Mapping prosody to reference in L2

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How does CONTRASTIVE INTONATION/PROSODY affect native and non-native speakers’ interpretation of ambiguous pronouns?

Background & Motivation
- Contrastive intonation/prosody affects native-speaker processing, although its precise role in the interpretation of pronouns has received limited attention.
- Pronoun interpretation is challenging in L2. This has been attributed to the need to integrate information from multiple domains. (e.g., Roberts et al., 2008; Sorace, 2011)

The role of prosody in L2 pronoun resolution has not been investigated.

Our goals:
- Test how contrastive intonation on potential antecedents (Exp1) and pronouns (Exp2) affects L1 and L2 speakers’ reference choices.
- Compare effects of contrastive intonation and grammatical aspect.

Predictions:
- IF prosody is generally challenging in L2, we expect L1-L2 differences in both Exp1 and Exp2. (NB: same L1/H L-H% contour in both experiments)
- IF integrating information from multiple domains is generally challenging in L2, we expect L1-L2 differences in both Exp1 and Exp2.
- IF L2 speakers’ ability to use prosodic information depends on the complexity of the mappings (L1 -> L2; prosody -> reference), we expect greater L1-L2 differences in Exp2 compared to Exp1.

Event structure and pronoun interpretation in L1 & L2
(3) Emily brought/was bringing a drink to Melissa. She_...

L1 speakers of English write more continuations with ‘she’ – Sources following imperfective vs perfective aspect (Kelher et al., 2008). This is not the case for L1-Japanese/Korean learners of English (Grueter et al., 2014, in press), even though (i) they reliably associate perfective/imperfective with completed/incomplete events in an independent task, (ii) aspect affects their choice of coherence relation in the continuation, and (iii) Japanese and Korean speakers show the same effect of aspect in their L1s (Jesus & Kohler, 2010; Kim et al., 2013).

Results
- Annotation for coreference by two trained coders.
- No difference between L1 speakers’ interpretation of ambiguous pronouns (Exp1)
- More reference to the Goal with stressed pronouns in L1.
- Reduced effect of aspect in L2; replicates results from written task.

Conclusions
- L2ers’ show significant use of contrastive intonation on antecedents (Exp1), but not pronouns (Exp2) to determine pronoun reference.
- L2ers’ success in using prosody may depend on the number, complexity and timing of steps required to make the relevant mappings: Exp1: L1+H on referent -> referent is salient -> select as antecedent
- Exp2: L1+H on pronoun -> establish set of potential antecedents -> identify most salient member of set -> select other member of set as antecedent

Acknowledgments: Many thanks to Amanda Blake, Amber Camp, Bonnie Fox, Victoria Lee, Iana Matison, Eric Stepanow, and Anna Toliva for assistance with data collection, annotation, and preparation of this poster. This research is supported by the National Science Foundation (BCS-1521545) to T. Grueter & A. Schafer.

Mapping Prosody to Reference in L2
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Experiment 1: Contrast on antecedents
Participants

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Versant English Test1</th>
<th>Self-rated English proficiency (out of 10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 English (n=48)</td>
<td>23.4 (18-40)</td>
<td>9.6 (8-10)</td>
</tr>
<tr>
<td>L2 English (n=40)</td>
<td>25.6 (19-65)</td>
<td>6.1 (3-9)</td>
</tr>
<tr>
<td>L2 Japanese (n=23)</td>
<td>25.2 (19-43)</td>
<td>5.9 (3-8)</td>
</tr>
<tr>
<td>L1 Korean (n=17)</td>
<td>26.2 (21-65)</td>
<td>6.5 (3-9)</td>
</tr>
</tbody>
</table>

Method
- Story continuation: aural context sentence + written prompt (pronoun) + written completion
- 2 (contrast location) x 2 (aspect) design

Hear: DAVID served/was serving Paul a pint of beer. See: He

Hear: David served/was serving PAUL a pint of beer. See: He

Results
- Annotation for coreference by two trained coders.
- More reference to the Goal with stressed pronouns in both groups: Contrastive intonation/prosody affects reference choices in L1 and L2.
- Reduced effect of aspect in L2; replicates results from written task.

Conclusions
- L2ers’ show significant use of contrastive intonation on antecedents (Exp1), but not pronouns (Exp2) to determine pronoun reference.
- L2ers’ success in using prosody may depend on the number, complexity and timing of steps required to make the relevant mappings: Exp1: L1+H on referent -> referent is salient -> select as antecedent
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References
- David Pint, a pint of beer. See: He
- Emily brought/was bringing a drink to Melissa. She_...