**Language proficiency modulates listeners’ selective attention to a talker’s mouth:**

**a conceptual replication of Birulés et al. (2020)**

**Online Supplementary Materials**

**APPENDIX A: Analysis of subset of participants**

This appendix contains a report of results parallel to those in the main manuscript but including only self-identified native speakers with no exposure to languages other than English during childhood (*N*=25, 'English early monolinguals') and only self-identified non-native speakers whose first language is Japanese (*N*=36, 'Japanese learners of English'). For demographic and proficiency information of these subgroups, see Table 1 in the main manuscript. Insufficient data quality (calibration accuracy, tracking ratio) led to the exclusion of Video 1 data from 1 participant and Video 2 data from 3 participants in this subset; we thus report Video 1 data from 60 (25 L1, 35 L2) and Video 2 data from 58 (24 L1, 34 L2) participants.

 Table A1 presents descriptive statistics; Figures A1 and A2 present visualizations analogous to Figures 2 and 3 in the main document.

**Table A1**

*Mean PTLT to Eyes and Mouth*

|  |  |  |
| --- | --- | --- |
|  | Video 1 | Video 2 |
| Eyes | Mouth | Eyes | Mouth |
| English early monolinguals | 0.69 (0.31) | 0.13 (0.21) | 0.81 (0.23) | 0.13 (0.20) |
| Japanese learners of English | 0.67 (0.21) | 0.14 (0.15) | 0.59 (0.28) | 0.28 (0.26) |

**Figure A1**

Video 1: Mean Proportion Total Looking Time (PTLT) scores to the eyes and mouth for the English early monolinguals and the Japanese learners of English.



**Figure A2**

*Video 2: Mean PTLT scores to the eyes and mouth for the English early monolinguals and the Japanese learners of English.*



**ANOVA**

*Video 1:* ANOVA results showed a main effect of AOI, indicating an overall preference to look at the eyes, *F*(1,58) = 114.88, *p* < .001, *ηp2* = .66. This preference was not modulated by Group, as evidenced by a non-significant interaction between Group and AOI, *F*(1,58) = 0.04, *p* = .837, *ηp2* = .001.

*Video 2:* ANOVA results yielded a main effect of AOI, *F*(1,56) = 51.74, *p* < .001, *ηp2* = .48, modulated by a significant interaction with Group, *F* (1,56) = 7.99, *p* = .007, *ηp2* = .125. Follow-up independent-samples *t*-tests indicated more looks to the eyes among English early monolinguals than among Japanese learners of English, *t*(54) = 3.24, *p =* .002, *d* = 0.833, and fewer looks to the mouth among English early monolinguals than among Japanese learners of English, *t*(55) = -2.56, *p =* .013, *d* = 0.651.

**Correlations**

(compare to Tables 2 and 3, and Figures 4 and 5, in main manuscript)

**Table A2**

*Intercorrelations between proficiency measures within the Japanese learner group (Pearson's r)*

|  |  |  |
| --- | --- | --- |
|  | *Cambridge Test* | *LexTALE* |
| *LexTALE* | *r*(36) = 0.29*p* = 0.088 | -- |
| *Self-rating* | *r*(36) = 0.24*p* = 0.152 | *r*(36) = 0.15*p* = 0.368 |

**Table A3**

*Correlations between proficiency measures and PTLT difference scores in the Japanese learner group (N = 36; Spearman's rho, ρ)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | *Cambridge Test* | *LexTALE* | *Self-rating* | *Mean proficiency z-score* | *Comprehension accuracy* |
| Video 1 PTLT difference | ***ρ* = 0.35*****p* = 0.04** | *ρ* = 0.03*p* = 0.864 | *ρ* = 0.27*p* = 0.116 | *ρ* = 0.30*p* = 0.08 | *ρ* = 0.33*p* = 0.055 |
| Video 2 PTLT difference | *ρ* = 0.12*p* = 0.116 | *ρ* = -0.10*p* = 0.572 | *ρ* = 0.10*p* = 0.589 | *ρ* = -0.003*p* = 0.986 | *ρ* = 0.15*p* = 0.398 |

**Figure A3**

*Video 1: Correlation between PTLT difference scores (PTLTeyes - PTLTmouth) and scores on the Cambridge English Test (panel A) and on the post-viewing comprehension test (panel B) in the Japanese learner group (N=35).*

A B



**Figure A4**

*Video 2 : Correlation between PTLT difference scores (PTLTeyes - PTLTmouth) and scores on the Cambridge English Test (panel A) and on the post-viewing comprehension test (panel B) in the Japanese learner group (N=35).*

A B



**APPENDIX B: Analysis of nativeness ratings and PTLT**

**Table B1**

*Mean (SD) nativeness rating by listener groups*

|  |  |  |
| --- | --- | --- |
|  | Video 1 (Caucasian) | Video 2 (Asian) |
| L1 group | 8.73 (2.00) | 6.11 (2.73) |
| L2 group | 8.44 (2.22) | 6.48 (2.63) |

Correlations between nativeness ratings and PLTL scores (Spearman's rho):

Video 1: *ρ* = 0.12, *p* = 0.282

Video 2: *ρ* = -0.02, *p* = 0.854

**Figure B1**

*Correlation between PTLT difference scores (PTLTeyes - PTLTmouth) and the nativeness rating for Video 1 (panel A) and Video 2 (panel B)*

 A B

