Lennon & Evans (ongoing):

Can listeners use phonetic information in another accent to speed up processing?

Word class	North	South
book, look, bush, foot	ʊ	ʊ
bus, luck, cut, strut		ʌ

Street Lane, Leeds.
Thanks to Robert Lennon.

Listeners are able to use contrasts that don't exist in their native repertoire when processing or adapting to a different accent, at least for a familiar accent.

Arguably, exposure to different varieties can help rely on regularities of accents and become better at understanding those accents.
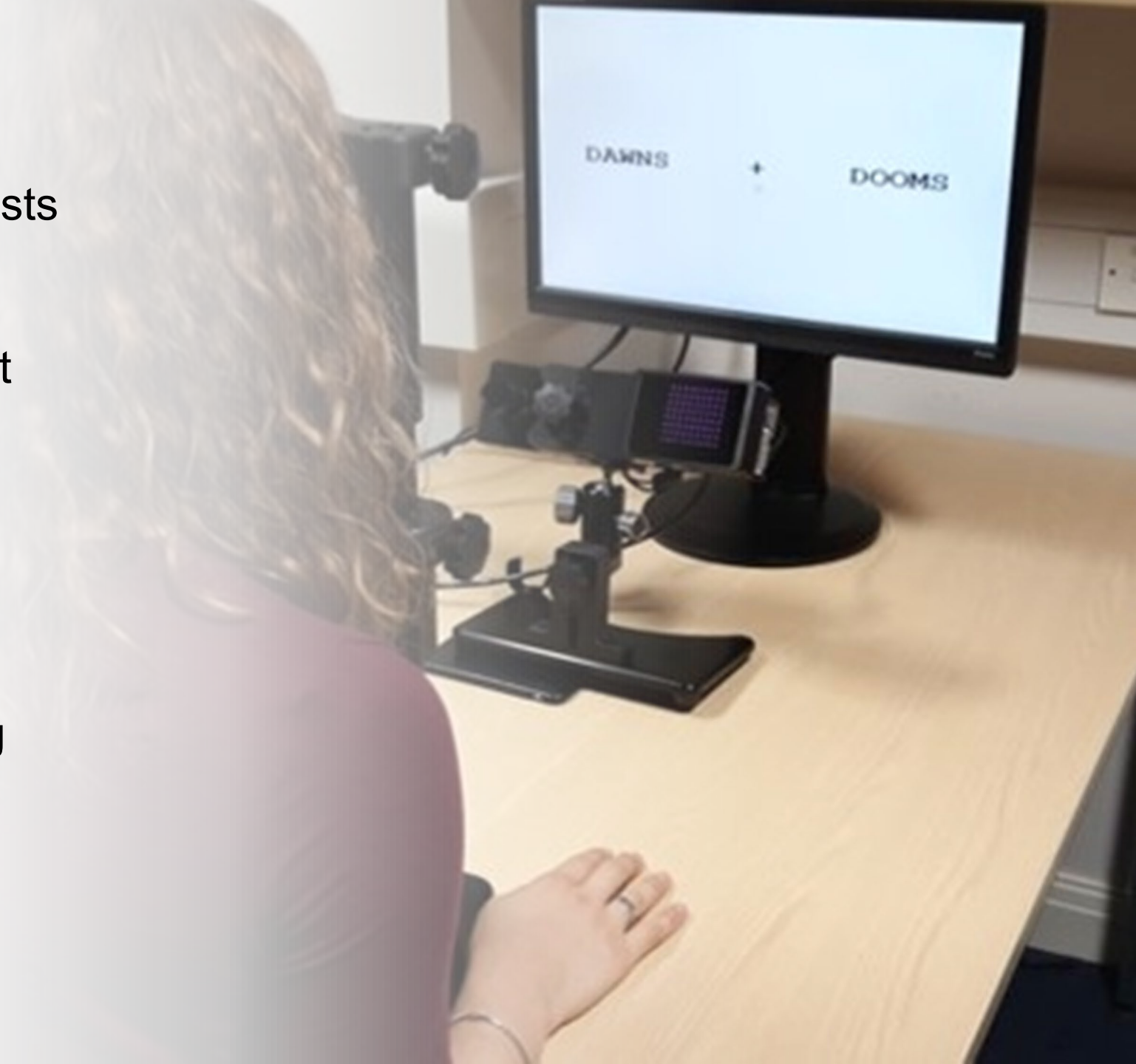
Storing accent variation
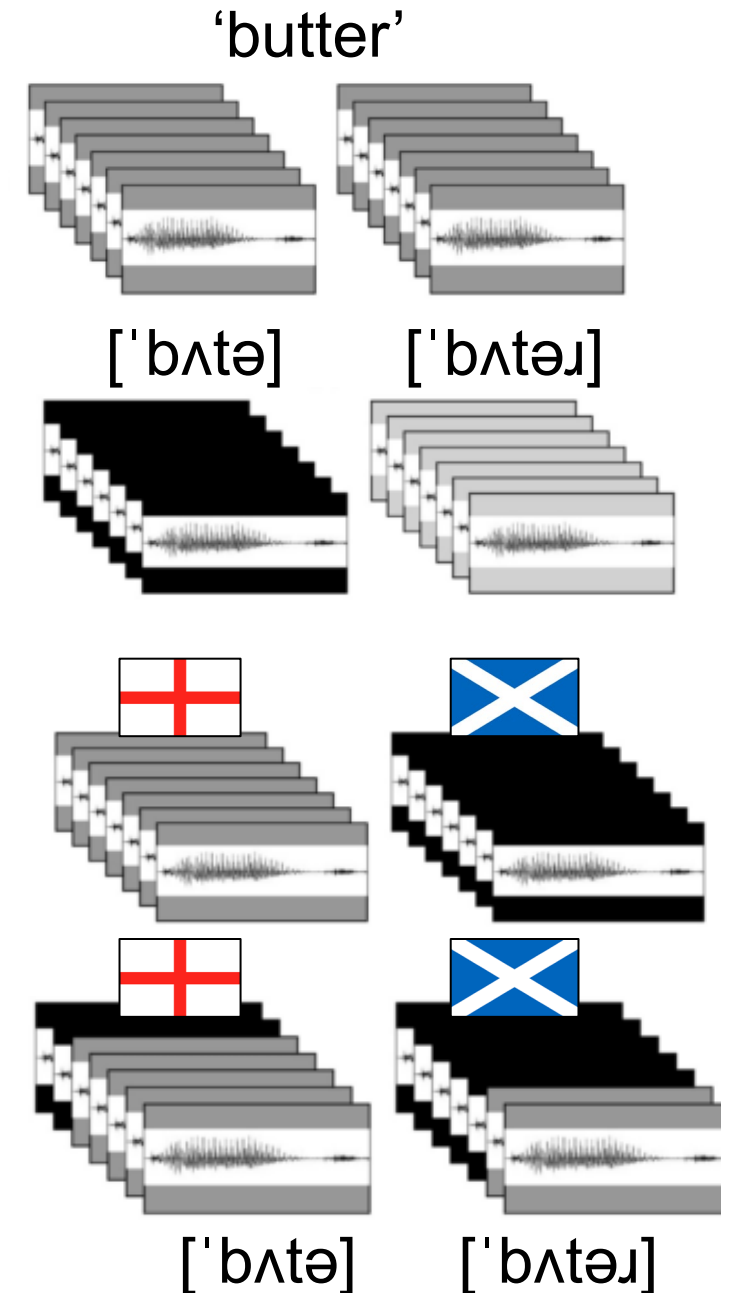
Exemplar-based models

Exemplars: Memory traces in detailed acoustic form.

Clustering of exemplars and social categories.

[ˈbʌtəɹ] with 'r' = rhotic
[ˈbʌtə] without 'r' = non-rhotic

Adapted from
Docherty & Foulkes (2014)

'butter'

[ˈbʌtə]   [ˈbʌtəɹ]

[ˈbʌtə]   [ˈbʌtəɹ]

Main points

Accent variation in comprehension

Even if an unfamiliar accent may initially hinder comprehension, we can **quickly adapt** to new accents and talkers.

We use **perceived characteristics** of speakers when understanding speech.

We store accent-related information in memory and associate it with social categories.

2.2. Accent variation as a source of bias

What else do we do with non-linguistic information?

Accent variation as a source of bias

- Learnt associations between accent features and social groups – useful for identifying the background of speakers and for comprehension

- Extend those judgements to stereotypical views about the social group who uses those accent features, unrelated to the accent.

- Accent bias: cognitive shortcut.

- Implications in the real world:
  - Access to housing (Purnell, Idsardi & Baugh, 1999) and jobs (Timming, 2017), promotions, etc.
  - Speech software recognition

Posh!

Not intelligent…

Scottish

Second language speaker

This is butter
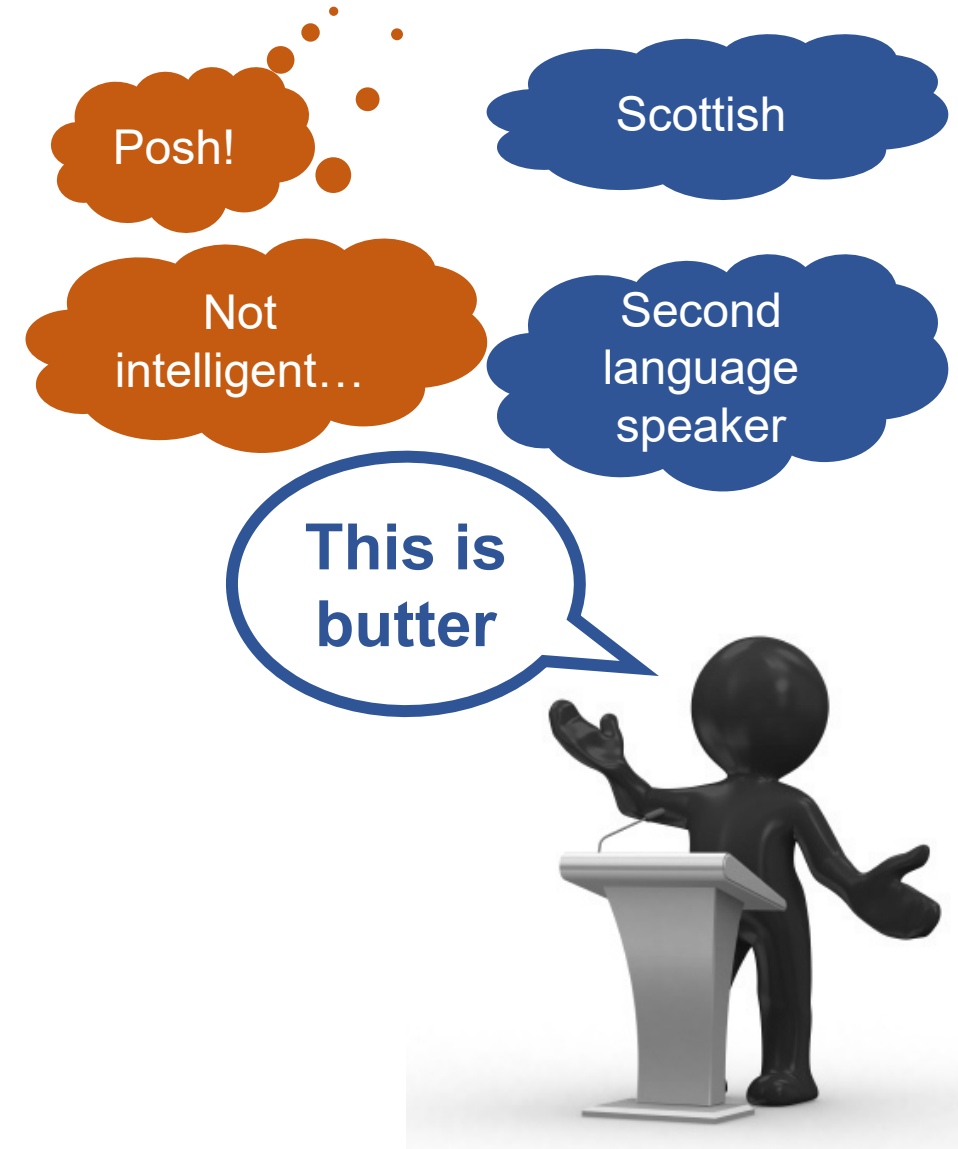
Recap: What is sociophonetics?

An eclectic field

Housing discrimination in the US

Purnell, Idsardi and Baugh (1999) *Journal of Language and Social Psychology*

Baugh called prospective landlords in 5 different places (matched-guise technique).

"Hello, I'm calling about the apartment you have advertised in the paper."

African American Vernacular English (AAVE)
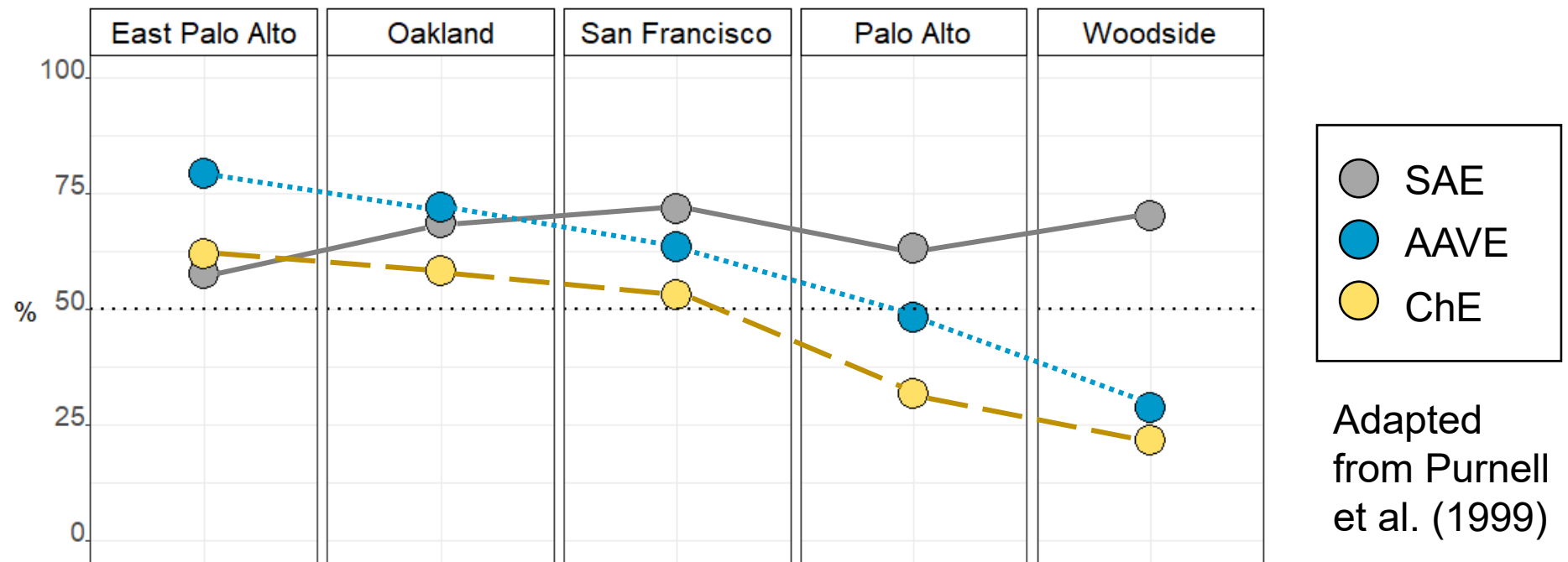
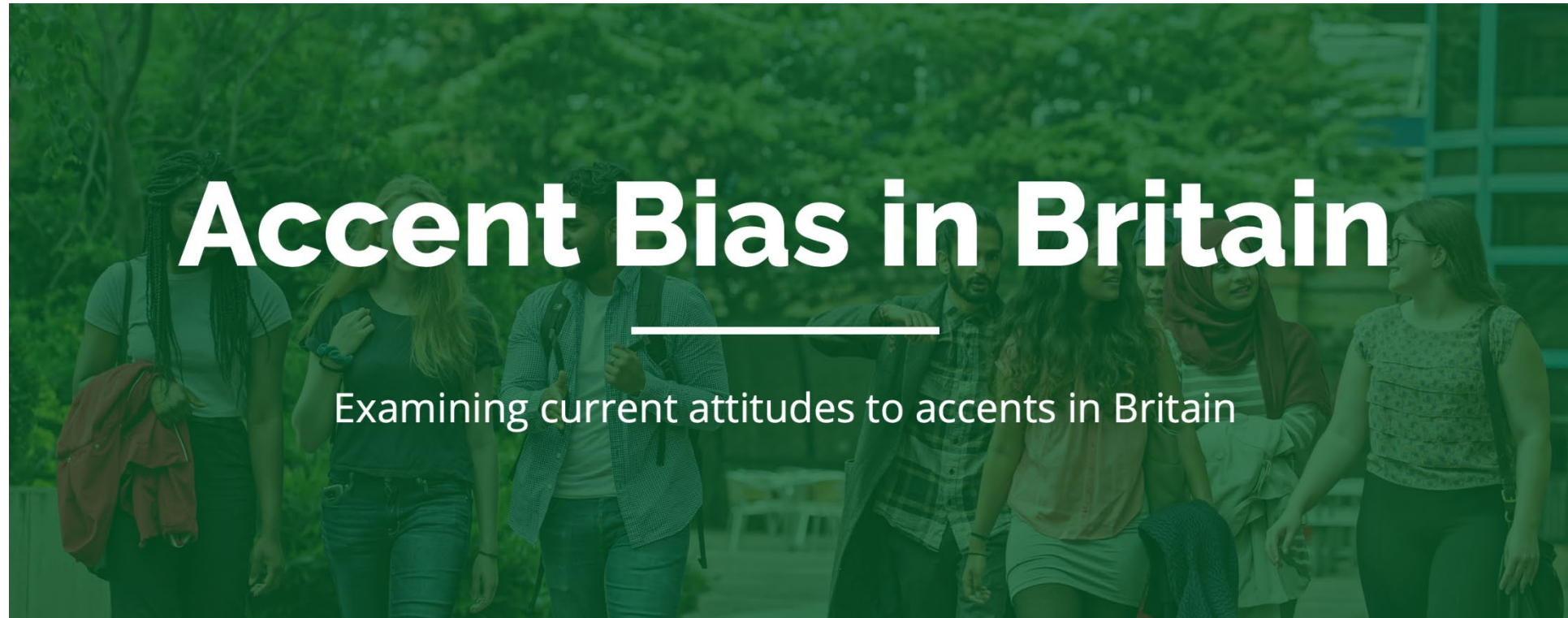Chicano English (ChE)

Standard American English (SAE)

Housing discrimination in the US: findings

Purnell, Idsardi and Baugh (1999) *Journal of Language and Social Psychology*

- SAE: at least 58% time across 5 locations

- AAVE and ChE: 29% and 22% of the time in the location where highest percentage of population was white.
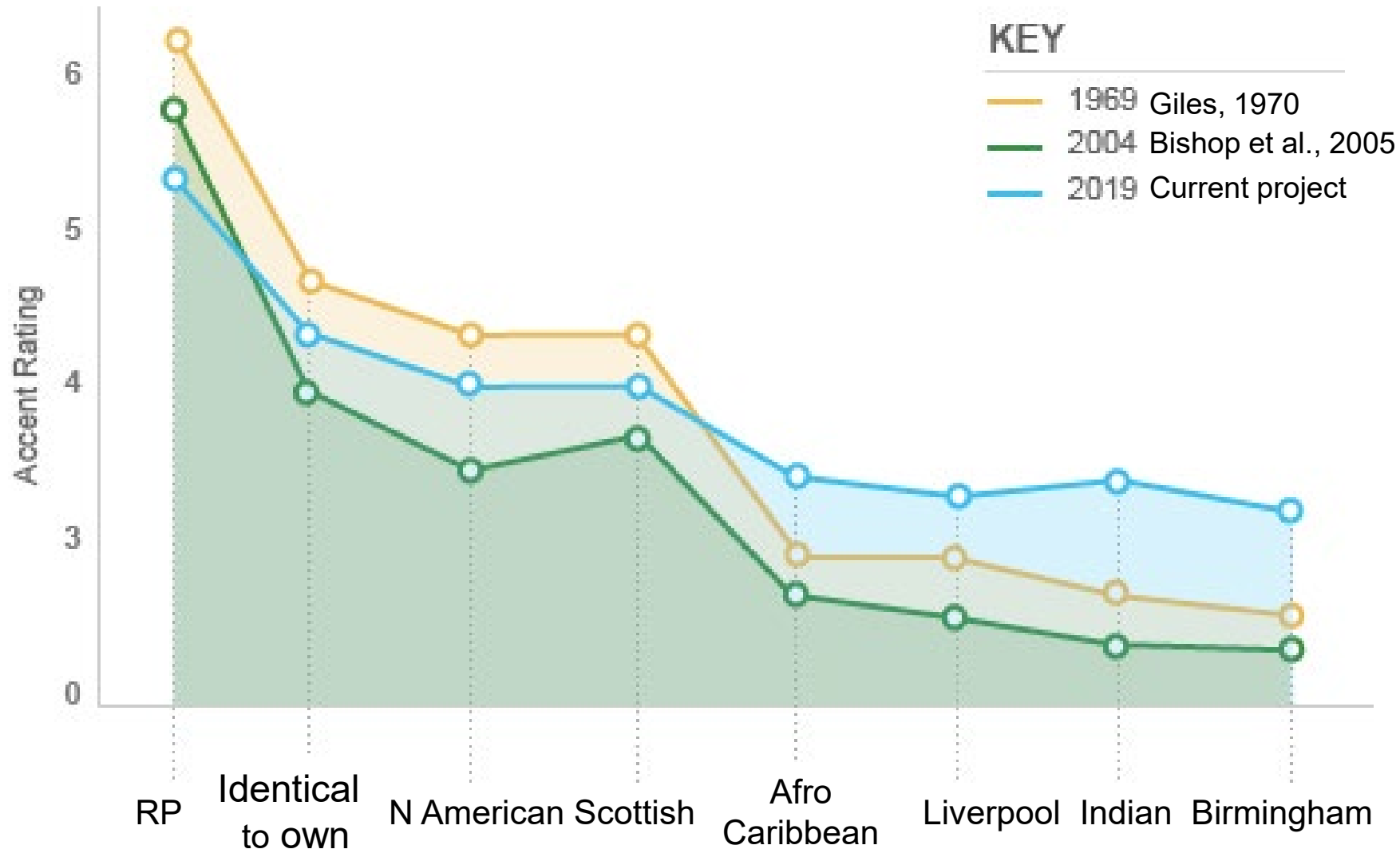

Adapted from Purnell et al. (1999)

Accent Bias in Britain

Levon, Sharma, Perry, Watt & Azmat (2017-2021). Accent Bias and Fair Access in Britain. https://accentbiasbritain.org/

Accent Bias in Britain: Labels

KEY

1969 Giles, 1970	
2004 Bishop et al., 2005	
2019 Current project	

"some evidence that differences between accents are **reducing**"

"**persistent hierarchy** of accent evaluations, one that penalises non-standard working-class and ethnic accents and upholds the belief that national standard varieties are the most prestigious."

https://accentbiasbritain.org/results-labels/

Accent Bias in Britain: Real voices

Mock hiring exercise (5 accents)

- 1062 members of the **British public**: Similar pattern to labels study, but weaker.

- 61 **legal professionals**: No preference for any accents. Able to inhibit bias.

Reducing bias through training

- Evaluated 5 different **strategies**.

- All worked, but he strategy that involved **raising awareness** had the strongest effect on reducing the differences in ratings.

Photo by Campaign Creators on Unsplash

https://accentbiasbritain.org/attitudes-at-work/

3. Why is this relevant in the University context?

Accent Bias affects student evaluations

Gender and cultural bias in student evaluations (Fan et al., 2019)

Statistically significant bias against women and staff with non-English language backgrounds

1. Overall, I was satisfied with the quality of this lecturer's teaching. *

○ Definitely agree

○ Mostly agree

○ Neutral

○ Mostly disagree

○ Definitely disagree

Accent Bias affects comprehension

Reverse Linguistic Stereotyping at US Universities (Rubin, 1992, 2002, 2012; Kang & Rubin, 2009)

- Researchers present UG students with 'Standard North American English' audio, but manipulate information about the speaker (via photos and dossiers).
- Guises: East Asian international Teaching Assistant (TA) or an North American English TA.
- East Asian guise: ratings of 'accentedness' were higher and intelligibility was lower.

Ma, Correll, & Wittenbrink (2015). The Chicago Face Database

Accent Bias affects students' experience

Recent report of accent discrimination and bullying at Russell group universities

Parveen, 2020, *The Guardian*

Higher education

🕐 This article is more than **5 months old**

UK's top universities urged to act on classism and accent prejudice

Investigation finds widespread evidence of students being ridiculed over their backgrounds

⬤ Case studies: 'It's had a lasting impact'

Nazia Parveen *North of England correspondent*

🐦 @NParveenG

Sat 24 Oct 2020 07.00 BST

f 🐦 ✉   ⤴ 1,068

▲ University graduates. The Social Mobility Commission says accents have become a 'tangible barrier' for some students. Photograph: Alamy

Main points

Accent variation as a source of bias

Learnt associations between accent features and stereotypes (accent biases) may lead to discrimination.

Accent-related discrimination takes place in different domains, including the **University context**.

It is possible to learn to **switch off** biases when making decisions.

4. What can we do at LCS and LC?

LCS and LC

Teaching and learning languages and linguistics: **great opportunity** to embed different accents and discussions around variation in our curriculum.

Benefits of variation in the language classroom:

- Improve comprehension of different accents and language comprehension more generally
- Opportunity to reflect on attitudes towards different varieties in the L2 and L1

Next steps: working on **accent bias in our University context**.

Thank you all very much for listening!

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Other resources

- [Video](#) of John Baugh explaining Linguistic Profiling.

- [The Accentism project](#) on raising awareness of everyday linguistic discrimination.

- [ITV programme](#) and article on accent discrimination

- [Report](#) carried out by National Centre for Social Research on behalf of the Department for Work and Pensions: "A test for racial discrimination in recruitment practice in British cities".

- The Guardian articles on accent discrimination at University:
  - [Universities urged to act on classism and accent prejudice](#)
  - [Students on being bullied over their accents](#)

- [Paper](#) on implicit bias training and beyond:

  Onyeador, I. N., Hudson, S. kiera T. J., & Lewis, N. A. (2021). Moving Beyond Implicit Bias Training: Policy Insights for Increasing Organizational Diversity. *Policy Insights from the Behavioral and Brain Sciences*, *8*(1), 19–26.