

## **Production and Learning of Intonational Phrasing by Japanese Learners of English**

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### **Abstract**

This study deals with second language intonation and aims to investigate how well learners can match phrasing marked by intonation with grammatical phrases/clauses. Based on the pitch-grammar correlation and cross-linguistic difference of phonological chunks and rhythm, two research questions are addressed as to the intonation-grammar correspondence and the proficiency levels as an affecting factor. To answer the questions, twenty-two participants in three groups – 10 advanced learners, 10 less advanced learners, and 2 native English speakers – participated in the recording of their reading of a passage. The recorded speech was analyzed in terms of waveforms, spectrograms, and pitch contours using Praat. The results show that advanced learners are able to match intonational phrasing and grammatical constituents similarly to native speakers, while the intonation by less advanced learners is intervened by unnecessary pauses due to the lack of grammatical knowledge. The obtained data also reveal that advanced learners tend to clearly highlight a core syllable of each phrase, while less advanced learners' intonation sounds flat. These findings lead to an implication for learning and teaching English intonation that learning how to read English sentences aloud in a stress-timed rhythm should be prioritized, and then practicing pitch-declining natural intonation of a clause/sentence follows.

**Keywords:** intonational phrasing, phrase/clause boundaries, accented syllables, flat intonation, stress-/mora-timed rhythm