The role of word properties in early word learning in Polish monolingual infants

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There are various mechanisms underlying early word learning. Previous research has shown that the properties of the words themselves may impact how early children acquire them – words that are more frequent, concrete (or imaginable) or have higher association with babies are also acquired earlier across several languages (Braginsky et al., 2019; Hansen, 2017). However, so far these effects have not been investigated in Polish infants using language-specific ratings of word properties. The present study aims to extend previous research by investigating psycholinguistic predictors of early word learning in Polish monolingual infants using data from the Polish adaptation of the MacArthur-Bates Communicative Development Inventories (CDI; Smoczyńska et al., 2015). We created a language-specific database containing the subjective frequency, concreteness, imageability and babiness ratings collected from over 1900 native Polish speakers for Polish CDI items – each participant rated 100 words in terms of one property and each word had at least 28 separate ratings. Then, using norming data from the Polish CDI including over 3,500 children aged 8-36 months, we fitted logistic regression models to investigate the contribution of each word property to the age at which children acquire the word. We included separate models for concreteness and imageability due to the high correlation between the variables. Results indicate that words that are more frequent, more concrete (or imaginable) and associated with babies are produced and understood by more children but – given the interactions with age – these effects differ depending on the development stage. This study extends the results of the previous research on the mechanisms of early word learning to Polish. Furthermore, the database of word properties, created specifically for Polish CDI items, may contribute to future research in this field.