Supplementary Material

Variability in the Effects of Bilingualism on Task Switching of Cognitively Healthy and Cognitively Impaired Older Bilinguals

Hui-Ching Chen\*, W. Quin Yow

**\* Correspondence:** Hui-Ching Chen: huiching\_chen@sutd.edu.sg

# Supplementary Tables

**Table S1.** Means and standard deviations of executive function measures by group.

**Table S1.** Means and standard deviations of executive function measures by group.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Cognitively Healthy Group**  (*N* = 48) | | **Cognitively Impaired Group**  (*N* = 43) | |
| **All participants:** | All |  | All |  |
|  | *M* (*SD*) |  | *M* (*SD*) |  |
| Mixing Cost | 193.72 (429.51) |  | -158.18 (444.66) |  |
| Switching Cost | 159.46 (193.11) |  | 39.36 (242.78) |  |
| Global RT | 1451.11 (357.87) |  | 1460.65 (403.27) |  |
| **Categorical:** | Bilingual Dominant | Balanced Bilingual | Bilingual Dominant | Balanced Bilingual |
|  | *M* (*SD*) | *M* (*SD*) | *M* (*SD*) | *M* (*SD*) |
| **90% cut-off** |  |  |  |  |
| Mixing Cost | 364.18 (462.00) | 108.49 (392.33) | -173.25 (457.46) | -145.08 (443.12) |
| Switching Cost | 143.52 (193.51) | 167.42 (195.51) | 7.95 (275.43) | 66.66 (212.92) |
| Global RT | 1734.18 (435.78) | 1451.04 (400.46) | 1402.06 (510.83) | 1393.47 (389.67) |
| **80% cut-off** |  |  |  |  |
| Mixing Cost | 198.63 (477.07) | 188.40 (381.80) | -141.94 (450.37) | -191.81 (447.35) |
| Switching Cost | 149.17 (190.12) | 170.64 (199.97) | -14.05 (252.04) | 149.98 (184.56) |
| Global RT | 1605.41 (441.21) | 1480.21 (416.44) | 1423.07 (488.17) | 1344.42 (347.32) |
| **70% cut-off** |  |  |  |  |
| Mixing Cost | 364.18 (462.00) | 108.49 (392.33) | -173.25 (457.46) | -145.08 (443.12) |
| Switching Cost | 143.52 (193.51) | 167.42 (195.51) | 7.95 (275.43) | 66.66 (212.92) |
| Global RT | 1734.18 (435.78) | 1451.04 (400.46) | 1402.06 (510.83) | 1393.47 (389.67) |
| **60% cut-off** |  |  |  |  |
| Mixing Cost | 198.63 (477.07) | 188.40 (381.80) | -141.94 (450.37) | -191.81 (447.35) |
| Switching Cost | 149.17 (190.12) | 170.64 (199.97) | -14.05 (252.04) | 149.98 (184.56) |
| Global RT | 1605.41 (441.21) | 1480.21 (416.44) | 1423.07 (488.17) | 1344.42 (347.32) |
| **median split** |  |  |  |  |
| Mixing Cost | 233.79 (443.86) | 153.65 (420.26) | -171.94 (456.65) | -146.21 (443.91) |
| Switching Cost | 162.14 (186.70) | 156.78 (203.31) | 7.26 (275.43) | 67.27 (212.74) |
| Global RT | 1,610.58 (448.13) | 1,480.26 (409.27) | 1,401.55 (511.00) | 1,393.91 (389.49) |

*Note*. RT = reaction time. Numbers are reaction times in ms.