Patterns based on language attitudes

**English-oriented:**
- More expanded vowel space when addressing native than non-native English interlocutors.
- Trend towards speaking faster when addressing native English speakers than other groups.
- Trend towards higher mean f0 with non-Mandarin interlocutors.

**Mandarin-oriented:**
- Addressed L1 English interlocutors more slowly than non-native interlocutors.
- Higher mean f0 with native Mandarin interlocutors.

**Both groups:**
- Distinguish between native and non-native English speakers with regards to vowel space and rate of speech.
- Distinguish between Mandarin and non-Mandarin interlocutors with regards to pitch.

### An emotional involvement hypothesis
- Correlation in previous research between speech rate/pitch and emotional involvement in conversation, with increased speech rate and higher pitch indicating greater emotional involvement. [2], [6], [7]
- Suggests speakers may be demonstrating more emotional involvement in interactions with interlocutors who align with the speaker’s language orientation.

### References

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**Audience Design in Non-Native Speech**

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**METHODS**

**PARTICIPANTS**
- 13 L1Mandarin-L2English speakers from NE China, near Beijing currently living in US.
- Self-reported proficient English speakers
- 8M; 5F
- Age range: 21-30 years
- Avg. age of exposure: 8.77 years
- Avg. years immersion: 3.69 years

**MATERIALS**
- 3 pairs of maps [1]: participant maps had route, while confederate maps did not
- 13 token phrases given as labeled landmarks on all 3 maps
- Questionnaires [3], [8] w/Likert scale language attitude questions: ex: I feel like myself when I speak English.

**PROCEDURE**
- Map Task: Participants described different map route in English to each of 3 confederates
- Three Interlocutor Conditions:
  - L1 English
  - L2 Mandarin
  - L2 Russian
- Subjects made aware of interlocutor’s L1
- Post-task attitudes questionnaire
- Map route order constant; interlocutor condition counterbalanced

**ANALYSIS and RESULTS**

**Vowel Space**
- Significant interaction between attitude ratio and interlocutor’s language: F(2,22)=5.907, p<0.01.
- Significant effect of Interlocutor Language within the English-oriented group: F(2,10)=5.507, p<0.05.
- Vowel space was more expanded when addressing a native English-speaking interlocutor than non-native interlocutors.
- Post hoc pairwise comparisons (Bonferroni) showed a near significant difference in vowel space expansion between English and Russian conditions within the English-oriented group (p<0.074).

**Articulation Rate**
- Significant interaction between attitude ratio and interlocutor’s language: F(2,22)=5.631, p<0.05.
- Significant effect of Interlocutor Language within the Mandarin-oriented group: F(2,12)=4.001, p<0.05.
- These participants spoke more slowly when addressing the native English-speaking interlocutor than non-native interlocutors.
- Insignificant effect of Interlocutor Language within the English-oriented group.
- The quantitative tendency was to speak faster with the native English interlocutor.

**Pitch**
- Significant interaction between attitude ratio and interlocutor’s language: F(2,22)=5.532, p<0.05.
- English-oriented participants speak with higher mean f0 when speaking with English and Russian-speaking interlocutors.
- Mandarin-oriented participants speak with higher mean f0, with Mandarin-speaking interlocutor.
- Near-significant effect of Interlocutor Language within the English-oriented group: F(2,10)=4.103, p<0.05.

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**BACKGROUND**

Native speakers adjust their speech when talking to:
- Infants/Children [5]
- Hard-of-hearing/Intact hearing in noisy conditions [9]
- Foreigners/Non-native speakers [10], [11]
- Pets [5]

Commonly adjusted characteristics include:
- Expanded vowel space
- Reduced articulation rate
- Changes in pitch

**CURRENT STUDY**

**QUESTION:** How do non-native speakers adjust their speech when talking to:
- Native speakers
- Non-natives with shared L1
- Non-natives with different L1

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