

Beyond Words: Investigating Reading Comprehension in English as an Additional Language (EAL)

Chara Triantafyllidou¹, Margreet Vogelzang^{2,1}, Ianthi Tsimpli¹

¹University of Cambridge, Cambridge, United Kingdom. ²Newcastle University, Newcastle, United Kingdom

Abstract

Children who speak English as an Additional Language (EAL) comprise about 20% of the pupil population in the UK. Their classification is broad and covers a mix of simultaneous and sequential bilinguals from a wide range of backgrounds and with varying levels of fluency in English. Despite their heterogeneity, EAL pupils have been consistently shown to underperform their monolingual peers in language attainment and reading (Department for Education, 2016), though the reasons behind their underperformance are not yet fully understood.

The aim of this project is to disentangle the various factors underpinning reading comprehension in EAL pupils, considering both linguistic (vocabulary and grammar) and ecological factors (socioeconomic status and reading habits). Given that prosodic sensitivity has been found to be impaired in dyslexic children (Goswami et al., 2013), we are particularly interested in the role of prosodic skills in reading comprehension.

We will present two eye-tracking experiments – a listening and a reading experiment – comparing EAL pupils (target n=30) to monolingual peers (target n=30) in Year 5 (9-10 years old). The listening experiment investigates the role of intonational phrase boundaries in prepositional phrase attachment ambiguities, such as:

- | | |
|---|----------------------|
| (1) [The bear tickled] [the penguin with the leaf]. | (modifier prosody) |
| [The bear tickled the penguin] [with the leaf]. | (instrument prosody) |

The silent reading experiment uses a temporary Late/Early Closure ambiguity, a type of ambiguity which is prosodically disambiguated in listening (Nickels & Steinhauer, 2018), and examine the prosodico-syntactic effect of commas based on work of Wonnacott et al. (2016) in sentences such as:

- (2) While the girl was eating(,) the cookies baked in the oven.

Overall, we seek to draw connections between reading and listening performance to explore the impact of implicit prosody. In addition, correlations will be explored between performance in the experiments and performance in a designated test of prosodic ability (PEPS-C; Peppé & McCann, 2003). Data collection is ongoing, but preliminary results indicate lower sensitivity to modifier prosody in EAL pupils compared to monolinguals, as well as poorer performance in syntactic disambiguation in reading, despite comparable reading comprehension performance as measured by the YARC (Snowling et al., 2012).

References

- Department for Education (2016). *Statistical First Release: National Curriculum Assessments at Key Stage 2 in England: SFR 62/2016*. London, UK.
- Goswami, U., Mead, N., Fosker, T., Huss, M., Barnes, L., & Leong, V. (2013). Impaired perception of syllable stress in children with dyslexia: A longitudinal study. *Journal of Memory and Language*, 69(1), 1–17.
- Nickels, S., & Steinhauer, K. (2018). Prosody–syntax integration in a second language: Contrasting event-related potentials from German and Chinese learners of English using linear mixed effect models. *Second Language Research*, 34(1), 9–37. <https://doi.org/10.1177/0267658316649998>
- Peppé, S., & McCann, J. (2003). Assessing intonation and prosody in children with atypical language development: The PEPS-C test and the revised version. *Clinical Linguistics and Phonetics*, 17(4–5), 345–354.

<https://doi.org/10.1080/0269920031000079994>

Snowling, M. J., Stothard, S. E., & Clarke, P. J. (2012). *York Assessment of Reading for Comprehension: Complete Set*. GL Assessment.

Wonnacott, E., Joseph, H. S. S. L., Adelman, J. S., & Nation, K. (2016). Is children's reading "good enough"? Links between online processing and comprehension as children read syntactically ambiguous sentences. *Quarterly Journal of Experimental Psychology*, 69(5), 855–879. <https://doi.org/10.1080/17470218.2015.1011176>