## Children's Knowledge of Multiple Word Meanings: Which Factors Count for First and Second Language Learners?

Sophie A. Booton, Elizabeth Wonnacott, Alex Hodgkiss, Sandra Mathers, Victoria A. Murphy

University of Oxford, Department of Education

sophie.booton@education.ox.ac.uk

Many words in English and other languages have multiple different meanings, but little is known about why children acquire knowledge of some word meanings before others. This is especially true for children learning English as an additional language (EAL), who have been shown to struggle with this kind of vocabulary (Booton, Hodgkiss, Mathers, & Murphy, 2021). This study explored how factors at the child-level, wordform-level, and meaning-level affect knowledge of words with multiple meanings. Participants in the study were 174 children in the UK aged from 5- to 9-years-old. Approximately half (n=78) of the children had EAL, whereas the rest of the sample were native English speakers (EL1). Children completed a test of knowledge of 32 homonyms, and measures of non-verbal intelligence and language background were also collected. Psycholinguistic features of the homonym wordforms tested were collected through adult ratings, corpus coding, and using existing databases. The psycholinguistic features assessed were, at the wordform-level, frequency, relatedness of the two meanings tested, total number of word senses, semantic density and phonological density, and, at the meaning-level, dominance, imageability, and part of speech. Logistic mixed effects models were run with participant and wordform as random effects, and fixed effects of all psycholinguistic factors, and three individual difference factors (age, non-verbal ability, and language group). These models confirmed that age, nonverbal ability, and language group were all significant predictors of homonym knowledge (p's <.001), with EAL children performing lower than EL1. The frequency of wordforms contributed to children's knowledge of homonyms (OR=1.72, p=.004) and so also did dominance (OR=2.17, p<.001) and imageability (OR=2.11, p=.001) of the separate meanings of the word. A second model including interactions between language group and psycholinguistic factors found no significant interactions, implying that predictors were approximately similar for children with EAL and EL1. This study contributes to our understanding of why some word meanings are known better than others which has implications for vocabulary teaching and learning. In particular, it suggests strategies for improving knowledge of homonyms (e.g., greater exposure to both word meanings) which should support both EL1 and EAL learners.

## References

Booton, S. A., Hodgkiss, A., Mathers, S., & Murphy, V. A. (2021). Measuring knowledge of multiple word meanings in children with English as a first and an additional language and the relationship to reading comprehension. *Journal of Child Language, First View*, 1–33. https://doi.org/https://doi.org/10.1017/S0305000921000052