

Effect of Language Background on L2 focus perception

L. Ann Burchfield¹, Heather Kember^{1,2}

¹The MARCS Institute, Western Sydney University, Australia

²The ARC Centre of Excellence for the Dynamics of Language, Australia

Background

- Listeners benefit from prosody in processing L1 (see Cutler, Dahan & Donselaar, 1997 for a review)
- Listeners do not show the same benefits in L2 (e.g. benefit from prosodic focus in recognition memory (Lee & Fraundorf, 2016) or processing speed in phoneme monitoring (Akker & Cutler, 2003)).
- Research Questions:
 - Are L2 listeners able to perceive English prosodic focus and notice when it is appropriate in context?
 - How does L1 background affect this ability?
- Prosodic focus in Korean vs Mandarin
 - Mandarin (More English-like): can mark focus by increasing pitch range and duration of the focused word (Xu, 1999)
 - Korean (Less English-like): prosodic focus achieved through accentual phrasing (Jun, 1998)
- Prediction:
 - Mandarin listeners may show more native-like performance in detecting English prosodic focus, as compared to Korean listeners

Experiment

- Participants
 - L1 Australian English speakers (n=17)
 - L1 Mandarin speakers (n=23)
 - L1 Korean speakers (n=20)
 - Korean and Mandarin speakers balanced for English proficiency with LexTALE scores (Mandarin = 62, Korean = 66)
- Stimuli
 - 80 question/answer dialogues (20 responses x 2 focus patterns x 2 questions) produced by L1 Australian English speakers
 - 4 versions of each dialogue, 2 with correct focus placement (focusing new information), 2 with incorrect focus placement (focusing given information)
 - See Table 1 for examples
 - 40 filler items (half semantically inappropriate) also included
- Design
 - 40 dialogues (1 correct and 1 incorrect version of each) presented to each participant
 - Participants answered two questions after each dialogue
 - How appropriate was the response to the question (1-7 Likert scale)
 - Would you have answered the questions differently (yes/no)

Table 1: Example Stimuli

Question	Correct Focus Placement	Incorrect Focus Placement
Who prevented the shelter from burning down?	The FIREMEN prevented the shelter from burning down.	The firemen prevented the SHELTER from burning down
What did the firemen prevent from burning down?	The firemen prevented the SHELTER from burning down	The FIREMEN prevented the shelter from burning down.

Results

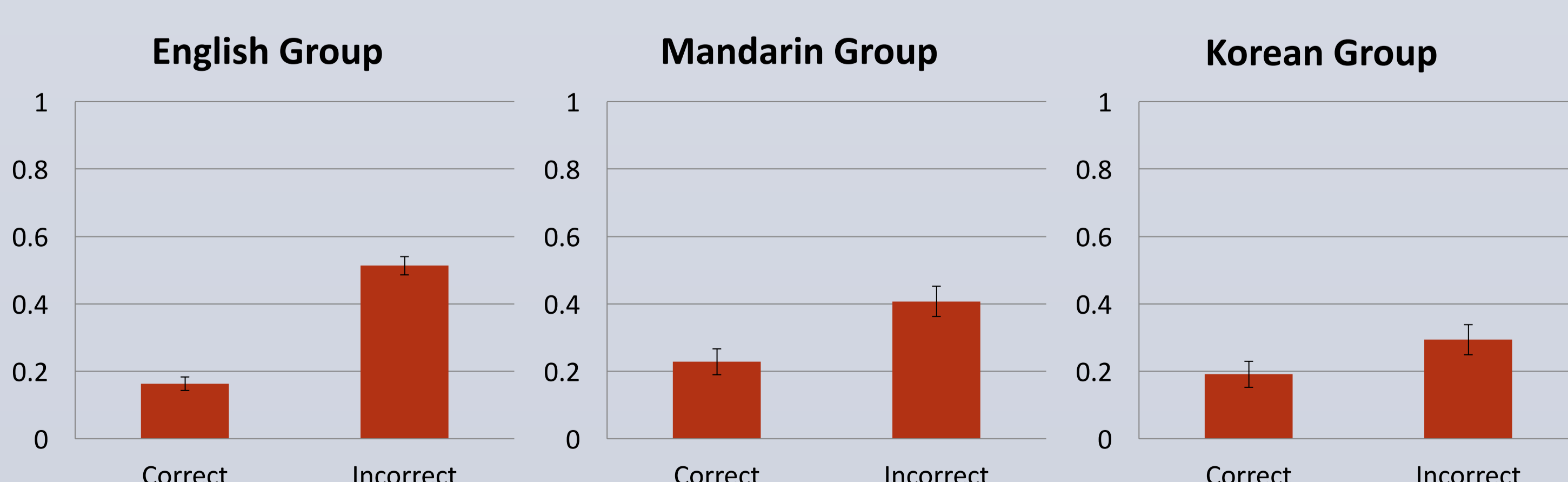


Figure 1: Proportion "Yes" responses to the question "Would you have answered this question differently?" for each language group. Error bars represent 95% confidence intervals.

Results (continued)

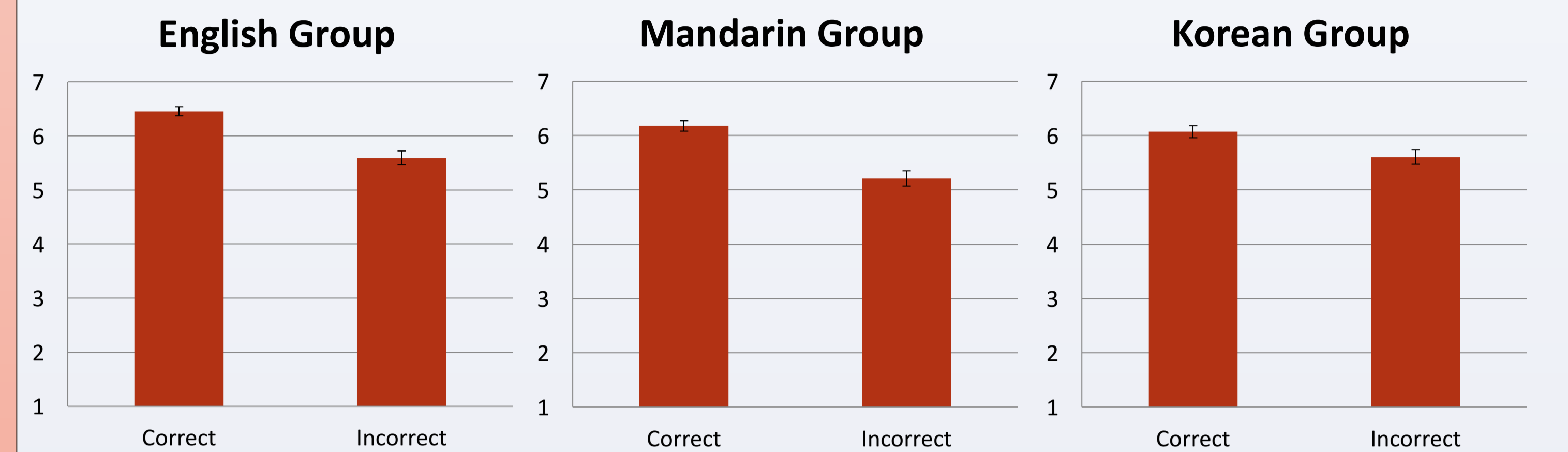


Figure 2: Mean appropriateness ratings for each language group. Error bars represent 95% confidence intervals.

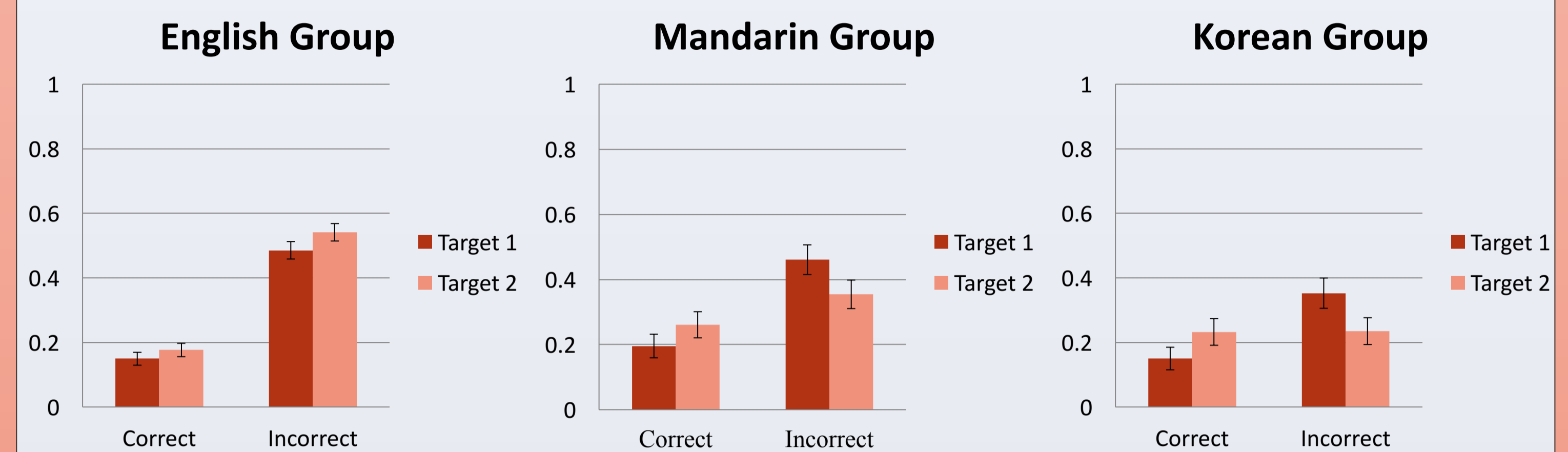


Figure 3: Proportion "Yes" responses to the question "Would you have answered this question differently?" for each language group. Target 1 indicates focus earlier in the sentence (e.g. firemen) and Target 2 indicates focus later in the sentence (e.g. shelter). Error bars represent 95% confidence intervals.

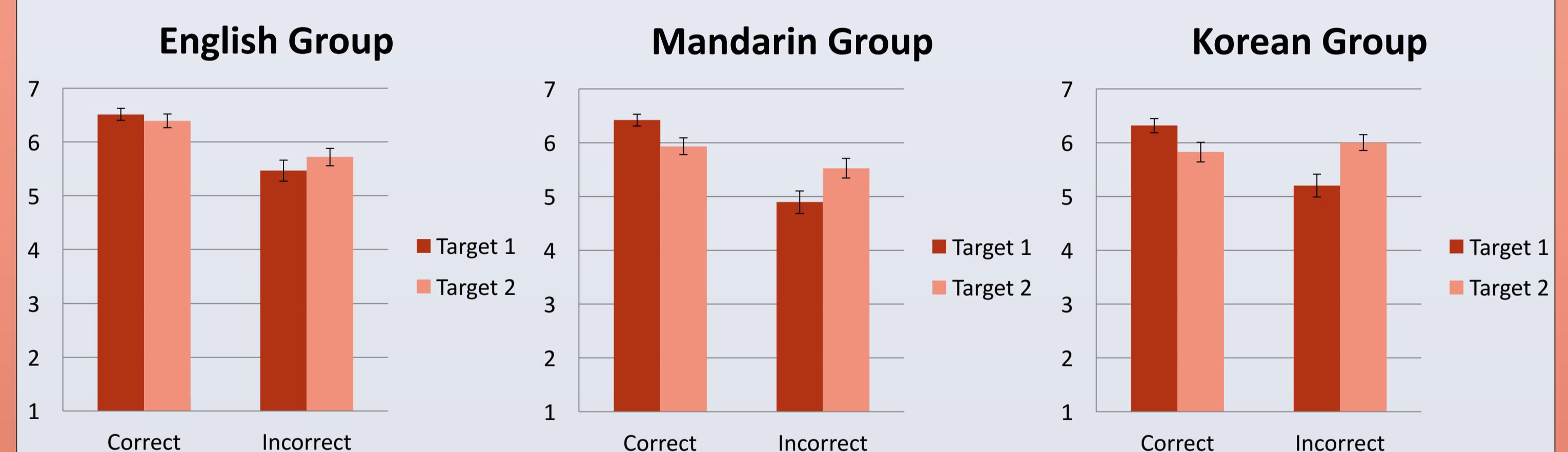


Figure 4: Mean appropriateness ratings for the L1 English group (left) and L1 Mandarin group (right). Target 1 indicates focus earlier in the sentence (e.g. firemen) and Target 2 indicates focus later in the sentence (e.g. shelter). Error bars represent 95% confidence intervals.

- Lower appropriateness ratings and more "yes" responses for Incorrect condition overall and for each group individually
- Language by focus condition interactions indicate a smaller effect of condition for L2 listeners vs L1 English listeners (for "yes" responses) and for Korean listeners vs Mandarin Listeners (for "yes" responses and appropriateness ratings)
- For L2 listeners, especially the Korean group, the difference between correct and incorrect response conditions is less pronounced (or even opposite the expected direction) for targets later in the sentence

Discussion

- L2 listeners are able to successfully perceive English prosodic focus and notice when it is inappropriate
- Korean speakers may perceive the difference between appropriate and inappropriate focus conditions as less salient compared to Mandarin speakers
 - May be due to differences between focus marking in English vs Korean
 - Supports the hypothesis that L1 background can affect L2 focus perception
- Possible reasons for smaller effect of appropriateness later in the sentence for L2 listeners
 - Working memory constraints
 - Korean and Mandarin are both wh-in-situ languages
 - Less room for post focal compression
- Plans for follow-up EEG study to test effect of focus on new vs given information on online L2 processing

Acknowledgements

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