The effects of syntactic constraints on prosodic grouping of L2 speech

**Abstract:** This paper investigates the effects of constituent quantity and syntactic structure complexity on prosodic grouping of Chinese as a second language. Syntax is claimed as a key influential factor in sentence processing. Difficulty in online parsing could lead to speech disfluency. This phenomenon becomes more obvious in L2 speech production as learners have not acquired the syntactic structures of sentences, let alone the prosodic structures that are inconsistent with syntactic structures and change constantly according to different contexts. However, relatively fewer studies addressed the effect of syntax on L2 speech production. In addition, syntactic constraints are more than syntactic structures --- constituent quantity, syntactic constituency and grammatical functions, all contribute to the bundling of words in speech production. In view of this, the current paper examines the effects of constituent quantity and syntactic structure complexity on prosodic grouping of L2 learners in a Chinese sentence repetition task. 20 subject-predicate sentences with two quantities of constituents (less/more) were used to explore the effect of constituent quantity and 40 sentences with two types of sentences (subject-predicate/complex sentences like pivotal sentences) and two lengths of T units (short/long) were used to look at the effect of syntactic structure complexity. 30 English-speaking participants of two Chinese levels (elementary/advanced) were asked to repeat one sentence in 5000ms after they saw it for 5000ms. 15 native speakers of Chinese also participated in this experiment, whose data were treated as the baseline of analysis. Measures included phrasing rate and prosodic phrase length of sentences. Results indicated that the number of constituents and complexity of syntactic structures can influence L2 prosodic grouping performance of learners, but these effects can be regulated by their L2 proficiency. Both groups of L2 learners have not acquired the strategy of compressed combination in prosodic grouping process like native speakers of Chinese do, that is, putting words and phrases into one large chunk whatever syntactic constraints were to ensure speech fluency.

**Keywords:** prosodic grouping, speech fluency, second language acquisition, Chinese

**References:**


