Contrastive intonation in native- vs non-native coreference processing

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Intonation provides critical cues to information structure, but exploration of its effects on coreference processing across sentences remains limited. We examine how contrastive intonation and event structure affect subsequent coreference decisions for native (L1) and non-native (L2) speakers of English in an aural story continuation task. Previous research has argued that, for L1ers of English, Japanese, and Korean, event structure as encoded in perfective/imperfective aspect influences expectations for upcoming coreference (Rohde et al 2006, Ueno & Kehler 2010, Kim et al 2013), but L2ers are less able to generate such expectations (Grüter et al 2014). Contrastive intonation strengthens the representation of accented entities in memory (Fraundorf et al 2010) and can increase coreference for English L1ers (Balogh 2003). If this coreference increase arises primarily through the strength of a referent's memory trace during a subsequent (retroactive) antecedent search, rather than through (proactive) discourse-level expectations about next mention, then contrastive intonation – unlike aspect – is predicted to affect not only L1ers' coreference decisions, but those of L2ers as well.

Alternatively, effects of contrast on coreference could arise from discourse expectations related to a contrastive information structure, in which case reduced effects are predicted for L2ers. For Korean L1ers, effects of contrastive intonation interact with its placement: Contrast on the topic increases its likelihood for subsequent mention, yet contrast on a non-topic greatly decreases coreference to it – i.e., coreference does **not mirror** the contrast location but rather favors the topic; in fact, topic coreference is higher with contrast on **_non-topics_** than on topics (Kim et al 2014). These findings align with ERP results showing that Japanese L1ers build expectations for topic maintenance when the discourse establishes contrast (Wang & Schumacher 2013). Thus we ask whether contrastive intonation in English yields a similar coreference bias towards the topic and away from a contrastively marked non-topic, or whether contrastive intonation on either referent attracts coreference due to simple memory salience. Further, we ask if Japanese- and Korean-speaking (JK) learners of English differ from L1ers in their ability to use not only aspect but also contrastive intonation.

The experiment presented 20 transfer-of-possession context sentences (_Patrick gave Ron a warm towel)_, with contrastive intonation (L+H* L-H%) on either the Source or Goal of the transfer event, mixed with 40 fillers. Context sentences were followed by a written pronoun, which served as the subject of a target sentence completed by the participants, and was subsequently coded for Source/Goal reference by two trained coders. **Contrast location** was crossed with perfective/imperfective **aspect** (Latin square). In L1 tests with written materials, perfective-marked events (vs. imperfective) increase Goal-reference, an effect attributed to end-state salience: perfectives describe completed events, and thus encourage expectations about the end-state (the Goal entity), whereas imperfectives describe ongoing events and are more compatible with expectations about why or how the Source is performing the event.

Results: Aspect was significant for L1ers (n=47, p<.01) but not L2ers (n=22, p=.85). For L1ers **and** L2ers, coreference mirrored the contrast location (p's<.01), differing from the effect found in the JK L1 studies, even for JK learners of English. The results suggest that 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.