**ENGLISH**

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| **Type** | **R1** | **R2** | **R3** | **R4** | **R5** | **R6** | **R7** | **R8** | **R9** | **R10** |
| **SS** | The horse | that | ***e*** kicked | the wolf | on Tuesday | that | ***e*** patted | the lion | just now | went home. |
| **OS** | The horse | that | the wolf | kicked ***e*** | on Tuesday | that | ***e*** patted | the lion | just now | went home. |
| **SO** | The horse | that | ***e*** kicked | the wolf | on Tuesday | that | the lion | patted ***e*** | just now | went home. |
| **OO** | The horse | that | the wolf | kicked ***e*** | on Tuesday | that | the lion | patted ***e*** | just now | went home. |

* All stats are done with lmer4.0 package in R.

Model: m\_RegionX = lmer (log\_RX ~ log\_R4\*RC1fac \* RC2fac + (1\*log\_R4\*dprimeT|Participant) + (1\*log\_R4\*dprimeT|Item), dataset)

m\_RegionX\_Parallelism = lmer(log\_RX ~ ParFac \* RC2fac + (1\*dprimeT\*ParFac \* RC2fac|Participant)+(1|Item), wholeENG)

* In RC 1, there is a robust **SRC advantage**.
* Notation: **A\*<< B** means A is processed significantly faster than B (intuitively A takes less time); **A \*>> B** means A is significantly slower than B. **A << B** means A is only numerically processed faster than B; **A >> B** means A is only numerically processed slower than B.

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|  | Main Effects | | Main Interactions  (OO, SS) | Rank  Main effects | Parallelism | Parallelism Interactions (OS, SS) |
| R3 | RC1S | t = -5.155, p < .001 |  | R1O \*>> R1S |  |  |
| R4 | RC1S | t = -8.253, p < .001 |  | R1O \*>> R1S |  |  |
| R7 | RC1S | t = 2.228, p < .05 |  | R1O \*<< R1S | Not sig. | t = 2.228, p < .05 |
| R8 | RC2S | t = 4.831, p < .001 | RC1S:RC2S  t = -2.048, p < .05 | R2O \*<< R2S | Par t = -2.048, p < .05  RC2S t = 4.831, p < .001 | Not sig. |
| R9 | RC2S | t = -4.489, p < .001 | RC1S:RC2S  t = -2.143, p < .05 | R2O \*>> R2S | Par t = -2.143, p < .05  RC2S t = -4.489, p < .001 | Not sig. |
| R10 | RC1S | t = 2.164, p < .05 |  | R1O \*<< R1S | Not sig. | t = 2.164, p <.05 |
| R78 | RC2S | t = 2.584, p < .05 |  | R2O \*<< R2S | Not sig. | Not sig. |
| R789 | Not sig. |  |  |  | Not sig. | Not sig. |

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| Regions | Rankings | Pairwise significance | Possible explanations |
| R7 | **OS** \*<< SS | Not sig. |  |
|  | OO, SO |
| R8 | OS \*>> **SS** | S \*<< O | Parallelism. R8 is the region to show effects due to spillover for S as RC2. |
|  | OO, SO |
| R9 | OS, SS | S \*>> O | Parallelism. R9 is the region to show effects due to spillover for O as RC2. |
|  | **OO** \*<< SO |
| R10 | OS, SS | Not sig. |  |
|  | OO, SO |
| R78 | **OO, SO \*<< SS, OS** | **(2 levels)** | RC2S main effect is driven by OO being very fast (not for SO). |
|  | **OO << SO << SS << OS**  **OO \*<< SS**  **OO \*<< OS** | **(4 levels)** |

**CHINESE**

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| **Ty Type** | **R1** | **R2** | **R3** | **R4** | **R5** | **R6** | **R7** | **R8** | **R9** | **R10** | **R11** | **R12** |
| **SS** | Dem | on Tuesday | ***e*** kicked | the wolf | many times | de | just now | ***e*** patted | the lion | de | horse | went home. |
| **OS** | Dem | on Tuesday | the wolf | ***e*** kicked | many times | de | just now | ***e*** patted | the lion | de | horse | went home. |
| **SO** | Dem | on Tuesday | ***e*** kicked | the wolf | many times | de | just now | the lion | patted ***e*** | de | horse | went home. |
| **OO** | Dem | on Tuesday | the wolf | ***e*** kicked | many times | de | just now | the lion | patted ***e*** | de | horse | went home. |

* Same stats as the English dataset.
* In RC 1, there is a robust **ORC advantage**. This is to the opposite of English.
* Notation: **A\*<< B** means A is processed significantly faster than B (intuitively A takes less time); **A \*>> B** means A is significantly slower than B. **A << B** means A is only numerically processed faster than B; **A >> B** means A is only numerically processed slower than B.

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|  | Main Effects | | Interactions  (OO, SS) | Rank  Main effects | Parallelism | Parallelism  Interaction (OS, SS) |
| R3 | RC1S | t = -3.607, p < .001 |  | R1O \*>> R1S |  |  |
| R4 | RC1S | t = 8.961, p < .001 |  | R1O \*<< R1S |  |  |
| R5 | RC1S | t = 2.863, p < .01 |  | R1O \*<< R1S |  |  |
| R7 | RC1S | t = -2.289, p < .05 |  | R1O \*>> R1S | Not sig. | t = -2.289, p < .05 |
| R8 | RC1S | t = -2.557, p < .05 |  | R1O \*>> R1S | Par Not sig.  RC2S t = -7.876, p < .001 | t = -2.557, p < .05 |
|  | RC2S | t = -7.876, p < .001 |  | R2O \*>> R2S |
| R9 | RC2S | t = 4.397, p < .001 | RC1S:RC2S  t = -4.103, p < .001 | R2O \*<< R2S | Par t = -4.103, p < .001  RC2S t = 4.397, p < .001 | Not sig. |
| R10 | RC2S | t = -3.134, p < .01 |  | R2O \*>> R2S | RC2S t = -3.134, p < .01 | Not sig. |
| R11 | Almost  RC2S | Not sig.  t = 1.856, p = 0.0675 | RC1S:RC2S  t = -5.121, p < .001 |  | Par t = -5.121, p < .001 | Not sig. |
| R12 | RC2S | t = -2.836, p < .01 | RC1S:RC2S  t = -2.361, p < .05 | R2O \*>> R2S | t = -2.361, p < .05  RC2S t = -2.836, p < .01 | Not sig. |
| R89 | RC1S | t = -2.315, p < .05 | RC1S:RC2S  t = -3.815, p < .001 | R1O \*>> R1S | t = -3.815, p < .001  RC2S t = -2.327, p < .05 | t = -2.315, p < .05 |
|  | RC2S | t = -2.327, p < .05 | R2O \*>> R2S |
| R8910 | RC1S | t = -2.595, p < .01 | RC1S:RC2S  t = -4.227, p < .001 | R1O \*>> R1S | t = -4.227, p < .001  RC2S t = -3.180, p < .01 | t = -2.595, p < .01 |
|  | RC2S | t = -3.180, p < .01 | R2O \*>> R2S |

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| Regions | Rankings | Pairwise significance | Conclusion: |
| R7 | OS, SS | Not sig. | **ENG-postnominalRC** (V/NP (i.e. RC2))🡪   1. Single RC has S advantage. 2. Parallelism is mainly shown on OO. 3. OS, SS, SO have no distinction. 4. There is a latency in main effects, possibly due to retrieval of the head.   **CHN-prenominalRC**  (V/NP (i.e. RC2))🡪   1. Single RC has O advantage; 2. Parallelism is mainly shown on SS; 3. SO, OS, OO have no distinction. 4. There is no latency in main effects, since there is no retrieval.   **CHN** (V in RC2)🡪 **SS \* << OS << OO \*<< SO**  **CHN** (HEAD) 🡪 **SS << OO \*<< OS << SO** |
|  | OO \*>> **SO** |
| R8 | OS \*>> **SS** | S \*<< O |
|  | OO, SO |
| R9 | OS \*>> **SS** | S \*>> O |
|  | **OO \*<< SO** |
| R10 | OS \*>> **SS** | S \*<< O |
|  | OO, SO |
| R11 | OS \*>> **SS** | Almost S \*<< O |
|  | OO, SO |
| R12 | OS \*>> **SS** | S \*<< O |
|  | OO, SO |
| R89/R8910 | **SS \*<< OO << OS << SO** | **(4 levels)** |
| HEAD | **SS << OO \*<< OS << SO** | **(4 levels)** |