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### **Titel: "In the borderland between grammar, cognition, and prosody: How do Japanese children develop intonation during the primary school ages?"**

#### **Abstrakt**

This presentation reports the preliminary results of ongoing research on the development of intonation among Japanese children during their primary school years. The study intersects three related areas: grammar, cognition, and prosody.

The acquisition of prosody in one's first language is a recognized, lengthy process that begins in infancy and extends into childhood and beyond. Previous studies have reported that the acquisition of word-level lexical prosodic properties, such as tone in Chinese, stress in English, and lexical pitch accent in Japanese, starts during early infancy and is typically completed before the primary school years. Several studies suggest the next stages of prosodic development, including developments in prosodic grouping, intonation, and focus manifestation. However, no study thus far has focused on Japanese.

We analyzed recordings of read-aloud speech from the CIAIR Children's Voice Speech Corpus, which comprises 253 children across six grades. Intonational development was analyzed using the following parameters: time taken to read sentences, pitch range, number of pauses, the use of H% boundary tone, and pitch peak relation for the topic-comment structure.

The topic-comment structure is crucial in encoding the information structure of Japanese. The topic, marked by the grammatical particle 'wa', indicates 'aboutness', while the comment provides information about it. Previous studies on adult production show that the comment has a higher pitch peak than the topic, unless the topic is used contrastively. Interestingly, Swedish learners of Japanese tend to produce a reverse intonation pattern for the topic-comment structure even at an advanced level, likely resulting from a typological difference, i.e., topic- vs. subject-prominent language.

The results indicate that typical utterances at lower grades are characterized by word-by-word pronunciation with many pauses and frequent H% boundary tones. At higher grades, this changes to more fluent reading with fewer pauses, no H% boundary tones, and a wider pitch range. Throughout the primary school ages, the topic>comment (topic has a higher pitch peak) is dominant, but more speakers start to use the topic<comment pattern as from grade 4, which is interpreted as an emergence of focal intonation. Altogether, a significant change in intonation occurs between Grade 3 (8-9 years) and Grade 4 (9-10 years), with a significant correlation observed between the parameters.