Supplement B: Full SEM output

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## Results from Structural Equation models, comparing output with different inclusion criteria.

In the numerical outputs, summary labels are used for the 6 fTCD variables, as follows: A\_P1: Word Generation  
B\_P2: Sentence Generation  
C\_P3: Phonological Decision  
D\_R1: Word Decision  
E\_R2: Sentence Decision  
F\_R3: Syntactic Decision

### Covariance and means matrix for raw data

This table shows the covariance and means matrix for the raw data for the full sample, using the -5 to 2 s baseline, as reported in main paper.

| Covariances | A\_P1 | B\_P2 | C\_P3 | D\_R1 | E\_R2 | F\_R3 |
| --- | --- | --- | --- | --- | --- | --- |
| A\_P1 | 3.384 | 2.582 | 1.552 | 0.400 | 1.273 | 1.176 |
| B\_P2 | 2.582 | 4.313 | 2.041 | 0.491 | 2.074 | 0.837 |
| C\_P3 | 1.552 | 2.041 | 2.728 | 1.191 | 2.560 | 1.573 |
| D\_R1 | 0.400 | 0.491 | 1.191 | 2.282 | 2.347 | 1.455 |
| E\_R2 | 1.273 | 2.074 | 2.560 | 2.347 | 5.364 | 2.710 |
| F\_R3 | 1.176 | 0.837 | 1.573 | 1.455 | 2.710 | 4.127 |
| Means | 1.601 | 1.971 | 0.826 | -0.453 | 0.588 | -0.181 |

# Single Factor Model

Summary output from the model is shown for the preregistered criteria (Selected sample with original baseline from -10 to 0 s) in column 4), and the modified criteria used in the main analysis (Full sample with baseline from -5 to 2 s) in column 1.

Model is specified in lavaan syntax as:f1 =~ A\_P1+B\_P2+C\_P3+D\_R1+E\_R2+F\_R3

|  | 1 | 2 | 3 | 4 |
| --- | --- | --- | --- | --- |
| Sample | Full | Selected | Full | Selected |
| Baseline | -5 to 2 | -5 to 2 | -10 to 0 | -10 to 0 |
| N participants | 209 | 189 | 208 | 188 |
| Stand. paths [SE] |  |  |  |  |
| Fac 1 -> A\_P1 | 1.00 [0.00] | 1.00 [0.00] | 1.00 [0.00] | 1.00 [0.00] |
| Fac 1 -> B\_P2 | 1.23 [0.13] | 1.23 [0.14] | 1.47 [0.24] | 1.44 [0.25] |
| Fac 1 -> C\_P3 | 1.45 [0.20] | 1.47 [0.22] | 1.64 [0.31] | 1.63 [0.34] |
| Fac 1 -> D\_R1 | 0.78 [0.15] | 0.83 [0.17] | 0.93 [0.22] | 0.95 [0.24] |
| Fac 1 -> E\_R2 | 1.81 [0.27] | 1.82 [0.29] | 2.07 [0.41] | 2.06 [0.46] |
| Fac 1 -> F\_R3 | 1.16 [0.19] | 1.17 [0.21] | 1.26 [0.24] | 1.24 [0.25] |
| Fit indices |  |  |  |  |
| CFI | 0.92 | 0.91 | 0.91 | 0.90 |
| TLI | 0.87 | 0.86 | 0.85 | 0.84 |
| SRMR | 0.12 | 0.13 | 0.13 | 0.13 |
| RMSEA [95% CI] | 0.13 [ 0.09- 0.17] | 0.13 [ 0.09- 0.17] | 0.14 [ 0.10- 0.18] | 0.14 [ 0.10- 0.18] |
| chisq | 39.99, p < .001 | 37.73, p < .001 | 43.35, p < .001 | 40.34, p < .001 |
| robust chisq | 79.00, p < .001 | 73.53, p < .001 | 68.51, p < .001 | 62.19, p < .001 |
| DF | 9.00 | 9.00 | 9.00 | 9.00 |

The detailed fit statistics for this model, with the final criteria (Full sample with baseline -5 to 2s) are shown below.

## Unstandardized path estimates

| lhs | op | rhs | est | se | z | pvalue | ci.lower | ci.upper |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| f1 | =~ | A\_P1 | 1.000 | 0.000 | NA | NA | 1.000 | 1.000 |
| f1 | =~ | B\_P2 | 1.232 | 0.133 | 9.238 | 0.000 | 0.970 | 1.493 |
| f1 | =~ | C\_P3 | 1.452 | 0.200 | 7.250 | 0.000 | 1.059 | 1.844 |
| f1 | =~ | D\_R1 | 0.783 | 0.153 | 5.130 | 0.000 | 0.484 | 1.082 |
| f1 | =~ | E\_R2 | 1.814 | 0.273 | 6.656 | 0.000 | 1.280 | 2.348 |
| f1 | =~ | F\_R3 | 1.156 | 0.194 | 5.957 | 0.000 | 0.775 | 1.536 |
| A\_P1 | ~~ | A\_P1 | 2.355 | 0.285 | 8.262 | 0.000 | 1.796 | 2.913 |
| B\_P2 | ~~ | B\_P2 | 2.752 | 0.326 | 8.445 | 0.000 | 2.113 | 3.391 |
| C\_P3 | ~~ | C\_P3 | 0.560 | 0.187 | 3.002 | 0.003 | 0.194 | 0.925 |
| D\_R1 | ~~ | D\_R1 | 1.652 | 0.231 | 7.151 | 0.000 | 1.199 | 2.105 |
| E\_R2 | ~~ | E\_R2 | 1.977 | 0.411 | 4.809 | 0.000 | 1.171 | 2.782 |
| F\_R3 | ~~ | F\_R3 | 2.753 | 0.396 | 6.957 | 0.000 | 1.977 | 3.528 |
| f1 | ~~ | f1 | 1.029 | 0.264 | 3.903 | 0.000 | 0.512 | 1.546 |

## Standardized path estimates

| lhs | op | rhs | est | se | z | pvalue | ci.lower | ci.upper |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| f1 | =~ | A\_P1 | 1.000 | 0.000 | NA | NA | 1.000 | 1.000 |
| f1 | =~ | B\_P2 | 1.232 | 0.133 | 9.238 | 0.000 | 0.970 | 1.493 |
| f1 | =~ | C\_P3 | 1.452 | 0.200 | 7.250 | 0.000 | 1.059 | 1.844 |
| f1 | =~ | D\_R1 | 0.783 | 0.153 | 5.130 | 0.000 | 0.484 | 1.082 |
| f1 | =~ | E\_R2 | 1.814 | 0.273 | 6.656 | 0.000 | 1.280 | 2.348 |
| f1 | =~ | F\_R3 | 1.156 | 0.194 | 5.957 | 0.000 | 0.775 | 1.536 |
| A\_P1 | ~~ | A\_P1 | 2.355 | 0.285 | 8.262 | 0.000 | 1.796 | 2.913 |
| B\_P2 | ~~ | B\_P2 | 2.752 | 0.326 | 8.445 | 0.000 | 2.113 | 3.391 |
| C\_P3 | ~~ | C\_P3 | 0.560 | 0.187 | 3.002 | 0.003 | 0.194 | 0.925 |
| D\_R1 | ~~ | D\_R1 | 1.652 | 0.231 | 7.151 | 0.000 | 1.199 | 2.105 |
| E\_R2 | ~~ | E\_R2 | 1.977 | 0.411 | 4.809 | 0.000 | 1.171 | 2.782 |
| F\_R3 | ~~ | F\_R3 | 2.753 | 0.396 | 6.957 | 0.000 | 1.977 | 3.528 |
| f1 | ~~ | f1 | 1.029 | 0.264 | 3.903 | 0.000 | 0.512 | 1.546 |

## Model-implied fitted covariance matrix

| Variable | cov.A\_P1 | cov.B\_P2 | cov.C\_P3 | cov.D\_R1 | cov.E\_R2 | cov.F\_R3 |
| --- | --- | --- | --- | --- | --- | --- |
| A\_P1 | 3.384 | 1.267 | 1.494 | 0.805 | 1.867 | 1.189 |
| B\_P2 | 1.267 | 4.313 | 1.840 | 0.992 | 2.299 | 1.465 |
| C\_P3 | 1.494 | 1.840 | 2.728 | 1.169 | 2.710 | 1.726 |
| D\_R1 | 0.805 | 0.992 | 1.169 | 2.282 | 1.461 | 0.931 |
| E\_R2 | 1.867 | 2.299 | 2.710 | 1.461 | 5.364 | 2.158 |
| F\_R3 | 1.189 | 1.465 | 1.726 | 0.931 | 2.158 | 4.127 |

## Unstandardized residuals of fitted model

| Variable | cov.A\_P1 | cov.B\_P2 | cov.C\_P3 | cov.D\_R1 | cov.E\_R2 | cov.F\_R3 |
| --- | --- | --- | --- | --- | --- | --- |
| A\_P1 | 0.000 | 1.315 | 0.058 | -0.405 | -0.594 | -0.014 |
| B\_P2 | 1.315 | 0.000 | 0.201 | -0.501 | -0.225 | -0.628 |
| C\_P3 | 0.058 | 0.201 | 0.000 | 0.022 | -0.150 | -0.153 |
| D\_R1 | -0.405 | -0.501 | 0.022 | 0.000 | 0.886 | 0.524 |
| E\_R2 | -0.594 | -0.225 | -0.150 | 0.886 | 0.000 | 0.553 |
| F\_R3 | -0.014 | -0.628 | -0.153 | 0.524 | 0.553 | 0.000 |

# 2 Factor Model

Summary output from the model is shown for the preregistered criteria (Selected sample with original baseline from -10 to 0 s) in column 4), and the modified criteria used in the main analysis (Full sample with baseline from -5 to 2 s) in column 1.

Model is specified in lavaan syntax as:f1 =~ A\_P1+B\_P2+C\_P3, f2 =~ NA\*D\_R1+E\_R2+F\_R3, f2~~1f2

|  | 1 | 2 | 3 | 4 |
| --- | --- | --- | --- | --- |
| Sample | Full | Selected | Full | Selected |
| Baseline | -5 to 2 | -5 to 2 | -10 to 0 | -10 to 0 |
| N participants | 209 | 189 | 208 | 188 |
| Stand. paths [SE] |  |  |  |  |
| Fac 1 -> A\_P1 | 1.00 [0.00] | 1.00 [0.00] | 1.00 [0.00] | 1.00 [0.00] |
| Fac 1 -> B\_P2 | 1.25 [0.13] | 1.25 [0.14] | 1.49 [0.23] | 1.46 [0.24] |
| Fac 1 -> C\_P3 | 1.36 [0.19] | 1.36 [0.21] | 1.55 [0.29] | 1.52 [0.31] |
| Fac 2 -> D\_R1 | 0.97 [0.12] | 0.99 [0.13] | 0.90 [0.10] | 0.91 [0.10] |
| Fac 2 -> E\_R2 | 2.24 [0.20] | 2.20 [0.21] | 2.04 [0.18] | 2.03 [0.19] |
| Fac 2 -> F\_R3 | 1.34 [0.17] | 1.32 [0.18] | 1.21 [0.16] | 1.18 [0.17] |
| Fac 1 <-> Fac 2 | 0.72 [0.13] | 0.69 [0.14] | 0.61 [0.13] | 0.60 [0.14] |
| Fit indices |  |  |  |  |
| CFI | 0.97 | 0.97 | 0.96 | 0.96 |
| TLI | 0.94 | 0.94 | 0.92 | 0.92 |
| SRMR | 0.08 | 0.09 | 0.09 | 0.10 |
| RMSEA [95% CI] | 0.08 [ 0.04- 0.13] | 0.09 [ 0.04- 0.14] | 0.10 [ 0.05- 0.14] | 0.10 [ 0.05- 0.15] |
| chisq | 19.58, p = 0.010 | 18.93, p = 0.020 | 23.61, p < .001 | 22.26, p < .001 |
| robust chisq | 43.65, p < .001 | 41.43, p < .001 | 43.31, p < .001 | 39.56, p < .001 |
| DF | 8.00 | 8.00 | 8.00 | 8.00 |

The detailed fit statistics for this model, with the final criteria (Full sample with baseline -5 to 2s) are shown below.

## Unstandardized path estimates

| lhs | op | rhs | est | se | z | pvalue | ci.lower | ci.upper |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| f1 | =~ | A\_P1 | 1.000 | 0.000 | NA | NA | 1.000 | 1.000 |
| f1 | =~ | B\_P2 | 1.254 | 0.134 | 9.336 | 0.000 | 0.991 | 1.517 |
| f1 | =~ | C\_P3 | 1.363 | 0.190 | 7.154 | 0.000 | 0.989 | 1.736 |
| f2 | =~ | D\_R1 | 0.966 | 0.123 | 7.848 | 0.000 | 0.725 | 1.208 |
| f2 | =~ | E\_R2 | 2.235 | 0.196 | 11.376 | 0.000 | 1.850 | 2.620 |
| f2 | =~ | F\_R3 | 1.344 | 0.170 | 7.921 | 0.000 | 1.011 | 1.676 |
| f2 | ~~ | f2 | 1.000 | 0.000 | NA | NA | 1.000 | 1.000 |
| A\_P1 | ~~ | A\_P1 | 2.048 | 0.273 | 7.497 | 0.000 | 1.513 | 2.583 |
| B\_P2 | ~~ | B\_P2 | 2.212 | 0.302 | 7.334 | 0.000 | 1.621 | 2.803 |
| C\_P3 | ~~ | C\_P3 | 0.248 | 0.234 | 1.061 | 0.289 | -0.210 | 0.707 |
| D\_R1 | ~~ | D\_R1 | 1.348 | 0.199 | 6.791 | 0.000 | 0.959 | 1.737 |
| E\_R2 | ~~ | E\_R2 | 0.367 | 0.522 | 0.702 | 0.482 | -0.657 | 1.391 |
| F\_R3 | ~~ | F\_R3 | 2.322 | 0.443 | 5.241 | 0.000 | 1.453 | 3.190 |
| f1 | ~~ | f1 | 1.336 | 0.302 | 4.426 | 0.000 | 0.744 | 1.927 |
| f1 | ~~ | f2 | 0.716 | 0.127 | 5.632 | 0.000 | 0.467 | 0.965 |

## Standardized path estimates

| lhs | op | rhs | est | se | z | pvalue | ci.lower | ci.upper |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| f1 | =~ | A\_P1 | 1.000 | 0.000 | NA | NA | 1.000 | 1.000 |
| f1 | =~ | B\_P2 | 1.254 | 0.134 | 9.336 | 0.000 | 0.991 | 1.517 |
| f1 | =~ | C\_P3 | 1.363 | 0.190 | 7.154 | 0.000 | 0.989 | 1.736 |
| f2 | =~ | D\_R1 | 0.966 | 0.123 | 7.848 | 0.000 | 0.725 | 1.208 |
| f2 | =~ | E\_R2 | 2.235 | 0.196 | 11.376 | 0.000 | 1.850 | 2.620 |
| f2 | =~ | F\_R3 | 1.344 | 0.170 | 7.921 | 0.000 | 1.011 | 1.676 |
| f2 | ~~ | f2 | 1.000 | 0.000 | NA | NA | 1.000 | 1.000 |
| A\_P1 | ~~ | A\_P1 | 2.048 | 0.273 | 7.497 | 0.000 | 1.513 | 2.583 |
| B\_P2 | ~~ | B\_P2 | 2.212 | 0.302 | 7.334 | 0.000 | 1.621 | 2.803 |
| C\_P3 | ~~ | C\_P3 | 0.248 | 0.234 | 1.061 | 0.289 | -0.210 | 0.707 |
| D\_R1 | ~~ | D\_R1 | 1.348 | 0.199 | 6.791 | 0.000 | 0.959 | 1.737 |
| E\_R2 | ~~ | E\_R2 | 0.367 | 0.522 | 0.702 | 0.482 | -0.657 | 1.391 |
| F\_R3 | ~~ | F\_R3 | 2.322 | 0.443 | 5.241 | 0.000 | 1.453 | 3.190 |
| f1 | ~~ | f1 | 1.336 | 0.302 | 4.426 | 0.000 | 0.744 | 1.927 |
| f1 | ~~ | f2 | 0.716 | 0.127 | 5.632 | 0.000 | 0.467 | 0.965 |

## Model-implied fitted covariance matrix

| Variable | cov.A\_P1 | cov.B\_P2 | cov.C\_P3 | cov.D\_R1 | cov.E\_R2 | cov.F\_R3 |
| --- | --- | --- | --- | --- | --- | --- |
| A\_P1 | 3.384 | 1.675 | 1.820 | 0.692 | 1.600 | 0.962 |
| B\_P2 | 1.675 | 4.313 | 2.282 | 0.868 | 2.007 | 1.206 |
| C\_P3 | 1.820 | 2.282 | 2.728 | 0.943 | 2.180 | 1.310 |
| D\_R1 | 0.692 | 0.868 | 0.943 | 2.282 | 2.160 | 1.299 |
| E\_R2 | 1.600 | 2.007 | 2.180 | 2.160 | 5.364 | 3.004 |
| F\_R3 | 0.962 | 1.206 | 1.310 | 1.299 | 3.004 | 4.127 |

## Unstandardized residuals of fitted model

| Variable | cov.A\_P1 | cov.B\_P2 | cov.C\_P3 | cov.D\_R1 | cov.E\_R2 | cov.F\_R3 |
| --- | --- | --- | --- | --- | --- | --- |
| A\_P1 | 0.000 | 0.907 | -0.268 | -0.292 | -0.327 | 0.214 |
| B\_P2 | 0.907 | 0.000 | -0.242 | -0.376 | 0.067 | -0.370 |
| C\_P3 | -0.268 | -0.242 | 0.000 | 0.249 | 0.380 | 0.263 |
| D\_R1 | -0.292 | -0.376 | 0.249 | 0.000 | 0.186 | 0.156 |
| E\_R2 | -0.327 | 0.067 | 0.380 | 0.186 | 0.000 | -0.293 |
| F\_R3 | 0.214 | -0.370 | 0.263 | 0.156 | -0.293 | 0.000 |

# Modified 2 Factor Model

Summary output from the model is shown for the preregistered criteria (Selected sample with original baseline from -10 to 0 s) in column 4), and the modified criteria used in the main analysis (Full sample with baseline from -5 to 2 s) in column 1.

Model is specified in lavaan syntax as:f1 =~ A\_P1+B\_P2+C\_P3 +E\_R2, f2 =~ NA\*F\_R3+C\_P3+D\_R1+E\_R2, f2~~1f2

|  | 1 | 2 | 3 | 4 |
| --- | --- | --- | --- | --- |
| Sample | Full | Selected | Full | Selected |
| Baseline | -5 to 2 | -5 to 2 | -10 to 0 | -10 to 0 |
| N participants | 209 | 189 | 208 | 188 |
| Fac 1 -> A\_P1 |  |  |  |  |
| Fac 1 -> B\_P2 | 1.00 [0.00] | 1.00 [0.00] | 1.00 [0.00] | 1.00 [0.00] |
| Fac 1 -> C\_P3 | 0.44 [0.07] | 0.41 [0.07] | 0.37 [0.06] | 0.35 [0.06] |
| Fac 1 -> E\_R2 | 0.17 [0.11] | 0.15 [0.11] | 0.13 [0.09] | 0.12 [0.09] |
| Fac 2 -> C\_P3 | 0.84 [0.13] | 0.86 [0.14] | 0.86 [0.12] | 0.87 [0.12] |
| Fac 2 -> D\_R1 | 1.03 [0.12] | 1.06 [0.13] | 0.97 [0.10] | 0.97 [0.10] |
| Fac 2 -> E\_R2 | 1.94 [0.23] | 1.95 [0.24] | 1.83 [0.21] | 1.84 [0.22] |
| Fac 2 -> F\_R3 | 1.41 [0.19] | 1.38 [0.20] | 1.23 [0.18] | 1.19 [0.19] |
| Fac 1 <-> Fac 2 | 0.67 [0.18] | 0.64 [0.19] | 0.67 [0.19] | 0.63 [0.21] |
| CFI | 1.00 | 1.00 | 1.00 | 1.00 |
| TLI | 1.01 | 1.02 | 0.99 | 1.00 |
| SRMR | 0.04 | 0.04 | 0.05 | 0.05 |
| RMSEA [95% CI] | 0.00 [ 0.00- 0.08] | 0.00 [ 0.00- 0.07] | 0.03 [ 0.00- 0.10] | 0.02 [ 0.00- 0.10] |
| chisq | 4.92, p = 0.550 | 3.96, p = 0.680 | 7.24, p = 0.300 | 6.27, p = 0.390 |
| robust chisq | 14.09, p = 0.030 | 11.67, p = 0.070 | 16.52, p = 0.010 | 14.18, p = 0.030 |
| DF | 6.00 | 6.00 | 6.00 | 6.00 |

The detailed fit statistics for this model, with the final criteria (Full sample with baseline -5 to 2s) are shown below.

## Unstandardized path estimates

| lhs | op | rhs | est | se | z | pvalue | ci.lower | ci.upper |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| f1 | =~ | B\_P2 | 1.000 | 0.000 | NA | NA | 1.000 | 1.000 |
| f1 | =~ | A\_P1 | 0.783 | 0.097 | 8.063 | 0.000 | 0.593 | 0.974 |
| f1 | =~ | C\_P3 | 0.439 | 0.069 | 6.395 | 0.000 | 0.305 | 0.574 |
| f1 | =~ | E\_R2 | 0.173 | 0.108 | 1.599 | 0.110 | -0.039 | 0.386 |
| f2 | =~ | F\_R3 | 1.411 | 0.190 | 7.441 | 0.000 | 1.040 | 1.783 |
| f2 | =~ | C\_P3 | 0.841 | 0.132 | 6.361 | 0.000 | 0.582 | 1.100 |
| f2 | =~ | D\_R1 | 1.029 | 0.120 | 8.591 | 0.000 | 0.794 | 1.264 |
| f2 | =~ | E\_R2 | 1.944 | 0.230 | 8.462 | 0.000 | 1.493 | 2.394 |
| f2 | ~~ | f2 | 1.000 | 0.000 | NA | NA | 1.000 | 1.000 |
| B\_P2 | ~~ | B\_P2 | 1.017 | 0.357 | 2.849 | 0.004 | 0.317 | 1.717 |
| A\_P1 | ~~ | A\_P1 | 1.361 | 0.279 | 4.875 | 0.000 | 0.814 | 1.908 |
| C\_P3 | ~~ | C\_P3 | 0.890 | 0.150 | 5.918 | 0.000 | 0.595 | 1.184 |
| E\_R2 | ~~ | E\_R2 | 1.035 | 0.392 | 2.638 | 0.008 | 0.266 | 1.804 |
| F\_R3 | ~~ | F\_R3 | 2.135 | 0.526 | 4.058 | 0.000 | 1.104 | 3.166 |
| D\_R1 | ~~ | D\_R1 | 1.224 | 0.212 | 5.771 | 0.000 | 0.808 | 1.640 |
| f1 | ~~ | f1 | 3.295 | 0.563 | 5.856 | 0.000 | 2.193 | 4.398 |
| f1 | ~~ | f2 | 0.671 | 0.179 | 3.755 | 0.000 | 0.321 | 1.022 |

## Standardized path estimates

| lhs | op | rhs | est | se | z | pvalue | ci.lower | ci.upper |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| f1 | =~ | B\_P2 | 1.000 | 0.000 | NA | NA | 1.000 | 1.000 |
| f1 | =~ | A\_P1 | 0.783 | 0.097 | 8.063 | 0.000 | 0.593 | 0.974 |
| f1 | =~ | C\_P3 | 0.439 | 0.069 | 6.395 | 0.000 | 0.305 | 0.574 |
| f1 | =~ | E\_R2 | 0.173 | 0.108 | 1.599 | 0.110 | -0.039 | 0.386 |
| f2 | =~ | F\_R3 | 1.411 | 0.190 | 7.441 | 0.000 | 1.040 | 1.783 |
| f2 | =~ | C\_P3 | 0.841 | 0.132 | 6.361 | 0.000 | 0.582 | 1.100 |
| f2 | =~ | D\_R1 | 1.029 | 0.120 | 8.591 | 0.000 | 0.794 | 1.264 |
| f2 | =~ | E\_R2 | 1.944 | 0.230 | 8.462 | 0.000 | 1.493 | 2.394 |
| f2 | ~~ | f2 | 1.000 | 0.000 | NA | NA | 1.000 | 1.000 |
| B\_P2 | ~~ | B\_P2 | 1.017 | 0.357 | 2.849 | 0.004 | 0.317 | 1.717 |
| A\_P1 | ~~ | A\_P1 | 1.361 | 0.279 | 4.875 | 0.000 | 0.814 | 1.908 |
| C\_P3 | ~~ | C\_P3 | 0.890 | 0.150 | 5.918 | 0.000 | 0.595 | 1.184 |
| E\_R2 | ~~ | E\_R2 | 1.035 | 0.392 | 2.638 | 0.008 | 0.266 | 1.804 |
| F\_R3 | ~~ | F\_R3 | 2.135 | 0.526 | 4.058 | 0.000 | 1.104 | 3.166 |
| D\_R1 | ~~ | D\_R1 | 1.224 | 0.212 | 5.771 | 0.000 | 0.808 | 1.640 |
| f1 | ~~ | f1 | 3.295 | 0.563 | 5.856 | 0.000 | 2.193 | 4.398 |
| f1 | ~~ | f2 | 0.671 | 0.179 | 3.755 | 0.000 | 0.321 | 1.022 |

## Model-implied fitted covariance matrix

| Variable | cov.B\_P2 | cov.A\_P1 | cov.C\_P3 | cov.E\_R2 | cov.F\_R3 | cov.D\_R1 |
| --- | --- | --- | --- | --- | --- | --- |
| B\_P2 | 4.313 | 2.582 | 2.012 | 1.876 | 0.947 | 0.691 |
| A\_P1 | 2.582 | 3.384 | 1.576 | 1.469 | 0.742 | 0.541 |
| C\_P3 | 2.012 | 1.576 | 2.728 | 2.556 | 1.603 | 1.168 |
| E\_R2 | 1.876 | 1.469 | 2.556 | 5.364 | 2.907 | 2.119 |
| F\_R3 | 0.947 | 0.742 | 1.603 | 2.907 | 4.127 | 1.452 |
| D\_R1 | 0.691 | 0.541 | 1.168 | 2.119 | 1.452 | 2.282 |

## Unstandardized residuals of fitted model

| Variable | cov.B\_P2 | cov.A\_P1 | cov.C\_P3 | cov.E\_R2 | cov.F\_R3 | cov.D\_R1 |
| --- | --- | --- | --- | --- | --- | --- |
| B\_P2 | 0.000 | 0.000 | 0.029 | 0.198 | -0.111 | -0.199 |
| A\_P1 | 0.000 | 0.000 | -0.024 | -0.197 | 0.433 | -0.141 |
| C\_P3 | 0.029 | -0.024 | 0.000 | 0.004 | -0.030 | 0.023 |
| E\_R2 | 0.198 | -0.197 | 0.004 | 0.000 | -0.197 | 0.228 |
| F\_R3 | -0.111 | 0.433 | -0.030 | -0.197 | 0.000 | 0.003 |
| D\_R1 | -0.199 | -0.141 | 0.023 | 0.228 | 0.003 | 0.000 |

## Exploratory analysis leading to modified two-factor model

Exploratory analysis used a random half of the sample, and took mean LIs for odd and even trials to ensure model identification. We started with the bifactor model of Woodhead et al. (2021) and dropped nonsignificant paths, which gave the final modified two-factor model.  
The model syntax was specified in lavaan:

f1 =~ NA \* B\_o + equal(“f1=~B\_o”) \* B\_e+  
a \* A\_o + a \* A\_e +  
c \* C\_o + c \* C\_e +  
e \* E\_o + e \* E\_e  
f2 =~ NA \* D\_o + equal(“f2=~D\_o”) \* D\_e +  
c \* C\_o + c \* C\_e +  
e2 \* E\_o + e2 \* E\_e+  
f2 \* F\_o + f2 \* F\_e  
f1 ~~ 1 \* f1  
f2 ~~ 1 \* f2  
A\_o ~~ av \* A\_o #equate variances for odds and evens  
A\_e ~~ av \* A\_e  
B\_o ~~ bv \* B\_o  
B\_e ~~ bv \* B\_e  
C\_o ~~ cv \* C\_o  
C\_e ~~ cv \* C\_e  
D\_o ~~ dv \* D\_o  
D\_e ~~ dv \* D\_e  
E\_o ~~ ev \* E\_o  
E\_e ~~ ev \* E\_e  
F\_o ~~ fv \* F\_o  
F\_e ~~ fv \* F\_e’

Note that the \_e and \_o subscripts refer to laterality indices computed from odd and even trials for each task. The paths to the factors and the variances are equated across odd and even versions of each laterality index. Summary output with the initial test sample was as follows:

## lavaan 0.6-7 ended normally after 46 iterations  
##   
## Estimator DWLS  
## Optimization method NLMINB  
## Number of free parameters 29  
## Number of equality constraints 15  
##   
## Number of observations 98  
##   
## Model Test User Model:  
## Standard Robust  
## Test Statistic 29.252 75.482  
## Degrees of freedom 64 64  
## P-value (Chi-square) 1.000 0.154  
## Scaling correction factor 0.694  
## Shift parameter 33.354  
## simple second-order correction   
##   
## Parameter Estimates:  
##   
## Standard errors Robust.sem  
## Information Expected  
## Information saturated (h1) model Unstructured  
##   
## Latent Variables:  
## Estimate Std.Err z-value P(>|z|)  
## f1 =~   
## B\_o (.p1.) 1.768 0.213 8.319 0.000  
## B\_e (f1=~) 1.768 0.213 8.319 0.000  
## A\_o (a) 1.404 0.185 7.591 0.000  
## A\_e (a) 1.404 0.185 7.591 0.000  
## C\_o (c) 0.856 0.093 9.179 0.000  
## C\_e (c) 0.856 0.093 9.179 0.000  
## E\_o (e) 0.331 0.170 1.950 0.051  
## E\_e (e) 0.331 0.170 1.950 0.051  
## f2 =~   
## D\_o (.p9.) 1.048 0.134 7.823 0.000  
## D\_e (f2=~) 1.048 0.134 7.823 0.000  
## C\_o (c) 0.856 0.093 9.179 0.000  
## C\_e (c) 0.856 0.093 9.179 0.000  
## E\_o (e2) 1.703 0.200 8.533 0.000  
## E\_e (e2) 1.703 0.200 8.533 0.000  
## F\_o (f2) 1.729 0.175 9.876 0.000  
## F\_e (f2) 1.729 0.175 9.876 0.000  
##   
## Covariances:  
## Estimate Std.Err z-value P(>|z|)  
## f1 ~~   
## f2 0.317 0.105 3.007 0.003  
##   
## Variances:  
## Estimate Std.Err z-value P(>|z|)  
## f1 1.000   
## f2 1.000   
## .A\_o (av) 1.544 0.273 5.660 0.000  
## .A\_e (av) 1.544 0.273 5.660 0.000  
## .B\_o (bv) 1.369 0.355 3.854 0.000  
## .B\_e (bv) 1.369 0.355 3.854 0.000  
## .C\_o (cv) 1.105 0.261 4.235 0.000  
## .C\_e (cv) 1.105 0.261 4.235 0.000  
## .D\_o (dv) 1.297 0.180 7.227 0.000  
## .D\_e (dv) 1.297 0.180 7.227 0.000  
## .E\_o (ev) 1.464 0.208 7.041 0.000  
## .E\_e (ev) 1.464 0.208 7.041 0.000  
## .F\_o (fv) 1.597 0.280 5.693 0.000  
## .F\_e (fv) 1.597 0.280 5.693 0.000

## cfi tli srmr rmsea chisq df   
## 1.000 1.037 0.075 0.000 29.252 64.000

For the holdout sample, the summary was:

## lavaan 0.6-7 ended normally after 46 iterations  
##   
## Estimator DWLS  
## Optimization method NLMINB  
## Number of free parameters 29  
## Number of equality constraints 15  
##   
## Number of observations 98  
##   
## Model Test User Model:  
## Standard Robust  
## Test Statistic 29.252 75.482  
## Degrees of freedom 64 64  
## P-value (Chi-square) 1.000 0.154  
## Scaling correction factor 0.694  
## Shift parameter 33.354  
## simple second-order correction   
##   
## Parameter Estimates:  
##   
## Standard errors Robust.sem  
## Information Expected  
## Information saturated (h1) model Unstructured  
##   
## Latent Variables:  
## Estimate Std.Err z-value P(>|z|)  
## f1 =~   
## B\_o (.p1.) 1.768 0.213 8.319 0.000  
## B\_e (f1=~) 1.768 0.213 8.319 0.000  
## A\_o (a) 1.404 0.185 7.591 0.000  
## A\_e (a) 1.404 0.185 7.591 0.000  
## C\_o (c) 0.856 0.093 9.179 0.000  
## C\_e (c) 0.856 0.093 9.179 0.000  
## E\_o (e) 0.331 0.170 1.950 0.051  
## E\_e (e) 0.331 0.170 1.950 0.051  
## f2 =~   
## D\_o (.p9.) 1.048 0.134 7.823 0.000  
## D\_e (f2=~) 1.048 0.134 7.823 0.000  
## C\_o (c) 0.856 0.093 9.179 0.000  
## C\_e (c) 0.856 0.093 9.179 0.000  
## E\_o (e2) 1.703 0.200 8.533 0.000  
## E\_e (e2) 1.703 0.200 8.533 0.000  
## F\_o (f2) 1.729 0.175 9.876 0.000  
## F\_e (f2) 1.729 0.175 9.876 0.000  
##   
## Covariances:  
## Estimate Std.Err z-value P(>|z|)  
## f1 ~~   
## f2 0.317 0.105 3.007 0.003  
##   
## Variances:  
## Estimate Std.Err z-value P(>|z|)  
## f1 1.000   
## f2 1.000   
## .A\_o (av) 1.544 0.273 5.660 0.000  
## .A\_e (av) 1.544 0.273 5.660 0.000  
## .B\_o (bv) 1.369 0.355 3.854 0.000  
## .B\_e (bv) 1.369 0.355 3.854 0.000  
## .C\_o (cv) 1.105 0.261 4.235 0.000  
## .C\_e (cv) 1.105 0.261 4.235 0.000  
## .D\_o (dv) 1.297 0.180 7.227 0.000  
## .D\_e (dv) 1.297 0.180 7.227 0.000  
## .E\_o (ev) 1.464 0.208 7.041 0.000  
## .E\_e (ev) 1.464 0.208 7.041 0.000  
## .F\_o (fv) 1.597 0.280 5.693 0.000  
## .F\_e (fv) 1.597 0.280 5.693 0.000

## cfi tli srmr rmsea chisq df   
## 1.000 1.037 0.075 0.000 29.252 64.000

# Model equivalence for left- and right-handers

##   
##   
## Left-handers

| Covariances | A\_P1 | B\_P2 | C\_P3 | D\_R1 | E\_R2 | F\_R3 |
| --- | --- | --- | --- | --- | --- | --- |
| A\_P1 | 3.571 | 2.749 | 1.763 | 0.233 | 1.309 | 1.190 |
| B\_P2 | 2.749 | 4.756 | 2.374 | 0.361 | 2.337 | 0.221 |
| C\_P3 | 1.763 | 2.374 | 3.006 | 1.143 | 2.764 | 1.519 |
| D\_R1 | 0.233 | 0.361 | 1.143 | 1.996 | 2.002 | 1.177 |
| E\_R2 | 1.309 | 2.337 | 2.764 | 2.002 | 5.203 | 2.532 |
| F\_R3 | 1.190 | 0.221 | 1.519 | 1.177 | 2.532 | 4.620 |
| Means | 1.256 | 1.482 | 0.608 | -0.500 | 0.245 | -0.256 |

##   
##   
## Right-handers

| Covariances | A\_P1 | B\_P2 | C\_P3 | D\_R1 | E\_R2 | F\_R3 |
| --- | --- | --- | --- | --- | --- | --- |
| A\_P1 | 2.928 | 2.023 | 1.154 | 0.552 | 0.966 | 1.109 |
| B\_P2 | 2.023 | 3.297 | 1.439 | 0.587 | 1.405 | 1.442 |
| C\_P3 | 1.154 | 1.439 | 2.334 | 1.232 | 2.182 | 1.611 |
| D\_R1 | 0.552 | 0.587 | 1.232 | 2.619 | 2.716 | 1.770 |
| E\_R2 | 0.966 | 1.405 | 2.182 | 2.716 | 5.319 | 2.875 |
| F\_R3 | 1.109 | 1.442 | 1.611 | 1.770 | 2.875 | 3.608 |
| Means | 1.985 | 2.515 | 1.068 | -0.401 | 0.969 | -0.097 |

The tables below show the factor loadings and fit measures for the sequence of models used to test model invariance, with estimates for left-handers in columns denoted by \_L, and those for right-handers in columns denoted by \_R.

No equality constraints

| Estimates | est\_L | se\_L | est\_R | se\_R |
| --- | --- | --- | --- | --- |
| Parameter Estimates |  |  |  |  |
| f1=~A\_P1 | 1.00 | 0.00 | 1.00 | 0.00 |
| f1=~B\_P2 | 1.32 | 0.22 | 1.26 | 0.25 |
| f1=~C\_P3 | 0.69 | 0.11 | 0.39 | 0.15 |
| f1=~E\_R2 | 0.40 | 0.16 | -0.15 | 0.25 |
| f2=~F\_R3 | 1.00 | 0.00 | 1.00 | 0.00 |
| f2=~C\_P3 | 0.68 | 0.22 | 0.55 | 0.15 |
| f2=~D\_R1 | 0.73 | 0.19 | 0.73 | 0.12 |
| f2=~E\_R2 | 1.43 | 0.45 | 1.38 | 0.27 |
| A\_P1~~A\_P1 | 1.48 | 0.43 | 1.32 | 0.33 |
| B\_P2~~B\_P2 | 1.11 | 0.48 | 0.74 | 0.52 |
| C\_P3~~C\_P3 | 0.77 | 0.21 | 0.97 | 0.21 |
| E\_R2~~E\_R2 | 0.84 | 0.62 | 1.17 | 0.47 |
| F\_R3~~F\_R3 | 2.93 | 0.87 | 1.25 | 0.37 |
| D\_R1~~D\_R1 | 1.10 | 0.31 | 1.38 | 0.31 |
| f1~~f1 | 2.09 | 0.50 | 1.61 | 0.51 |
| f2~~f2 | 1.69 | 0.81 | 2.36 | 0.57 |
| f1~~f2 | 0.50 | 0.30 | 0.95 | 0.33 |
| A\_P1~1 | 1.26 | 0.18 | 1.98 | 0.17 |
| B\_P2~1 | 1.48 | 0.21 | 2.51 | 0.18 |
| C\_P3~1 | 0.61 | 0.17 | 1.07 | 0.15 |
| E\_R2~1 | 0.25 | 0.22 | 0.97 | 0.23 |
| F\_R3~1 | -0.26 | 0.20 | -0.10 | 0.19 |
| D\_R1~1 | -0.50 | 0.13 | -0.40 | 0.16 |
| f1~1 | 0.00 | 0.00 | 0.00 | 0.00 |
| f2~1 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fit measures |  |  |  |  |
| CFI | 1 |  |  |  |
| TLI | 1.028 |  |  |  |
| SRMR | 0.041 |  |  |  |
| rmsea | 0 |  |  |  |
| rmsea.ci.lower | 0 |  |  |  |
| rmsea.ci.upper | 0.059 |  |  |  |
| chisq | 7.272 |  |  |  |
| df | 12 |  |  |  |
| pvalue | 0.839 |  |  |  |
| chisq.scaled | 20.726 |  |  |  |
| pvalue.scaled | 0.055 |  |  |  |

Equal loadings

| Estimates | est\_L | se\_L | est\_R | se\_R |
| --- | --- | --- | --- | --- |
| Parameter Estimates |  |  |  |  |
| f1=~A\_P1 | 1.00 | 0.00 | 1.00 | 0.00 |
| f1=~B\_P2 | 1.26 | 0.16 | 1.26 | 0.16 |
| f1=~C\_P3 | 0.63 | 0.10 | 0.63 | 0.10 |
| f1=~E\_R2 | 0.31 | 0.13 | 0.31 | 0.13 |
| f2=~F\_R3 | 1.00 | 0.00 | 1.00 | 0.00 |
| f2=~C\_P3 | 0.50 | 0.11 | 0.50 | 0.11 |
| f2=~D\_R1 | 0.72 | 0.10 | 0.72 | 0.10 |
| f2=~E\_R2 | 1.16 | 0.20 | 1.16 | 0.20 |
| A\_P1~~A\_P1 | 1.26 | 0.40 | 1.59 | 0.28 |
| B\_P2~~B\_P2 | 1.07 | 0.48 | 1.17 | 0.39 |
| C\_P3~~C\_P3 | 1.16 | 0.28 | 0.72 | 0.22 |
| E\_R2~~E\_R2 | 1.68 | 0.59 | 1.44 | 0.61 |
| F\_R3~~F\_R3 | 2.51 | 0.68 | 1.24 | 0.43 |
| D\_R1~~D\_R1 | 0.92 | 0.36 | 1.40 | 0.34 |
| f1~~f1 | 2.31 | 0.45 | 1.33 | 0.38 |
| f2~~f2 | 2.11 | 0.63 | 2.37 | 0.58 |
| f1~~f2 | 0.65 | 0.29 | 0.78 | 0.30 |
| A\_P1~1 | 1.26 | 0.18 | 1.98 | 0.17 |
| B\_P2~1 | 1.48 | 0.21 | 2.51 | 0.18 |
| C\_P3~1 | 0.61 | 0.17 | 1.07 | 0.15 |
| E\_R2~1 | 0.25 | 0.22 | 0.97 | 0.23 |
| F\_R3~1 | -0.26 | 0.20 | -0.10 | 0.19 |
| D\_R1~1 | -0.50 | 0.13 | -0.40 | 0.16 |
| f1~1 | 0.00 | 0.00 | 0.00 | 0.00 |
| f2~1 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fit measures |  |  |  |  |
| CFI | 1 |  |  |  |
| TLI | 1.023 |  |  |  |
| SRMR | 0.057 |  |  |  |
| rmsea | 0 |  |  |  |
| rmsea.ci.lower | 0 |  |  |  |
| rmsea.ci.upper | 0.052 |  |  |  |
| chisq | 12.175 |  |  |  |
| df | 18 |  |  |  |
| pvalue | 0.838 |  |  |  |
| chisq.scaled | 27.083 |  |  |  |
| pvalue.scaled | 0.077 |  |  |  |

Equal loadings and intercepts

| Estimates | est\_L | se\_L | est\_R | se\_R |
| --- | --- | --- | --- | --- |
| Parameter Estimates |  |  |  |  |
| f1=~A\_P1 | 1.00 | 0.00 | 1.00 | 0.00 |
| f1=~B\_P2 | 1.28 | 0.15 | 1.28 | 0.15 |
| f1=~C\_P3 | 0.62 | 0.09 | 0.62 | 0.09 |
| f1=~E\_R2 | 0.35 | 0.12 | 0.35 | 0.12 |
| f2=~F\_R3 | 1.00 | 0.00 | 1.00 | 0.00 |
| f2=~C\_P3 | 0.51 | 0.11 | 0.51 | 0.11 |
| f2=~D\_R1 | 0.72 | 0.10 | 0.72 | 0.10 |
| f2=~E\_R2 | 1.14 | 0.20 | 1.14 | 0.20 |
| A\_P1~~A\_P1 | 1.28 | 0.41 | 1.62 | 0.28 |
| B\_P2~~B\_P2 | 0.98 | 0.47 | 1.13 | 0.38 |
| C\_P3~~C\_P3 | 1.20 | 0.27 | 0.74 | 0.22 |
| E\_R2~~E\_R2 | 1.67 | 0.58 | 1.46 | 0.61 |
| F\_R3~~F\_R3 | 2.49 | 0.68 | 1.22 | 0.43 |
| D\_R1~~D\_R1 | 0.91 | 0.36 | 1.40 | 0.35 |
| f1~~f1 | 2.29 | 0.44 | 1.31 | 0.37 |
| f2~~f2 | 2.13 | 0.64 | 2.38 | 0.58 |
| f1~~f2 | 0.62 | 0.29 | 0.77 | 0.30 |
| A\_P1~1 | 1.24 | 0.17 | 1.24 | 0.17 |
| B\_P2~1 | 1.52 | 0.20 | 1.52 | 0.20 |
| C\_P3~1 | 0.55 | 0.15 | 0.55 | 0.15 |
| E\_R2~1 | 0.35 | 0.21 | 0.35 | 0.21 |
| F\_R3~1 | -0.28 | 0.18 | -0.28 | 0.18 |
| D\_R1~1 | -0.52 | 0.13 | -0.52 | 0.13 |
| f1~1 | 0.00 | 0.00 | 0.76 | 0.21 |
| f2~1 | 0.00 | 0.00 | 0.21 | 0.24 |
| Fit measures |  |  |  |  |
| CFI | 1 |  |  |  |
| TLI | 1.029 |  |  |  |
| SRMR | 0.058 |  |  |  |
| rmsea | 0 |  |  |  |
| rmsea.ci.lower | 0 |  |  |  |
| rmsea.ci.upper | 0.025 |  |  |  |
| chisq | 13.133 |  |  |  |
| df | 22 |  |  |  |
| pvalue | 0.929 |  |  |  |
| chisq.scaled | 30.303 |  |  |  |
| pvalue.scaled | 0.111 |  |  |  |

Equal loadings, intercepts and factor covariance

| Estimates | est\_L | se\_L | est\_R | se\_R |
| --- | --- | --- | --- | --- |
| Parameter Estimates |  |  |  |  |
| f1=~A\_P1 | 1.00 | 0.00 | 1.00 | 0.00 |
| f1=~B\_P2 | 1.28 | 0.15 | 1.28 | 0.15 |
| f1=~C\_P3 | 0.60 | 0.10 | 0.60 | 0.10 |
| f1=~E\_R2 | 0.31 | 0.14 | 0.31 | 0.14 |
| f2=~F\_R3 | 1.00 | 0.00 | 1.00 | 0.00 |
| f2=~C\_P3 | 0.53 | 0.11 | 0.53 | 0.11 |
| f2=~D\_R1 | 0.72 | 0.11 | 0.72 | 0.11 |
| f2=~E\_R2 | 1.19 | 0.21 | 1.19 | 0.21 |
| A\_P1~~A\_P1 | 1.30 | 0.42 | 1.55 | 0.31 |
| B\_P2~~B\_P2 | 1.03 | 0.47 | 1.05 | 0.46 |
| C\_P3~~C\_P3 | 1.18 | 0.28 | 0.75 | 0.22 |
| E\_R2~~E\_R2 | 1.59 | 0.58 | 1.35 | 0.63 |
| F\_R3~~F\_R3 | 2.58 | 0.67 | 1.25 | 0.44 |
| D\_R1~~D\_R1 | 0.94 | 0.35 | 1.40 | 0.35 |
| f1~~f1 | 2.27 | 0.45 | 1.37 | 0.43 |
| f2~~f2 | 2.04 | 0.65 | 2.36 | 0.58 |
| f1~~f2 | 0.71 | 0.22 | 0.71 | 0.22 |
| A\_P1~1 | 1.24 | 0.17 | 1.24 | 0.17 |
| B\_P2~1 | 1.52 | 0.21 | 1.52 | 0.21 |
| C\_P3~1 | 0.55 | 0.15 | 0.55 | 0.15 |
| E\_R2~1 | 0.35 | 0.21 | 0.35 | 0.21 |
| F\_R3~1 | -0.29 | 0.18 | -0.29 | 0.18 |
| D\_R1~1 | -0.52 | 0.13 | -0.52 | 0.13 |
| f1~1 | 0.00 | 0.00 | 0.76 | 0.21 |
| f2~1 | 0.00 | 0.00 | 0.22 | 0.23 |
| Fit measures |  |  |  |  |
| CFI | 1 |  |  |  |
| TLI | 1.029 |  |  |  |
| SRMR | 0.058 |  |  |  |
| rmsea | 0 |  |  |  |
| rmsea.ci.lower | 0 |  |  |  |
| rmsea.ci.upper | 0.018 |  |  |  |
| chisq | 13.527 |  |  |  |
| df | 23 |  |  |  |
| pvalue | 0.94 |  |  |  |
| chisq.scaled | 25.286 |  |  |  |
| pvalue.scaled | 0.336 |  |  |  |

Equal loadings, intercepts, factor covariance and factor means

| Estimates | est\_L | se\_L | est\_R | se\_R |
| --- | --- | --- | --- | --- |
| Parameter Estimates |  |  |  |  |
| f1=~A\_P1 | 1.00 | 0.00 | 1.00 | 0.00 |
| f1=~B\_P2 | 1.26 | 0.16 | 1.26 | 0.16 |
| f1=~C\_P3 | 0.61 | 0.11 | 0.61 | 0.11 |
| f1=~E\_R2 | 0.27 | 0.16 | 0.27 | 0.16 |
| f2=~F\_R3 | 1.00 | 0.00 | 1.00 | 0.00 |
| f2=~C\_P3 | 0.52 | 0.11 | 0.52 | 0.11 |
| f2=~D\_R1 | 0.72 | 0.11 | 0.72 | 0.11 |
| f2=~E\_R2 | 1.21 | 0.22 | 1.21 | 0.22 |
| A\_P1~~A\_P1 | 1.28 | 0.41 | 1.54 | 0.31 |
| B\_P2~~B\_P2 | 1.12 | 0.47 | 1.10 | 0.46 |
| C\_P3~~C\_P3 | 1.14 | 0.28 | 0.72 | 0.22 |
| E\_R2~~E\_R2 | 1.59 | 0.59 | 1.33 | 0.63 |
| F\_R3~~F\_R3 | 2.59 | 0.67 | 1.27 | 0.43 |
| D\_R1~~D\_R1 | 0.95 | 0.36 | 1.41 | 0.34 |
| f1~~f1 | 2.29 | 0.46 | 1.39 | 0.44 |
| f2~~f2 | 2.03 | 0.65 | 2.34 | 0.58 |
| f1~~f2 | 0.72 | 0.23 | 0.72 | 0.23 |
| A\_P1~1 | 1.64 | 0.12 | 1.64 | 0.12 |
| B\_P2~1 | 2.07 | 0.14 | 2.07 | 0.14 |
| C\_P3~1 | 0.85 | 0.11 | 0.85 | 0.11 |
| E\_R2~1 | 0.58 | 0.16 | 0.58 | 0.16 |
| F\_R3~1 | -0.17 | 0.14 | -0.17 | 0.14 |
| D\_R1~1 | -0.46 | 0.10 | -0.46 | 0.10 |
| f1~1 | 0.00 | 0.00 | 0.00 | 0.00 |
| f2~1 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fit measures |  |  |  |  |
| CFI | 0.953 |  |  |  |
| TLI | 0.943 |  |  |  |
| SRMR | 0.095 |  |  |  |
| rmsea | 0.088 |  |  |  |
| rmsea.ci.lower | 0.044 |  |  |  |
| rmsea.ci.upper | 0.128 |  |  |  |
| chisq | 44.882 |  |  |  |
| df | 25 |  |  |  |
| pvalue | 0.009 |  |  |  |
| chisq.scaled | 57.679 |  |  |  |
| pvalue.scaled | 0 |  |  |  |