

Regional accent bias in children: investigating 5-year-old's implicit attitudes

Regional accents in the UK are often evaluated negatively on status dimensions (Bishop et al. 2005; Sharma et al. 2022). These evaluations may manifest as implicit rather than explicit language attitudes (McKenzie and Carrie, 2018). However, very little is known about how such implicit attitudes develop in childhood. For the first time, the current project tests whether accent stereotypes are already implicitly present in 5-year-old children.

Eighteen children (aged 4;6 –6;6) from Essex took part in this project which piloted an innovative methodological design using two measures of implicit biases. The children took part in an adapted version of the Preschool Implicit Association Test (PSIAT; Cvenek et al., 2011) on a computer while their neural responses in the form of event-related potentials (ERPs) were measured. The paradigm tested children's implicit attitudes towards Standard Southern British English (SSBE), compared to two UK regional accents: Essex (a local, regional accent), and Yorkshire (a non-local, regional accent), using the dimension of CLEVER (more likely to be associated with the SSBE accent) and NOT-CLEVER (more likely to be associated with regional accents).

Children were familiarised with two cartoon characters representing the CLEVER/NOT-CLEVER dimension via a short story read in an unrelated accent. They were then trained to respond to a centrally presented picture of one of these characters by pressing a corresponding keyboard button (see Figure 1). In experimental trials, each picture was preceded by a sentence in one of the three accent conditions. Based on adult stereotypes, this sentence could be *congruent* with the following picture (e.g., an SSBE accent preceding the CLEVER picture), or *incongruent* (e.g., an Essex/Yorkshire accent preceding the CLEVER picture). We then measured both how long participants took to respond to the central picture in each accent-picture pairing, and monitored their brain activity via electroencephalography (EEG).

Behavioural results showed that participants responded significantly faster to Yorkshire-CLEVER than Yorkshire-NOT-CLEVER pairings and marginally faster to SSBE-CLEVER than SSBE-NOT-CLEVER pairings (see Figure 2). These results suggest the start of an implicit positive bias towards SSBE at 5-years-old but that the children have a stronger implicit positive bias towards the Yorkshire accent, an accent previously found to be evaluated positively along solidarity dimensions in adults (Hiraga, 2005). In contrast, ERP responses showed participants were sensitive to differences across accent-picture pairings, with an association between Essex and CLEVER (see Figure 3). This is seen as a greater negativity in brain responses (from 250-350msec) for Essex-NOT-CLEVER pairings and suggests that the children do not associate the Essex accent as being NOT-CLEVER. This could be interpreted as an ongoing familiarity preference for their local variety (Kinzler et al., 2007) and potentially tapping into a more implicit, automatic attitude than the IAT.

Using novel methods combining EEG and behavioural data, these results demonstrate implicit attitudes towards regional accents are already developing as children begin primary school. These findings have important consequences for modelling the cognitive development of language attitudes across the lifespan as well as considering how explicit and implicit attitudes may diverge and change over time.

Figure 1: Response screen, where participants are asked to press the left or right button (indicated by the smaller images on the bottom) which corresponds to the large central image.

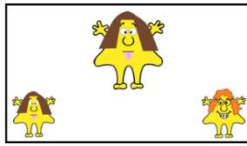


Figure 2: Response time by accent character pairings. Responses to Yorkshire-CLEVER pairings were faster ($p = 0.02$), and responses to SSBE-CLEVER pairings were marginally faster ($p=0.06$), than their NOT-CLEVER counterpart pairings.

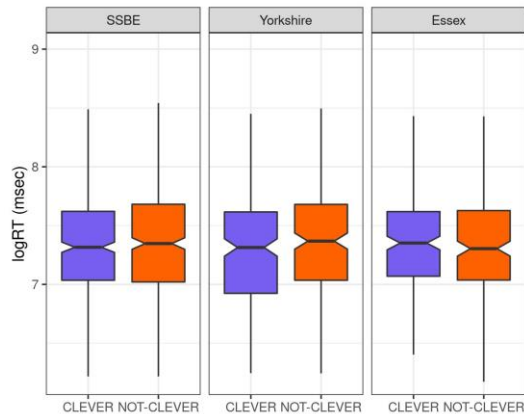
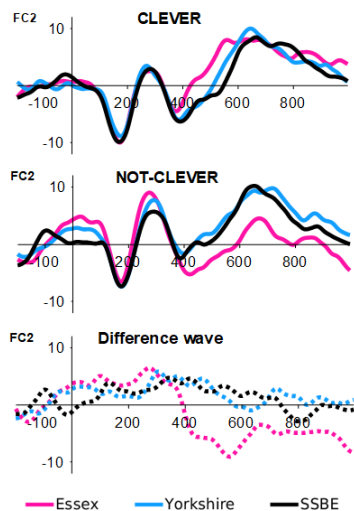


Figure 3: EEG data, illustrating a more negative response in the 250-350msec time window for Essex-NOT-CLEVER pairings.



References

Bishop, H., Coupland, N. & Garrett, P. (2005). "Conceptual Accent Evaluation: Thirty Years of Accent Prejudice in the UK". *Acta Linguistica Hafniensia* 37: 131–154.

Cvencek, D., Greenwald, A. G., & Meltzoff, A. N. (2011). Measuring implicit attitudes of 4-year-olds: The preschool implicit association test. *Journal of Experimental Child Psychology*, 109(2), 187-200.

Hiraga, Y. (2005). "British Attitudes towards Six Varieties of English in the USA and Britain". *World Englishes* 24: 289–308.

Kinzler, K. D., Dupoux, E., & Spelke, E. S. (2007). The native language of social cognition. *The Proceedings of the National Academy of Sciences of the United States of America*, 104, 12577–12580.

McKenzie, R. M., & Carrie, E. (2018). Implicit–explicit attitudinal discrepancy and the investigation of language attitude change in progress. *Journal of Multilingual and Multicultural Development*, 39(9), 830-844.

Sharma, D., Levon, E., & Ye, Y. (2022). 50 years of British accent bias: Stability and lifespan change in attitudes to accents. *English World-Wide*, 43(2), 135-166.