Appendix B (Supplemental Materials)

Table 1. *Model output from Experiment 1: RTs from both exposures in the bilinguals’ Chinese session.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fixed Effects | *b* | *SE* | *t* | *p* |
| Intercept | 559.66 | 14.85 | 37.68 | < .001 |
| Typicality | 17.50 | 4.76 | 3.67 | < .001 |
| Word Type | -8.56 | 5.35 | -1.60 | *ns* |
| Typicality x Word Type | -7.20 | 4.37 | -1.64 | .10 |
| Random Effects | Intercepts | Slopes |
|  | Variance | *SD* | Variance | *SD* |
| Subjects | 5640.39 | 75.10 |  |  |
|  Typicality |  |  | 98.44 | 9.92 |
|  Word Type |  |  | 265.17 | 16.28 |
| Items | 1055.58 | 32.49 |  |  |

Table 2. *Model output from Experiment 1: RTs from both exposures in the two sessions that were completed by bilinguals.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fixed Effects | *b* | *SE* | *t* | *p* |
| Intercept | 563.09 | 14.68 | 38.34 | < .001 |
| Typicality | 16.85 | 4.85 | 3.47 | < .001 |
| Word Type | -6.03 | 4.78 | -1.26 | *ns* |
| Test Language | 3.24 | 4.71 | 0.68 | *ns* |
| Exposure Order | 4.39 | 1.91 | 2.30 | .02 |
| Typicality x Word Type  | -4.93 | 4.62 | -1.06 | *ns* |
| Typicality x Test Language | -0.89 | 1.91 | -0.46 | *ns* |
| Typicality x Exposure Order | 1.59 | 1.91 | 0.83 | *ns* |
| Word Type x Test Language | 2.66 | 1.91 | 1.39 | *ns* |
| Word Type x Exposure Order | -1.67 | 1.91 | -0.87 | *ns* |
| Test Language x Exposure Order | 1.13 | 1.91 | 0.59 | *ns* |
| Typicality x Word Type x Test Language | 2.27 | 1.91 | 1.19 | *ns* |
| Typicality x Word Type x Exposure Order | -4.02 | 1.91 | -2.10 | .03 |
| Typicality x Test Language x Exposure Order | 1.50 | 1.91 | 0.78 | *ns* |
| Word Type x Test Language x Exposure Order | -0.14 | 1.91 | -0.07 | *ns* |
| Typicality x Word Type x Test Language x Exposure Order | -1.87 | 1.91 | -0.97 | *ns* |
| Random Effects | Intercepts | Slopes |
|  | Variance | *SD* | Variance | *SD* |
| Subjects | 5438.25 | 73.74 |  |  |
|  Typicality |  |  | 60.39 | 7.77 |
|  Word Type |  |  | 43.31 | 6.58 |
|  Test Language |  |  | 520.21 | 22.80 |
| Items | 1489.19 | 38.59 |  |  |

Table 3. *Model output from Experiment 1: RTs from the first exposure in the two sessions that were completed by bilinguals.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fixed Effects | *b* | *SE* | *t* | *p* |
| Intercept | 567.51 | 15.55 | 36.48 | < .001 |
| Typicality | 18.30 | 5.61 | 3.25 | < .001 |
| Word Type | -7.68 | 5.71 | -1.34 | *ns* |
| Test Language | 4.45 | 5.93 | 0.75 | *ns* |
| Typicality x Word Type  | -9.03 | 5.51 | -1.63 | .10 |
| Typicality x Test Language | 0.71 | 2.66 | 0.26 | *ns* |
| Word Type x Test Language | 2.55 | 2.66 | 0.95 | *ns* |
| Typicality x Word Type x Test Language | 0.47 | 2.66 | 0.17 | *ns* |
| Random Effects | Intercepts | Slopes |
|  | Variance | *SD* | Variance | *SD* |
| Subjects | 5922.14 | 76.95 |  |  |
|  Typicality |  |  | 33.19 | 5.76 |
|  Word Type |  |  | 64.75 | 8.04 |
|  Test Language |  |  | 787.90 | 28.07 |
| Items | 1953.98 | 44.20 |  |  |

Table 4. *Model output from Experiment 1: RTs from both exposures in the two English sessions.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fixed Effects | *b* | *SE* | *t* | *p* |
| Intercept | 540.29 | 12.28 | 43.99 | < .001 |
| Typicality | 16.36 | 5.03 | 3.25 | < .001 |
| Word Type | -1.00 | 4.94 | -0.20 | *ns* |
| Language Group | 25.99 | 11.38 | 2.28 | .02 |
| Exposure Order | 7.28 | 1.78 | 4.09 | < .001  |
| Typicality x Word Type  | -1.95 | 4.93 | -0.39 | *ns* |
| Typicality x Language Group | -0.20 | 2.03 | -0.10 | *ns* |
| Typicality x Exposure Order | 3.94 | 1.78 | 2.21 | .02  |
| Word Type x Language Group | -2.31 | 1.79 | -1.29 | *ns* |
| Word Type x Exposure Order | -1.95 | 1.78 | -1.09 | *ns* |
| Language Group x Exposure Order | -1.66 | 1.78 | -0.93 | *ns* |
| Typicality x Word Type x Language Group | -0.65 | 1.78 | -0.36 | *ns* |
| Typicality x Word Type x Exposure Order | -1.77 | 1.78 | -0.99 | *ns* |
| Typicality x Language Group x Exposure Order | -0.80 | 1.78 | -0.45 | *ns* |
| Word Type x Language Group x Exposure Order | 0.01 | 1.78 | 0.009 | *ns* |
| Typicality x Word Type x Language Group x Exposure Order | -4.13 | 1.78 | -2.32 | .02  |
| Random Effects | Intercepts | Slopes |
|  | Variance | *SD* | Variance | *SD* |
| Subjects | 7081.78 | 84.15 |  |  |
|  Typicality |  |  | 53.74 | 7.33 |
|  Word Type |  |  | 2.80 | 1.67 |
| Items | 1779.43 | 42.18 |  |  |

Table 5. *Model output from Experiment 1: RTs from the first exposure in the two English sessions.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fixed Effects | *b* | *SE* | *t* | *p* |
| Intercept | 574.90 | 13.49 | 40.61 | < .001 |
| Typicality | 20.25 | 6.19 | 3.26 | .001 |
| Word Type | -3.02 | 6.05 | -0.49 | *ns* |
| Language Group | 24.31 | 12.38 | 1.96 | .05 |
| Typicality x Word Type  | -3.75 | 5.89 | -0.63 | *ns* |
| Typicality x Language Group | -1.13 | 3.13 | -0.36 | *ns* |
| Word Type x Language Group | -2.38 | 2.82 | -0.84 | *ns* |
| Typicality x Word Type x Language Group | -4.78 | 2.47 | -1.93 | .05 |
| Random Effects | Intercepts | Slopes |
|  | Variance | *SD* | Variance | *SD* |
| Subjects | 8248.10 | 90.82 |  |  |
|  Typicality |  |  | 206.40 | 14.37 |
|  Word Type |  |  | 104.70 | 10.23 |
| Items | 2401.80 | 49.01 |  |  |

Table 6. *Model output from Experiment 1: N300 mean amplitude in the bilinguals’ Chinese session.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fixed Effects | *b* | *SE* | *t* | *p* |
| Intercept | 1.33 | 0.65 | 2.02 | .05 |
| Typicality | -0.86 | 0.27 | -3.17 | .003 |
| Word Type | 0.58 | 0.23 | 2.55 | .01 |
| Typicality x Word Type | 0.38 | 0.19 | 2.02 | .05 |
| Random Effects | Intercepts | Slopes |
|  | Variance | *SD* | Variance | *SD* |
| Subjects | 11.10 | 3.33 |  |  |
|  Typicality |  |  | 1.06 | 1.03 |
|  Word Type |  |  | 0.44 | 0.66 |

Table 7. *Model output from Experiment 1: N300 mean amplitude in the two sessions that were completed by bilinguals.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fixed Effects | *b* | *SE* | *t* | *p* |
| Intercept | 0.86 | 0.57 | 1.51 | *ns* |
| Typicality | -0.63 | 0.15 | -4.07 | < .001 |
| Word Type | 0.22 | 0.14 | 1.57 | *ns* |
| Test Language | -0.46 | 0.26 | -1.73 | .09 |
| Typicality x Word Type  | 0.28 | 0.11 | 2.44 | .01 |
| Typicality x Test Language | 0.23 | 0.11 | 1.95 | .05 |
| Word Type x Test Language | -0.36 | 0.11 | -3.12 | .002 |
| Typicality x Word Type x Test Language | -0.10 | 0.11 | -0.86 | *ns* |
| Random Effects | Intercepts | Slopes |
|  | Variance | *SD* | Variance | *SD* |
| Subjects | 8.85 | 2.97 |  |  |
|  Typicality |  |  | 0.30 | 0.54 |
|  Word Type |  |  | 0.16 | 0.40 |
|  Test Language |  |  | 1.60 | 1.26 |

Table 8. *Model output from Experiment 1: N300 mean amplitude in the two English sessions.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fixed Effects | *b* | *SE* | *t* | *p* |
| Intercept | 0.95 | 0.36 | 2.58 | .01 |
| Typicality | -0.46 | 0.09 | -4.83 | < .001 |
| Word Type | -0.22 | 0.10 | -2.13 | .03 |
| Language Group | 0.55 | 0.36 | 1.49 | *ns* |
| Typicality x Word Type  | 0.13 | 0.07 | 1.66 | .10 |
| Typicality x Language Group | -0.05 | 0.09 | -0.59 | *ns* |
| Word Type x Language Group | -0.08 | 0.10 | -0.76 | *ns* |
| Typicality x Word Type x Language Group | -0.05 | 0.07 | -0.68 | *ns* |
| Random Effects | Intercepts | Slopes |
|  | Variance | *SD* | Variance | *SD* |
| Subjects | 7.27 | 2.69 |  |  |
|  Typicality |  |  | 0.17 | 0.41 |
|  Word Type |  |  | 0.29 | 0.54 |

Table 9. *Model output from Experiment 1: ELC mean amplitude in the bilinguals’ Chinese session.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fixed Effects | *b* | *SE* | *t* | *p* |
| Intercept | 4.03 | 0.52 | 7.66 | < .001 |
| Typicality | -0.65 | 0.24 | -2.62 | .01 |
| Word Type | 0.56 | 0.16 | 3.43 | .001 |
| Typicality x Word Type | 0.48 | 0.16 | 3.04 | .003 |
| Random Effects | Intercepts | Slopes |
|  | Variance | *SD* | Variance | *SD* |
| Subjects | 7.00 | 2.64 |  |  |
|  Typicality |  |  | 1.02 | 1.01 |
|  Word Type |  |  | 0.04 | 0.21 |

Table 10. *Model output from Experiment 1: ELC mean amplitude in the two sessions that were completed by bilinguals.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fixed Effects | *b* | *SE* | *t* | *p* |
| Intercept | 3.41 | 0.42 | 7.95 | < .001 |
| Typicality | -0.63 | 0.13 | -4.84 | < .001 |
| Word Type | 0.40 | 0.13 | 3.10 | .003 |
| Test Language | -0.61 | 0.25 | -2.37 | .02 |
| Typicality x Word Type  | 0.41 | 0.11 | 3.53 | < .001 |
| Typicality x Test Language | 0.02 | 0.11 | 0.17 | *ns* |
| Word Type x Test Language | -0.16 | 0.11 | -1.38 | *ns* |
| Typicality x Word Type x Test Language | -0.07 | 0.11 | -0.59 | *ns* |
| Random Effects | Intercepts | Slopes |
|  | Variance | *SD* | Variance | *SD* |
| Subjects | 4.76 | 2.18 |  |  |
|  Typicality |  |  | 0.08 | 0.29 |
|  Word Type |  |  | 0.08 | 0.29 |
|  Test Language |  |  | 1.48 | 1.21 |

Table 11. *Model output from Experiment 1: ELC mean amplitude in the two English sessions.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fixed Effects | *b* | *SE* | *t* | *p* |
| Intercept | 3.15 | 0.34 | 9.10 | < .001 |
| Typicality | -0.84 | 0.12 | -6.93 | < .001 |
| Word Type | 0.03 | 0.11 | 0.26 | *ns* |
| Language Group | 0.42 | 0.34 | 1.23 | *ns* |
| Typicality x Word Type  | 0.17 | 0.10 | 1.70 | .09 |
| Typicality x Language Group | -0.16 | 0.12 | -1.37 | *ns* |
| Word Type x Language Group | -0.22 | 0.11 | -1.89 | .06 |
| Typicality x Word Type x Language Group | -0.18 | 0.10 | -1.75 | .08 |
| Random Effects | Intercepts | Slopes |
|  | Variance | *SD* | Variance | *SD* |
| Subjects | 6.10 | 2.46 |  |  |
|  Typicality |  |  | 0.21 | 0.45 |
|  Word Type |  |  | 0.14 | 0.37 |

Table 12. *Model output for Experiment 2: RTs.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fixed Effects | *b* | *SE* | *t* | *p* |
| Intercept | 816.47 | 26.82 | 30.43 | < .001 |
| Typicality | 42.10 | 8.37 | 5.02 | < .001 |
| Word Type | 0.23 | 7.64 | 0.03 | *ns* |
| Language Group | 188.06 | 26.04 | 7.22 | < .001 |
| Word Frequency | -24.49 | 7.64 | -3.20 | .001 |
| Typicality x Word Type  | -9.54 | 7.61 | -1.25 | *ns* |
| Typicality x Language Group | 12.35 | 5.14 | 2.40 | .02 |
| Word Type x Language Group | -2.58 | 4.02 | -0.64 | *ns* |
| Typicality x Word Type x Language Group | -8.21 | 4.02 | -2.04 | .04 |
| Random Effects | Intercepts | Slopes |
|  | Variance | *SD* | Variance | *SD* |
| Subjects | 37063.67 | 192.51 |  |  |
|  Typicality |  |  | 569.65 | 23.86 |
|  Word Type |  |  | 2.00 | 1.41 |
| Items | 3864.72 | 62.16 |  |  |

Table 13. *Model output for Experiment 2: N400 mean amplitude.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fixed Effects | *b* | *SE* | *t* | *p* |
| Intercept | -0.11 | 0.35 | -0.32 | *ns* |
| Typicality | -0.41 | 0.12 | -3.37 | .001 |
| Word Type | 0.28 | 0.14 | 1.93 | .05 |
| Language Group | 0.50 | 0.35 | 1.40 | *ns* |
| Typicality x Word Type  | 0.19 | 0.12 | 1.64 | .10 |
| Typicality x Language Group | -0.17 | 0.14 | -1.40 | *ns* |
| Word Type x Language Group | -0.07 | 0.14 | -0.52 | *ns* |
| Typicality x Word Type x Language Group | -0.25 | 0.12 | -2.12 | .03 |
| Random Effects | Intercepts | Slopes |
|  | Variance | *SD* | Variance | *SD* |
| Subjects | 6.43 | 2.53 |  |  |
|  Typicality |  |  | 0.03 | 0.17 |
|  Word Type |  |  | 0.40 | 0.63 |