

Prosody Perception by Japanese Learners of English

This paper investigates the strategies Japanese learners of English utilize in perceiving prosodic cues in spoken English. There has been a series of studies carried out using Rapid Prosody Transcription tasks (e.g., Mo, Cole, & Lee, 2008; Cole, Mo, & Baek, 2010; Mo & Cole, 2010) that investigate how native speakers of English perceive prosodic boundaries and prominence. The current study aims to extend this research paradigm to Japanese speakers of English and provide a comparison between native speakers' and L2 learners' approaches to prosody perception. The research contributes to cross-linguistic investigations of prosody and also has important implications for language education.

Following the experimental design outlined in Mo et al. (2008) and Cole et al. (2010), a series of prosody transcription experiments were carried out with 78 Japanese undergraduate students (average TOEFL PBT score: 486). The presented audio stimuli were excerpts from the Buckeye corpus of spontaneous English. In order to address the lower level of English proficiency of the participants, the durations of the audio stimuli were halved compared to the stimuli in Mo et al. (2008). The participants were asked to indicate boundaries for groupings of words by drawing vertical lines on a printed transcript.

Preliminary analysis of the results shows strong inter-listener agreement on boundary perception (Fleiss' kappa=.68), which is similar to that of native listeners (Fleiss's kappa=.62 in Mo et al. 2008). As with native listeners, silent pauses were found to be important cues for boundary detection. The correlation between the duration of silent pauses and the probability of perceived boundaries (b-scores) was found to be significant (Kendall's tau = .55). Figure 1 demonstrates this correlation. At the same time it can be seen in the figure that the perceived boundaries do not necessarily coincide with silent pauses. Conversational fillers (e.g., 'um') and slow tempo were also found to be boundary markers.

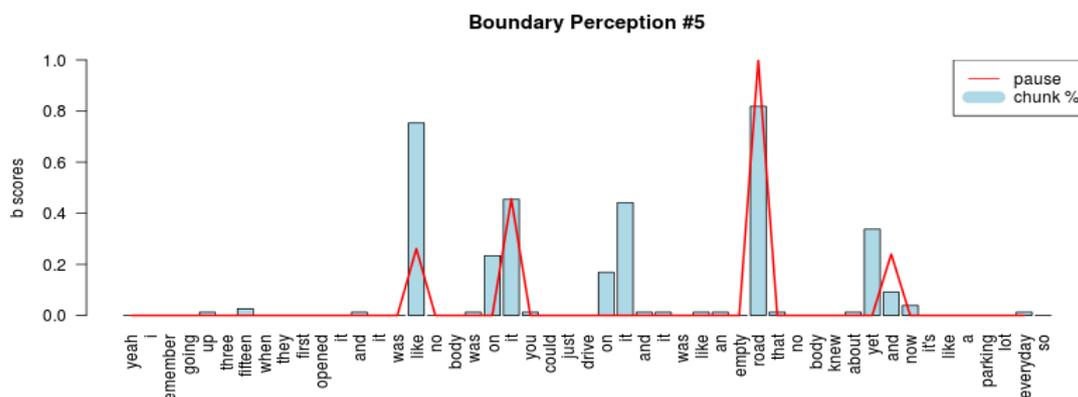


Fig.1: Perceived boundaries and silent pauses (n=78, values are normalized)

In contrast with phonetic cues, syntactic cues in boundary perception show less of an agreement between native and L2 listeners. While native speakers are more sensitive to clause-level categories of S and S' (Cole et al., 2010), Japanese listeners tend to rely more on minor-phrase boundaries (cf., Kawahara & Shinya, 2008).

Although the results are not conclusive at this point, there are notable similarities and differences between native and Japanese listeners' boundary detection strategies that deserve further analysis and research.