

## Swedish-speaking children with developmental language disorder in comparison with second language learners: A new look at grammatical challenges

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The focus of this project is language processing in children with Developmental Language Disorder (DLD) and bilingual children learning Swedish as their second language (L2). DLD is characterized by difficulty learning a native language and is associated with poor literacy and academic development. Children with DLD and children learning Swedish as L2 are similarly challenged by Swedish grammar. Comprehension depends on rapid analysis and integration of different aspects of linguistic information including the sound, word and sentence levels. Studies from other languages have shown that children use the cues provided in the article of the noun phrase to retrieve nouns. Using a Visual World Paradigm, we investigate the link between comprehension and production of the Swedish noun phrase which has two genders (*uter* and *neuter*), in sentences with different grammatical complexity. We let children produce noun phrases, measure their vocabulary skills, and study processing in a picture identification task while tracking eye gaze. Visual attention and processing of auditory stimuli are closely time-locked; an eye-tracker monitors visual attention using non-invasive technology.

Our aim is two-fold:

1. Using eye-gaze, we aim to determine:

- if the groups of participants differ in their use of the cue provided by the article to predict which of the nouns represented by four pictures will follow;

- whether the low-frequency neuter gender is more challenging to process than the common gender;

- if increased sentence-level sentence complexity influences processing of the noun phrase;

2. Using production data, we aim to determine:

- if noun phrase production skills predict accuracy in the picture identification task;

- if processing of the information provided by the article is linked to vocabulary skills.

We expect the different groups of children to show different patterns of strengths and weaknesses. More knowledge about how children use the gender cues provided in the article may affect how we support word learning, for example if new nouns should be taught in the context of the noun phrase and within a hierarchy of sentence complexity.