

Research question

- Do native and non-native speakers of English make similar use of prosodic cues to produce contrastive focus?
- Do we see an influence of L1 prosody in L2 production of contrastive focus?

Background

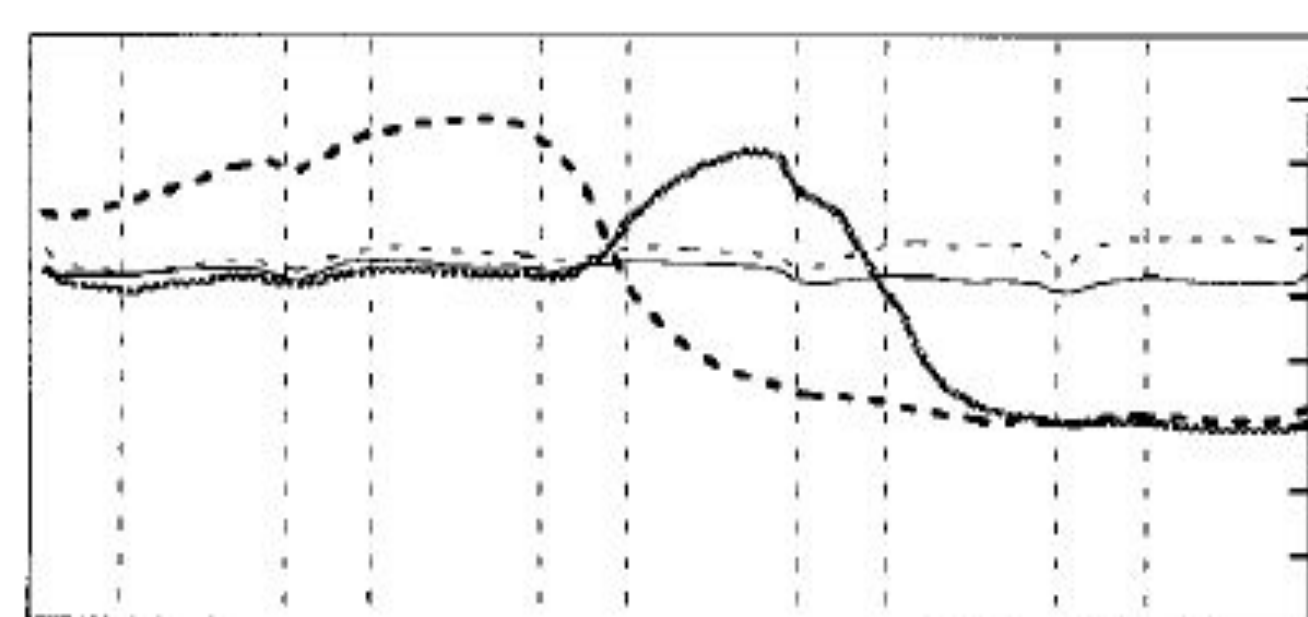
English focus prosody (Pierrehumbert & Hirschberg 1990)

- Focus Prominence: increased intensity, duration; L + H* pitch accent associated with main stressed syllable of focused constituent.
- Post-focus compression: drop in pitch and intensity following accented syllable.

Mandarin focus prosody

- In-focus expansion: expanded pitch range (for non-final positions), greater intensity, longer duration.
- Post-focus compression possible, depending on lexical tone (Chen 2010).

Focus: ——— Neutral - - - - - Word 1 ——— Word 2 - - - - - Word 3



[māo mī] [mō] [māo mī] (Xu 1999)
kitty touches kitty

Production experiment

Participants

- All participants were students at Stony Brook University.
- 21 native speakers of English (undergraduate students, 15 females and 6 males).
- 26 L1 Mandarin speakers (graduate students, 12 females and 14 males, Versant Speaking Test: 42-70/80).

Task

- Interactive game which elicited target phrases.
- Participants instructed experimenter to place objects on whiteboards.
- All objects were described as “adjective + noun”.
- Each adjective and noun was a bisyllabic trochee containing only voiced segments.
 - Adjectives: yellow/orange/navy
 - Nouns: oval/arrow/diamond
- Example Target Phrase:
Andy wants the *navy oval* on his blanket and the *ORANGE oval* on Mindy’s blanket.

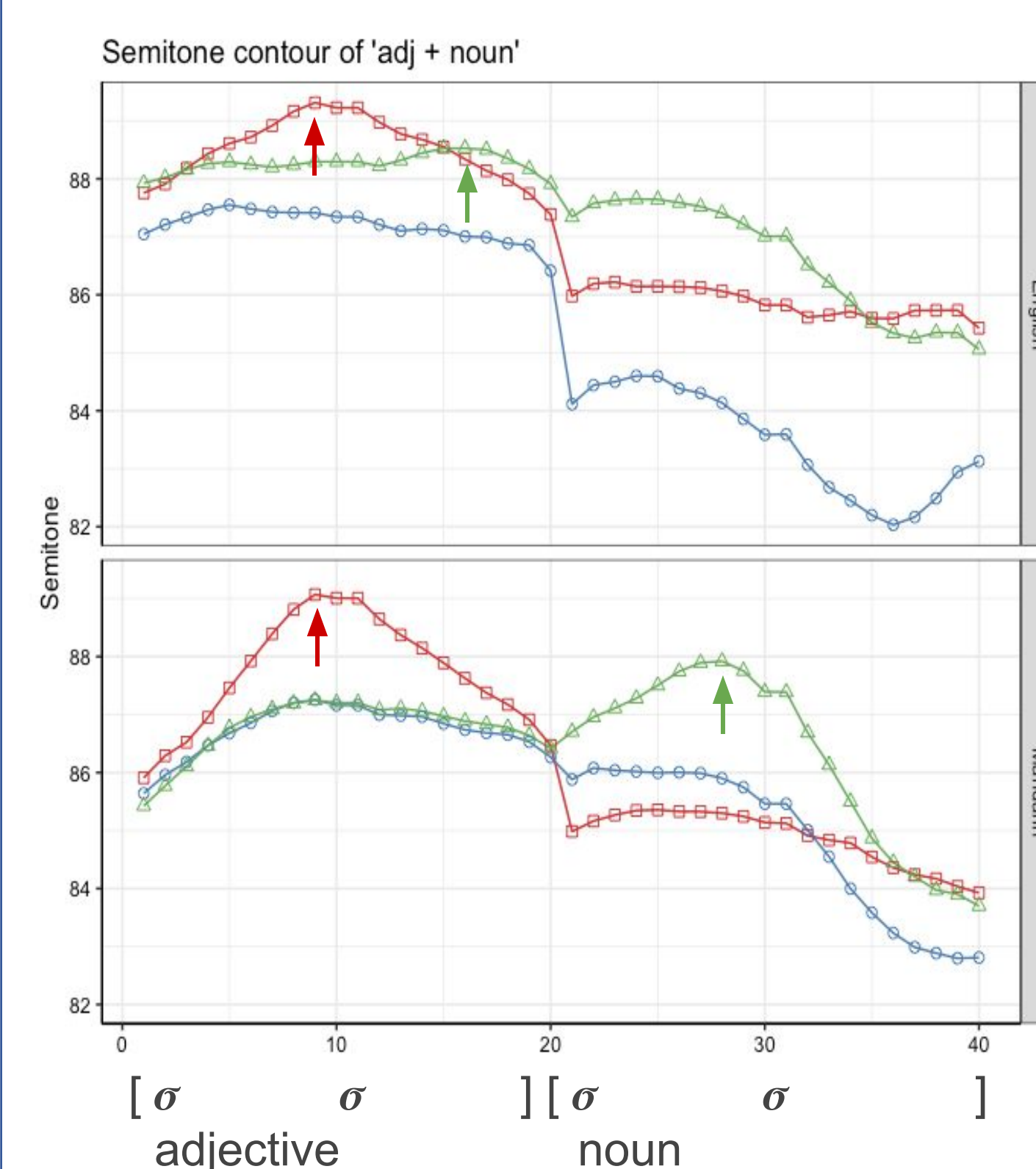
Materials

Analysis

- 1551 target phrases were acquired.
- Twelve phrases were excluded, leaving 1539 for analysis.
- Target syllables were hand-segmented in Praat (Boersma 2001).
- Time-normalized intensity measures were extracted using a Praat script (Prosody Pro, Xu 2013).
- Time-normalized pitch contours were extracted using YAAPT (Zahorian & Hu 2008).

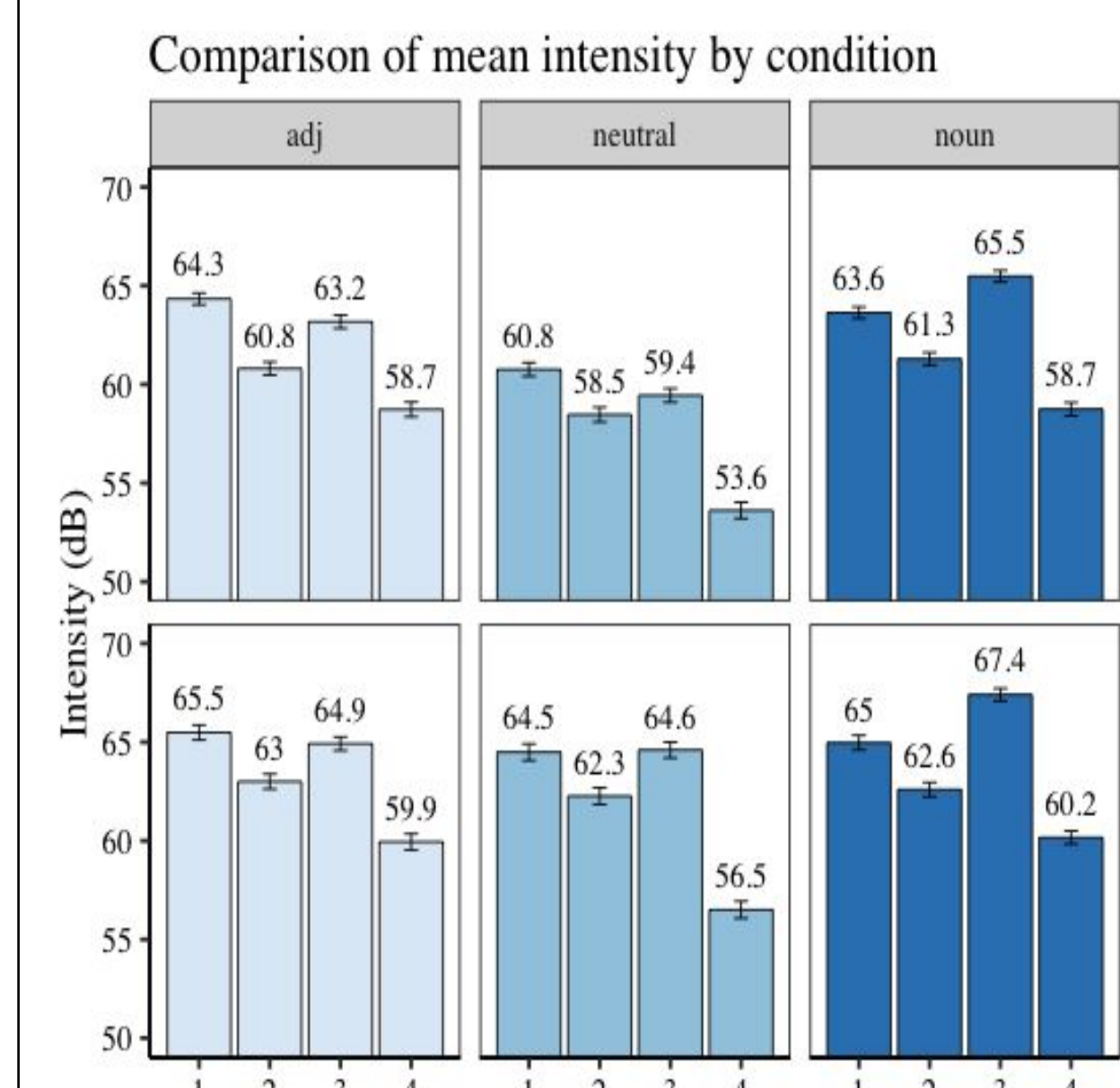
Results

1. F0 Results



- Adj-focus condition:** Both ES and MS had a F0 peak on the first (stressed) syllable of the focused adjective, followed by F0 drop.
- Noun-focus condition:** While MS had a F0 peak on the focused noun, ES had a peak at the right edge of the adjective, with a steady decline throughout the noun.

2. Intensity Results



- Adj-focus condition:** Both ES and MS had an intensity peak on the first (stressed) syllable of the focused adjective.
- Noun-focus condition:** Both ES and MS had an intensity peak on the first (stressed) syllable of the focused noun.

Discussion

- MS showed expected pitch and intensity peak on focused words, regardless of their position in a sentence.
 - MS used the canonical English focus intonation pattern, presumably due to direct instruction.
 - MS focus prosody cannot be an L1 effect, since Mandarin final focus is not typically associated with pitch rise.
- ES failed to realize canonical L+H* pitch accent on focused nouns.
 - This reflects ES use of innovative intonation patterns originally noted among younger female speakers, in which sentence final position is associated with increase in vocal fry (Wolk et al. 2012). This lowering of pitch overrides realization of pitch accent.
- In the ES pattern, a primary cue for focus in final position is intensity rather than F0.

References

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Acknowledgement

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