Prosody disambiguates two uses of think

de Marneffe et al. (2017) used two tunes “polite” and “uncertain”, correlated with speaker certainty and uncertainty, respectively:

They showed that listeners use the tunes to decide which of two speakers’ opinions to trust in short dialogues. Listeners made pragmatic inferences to judge speaker commitment, and the intent to be polite.

Here, we use the tunes in another experimental paradigm, to probe listeners’ explicit judgments of whether a speaker is certain or not.

Belief verbs are pragmatically ambiguous

Depending on the context, mental state verbs can indicate that someone holds a belief without necessarily committing to its truth

- have a parenthetical interpretation, politely softening an assertion (Rooryck 2001, Simons 2007)

(2) A: It’s a lion.
B: I think it’s a tiger.

- a pragmatic interpretation, indicating that someone holds a belief but is uncertain, correlated with speaker certainty and uncertainty:

“uncertain”, (6 trials)

Blicket experiment

Keep track of Kathryn’s judgments of whether the pompon is a blicket

Overall, results are as expected (N = 20)

<table>
<thead>
<tr>
<th>Condition</th>
<th>First speaker</th>
<th>Second speaker</th>
<th>Speaker trusted?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assert-Assert</td>
<td>Look! There’s a cat.</td>
<td>It’s a dog.</td>
<td>No preference</td>
</tr>
<tr>
<td>Assert-Polite</td>
<td>Look! There’s a cat.</td>
<td>Think it’s a dog.</td>
<td>No preference</td>
</tr>
<tr>
<td>Assert-Uncertain</td>
<td>Look! There’s a cat.</td>
<td>Think it’s a dog?</td>
<td>First</td>
</tr>
<tr>
<td>Uncertain-Assert</td>
<td>Look! I think it’s a cat?</td>
<td>It’s a dog.</td>
<td>Second</td>
</tr>
</tbody>
</table>

Adult participants were asked who was correct (N = 24)

Individual differences: Bimodal distribution

- 50% of the participants are prosodically tuned: polite to yes; uncertain to not sure
- 20% of the participants are lexically tuned: both tunes to not sure (due to the lexical item think)
- 15% are lexically and prosodically insensitive: both tunes to yes (due to Kathryn expressing an opinion)
- 15% switch answers midway through trial sequence

The experimental paradigm has an effect in how participants weigh lexical and prosodic cues.

When participants are explicitly asked to make a judgment about speaker certainty, individual differences emerge in the ways that participants weigh the cues.