Goals and Motivation

- Use contrastive intonation to test effects of memory, expectations, salience, and information structure in coreference processing by native speakers of English and Japanese- & Korean-speaking learners of English.

Coreference Processing: Background

Previous research, with written stimuli:
1. John handed a book to Bob. (He) _ early prompt cue _ late prompt cue
2. a. He took it and read it right away. He + Bob ("Goal-continuation")
   b. He really wanted Bob to have it. He + John ("Source-continuation")

Event structure is used to predict next mention:
- Completed events (perfective aspect) favor the end-state referent (the Goal).
- Ongoing events (imperfective aspect) favor the start-state referent (the Source).

This has been shown in English (e.g., Kehler et al., 2008), Japanese & Korean (Kim et al., 2013, 2014), and Coreference.

Pronoun/free prompt: Coreference with the preceding subject (here, the Source) increases with an overt pronoun prompt, compared to a free prompt (e.g., Kehler & Becker, 2006; Stevenson et al., 2010).

Expectancy/prediction plays a critical role in native-language (L1) processing of coreference: Semantic properties of the current sentence drive L1ers’ expectations about upcoming coreference & coherence. (e.g., Aronov, 2005, Rohde & Kehler, 2008).

Non-native speakers may have Reduced ability to Generate Expectations (RAGE) (Grüter et al. 2016), Japanese/Korean L1ers of English show:
- Similar effect of prompts to L1ers.
- Similar retroactive processing/integration to L1ers.
- No significant effects of event structure manipulation.
- Weaker predictive processing than L1ers.

Participants & Knowledge-of-Aspect Test

Participants
L1: 47 native speakers of English
L2: International/exchange students at U. of Hawaii
26 native speakers of Japanese (n=12) or Korean (n=14) - Versant English M=51.80 (16-80)
- English self-rating M=46/70 (3-8)

Knowledge-of-aspect task
Do L2 participants understand the semantics of grammatical aspect in English? Participants read descriptions of complete vs. incomplete events and gave true/false judgments on statements about them.

Patrick and Ron are at the pool together. [picture of text] This is the towel that Patrick will give to Ron. At 4:08, Ron is seen swimming and ready to shower.

Conclusions and Work in Progress

- Extends the limited previous research on coreference and intonation; provides full prosodic description of stimuli.
- L1ers and L2ers both use contrastive intonation with the Simple Salience pattern. Evidence against simple memory decay in L2ers.
- Replicates the weaker effect of aspect in the L2 group from our written study (Kehler et al. 2014).
- Supports the RAGE account; suggests that L1ers predict a coherence relation and coreference but that L2ers initiate a retroactive search at the coreference subject (the prompt) for a referent. Contrastive intonation on an NP can serve as a cue in a retroactive referent search, but aspect cannot (since the verb is not part of the search domain).
- The strength of coreference cues may depend on their availability at times when relevant processing decisions are made – times that may not always be the same in native vs. non-native processing.

Work in progress:
- Relation between coherence relations and coreference in these data
- Accented vs. unaccented pronoun prompts
- Online measure of anticipatory coreference processing (Visual World)