Hesitation Phenomena in English by Japanese Speakers: Preliminary Results from a Cross-linguistic Speech Corpus

Abstract
While much work on second language (L2) speech has yielded a greater understanding of hesitation phenomena (HP), many works have not taken into account the individual's performance in their first language (L1). This presentation reports on an in-progress large-scale project designed in part to address this gap. The project involves the construction of a cross-linguistic corpus of speech by participants doing parallel speaking tasks in their L1 and L2. Annotation has so far focused on hesitation phenomena (e.g., pauses and repairs) and results suggest a L2 developmental trajectory against which learners might be evaluated. In particular, results show that speech rate, silent pause frequency and duration are correlated with L2 proficiency (as has been previously observed), but that speech rate and silent pause duration may be the result of individual variation. Results also show the novel observation that acoustic features of filled pauses are also correlated.

Cross-linguistic Corpus of Hesitation Phenomena

Corpus construction
- Participants: 10 adult native speakers of Japanese
- Elicitation tasks: Spontaneous speech: picture description and topic narrative, Reading aloud (cf., Cucchiari et al 2010)
- L2 proficiency information: TOEIC Test of English for International Communication

Demographic information
- Age
- Gender

Annotatio
- Spoken word transcription
- HP: silent pauses, filled pauses, repair and repeat sequences
- Word and pause intervals
- F1, F2 measurements for FPs

Results
- Fully transcribed part of corpus consists of 7,237 words in 71.7 minutes. However, analysis below includes data from spontaneous speech only (4,181 words; 47.7 minutes).

Discussion
Results from the CCHP suggest the following L2 developmental trajectory for hesitation phenomena.

High-level speakers have larger active vocabularies and high automat iconicity in utterance construction. Therefore, they speak faster by using fewer silent pauses for hesitation purposes, not pausing as long, and by speaking individual words faster. They use shorter filled pauses, but no fewer (contra Rieger 2003). They may also use other hesitation strategies not yet studied in this corpus (e.g., lexical fillers; cf., Rieger 2003).

Results further suggest that the speech rate duration and silent pause effects are not really strong factors in development, but rather are the result of individual effects. In other words, it could be that only learners who speak faster and pause shorter become high-level L2 speakers.

This trajectory parallels the trajectory that has been found to influence judgments of L2 fluency: decreasing silent pause rate and duration (Anderson-Hsieh and Venketasubramanian 1994, Kang 2010, Komrois and Dénès 2004, Rose 2011). However, filled pauses do not influence fluency judgments (Kang 2010, Rose 2011).

Future work for the CCHP includes annotation of part-of-speech information, clause structure, and syllable and phoneme intervals.

References
- €œInvestigating the relationship between hesitation phenomena and L2 accentedness. Presentation at Accents Workshop, Georgetown University, Washington, DC.

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