**Supplementary Material**

Table S1. Contribution of CF measures and Time to the number of repetitions and corrections

|  |  |  |
| --- | --- | --- |
|  | Random effects | Fixed effects |
| Number of repetitions | By-participants intercepts, *SD*=0.64 | *R2Fixed*=.049; *R2Fixed+Random*=.434 |
|  | *β* | *SE* | 95% CI | *t*(116) | *p* |
| Intercept | <.001 | 0.13 | [-0.26, 0.27] | 0.06 | 0.955 |
| Time | <-.001 | 0.10 | [-0.20, 0.20] | -0.02 | 0.987 |
| SE | -0.03 | 0.12 | [-0.27, 0.21] | -0.27 | 0.784 |
| LR | 0.13 | 0.11 | [-0.09, 0.34] | 1.16 | 0.248 |
| AS | -0.09  | 0.14 | [-0.36, 0.17] | -0.70 | 0.487 |
| Number of corrections | By-participants intercepts, *SD*=0.29 | *R2Fixed*=.019; *R2Fixed+Random*=.102 |
|  | *β* | *SE* | 95% CI | *t*(116) | *p* |
| Intercept | < 0.001 | 0.10 | [-0.20, 0.20] | 0.03 | 0.979 |
| Time | 0.14 | 0.11 | [-0.08, 0.36] | 1.29 | 0.200 |
| SE | 0.03 | 0.11 | [-0.19, 0.25] | 0.27 | 0.790 |
| LR | 0.05 | 0.11 | [-0.16, 0.27] | 0.49 | 0.623 |
| AS | 0.10 | 0.12 | [-0.14, 0.33] | 0.83 | 0.408 |

SE=syntactic encoding speed, LR=lexical retrieval speed, AS=articulation speed

Table S2. Contribution of CF measures to mid-clause pause frequency in Time1 and Time2

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| --- | --- | --- |
|  | Random effects | Fixed effects |
| Mid-clause silent pause Time1 | By-participant intercepts, *SD*=0.58 | *R2*Fixed=.332 |
|  | *β* | *SE* | 95% CI | *t*(56) | *p* |
| Intercept | < .001 | 0.13 | [-0.26, 0.26] | < .001 | > .999 |
| SE | 0.53 | 0.14 | [ 0.25, 0.81] | 3.76 | < .001 |
| LR | 0.14 | 0.14 | [-0.14, 0.42] | 1.01 | 0.318 |
| AS | -0.06 | 0.13 | [-0.32, 0.21] | -0.43 | 0.670 |
| Mid-clause silent pause Time2 | By-participant intercepts, *SD*=0.80 | *R2*Fixed=.203 |
|  | *β* | *SE* | 95% CI | *t*(55) | *p* |
| Intercept | < .001 | 0.16 | [-0.30, 0.32] | 0.06 | 0.950 |
| SE | 0.39 | 0.20 | [ -0.02, 0.79] | 1.90 | 0.062 |
| LR | 0.11 | 0.20 | [-0.29, 0.51] | 0.56 | 0.580 |
| AS | 0.21 | 0.16 | [-0.12, 0.54] | 1.28 | 0.207 |
| Mid-clause filled pause Time1 | By-participant intercepts, *SD*=0.60 | *R2*Fixed=.301 |
|  | *β* | *SE* | 95% CI | *t*(56) | *p* |
| Intercept | < .001 | 0.13 | [-0.27, 0.27] | < .001 | > .999 |
| SE | 0.56 | 0.14 | [ 0.27, 0.85] | 3.90 | < .001 |
| LR | -0.13 | 0.14 | [-0.42, 0.15] | -0.93 | 0.358 |
| AS | -0.17 | 0.14 | [-0.44, 0.10] | -1.27 | 0.210 |
| Mid-clause filled pause Time2 | By-participant intercepts, *SD*=0.82 | *R2*Fixed=.122 |
|  | *β* | *SE* | 95% CI | *t*(55) | *p* |
| Intercept | 0.01 | 0.16 | [-0.31, 0.34] | 0.09 | 0.928 |
| SE | 0.14 | 0.21 | [ -0.28, 0.57] | 0.67 | 0.504 |
| LR | 0.20 | 0.21 | [-0.22, 0.61] | 0.95 | 0.348 |
| AS | -0.18 | 0.17 | [-0.52, 0.16] | -1.05 | 0.298 |

SE=syntactic encoding speed, LR=lexical retrieval speed, AS=articulation speed

Table S3. Power analyses results on the contribution of CF measures and Time to UF measures

|  |  |
| --- | --- |
| Power equals or more than 70% | Power less than 70% |
| Effect of syntactic encoding speed on mean syllable durationEffect of time on the number of end-clause silent pausesEffect of syntactic encoding speed on the number of mid-clause filled pausesEffect of time on the number of end-clause filled pauses | Effect of lexical retrieval speed on mean syllable durationFixed effects on mean silent pause duration and the number of mid-clause silent pauses Interaction effects on the number of mid-clause filled pauses |