1. Purpose of the Study
To examine the L2-English development of mappings from 3 prosodic contours—H*, L+H*, and deaccentuation—to 3 discourse contexts—New, Contrastive, and Given—by L1 Japanese speakers.

2. Background
- English prosodic marking of Information Structure (Pierrehumbert & Hirschberg 1990)
  - Contrastive information: L+H*
    - Initial low tone followed by high tone & longer duration
  - New information: H*
    - High plateau tone & shorter duration
  - Given information: ∅
    - Low pitch & shorter duration
  → H* vs. L+H* may not be categorical (e.g., Breen et al. 2010; Dilley 2010)

- Japanese intonation system (Jim 2005; Venditti, Maekawa & Beckman 2008)
  - Accentuation is determined lexically
    - No discourse/pragmatic meaning associated with presence or absence of pitch accent
    - No durational difference between accentuated and unaccented words
    - Morphological (e.g., topic marker -su) and syntactic (e.g., scrambling) means to indicate information status
  - Contrastive information can be expressed by locally expanded pitch range (Ito et al. 2012, 2014)
  → Similar to English L+H*

3. Previous Studies
- L1 English study: Bartels & Kingston (1994)
  - Target sentence: Amandia ate a banana.
  - Context selection task: Use 2 scenarios consistent with either a contrastive interpretation or a new interpretation
  → F0 peak height is the strongest cue that distinguishes H* from L+H*

- L2 Dutch study: Braun & Tagliapietra (2011)
  - Advanced L1-German learners of Dutch
  - Given context: H*
  → Higher ratings for L-H* in Contrastive than in Given/New
  → H* → No difference among the 3 contexts
  → Null accent → No difference among the 3 contexts
  → No difference between Short and Long conditions

4. Present Study: Sound Stimuli

Table 1: English target sentence
<table>
<thead>
<tr>
<th>Condition</th>
<th>Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>L+H*</td>
<td>Mariana made the banana bread.</td>
</tr>
<tr>
<td>H*</td>
<td>Mariana made the banana bread.</td>
</tr>
<tr>
<td>NULL</td>
<td>Mariana made the banana bread.</td>
</tr>
</tbody>
</table>

→ 3 pitch values × 2 durational values = 6 sound tokens

5. Participants
- Recruited from the University of Hawaii

6. Procedure
- Naturalness rating task
  → Fully repeated within-participants design: 18 trials (6 sound tokens × 3 contexts × 1 sentence)
  1. On each trial, saw 1 of the 3 context pictures & heard its paired context question; then heard 1 of the 6 target tokens
  2. Rated “the intonational naturalness of the target stimulus” on a 3-point Likert scale (1 = unnatural; 3 = natural)

7. Predictions
- L1 English: Higher ratings for...
  - L+H* in Contrastive (and New) than in Given
  - H* in New (and Contrastive) than in Given
  - Null accent in Given than in New/Contrastive
  - Short over long in Given
  - Long over short in New/Contrastive
- L2 learners: If interpretation of L2 intonational meaning is driven solely by L1 (Braun & Tagliapietra 2011)...
  - Higher ratings for L-H* in Contrastive than in Given/New
  - H* → No difference among the 3 contexts
  - Null accent → No difference among the 3 contexts
  - No difference between Short and Long conditions

8. Results and Discussion

9. Work in Progress
- Production and eye-tracking listening comprehension experiments: Animal coloring tasks
  → Use the blue crayon/blue paintbrush/red crayon to color the cow. Now, use the red crayon to color the dog.