OCTO : Seed Report

Date: 2017-01-26

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This report contains a searchable table, followed by publication-ready tables.

# Available models

Study **OCTO** have contributed the following outcome pairs to the IASLA-2015-Portland model pool: NULL

|  |  |  |
| --- | --- | --- |
| process\_a | process\_b | n\_models |
| grip | block | 8 |
| grip | clock | 8 |
| grip | digit\_b | 8 |
| grip | digit\_f | 8 |
| grip | fig\_logic | 8 |
| grip | information | 8 |
| grip | mir | 8 |
| grip | mir\_recog | 8 |
| grip | mmse | 8 |
| grip | prose\_im | 8 |
| grip | psif | 8 |
| grip | symbol | 8 |
| grip | synonyms | 8 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| study\_name | subgroup | model\_type | process\_a | process\_b | n\_models |
| octo | female | a | grip | block | 1 |
| octo | female | a | grip | clock | 1 |
| octo | female | a | grip | digit\_b | 1 |
| octo | female | a | grip | digit\_f | 1 |
| octo | female | a | grip | fig\_logic | 1 |
| octo | female | a | grip | information | 1 |
| octo | female | a | grip | mir | 1 |
| octo | female | a | grip | mir\_recog | 1 |
| octo | female | a | grip | mmse | 1 |
| octo | female | a | grip | prose\_im | 1 |
| octo | female | a | grip | psif | 1 |
| octo | female | a | grip | symbol | 1 |
| octo | female | a | grip | synonyms | 1 |
| octo | female | ae | grip | block | 1 |
| octo | female | ae | grip | clock | 1 |
| octo | female | ae | grip | digit\_b | 1 |
| octo | female | ae | grip | digit\_f | 1 |
| octo | female | ae | grip | fig\_logic | 1 |
| octo | female | ae | grip | information | 1 |
| octo | female | ae | grip | mir | 1 |
| octo | female | ae | grip | mir\_recog | 1 |
| octo | female | ae | grip | mmse | 1 |
| octo | female | ae | grip | prose\_im | 1 |
| octo | female | ae | grip | psif | 1 |
| octo | female | ae | grip | symbol | 1 |
| octo | female | ae | grip | synonyms | 1 |
| octo | female | aeh | grip | block | 1 |
| octo | female | aeh | grip | clock | 1 |
| octo | female | aeh | grip | digit\_b | 1 |
| octo | female | aeh | grip | digit\_f | 1 |
| octo | female | aeh | grip | fig\_logic | 1 |
| octo | female | aeh | grip | information | 1 |
| octo | female | aeh | grip | mir | 1 |
| octo | female | aeh | grip | mir\_recog | 1 |
| octo | female | aeh | grip | mmse | 1 |
| octo | female | aeh | grip | prose\_im | 1 |
| octo | female | aeh | grip | psif | 1 |
| octo | female | aeh | grip | symbol | 1 |
| octo | female | aeh | grip | synonyms | 1 |
| octo | female | aehplus | grip | block | 1 |
| octo | female | aehplus | grip | clock | 1 |
| octo | female | aehplus | grip | digit\_b | 1 |
| octo | female | aehplus | grip | digit\_f | 1 |
| octo | female | aehplus | grip | fig\_logic | 1 |
| octo | female | aehplus | grip | information | 1 |
| octo | female | aehplus | grip | mir | 1 |
| octo | female | aehplus | grip | mir\_recog | 1 |
| octo | female | aehplus | grip | mmse | 1 |
| octo | female | aehplus | grip | prose\_im | 1 |
| octo | female | aehplus | grip | psif | 1 |
| octo | female | aehplus | grip | symbol | 1 |
| octo | female | aehplus | grip | synonyms | 1 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| study\_name | subgroup | model\_type | process\_a | process\_b | n\_models |
| octo | male | a | grip | block | 1 |
| octo | male | a | grip | clock | 1 |
| octo | male | a | grip | digit\_b | 1 |
| octo | male | a | grip | digit\_f | 1 |
| octo | male | a | grip | fig\_logic | 1 |
| octo | male | a | grip | information | 1 |
| octo | male | a | grip | mir | 1 |
| octo | male | a | grip | mir\_recog | 1 |
| octo | male | a | grip | mmse | 1 |
| octo | male | a | grip | prose\_im | 1 |
| octo | male | a | grip | psif | 1 |
| octo | male | a | grip | symbol | 1 |
| octo | male | a | grip | synonyms | 1 |
| octo | male | ae | grip | block | 1 |
| octo | male | ae | grip | clock | 1 |
| octo | male | ae | grip | digit\_b | 1 |
| octo | male | ae | grip | digit\_f | 1 |
| octo | male | ae | grip | fig\_logic | 1 |
| octo | male | ae | grip | information | 1 |
| octo | male | ae | grip | mir | 1 |
| octo | male | ae | grip | mir\_recog | 1 |
| octo | male | ae | grip | mmse | 1 |
| octo | male | ae | grip | prose\_im | 1 |
| octo | male | ae | grip | psif | 1 |
| octo | male | ae | grip | symbol | 1 |
| octo | male | ae | grip | synonyms | 1 |
| octo | male | aeh | grip | block | 1 |
| octo | male | aeh | grip | clock | 1 |
| octo | male | aeh | grip | digit\_b | 1 |
| octo | male | aeh | grip | digit\_f | 1 |
| octo | male | aeh | grip | fig\_logic | 1 |
| octo | male | aeh | grip | information | 1 |
| octo | male | aeh | grip | mir | 1 |
| octo | male | aeh | grip | mir\_recog | 1 |
| octo | male | aeh | grip | mmse | 1 |
| octo | male | aeh | grip | prose\_im | 1 |
| octo | male | aeh | grip | psif | 1 |
| octo | male | aeh | grip | symbol | 1 |
| octo | male | aeh | grip | synonyms | 1 |
| octo | male | aehplus | grip | block | 1 |
| octo | male | aehplus | grip | clock | 1 |
| octo | male | aehplus | grip | digit\_b | 1 |
| octo | male | aehplus | grip | digit\_f | 1 |
| octo | male | aehplus | grip | fig\_logic | 1 |
| octo | male | aehplus | grip | information | 1 |
| octo | male | aehplus | grip | mir | 1 |
| octo | male | aehplus | grip | mir\_recog | 1 |
| octo | male | aehplus | grip | mmse | 1 |
| octo | male | aehplus | grip | prose\_im | 1 |
| octo | male | aehplus | grip | psif | 1 |
| octo | male | aehplus | grip | symbol | 1 |
| octo | male | aehplus | grip | synonyms | 1 |

# female

Gender = *female*; Model type: *aehplus*; Process (a) = *grip*; Process (b): *block*, *clock*, *digit\_b*, *digit\_f*, *fig\_logic*, *information*, *mir*, *mir\_recog*, *mmse*, *prose\_im*, *psif*, *symbol*, *synonyms*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| process | label | block | clock | digit\_b | digit\_f | fig\_logic | information | mir | mir\_recog | mmse | prose\_im | psif | symbol | synonyms | mean(sd) |
| ab | Covar (Levels) | 3.01 (0.83) <.01 | 0.47 (0.28) .10 | -0.00 (0.14) .99 | -0.08 (0.12) .50 | 1.44 (0.46) <.01 | 2.99 (1.15) .01 | 0.45 (0.22) .04 | -0.09 (0.12) .44 | 0.11 (0.29) .69 | 0.71 (0.41) .08 | 1.13 (0.63) .07 | 2.57 (1.26) .04 | 0.94 (0.68) .16 | --- |
| ab | Covar (Slopes) | 0.05 (0.01) <.01 | 0.03 (0.01) .01 | -0.00 (0.00) .39 | 0.00 (0.00) .70 | 0.02 (0.01) .08 | 0.06 (0.02) .01 | 0.03 (0.01) <.01 | -0.00 (0.00) .67 | 0.07 (0.02) <.01 | 0.01 (0.01) .32 | 0.02 (0.03) .57 | 0.01 (0.02) .58 | 0.04 (0.02) .04 | --- |
| ab | Covar (Residuals) | 0.18 (0.20) .37 | 0.11 (0.13) .38 | 0.06 (0.06) .34 | 0.04 (0.04) .35 | 0.19 (0.16) .24 | -0.09 (0.21) .66 | 0.07 (0.07) .34 | 0.10 (0.05) .04 | 0.38 (0.19) .05 | 0.14 (0.16) .38 | 0.22 (0.20) .28 | 0.72 (0.32) .02 | -0.04 (0.16) .80 | --- |
| er | Corr (Levels) | 0.30 (0.08) <.01 | 0.19 (0.10) .06 | -0.00 (0.10) .99 | -0.06 (0.09) .50 | 0.29 (0.09) <.01 | 0.19 (0.07) .01 | 0.16 (0.08) .04 | -0.08 (0.10) .42 | 0.04 (0.11) .69 | 0.14 (0.08) .08 | 0.23 (0.14) .09 | 0.18 (0.08) .04 | 0.13 (0.09) .16 | --- |
| er | Corr (Slopes) | 0.76 (0.27) <.01 | 0.67 (0.18) <.01 | -0.44 (0.64) .49 | 0.12 (0.32) .70 | 0.60 (0.29) .04 | 0.78 (0.30) .01 | 0.63 (0.16) <.01 | -0.15 (0.33) .65 | 0.76 (0.14) <.01 | 0.37 (0.35) .29 | 0.49 (1.81) .79 | 0.17 (0.30) .58 | 0.69 (0.29) .02 | --- |
| er | Corr (Residuals) | 0.05 (0.05) .37 | 0.06 (0.07) .36 | 0.05 (0.05) .33 | 0.04 (0.05) .36 | 0.06 (0.05) .24 | -0.02 (0.05) .66 | 0.04 (0.05) .34 | 0.17 (0.06) .01 | 0.16 (0.07) .03 | 0.06 (0.06) .36 | 0.08 (0.07) .30 | 0.12 (0.05) .02 | -0.01 (0.06) .80 | --- |
| a | Level | 9.20 (0.26) <.01 | 9.19 (0.26) <.01 | 9.20 (0.26) <.01 | 9.20 (0.26) <.01 | 9.21 (0.26) <.01 | 9.20 (0.26) <.01 | 9.20 (0.26) <.01 | 9.20 (0.26) <.01 | 9.21 (0.26) <.01 | 9.21 (0.26) <.01 | 9.20 (0.27) <.01 | 9.21 (0.26) <.01 | 9.20 (0.26) <.01 | 9.20(0.01) |
| a | Slope | -0.34 (0.04) <.01 | -0.33 (0.04) <.01 | -0.34 (0.04) <.01 | -0.33 (0.04) <.01 | -0.34 (0.04) <.01 | -0.34 (0.04) <.01 | -0.34 (0.04) <.01 | -0.34 (0.04) <.01 | -0.33 (0.04) <.01 | -0.34 (0.04) <.01 | -0.34 (0.05) <.01 | -0.34 (0.04) <.01 | -0.34 (0.04) <.01 | -0.34(0.00) |
| a | Level \* age | -0.16 (0.04) <.01 | -0.16 (0.04) <.01 | -0.16 (0.04) <.01 | -0.16 (0.04) <.01 | -0.16 (0.04) <.01 | -0.16 (0.04) <.01 | -0.16 (0.04) <.01 | -0.16 (0.04) <.01 | -0.16 (0.04) <.01 | -0.16 (0.04) <.01 | -0.16 (0.04) <.01 | -0.16 (0.04) <.01 | -0.16 (0.04) <.01 | -0.16(0.00) |
| a | Level \* education | 0.16 (0.07) .03 | 0.17 (0.07) .02 | 0.17 (0.07) .02 | 0.17 (0.07) .02 | 0.17 (0.07) .02 | 0.17 (0.07) .03 | 0.17 (0.07) .03 | 0.17 (0.07) .03 | 0.17 (0.07) .03 | 0.17 (0.07) .02 | 0.16 (0.07) .03 | 0.17 (0.07) .02 | 0.17 (0.07) .02 | 0.17(0.00) |
| a | Level \* height | 9.16 (2.29) <.01 | 9.04 (2.29) <.01 | 9.02 (2.28) <.01 | 9.03 (2.27) <.01 | 8.98 (2.28) <.01 | 9.12 (2.28) <.01 | 9.10 (2.30) <.01 | 8.99 (2.29) <.01 | 9.04 (2.30) <.01 | 9.14 (2.28) <.01 | 8.85 (2.31) <.01 | 9.04 (2.28) <.01 | 9.02 (2.28) <.01 | 9.04(0.08) |
| a | Level \* smoking | -0.53 (0.33) .11 | -0.53 (0.33) .11 | -0.53 (0.33) .11 | -0.52 (0.33) .11 | -0.54 (0.33) .10 | -0.53 (0.33) .11 | -0.52 (0.33) .12 | -0.52 (0.33) .11 | -0.54 (0.33) .10 | -0.54 (0.33) .10 | -0.54 (0.33) .11 | -0.52 (0.33) .11 | -0.52 (0.33) .11 | -0.53(0.01) |
| a | Level \* cardio | -0.15 (0.25) .56 | -0.14 (0.25) .58 | -0.14 (0.25) .58 | -0.14 (0.25) .57 | -0.14 (0.25) .57 | -0.13 (0.25) .59 | -0.14 (0.25) .56 | -0.15 (0.25) .55 | -0.15 (0.25) .54 | -0.15 (0.25) .56 | -0.12 (0.25) .65 | -0.14 (0.25) .58 | -0.14 (0.25) .58 | -0.14(0.01) |
| a | Level \* diabetes | -0.01 (0.52) .98 | -0.02 (0.53) .97 | -0.02 (0.52) .97 | -0.04 (0.52) .94 | -0.01 (0.52) .98 | -0.02 (0.52) .97 | -0.01 (0.52) .98 | -0.04 (0.52) .94 | -0.04 (0.53) .94 | -0.01 (0.52) .98 | -0.06 (0.52) .90 | -0.01 (0.52) .98 | -0.01 (0.52) .98 | -0.02(0.02) |
| a | Slope \* age | -0.00 (0.01) .67 | -0.00 (0.01) .57 | -0.00 (0.01) .78 | -0.00 (0.01) .76 | -0.00 (0.01) .73 | -0.00 (0.01) .62 | -0.00 (0.01) .56 | -0.00 (0.01) .64 | -0.01 (0.01) .37 | -0.00 (0.01) .66 | -0.00 (0.01) .80 | -0.00 (0.01) .73 | -0.00 (0.01) .76 | -0.00(0.00) |
| a | Slope \* education | -0.01 (0.01) .49 | -0.01 (0.01) .29 | -0.01 (0.01) .40 | -0.01 (0.01) .37 | -0.01 (0.01) .42 | -0.01 (0.01) .50 | -0.01 (0.01) .50 | -0.01 (0.01) .41 | -0.01 (0.01) .25 | -0.01 (0.01) .38 | -0.00 (0.01) .75 | -0.01 (0.01) .36 | -0.01 (0.01) .41 | -0.01(0.00) |
| a | Slope \* height | -0.22 (0.31) .49 | -0.27 (0.32) .40 | -0.21 (0.31) .50 | -0.20 (0.31) .52 | -0.21 (0.31) .49 | -0.30 (0.32) .34 | -0.18 (0.32) .58 | -0.19 (0.32) .55 | -0.29 (0.32) .36 | -0.20 (0.31) .51 | -0.03 (0.38) .95 | -0.17 (0.30) .58 | -0.19 (0.31) .54 | -0.20(0.07) |
| a | Slope \* smoking | 0.00 (0.05) .97 | 0.00 (0.05) .95 | 0.01 (0.05) .85 | 0.01 (0.05) .86 | 0.01 (0.05) .79 | 0.01 (0.05) .76 | 0.00 (0.05) .99 | 0.01 (0.05) .81 | 0.01 (0.05) .84 | 0.01 (0.05) .86 | 0.01 (0.06) .80 | 0.00 (0.05) .96 | 0.01 (0.05) .85 | 0.01(0.00) |
| a | Slope \* cardio | -0.00 (0.04) .96 | -0.01 (0.04) .79 | -0.00 (0.04) .94 | -0.00 (0.04) .98 | 0.00 (0.04) .99 | -0.01 (0.04) .88 | 0.00 (0.04) .90 | 0.00 (0.04) .97 | -0.00 (0.04) .94 | 0.00 (0.04) .99 | -0.02 (0.04) .63 | -0.01 (0.04) .88 | 0.00 (0.04) .99 | -0.00(0.01) |
| a | Slope \* diabetes | -0.05 (0.10) .64 | -0.06 (0.10) .56 | -0.06 (0.10) .58 | -0.05 (0.10) .62 | -0.05 (0.10) .62 | -0.04 (0.10) .66 | -0.05 (0.10) .62 | -0.04 (0.10) .71 | -0.05 (0.09) .59 | -0.06 (0.10) .57 | -0.02 (0.13) .86 | -0.04 (0.10) .66 | -0.05 (0.10) .60 | -0.05(0.01) |
| b | Level | 14.83 (0.81) <.01 | 14.82 (0.26) <.01 | 3.86 (0.14) <.01 | 5.67 (0.13) <.01 | 17.17 (0.45) <.01 | 29.62 (1.17) <.01 | 7.74 (0.24) <.01 | 9.82 (0.10) <.01 | 29.14 (0.26) <.01 | 11.15 (0.41) <.01 | 11.44 (0.52) <.01 | 28.55 (1.26) <.01 | 17.13 (0.65) <.01 | --- |
| b | Slope | -0.22 (0.11) .05 | -0.12 (0.07) .07 | -0.09 (0.03) <.01 | -0.08 (0.02) <.01 | -0.11 (0.08) .17 | -0.12 (0.14) .37 | -0.01 (0.06) .84 | 0.01 (0.02) .49 | -0.21 (0.09) .02 | -0.04 (0.06) .53 | -0.12 (0.09) .19 | -0.13 (0.18) .49 | -0.05 (0.10) .62 | --- |
| b | Level \* age | -0.58 (0.15) <.01 | -0.13 (0.05) .01 | -0.10 (0.03) <.01 | -0.08 (0.02) <.01 | -0.29 (0.09) <.01 | -0.66 (0.23) <.01 | -0.16 (0.05) <.01 | -0.04 (0.03) .19 | -0.24 (0.05) <.01 | -0.25 (0.09) <.01 | -0.21 (0.13) .10 | -0.81 (0.28) <.01 | -0.11 (0.13) .40 | --- |
| b | Level \* education | 0.77 (0.21) <.01 | 0.06 (0.04) .14 | 0.12 (0.04) <.01 | 0.14 (0.03) <.01 | 0.28 (0.13) .03 | 2.13 (0.26) <.01 | 0.02 (0.07) .72 | 0.03 (0.01) .03 | 0.27 (0.06) <.01 | 0.46 (0.11) <.01 | 0.38 (0.13) <.01 | 1.68 (0.40) <.01 | 1.26 (0.14) <.01 | --- |
| b | Level \* height | -1.04 (6.82) .88 | -1.30 (2.84) .65 | -0.40 (1.34) .77 | 0.79 (1.06) .46 | -1.65 (4.58) .72 | 0.57 (12.88) .96 | -1.44 (2.04) .48 | -2.19 (0.93) .02 | 1.30 (2.61) .62 | 1.07 (3.98) .79 | 3.23 (5.16) .53 | 7.76 (11.96) .52 | 11.12 (6.96) .11 | --- |
| b | Level \* smoking | -1.30 (1.02) .20 | 0.03 (0.19) .88 | -0.32 (0.19) .09 | -0.15 (0.15) .32 | -1.07 (0.63) .09 | 0.90 (1.31) .49 | 0.09 (0.31) .76 | 0.12 (0.07) .07 | -0.51 (0.36) .16 | 0.25 (0.50) .61 | 0.05 (0.60) .93 | -0.55 (1.81) .76 | 0.28 (0.77) .71 | --- |
| b | Level \* cardio | -0.23 (0.77) .76 | 0.28 (0.24) .24 | 0.06 (0.14) .68 | 0.05 (0.13) .70 | -0.51 (0.49) .29 | 1.42 (1.14) .21 | 0.06 (0.25) .80 | -0.02 (0.10) .87 | -0.30 (0.29) .29 | 0.26 (0.42) .54 | 1.38 (0.56) .01 | 0.88 (1.25) .48 | 0.41 (0.66) .54 | --- |
| b | Level \* diabetes | 1.18 (2.34) .61 | -0.49 (0.45) .28 | -0.09 (0.30) .77 | 0.08 (0.26) .75 | 0.89 (0.95) .35 | -0.70 (2.67) .79 | 0.26 (0.43) .55 | 0.06 (0.19) .77 | -0.37 (0.66) .58 | -1.79 (1.18) .13 | -2.84 (0.83) <.01 | -2.87 (3.17) .37 | -2.56 (1.32) .05 | --- |
| b | Slope \* age | 0.01 (0.02) .60 | -0.02 (0.01) .13 | 0.01 (0.01) .15 | 0.00 (0.00) .54 | 0.00 (0.02) .99 | -0.04 (0.03) .22 | -0.02 (0.01) .14 | -0.01 (0.01) .09 | -0.05 (0.02) .01 | 0.02 (0.02) .17 | 0.01 (0.03) .69 | 0.00 (0.04) .94 | -0.00 (0.02) .98 | --- |
| b | Slope \* education | -0.03 (0.03) .34 | -0.00 (0.02) .94 | 0.00 (0.01) .84 | -0.01 (0.00) .02 | -0.02 (0.03) .42 | -0.02 (0.04) .51 | -0.00 (0.02) .90 | 0.00 (0.00) .36 | 0.02 (0.03) .49 | -0.04 (0.02) .04 | -0.01 (0.03) .62 | -0.04 (0.06) .53 | -0.00 (0.03) .95 | --- |
| b | Slope \* height | 1.09 (0.82) .18 | -0.58 (0.62) .35 | 0.13 (0.26) .62 | -0.20 (0.19) .30 | 0.43 (0.84) .61 | 1.51 (1.42) .29 | 0.42 (0.57) .46 | 0.05 (0.22) .82 | -0.50 (0.91) .58 | 0.61 (0.76) .43 | 0.71 (1.19) .55 | 1.21 (1.99) .54 | 0.17 (1.06) .87 | --- |
| b | Slope \* smoking | 0.07 (0.15) .62 | -0.00 (0.08) .99 | 0.04 (0.03) .12 | 0.05 (0.03) .10 | 0.12 (0.12) .30 | -0.10 (0.19) .62 | -0.07 (0.09) .40 | -0.01 (0.01) .59 | -0.14 (0.15) .34 | -0.12 (0.10) .20 | 0.06 (0.14) .66 | -0.34 (0.28) .22 | -0.09 (0.16) .56 | --- |
| b | Slope \* cardio | -0.19 (0.12) .14 | -0.07 (0.08) .36 | -0.03 (0.03) .28 | -0.00 (0.02) .87 | 0.02 (0.10) .87 | -0.47 (0.15) <.01 | -0.07 (0.07) .33 | 0.00 (0.02) .92 | -0.04 (0.12) .74 | -0.08 (0.09) .38 | -0.33 (0.14) .01 | -0.80 (0.19) <.01 | -0.04 (0.13) .74 | --- |
| b | Slope \* diabetes | -0.02 (0.20) .94 | -0.11 (0.12) .37 | 0.04 (0.05) .52 | 0.00 (0.05) .97 | -0.07 (0.19) .68 | 0.36 (0.40) .37 | 0.05 (0.12) .66 | 0.01 (0.05) .81 | -0.04 (0.20) .86 | 0.09 (0.14) .54 | 0.65 (0.23) <.01 | 1.48 (0.49) <.01 | -0.06 (0.28) .83 | --- |
| a | Var (Level) | 3.24 (0.46) <.01 | 3.22 (0.45) <.01 | 3.19 (0.45) <.01 | 3.19 (0.45) <.01 | 3.19 (0.45) <.01 | 3.20 (0.45) <.01 | 3.21 (0.45) <.01 | 3.23 (0.46) <.01 | 3.24 (0.45) <.01 | 3.20 (0.45) <.01 | 3.14 (0.45) <.01 | 3.19 (0.45) <.01 | 3.20 (0.45) <.01 | 3.20(0.03) |
| a | Var (Slope) | 0.02 (0.01) .04 | 0.02 (0.01) .04 | 0.02 (0.01) .06 | 0.02 (0.01) .06 | 0.02 (0.01) .05 | 0.02 (0.01) .05 | 0.02 (0.01) .03 | 0.02 (0.01) .04 | 0.02 (0.01) .03 | 0.02 (0.01) .06 | 0.02 (0.01) .13 | 0.02 (0.01) .07 | 0.02 (0.01) .06 | 0.02(0.00) |
| a | Var (Residual) | 1.25 (0.12) <.01 | 1.26 (0.13) <.01 | 1.27 (0.13) <.01 | 1.28 (0.13) <.01 | 1.27 (0.13) <.01 | 1.27 (0.13) <.01 | 1.26 (0.12) <.01 | 1.25 (0.12) <.01 | 1.25 (0.12) <.01 | 1.27 (0.13) <.01 | 1.22 (0.12) <.01 | 1.27 (0.13) <.01 | 1.27 (0.13) <.01 | 1.26(0.02) |
| b | Var (Level) | 30.61 (3.22) <.01 | 1.82 (0.97) .06 | 0.54 (0.17) <.01 | 0.54 (0.07) <.01 | 7.42 (1.15) <.01 | 76.45 (8.58) <.01 | 2.38 (0.48) <.01 | 0.41 (0.26) .11 | 2.08 (0.57) <.01 | 7.78 (0.97) <.01 | 7.60 (2.80) .01 | 66.61 (7.88) <.01 | 17.16 (2.19) <.01 | --- |
| b | Var (Slope) | 0.19 (0.08) .02 | 0.12 (0.03) <.01 | 0.00 (0.00) .46 | 0.00 (0.00) .08 | 0.10 (0.05) .05 | 0.30 (0.09) <.01 | 0.09 (0.02) <.01 | 0.01 (0.01) .54 | 0.34 (0.08) <.01 | 0.08 (0.03) .01 | 0.06 (0.29) .85 | 0.39 (0.15) .01 | 0.19 (0.07) <.01 | --- |
| b | Var (Residual) | 10.77 (0.83) <.01 | 2.31 (0.41) <.01 | 1.16 (0.11) <.01 | 0.61 (0.05) <.01 | 7.74 (0.57) <.01 | 16.48 (1.44) <.01 | 1.85 (0.17) <.01 | 0.32 (0.10) <.01 | 4.47 (0.68) <.01 | 4.35 (0.38) <.01 | 6.20 (1.14) <.01 | 27.89 (2.36) <.01 | 6.77 (0.58) <.01 | --- |
| a | Covar (Level, Slope) | -0.05 (0.04) .29 | -0.04 (0.04) .37 | -0.03 (0.04) .45 | -0.03 (0.04) .43 | -0.03 (0.04) .42 | -0.04 (0.04) .35 | -0.04 (0.04) .28 | -0.05 (0.05) .27 | -0.04 (0.04) .40 | -0.04 (0.04) .40 | -0.01 (0.05) .84 | -0.04 (0.04) .40 | -0.04 (0.04) .39 | -0.04(0.01) |
| b | Covar (Level, Slope) | -0.99 (0.41) .01 | 0.09 (0.12) .47 | -0.02 (0.02) .36 | -0.04 (0.01) .01 | -0.35 (0.19) .06 | 1.10 (0.67) .10 | 0.01 (0.07) .85 | 0.04 (0.08) .62 | 0.30 (0.18) .09 | -0.38 (0.13) <.01 | -0.44 (0.91) .63 | -1.91 (0.87) .03 | -0.17 (0.30) .58 | --- |
|  | Correlation of Levels | 0.302 | 0.193 | -0.00076 | -0.059 | 0.29 | 0.19 | 0.163 | -0.081 | 0.044 | 0.143 | 0.231 | 0.18 | 0.127 | 0.13(0.12) |
|  | Correlation of Slopes | 0.764 | 0.667 | -0.48507 | 0.112 | 0.60 | 0.78 | 0.644 | -0.161 | 0.767 | 0.362 | 0.482 | 0.16 | 0.688 | 0.41(0.40) |
|  | Correlation of Residuals | 0.048 | 0.065 | 0.04702 | 0.045 | 0.06 | -0.02 | 0.044 | 0.165 | 0.161 | 0.059 | 0.079 | 0.12 | -0.014 | 0.07(0.06) |
|  | N | 275 | 276 | 276 | 276 | 274 | 275 | 273 | 273 | 276 | 273 | 271 | 272 | 273 | 274.08(1.71) |
|  | occasions | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 4.92(0.28) |
|  | parameters | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41.00(0.00) |
|  | LL | -4,182 | -3,705 | -3,267 | -3,024 | -3,689 | -4,640 | -3,498 | -2,736 | -4,104 | -3,677 | -2,708 | -4,208 | -3,682 | -3,625( 582) |
|  | AIC | 8,447 | 7,492 | 6,616 | 6,131 | 7,460 | 9,362 | 7,077 | 5,554 | 8,290 | 7,436 | 5,497 | 8,498 | 7,445 | 7,331(1,164) |
|  | BIC | 8,595 | 7,640 | 6,764 | 6,279 | 7,609 | 9,510 | 7,225 | 5,702 | 8,438 | 7,584 | 5,645 | 8,646 | 7,593 | 7,479(1,164) |

## block

Gender = *female*; Process (a) = *grip*; Process (b) = *block*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 4.30 (0.92) <.01 | 3.75 (0.86) <.01 | 3.20 (0.84) <.01 | 3.01 (0.83) <.01 |
| ab | Covar (Slopes) | 0.05 (0.01) <.01 | 0.05 (0.02) <.01 | 0.05 (0.02) <.01 | 0.05 (0.01) <.01 |
| ab | Covar (Residuals) | 0.17 (0.19) .37 | 0.18 (0.19) .35 | 0.15 (0.20) .44 | 0.18 (0.20) .37 |
| er | Corr (Levels) | 0.38 (0.07) <.01 | 0.35 (0.08) <.01 | 0.32 (0.08) <.01 | 0.30 (0.08) <.01 |
| er | Corr (Slopes) | 0.87 (0.28) <.01 | 0.87 (0.28) <.01 | 0.87 (0.28) <.01 | 0.76 (0.27) <.01 |
| er | Corr (Residuals) | 0.05 (0.05) .37 | 0.05 (0.05) .35 | 0.04 (0.05) .44 | 0.05 (0.05) .37 |
| a | Level | 8.82 (0.21) <.01 | 8.79 (0.21) <.01 | 8.98 (0.22) <.01 | 9.20 (0.26) <.01 |
| a | Slope | -0.33 (0.03) <.01 | -0.33 (0.03) <.01 | -0.34 (0.03) <.01 | -0.34 (0.04) <.01 |
| a | Level \* age | -0.22 (0.04) <.01 | -0.21 (0.04) <.01 | -0.15 (0.04) <.01 | -0.16 (0.04) <.01 |
| a | Level \* education | --- | 0.16 (0.07) .01 | 0.13 (0.07) .06 | 0.16 (0.07) .03 |
| a | Level \* height | --- | --- | 9.11 (2.30) <.01 | 9.16 (2.29) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.53 (0.33) .11 |
| a | Level \* cardio | --- | --- | --- | -0.15 (0.25) .56 |
| a | Level \* diabetes | --- | --- | --- | -0.01 (0.52) .98 |
| a | Slope \* age | -0.00 (0.01) .72 | -0.00 (0.01) .74 | -0.00 (0.01) .59 | -0.00 (0.01) .67 |
| a | Slope \* education | --- | -0.00 (0.01) .63 | -0.01 (0.01) .51 | -0.01 (0.01) .49 |
| a | Slope \* height | --- | --- | -0.20 (0.31) .51 | -0.22 (0.31) .49 |
| a | Slope \* smoking | --- | --- | --- | 0.00 (0.05) .97 |
| a | Slope \* cardio | --- | --- | --- | -0.00 (0.04) .96 |
| a | Slope \* diabetes | --- | --- | --- | -0.05 (0.10) .64 |
| b | Level | 14.45 (0.65) <.01 | 14.24 (0.62) <.01 | 14.42 (0.66) <.01 | 14.83 (0.81) <.01 |
| b | Slope | -0.29 (0.08) <.01 | -0.29 (0.08) <.01 | -0.28 (0.09) <.01 | -0.22 (0.11) .05 |
| b | Level \* age | -0.65 (0.15) <.01 | -0.59 (0.15) <.01 | -0.55 (0.16) <.01 | -0.58 (0.15) <.01 |
| b | Level \* education | --- | 0.67 (0.20) <.01 | 0.69 (0.21) <.01 | 0.77 (0.21) <.01 |
| b | Level \* height | --- | --- | -0.89 (6.77) .90 | -1.04 (6.82) .88 |
| b | Level \* smoking | --- | --- | --- | -1.30 (1.02) .20 |
| b | Level \* cardio | --- | --- | --- | -0.23 (0.77) .76 |
| b | Level \* diabetes | --- | --- | --- | 1.18 (2.34) .61 |
| b | Slope \* age | 0.00 (0.02) .85 | 0.00 (0.02) .83 | 0.01 (0.02) .73 | 0.01 (0.02) .60 |
| b | Slope \* education | --- | -0.01 (0.03) .71 | -0.02 (0.04) .51 | -0.03 (0.03) .34 |
| b | Slope \* height | --- | --- | 1.18 (0.83) .16 | 1.09 (0.82) .18 |
| b | Slope \* smoking | --- | --- | --- | 0.07 (0.15) .62 |
| b | Slope \* cardio | --- | --- | --- | -0.19 (0.12) .14 |
| b | Slope \* diabetes | --- | --- | --- | -0.02 (0.20) .94 |
| a | Var (Level) | 3.79 (0.50) <.01 | 3.65 (0.47) <.01 | 3.27 (0.46) <.01 | 3.24 (0.46) <.01 |
| a | Var (Slope) | 0.02 (0.01) .05 | 0.02 (0.01) .06 | 0.02 (0.01) .04 | 0.02 (0.01) .04 |
| a | Var (Residual) | 1.28 (0.12) <.01 | 1.28 (0.12) <.01 | 1.27 (0.13) <.01 | 1.25 (0.12) <.01 |
| b | Var (Level) | 34.40 (3.42) <.01 | 32.18 (3.27) <.01 | 30.80 (3.29) <.01 | 30.61 (3.22) <.01 |
| b | Var (Slope) | 0.19 (0.07) .01 | 0.19 (0.07) .01 | 0.19 (0.08) .02 | 0.19 (0.08) .02 |
| b | Var (Residual) | 10.68 (0.81) <.01 | 10.68 (0.81) <.01 | 10.85 (0.83) <.01 | 10.77 (0.83) <.01 |
| a | Covar (Level, Slope) | -0.05 (0.04) .21 | -0.05 (0.04) .22 | -0.04 (0.04) .30 | -0.05 (0.04) .29 |
| b | Covar (Level, Slope) | -1.03 (0.37) .01 | -1.00 (0.38) .01 | -0.95 (0.39) .01 | -0.99 (0.41) .01 |
|  | Correlation of Levels | 0.376 | 0.346 | 0.319 | 0.302 |
|  | Correlation of Slopes | 0.860 | 0.871 | 0.857 | 0.764 |
|  | Correlation of Residuals | 0.047 | 0.049 | 0.041 | 0.048 |
|  | N | 303 | 301 | 275 | 275 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,429 | -4,403 | -4,187 | -4,182 |
|  | AIC | 8,900 | 8,857 | 8,431 | 8,447 |
|  | BIC | 8,978 | 8,950 | 8,536 | 8,595 |

## clock

Gender = *female*; Process (a) = *grip*; Process (b) = *clock*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 1.23 (0.46) .01 | 0.73 (0.33) .03 | 0.45 (0.28) .10 | 0.47 (0.28) .10 |
| ab | Covar (Slopes) | 0.03 (0.01) .05 | 0.03 (0.01) .04 | 0.03 (0.01) .01 | 0.03 (0.01) .01 |
| ab | Covar (Residuals) | 0.21 (0.14) .15 | 0.20 (0.14) .16 | 0.11 (0.13) .38 | 0.11 (0.13) .38 |
| er | Corr (Levels) | 0.26 (0.08) <.01 | 0.20 (0.08) .01 | 0.18 (0.10) .06 | 0.19 (0.10) .06 |
| er | Corr (Slopes) | 0.57 (0.21) .01 | 0.59 (0.21) <.01 | 0.66 (0.18) <.01 | 0.67 (0.18) <.01 |
| er | Corr (Residuals) | 0.11 (0.07) .12 | 0.11 (0.07) .13 | 0.06 (0.07) .36 | 0.06 (0.07) .36 |
| a | Level | 8.80 (0.21) <.01 | 8.79 (0.21) <.01 | 8.98 (0.22) <.01 | 9.19 (0.26) <.01 |
| a | Slope | -0.32 (0.03) <.01 | -0.32 (0.03) <.01 | -0.33 (0.03) <.01 | -0.33 (0.04) <.01 |
| a | Level \* age | -0.22 (0.04) <.01 | -0.21 (0.04) <.01 | -0.15 (0.04) <.01 | -0.16 (0.04) <.01 |
| a | Level \* education | --- | 0.17 (0.07) .01 | 0.14 (0.07) .05 | 0.17 (0.07) .02 |
| a | Level \* height | --- | --- | 8.99 (2.31) <.01 | 9.04 (2.29) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.53 (0.33) .11 |
| a | Level \* cardio | --- | --- | --- | -0.14 (0.25) .58 |
| a | Level \* diabetes | --- | --- | --- | -0.02 (0.53) .97 |
| a | Slope \* age | -0.00 (0.01) .59 | -0.00 (0.01) .61 | -0.01 (0.01) .46 | -0.00 (0.01) .57 |
| a | Slope \* education | --- | -0.01 (0.01) .41 | -0.01 (0.01) .32 | -0.01 (0.01) .29 |
| a | Slope \* height | --- | --- | -0.26 (0.32) .42 | -0.27 (0.32) .40 |
| a | Slope \* smoking | --- | --- | --- | 0.00 (0.05) .95 |
| a | Slope \* cardio | --- | --- | --- | -0.01 (0.04) .79 |
| a | Slope \* diabetes | --- | --- | --- | -0.06 (0.10) .56 |
| b | Level | 14.80 (0.23) <.01 | 14.89 (0.22) <.01 | 14.94 (0.15) <.01 | 14.82 (0.26) <.01 |
| b | Slope | -0.12 (0.06) .03 | -0.13 (0.06) .03 | -0.15 (0.05) <.01 | -0.12 (0.07) .07 |
| b | Level \* age | -0.21 (0.07) <.01 | -0.18 (0.07) .01 | -0.13 (0.05) .01 | -0.13 (0.05) .01 |
| b | Level \* education | --- | 0.05 (0.05) .35 | 0.05 (0.04) .21 | 0.06 (0.04) .14 |
| b | Level \* height | --- | --- | -1.30 (2.84) .65 | -1.30 (2.84) .65 |
| b | Level \* smoking | --- | --- | --- | 0.03 (0.19) .88 |
| b | Level \* cardio | --- | --- | --- | 0.28 (0.24) .24 |
| b | Level \* diabetes | --- | --- | --- | -0.49 (0.45) .28 |
| b | Slope \* age | -0.02 (0.01) .23 | -0.02 (0.01) .20 | -0.02 (0.01) .07 | -0.02 (0.01) .13 |
| b | Slope \* education | --- | -0.00 (0.01) .76 | 0.00 (0.01) .98 | -0.00 (0.02) .94 |
| b | Slope \* height | --- | --- | -0.53 (0.64) .41 | -0.58 (0.62) .35 |
| b | Slope \* smoking | --- | --- | --- | -0.00 (0.08) .99 |
| b | Slope \* cardio | --- | --- | --- | -0.07 (0.08) .36 |
| b | Slope \* diabetes | --- | --- | --- | -0.11 (0.12) .37 |
| a | Var (Level) | 3.87 (0.50) <.01 | 3.66 (0.47) <.01 | 3.26 (0.46) <.01 | 3.22 (0.45) <.01 |
| a | Var (Slope) | 0.02 (0.01) .05 | 0.02 (0.01) .05 | 0.02 (0.01) .04 | 0.02 (0.01) .04 |
| a | Var (Residual) | 1.27 (0.12) <.01 | 1.27 (0.12) <.01 | 1.26 (0.13) <.01 | 1.26 (0.13) <.01 |
| b | Var (Level) | 5.88 (1.64) <.01 | 3.56 (1.23) <.01 | 1.86 (0.96) .05 | 1.82 (0.97) .06 |
| b | Var (Slope) | 0.14 (0.06) .01 | 0.14 (0.05) .01 | 0.12 (0.04) <.01 | 0.12 (0.03) <.01 |
| b | Var (Residual) | 2.60 (0.46) <.01 | 2.62 (0.47) <.01 | 2.31 (0.41) <.01 | 2.31 (0.41) <.01 |
| a | Covar (Level, Slope) | -0.05 (0.04) .22 | -0.05 (0.04) .24 | -0.04 (0.04) .34 | -0.04 (0.04) .37 |
| b | Covar (Level, Slope) | -0.21 (0.29) .45 | -0.10 (0.25) .68 | 0.09 (0.12) .46 | 0.09 (0.12) .47 |
|  | Correlation of Levels | 0.26 | 0.20 | 0.183 | 0.193 |
|  | Correlation of Slopes | 0.57 | 0.59 | 0.664 | 0.667 |
|  | Correlation of Residuals | 0.11 | 0.11 | 0.065 | 0.065 |
|  | N | 308 | 303 | 276 | 276 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,087 | -4,008 | -3,709 | -3,705 |
|  | AIC | 8,216 | 8,066 | 7,476 | 7,492 |
|  | BIC | 8,294 | 8,159 | 7,581 | 7,640 |

## digit\_b

Gender = *female*; Process (a) = *grip*; Process (b) = *digit\_b*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 0.05 (0.16) .77 | -0.04 (0.15) .78 | 0.02 (0.14) .91 | -0.00 (0.14) .99 |
| ab | Covar (Slopes) | -0.00 (0.00) .29 | -0.00 (0.00) .33 | -0.00 (0.00) .38 | -0.00 (0.00) .39 |
| ab | Covar (Residuals) | 0.07 (0.06) .21 | 0.07 (0.06) .22 | 0.06 (0.06) .32 | 0.06 (0.06) .34 |
| er | Corr (Levels) | 0.03 (0.11) .77 | -0.03 (0.11) .78 | 0.01 (0.11) .91 | -0.00 (0.10) .99 |
| er | Corr (Slopes) | -0.50 (0.56) .38 | -0.48 (0.60) .43 | -0.43 (0.58) .46 | -0.44 (0.64) .49 |
| er | Corr (Residuals) | 0.06 (0.05) .21 | 0.06 (0.05) .22 | 0.05 (0.05) .32 | 0.05 (0.05) .33 |
| a | Level | 8.84 (0.21) <.01 | 8.80 (0.21) <.01 | 8.99 (0.22) <.01 | 9.20 (0.26) <.01 |
| a | Slope | -0.33 (0.03) <.01 | -0.33 (0.03) <.01 | -0.33 (0.03) <.01 | -0.34 (0.04) <.01 |
| a | Level \* age | -0.22 (0.04) <.01 | -0.21 (0.04) <.01 | -0.15 (0.04) <.01 | -0.16 (0.04) <.01 |
| a | Level \* education | --- | 0.17 (0.07) .01 | 0.14 (0.07) .05 | 0.17 (0.07) .02 |
| a | Level \* height | --- | --- | 8.97 (2.30) <.01 | 9.02 (2.28) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.53 (0.33) .11 |
| a | Level \* cardio | --- | --- | --- | -0.14 (0.25) .58 |
| a | Level \* diabetes | --- | --- | --- | -0.02 (0.52) .97 |
| a | Slope \* age | -0.00 (0.01) .85 | -0.00 (0.01) .86 | -0.00 (0.01) .64 | -0.00 (0.01) .78 |
| a | Slope \* education | --- | -0.01 (0.01) .56 | -0.01 (0.01) .43 | -0.01 (0.01) .40 |
| a | Slope \* height | --- | --- | -0.20 (0.31) .52 | -0.21 (0.31) .50 |
| a | Slope \* smoking | --- | --- | --- | 0.01 (0.05) .85 |
| a | Slope \* cardio | --- | --- | --- | -0.00 (0.04) .94 |
| a | Slope \* diabetes | --- | --- | --- | -0.06 (0.10) .58 |
| b | Level | 3.73 (0.12) <.01 | 3.72 (0.12) <.01 | 3.80 (0.12) <.01 | 3.86 (0.14) <.01 |
| b | Slope | -0.08 (0.02) <.01 | -0.08 (0.02) <.01 | -0.09 (0.02) <.01 | -0.09 (0.03) <.01 |
| b | Level \* age | -0.07 (0.03) .01 | -0.07 (0.03) .01 | -0.10 (0.03) <.01 | -0.10 (0.03) <.01 |
| b | Level \* education | --- | 0.10 (0.03) <.01 | 0.09 (0.04) .01 | 0.12 (0.04) <.01 |
| b | Level \* height | --- | --- | -0.44 (1.35) .75 | -0.40 (1.34) .77 |
| b | Level \* smoking | --- | --- | --- | -0.32 (0.19) .09 |
| b | Level \* cardio | --- | --- | --- | 0.06 (0.14) .68 |
| b | Level \* diabetes | --- | --- | --- | -0.09 (0.30) .77 |
| b | Slope \* age | 0.00 (0.01) .51 | 0.00 (0.01) .42 | 0.01 (0.01) .14 | 0.01 (0.01) .15 |
| b | Slope \* education | --- | 0.01 (0.01) .36 | 0.00 (0.01) .44 | 0.00 (0.01) .84 |
| b | Slope \* height | --- | --- | 0.13 (0.26) .62 | 0.13 (0.26) .62 |
| b | Slope \* smoking | --- | --- | --- | 0.04 (0.03) .12 |
| b | Slope \* cardio | --- | --- | --- | -0.03 (0.03) .28 |
| b | Slope \* diabetes | --- | --- | --- | 0.04 (0.05) .52 |
| a | Var (Level) | 3.77 (0.49) <.01 | 3.62 (0.47) <.01 | 3.24 (0.46) <.01 | 3.19 (0.45) <.01 |
| a | Var (Slope) | 0.02 (0.01) .06 | 0.02 (0.01) .06 | 0.02 (0.01) .06 | 0.02 (0.01) .06 |
| a | Var (Residual) | 1.28 (0.12) <.01 | 1.28 (0.12) <.01 | 1.27 (0.13) <.01 | 1.27 (0.13) <.01 |
| b | Var (Level) | 0.61 (0.16) <.01 | 0.56 (0.15) <.01 | 0.55 (0.16) <.01 | 0.54 (0.17) <.01 |
| b | Var (Slope) | 0.00 (0.00) .34 | 0.00 (0.00) .41 | 0.00 (0.00) .42 | 0.00 (0.00) .46 |
| b | Var (Residual) | 1.14 (0.10) <.01 | 1.14 (0.10) <.01 | 1.16 (0.11) <.01 | 1.16 (0.11) <.01 |
| a | Covar (Level, Slope) | -0.05 (0.04) .28 | -0.04 (0.04) .29 | -0.04 (0.04) .41 | -0.03 (0.04) .45 |
| b | Covar (Level, Slope) | -0.02 (0.02) .36 | -0.02 (0.02) .30 | -0.02 (0.02) .30 | -0.02 (0.02) .36 |
|  | Correlation of Levels | 0.031 | -0.030 | 0.013 | -0.00076 |
|  | Correlation of Slopes | -0.434 | -0.500 | -0.485 | -0.48507 |
|  | Correlation of Residuals | 0.060 | 0.059 | 0.048 | 0.04702 |
|  | N | 305 | 303 | 276 | 276 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,481 | -3,453 | -3,271 | -3,267 |
|  | AIC | 7,003 | 6,957 | 6,601 | 6,616 |
|  | BIC | 7,081 | 7,050 | 6,706 | 6,764 |

## digit\_f

Gender = *female*; Process (a) = *grip*; Process (b) = *digit\_f*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 0.07 (0.14) .59 | -0.05 (0.12) .68 | -0.07 (0.12) .55 | -0.08 (0.12) .50 |
| ab | Covar (Slopes) | 0.00 (0.00) .71 | 0.00 (0.00) .71 | 0.00 (0.00) .66 | 0.00 (0.00) .70 |
| ab | Covar (Residuals) | 0.05 (0.04) .20 | 0.05 (0.04) .24 | 0.04 (0.04) .34 | 0.04 (0.04) .35 |
| er | Corr (Levels) | 0.05 (0.09) .59 | -0.03 (0.08) .68 | -0.05 (0.09) .55 | -0.06 (0.09) .50 |
| er | Corr (Slopes) | 0.11 (0.29) .70 | 0.11 (0.30) .71 | 0.14 (0.31) .66 | 0.12 (0.32) .70 |
| er | Corr (Residuals) | 0.06 (0.05) .21 | 0.06 (0.05) .25 | 0.05 (0.05) .35 | 0.04 (0.05) .36 |
| a | Level | 8.83 (0.21) <.01 | 8.80 (0.21) <.01 | 8.99 (0.22) <.01 | 9.20 (0.26) <.01 |
| a | Slope | -0.33 (0.03) <.01 | -0.33 (0.03) <.01 | -0.33 (0.03) <.01 | -0.33 (0.04) <.01 |
| a | Level \* age | -0.22 (0.04) <.01 | -0.21 (0.04) <.01 | -0.15 (0.04) <.01 | -0.16 (0.04) <.01 |
| a | Level \* education | --- | 0.17 (0.07) .01 | 0.14 (0.07) .05 | 0.17 (0.07) .02 |
| a | Level \* height | --- | --- | 9.00 (2.29) <.01 | 9.03 (2.27) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.52 (0.33) .11 |
| a | Level \* cardio | --- | --- | --- | -0.14 (0.25) .57 |
| a | Level \* diabetes | --- | --- | --- | -0.04 (0.52) .94 |
| a | Slope \* age | -0.00 (0.01) .80 | -0.00 (0.01) .82 | -0.00 (0.01) .64 | -0.00 (0.01) .76 |
| a | Slope \* education | --- | -0.01 (0.01) .49 | -0.01 (0.01) .40 | -0.01 (0.01) .37 |
| a | Slope \* height | --- | --- | -0.19 (0.31) .54 | -0.20 (0.31) .52 |
| a | Slope \* smoking | --- | --- | --- | 0.01 (0.05) .86 |
| a | Slope \* cardio | --- | --- | --- | -0.00 (0.04) .98 |
| a | Slope \* diabetes | --- | --- | --- | -0.05 (0.10) .62 |
| b | Level | 5.60 (0.11) <.01 | 5.58 (0.11) <.01 | 5.66 (0.11) <.01 | 5.67 (0.13) <.01 |
| b | Slope | -0.06 (0.02) <.01 | -0.06 (0.02) <.01 | -0.06 (0.02) <.01 | -0.08 (0.02) <.01 |
| b | Level \* age | -0.07 (0.02) <.01 | -0.06 (0.02) <.01 | -0.08 (0.02) <.01 | -0.08 (0.02) <.01 |
| b | Level \* education | --- | 0.13 (0.03) <.01 | 0.13 (0.03) <.01 | 0.14 (0.03) <.01 |
| b | Level \* height | --- | --- | 0.76 (1.05) .47 | 0.79 (1.06) .46 |
| b | Level \* smoking | --- | --- | --- | -0.15 (0.15) .32 |
| b | Level \* cardio | --- | --- | --- | 0.05 (0.13) .70 |
| b | Level \* diabetes | --- | --- | --- | 0.08 (0.26) .75 |
| b | Slope \* age | 0.00 (0.00) .75 | 0.00 (0.00) .78 | 0.00 (0.00) .66 | 0.00 (0.00) .54 |
| b | Slope \* education | --- | -0.01 (0.00) .04 | -0.01 (0.00) .07 | -0.01 (0.00) .02 |
| b | Slope \* height | --- | --- | -0.19 (0.19) .32 | -0.20 (0.19) .30 |
| b | Slope \* smoking | --- | --- | --- | 0.05 (0.03) .10 |
| b | Slope \* cardio | --- | --- | --- | -0.00 (0.02) .87 |
| b | Slope \* diabetes | --- | --- | --- | 0.00 (0.05) .97 |
| a | Var (Level) | 3.77 (0.49) <.01 | 3.62 (0.46) <.01 | 3.24 (0.46) <.01 | 3.19 (0.45) <.01 |
| a | Var (Slope) | 0.02 (0.01) .07 | 0.01 (0.01) .07 | 0.02 (0.01) .06 | 0.02 (0.01) .06 |
| a | Var (Residual) | 1.28 (0.12) <.01 | 1.29 (0.13) <.01 | 1.28 (0.13) <.01 | 1.28 (0.13) <.01 |
| b | Var (Level) | 0.72 (0.10) <.01 | 0.60 (0.08) <.01 | 0.54 (0.07) <.01 | 0.54 (0.07) <.01 |
| b | Var (Slope) | 0.01 (0.00) .03 | 0.01 (0.00) .03 | 0.01 (0.00) .07 | 0.00 (0.00) .08 |
| b | Var (Residual) | 0.62 (0.05) <.01 | 0.61 (0.04) <.01 | 0.61 (0.05) <.01 | 0.61 (0.05) <.01 |
| a | Covar (Level, Slope) | -0.05 (0.04) .27 | -0.04 (0.04) .29 | -0.04 (0.04) .39 | -0.03 (0.04) .43 |
| b | Covar (Level, Slope) | -0.05 (0.02) <.01 | -0.04 (0.01) <.01 | -0.04 (0.01) .01 | -0.04 (0.01) .01 |
|  | Correlation of Levels | 0.045 | -0.035 | -0.052 | -0.059 |
|  | Correlation of Slopes | 0.094 | 0.098 | 0.099 | 0.112 |
|  | Correlation of Residuals | 0.060 | 0.056 | 0.045 | 0.045 |
|  | N | 306 | 303 | 276 | 276 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,252 | -3,209 | -3,028 | -3,024 |
|  | AIC | 6,547 | 6,469 | 6,114 | 6,131 |
|  | BIC | 6,625 | 6,562 | 6,219 | 6,279 |

## fig\_logic

Gender = *female*; Process (a) = *grip*; Process (b) = *fig\_logic*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 2.06 (0.49) <.01 | 1.76 (0.47) <.01 | 1.52 (0.47) <.01 | 1.44 (0.46) <.01 |
| ab | Covar (Slopes) | 0.02 (0.01) .11 | 0.02 (0.01) .12 | 0.02 (0.01) .09 | 0.02 (0.01) .08 |
| ab | Covar (Residuals) | 0.23 (0.17) .16 | 0.24 (0.17) .15 | 0.19 (0.16) .25 | 0.19 (0.16) .24 |
| er | Corr (Levels) | 0.36 (0.08) <.01 | 0.33 (0.08) <.01 | 0.30 (0.09) <.01 | 0.29 (0.09) <.01 |
| er | Corr (Slopes) | 0.56 (0.30) .06 | 0.55 (0.30) .06 | 0.57 (0.28) .04 | 0.60 (0.29) .04 |
| er | Corr (Residuals) | 0.07 (0.05) .16 | 0.08 (0.05) .14 | 0.06 (0.05) .25 | 0.06 (0.05) .24 |
| a | Level | 8.84 (0.21) <.01 | 8.81 (0.21) <.01 | 8.99 (0.22) <.01 | 9.21 (0.26) <.01 |
| a | Slope | -0.33 (0.03) <.01 | -0.33 (0.03) <.01 | -0.33 (0.03) <.01 | -0.34 (0.04) <.01 |
| a | Level \* age | -0.22 (0.04) <.01 | -0.21 (0.04) <.01 | -0.15 (0.04) <.01 | -0.16 (0.04) <.01 |
| a | Level \* education | --- | 0.17 (0.07) .01 | 0.14 (0.07) .05 | 0.17 (0.07) .02 |
| a | Level \* height | --- | --- | 8.93 (2.30) <.01 | 8.98 (2.28) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.54 (0.33) .10 |
| a | Level \* cardio | --- | --- | --- | -0.14 (0.25) .57 |
| a | Level \* diabetes | --- | --- | --- | -0.01 (0.52) .98 |
| a | Slope \* age | -0.00 (0.01) .76 | -0.00 (0.01) .78 | -0.00 (0.01) .61 | -0.00 (0.01) .73 |
| a | Slope \* education | --- | -0.01 (0.01) .56 | -0.01 (0.01) .46 | -0.01 (0.01) .42 |
| a | Slope \* height | --- | --- | -0.20 (0.31) .51 | -0.21 (0.31) .49 |
| a | Slope \* smoking | --- | --- | --- | 0.01 (0.05) .79 |
| a | Slope \* cardio | --- | --- | --- | 0.00 (0.04) .99 |
| a | Slope \* diabetes | --- | --- | --- | -0.05 (0.10) .62 |
| b | Level | 16.62 (0.39) <.01 | 16.58 (0.38) <.01 | 16.69 (0.40) <.01 | 17.17 (0.45) <.01 |
| b | Slope | -0.09 (0.07) .19 | -0.09 (0.07) .22 | -0.08 (0.07) .30 | -0.11 (0.08) .17 |
| b | Level \* age | -0.28 (0.09) <.01 | -0.26 (0.09) <.01 | -0.27 (0.10) <.01 | -0.29 (0.09) <.01 |
| b | Level \* education | --- | 0.24 (0.12) .04 | 0.23 (0.12) .06 | 0.28 (0.13) .03 |
| b | Level \* height | --- | --- | -1.43 (4.67) .76 | -1.65 (4.58) .72 |
| b | Level \* smoking | --- | --- | --- | -1.07 (0.63) .09 |
| b | Level \* cardio | --- | --- | --- | -0.51 (0.49) .29 |
| b | Level \* diabetes | --- | --- | --- | 0.89 (0.95) .35 |
| b | Slope \* age | -0.00 (0.02) .93 | -0.00 (0.02) .93 | -0.00 (0.02) .89 | 0.00 (0.02) .99 |
| b | Slope \* education | --- | -0.01 (0.03) .62 | -0.02 (0.03) .58 | -0.02 (0.03) .42 |
| b | Slope \* height | --- | --- | 0.39 (0.84) .64 | 0.43 (0.84) .61 |
| b | Slope \* smoking | --- | --- | --- | 0.12 (0.12) .30 |
| b | Slope \* cardio | --- | --- | --- | 0.02 (0.10) .87 |
| b | Slope \* diabetes | --- | --- | --- | -0.07 (0.19) .68 |
| a | Var (Level) | 3.77 (0.49) <.01 | 3.62 (0.47) <.01 | 3.24 (0.46) <.01 | 3.19 (0.45) <.01 |
| a | Var (Slope) | 0.02 (0.01) .06 | 0.02 (0.01) .06 | 0.02 (0.01) .05 | 0.02 (0.01) .05 |
| a | Var (Residual) | 1.28 (0.12) <.01 | 1.28 (0.12) <.01 | 1.27 (0.13) <.01 | 1.27 (0.13) <.01 |
| b | Var (Level) | 8.58 (1.26) <.01 | 8.07 (1.17) <.01 | 7.69 (1.13) <.01 | 7.42 (1.15) <.01 |
| b | Var (Slope) | 0.09 (0.04) .05 | 0.09 (0.05) .05 | 0.10 (0.05) .04 | 0.10 (0.05) .05 |
| b | Var (Residual) | 7.75 (0.57) <.01 | 7.69 (0.57) <.01 | 7.73 (0.57) <.01 | 7.74 (0.57) <.01 |
| a | Covar (Level, Slope) | -0.05 (0.04) .26 | -0.04 (0.04) .28 | -0.04 (0.04) .38 | -0.03 (0.04) .42 |
| b | Covar (Level, Slope) | -0.37 (0.18) .04 | -0.36 (0.19) .05 | -0.38 (0.19) .04 | -0.35 (0.19) .06 |
|  | Correlation of Levels | 0.363 | 0.327 | 0.30 | 0.29 |
|  | Correlation of Slopes | 0.562 | 0.556 | 0.57 | 0.60 |
|  | Correlation of Residuals | 0.074 | 0.077 | 0.06 | 0.06 |
|  | N | 302 | 300 | 274 | 274 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,896 | -3,877 | -3,693 | -3,689 |
|  | AIC | 7,834 | 7,804 | 7,444 | 7,460 |
|  | BIC | 7,911 | 7,897 | 7,549 | 7,609 |

## information

Gender = *female*; Process (a) = *grip*; Process (b) = *information*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 5.34 (1.41) <.01 | 3.58 (1.10) <.01 | 2.84 (1.14) .01 | 2.99 (1.15) .01 |
| ab | Covar (Slopes) | 0.05 (0.02) .02 | 0.05 (0.02) .02 | 0.06 (0.02) .01 | 0.06 (0.02) .01 |
| ab | Covar (Residuals) | -0.06 (0.20) .76 | -0.05 (0.20) .80 | -0.08 (0.21) .71 | -0.09 (0.21) .66 |
| er | Corr (Levels) | 0.27 (0.06) <.01 | 0.21 (0.06) <.01 | 0.18 (0.07) .01 | 0.19 (0.07) .01 |
| er | Corr (Slopes) | 0.68 (0.24) <.01 | 0.67 (0.25) .01 | 0.69 (0.26) .01 | 0.78 (0.30) .01 |
| er | Corr (Residuals) | -0.01 (0.04) .76 | -0.01 (0.04) .80 | -0.02 (0.05) .71 | -0.02 (0.05) .66 |
| a | Level | 8.84 (0.21) <.01 | 8.80 (0.21) <.01 | 8.99 (0.22) <.01 | 9.20 (0.26) <.01 |
| a | Slope | -0.33 (0.03) <.01 | -0.33 (0.03) <.01 | -0.34 (0.03) <.01 | -0.34 (0.04) <.01 |
| a | Level \* age | -0.22 (0.04) <.01 | -0.21 (0.04) <.01 | -0.15 (0.04) <.01 | -0.16 (0.04) <.01 |
| a | Level \* education | --- | 0.17 (0.07) .01 | 0.14 (0.07) .06 | 0.17 (0.07) .03 |
| a | Level \* height | --- | --- | 9.08 (2.30) <.01 | 9.12 (2.28) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.53 (0.33) .11 |
| a | Level \* cardio | --- | --- | --- | -0.13 (0.25) .59 |
| a | Level \* diabetes | --- | --- | --- | -0.02 (0.52) .97 |
| a | Slope \* age | -0.00 (0.01) .68 | -0.00 (0.01) .68 | -0.00 (0.01) .51 | -0.00 (0.01) .62 |
| a | Slope \* education | --- | -0.00 (0.01) .68 | -0.01 (0.01) .57 | -0.01 (0.01) .50 |
| a | Slope \* height | --- | --- | -0.29 (0.32) .36 | -0.30 (0.32) .34 |
| a | Slope \* smoking | --- | --- | --- | 0.01 (0.05) .76 |
| a | Slope \* cardio | --- | --- | --- | -0.01 (0.04) .88 |
| a | Slope \* diabetes | --- | --- | --- | -0.04 (0.10) .66 |
| b | Level | 30.83 (1.07) <.01 | 30.31 (0.91) <.01 | 30.47 (1.01) <.01 | 29.62 (1.17) <.01 |
| b | Slope | -0.34 (0.09) <.01 | -0.34 (0.09) <.01 | -0.33 (0.11) <.01 | -0.12 (0.14) .37 |
| b | Level \* age | -0.86 (0.23) <.01 | -0.74 (0.18) <.01 | -0.68 (0.23) <.01 | -0.66 (0.23) <.01 |
| b | Level \* education | --- | 2.23 (0.24) <.01 | 2.14 (0.24) <.01 | 2.13 (0.26) <.01 |
| b | Level \* height | --- | --- | 1.04 (12.90) .94 | 0.57 (12.88) .96 |
| b | Level \* smoking | --- | --- | --- | 0.90 (1.31) .49 |
| b | Level \* cardio | --- | --- | --- | 1.42 (1.14) .21 |
| b | Level \* diabetes | --- | --- | --- | -0.70 (2.67) .79 |
| b | Slope \* age | -0.04 (0.03) .15 | -0.04 (0.03) .15 | -0.04 (0.03) .23 | -0.04 (0.03) .22 |
| b | Slope \* education | --- | 0.00 (0.03) .99 | -0.01 (0.04) .75 | -0.02 (0.04) .51 |
| b | Slope \* height | --- | --- | 1.32 (1.47) .37 | 1.51 (1.42) .29 |
| b | Slope \* smoking | --- | --- | --- | -0.10 (0.19) .62 |
| b | Slope \* cardio | --- | --- | --- | -0.47 (0.15) <.01 |
| b | Slope \* diabetes | --- | --- | --- | 0.36 (0.40) .37 |
| a | Var (Level) | 3.78 (0.49) <.01 | 3.63 (0.47) <.01 | 3.25 (0.46) <.01 | 3.20 (0.45) <.01 |
| a | Var (Slope) | 0.02 (0.01) .05 | 0.02 (0.01) .06 | 0.02 (0.01) .05 | 0.02 (0.01) .05 |
| a | Var (Residual) | 1.28 (0.12) <.01 | 1.28 (0.12) <.01 | 1.27 (0.13) <.01 | 1.27 (0.13) <.01 |
| b | Var (Level) | 102.93 (9.55) <.01 | 79.77 (8.15) <.01 | 77.13 (8.66) <.01 | 76.45 (8.58) <.01 |
| b | Var (Slope) | 0.36 (0.09) <.01 | 0.36 (0.09) <.01 | 0.35 (0.10) <.01 | 0.30 (0.09) <.01 |
| b | Var (Residual) | 16.11 (1.37) <.01 | 16.12 (1.38) <.01 | 16.49 (1.42) <.01 | 16.48 (1.44) <.01 |
| a | Covar (Level, Slope) | -0.05 (0.04) .21 | -0.05 (0.04) .21 | -0.04 (0.04) .31 | -0.04 (0.04) .35 |
| b | Covar (Level, Slope) | 0.74 (0.79) .35 | 0.72 (0.66) .27 | 0.91 (0.68) .18 | 1.10 (0.67) .10 |
|  | Correlation of Levels | 0.271 | 0.210 | 0.179 | 0.19 |
|  | Correlation of Slopes | 0.673 | 0.680 | 0.696 | 0.78 |
|  | Correlation of Residuals | -0.014 | -0.012 | -0.017 | -0.02 |
|  | N | 305 | 302 | 275 | 275 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,965 | -4,916 | -4,648 | -4,640 |
|  | AIC | 9,972 | 9,882 | 9,354 | 9,362 |
|  | BIC | 10,050 | 9,975 | 9,459 | 9,510 |

## mir

Gender = *female*; Process (a) = *grip*; Process (b) = *mir*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 0.65 (0.27) .01 | 0.63 (0.25) .01 | 0.44 (0.23) .06 | 0.45 (0.22) .04 |
| ab | Covar (Slopes) | 0.03 (0.01) <.01 | 0.03 (0.01) <.01 | 0.03 (0.01) <.01 | 0.03 (0.01) <.01 |
| ab | Covar (Residuals) | 0.07 (0.07) .35 | 0.07 (0.07) .34 | 0.07 (0.07) .33 | 0.07 (0.07) .34 |
| er | Corr (Levels) | 0.19 (0.07) .01 | 0.19 (0.07) .01 | 0.16 (0.08) .04 | 0.16 (0.08) .04 |
| er | Corr (Slopes) | 0.63 (0.15) <.01 | 0.62 (0.15) <.01 | 0.61 (0.15) <.01 | 0.63 (0.16) <.01 |
| er | Corr (Residuals) | 0.04 (0.05) .35 | 0.04 (0.05) .34 | 0.04 (0.05) .32 | 0.04 (0.05) .34 |
| a | Level | 8.83 (0.21) <.01 | 8.80 (0.21) <.01 | 8.99 (0.22) <.01 | 9.20 (0.26) <.01 |
| a | Slope | -0.33 (0.03) <.01 | -0.33 (0.03) <.01 | -0.33 (0.03) <.01 | -0.34 (0.04) <.01 |
| a | Level \* age | -0.22 (0.04) <.01 | -0.21 (0.04) <.01 | -0.15 (0.04) <.01 | -0.16 (0.04) <.01 |
| a | Level \* education | --- | 0.17 (0.07) .01 | 0.14 (0.07) .06 | 0.17 (0.07) .03 |
| a | Level \* height | --- | --- | 9.07 (2.31) <.01 | 9.10 (2.30) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.52 (0.33) .12 |
| a | Level \* cardio | --- | --- | --- | -0.14 (0.25) .56 |
| a | Level \* diabetes | --- | --- | --- | -0.01 (0.52) .98 |
| a | Slope \* age | -0.00 (0.01) .55 | -0.00 (0.01) .62 | -0.00 (0.01) .46 | -0.00 (0.01) .56 |
| a | Slope \* education | --- | -0.00 (0.01) .61 | -0.01 (0.01) .50 | -0.01 (0.01) .50 |
| a | Slope \* height | --- | --- | -0.18 (0.32) .58 | -0.18 (0.32) .58 |
| a | Slope \* smoking | --- | --- | --- | 0.00 (0.05) .99 |
| a | Slope \* cardio | --- | --- | --- | 0.00 (0.04) .90 |
| a | Slope \* diabetes | --- | --- | --- | -0.05 (0.10) .62 |
| b | Level | 7.63 (0.19) <.01 | 7.62 (0.20) <.01 | 7.79 (0.18) <.01 | 7.74 (0.24) <.01 |
| b | Slope | -0.06 (0.05) .20 | -0.06 (0.05) .24 | -0.06 (0.05) .23 | -0.01 (0.06) .84 |
| b | Level \* age | -0.16 (0.05) <.01 | -0.14 (0.05) <.01 | -0.15 (0.05) <.01 | -0.16 (0.05) <.01 |
| b | Level \* education | --- | 0.02 (0.07) .76 | 0.03 (0.07) .69 | 0.02 (0.07) .72 |
| b | Level \* height | --- | --- | -1.47 (2.06) .48 | -1.44 (2.04) .48 |
| b | Level \* smoking | --- | --- | --- | 0.09 (0.31) .76 |
| b | Level \* cardio | --- | --- | --- | 0.06 (0.25) .80 |
| b | Level \* diabetes | --- | --- | --- | 0.26 (0.43) .55 |
| b | Slope \* age | -0.02 (0.01) .10 | -0.02 (0.01) .10 | -0.02 (0.01) .17 | -0.02 (0.01) .14 |
| b | Slope \* education | --- | -0.00 (0.02) .85 | -0.00 (0.02) .78 | -0.00 (0.02) .90 |
| b | Slope \* height | --- | --- | 0.41 (0.57) .47 | 0.42 (0.57) .46 |
| b | Slope \* smoking | --- | --- | --- | -0.07 (0.09) .40 |
| b | Slope \* cardio | --- | --- | --- | -0.07 (0.07) .33 |
| b | Slope \* diabetes | --- | --- | --- | 0.05 (0.12) .66 |
| a | Var (Level) | 3.79 (0.50) <.01 | 3.64 (0.47) <.01 | 3.26 (0.46) <.01 | 3.21 (0.45) <.01 |
| a | Var (Slope) | 0.02 (0.01) .04 | 0.02 (0.01) .04 | 0.02 (0.01) .03 | 0.02 (0.01) .03 |
| a | Var (Residual) | 1.27 (0.12) <.01 | 1.27 (0.12) <.01 | 1.26 (0.12) <.01 | 1.26 (0.12) <.01 |
| b | Var (Level) | 3.15 (0.54) <.01 | 2.88 (0.50) <.01 | 2.41 (0.48) <.01 | 2.38 (0.48) <.01 |
| b | Var (Slope) | 0.09 (0.02) <.01 | 0.09 (0.02) <.01 | 0.09 (0.02) <.01 | 0.09 (0.02) <.01 |
| b | Var (Residual) | 1.89 (0.17) <.01 | 1.88 (0.17) <.01 | 1.85 (0.17) <.01 | 1.85 (0.17) <.01 |
| a | Covar (Level, Slope) | -0.06 (0.04) .18 | -0.06 (0.04) .19 | -0.05 (0.04) .25 | -0.04 (0.04) .28 |
| b | Covar (Level, Slope) | -0.01 (0.08) .88 | -0.03 (0.07) .69 | 0.00 (0.07) .99 | 0.01 (0.07) .85 |
|  | Correlation of Levels | 0.189 | 0.194 | 0.157 | 0.163 |
|  | Correlation of Slopes | 0.629 | 0.625 | 0.595 | 0.644 |
|  | Correlation of Residuals | 0.044 | 0.045 | 0.045 | 0.044 |
|  | N | 303 | 299 | 273 | 273 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,735 | -3,699 | -3,501 | -3,498 |
|  | AIC | 7,511 | 7,449 | 7,060 | 7,077 |
|  | BIC | 7,589 | 7,541 | 7,164 | 7,225 |

## mir\_recog

Gender = *female*; Process (a) = *grip*; Process (b) = *mir\_recog*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | -0.14 (0.52) .79 | -0.12 (0.15) .41 | -0.10 (0.12) .40 | -0.09 (0.12) .44 |
| ab | Covar (Slopes) | 0.00 (0.03) .97 | -0.00 (0.00) .53 | -0.00 (0.00) .67 | -0.00 (0.00) .67 |
| ab | Covar (Residuals) | 0.11 (0.05) .04 | 0.12 (0.05) .03 | 0.10 (0.05) .04 | 0.10 (0.05) .04 |
| er | Corr (Levels) | -0.06 (0.26) .81 | -0.09 (0.11) .41 | -0.09 (0.10) .38 | -0.08 (0.10) .42 |
| er | Corr (Slopes) | 0.06 (1.70) .97 | -0.25 (0.36) .48 | -0.16 (0.33) .64 | -0.15 (0.33) .65 |
| er | Corr (Residuals) | 0.17 (0.06) <.01 | 0.18 (0.06) <.01 | 0.17 (0.06) .01 | 0.17 (0.06) .01 |
| a | Level | 8.83 (0.21) <.01 | 8.80 (0.21) <.01 | 8.99 (0.22) <.01 | 9.20 (0.26) <.01 |
| a | Slope | -0.33 (0.03) <.01 | -0.33 (0.03) <.01 | -0.33 (0.03) <.01 | -0.34 (0.04) <.01 |
| a | Level \* age | -0.21 (0.04) <.01 | -0.21 (0.04) <.01 | -0.15 (0.04) <.01 | -0.16 (0.04) <.01 |
| a | Level \* education | --- | 0.17 (0.07) .01 | 0.14 (0.07) .05 | 0.17 (0.07) .03 |
| a | Level \* height | --- | --- | 8.95 (2.31) <.01 | 8.99 (2.29) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.52 (0.33) .11 |
| a | Level \* cardio | --- | --- | --- | -0.15 (0.25) .55 |
| a | Level \* diabetes | --- | --- | --- | -0.04 (0.52) .94 |
| a | Slope \* age | -0.00 (0.01) .68 | -0.00 (0.01) .71 | -0.00 (0.01) .55 | -0.00 (0.01) .64 |
| a | Slope \* education | --- | -0.00 (0.01) .59 | -0.01 (0.01) .46 | -0.01 (0.01) .41 |
| a | Slope \* height | --- | --- | -0.18 (0.32) .56 | -0.19 (0.32) .55 |
| a | Slope \* smoking | --- | --- | --- | 0.01 (0.05) .81 |
| a | Slope \* cardio | --- | --- | --- | 0.00 (0.04) .97 |
| a | Slope \* diabetes | --- | --- | --- | -0.04 (0.10) .71 |
| b | Level | 9.89 (0.09) <.01 | 9.86 (0.08) <.01 | 9.85 (0.08) <.01 | 9.82 (0.10) <.01 |
| b | Slope | 0.01 (0.03) .83 | 0.01 (0.02) .66 | 0.01 (0.02) .49 | 0.01 (0.02) .49 |
| b | Level \* age | -0.06 (0.03) .06 | -0.03 (0.02) .23 | -0.04 (0.03) .16 | -0.04 (0.03) .19 |
| b | Level \* education | --- | 0.04 (0.02) .01 | 0.04 (0.02) .02 | 0.03 (0.01) .03 |
| b | Level \* height | --- | --- | -2.17 (0.93) .02 | -2.19 (0.93) .02 |
| b | Level \* smoking | --- | --- | --- | 0.12 (0.07) .07 |
| b | Level \* cardio | --- | --- | --- | -0.02 (0.10) .87 |
| b | Level \* diabetes | --- | --- | --- | 0.06 (0.19) .77 |
| b | Slope \* age | -0.01 (0.01) .29 | -0.01 (0.00) .08 | -0.01 (0.01) .08 | -0.01 (0.01) .09 |
| b | Slope \* education | --- | 0.00 (0.00) .62 | 0.00 (0.00) .47 | 0.00 (0.00) .36 |
| b | Slope \* height | --- | --- | 0.04 (0.22) .84 | 0.05 (0.22) .82 |
| b | Slope \* smoking | --- | --- | --- | -0.01 (0.01) .59 |
| b | Slope \* cardio | --- | --- | --- | 0.00 (0.02) .92 |
| b | Slope \* diabetes | --- | --- | --- | 0.01 (0.05) .81 |
| a | Var (Level) | 3.82 (0.52) <.01 | 3.65 (0.47) <.01 | 3.28 (0.47) <.01 | 3.23 (0.46) <.01 |
| a | Var (Slope) | 0.02 (0.03) .41 | 0.02 (0.01) .04 | 0.02 (0.01) .03 | 0.02 (0.01) .04 |
| a | Var (Residual) | 1.26 (0.12) <.01 | 1.26 (0.12) <.01 | 1.25 (0.12) <.01 | 1.25 (0.12) <.01 |
| b | Var (Level) | 1.29 (1.24) .30 | 0.50 (0.28) .08 | 0.42 (0.25) .10 | 0.41 (0.26) .11 |
| b | Var (Slope) | 0.01 (0.02) .65 | 0.01 (0.01) .56 | 0.01 (0.01) .54 | 0.01 (0.01) .54 |
| b | Var (Residual) | 0.34 (0.13) .01 | 0.33 (0.10) <.01 | 0.32 (0.10) <.01 | 0.32 (0.10) <.01 |
| a | Covar (Level, Slope) | -0.06 (0.07) .37 | -0.06 (0.05) .19 | -0.05 (0.05) .24 | -0.05 (0.05) .27 |
| b | Covar (Level, Slope) | 0.11 (0.37) .77 | 0.04 (0.09) .68 | 0.04 (0.08) .62 | 0.04 (0.08) .62 |
|  | Correlation of Levels | -0.061 | -0.09 | -0.087 | -0.081 |
|  | Correlation of Slopes | 0.063 | -0.25 | -0.161 | -0.161 |
|  | Correlation of Residuals | 0.172 | 0.18 | 0.167 | 0.165 |
|  | N | 303 | 299 | 273 | 273 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,059 | -2,919 | -2,738 | -2,736 |
|  | AIC | 6,161 | 5,887 | 5,535 | 5,554 |
|  | BIC | 6,239 | 5,980 | 5,639 | 5,702 |

## mmse

Gender = *female*; Process (a) = *grip*; Process (b) = *mmse*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 1.88 (0.74) .01 | 0.79 (0.34) .02 | 0.15 (0.29) .60 | 0.11 (0.29) .69 |
| ab | Covar (Slopes) | 0.06 (0.02) .01 | 0.07 (0.02) .01 | 0.07 (0.02) <.01 | 0.07 (0.02) <.01 |
| ab | Covar (Residuals) | 0.48 (0.20) .02 | 0.46 (0.20) .02 | 0.38 (0.19) .05 | 0.38 (0.19) .05 |
| er | Corr (Levels) | 0.31 (0.09) <.01 | 0.22 (0.08) .01 | 0.06 (0.11) .59 | 0.04 (0.11) .69 |
| er | Corr (Slopes) | 0.73 (0.15) <.01 | 0.76 (0.14) <.01 | 0.76 (0.14) <.01 | 0.76 (0.14) <.01 |
| er | Corr (Residuals) | 0.19 (0.07) .01 | 0.19 (0.07) .01 | 0.16 (0.07) .03 | 0.16 (0.07) .03 |
| a | Level | 8.77 (0.21) <.01 | 8.79 (0.21) <.01 | 8.98 (0.22) <.01 | 9.21 (0.26) <.01 |
| a | Slope | -0.32 (0.03) <.01 | -0.32 (0.03) <.01 | -0.33 (0.03) <.01 | -0.33 (0.04) <.01 |
| a | Level \* age | -0.21 (0.04) <.01 | -0.21 (0.04) <.01 | -0.15 (0.05) <.01 | -0.16 (0.04) <.01 |
| a | Level \* education | --- | 0.16 (0.07) .02 | 0.14 (0.07) .06 | 0.17 (0.07) .03 |
| a | Level \* height | --- | --- | 9.01 (2.32) <.01 | 9.04 (2.30) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.54 (0.33) .10 |
| a | Level \* cardio | --- | --- | --- | -0.15 (0.25) .54 |
| a | Level \* diabetes | --- | --- | --- | -0.04 (0.53) .94 |
| a | Slope \* age | -0.01 (0.01) .27 | -0.01 (0.01) .25 | -0.01 (0.01) .28 | -0.01 (0.01) .37 |
| a | Slope \* education | --- | -0.01 (0.01) .48 | -0.01 (0.01) .28 | -0.01 (0.01) .25 |
| a | Slope \* height | --- | --- | -0.28 (0.32) .38 | -0.29 (0.32) .36 |
| a | Slope \* smoking | --- | --- | --- | 0.01 (0.05) .84 |
| a | Slope \* cardio | --- | --- | --- | -0.00 (0.04) .94 |
| a | Slope \* diabetes | --- | --- | --- | -0.05 (0.09) .59 |
| b | Level | 28.42 (0.31) <.01 | 28.63 (0.22) <.01 | 28.85 (0.21) <.01 | 29.14 (0.26) <.01 |
| b | Slope | -0.22 (0.07) <.01 | -0.23 (0.07) <.01 | -0.27 (0.07) <.01 | -0.21 (0.09) .02 |
| b | Level \* age | -0.30 (0.06) <.01 | -0.28 (0.05) <.01 | -0.24 (0.05) <.01 | -0.24 (0.05) <.01 |
| b | Level \* education | --- | 0.28 (0.06) <.01 | 0.25 (0.06) <.01 | 0.27 (0.06) <.01 |
| b | Level \* height | --- | --- | 1.29 (2.63) .62 | 1.30 (2.61) .62 |
| b | Level \* smoking | --- | --- | --- | -0.51 (0.36) .16 |
| b | Level \* cardio | --- | --- | --- | -0.30 (0.29) .29 |
| b | Level \* diabetes | --- | --- | --- | -0.37 (0.66) .58 |
| b | Slope \* age | -0.07 (0.02) <.01 | -0.07 (0.02) .01 | -0.05 (0.02) .01 | -0.05 (0.02) .01 |
| b | Slope \* education | --- | 0.02 (0.02) .40 | 0.01 (0.03) .65 | 0.02 (0.03) .49 |
| b | Slope \* height | --- | --- | -0.53 (0.91) .56 | -0.50 (0.91) .58 |
| b | Slope \* smoking | --- | --- | --- | -0.14 (0.15) .34 |
| b | Slope \* cardio | --- | --- | --- | -0.04 (0.12) .74 |
| b | Slope \* diabetes | --- | --- | --- | -0.04 (0.20) .86 |
| a | Var (Level) | 3.96 (0.52) <.01 | 3.67 (0.47) <.01 | 3.29 (0.46) <.01 | 3.24 (0.45) <.01 |
| a | Var (Slope) | 0.02 (0.01) .03 | 0.02 (0.01) .03 | 0.02 (0.01) .03 | 0.02 (0.01) .03 |
| a | Var (Residual) | 1.26 (0.12) <.01 | 1.26 (0.12) <.01 | 1.25 (0.12) <.01 | 1.25 (0.12) <.01 |
| b | Var (Level) | 9.56 (3.20) <.01 | 3.53 (0.81) <.01 | 2.13 (0.57) <.01 | 2.08 (0.57) <.01 |
| b | Var (Slope) | 0.32 (0.08) <.01 | 0.34 (0.09) <.01 | 0.34 (0.09) <.01 | 0.34 (0.08) <.01 |
| b | Var (Residual) | 5.04 (0.73) <.01 | 4.83 (0.70) <.01 | 4.48 (0.68) <.01 | 4.47 (0.68) <.01 |
| a | Covar (Level, Slope) | -0.04 (0.05) .34 | -0.04 (0.04) .33 | -0.04 (0.04) .36 | -0.04 (0.04) .40 |
| b | Covar (Level, Slope) | 0.56 (0.35) .11 | 0.46 (0.22) .04 | 0.31 (0.18) .09 | 0.30 (0.18) .09 |
|  | Correlation of Levels | 0.31 | 0.22 | 0.058 | 0.044 |
|  | Correlation of Slopes | 0.74 | 0.77 | 0.750 | 0.767 |
|  | Correlation of Residuals | 0.19 | 0.19 | 0.161 | 0.161 |
|  | N | 311 | 305 | 276 | 276 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,554 | -4,413 | -4,108 | -4,104 |
|  | AIC | 9,149 | 8,877 | 8,274 | 8,290 |
|  | BIC | 9,228 | 8,970 | 8,379 | 8,438 |

## prose\_im

Gender = *female*; Process (a) = *grip*; Process (b) = *prose\_im*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 1.20 (0.47) .01 | 0.83 (0.41) .04 | 0.65 (0.40) .10 | 0.71 (0.41) .08 |
| ab | Covar (Slopes) | 0.01 (0.01) .37 | 0.01 (0.01) .42 | 0.01 (0.01) .34 | 0.01 (0.01) .32 |
| ab | Covar (Residuals) | 0.17 (0.15) .27 | 0.17 (0.15) .26 | 0.13 (0.16) .40 | 0.14 (0.16) .38 |
| er | Corr (Levels) | 0.20 (0.07) .01 | 0.15 (0.07) .04 | 0.13 (0.08) .10 | 0.14 (0.08) .08 |
| er | Corr (Slopes) | 0.31 (0.31) .32 | 0.28 (0.32) .38 | 0.34 (0.33) .30 | 0.37 (0.35) .29 |
| er | Corr (Residuals) | 0.07 (0.06) .26 | 0.07 (0.06) .24 | 0.06 (0.06) .39 | 0.06 (0.06) .36 |
| a | Level | 8.83 (0.21) <.01 | 8.80 (0.21) <.01 | 8.99 (0.22) <.01 | 9.21 (0.26) <.01 |
| a | Slope | -0.33 (0.03) <.01 | -0.33 (0.03) <.01 | -0.34 (0.03) <.01 | -0.34 (0.04) <.01 |
| a | Level \* age | -0.22 (0.04) <.01 | -0.21 (0.04) <.01 | -0.15 (0.04) <.01 | -0.16 (0.04) <.01 |
| a | Level \* education | --- | 0.17 (0.07) .01 | 0.14 (0.07) .05 | 0.17 (0.07) .02 |
| a | Level \* height | --- | --- | 9.08 (2.30) <.01 | 9.14 (2.28) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.54 (0.33) .10 |
| a | Level \* cardio | --- | --- | --- | -0.15 (0.25) .56 |
| a | Level \* diabetes | --- | --- | --- | -0.01 (0.52) .98 |
| a | Slope \* age | -0.00 (0.01) .71 | -0.00 (0.01) .73 | -0.00 (0.01) .54 | -0.00 (0.01) .66 |
| a | Slope \* education | --- | -0.01 (0.01) .51 | -0.01 (0.01) .42 | -0.01 (0.01) .38 |
| a | Slope \* height | --- | --- | -0.20 (0.30) .52 | -0.20 (0.31) .51 |
| a | Slope \* smoking | --- | --- | --- | 0.01 (0.05) .86 |
| a | Slope \* cardio | --- | --- | --- | 0.00 (0.04) .99 |
| a | Slope \* diabetes | --- | --- | --- | -0.06 (0.10) .57 |
| b | Level | 11.13 (0.34) <.01 | 11.01 (0.31) <.01 | 11.29 (0.34) <.01 | 11.15 (0.41) <.01 |
| b | Slope | -0.12 (0.05) .03 | -0.10 (0.05) .04 | -0.10 (0.05) .06 | -0.04 (0.06) .53 |
| b | Level \* age | -0.28 (0.08) <.01 | -0.24 (0.07) <.01 | -0.28 (0.08) <.01 | -0.25 (0.09) <.01 |
| b | Level \* education | --- | 0.46 (0.10) <.01 | 0.47 (0.10) <.01 | 0.46 (0.11) <.01 |
| b | Level \* height | --- | --- | 1.12 (3.84) .77 | 1.07 (3.98) .79 |
| b | Level \* smoking | --- | --- | --- | 0.25 (0.50) .61 |
| b | Level \* cardio | --- | --- | --- | 0.26 (0.42) .54 |
| b | Level \* diabetes | --- | --- | --- | -1.79 (1.18) .13 |
| b | Slope \* age | 0.02 (0.01) .13 | 0.02 (0.01) .14 | 0.02 (0.01) .10 | 0.02 (0.02) .17 |
| b | Slope \* education | --- | -0.04 (0.02) .05 | -0.05 (0.02) .02 | -0.04 (0.02) .04 |
| b | Slope \* height | --- | --- | 0.57 (0.74) .44 | 0.61 (0.76) .43 |
| b | Slope \* smoking | --- | --- | --- | -0.12 (0.10) .20 |
| b | Slope \* cardio | --- | --- | --- | -0.08 (0.09) .38 |
| b | Slope \* diabetes | --- | --- | --- | 0.09 (0.14) .54 |
| a | Var (Level) | 3.78 (0.49) <.01 | 3.62 (0.47) <.01 | 3.24 (0.46) <.01 | 3.20 (0.45) <.01 |
| a | Var (Slope) | 0.02 (0.01) .06 | 0.02 (0.01) .07 | 0.02 (0.01) .05 | 0.02 (0.01) .06 |
| a | Var (Residual) | 1.28 (0.12) <.01 | 1.29 (0.12) <.01 | 1.27 (0.13) <.01 | 1.27 (0.13) <.01 |
| b | Var (Level) | 9.66 (1.17) <.01 | 8.21 (1.00) <.01 | 7.97 (1.02) <.01 | 7.78 (0.97) <.01 |
| b | Var (Slope) | 0.10 (0.04) .01 | 0.09 (0.03) .01 | 0.08 (0.03) .01 | 0.08 (0.03) .01 |
| b | Var (Residual) | 4.39 (0.39) <.01 | 4.38 (0.39) <.01 | 4.35 (0.38) <.01 | 4.35 (0.38) <.01 |
| a | Covar (Level, Slope) | -0.05 (0.04) .25 | -0.05 (0.04) .27 | -0.04 (0.04) .36 | -0.04 (0.04) .40 |
| b | Covar (Level, Slope) | -0.49 (0.16) <.01 | -0.40 (0.14) .01 | -0.39 (0.14) .01 | -0.38 (0.13) <.01 |
|  | Correlation of Levels | 0.198 | 0.152 | 0.128 | 0.143 |
|  | Correlation of Slopes | 0.294 | 0.290 | 0.353 | 0.362 |
|  | Correlation of Residuals | 0.071 | 0.073 | 0.056 | 0.059 |
|  | N | 302 | 299 | 273 | 273 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,931 | -3,893 | -3,683 | -3,677 |
|  | AIC | 7,904 | 7,836 | 7,423 | 7,436 |
|  | BIC | 7,982 | 7,929 | 7,528 | 7,584 |

## psif

Gender = *female*; Process (a) = *grip*; Process (b) = *psif*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 1.64 (0.70) .02 | 1.29 (0.64) .04 | 0.88 (0.63) .16 | 1.13 (0.63) .07 |
| ab | Covar (Slopes) | 0.02 (0.03) .53 | 0.02 (0.03) .46 | 0.02 (0.03) .52 | 0.02 (0.03) .57 |
| ab | Covar (Residuals) | 0.17 (0.20) .41 | 0.18 (0.20) .37 | 0.19 (0.20) .35 | 0.22 (0.20) .28 |
| er | Corr (Levels) | 0.28 (0.12) .02 | 0.23 (0.12) .05 | 0.17 (0.13) .17 | 0.23 (0.14) .09 |
| er | Corr (Slopes) | 0.51 (1.49) .73 | 0.52 (1.24) .68 | 0.46 (1.34) .73 | 0.49 (1.81) .79 |
| er | Corr (Residuals) | 0.06 (0.07) .42 | 0.07 (0.07) .38 | 0.07 (0.08) .36 | 0.08 (0.07) .30 |
| a | Level | 8.84 (0.21) <.01 | 8.81 (0.21) <.01 | 9.00 (0.22) <.01 | 9.20 (0.27) <.01 |
| a | Slope | -0.34 (0.03) <.01 | -0.34 (0.03) <.01 | -0.34 (0.04) <.01 | -0.34 (0.05) <.01 |
| a | Level \* age | -0.22 (0.04) <.01 | -0.21 (0.04) <.01 | -0.15 (0.04) <.01 | -0.16 (0.04) <.01 |
| a | Level \* education | --- | 0.16 (0.07) .01 | 0.13 (0.07) .06 | 0.16 (0.07) .03 |
| a | Level \* height | --- | --- | 8.77 (2.32) <.01 | 8.85 (2.31) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.54 (0.33) .11 |
| a | Level \* cardio | --- | --- | --- | -0.12 (0.25) .65 |
| a | Level \* diabetes | --- | --- | --- | -0.06 (0.52) .90 |
| a | Slope \* age | -0.00 (0.01) .76 | -0.00 (0.01) .82 | -0.00 (0.01) .73 | -0.00 (0.01) .80 |
| a | Slope \* education | --- | 0.00 (0.01) .95 | -0.00 (0.01) .84 | -0.00 (0.01) .75 |
| a | Slope \* height | --- | --- | -0.01 (0.38) .97 | -0.03 (0.38) .95 |
| a | Slope \* smoking | --- | --- | --- | 0.01 (0.06) .80 |
| a | Slope \* cardio | --- | --- | --- | -0.02 (0.04) .63 |
| a | Slope \* diabetes | --- | --- | --- | -0.02 (0.13) .86 |
| b | Level | 11.88 (0.47) <.01 | 11.79 (0.46) <.01 | 11.93 (0.47) <.01 | 11.44 (0.52) <.01 |
| b | Slope | -0.22 (0.08) <.01 | -0.22 (0.08) <.01 | -0.22 (0.08) .01 | -0.12 (0.09) .19 |
| b | Level \* age | -0.25 (0.12) .04 | -0.23 (0.12) .06 | -0.20 (0.13) .12 | -0.21 (0.13) .10 |
| b | Level \* education | --- | 0.34 (0.13) .01 | 0.32 (0.14) .02 | 0.38 (0.13) <.01 |
| b | Level \* height | --- | --- | 2.76 (5.22) .60 | 3.23 (5.16) .53 |
| b | Level \* smoking | --- | --- | --- | 0.05 (0.60) .93 |
| b | Level \* cardio | --- | --- | --- | 1.38 (0.56) .01 |
| b | Level \* diabetes | --- | --- | --- | -2.84 (0.83) <.01 |
| b | Slope \* age | 0.00 (0.03) .91 | 0.00 (0.03) .86 | 0.00 (0.03) .88 | 0.01 (0.03) .69 |
| b | Slope \* education | --- | 0.01 (0.03) .85 | 0.01 (0.03) .80 | -0.01 (0.03) .62 |
| b | Slope \* height | --- | --- | 0.42 (1.17) .72 | 0.71 (1.19) .55 |
| b | Slope \* smoking | --- | --- | --- | 0.06 (0.14) .66 |
| b | Slope \* cardio | --- | --- | --- | -0.33 (0.14) .01 |
| b | Slope \* diabetes | --- | --- | --- | 0.65 (0.23) <.01 |
| a | Var (Level) | 3.70 (0.49) <.01 | 3.56 (0.47) <.01 | 3.18 (0.46) <.01 | 3.14 (0.45) <.01 |
| a | Var (Slope) | 0.02 (0.01) .17 | 0.02 (0.01) .16 | 0.02 (0.01) .13 | 0.02 (0.01) .13 |
| a | Var (Residual) | 1.24 (0.12) <.01 | 1.24 (0.12) <.01 | 1.22 (0.12) <.01 | 1.22 (0.12) <.01 |
| b | Var (Level) | 9.21 (2.68) <.01 | 8.50 (2.68) <.01 | 8.02 (2.73) <.01 | 7.60 (2.80) .01 |
| b | Var (Slope) | 0.06 (0.25) .80 | 0.08 (0.25) .76 | 0.06 (0.26) .80 | 0.06 (0.29) .85 |
| b | Var (Residual) | 6.30 (1.07) <.01 | 6.25 (1.06) <.01 | 6.28 (1.11) <.01 | 6.20 (1.14) <.01 |
| a | Covar (Level, Slope) | -0.01 (0.05) .79 | -0.02 (0.05) .75 | -0.01 (0.05) .82 | -0.01 (0.05) .84 |
| b | Covar (Level, Slope) | -0.54 (0.83) .51 | -0.59 (0.83) .48 | -0.50 (0.86) .56 | -0.44 (0.91) .63 |
|  | Correlation of Levels | 0.281 | 0.234 | 0.175 | 0.231 |
|  | Correlation of Slopes | 0.497 | 0.514 | 0.475 | 0.482 |
|  | Correlation of Residuals | 0.059 | 0.066 | 0.069 | 0.079 |
|  | N | 298 | 296 | 271 | 271 |
|  | occasions | 4 | 4 | 4 | 4 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,882 | -2,858 | -2,715 | -2,708 |
|  | AIC | 5,805 | 5,766 | 5,489 | 5,497 |
|  | BIC | 5,883 | 5,858 | 5,593 | 5,645 |

## symbol

Gender = *female*; Process (a) = *grip*; Process (b) = *symbol*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 4.86 (1.68) <.01 | 3.48 (1.40) .01 | 2.38 (1.29) .06 | 2.57 (1.26) .04 |
| ab | Covar (Slopes) | 0.01 (0.02) .74 | 0.01 (0.02) .68 | 0.01 (0.02) .69 | 0.01 (0.02) .58 |
| ab | Covar (Residuals) | 0.75 (0.32) .02 | 0.75 (0.33) .02 | 0.71 (0.32) .03 | 0.72 (0.32) .02 |
| er | Corr (Levels) | 0.27 (0.08) <.01 | 0.22 (0.08) .01 | 0.16 (0.09) .06 | 0.18 (0.08) .04 |
| er | Corr (Slopes) | 0.08 (0.26) .74 | 0.11 (0.26) .68 | 0.10 (0.25) .69 | 0.17 (0.30) .58 |
| er | Corr (Residuals) | 0.12 (0.05) .02 | 0.12 (0.05) .02 | 0.12 (0.05) .02 | 0.12 (0.05) .02 |
| a | Level | 8.83 (0.21) <.01 | 8.80 (0.21) <.01 | 9.00 (0.22) <.01 | 9.21 (0.26) <.01 |
| a | Slope | -0.33 (0.03) <.01 | -0.33 (0.03) <.01 | -0.34 (0.03) <.01 | -0.34 (0.04) <.01 |
| a | Level \* age | -0.22 (0.04) <.01 | -0.21 (0.04) <.01 | -0.15 (0.04) <.01 | -0.16 (0.04) <.01 |
| a | Level \* education | --- | 0.17 (0.07) .01 | 0.14 (0.07) .05 | 0.17 (0.07) .02 |
| a | Level \* height | --- | --- | 9.00 (2.30) <.01 | 9.04 (2.28) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.52 (0.33) .11 |
| a | Level \* cardio | --- | --- | --- | -0.14 (0.25) .58 |
| a | Level \* diabetes | --- | --- | --- | -0.01 (0.52) .98 |
| a | Slope \* age | -0.00 (0.01) .74 | -0.00 (0.01) .76 | -0.00 (0.01) .63 | -0.00 (0.01) .73 |
| a | Slope \* education | --- | -0.01 (0.01) .52 | -0.01 (0.01) .39 | -0.01 (0.01) .36 |
| a | Slope \* height | --- | --- | -0.16 (0.30) .60 | -0.17 (0.30) .58 |
| a | Slope \* smoking | --- | --- | --- | 0.00 (0.05) .96 |
| a | Slope \* cardio | --- | --- | --- | -0.01 (0.04) .88 |
| a | Slope \* diabetes | --- | --- | --- | -0.04 (0.10) .66 |
| b | Level | 28.59 (1.12) <.01 | 28.19 (1.04) <.01 | 28.70 (1.08) <.01 | 28.55 (1.26) <.01 |
| b | Slope | -0.51 (0.15) <.01 | -0.51 (0.15) <.01 | -0.52 (0.16) <.01 | -0.13 (0.18) .49 |
| b | Level \* age | -0.98 (0.26) <.01 | -0.92 (0.27) <.01 | -0.82 (0.28) <.01 | -0.81 (0.28) <.01 |
| b | Level \* education | --- | 1.60 (0.35) <.01 | 1.58 (0.36) <.01 | 1.68 (0.40) <.01 |
| b | Level \* height | --- | --- | 7.50 (11.86) .53 | 7.76 (11.96) .52 |
| b | Level \* smoking | --- | --- | --- | -0.55 (1.81) .76 |
| b | Level \* cardio | --- | --- | --- | 0.88 (1.25) .48 |
| b | Level \* diabetes | --- | --- | --- | -2.87 (3.17) .37 |
| b | Slope \* age | 0.00 (0.04) .94 | 0.01 (0.04) .80 | 0.01 (0.04) .73 | 0.00 (0.04) .94 |
| b | Slope \* education | --- | -0.01 (0.06) .82 | -0.02 (0.06) .71 | -0.04 (0.06) .53 |
| b | Slope \* height | --- | --- | 1.00 (2.12) .64 | 1.21 (1.99) .54 |
| b | Slope \* smoking | --- | --- | --- | -0.34 (0.28) .22 |
| b | Slope \* cardio | --- | --- | --- | -0.80 (0.19) <.01 |
| b | Slope \* diabetes | --- | --- | --- | 1.48 (0.49) <.01 |
| a | Var (Level) | 3.77 (0.49) <.01 | 3.62 (0.47) <.01 | 3.23 (0.46) <.01 | 3.19 (0.45) <.01 |
| a | Var (Slope) | 0.02 (0.01) .07 | 0.02 (0.01) .07 | 0.02 (0.01) .06 | 0.02 (0.01) .07 |
| a | Var (Residual) | 1.28 (0.12) <.01 | 1.29 (0.12) <.01 | 1.28 (0.13) <.01 | 1.27 (0.13) <.01 |
| b | Var (Level) | 83.77 (9.84) <.01 | 71.53 (8.07) <.01 | 67.01 (7.94) <.01 | 66.61 (7.88) <.01 |
| b | Var (Slope) | 0.58 (0.16) <.01 | 0.60 (0.16) <.01 | 0.60 (0.16) <.01 | 0.39 (0.15) .01 |
| b | Var (Residual) | 28.30 (2.39) <.01 | 28.39 (2.38) <.01 | 28.05 (2.38) <.01 | 27.89 (2.36) <.01 |
| a | Covar (Level, Slope) | -0.05 (0.04) .26 | -0.04 (0.04) .28 | -0.04 (0.04) .36 | -0.04 (0.04) .40 |
| b | Covar (Level, Slope) | -2.66 (0.91) <.01 | -2.68 (0.91) <.01 | -2.40 (0.86) <.01 | -1.91 (0.87) .03 |
|  | Correlation of Levels | 0.274 | 0.22 | 0.162 | 0.18 |
|  | Correlation of Slopes | 0.083 | 0.10 | 0.099 | 0.16 |
|  | Correlation of Residuals | 0.124 | 0.12 | 0.119 | 0.12 |
|  | N | 299 | 297 | 272 | 272 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,458 | -4,426 | -4,220 | -4,208 |
|  | AIC | 8,958 | 8,902 | 8,499 | 8,498 |
|  | BIC | 9,036 | 8,995 | 8,604 | 8,646 |

## synonyms

Gender = *female*; Process (a) = *grip*; Process (b) = *synonyms*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 2.26 (0.84) .01 | 1.24 (0.67) .06 | 0.87 (0.69) .21 | 0.94 (0.68) .16 |
| ab | Covar (Slopes) | 0.04 (0.02) .04 | 0.04 (0.02) .04 | 0.04 (0.02) .04 | 0.04 (0.02) .04 |
| ab | Covar (Residuals) | -0.09 (0.17) .57 | -0.10 (0.17) .54 | -0.04 (0.16) .81 | -0.04 (0.16) .80 |
| er | Corr (Levels) | 0.23 (0.08) <.01 | 0.15 (0.08) .06 | 0.12 (0.09) .20 | 0.13 (0.09) .16 |
| er | Corr (Slopes) | 0.70 (0.31) .02 | 0.73 (0.31) .02 | 0.69 (0.29) .02 | 0.69 (0.29) .02 |
| er | Corr (Residuals) | -0.03 (0.06) .57 | -0.03 (0.06) .54 | -0.01 (0.06) .80 | -0.01 (0.06) .80 |
| a | Level | 8.83 (0.21) <.01 | 8.80 (0.21) <.01 | 8.99 (0.22) <.01 | 9.20 (0.26) <.01 |
| a | Slope | -0.33 (0.03) <.01 | -0.33 (0.03) <.01 | -0.34 (0.03) <.01 | -0.34 (0.04) <.01 |
| a | Level \* age | -0.22 (0.04) <.01 | -0.21 (0.04) <.01 | -0.15 (0.04) <.01 | -0.16 (0.04) <.01 |
| a | Level \* education | --- | 0.17 (0.07) .01 | 0.14 (0.07) .05 | 0.17 (0.07) .02 |
| a | Level \* height | --- | --- | 8.98 (2.30) <.01 | 9.02 (2.28) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.52 (0.33) .11 |
| a | Level \* cardio | --- | --- | --- | -0.14 (0.25) .58 |
| a | Level \* diabetes | --- | --- | --- | -0.01 (0.52) .98 |
| a | Slope \* age | -0.00 (0.01) .78 | -0.00 (0.01) .80 | -0.00 (0.01) .63 | -0.00 (0.01) .76 |
| a | Slope \* education | --- | -0.01 (0.01) .54 | -0.01 (0.01) .44 | -0.01 (0.01) .41 |
| a | Slope \* height | --- | --- | -0.18 (0.31) .55 | -0.19 (0.31) .54 |
| a | Slope \* smoking | --- | --- | --- | 0.01 (0.05) .85 |
| a | Slope \* cardio | --- | --- | --- | 0.00 (0.04) .99 |
| a | Slope \* diabetes | --- | --- | --- | -0.05 (0.10) .60 |
| b | Level | 17.63 (0.64) <.01 | 17.18 (0.55) <.01 | 17.32 (0.56) <.01 | 17.13 (0.65) <.01 |
| b | Slope | -0.10 (0.08) .22 | -0.10 (0.08) .24 | -0.08 (0.08) .32 | -0.05 (0.10) .62 |
| b | Level \* age | -0.26 (0.16) .10 | -0.20 (0.12) .12 | -0.14 (0.13) .26 | -0.11 (0.13) .40 |
| b | Level \* education | --- | 1.32 (0.14) <.01 | 1.27 (0.14) <.01 | 1.26 (0.14) <.01 |
| b | Level \* height | --- | --- | 10.54 (7.03) .13 | 11.12 (6.96) .11 |
| b | Level \* smoking | --- | --- | --- | 0.28 (0.77) .71 |
| b | Level \* cardio | --- | --- | --- | 0.41 (0.66) .54 |
| b | Level \* diabetes | --- | --- | --- | -2.56 (1.32) .05 |
| b | Slope \* age | -0.00 (0.02) .86 | -0.00 (0.02) .90 | -0.00 (0.02) .94 | -0.00 (0.02) .98 |
| b | Slope \* education | --- | -0.01 (0.03) .73 | -0.01 (0.03) .71 | -0.00 (0.03) .95 |
| b | Slope \* height | --- | --- | 0.26 (1.07) .81 | 0.17 (1.06) .87 |
| b | Slope \* smoking | --- | --- | --- | -0.09 (0.16) .56 |
| b | Slope \* cardio | --- | --- | --- | -0.04 (0.13) .74 |
| b | Slope \* diabetes | --- | --- | --- | -0.06 (0.28) .83 |
| a | Var (Level) | 3.77 (0.49) <.01 | 3.62 (0.46) <.01 | 3.25 (0.46) <.01 | 3.20 (0.45) <.01 |
| a | Var (Slope) | 0.02 (0.01) .06 | 0.02 (0.01) .07 | 0.02 (0.01) .05 | 0.02 (0.01) .06 |
| a | Var (Residual) | 1.28 (0.12) <.01 | 1.29 (0.12) <.01 | 1.27 (0.13) <.01 | 1.27 (0.13) <.01 |
| b | Var (Level) | 25.02 (2.55) <.01 | 17.86 (2.19) <.01 | 17.44 (2.19) <.01 | 17.16 (2.19) <.01 |
| b | Var (Slope) | 0.18 (0.06) <.01 | 0.18 (0.06) <.01 | 0.19 (0.07) <.01 | 0.19 (0.07) <.01 |
| b | Var (Residual) | 6.85 (0.56) <.01 | 6.84 (0.56) <.01 | 6.78 (0.58) <.01 | 6.77 (0.58) <.01 |
| a | Covar (Level, Slope) | -0.05 (0.04) .25 | -0.05 (0.04) .26 | -0.04 (0.04) .36 | -0.04 (0.04) .39 |
| b | Covar (Level, Slope) | -0.26 (0.33) .43 | -0.18 (0.29) .53 | -0.20 (0.29) .50 | -0.17 (0.30) .58 |
|  | Correlation of Levels | 0.233 | 0.154 | 0.115 | 0.127 |
|  | Correlation of Slopes | 0.704 | 0.737 | 0.700 | 0.688 |
|  | Correlation of Residuals | -0.032 | -0.034 | -0.014 | -0.014 |
|  | N | 301 | 299 | 273 | 273 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,918 | -3,874 | -3,686 | -3,682 |
|  | AIC | 7,877 | 7,799 | 7,429 | 7,445 |
|  | BIC | 7,955 | 7,891 | 7,534 | 7,593 |

## Summary

Study = *OCTO*; Gender = *female*; Process (a) = *grip*

Computed correlations:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Levels | block | 0.38 | 0.35 | 0.32 | 0.30 |
| Correlation of Levels | clock | 0.26 | 0.20 | 0.18 | 0.19 |
| Correlation of Levels | digit\_b | 0.03 | -0.03 | 0.01 | -0.00 |
| Correlation of Levels | digit\_f | 0.05 | -0.03 | -0.05 | -0.06 |
| Correlation of Levels | fig\_logic | 0.36 | 0.33 | 0.30 | 0.29 |
| Correlation of Levels | information | 0.27 | 0.21 | 0.18 | 0.19 |
| Correlation of Levels | mir | 0.19 | 0.19 | 0.16 | 0.16 |
| Correlation of Levels | mir\_recog | -0.06 | -0.09 | -0.09 | -0.08 |
| Correlation of Levels | mmse | 0.31 | 0.22 | 0.06 | 0.04 |
| Correlation of Levels | prose\_im | 0.20 | 0.15 | 0.13 | 0.14 |
| Correlation of Levels | psif | 0.28 | 0.23 | 0.18 | 0.23 |
| Correlation of Levels | symbol | 0.27 | 0.22 | 0.16 | 0.18 |
| Correlation of Levels | synonyms | 0.23 | 0.15 | 0.12 | 0.13 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Slopes | block | 0.86 | 0.87 | 0.86 | 0.76 |
| Correlation of Slopes | clock | 0.57 | 0.59 | 0.66 | 0.67 |
| Correlation of Slopes | digit\_b | -0.43 | -0.50 | -0.49 | -0.49 |
| Correlation of Slopes | digit\_f | 0.09 | 0.10 | 0.10 | 0.11 |
| Correlation of Slopes | fig\_logic | 0.56 | 0.56 | 0.57 | 0.60 |
| Correlation of Slopes | information | 0.67 | 0.68 | 0.70 | 0.78 |
| Correlation of Slopes | mir | 0.63 | 0.63 | 0.59 | 0.64 |
| Correlation of Slopes | mir\_recog | 0.06 | -0.25 | -0.16 | -0.16 |
| Correlation of Slopes | mmse | 0.74 | 0.77 | 0.75 | 0.77 |
| Correlation of Slopes | prose\_im | 0.29 | 0.29 | 0.35 | 0.36 |
| Correlation of Slopes | psif | 0.50 | 0.51 | 0.48 | 0.48 |
| Correlation of Slopes | symbol | 0.08 | 0.10 | 0.10 | 0.16 |
| Correlation of Slopes | synonyms | 0.70 | 0.74 | 0.70 | 0.69 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Residuals | block | 0.05 | 0.05 | 0.04 | 0.05 |
| Correlation of Residuals | clock | 0.11 | 0.11 | 0.06 | 0.07 |
| Correlation of Residuals | digit\_b | 0.06 | 0.06 | 0.05 | 0.05 |
| Correlation of Residuals | digit\_f | 0.06 | 0.06 | 0.05 | 0.05 |
| Correlation of Residuals | fig\_logic | 0.07 | 0.08 | 0.06 | 0.06 |
| Correlation of Residuals | information | -0.01 | -0.01 | -0.02 | -0.02 |
| Correlation of Residuals | mir | 0.04 | 0.04 | 0.05 | 0.04 |
| Correlation of Residuals | mir\_recog | 0.17 | 0.18 | 0.17 | 0.17 |
| Correlation of Residuals | mmse | 0.19 | 0.19 | 0.16 | 0.16 |
| Correlation of Residuals | prose\_im | 0.07 | 0.07 | 0.06 | 0.06 |
| Correlation of Residuals | psif | 0.06 | 0.07 | 0.07 | 0.08 |
| Correlation of Residuals | symbol | 0.12 | 0.12 | 0.12 | 0.12 |
| Correlation of Residuals | synonyms | -0.03 | -0.03 | -0.01 | -0.01 |

P-values for corresponding covariances:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Levels | block | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | clock | 0.01 | 0.03 | 0.10 | 0.10 |
| Covariance of Levels | digit\_b | 0.77 | 0.78 | 0.91 | 0.99 |
| Covariance of Levels | digit\_f | 0.59 | 0.68 | 0.55 | 0.50 |
| Covariance of Levels | fig\_logic | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | information | 0.00 | 0.00 | 0.01 | 0.01 |
| Covariance of Levels | mir | 0.01 | 0.01 | 0.06 | 0.04 |
| Covariance of Levels | mir\_recog | 0.79 | 0.41 | 0.40 | 0.44 |
| Covariance of Levels | mmse | 0.01 | 0.02 | 0.60 | 0.69 |
| Covariance of Levels | prose\_im | 0.01 | 0.04 | 0.10 | 0.08 |
| Covariance of Levels | psif | 0.02 | 0.04 | 0.16 | 0.07 |
| Covariance of Levels | symbol | 0.00 | 0.01 | 0.06 | 0.04 |
| Covariance of Levels | synonyms | 0.01 | 0.06 | 0.21 | 0.16 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Slopes | block | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Slopes | clock | 0.05 | 0.04 | 0.01 | 0.01 |
| Covariance of Slopes | digit\_b | 0.29 | 0.33 | 0.38 | 0.39 |
| Covariance of Slopes | digit\_f | 0.71 | 0.71 | 0.66 | 0.70 |
| Covariance of Slopes | fig\_logic | 0.11 | 0.12 | 0.09 | 0.08 |
| Covariance of Slopes | information | 0.02 | 0.02 | 0.01 | 0.01 |
| Covariance of Slopes | mir | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Slopes | mir\_recog | 0.97 | 0.53 | 0.67 | 0.67 |
| Covariance of Slopes | mmse | 0.01 | 0.01 | 0.00 | 0.00 |
| Covariance of Slopes | prose\_im | 0.37 | 0.42 | 0.34 | 0.32 |
| Covariance of Slopes | psif | 0.53 | 0.46 | 0.52 | 0.57 |
| Covariance of Slopes | symbol | 0.74 | 0.68 | 0.69 | 0.58 |
| Covariance of Slopes | synonyms | 0.04 | 0.04 | 0.04 | 0.04 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Residuals | block | 0.37 | 0.35 | 0.44 | 0.37 |
| Covariance of Residuals | clock | 0.15 | 0.16 | 0.38 | 0.38 |
| Covariance of Residuals | digit\_b | 0.21 | 0.22 | 0.32 | 0.34 |
| Covariance of Residuals | digit\_f | 0.20 | 0.24 | 0.34 | 0.35 |
| Covariance of Residuals | fig\_logic | 0.16 | 0.15 | 0.25 | 0.24 |
| Covariance of Residuals | information | 0.76 | 0.80 | 0.71 | 0.66 |
| Covariance of Residuals | mir | 0.35 | 0.34 | 0.33 | 0.34 |
| Covariance of Residuals | mir\_recog | 0.04 | 0.03 | 0.04 | 0.04 |
| Covariance of Residuals | mmse | 0.02 | 0.02 | 0.05 | 0.05 |
| Covariance of Residuals | prose\_im | 0.27 | 0.26 | 0.40 | 0.38 |
| Covariance of Residuals | psif | 0.41 | 0.37 | 0.35 | 0.28 |
| Covariance of Residuals | symbol | 0.02 | 0.02 | 0.03 | 0.02 |
| Covariance of Residuals | synonyms | 0.57 | 0.54 | 0.81 | 0.80 |

# male

Gender = *male*; Model type: *aehplus*; Process (a) = *grip*; Process (b): *block*, *clock*, *digit\_b*, *digit\_f*, *fig\_logic*, *information*, *mir*, *mir\_recog*, *mmse*, *prose\_im*, *psif*, *symbol*, *synonyms*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| process | label | block | clock | digit\_b | digit\_f | fig\_logic | information | mir | mir\_recog | mmse | prose\_im | psif | symbol | synonyms | mean(sd) |
| ab | Covar (Levels) | 3.62 (1.16) <.01 | 0.68 (0.47) .15 | 0.12 (0.23) .61 | -0.29 (0.27) .28 | 3.21 (0.98) <.01 | 0.70 (1.63) .67 | 1.07 (0.48) .03 | 0.15 (0.27) .57 | 1.14 (0.63) .07 | 2.38 (0.91) .01 | 0.61 (0.90) .50 | 4.32 (1.92) .02 | 0.85 (1.05) .42 | --- |
| ab | Covar (Slopes) | -0.01 (0.04) .75 | 0.01 (0.02) .48 | 0.00 (0.01) .70 | 0.00 (0.01) .51 | 0.04 (0.05) .44 | -0.06 (0.05) .17 | 0.03 (0.02) .05 | -0.01 (0.01) .47 | -0.01 (0.02) .74 | -0.01 (0.05) .79 | -0.00 (0.03) .90 | -0.01 (0.06) .86 | -0.01 (0.03) .84 | --- |
| ab | Covar (Residuals) | 0.52 (0.26) .04 | 0.29 (0.22) .19 | -0.16 (0.10) .10 | -0.07 (0.07) .33 | -0.18 (0.22) .43 | 0.77 (0.37) .04 | 0.01 (0.16) .93 | 0.04 (0.07) .58 | 0.50 (0.26) .06 | 0.35 (0.26) .19 | 0.31 (0.32) .33 | 0.76 (0.41) .06 | 0.45 (0.26) .08 | --- |
| er | Corr (Levels) | 0.30 (0.08) <.01 | 0.26 (0.17) .14 | 0.06 (0.11) .61 | -0.15 (0.13) .25 | 0.57 (0.15) <.01 | 0.05 (0.11) .66 | 0.36 (0.15) .01 | 0.09 (0.16) .60 | 0.32 (0.18) .07 | 0.35 (0.11) <.01 | 0.11 (0.17) .49 | 0.24 (0.10) .02 | 0.08 (0.10) .41 | --- |
| er | Corr (Slopes) | -0.25 (1.09) .82 | 0.30 (0.42) .48 | 0.20 (0.52) .71 | 0.24 (0.38) .52 | 0.74 (1.78) .68 | -0.46 (0.32) .16 | 0.56 (0.28) .05 | -0.34 (0.40) .39 | -0.11 (0.34) .75 | -0.38 (2.59) .88 | -0.08 (0.64) .90 | -0.08 (0.47) .87 | -0.14 (0.72) .85 | --- |
| er | Corr (Residuals) | 0.14 (0.06) .03 | 0.14 (0.10) .14 | -0.13 (0.07) .08 | -0.07 (0.07) .32 | -0.05 (0.07) .43 | 0.18 (0.08) .03 | 0.01 (0.09) .93 | 0.03 (0.05) .57 | 0.15 (0.08) .06 | 0.14 (0.10) .16 | 0.12 (0.12) .32 | 0.15 (0.08) .05 | 0.15 (0.08) .06 | --- |
| a | Level | 12.08 (0.48) <.01 | 12.10 (0.48) <.01 | 12.09 (0.48) <.01 | 12.10 (0.48) <.01 | 12.03 (0.49) <.01 | 12.10 (0.48) <.01 | 12.06 (0.48) <.01 | 12.10 (0.48) <.01 | 12.15 (0.48) <.01 | 12.09 (0.49) <.01 | 12.06 (0.48) <.01 | 12.10 (0.49) <.01 | 12.08 (0.48) <.01 | 12.09(0.03) |
| a | Slope | -0.26 (0.08) <.01 | -0.25 (0.07) <.01 | -0.25 (0.08) <.01 | -0.24 (0.07) <.01 | -0.22 (0.07) <.01 | -0.23 (0.07) <.01 | -0.24 (0.08) <.01 | -0.26 (0.07) <.01 | -0.26 (0.07) <.01 | -0.24 (0.08) <.01 | -0.25 (0.08) <.01 | -0.26 (0.08) <.01 | -0.23 (0.07) <.01 | -0.25(0.01) |
| a | Level \* age | -0.17 (0.07) .02 | -0.17 (0.07) .02 | -0.17 (0.07) .02 | -0.16 (0.07) .03 | -0.16 (0.07) .03 | -0.16 (0.07) .03 | -0.16 (0.07) .03 | -0.17 (0.07) .02 | -0.18 (0.07) .02 | -0.16 (0.07) .03 | -0.16 (0.07) .03 | -0.16 (0.07) .03 | -0.16 (0.07) .03 | -0.16(0.01) |
| a | Level \* education | -0.14 (0.05) .01 | -0.14 (0.05) .01 | -0.14 (0.05) .01 | -0.14 (0.05) .01 | -0.13 (0.05) .01 | -0.14 (0.05) .01 | -0.13 (0.05) .01 | -0.13 (0.05) .01 | -0.14 (0.05) .01 | -0.13 (0.05) .01 | -0.13 (0.05) .01 | -0.13 (0.05) .01 | -0.13 (0.05) .01 | -0.13(0.00) |
| a | Level \* height | 10.88 (3.73) <.01 | 10.73 (3.73) <.01 | 10.95 (3.74) <.01 | 11.06 (3.75) <.01 | 10.85 (3.77) <.01 | 10.91 (3.72) <.01 | 11.12 (3.76) <.01 | 10.96 (3.73) <.01 | 10.82 (3.71) <.01 | 10.88 (3.74) <.01 | 12.00 (3.78) <.01 | 10.92 (3.75) <.01 | 10.95 (3.75) <.01 | 11.00(0.32) |
| a | Level \* smoking | 0.11 (0.43) .81 | 0.10 (0.43) .81 | 0.10 (0.43) .81 | 0.10 (0.43) .82 | 0.13 (0.43) .76 | 0.11 (0.43) .79 | 0.14 (0.43) .74 | 0.08 (0.43) .86 | 0.08 (0.43) .85 | 0.08 (0.44) .84 | 0.14 (0.43) .76 | 0.09 (0.44) .84 | 0.11 (0.43) .80 | 0.11(0.02) |
| a | Level \* cardio | -0.40 (0.40) .32 | -0.42 (0.40) .30 | -0.42 (0.40) .30 | -0.42 (0.40) .29 | -0.39 (0.41) .34 | -0.43 (0.40) .29 | -0.42 (0.40) .30 | -0.39 (0.40) .34 | -0.41 (0.40) .30 | -0.41 (0.40) .31 | -0.42 (0.41) .31 | -0.41 (0.40) .31 | -0.42 (0.40) .29 | -0.41(0.01) |
| a | Level \* diabetes | -1.60 (0.69) .02 | -1.62 (0.69) .02 | -1.54 (0.69) .03 | -1.55 (0.69) .02 | -1.57 (0.69) .02 | -1.58 (0.68) .02 | -1.51 (0.71) .03 | -1.56 (0.69) .02 | -1.64 (0.69) .02 | -1.58 (0.68) .02 | -1.64 (0.66) .01 | -1.56 (0.69) .02 | -1.53 (0.69) .03 | -1.58(0.04) |
| a | Slope \* age | -0.05 (0.02) .02 | -0.05 (0.02) .01 | -0.05 (0.02) .03 | -0.05 (0.02) .02 | -0.06 (0.02) .01 | -0.06 (0.02) .01 | -0.05 (0.02) .01 | -0.04 (0.02) .01 | -0.05 (0.02) .01 | -0.06 (0.02) .01 | -0.06 (0.02) <.01 | -0.05 (0.02) .02 | -0.06 (0.02) .01 | -0.05(0.00) |
| a | Slope \* education | -0.00 (0.01) .84 | 0.00 (0.01) .99 | 0.00 (0.01) .96 | 0.00 (0.01) .95 | -0.00 (0.01) .94 | -0.00 (0.01) .88 | -0.00 (0.01) .87 | -0.00 (0.01) .86 | -0.00 (0.01) .94 | -0.00 (0.01) .80 | -0.01 (0.01) .48 | -0.00 (0.01) .80 | -0.00 (0.01) .92 | -0.00(0.00) |
| a | Slope \* height | -1.04 (0.59) .08 | -0.92 (0.58) .11 | -1.00 (0.56) .08 | -1.10 (0.58) .06 | -0.95 (0.58) .10 | -0.90 (0.57) .12 | -0.98 (0.58) .09 | -1.00 (0.58) .09 | -1.03 (0.55) .06 | -0.91 (0.56) .10 | -1.85 (0.63) <.01 | -1.05 (0.59) .08 | -0.96 (0.58) .10 | -1.05(0.25) |
| a | Slope \* smoking | 0.04 (0.09) .65 | 0.02 (0.09) .81 | 0.03 (0.08) .73 | 0.03 (0.09) .71 | 0.01 (0.08) .90 | 0.03 (0.08) .73 | 0.02 (0.09) .81 | 0.06 (0.09) .53 | 0.03 (0.08) .71 | 0.03 (0.09) .73 | 0.04 (0.09) .64 | 0.05 (0.10) .62 | 0.02 (0.08) .77 | 0.03(0.01) |
| a | Slope \* cardio | -0.23 (0.08) <.01 | -0.22 (0.07) <.01 | -0.22 (0.07) <.01 | -0.23 (0.08) <.01 | -0.23 (0.08) <.01 | -0.23 (0.08) <.01 | -0.23 (0.08) <.01 | -0.25 (0.08) <.01 | -0.23 (0.08) <.01 | -0.23 (0.08) <.01 | -0.23 (0.08) <.01 | -0.23 (0.08) <.01 | -0.22 (0.08) <.01 | -0.23(0.01) |
| a | Slope \* diabetes | -0.06 (0.12) .62 | -0.06 (0.12) .61 | -0.09 (0.12) .45 | -0.08 (0.12) .53 | -0.05 (0.12) .67 | -0.06 (0.12) .62 | -0.06 (0.12) .62 | -0.07 (0.12) .59 | -0.12 (0.12) .34 | -0.04 (0.13) .75 | -0.01 (0.11) .96 | -0.06 (0.12) .59 | -0.07 (0.12) .55 | -0.06(0.03) |
| b | Level | 16.71 (1.58) <.01 | 14.58 (0.35) <.01 | 3.97 (0.28) <.01 | 6.03 (0.27) <.01 | 17.18 (0.86) <.01 | 35.45 (1.81) <.01 | 7.29 (0.45) <.01 | 9.98 (0.18) <.01 | 28.78 (0.52) <.01 | 10.77 (0.87) <.01 | 12.43 (0.78) <.01 | 31.24 (2.55) <.01 | 18.95 (1.29) <.01 | --- |
| b | Slope | -0.46 (0.17) .01 | 0.05 (0.07) .43 | -0.07 (0.09) .46 | -0.11 (0.06) .08 | 0.07 (0.24) .77 | -0.02 (0.30) .95 | 0.10 (0.10) .34 | -0.09 (0.08) .26 | -0.10 (0.14) .46 | 0.18 (0.24) .44 | -0.34 (0.26) .19 | -0.57 (0.36) .12 | -0.36 (0.22) .10 | --- |
| b | Level \* age | -0.48 (0.24) .05 | -0.10 (0.07) .17 | -0.08 (0.05) .11 | -0.03 (0.03) .45 | -0.12 (0.12) .33 | -0.36 (0.31) .23 | -0.21 (0.08) .01 | -0.14 (0.06) .03 | -0.26 (0.11) .02 | -0.26 (0.14) .07 | -0.34 (0.14) .02 | -0.66 (0.42) .11 | 0.11 (0.26) .66 | --- |
| b | Level \* education | 0.63 (0.21) <.01 | 0.03 (0.04) .46 | 0.12 (0.03) <.01 | 0.07 (0.03) .01 | 0.35 (0.10) <.01 | 1.06 (0.17) <.01 | 0.08 (0.05) .11 | 0.03 (0.03) .31 | 0.14 (0.06) .04 | 0.43 (0.09) <.01 | 0.34 (0.09) <.01 | 1.71 (0.25) <.01 | 1.24 (0.15) <.01 | --- |
| b | Level \* height | 14.78 (8.96) .10 | 2.42 (2.42) .32 | 0.21 (1.69) .90 | 1.18 (1.64) .47 | 2.08 (4.62) .65 | 18.84 (11.06) .09 | -0.29 (2.99) .92 | 1.84 (1.46) .21 | 3.20 (3.04) .29 | 0.66 (5.96) .91 | 3.23 (5.29) .54 | 23.63 (12.22) .05 | 9.78 (8.14) .23 | --- |
| b | Level \* smoking | -3.70 (1.46) .01 | 0.25 (0.37) .50 | -0.19 (0.28) .50 | -0.47 (0.25) .06 | -1.99 (0.71) <.01 | -2.77 (1.74) .11 | -0.23 (0.43) .59 | 0.06 (0.28) .82 | -0.45 (0.49) .36 | -0.62 (0.87) .47 | -1.65 (0.78) .03 | -5.97 (2.40) .01 | -4.55 (1.22) <.01 | --- |
| b | Level \* cardio | -0.55 (1.13) .63 | -0.07 (0.34) .83 | -0.55 (0.26) .03 | -0.02 (0.19) .93 | 0.37 (0.68) .58 | 0.97 (1.37) .48 | -0.36 (0.32) .25 | -0.14 (0.24) .55 | -0.08 (0.50) .88 | -0.44 (0.74) .55 | 0.12 (0.70) .86 | -1.36 (1.91) .47 | 0.31 (1.10) .78 | --- |
| b | Level \* diabetes | -2.55 (1.27) .04 | -1.29 (0.81) .11 | -0.30 (0.43) .48 | -0.02 (0.23) .91 | -1.37 (1.23) .26 | -2.67 (1.66) .11 | -0.07 (0.55) .90 | 0.43 (0.20) .03 | -1.12 (0.93) .23 | 0.70 (0.92) .45 | -1.50 (1.49) .31 | -2.03 (2.26) .37 | -3.60 (1.51) .02 | --- |
| b | Slope \* age | 0.04 (0.03) .21 | -0.01 (0.01) .54 | 0.00 (0.01) .98 | -0.01 (0.01) .11 | 0.00 (0.04) .92 | -0.04 (0.06) .58 | -0.04 (0.02) .05 | 0.01 (0.02) .42 | -0.07 (0.04) .05 | -0.01 (0.05) .86 | 0.02 (0.05) .72 | 0.03 (0.07) .66 | -0.00 (0.05) .97 | --- |
| b | Slope \* education | 0.03 (0.04) .55 | 0.02 (0.01) .01 | -0.00 (0.01) .67 | 0.01 (0.01) .25 | -0.02 (0.03) .57 | 0.03 (0.03) .23 | -0.00 (0.02) .80 | -0.00 (0.01) .62 | 0.02 (0.02) .44 | -0.01 (0.01) .54 | 0.01 (0.03) .86 | 0.02 (0.04) .59 | 0.01 (0.02) .78 | --- |
| b | Slope \* height | -0.78 (1.26) .54 | 0.64 (0.85) .45 | 0.60 (0.37) .11 | -0.40 (0.26) .13 | 1.68 (1.12) .13 | 0.47 (2.13) .82 | 0.22 (0.74) .76 | -0.16 (0.41) .69 | -0.37 (0.90) .68 | 1.05 (1.07) .32 | -1.71 (1.41) .22 | -2.29 (2.01) .26 | 0.41 (1.23) .74 | --- |
| b | Slope \* smoking | 0.02 (0.15) .87 | -0.23 (0.08) <.01 | -0.04 (0.08) .65 | 0.07 (0.05) .16 | -0.17 (0.14) .25 | -0.38 (0.26) .14 | -0.08 (0.09) .36 | 0.05 (0.07) .48 | -0.11 (0.13) .42 | -0.15 (0.19) .43 | 0.01 (0.21) .98 | 0.17 (0.32) .59 | 0.24 (0.17) .16 | --- |
| b | Slope \* cardio | -0.14 (0.17) .42 | -0.10 (0.09) .25 | 0.08 (0.06) .15 | -0.03 (0.04) .50 | 0.09 (0.15) .56 | -0.18 (0.25) .47 | -0.14 (0.10) .17 | -0.05 (0.06) .43 | -0.04 (0.13) .76 | -0.19 (0.12) .12 | -0.12 (0.17) .50 | -0.17 (0.27) .54 | -0.02 (0.14) .86 | --- |
| b | Slope \* diabetes | 0.25 (0.27) .35 | 0.19 (0.12) .10 | -0.03 (0.12) .80 | 0.00 (0.06) .99 | 0.43 (0.42) .30 | -0.39 (0.64) .54 | 0.22 (0.16) .16 | 0.04 (0.05) .35 | -0.04 (0.28) .90 | -0.18 (0.24) .47 | -0.21 (0.33) .52 | -0.14 (0.48) .78 | -0.01 (0.32) .98 | --- |
| a | Var (Level) | 4.44 (0.69) <.01 | 4.41 (0.69) <.01 | 4.41 (0.69) <.01 | 4.41 (0.69) <.01 | 4.53 (0.69) <.01 | 4.39 (0.69) <.01 | 4.45 (0.69) <.01 | 4.43 (0.69) <.01 | 4.41 (0.70) <.01 | 4.45 (0.69) <.01 | 4.36 (0.70) <.01 | 4.45 (0.69) <.01 | 4.42 (0.69) <.01 | 4.43(0.04) |
| a | Var (Slope) | 0.04 (0.02) .09 | 0.04 (0.03) .11 | 0.04 (0.02) .09 | 0.04 (0.02) .09 | 0.04 (0.02) .08 | 0.04 (0.02) .09 | 0.04 (0.02) .08 | 0.04 (0.02) .07 | 0.04 (0.02) .08 | 0.04 (0.02) .08 | 0.02 (0.03) .48 | 0.04 (0.03) .10 | 0.04 (0.02) .08 | 0.04(0.01) |
| a | Var (Residual) | 1.54 (0.21) <.01 | 1.57 (0.21) <.01 | 1.57 (0.22) <.01 | 1.56 (0.21) <.01 | 1.55 (0.21) <.01 | 1.60 (0.22) <.01 | 1.56 (0.21) <.01 | 1.52 (0.19) <.01 | 1.56 (0.21) <.01 | 1.56 (0.21) <.01 | 1.64 (0.26) <.01 | 1.54 (0.21) <.01 | 1.57 (0.22) <.01 | 1.57(0.03) |
| b | Var (Level) | 32.24 (5.11) <.01 | 1.56 (0.86) .07 | 1.04 (0.27) <.01 | 0.82 (0.17) <.01 | 6.97 (2.12) <.01 | 50.39 (8.12) <.01 | 1.93 (0.39) <.01 | 0.71 (0.71) .31 | 2.91 (1.79) .10 | 10.25 (2.62) <.01 | 6.65 (1.64) <.01 | 74.08 (11.69) <.01 | 23.42 (3.22) <.01 | --- |
| b | Var (Slope) | 0.05 (0.17) .78 | 0.04 (0.04) .38 | 0.02 (0.01) .21 | 0.01 (0.00) .02 | 0.07 (0.22) .73 | 0.57 (0.17) <.01 | 0.08 (0.02) <.01 | 0.02 (0.02) .34 | 0.12 (0.06) .06 | 0.02 (0.19) .90 | 0.15 (0.12) .20 | 0.44 (0.28) .11 | 0.04 (0.05) .38 | --- |
| b | Var (Residual) | 9.20 (1.27) <.01 | 2.81 (0.68) <.01 | 0.96 (0.14) <.01 | 0.51 (0.08) <.01 | 7.56 (1.41) <.01 | 11.12 (1.38) <.01 | 1.97 (0.22) <.01 | 1.23 (0.45) .01 | 7.04 (1.48) <.01 | 4.07 (0.80) <.01 | 3.86 (0.62) <.01 | 17.29 (2.44) <.01 | 5.54 (0.69) <.01 | --- |
| a | Covar (Level, Slope) | -0.14 (0.10) .19 | -0.14 (0.10) .17 | -0.13 (0.10) .18 | -0.13 (0.10) .18 | -0.17 (0.10) .11 | -0.14 (0.10) .15 | -0.14 (0.10) .16 | -0.13 (0.10) .18 | -0.11 (0.11) .29 | -0.16 (0.10) .13 | -0.11 (0.10) .27 | -0.15 (0.11) .15 | -0.15 (0.10) .14 | -0.14(0.02) |
| b | Covar (Level, Slope) | 0.13 (0.51) .81 | 0.22 (0.14) .11 | -0.08 (0.05) .09 | -0.07 (0.03) .01 | -0.52 (0.49) .30 | -0.15 (0.74) .84 | -0.01 (0.08) .94 | -0.02 (0.13) .86 | 0.13 (0.35) .71 | -0.21 (0.68) .76 | -0.17 (0.43) .69 | -2.78 (1.18) .02 | -0.10 (0.38) .78 | --- |
|  | Correlation of Levels | 0.30 | 0.26 | 0.056 | -0.152 | 0.571 | 0.047 | 0.3647 | 0.086 | 0.32 | 0.35 | 0.114 | 0.238 | 0.083 | 0.20(0.19) |
|  | Correlation of Slopes | -0.25 | 0.31 | 0.191 | 0.231 | 0.735 | -0.454 | 0.5622 | -0.351 | -0.12 | -0.37 | -0.075 | -0.079 | -0.145 | 0.01(0.37) |
|  | Correlation of Residuals | 0.14 | 0.14 | -0.128 | -0.074 | -0.051 | 0.182 | 0.0086 | 0.029 | 0.15 | 0.14 | 0.122 | 0.148 | 0.153 | 0.07(0.10) |
|  | N | 139 | 139 | 139 | 139 | 138 | 140 | 139 | 139 | 140 | 139 | 138 | 138 | 139 | 138.92(0.64) |
|  | occasions | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 4.92(0.28) |
|  | parameters | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41.00(0.00) |
|  | LL | -1,989 | -1,784 | -1,541 | -1,429 | -1,794 | -2,169 | -1,679 | -1,544 | -2,010 | -1,681 | -1,340 | -2,017 | -1,781 | -1,751(249) |
|  | AIC | 4,060 | 3,650 | 3,163 | 2,940 | 3,670 | 4,421 | 3,441 | 3,171 | 4,102 | 3,444 | 2,762 | 4,117 | 3,644 | 3,583(498) |
|  | BIC | 4,180 | 3,771 | 3,283 | 3,060 | 3,790 | 4,541 | 3,561 | 3,291 | 4,223 | 3,564 | 2,882 | 4,237 | 3,764 | 3,704(498) |

## block

Gender = *male*; Process (a) = *grip*; Process (b) = *block*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 6.10 (1.73) <.01 | 6.46 (1.70) <.01 | 3.99 (1.22) <.01 | 3.62 (1.16) <.01 |
| ab | Covar (Slopes) | -0.02 (0.03) .53 | -0.02 (0.04) .47 | -0.01 (0.04) .81 | -0.01 (0.04) .75 |
| ab | Covar (Residuals) | 0.49 (0.24) .04 | 0.50 (0.24) .04 | 0.50 (0.26) .06 | 0.52 (0.26) .04 |
| er | Corr (Levels) | 0.36 (0.08) <.01 | 0.40 (0.08) <.01 | 0.31 (0.08) <.01 | 0.30 (0.08) <.01 |
| er | Corr (Slopes) | -0.50 (1.12) .66 | -0.66 (1.62) .68 | -0.20 (1.03) .85 | -0.25 (1.09) .82 |
| er | Corr (Residuals) | 0.13 (0.06) .03 | 0.13 (0.06) .03 | 0.13 (0.07) .04 | 0.14 (0.06) .03 |
| a | Level | 11.28 (0.39) <.01 | 11.31 (0.40) <.01 | 11.78 (0.35) <.01 | 12.08 (0.48) <.01 |
| a | Slope | -0.36 (0.05) <.01 | -0.37 (0.05) <.01 | -0.37 (0.05) <.01 | -0.26 (0.08) <.01 |
| a | Level \* age | -0.18 (0.09) .04 | -0.18 (0.09) .04 | -0.16 (0.07) .03 | -0.17 (0.07) .02 |
| a | Level \* education | --- | -0.03 (0.05) .53 | -0.11 (0.05) .02 | -0.14 (0.05) .01 |
| a | Level \* height | --- | --- | 11.08 (3.67) <.01 | 10.88 (3.73) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.11 (0.43) .81 |
| a | Level \* cardio | --- | --- | --- | -0.40 (0.40) .32 |
| a | Level \* diabetes | --- | --- | --- | -1.60 (0.69) .02 |
| a | Slope \* age | -0.04 (0.02) .06 | -0.04 (0.02) .06 | -0.04 (0.02) .08 | -0.05 (0.02) .02 |
| a | Slope \* education | --- | 0.00 (0.01) .90 | 0.00 (0.01) .74 | -0.00 (0.01) .84 |
| a | Slope \* height | --- | --- | -0.80 (0.61) .19 | -1.04 (0.59) .08 |
| a | Slope \* smoking | --- | --- | --- | 0.04 (0.09) .65 |
| a | Slope \* cardio | --- | --- | --- | -0.23 (0.08) <.01 |
| a | Slope \* diabetes | --- | --- | --- | -0.06 (0.12) .62 |
| b | Level | 13.24 (0.99) <.01 | 12.55 (0.92) <.01 | 13.49 (0.92) <.01 | 16.71 (1.58) <.01 |
| b | Slope | -0.48 (0.10) <.01 | -0.49 (0.10) <.01 | -0.52 (0.12) <.01 | -0.46 (0.17) .01 |
| b | Level \* age | -0.56 (0.24) .02 | -0.48 (0.23) .04 | -0.47 (0.24) .06 | -0.48 (0.24) .05 |
| b | Level \* education | --- | 0.67 (0.21) <.01 | 0.57 (0.21) .01 | 0.63 (0.21) <.01 |
| b | Level \* height | --- | --- | 14.53 (9.05) .11 | 14.78 (8.96) .10 |
| b | Level \* smoking | --- | --- | --- | -3.70 (1.46) .01 |
| b | Level \* cardio | --- | --- | --- | -0.55 (1.13) .63 |
| b | Level \* diabetes | --- | --- | --- | -2.55 (1.27) .04 |
| b | Slope \* age | 0.04 (0.03) .19 | 0.05 (0.03) .15 | 0.05 (0.03) .13 | 0.04 (0.03) .21 |
| b | Slope \* education | --- | 0.02 (0.04) .58 | 0.03 (0.04) .47 | 0.03 (0.04) .55 |
| b | Slope \* height | --- | --- | -1.10 (1.36) .42 | -0.78 (1.26) .54 |
| b | Slope \* smoking | --- | --- | --- | 0.02 (0.15) .87 |
| b | Slope \* cardio | --- | --- | --- | -0.14 (0.17) .42 |
| b | Slope \* diabetes | --- | --- | --- | 0.25 (0.27) .35 |
| a | Var (Level) | 6.61 (1.18) <.01 | 6.61 (1.18) <.01 | 4.63 (0.72) <.01 | 4.44 (0.69) <.01 |
| a | Var (Slope) | 0.05 (0.03) .06 | 0.05 (0.03) .05 | 0.05 (0.03) .08 | 0.04 (0.02) .09 |
| a | Var (Residual) | 1.60 (0.22) <.01 | 1.60 (0.22) <.01 | 1.57 (0.23) <.01 | 1.54 (0.21) <.01 |
| b | Var (Level) | 43.95 (5.69) <.01 | 40.06 (5.45) <.01 | 35.85 (5.67) <.01 | 32.24 (5.11) <.01 |
| b | Var (Slope) | 0.04 (0.10) .71 | 0.03 (0.10) .78 | 0.05 (0.17) .76 | 0.05 (0.17) .78 |
| b | Var (Residual) | 9.12 (1.10) <.01 | 9.17 (1.11) <.01 | 9.20 (1.27) <.01 | 9.20 (1.27) <.01 |
| a | Covar (Level, Slope) | -0.12 (0.11) .29 | -0.11 (0.11) .31 | -0.07 (0.10) .53 | -0.14 (0.10) .19 |
| b | Covar (Level, Slope) | 0.27 (0.47) .57 | 0.14 (0.52) .79 | 0.14 (0.49) .77 | 0.13 (0.51) .81 |
|  | Correlation of Levels | 0.36 | 0.40 | 0.31 | 0.30 |
|  | Correlation of Slopes | -0.49 | -0.67 | -0.20 | -0.25 |
|  | Correlation of Residuals | 0.13 | 0.13 | 0.13 | 0.14 |
|  | N | 158 | 158 | 139 | 139 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,224 | -2,213 | -2,008 | -1,989 |
|  | AIC | 4,489 | 4,477 | 4,073 | 4,060 |
|  | BIC | 4,553 | 4,554 | 4,158 | 4,180 |

## clock

Gender = *male*; Process (a) = *grip*; Process (b) = *clock*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 3.23 (1.26) .01 | 3.12 (1.23) .01 | 0.81 (0.54) .13 | 0.68 (0.47) .15 |
| ab | Covar (Slopes) | 0.01 (0.02) .60 | 0.01 (0.02) .67 | 0.01 (0.02) .50 | 0.01 (0.02) .48 |
| ab | Covar (Residuals) | 0.40 (0.23) .08 | 0.40 (0.23) .08 | 0.30 (0.22) .18 | 0.29 (0.22) .19 |
| er | Corr (Levels) | 0.50 (0.13) <.01 | 0.51 (0.12) <.01 | 0.29 (0.18) .10 | 0.26 (0.17) .14 |
| er | Corr (Slopes) | 0.21 (0.42) .62 | 0.17 (0.42) .68 | 0.25 (0.35) .48 | 0.30 (0.42) .48 |
| er | Corr (Residuals) | 0.17 (0.09) .05 | 0.17 (0.09) .05 | 0.14 (0.10) .14 | 0.14 (0.10) .14 |
| a | Level | 11.41 (0.39) <.01 | 11.41 (0.40) <.01 | 11.78 (0.35) <.01 | 12.10 (0.48) <.01 |
| a | Slope | -0.36 (0.05) <.01 | -0.37 (0.05) <.01 | -0.37 (0.05) <.01 | -0.25 (0.07) <.01 |
| a | Level \* age | -0.27 (0.10) .01 | -0.25 (0.10) .01 | -0.17 (0.07) .02 | -0.17 (0.07) .02 |
| a | Level \* education | --- | -0.06 (0.06) .34 | -0.11 (0.05) .02 | -0.14 (0.05) .01 |
| a | Level \* height | --- | --- | 10.97 (3.67) <.01 | 10.73 (3.73) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.10 (0.43) .81 |
| a | Level \* cardio | --- | --- | --- | -0.42 (0.40) .30 |
| a | Level \* diabetes | --- | --- | --- | -1.62 (0.69) .02 |
| a | Slope \* age | -0.04 (0.02) .09 | -0.04 (0.02) .09 | -0.04 (0.02) .06 | -0.05 (0.02) .01 |
| a | Slope \* education | --- | 0.00 (0.01) .74 | 0.01 (0.01) .60 | 0.00 (0.01) .99 |
| a | Slope \* height | --- | --- | -0.78 (0.62) .21 | -0.92 (0.58) .11 |
| a | Slope \* smoking | --- | --- | --- | 0.02 (0.09) .81 |
| a | Slope \* cardio | --- | --- | --- | -0.22 (0.07) <.01 |
| a | Slope \* diabetes | --- | --- | --- | -0.06 (0.12) .61 |
| b | Level | 14.63 (0.33) <.01 | 14.43 (0.32) <.01 | 14.60 (0.27) <.01 | 14.58 (0.35) <.01 |
| b | Slope | -0.19 (0.07) .01 | -0.21 (0.08) .01 | -0.17 (0.06) <.01 | 0.05 (0.07) .43 |
| b | Level \* age | -0.31 (0.10) <.01 | -0.24 (0.09) .01 | -0.10 (0.07) .14 | -0.10 (0.07) .17 |
| b | Level \* education | --- | 0.05 (0.06) .39 | 0.04 (0.04) .31 | 0.03 (0.04) .46 |
| b | Level \* height | --- | --- | 3.03 (2.35) .20 | 2.42 (2.42) .32 |
| b | Level \* smoking | --- | --- | --- | 0.25 (0.37) .50 |
| b | Level \* cardio | --- | --- | --- | -0.07 (0.34) .83 |
| b | Level \* diabetes | --- | --- | --- | -1.29 (0.81) .11 |
| b | Slope \* age | 0.00 (0.02) .86 | 0.01 (0.02) .76 | -0.00 (0.01) .96 | -0.01 (0.01) .54 |
| b | Slope \* education | --- | 0.03 (0.01) <.01 | 0.02 (0.01) .01 | 0.02 (0.01) .01 |
| b | Slope \* height | --- | --- | 0.15 (0.86) .86 | 0.64 (0.85) .45 |
| b | Slope \* smoking | --- | --- | --- | -0.23 (0.08) <.01 |
| b | Slope \* cardio | --- | --- | --- | -0.10 (0.09) .25 |
| b | Slope \* diabetes | --- | --- | --- | 0.19 (0.12) .10 |
| a | Var (Level) | 7.06 (1.35) <.01 | 7.02 (1.33) <.01 | 4.63 (0.72) <.01 | 4.41 (0.69) <.01 |
| a | Var (Slope) | 0.05 (0.03) .07 | 0.05 (0.03) .07 | 0.05 (0.03) .11 | 0.04 (0.03) .11 |
| a | Var (Residual) | 1.60 (0.21) <.01 | 1.60 (0.21) <.01 | 1.59 (0.22) <.01 | 1.57 (0.21) <.01 |
| b | Var (Level) | 5.84 (2.02) <.01 | 5.30 (1.99) .01 | 1.62 (0.93) .08 | 1.56 (0.86) .07 |
| b | Var (Slope) | 0.05 (0.07) .43 | 0.05 (0.07) .46 | 0.05 (0.05) .32 | 0.04 (0.04) .38 |
| b | Var (Residual) | 3.55 (0.76) <.01 | 3.53 (0.75) <.01 | 2.83 (0.69) <.01 | 2.81 (0.68) <.01 |
| a | Covar (Level, Slope) | -0.09 (0.12) .43 | -0.10 (0.12) .42 | -0.06 (0.10) .54 | -0.14 (0.10) .17 |
| b | Covar (Level, Slope) | 0.43 (0.25) .08 | 0.41 (0.23) .08 | 0.26 (0.14) .07 | 0.22 (0.14) .11 |
|  | Correlation of Levels | 0.50 | 0.51 | 0.29 | 0.26 |
|  | Correlation of Slopes | 0.21 | 0.18 | 0.25 | 0.31 |
|  | Correlation of Residuals | 0.17 | 0.17 | 0.14 | 0.14 |
|  | N | 164 | 163 | 139 | 139 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,122 | -2,111 | -1,801 | -1,784 |
|  | AIC | 4,286 | 4,272 | 3,661 | 3,650 |
|  | BIC | 4,351 | 4,349 | 3,746 | 3,771 |

## digit\_b

Gender = *male*; Process (a) = *grip*; Process (b) = *digit\_b*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 0.74 (0.49) .12 | 0.82 (0.46) .08 | 0.21 (0.25) .41 | 0.12 (0.23) .61 |
| ab | Covar (Slopes) | 0.00 (0.01) .96 | 0.00 (0.01) .99 | 0.00 (0.01) .92 | 0.00 (0.01) .70 |
| ab | Covar (Residuals) | -0.14 (0.09) .13 | -0.13 (0.09) .15 | -0.17 (0.10) .08 | -0.16 (0.10) .10 |
| er | Corr (Levels) | 0.23 (0.14) .09 | 0.28 (0.14) .04 | 0.09 (0.11) .41 | 0.06 (0.11) .61 |
| er | Corr (Slopes) | 0.02 (0.47) .96 | -0.00 (0.47) .99 | 0.05 (0.49) .92 | 0.20 (0.52) .71 |
| er | Corr (Residuals) | -0.11 (0.07) .12 | -0.11 (0.07) .14 | -0.13 (0.07) .07 | -0.13 (0.07) .08 |
| a | Level | 11.30 (0.39) <.01 | 11.32 (0.40) <.01 | 11.78 (0.34) <.01 | 12.09 (0.48) <.01 |
| a | Slope | -0.36 (0.05) <.01 | -0.36 (0.05) <.01 | -0.37 (0.05) <.01 | -0.25 (0.08) <.01 |
| a | Level \* age | -0.19 (0.09) .04 | -0.19 (0.09) .03 | -0.16 (0.07) .03 | -0.17 (0.07) .02 |
| a | Level \* education | --- | -0.03 (0.05) .52 | -0.11 (0.05) .02 | -0.14 (0.05) .01 |
| a | Level \* height | --- | --- | 11.21 (3.69) <.01 | 10.95 (3.74) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.10 (0.43) .81 |
| a | Level \* cardio | --- | --- | --- | -0.42 (0.40) .30 |
| a | Level \* diabetes | --- | --- | --- | -1.54 (0.69) .03 |
| a | Slope \* age | -0.04 (0.02) .07 | -0.04 (0.02) .07 | -0.04 (0.02) .09 | -0.05 (0.02) .03 |
| a | Slope \* education | --- | 0.00 (0.01) .72 | 0.01 (0.01) .56 | 0.00 (0.01) .96 |
| a | Slope \* height | --- | --- | -0.83 (0.61) .17 | -1.00 (0.56) .08 |
| a | Slope \* smoking | --- | --- | --- | 0.03 (0.08) .73 |
| a | Slope \* cardio | --- | --- | --- | -0.22 (0.07) <.01 |
| a | Slope \* diabetes | --- | --- | --- | -0.09 (0.12) .45 |
| b | Level | 3.54 (0.19) <.01 | 3.38 (0.19) <.01 | 3.53 (0.18) <.01 | 3.97 (0.28) <.01 |
| b | Slope | -0.06 (0.04) .16 | -0.05 (0.04) .23 | -0.06 (0.04) .20 | -0.07 (0.09) .46 |
| b | Level \* age | -0.08 (0.04) .07 | -0.06 (0.04) .12 | -0.07 (0.04) .12 | -0.08 (0.05) .11 |
| b | Level \* education | --- | 0.15 (0.03) <.01 | 0.13 (0.03) <.01 | 0.12 (0.03) <.01 |
| b | Level \* height | --- | --- | 0.21 (1.70) .90 | 0.21 (1.69) .90 |
| b | Level \* smoking | --- | --- | --- | -0.19 (0.28) .50 |
| b | Level \* cardio | --- | --- | --- | -0.55 (0.26) .03 |
| b | Level \* diabetes | --- | --- | --- | -0.30 (0.43) .48 |
| b | Slope \* age | -0.00 (0.01) .91 | -0.00 (0.01) .90 | 0.00 (0.01) .99 | 0.00 (0.01) .98 |
| b | Slope \* education | --- | -0.00 (0.01) .49 | -0.01 (0.01) .42 | -0.00 (0.01) .67 |
| b | Slope \* height | --- | --- | 0.51 (0.34) .12 | 0.60 (0.37) .11 |
| b | Slope \* smoking | --- | --- | --- | -0.04 (0.08) .65 |
| b | Slope \* cardio | --- | --- | --- | 0.08 (0.06) .15 |
| b | Slope \* diabetes | --- | --- | --- | -0.03 (0.12) .80 |
| a | Var (Level) | 6.57 (1.18) <.01 | 6.57 (1.19) <.01 | 4.59 (0.72) <.01 | 4.41 (0.69) <.01 |
| a | Var (Slope) | 0.05 (0.02) .06 | 0.05 (0.02) .06 | 0.04 (0.02) .08 | 0.04 (0.02) .09 |
| a | Var (Residual) | 1.62 (0.22) <.01 | 1.61 (0.22) <.01 | 1.59 (0.23) <.01 | 1.57 (0.22) <.01 |
| b | Var (Level) | 1.53 (0.33) <.01 | 1.30 (0.29) <.01 | 1.13 (0.29) <.01 | 1.04 (0.27) <.01 |
| b | Var (Slope) | 0.02 (0.01) .17 | 0.02 (0.01) .16 | 0.02 (0.01) .16 | 0.02 (0.01) .21 |
| b | Var (Residual) | 0.99 (0.13) <.01 | 0.98 (0.13) <.01 | 0.97 (0.14) <.01 | 0.96 (0.14) <.01 |
| a | Covar (Level, Slope) | -0.10 (0.10) .35 | -0.09 (0.10) .36 | -0.06 (0.10) .59 | -0.13 (0.10) .18 |
| b | Covar (Level, Slope) | -0.12 (0.06) .06 | -0.11 (0.06) .07 | -0.09 (0.06) .09 | -0.08 (0.05) .09 |
|  | Correlation of Levels | 0.235 | 0.28 | 0.091 | 0.056 |
|  | Correlation of Slopes | 0.032 | 0.00 | 0.033 | 0.191 |
|  | Correlation of Residuals | -0.111 | -0.11 | -0.134 | -0.128 |
|  | N | 161 | 161 | 139 | 139 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -1,755 | -1,743 | -1,556 | -1,541 |
|  | AIC | 3,552 | 3,537 | 3,170 | 3,163 |
|  | BIC | 3,616 | 3,614 | 3,255 | 3,283 |

## digit\_f

Gender = *male*; Process (a) = *grip*; Process (b) = *digit\_f*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 0.10 (0.33) .76 | 0.12 (0.32) .71 | -0.28 (0.28) .31 | -0.29 (0.27) .28 |
| ab | Covar (Slopes) | 0.01 (0.01) .23 | 0.01 (0.01) .32 | 0.01 (0.01) .41 | 0.00 (0.01) .51 |
| ab | Covar (Residuals) | -0.08 (0.07) .25 | -0.07 (0.07) .29 | -0.07 (0.07) .30 | -0.07 (0.07) .33 |
| er | Corr (Levels) | 0.04 (0.13) .76 | 0.05 (0.14) .71 | -0.14 (0.13) .28 | -0.15 (0.13) .25 |
| er | Corr (Slopes) | 0.45 (0.35) .20 | 0.38 (0.36) .29 | 0.30 (0.38) .43 | 0.24 (0.38) .52 |
| er | Corr (Residuals) | -0.08 (0.07) .25 | -0.08 (0.07) .28 | -0.08 (0.07) .29 | -0.07 (0.07) .32 |
| a | Level | 11.30 (0.39) <.01 | 11.33 (0.40) <.01 | 11.78 (0.34) <.01 | 12.10 (0.48) <.01 |
| a | Slope | -0.34 (0.05) <.01 | -0.35 (0.05) <.01 | -0.36 (0.05) <.01 | -0.24 (0.07) <.01 |
| a | Level \* age | -0.18 (0.09) .04 | -0.18 (0.09) .04 | -0.16 (0.07) .03 | -0.16 (0.07) .03 |
| a | Level \* education | --- | -0.03 (0.05) .55 | -0.11 (0.05) .02 | -0.14 (0.05) .01 |
| a | Level \* height | --- | --- | 11.31 (3.70) <.01 | 11.06 (3.75) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.10 (0.43) .82 |
| a | Level \* cardio | --- | --- | --- | -0.42 (0.40) .29 |
| a | Level \* diabetes | --- | --- | --- | -1.55 (0.69) .02 |
| a | Slope \* age | -0.04 (0.02) .04 | -0.04 (0.02) .04 | -0.04 (0.02) .06 | -0.05 (0.02) .02 |
| a | Slope \* education | --- | 0.00 (0.01) .68 | 0.01 (0.01) .55 | 0.00 (0.01) .95 |
| a | Slope \* height | --- | --- | -0.93 (0.61) .13 | -1.10 (0.58) .06 |
| a | Slope \* smoking | --- | --- | --- | 0.03 (0.09) .71 |
| a | Slope \* cardio | --- | --- | --- | -0.23 (0.08) <.01 |
| a | Slope \* diabetes | --- | --- | --- | -0.08 (0.12) .53 |
| b | Level | 5.71 (0.14) <.01 | 5.64 (0.14) <.01 | 5.68 (0.15) <.01 | 6.03 (0.27) <.01 |
| b | Slope | -0.05 (0.03) .07 | -0.06 (0.03) .03 | -0.07 (0.03) .02 | -0.11 (0.06) .08 |
| b | Level \* age | -0.05 (0.03) .11 | -0.04 (0.03) .16 | -0.02 (0.03) .51 | -0.03 (0.03) .45 |
| b | Level \* education | --- | 0.06 (0.03) .02 | 0.06 (0.02) .02 | 0.07 (0.03) .01 |
| b | Level \* height | --- | --- | 1.08 (1.62) .50 | 1.18 (1.64) .47 |
| b | Level \* smoking | --- | --- | --- | -0.47 (0.25) .06 |
| b | Level \* cardio | --- | --- | --- | -0.02 (0.19) .93 |
| b | Level \* diabetes | --- | --- | --- | -0.02 (0.23) .91 |
| b | Slope \* age | -0.02 (0.01) .04 | -0.02 (0.01) .08 | -0.01 (0.01) .10 | -0.01 (0.01) .11 |
| b | Slope \* education | --- | 0.01 (0.01) .13 | 0.01 (0.01) .16 | 0.01 (0.01) .25 |
| b | Slope \* height | --- | --- | -0.36 (0.24) .13 | -0.40 (0.26) .13 |
| b | Slope \* smoking | --- | --- | --- | 0.07 (0.05) .16 |
| b | Slope \* cardio | --- | --- | --- | -0.03 (0.04) .50 |
| b | Slope \* diabetes | --- | --- | --- | 0.00 (0.06) .99 |
| a | Var (Level) | 6.52 (1.16) <.01 | 6.53 (1.16) <.01 | 4.60 (0.72) <.01 | 4.41 (0.69) <.01 |
| a | Var (Slope) | 0.05 (0.03) .05 | 0.05 (0.03) .05 | 0.04 (0.02) .08 | 0.04 (0.02) .09 |
| a | Var (Residual) | 1.61 (0.22) <.01 | 1.60 (0.22) <.01 | 1.59 (0.23) <.01 | 1.56 (0.21) <.01 |
| b | Var (Level) | 0.91 (0.17) <.01 | 0.87 (0.17) <.01 | 0.86 (0.17) <.01 | 0.82 (0.17) <.01 |
| b | Var (Slope) | 0.01 (0.01) .04 | 0.01 (0.01) .03 | 0.01 (0.01) .02 | 0.01 (0.00) .02 |
| b | Var (Residual) | 0.56 (0.08) <.01 | 0.55 (0.08) <.01 | 0.51 (0.08) <.01 | 0.51 (0.08) <.01 |
| a | Covar (Level, Slope) | -0.10 (0.10) .33 | -0.11 (0.11) .33 | -0.06 (0.10) .56 | -0.13 (0.10) .18 |
| b | Covar (Level, Slope) | -0.07 (0.03) .01 | -0.07 (0.03) .01 | -0.08 (0.03) <.01 | -0.07 (0.03) .01 |
|  | Correlation of Levels | 0.042 | 0.051 | -0.142 | -0.152 |
|  | Correlation of Slopes | 0.434 | 0.398 | 0.293 | 0.231 |
|  | Correlation of Residuals | -0.082 | -0.076 | -0.079 | -0.074 |
|  | N | 161 | 161 | 139 | 139 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -1,640 | -1,632 | -1,443 | -1,429 |
|  | AIC | 3,322 | 3,314 | 2,945 | 2,940 |
|  | BIC | 3,386 | 3,391 | 3,030 | 3,060 |

## fig\_logic

Gender = *male*; Process (a) = *grip*; Process (b) = *fig\_logic*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 5.35 (1.56) <.01 | 5.55 (1.55) <.01 | 3.32 (0.93) <.01 | 3.21 (0.98) <.01 |
| ab | Covar (Slopes) | 0.04 (0.04) .27 | 0.04 (0.04) .30 | 0.04 (0.04) .41 | 0.04 (0.05) .44 |
| ab | Covar (Residuals) | -0.32 (0.21) .13 | -0.33 (0.21) .12 | -0.27 (0.22) .21 | -0.18 (0.22) .43 |
| er | Corr (Levels) | 0.60 (0.11) <.01 | 0.65 (0.11) <.01 | 0.55 (0.13) <.01 | 0.57 (0.15) <.01 |
| er | Corr (Slopes) | 0.62 (0.64) .33 | 0.59 (0.64) .36 | 0.59 (0.91) .51 | 0.74 (1.78) .68 |
| er | Corr (Residuals) | -0.09 (0.06) .13 | -0.10 (0.06) .12 | -0.08 (0.06) .21 | -0.05 (0.07) .43 |
| a | Level | 11.23 (0.39) <.01 | 11.26 (0.40) <.01 | 11.76 (0.35) <.01 | 12.03 (0.49) <.01 |
| a | Slope | -0.33 (0.05) <.01 | -0.34 (0.05) <.01 | -0.35 (0.05) <.01 | -0.22 (0.07) <.01 |
| a | Level \* age | -0.17 (0.09) .06 | -0.18 (0.09) .05 | -0.16 (0.07) .04 | -0.16 (0.07) .03 |
| a | Level \* education | --- | -0.03 (0.05) .60 | -0.10 (0.05) .03 | -0.13 (0.05) .01 |
| a | Level \* height | --- | --- | 11.13 (3.72) <.01 | 10.85 (3.77) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.13 (0.43) .76 |
| a | Level \* cardio | --- | --- | --- | -0.39 (0.41) .34 |
| a | Level \* diabetes | --- | --- | --- | -1.57 (0.69) .02 |
| a | Slope \* age | -0.04 (0.02) .04 | -0.04 (0.02) .04 | -0.04 (0.02) .05 | -0.06 (0.02) .01 |
| a | Slope \* education | --- | 0.00 (0.01) .89 | 0.00 (0.01) .72 | -0.00 (0.01) .94 |
| a | Slope \* height | --- | --- | -0.81 (0.61) .18 | -0.95 (0.58) .10 |
| a | Slope \* smoking | --- | --- | --- | 0.01 (0.08) .90 |
| a | Slope \* cardio | --- | --- | --- | -0.23 (0.08) <.01 |
| a | Slope \* diabetes | --- | --- | --- | -0.05 (0.12) .67 |
| b | Level | 15.56 (0.60) <.01 | 15.26 (0.59) <.01 | 15.83 (0.50) <.01 | 17.18 (0.86) <.01 |
| b | Slope | -0.02 (0.12) .86 | 0.01 (0.12) .95 | -0.00 (0.11) .99 | 0.07 (0.24) .77 |
| b | Level \* age | -0.13 (0.14) .33 | -0.12 (0.13) .37 | -0.12 (0.13) .35 | -0.12 (0.12) .33 |
| b | Level \* education | --- | 0.36 (0.10) <.01 | 0.32 (0.10) <.01 | 0.35 (0.10) <.01 |
| b | Level \* height | --- | --- | 2.26 (4.90) .64 | 2.08 (4.62) .65 |
| b | Level \* smoking | --- | --- | --- | -1.99 (0.71) <.01 |
| b | Level \* cardio | --- | --- | --- | 0.37 (0.68) .58 |
| b | Level \* diabetes | --- | --- | --- | -1.37 (1.23) .26 |
| b | Slope \* age | 0.01 (0.03) .82 | 0.00 (0.03) .88 | 0.00 (0.04) .88 | 0.00 (0.04) .92 |
| b | Slope \* education | --- | -0.04 (0.02) .12 | -0.03 (0.02) .20 | -0.02 (0.03) .57 |
| b | Slope \* height | --- | --- | 0.92 (1.03) .37 | 1.68 (1.12) .13 |
| b | Slope \* smoking | --- | --- | --- | -0.17 (0.14) .25 |
| b | Slope \* cardio | --- | --- | --- | 0.09 (0.15) .56 |
| b | Slope \* diabetes | --- | --- | --- | 0.43 (0.42) .30 |
| a | Var (Level) | 6.77 (1.19) <.01 | 6.77 (1.20) <.01 | 4.71 (0.72) <.01 | 4.53 (0.69) <.01 |
| a | Var (Slope) | 0.05 (0.03) .04 | 0.05 (0.03) .05 | 0.05 (0.03) .08 | 0.04 (0.02) .08 |
| a | Var (Residual) | 1.60 (0.22) <.01 | 1.61 (0.22) <.01 | 1.57 (0.23) <.01 | 1.55 (0.21) <.01 |
| b | Var (Level) | 11.64 (2.91) <.01 | 10.86 (2.73) <.01 | 7.84 (1.89) <.01 | 6.97 (2.12) <.01 |
| b | Var (Slope) | 0.08 (0.09) .39 | 0.08 (0.09) .36 | 0.08 (0.11) .49 | 0.07 (0.22) .73 |
| b | Var (Residual) | 7.68 (1.01) <.01 | 7.58 (0.96) <.01 | 7.48 (0.99) <.01 | 7.56 (1.41) <.01 |
| a | Covar (Level, Slope) | -0.16 (0.11) .15 | -0.16 (0.11) .17 | -0.10 (0.10) .36 | -0.17 (0.10) .11 |
| b | Covar (Level, Slope) | -0.64 (0.45) .15 | -0.58 (0.44) .19 | -0.41 (0.39) .29 | -0.52 (0.49) .30 |
|  | Correlation of Levels | 0.602 | 0.648 | 0.547 | 0.571 |
|  | Correlation of Slopes | 0.616 | 0.584 | 0.595 | 0.735 |
|  | Correlation of Residuals | -0.092 | -0.095 | -0.078 | -0.051 |
|  | N | 157 | 157 | 138 | 138 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -1,988 | -1,982 | -1,816 | -1,794 |
|  | AIC | 4,018 | 4,014 | 3,690 | 3,670 |
|  | BIC | 4,082 | 4,091 | 3,775 | 3,790 |

## information

Gender = *male*; Process (a) = *grip*; Process (b) = *information*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 3.03 (2.02) .14 | 3.39 (1.93) .08 | 0.65 (1.66) .69 | 0.70 (1.63) .67 |
| ab | Covar (Slopes) | -0.05 (0.05) .34 | -0.05 (0.05) .34 | -0.04 (0.05) .42 | -0.06 (0.05) .17 |
| ab | Covar (Residuals) | 0.73 (0.38) .05 | 0.72 (0.38) .06 | 0.72 (0.38) .06 | 0.77 (0.37) .04 |
| er | Corr (Levels) | 0.14 (0.09) .12 | 0.17 (0.09) .06 | 0.04 (0.11) .69 | 0.05 (0.11) .66 |
| er | Corr (Slopes) | -0.29 (0.29) .32 | -0.29 (0.29) .32 | -0.26 (0.32) .41 | -0.46 (0.32) .16 |
| er | Corr (Residuals) | 0.17 (0.08) .04 | 0.17 (0.08) .05 | 0.17 (0.08) .04 | 0.18 (0.08) .03 |
| a | Level | 11.31 (0.39) <.01 | 11.34 (0.40) <.01 | 11.79 (0.34) <.01 | 12.10 (0.48) <.01 |
| a | Slope | -0.34 (0.05) <.01 | -0.34 (0.05) <.01 | -0.35 (0.05) <.01 | -0.23 (0.07) <.01 |
| a | Level \* age | -0.19 (0.09) .04 | -0.19 (0.09) .04 | -0.16 (0.07) .03 | -0.16 (0.07) .03 |
| a | Level \* education | --- | -0.03 (0.05) .56 | -0.11 (0.05) .03 | -0.14 (0.05) .01 |
| a | Level \* height | --- | --- | 11.12 (3.67) <.01 | 10.91 (3.72) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.11 (0.43) .79 |
| a | Level \* cardio | --- | --- | --- | -0.43 (0.40) .29 |
| a | Level \* diabetes | --- | --- | --- | -1.58 (0.68) .02 |
| a | Slope \* age | -0.04 (0.02) .04 | -0.04 (0.02) .03 | -0.04 (0.02) .05 | -0.06 (0.02) .01 |
| a | Slope \* education | --- | 0.00 (0.01) .78 | 0.00 (0.01) .71 | -0.00 (0.01) .88 |
| a | Slope \* height | --- | --- | -0.68 (0.61) .27 | -0.90 (0.57) .12 |
| a | Slope \* smoking | --- | --- | --- | 0.03 (0.08) .73 |
| a | Slope \* cardio | --- | --- | --- | -0.23 (0.08) <.01 |
| a | Slope \* diabetes | --- | --- | --- | -0.06 (0.12) .62 |
| b | Level | 34.26 (1.12) <.01 | 33.26 (1.01) <.01 | 33.71 (1.16) <.01 | 35.45 (1.81) <.01 |
| b | Slope | -0.48 (0.17) .01 | -0.53 (0.18) <.01 | -0.47 (0.17) <.01 | -0.02 (0.30) .95 |
| b | Level \* age | -0.59 (0.32) .06 | -0.51 (0.28) .07 | -0.38 (0.30) .21 | -0.36 (0.31) .23 |
| b | Level \* education | --- | 1.22 (0.17) <.01 | 1.00 (0.17) <.01 | 1.06 (0.17) <.01 |
| b | Level \* height | --- | --- | 19.37 (11.43) .09 | 18.84 (11.06) .09 |
| b | Level \* smoking | --- | --- | --- | -2.77 (1.74) .11 |
| b | Level \* cardio | --- | --- | --- | 0.97 (1.37) .48 |
| b | Level \* diabetes | --- | --- | --- | -2.67 (1.66) .11 |
| b | Slope \* age | -0.01 (0.06) .83 | -0.00 (0.06) .98 | -0.02 (0.06) .80 | -0.04 (0.06) .58 |
| b | Slope \* education | --- | 0.03 (0.03) .32 | 0.03 (0.03) .34 | 0.03 (0.03) .23 |
| b | Slope \* height | --- | --- | 0.22 (2.07) .92 | 0.47 (2.13) .82 |
| b | Slope \* smoking | --- | --- | --- | -0.38 (0.26) .14 |
| b | Slope \* cardio | --- | --- | --- | -0.18 (0.25) .47 |
| b | Slope \* diabetes | --- | --- | --- | -0.39 (0.64) .54 |
| a | Var (Level) | 6.60 (1.19) <.01 | 6.59 (1.19) <.01 | 4.58 (0.72) <.01 | 4.39 (0.69) <.01 |
| a | Var (Slope) | 0.04 (0.02) .08 | 0.04 (0.02) .08 | 0.04 (0.02) .10 | 0.04 (0.02) .09 |
| a | Var (Residual) | 1.65 (0.23) <.01 | 1.65 (0.23) <.01 | 1.63 (0.24) <.01 | 1.60 (0.22) <.01 |
| b | Var (Level) | 70.07 (8.79) <.01 | 56.78 (7.84) <.01 | 52.21 (7.96) <.01 | 50.39 (8.12) <.01 |
| b | Var (Slope) | 0.73 (0.22) <.01 | 0.72 (0.22) <.01 | 0.64 (0.20) <.01 | 0.57 (0.17) <.01 |
| b | Var (Residual) | 11.08 (1.30) <.01 | 11.10 (1.32) <.01 | 11.06 (1.38) <.01 | 11.12 (1.38) <.01 |
| a | Covar (Level, Slope) | -0.11 (0.11) .29 | -0.11 (0.11) .30 | -0.06 (0.10) .52 | -0.14 (0.10) .15 |
| b | Covar (Level, Slope) | 0.54 (0.79) .50 | 0.25 (0.84) .77 | 0.12 (0.77) .88 | -0.15 (0.74) .84 |
|  | Correlation of Levels | 0.14 | 0.18 | 0.042 | 0.047 |
|  | Correlation of Slopes | -0.29 | -0.28 | -0.259 | -0.454 |
|  | Correlation of Residuals | 0.17 | 0.17 | 0.170 | 0.182 |
|  | N | 162 | 162 | 140 | 140 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,444 | -2,428 | -2,187 | -2,169 |
|  | AIC | 4,930 | 4,906 | 4,432 | 4,421 |
|  | BIC | 4,995 | 4,983 | 4,517 | 4,541 |

## mir

Gender = *male*; Process (a) = *grip*; Process (b) = *mir*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 1.59 (0.69) .02 | 1.65 (0.68) .02 | 1.11 (0.48) .02 | 1.07 (0.48) .03 |
| ab | Covar (Slopes) | 0.02 (0.02) .28 | 0.02 (0.02) .25 | 0.03 (0.01) .05 | 0.03 (0.02) .05 |
| ab | Covar (Residuals) | 0.05 (0.16) .77 | 0.04 (0.16) .79 | 0.03 (0.16) .85 | 0.01 (0.16) .93 |
| er | Corr (Levels) | 0.39 (0.14) <.01 | 0.41 (0.14) <.01 | 0.37 (0.14) .01 | 0.36 (0.15) .01 |
| er | Corr (Slopes) | 0.29 (0.27) .28 | 0.30 (0.26) .26 | 0.52 (0.26) .05 | 0.56 (0.28) .05 |
| er | Corr (Residuals) | 0.03 (0.09) .77 | 0.02 (0.09) .79 | 0.02 (0.09) .85 | 0.01 (0.09) .93 |
| a | Level | 11.30 (0.39) <.01 | 11.31 (0.40) <.01 | 11.78 (0.34) <.01 | 12.06 (0.48) <.01 |
| a | Slope | -0.36 (0.05) <.01 | -0.37 (0.05) <.01 | -0.37 (0.05) <.01 | -0.24 (0.08) <.01 |
| a | Level \* age | -0.18 (0.09) .04 | -0.18 (0.09) .04 | -0.16 (0.07) .03 | -0.16 (0.07) .03 |
| a | Level \* education | --- | -0.02 (0.06) .72 | -0.10 (0.05) .04 | -0.13 (0.05) .01 |
| a | Level \* height | --- | --- | 11.33 (3.72) <.01 | 11.12 (3.76) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.14 (0.43) .74 |
| a | Level \* cardio | --- | --- | --- | -0.42 (0.40) .30 |
| a | Level \* diabetes | --- | --- | --- | -1.51 (0.71) .03 |
| a | Slope \* age | -0.04 (0.02) .04 | -0.04 (0.02) .04 | -0.04 (0.02) .05 | -0.05 (0.02) .01 |
| a | Slope \* education | --- | 0.00 (0.01) .81 | 0.00 (0.01) .74 | -0.00 (0.01) .87 |
| a | Slope \* height | --- | --- | -0.79 (0.63) .21 | -0.98 (0.58) .09 |
| a | Slope \* smoking | --- | --- | --- | 0.02 (0.09) .81 |
| a | Slope \* cardio | --- | --- | --- | -0.23 (0.08) <.01 |
| a | Slope \* diabetes | --- | --- | --- | -0.06 (0.12) .62 |
| b | Level | 6.99 (0.27) <.01 | 6.87 (0.28) <.01 | 6.94 (0.27) <.01 | 7.29 (0.45) <.01 |
| b | Slope | -0.07 (0.07) .34 | -0.06 (0.07) .37 | -0.03 (0.07) .68 | 0.10 (0.10) .34 |
| b | Level \* age | -0.27 (0.08) <.01 | -0.25 (0.08) <.01 | -0.21 (0.07) <.01 | -0.21 (0.08) .01 |
| b | Level \* education | --- | 0.11 (0.05) .02 | 0.08 (0.05) .08 | 0.08 (0.05) .11 |
| b | Level \* height | --- | --- | -0.26 (2.91) .93 | -0.29 (2.99) .92 |
| b | Level \* smoking | --- | --- | --- | -0.23 (0.43) .59 |
| b | Level \* cardio | --- | --- | --- | -0.36 (0.32) .25 |
| b | Level \* diabetes | --- | --- | --- | -0.07 (0.55) .90 |
| b | Slope \* age | -0.02 (0.02) .32 | -0.02 (0.02) .32 | -0.03 (0.02) .10 | -0.04 (0.02) .05 |
| b | Slope \* education | --- | -0.00 (0.02) .83 | -0.00 (0.02) .88 | -0.00 (0.02) .80 |
| b | Slope \* height | --- | --- | 0.05 (0.71) .94 | 0.22 (0.74) .76 |
| b | Slope \* smoking | --- | --- | --- | -0.08 (0.09) .36 |
| b | Slope \* cardio | --- | --- | --- | -0.14 (0.10) .17 |
| b | Slope \* diabetes | --- | --- | --- | 0.22 (0.16) .16 |
| a | Var (Level) | 6.63 (1.18) <.01 | 6.62 (1.18) <.01 | 4.66 (0.73) <.01 | 4.45 (0.69) <.01 |
| a | Var (Slope) | 0.05 (0.02) .05 | 0.05 (0.02) .05 | 0.04 (0.02) .07 | 0.04 (0.02) .08 |
| a | Var (Residual) | 1.60 (0.22) <.01 | 1.60 (0.22) <.01 | 1.58 (0.23) <.01 | 1.56 (0.21) <.01 |
| b | Var (Level) | 2.52 (0.52) <.01 | 2.44 (0.51) <.01 | 1.95 (0.40) <.01 | 1.93 (0.39) <.01 |
| b | Var (Slope) | 0.08 (0.02) <.01 | 0.08 (0.02) <.01 | 0.07 (0.02) <.01 | 0.08 (0.02) <.01 |
| b | Var (Residual) | 2.10 (0.23) <.01 | 2.10 (0.22) <.01 | 1.99 (0.22) <.01 | 1.97 (0.22) <.01 |
| a | Covar (Level, Slope) | -0.10 (0.11) .39 | -0.10 (0.11) .41 | -0.06 (0.10) .55 | -0.14 (0.10) .16 |
| b | Covar (Level, Slope) | 0.02 (0.09) .78 | 0.02 (0.09) .78 | 0.04 (0.08) .58 | -0.01 (0.08) .94 |
|  | Correlation of Levels | 0.388 | 0.410 | 0.369 | 0.3647 |
|  | Correlation of Slopes | 0.293 | 0.306 | 0.527 | 0.5622 |
|  | Correlation of Residuals | 0.026 | 0.024 | 0.018 | 0.0086 |
|  | N | 159 | 159 | 139 | 139 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -1,884 | -1,881 | -1,694 | -1,679 |
|  | AIC | 3,809 | 3,812 | 3,447 | 3,441 |
|  | BIC | 3,874 | 3,889 | 3,532 | 3,561 |

## mir\_recog

Gender = *male*; Process (a) = *grip*; Process (b) = *mir\_recog*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 0.57 (0.51) .26 | 0.62 (0.50) .21 | 0.12 (0.28) .68 | 0.15 (0.27) .57 |
| ab | Covar (Slopes) | -0.01 (0.02) .62 | -0.01 (0.02) .62 | -0.01 (0.01) .42 | -0.01 (0.01) .47 |
| ab | Covar (Residuals) | 0.05 (0.09) .59 | 0.05 (0.09) .60 | 0.05 (0.07) .48 | 0.04 (0.07) .58 |
| er | Corr (Levels) | 0.20 (0.18) .28 | 0.21 (0.18) .23 | 0.06 (0.16) .69 | 0.09 (0.16) .60 |
| er | Corr (Slopes) | -0.32 (0.61) .59 | -0.32 (0.61) .59 | -0.38 (0.41) .35 | -0.34 (0.40) .39 |
| er | Corr (Residuals) | 0.03 (0.06) .59 | 0.03 (0.06) .60 | 0.04 (0.05) .48 | 0.03 (0.05) .57 |
| a | Level | 11.28 (0.39) <.01 | 11.30 (0.40) <.01 | 11.78 (0.34) <.01 | 12.10 (0.48) <.01 |
| a | Slope | -0.36 (0.05) <.01 | -0.36 (0.05) <.01 | -0.37 (0.05) <.01 | -0.26 (0.07) <.01 |
| a | Level \* age | -0.18 (0.09) .04 | -0.18 (0.09) .04 | -0.17 (0.07) .02 | -0.17 (0.07) .02 |
| a | Level \* education | --- | -0.03 (0.05) .57 | -0.11 (0.05) .03 | -0.13 (0.05) .01 |
| a | Level \* height | --- | --- | 11.17 (3.67) <.01 | 10.96 (3.73) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.08 (0.43) .86 |
| a | Level \* cardio | --- | --- | --- | -0.39 (0.40) .34 |
| a | Level \* diabetes | --- | --- | --- | -1.56 (0.69) .02 |
| a | Slope \* age | -0.04 (0.02) .04 | -0.04 (0.02) .04 | -0.03 (0.02) .08 | -0.04 (0.02) .01 |
| a | Slope \* education | --- | 0.00 (0.01) .79 | 0.00 (0.01) .66 | -0.00 (0.01) .86 |
| a | Slope \* height | --- | --- | -0.76 (0.65) .24 | -1.00 (0.58) .09 |
| a | Slope \* smoking | --- | --- | --- | 0.06 (0.09) .53 |
| a | Slope \* cardio | --- | --- | --- | -0.25 (0.08) <.01 |
| a | Slope \* diabetes | --- | --- | --- | -0.07 (0.12) .59 |
| b | Level | 9.99 (0.20) <.01 | 9.92 (0.19) <.01 | 10.00 (0.13) <.01 | 9.98 (0.18) <.01 |
| b | Slope | -0.10 (0.04) .01 | -0.10 (0.04) .02 | -0.08 (0.04) .03 | -0.09 (0.08) .26 |
| b | Level \* age | -0.17 (0.08) .04 | -0.17 (0.08) .04 | -0.13 (0.06) .04 | -0.14 (0.06) .03 |
| b | Level \* education | --- | 0.06 (0.03) .04 | 0.03 (0.03) .21 | 0.03 (0.03) .31 |
| b | Level \* height | --- | --- | 1.64 (1.46) .26 | 1.84 (1.46) .21 |
| b | Level \* smoking | --- | --- | --- | 0.06 (0.28) .82 |
| b | Level \* cardio | --- | --- | --- | -0.14 (0.24) .55 |
| b | Level \* diabetes | --- | --- | --- | 0.43 (0.20) .03 |
| b | Slope \* age | 0.01 (0.02) .46 | 0.01 (0.02) .44 | 0.01 (0.02) .41 | 0.01 (0.02) .42 |
| b | Slope \* education | --- | 0.00 (0.01) .99 | -0.00 (0.01) .94 | -0.00 (0.01) .62 |
| b | Slope \* height | --- | --- | -0.09 (0.43) .84 | -0.16 (0.41) .69 |
| b | Slope \* smoking | --- | --- | --- | 0.05 (0.07) .48 |
| b | Slope \* cardio | --- | --- | --- | -0.05 (0.06) .43 |
| b | Slope \* diabetes | --- | --- | --- | 0.04 (0.05) .35 |
| a | Var (Level) | 6.56 (1.18) <.01 | 6.56 (1.18) <.01 | 4.62 (0.71) <.01 | 4.43 (0.69) <.01 |
| a | Var (Slope) | 0.05 (0.03) .06 | 0.05 (0.03) .06 | 0.05 (0.03) .08 | 0.04 (0.02) .07 |
| a | Var (Residual) | 1.61 (0.20) <.01 | 1.61 (0.20) <.01 | 1.55 (0.21) <.01 | 1.52 (0.19) <.01 |
| b | Var (Level) | 1.30 (0.93) .16 | 1.27 (0.92) .16 | 0.71 (0.72) .32 | 0.71 (0.71) .31 |
| b | Var (Slope) | 0.01 (0.02) .56 | 0.01 (0.02) .56 | 0.01 (0.02) .35 | 0.02 (0.02) .34 |
| b | Var (Residual) | 1.49 (0.50) <.01 | 1.49 (0.50) <.01 | 1.25 (0.45) .01 | 1.23 (0.45) .01 |
| a | Covar (Level, Slope) | -0.08 (0.11) .45 | -0.08 (0.11) .47 | -0.06 (0.10) .56 | -0.13 (0.10) .18 |
| b | Covar (Level, Slope) | 0.02 (0.18) .91 | 0.02 (0.18) .90 | -0.01 (0.13) .91 | -0.02 (0.13) .86 |
|  | Correlation of Levels | 0.196 | 0.215 | 0.064 | 0.086 |
|  | Correlation of Slopes | -0.302 | -0.302 | -0.398 | -0.351 |
|  | Correlation of Residuals | 0.033 | 0.032 | 0.037 | 0.029 |
|  | N | 159 | 159 | 139 | 139 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -1,777 | -1,776 | -1,560 | -1,544 |
|  | AIC | 3,596 | 3,601 | 3,178 | 3,171 |
|  | BIC | 3,661 | 3,678 | 3,263 | 3,291 |

## mmse

Gender = *male*; Process (a) = *grip*; Process (b) = *mmse*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 3.28 (1.44) .02 | 3.37 (1.44) .02 | 1.26 (0.67) .06 | 1.14 (0.63) .07 |
| ab | Covar (Slopes) | 0.03 (0.04) .56 | 0.02 (0.04) .65 | -0.00 (0.02) .84 | -0.01 (0.02) .74 |
| ab | Covar (Residuals) | 0.52 (0.28) .06 | 0.53 (0.28) .06 | 0.51 (0.28) .06 | 0.50 (0.26) .06 |
| er | Corr (Levels) | 0.41 (0.14) <.01 | 0.43 (0.15) <.01 | 0.34 (0.18) .06 | 0.32 (0.18) .07 |
| er | Corr (Slopes) | 0.22 (0.33) .51 | 0.17 (0.34) .62 | -0.07 (0.34) .84 | -0.11 (0.34) .75 |
| er | Corr (Residuals) | 0.15 (0.08) .07 | 0.15 (0.08) .07 | 0.15 (0.08) .07 | 0.15 (0.08) .06 |
| a | Level | 11.35 (0.38) <.01 | 11.39 (0.40) <.01 | 11.81 (0.34) <.01 | 12.15 (0.48) <.01 |
| a | Slope | -0.39 (0.05) <.01 | -0.39 (0.05) <.01 | -0.38 (0.05) <.01 | -0.26 (0.07) <.01 |
| a | Level \* age | -0.21 (0.08) .01 | -0.22 (0.08) .01 | -0.17 (0.07) .02 | -0.18 (0.07) .02 |
| a | Level \* education | --- | -0.04 (0.06) .44 | -0.11 (0.05) .02 | -0.14 (0.05) .01 |
| a | Level \* height | --- | --- | 11.03 (3.66) <.01 | 10.82 (3.71) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.08 (0.43) .85 |
| a | Level \* cardio | --- | --- | --- | -0.41 (0.40) .30 |
| a | Level \* diabetes | --- | --- | --- | -1.64 (0.69) .02 |
| a | Slope \* age | -0.04 (0.02) .04 | -0.04 (0.02) .04 | -0.04 (0.02) .06 | -0.05 (0.02) .01 |
| a | Slope \* education | --- | 0.00 (0.01) .73 | 0.00 (0.01) .66 | -0.00 (0.01) .94 |
| a | Slope \* height | --- | --- | -0.81 (0.62) .19 | -1.03 (0.55) .06 |
| a | Slope \* smoking | --- | --- | --- | 0.03 (0.08) .71 |
| a | Slope \* cardio | --- | --- | --- | -0.23 (0.08) <.01 |
| a | Slope \* diabetes | --- | --- | --- | -0.12 (0.12) .34 |
| b | Level | 28.16 (0.40) <.01 | 27.98 (0.40) <.01 | 28.29 (0.34) <.01 | 28.78 (0.52) <.01 |
| b | Slope | -0.31 (0.13) .02 | -0.34 (0.14) .01 | -0.22 (0.11) .05 | -0.10 (0.14) .46 |
| b | Level \* age | -0.44 (0.15) <.01 | -0.42 (0.15) <.01 | -0.26 (0.11) .02 | -0.26 (0.11) .02 |
| b | Level \* education | --- | 0.17 (0.06) .01 | 0.14 (0.06) .03 | 0.14 (0.06) .04 |
| b | Level \* height | --- | --- | 3.40 (2.98) .25 | 3.20 (3.04) .29 |
| b | Level \* smoking | --- | --- | --- | -0.45 (0.49) .36 |
| b | Level \* cardio | --- | --- | --- | -0.08 (0.50) .88 |
| b | Level \* diabetes | --- | --- | --- | -1.12 (0.93) .23 |
| b | Slope \* age | -0.06 (0.04) .13 | -0.05 (0.04) .16 | -0.07 (0.04) .06 | -0.07 (0.04) .05 |
| b | Slope \* education | --- | 0.03 (0.02) .14 | 0.02 (0.02) .46 | 0.02 (0.02) .44 |
| b | Slope \* height | --- | --- | -0.54 (0.92) .56 | -0.37 (0.90) .68 |
| b | Slope \* smoking | --- | --- | --- | -0.11 (0.13) .42 |
| b | Slope \* cardio | --- | --- | --- | -0.04 (0.13) .76 |
| b | Slope \* diabetes | --- | --- | --- | -0.04 (0.28) .90 |
| a | Var (Level) | 6.58 (1.19) <.01 | 6.59 (1.19) <.01 | 4.60 (0.73) <.01 | 4.41 (0.70) <.01 |
| a | Var (Slope) | 0.06 (0.03) .05 | 0.07 (0.03) .04 | 0.04 (0.03) .08 | 0.04 (0.02) .08 |
| a | Var (Residual) | 1.59 (0.21) <.01 | 1.58 (0.21) <.01 | 1.59 (0.23) <.01 | 1.56 (0.21) <.01 |
| b | Var (Level) | 9.83 (4.34) .02 | 9.50 (4.30) .03 | 2.98 (1.83) .10 | 2.91 (1.79) .10 |
| b | Var (Slope) | 0.22 (0.13) .07 | 0.22 (0.12) .07 | 0.12 (0.06) .05 | 0.12 (0.06) .06 |
| b | Var (Residual) | 7.78 (1.47) <.01 | 7.80 (1.48) <.01 | 7.05 (1.49) <.01 | 7.04 (1.48) <.01 |
| a | Covar (Level, Slope) | -0.01 (0.12) .90 | -0.01 (0.12) .92 | -0.03 (0.10) .77 | -0.11 (0.11) .29 |
| b | Covar (Level, Slope) | 1.05 (0.73) .15 | 0.94 (0.73) .20 | 0.16 (0.35) .64 | 0.13 (0.35) .71 |
|  | Correlation of Levels | 0.41 | 0.43 | 0.339 | 0.32 |
|  | Correlation of Slopes | 0.22 | 0.17 | -0.069 | -0.12 |
|  | Correlation of Residuals | 0.15 | 0.15 | 0.153 | 0.15 |
|  | N | 164 | 164 | 140 | 140 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,357 | -2,352 | -2,025 | -2,010 |
|  | AIC | 4,755 | 4,755 | 4,107 | 4,102 |
|  | BIC | 4,820 | 4,832 | 4,193 | 4,223 |

## prose\_im

Gender = *male*; Process (a) = *grip*; Process (b) = *prose\_im*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 3.60 (1.18) <.01 | 3.80 (1.13) <.01 | 2.36 (0.93) .01 | 2.38 (0.91) .01 |
| ab | Covar (Slopes) | -0.01 (0.03) .82 | -0.01 (0.03) .80 | -0.00 (0.04) .89 | -0.01 (0.05) .79 |
| ab | Covar (Residuals) | 0.21 (0.25) .41 | 0.21 (0.26) .42 | 0.37 (0.27) .17 | 0.35 (0.26) .19 |
| er | Corr (Levels) | 0.38 (0.10) <.01 | 0.45 (0.10) <.01 | 0.34 (0.11) <.01 | 0.35 (0.11) <.01 |
| er | Corr (Slopes) | -0.31 (1.82) .86 | -0.33 (1.85) .86 | -0.20 (1.84) .91 | -0.38 (2.59) .88 |
| er | Corr (Residuals) | 0.08 (0.09) .40 | 0.08 (0.09) .40 | 0.14 (0.10) .15 | 0.14 (0.10) .16 |
| a | Level | 11.29 (0.39) <.01 | 11.30 (0.40) <.01 | 11.76 (0.35) <.01 | 12.09 (0.49) <.01 |
| a | Slope | -0.34 (0.05) <.01 | -0.35 (0.05) <.01 | -0.35 (0.05) <.01 | -0.24 (0.08) <.01 |
| a | Level \* age | -0.18 (0.09) .04 | -0.18 (0.09) .04 | -0.16 (0.07) .03 | -0.16 (0.07) .03 |
| a | Level \* education | --- | -0.02 (0.05) .65 | -0.10 (0.05) .03 | -0.13 (0.05) .01 |
| a | Level \* height | --- | --- | 11.10 (3.70) <.01 | 10.88 (3.74) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.08 (0.44) .84 |
| a | Level \* cardio | --- | --- | --- | -0.41 (0.40) .31 |
| a | Level \* diabetes | --- | --- | --- | -1.58 (0.68) .02 |
| a | Slope \* age | -0.04 (0.02) .04 | -0.04 (0.02) .03 | -0.04 (0.02) .05 | -0.06 (0.02) .01 |
| a | Slope \* education | --- | 0.00 (0.01) .98 | 0.00 (0.01) .85 | -0.00 (0.01) .80 |
| a | Slope \* height | --- | --- | -0.68 (0.60) .26 | -0.91 (0.56) .10 |
| a | Slope \* smoking | --- | --- | --- | 0.03 (0.09) .73 |
| a | Slope \* cardio | --- | --- | --- | -0.23 (0.08) <.01 |
| a | Slope \* diabetes | --- | --- | --- | -0.04 (0.13) .75 |
| b | Level | 10.48 (0.57) <.01 | 9.98 (0.53) <.01 | 10.17 (0.57) <.01 | 10.77 (0.87) <.01 |
| b | Slope | -0.15 (0.08) .07 | -0.15 (0.09) .09 | -0.09 (0.09) .31 | 0.18 (0.24) .44 |
| b | Level \* age | -0.36 (0.14) .01 | -0.32 (0.12) .01 | -0.25 (0.14) .07 | -0.26 (0.14) .07 |
| b | Level \* education | --- | 0.50 (0.08) <.01 | 0.43 (0.08) <.01 | 0.43 (0.09) <.01 |
| b | Level \* height | --- | --- | 0.01 (5.71) .99 | 0.66 (5.96) .91 |
| b | Level \* smoking | --- | --- | --- | -0.62 (0.87) .47 |
| b | Level \* cardio | --- | --- | --- | -0.44 (0.74) .55 |
| b | Level \* diabetes | --- | --- | --- | 0.70 (0.92) .45 |
| b | Slope \* age | 0.00 (0.04) .99 | 0.00 (0.04) .96 | 0.00 (0.05) .98 | -0.01 (0.05) .86 |
| b | Slope \* education | --- | -0.00 (0.01) .73 | -0.01 (0.01) .56 | -0.01 (0.01) .54 |
| b | Slope \* height | --- | --- | 1.13 (0.75) .13 | 1.05 (1.07) .32 |
| b | Slope \* smoking | --- | --- | --- | -0.15 (0.19) .43 |
| b | Slope \* cardio | --- | --- | --- | -0.19 (0.12) .12 |
| b | Slope \* diabetes | --- | --- | --- | -0.18 (0.24) .47 |
| a | Var (Level) | 6.64 (1.18) <.01 | 6.63 (1.18) <.01 | 4.65 (0.72) <.01 | 4.45 (0.69) <.01 |
| a | Var (Slope) | 0.05 (0.02) .05 | 0.05 (0.02) .04 | 0.05 (0.02) .07 | 0.04 (0.02) .08 |
| a | Var (Residual) | 1.61 (0.22) <.01 | 1.61 (0.21) <.01 | 1.59 (0.23) <.01 | 1.56 (0.21) <.01 |
| b | Var (Level) | 13.18 (1.92) <.01 | 10.76 (2.02) <.01 | 10.09 (2.20) <.01 | 10.25 (2.62) <.01 |
| b | Var (Slope) | 0.01 (0.08) .88 | 0.01 (0.09) .88 | 0.01 (0.09) .89 | 0.02 (0.19) .90 |
| b | Var (Residual) | 4.33 (0.66) <.01 | 4.35 (0.68) <.01 | 4.17 (0.71) <.01 | 4.07 (0.80) <.01 |
| a | Covar (Level, Slope) | -0.12 (0.11) .25 | -0.13 (0.11) .24 | -0.09 (0.10) .40 | -0.16 (0.10) .13 |
| b | Covar (Level, Slope) | 0.10 (0.32) .77 | 0.11 (0.33) .75 | 0.06 (0.38) .87 | -0.21 (0.68) .76 |
|  | Correlation of Levels | 0.384 | 0.450 | 0.34 | 0.35 |
|  | Correlation of Slopes | -0.330 | -0.314 | -0.21 | -0.37 |
|  | Correlation of Residuals | 0.078 | 0.079 | 0.14 | 0.14 |
|  | N | 161 | 161 | 139 | 139 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -1,916 | -1,900 | -1,698 | -1,681 |
|  | AIC | 3,874 | 3,850 | 3,454 | 3,444 |
|  | BIC | 3,939 | 3,927 | 3,539 | 3,564 |

## psif

Gender = *male*; Process (a) = *grip*; Process (b) = *psif*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 1.00 (1.19) .40 | 1.40 (1.14) .22 | 0.45 (0.93) .63 | 0.61 (0.90) .50 |
| ab | Covar (Slopes) | 0.02 (0.04) .54 | 0.03 (0.04) .47 | 0.00 (0.04) .99 | -0.00 (0.03) .90 |
| ab | Covar (Residuals) | 0.29 (0.32) .37 | 0.33 (0.30) .28 | 0.35 (0.31) .26 | 0.31 (0.32) .33 |
| er | Corr (Levels) | 0.13 (0.15) .39 | 0.20 (0.15) .20 | 0.08 (0.16) .62 | 0.11 (0.17) .49 |
| er | Corr (Slopes) | 0.25 (0.40) .52 | 0.29 (0.37) .43 | 0.00 (0.50) .99 | -0.08 (0.64) .90 |
| er | Corr (Residuals) | 0.12 (0.12) .36 | 0.13 (0.12) .27 | 0.14 (0.12) .24 | 0.12 (0.12) .32 |
| a | Level | 11.28 (0.39) <.01 | 11.30 (0.41) <.01 | 11.76 (0.35) <.01 | 12.06 (0.48) <.01 |
| a | Slope | -0.33 (0.06) <.01 | -0.33 (0.06) <.01 | -0.35 (0.05) <.01 | -0.25 (0.08) <.01 |
| a | Level \* age | -0.17 (0.09) .05 | -0.17 (0.09) .05 | -0.15 (0.07) .04 | -0.16 (0.07) .03 |
| a | Level \* education | --- | -0.02 (0.06) .71 | -0.10 (0.05) .05 | -0.13 (0.05) .01 |
| a | Level \* height | --- | --- | 12.33 (3.74) <.01 | 12.00 (3.78) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.14 (0.43) .76 |
| a | Level \* cardio | --- | --- | --- | -0.42 (0.41) .31 |
| a | Level \* diabetes | --- | --- | --- | -1.64 (0.66) .01 |
| a | Slope \* age | -0.05 (0.02) .03 | -0.05 (0.02) .02 | -0.05 (0.02) .03 | -0.06 (0.02) <.01 |
| a | Slope \* education | --- | -0.00 (0.01) .68 | -0.00 (0.01) .86 | -0.01 (0.01) .48 |
| a | Slope \* height | --- | --- | -1.72 (0.60) <.01 | -1.85 (0.63) <.01 |
| a | Slope \* smoking | --- | --- | --- | 0.04 (0.09) .64 |
| a | Slope \* cardio | --- | --- | --- | -0.23 (0.08) <.01 |
| a | Slope \* diabetes | --- | --- | --- | -0.01 (0.11) .96 |
| b | Level | 11.35 (0.62) <.01 | 10.98 (0.56) <.01 | 11.23 (0.57) <.01 | 12.43 (0.78) <.01 |
| b | Slope | -0.41 (0.15) .01 | -0.40 (0.15) .01 | -0.43 (0.16) .01 | -0.34 (0.26) .19 |
| b | Level \* age | -0.37 (0.14) .01 | -0.33 (0.13) .01 | -0.34 (0.15) .02 | -0.34 (0.14) .02 |
| b | Level \* education | --- | 0.35 (0.09) <.01 | 0.31 (0.09) <.01 | 0.34 (0.09) <.01 |
| b | Level \* height | --- | --- | 4.20 (5.17) .42 | 3.23 (5.29) .54 |
| b | Level \* smoking | --- | --- | --- | -1.65 (0.78) .03 |
| b | Level \* cardio | --- | --- | --- | 0.12 (0.70) .86 |
| b | Level \* diabetes | --- | --- | --- | -1.50 (1.49) .31 |
| b | Slope \* age | 0.02 (0.05) .74 | 0.02 (0.05) .70 | 0.02 (0.05) .66 | 0.02 (0.05) .72 |
| b | Slope \* education | --- | 0.00 (0.03) .90 | 0.01 (0.03) .81 | 0.01 (0.03) .86 |
| b | Slope \* height | --- | --- | -2.07 (1.21) .09 | -1.71 (1.41) .22 |
| b | Slope \* smoking | --- | --- | --- | 0.01 (0.21) .98 |
| b | Slope \* cardio | --- | --- | --- | -0.12 (0.17) .50 |
| b | Slope \* diabetes | --- | --- | --- | -0.21 (0.33) .52 |
| a | Var (Level) | 6.70 (1.18) <.01 | 6.72 (1.18) <.01 | 4.62 (0.72) <.01 | 4.36 (0.70) <.01 |
| a | Var (Slope) | 0.05 (0.03) .14 | 0.05 (0.03) .13 | 0.03 (0.03) .30 | 0.02 (0.03) .48 |
| a | Var (Residual) | 1.66 (0.25) <.01 | 1.64 (0.24) <.01 | 1.64 (0.26) <.01 | 1.64 (0.26) <.01 |
| b | Var (Level) | 8.45 (2.02) <.01 | 7.57 (1.95) <.01 | 7.32 (1.92) <.01 | 6.65 (1.64) <.01 |
| b | Var (Slope) | 0.20 (0.13) .11 | 0.18 (0.12) .12 | 0.16 (0.12) .19 | 0.15 (0.12) .20 |
| b | Var (Residual) | 3.75 (0.60) <.01 | 3.79 (0.59) <.01 | 3.83 (0.61) <.01 | 3.86 (0.62) <.01 |
| a | Covar (Level, Slope) | -0.16 (0.10) .12 | -0.17 (0.11) .11 | -0.05 (0.10) .59 | -0.11 (0.10) .27 |
| b | Covar (Level, Slope) | -0.17 (0.46) .70 | -0.16 (0.45) .73 | -0.10 (0.44) .82 | -0.17 (0.43) .69 |
|  | Correlation of Levels | 0.13 | 0.20 | 0.078 | 0.114 |
|  | Correlation of Slopes | 0.25 | 0.29 | 0.000 | -0.075 |
|  | Correlation of Residuals | 0.11 | 0.13 | 0.141 | 0.122 |
|  | N | 156 | 156 | 138 | 138 |
|  | occasions | 4 | 4 | 4 | 4 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -1,490 | -1,482 | -1,355 | -1,340 |
|  | AIC | 3,022 | 3,014 | 2,768 | 2,762 |
|  | BIC | 3,086 | 3,090 | 2,853 | 2,882 |

## symbol

Gender = *male*; Process (a) = *grip*; Process (b) = *symbol*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 7.52 (2.74) .01 | 8.78 (2.67) <.01 | 4.93 (1.94) .01 | 4.32 (1.92) .02 |
| ab | Covar (Slopes) | 0.01 (0.07) .83 | 0.01 (0.07) .88 | 0.00 (0.07) .99 | -0.01 (0.06) .86 |
| ab | Covar (Residuals) | 0.40 (0.43) .35 | 0.39 (0.43) .36 | 0.73 (0.42) .08 | 0.76 (0.41) .06 |
| er | Corr (Levels) | 0.28 (0.09) <.01 | 0.37 (0.09) <.01 | 0.25 (0.09) .01 | 0.24 (0.10) .02 |
| er | Corr (Slopes) | 0.09 (0.40) .83 | 0.07 (0.42) .87 | 0.01 (0.47) .98 | -0.08 (0.47) .87 |
| er | Corr (Residuals) | 0.07 (0.08) .35 | 0.07 (0.08) .36 | 0.14 (0.08) .07 | 0.15 (0.08) .05 |
| a | Level | 11.29 (0.39) <.01 | 11.32 (0.40) <.01 | 11.77 (0.35) <.01 | 12.10 (0.49) <.01 |
| a | Slope | -0.35 (0.05) <.01 | -0.36 (0.05) <.01 | -0.37 (0.05) <.01 | -0.26 (0.08) <.01 |
| a | Level \* age | -0.18 (0.09) .04 | -0.18 (0.09) .04 | -0.16 (0.07) .03 | -0.16 (0.07) .03 |
| a | Level \* education | --- | -0.03 (0.06) .61 | -0.10 (0.05) .04 | -0.13 (0.05) .01 |
| a | Level \* height | --- | --- | 11.10 (3.70) <.01 | 10.92 (3.75) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.09 (0.44) .84 |
| a | Level \* cardio | --- | --- | --- | -0.41 (0.40) .31 |
| a | Level \* diabetes | --- | --- | --- | -1.56 (0.69) .02 |
| a | Slope \* age | -0.04 (0.02) .06 | -0.04 (0.02) .06 | -0.04 (0.02) .07 | -0.05 (0.02) .02 |
| a | Slope \* education | --- | 0.00 (0.01) .92 | 0.00 (0.01) .79 | -0.00 (0.01) .80 |
| a | Slope \* height | --- | --- | -0.78 (0.63) .21 | -1.05 (0.59) .08 |
| a | Slope \* smoking | --- | --- | --- | 0.05 (0.10) .62 |
| a | Slope \* cardio | --- | --- | --- | -0.23 (0.08) <.01 |
| a | Slope \* diabetes | --- | --- | --- | -0.06 (0.12) .59 |
| b | Level | 26.54 (1.67) <.01 | 24.95 (1.44) <.01 | 25.91 (1.44) <.01 | 31.24 (2.55) <.01 |
| b | Slope | -0.52 (0.21) .01 | -0.50 (0.21) .02 | -0.57 (0.20) <.01 | -0.57 (0.36) .12 |
| b | Level \* age | -0.74 (0.40) .07 | -0.56 (0.38) .14 | -0.57 (0.41) .16 | -0.66 (0.42) .11 |
| b | Level \* education | --- | 1.64 (0.25) <.01 | 1.62 (0.24) <.01 | 1.71 (0.25) <.01 |
| b | Level \* height | --- | --- | 23.34 (12.68) .07 | 23.63 (12.22) .05 |
| b | Level \* smoking | --- | --- | --- | -5.97 (2.40) .01 |
| b | Level \* cardio | --- | --- | --- | -1.36 (1.91) .47 |
| b | Level \* diabetes | --- | --- | --- | -2.03 (2.26) .37 |
| b | Slope \* age | 0.02 (0.07) .82 | 0.02 (0.07) .78 | 0.04 (0.07) .54 | 0.03 (0.07) .66 |
| b | Slope \* education | --- | 0.00 (0.04) .91 | 0.03 (0.04) .47 | 0.02 (0.04) .59 |
| b | Slope \* height | --- | --- | -2.35 (1.93) .22 | -2.29 (2.01) .26 |
| b | Slope \* smoking | --- | --- | --- | 0.17 (0.32) .59 |
| b | Slope \* cardio | --- | --- | --- | -0.17 (0.27) .54 |
| b | Slope \* diabetes | --- | --- | --- | -0.14 (0.48) .78 |
| a | Var (Level) | 6.61 (1.18) <.01 | 6.60 (1.18) <.01 | 4.64 (0.72) <.01 | 4.45 (0.69) <.01 |
| a | Var (Slope) | 0.05 (0.03) .07 | 0.05 (0.03) .06 | 0.05 (0.03) .09 | 0.04 (0.03) .10 |
| a | Var (Residual) | 1.60 (0.22) <.01 | 1.59 (0.21) <.01 | 1.57 (0.22) <.01 | 1.54 (0.21) <.01 |
| b | Var (Level) | 107.55 (15.04) <.01 | 87.21 (13.92) <.01 | 83.08 (13.41) <.01 | 74.08 (11.69) <.01 |
| b | Var (Slope) | 0.55 (0.26) .03 | 0.50 (0.26) .06 | 0.44 (0.26) .10 | 0.44 (0.28) .11 |
| b | Var (Residual) | 17.41 (2.19) <.01 | 17.61 (2.23) <.01 | 17.25 (2.37) <.01 | 17.29 (2.44) <.01 |
| a | Covar (Level, Slope) | -0.13 (0.11) .24 | -0.13 (0.11) .25 | -0.08 (0.10) .44 | -0.15 (0.11) .15 |
| b | Covar (Level, Slope) | -2.60 (1.33) .05 | -2.61 (1.43) .07 | -2.75 (1.30) .04 | -2.78 (1.18) .02 |
|  | Correlation of Levels | 0.282 | 0.366 | 0.2509 | 0.238 |
|  | Correlation of Slopes | 0.090 | 0.067 | 0.0068 | -0.079 |
|  | Correlation of Residuals | 0.075 | 0.074 | 0.1408 | 0.148 |
|  | N | 156 | 156 | 138 | 138 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,223 | -2,204 | -2,035 | -2,017 |
|  | AIC | 4,488 | 4,459 | 4,128 | 4,117 |
|  | BIC | 4,552 | 4,535 | 4,213 | 4,237 |

## synonyms

Gender = *male*; Process (a) = *grip*; Process (b) = *synonyms*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 1.64 (1.69) .33 | 2.46 (1.47) .10 | 1.17 (1.14) .31 | 0.85 (1.05) .42 |
| ab | Covar (Slopes) | -0.01 (0.03) .71 | -0.02 (0.03) .60 | 0.00 (0.03) .99 | -0.01 (0.03) .84 |
| ab | Covar (Residuals) | 0.47 (0.26) .07 | 0.48 (0.25) .05 | 0.42 (0.26) .10 | 0.45 (0.26) .08 |
| er | Corr (Levels) | 0.10 (0.10) .33 | 0.18 (0.10) .08 | 0.10 (0.10) .30 | 0.08 (0.10) .41 |
| er | Corr (Slopes) | -0.21 (0.60) .72 | -0.29 (0.59) .62 | 0.00 (0.58) .99 | -0.14 (0.72) .85 |
| er | Corr (Residuals) | 0.15 (0.08) .05 | 0.15 (0.07) .04 | 0.14 (0.08) .08 | 0.15 (0.08) .06 |
| a | Level | 11.29 (0.39) <.01 | 11.32 (0.40) <.01 | 11.77 (0.35) <.01 | 12.08 (0.48) <.01 |
| a | Slope | -0.34 (0.05) <.01 | -0.34 (0.05) <.01 | -0.35 (0.05) <.01 | -0.23 (0.07) <.01 |
| a | Level \* age | -0.18 (0.09) .04 | -0.18 (0.09) .04 | -0.16 (0.07) .03 | -0.16 (0.07) .03 |
| a | Level \* education | --- | -0.03 (0.05) .60 | -0.10 (0.05) .03 | -0.13 (0.05) .01 |
| a | Level \* height | --- | --- | 11.15 (3.70) <.01 | 10.95 (3.75) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.11 (0.43) .80 |
| a | Level \* cardio | --- | --- | --- | -0.42 (0.40) .29 |
| a | Level \* diabetes | --- | --- | --- | -1.53 (0.69) .03 |
| a | Slope \* age | -0.04 (0.02) .04 | -0.04 (0.02) .03 | -0.04 (0.02) .05 | -0.06 (0.02) .01 |
| a | Slope \* education | --- | 0.00 (0.01) .84 | 0.00 (0.01) .71 | -0.00 (0.01) .92 |
| a | Slope \* height | --- | --- | -0.75 (0.63) .23 | -0.96 (0.58) .10 |
| a | Slope \* smoking | --- | --- | --- | 0.02 (0.08) .77 |
| a | Slope \* cardio | --- | --- | --- | -0.22 (0.08) <.01 |
| a | Slope \* diabetes | --- | --- | --- | -0.07 (0.12) .55 |
| b | Level | 16.12 (1.06) <.01 | 15.02 (0.93) <.01 | 15.46 (0.99) <.01 | 18.95 (1.29) <.01 |
| b | Slope | -0.17 (0.11) .12 | -0.19 (0.11) .08 | -0.19 (0.12) .11 | -0.36 (0.22) .10 |
| b | Level \* age | 0.11 (0.27) .68 | 0.18 (0.23) .43 | 0.16 (0.25) .54 | 0.11 (0.26) .66 |
| b | Level \* education | --- | 1.23 (0.14) <.01 | 1.11 (0.13) <.01 | 1.24 (0.15) <.01 |
| b | Level \* height | --- | --- | 9.69 (8.29) .24 | 9.78 (8.14) .23 |
| b | Level \* smoking | --- | --- | --- | -4.55 (1.22) <.01 |
| b | Level \* cardio | --- | --- | --- | 0.31 (1.10) .78 |
| b | Level \* diabetes | --- | --- | --- | -3.60 (1.51) .02 |
| b | Slope \* age | -0.02 (0.04) .57 | -0.02 (0.04) .71 | -0.01 (0.05) .84 | -0.00 (0.05) .97 |
| b | Slope \* education | --- | 0.01 (0.02) .70 | 0.01 (0.02) .43 | 0.01 (0.02) .78 |
| b | Slope \* height | --- | --- | 0.57 (1.13) .61 | 0.41 (1.23) .74 |
| b | Slope \* smoking | --- | --- | --- | 0.24 (0.17) .16 |
| b | Slope \* cardio | --- | --- | --- | -0.02 (0.14) .86 |
| b | Slope \* diabetes | --- | --- | --- | -0.01 (0.32) .98 |
| a | Var (Level) | 6.61 (1.18) <.01 | 6.59 (1.18) <.01 | 4.62 (0.73) <.01 | 4.42 (0.69) <.01 |
| a | Var (Slope) | 0.05 (0.02) .06 | 0.05 (0.02) .05 | 0.04 (0.02) .07 | 0.04 (0.02) .08 |
| a | Var (Residual) | 1.63 (0.22) <.01 | 1.63 (0.22) <.01 | 1.60 (0.24) <.01 | 1.57 (0.22) <.01 |
| b | Var (Level) | 42.22 (4.17) <.01 | 29.48 (3.44) <.01 | 28.67 (3.62) <.01 | 23.42 (3.22) <.01 |
| b | Var (Slope) | 0.06 (0.04) .16 | 0.06 (0.04) .16 | 0.05 (0.05) .28 | 0.04 (0.05) .38 |
| b | Var (Residual) | 5.99 (0.84) <.01 | 6.02 (0.82) <.01 | 5.56 (0.69) <.01 | 5.54 (0.69) <.01 |
| a | Covar (Level, Slope) | -0.13 (0.11) .23 | -0.13 (0.11) .24 | -0.08 (0.10) .46 | -0.15 (0.10) .14 |
| b | Covar (Level, Slope) | -0.36 (0.40) .36 | -0.49 (0.33) .14 | -0.36 (0.33) .28 | -0.10 (0.38) .78 |
|  | Correlation of Levels | 0.098 | 0.18 | 0.10 | 0.083 |
|  | Correlation of Slopes | -0.205 | -0.29 | 0.00 | -0.145 |
|  | Correlation of Residuals | 0.149 | 0.16 | 0.14 | 0.153 |
|  | N | 157 | 157 | 139 | 139 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -1,994 | -1,968 | -1,803 | -1,781 |
|  | AIC | 4,030 | 3,986 | 3,664 | 3,644 |
|  | BIC | 4,094 | 4,063 | 3,749 | 3,764 |

## Summary

Study = *OCTO*; Gender = *male*; Process (a) = *grip*

Computed correlations:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Levels | block | 0.36 | 0.40 | 0.31 | 0.30 |
| Correlation of Levels | clock | 0.50 | 0.51 | 0.29 | 0.26 |
| Correlation of Levels | digit\_b | 0.23 | 0.28 | 0.09 | 0.06 |
| Correlation of Levels | digit\_f | 0.04 | 0.05 | -0.14 | -0.15 |
| Correlation of Levels | fig\_logic | 0.60 | 0.65 | 0.55 | 0.57 |
| Correlation of Levels | information | 0.14 | 0.18 | 0.04 | 0.05 |
| Correlation of Levels | mir | 0.39 | 0.41 | 0.37 | 0.36 |
| Correlation of Levels | mir\_recog | 0.20 | 0.22 | 0.06 | 0.09 |
| Correlation of Levels | mmse | 0.41 | 0.43 | 0.34 | 0.32 |
| Correlation of Levels | prose\_im | 0.38 | 0.45 | 0.34 | 0.35 |
| Correlation of Levels | psif | 0.13 | 0.20 | 0.08 | 0.11 |
| Correlation of Levels | symbol | 0.28 | 0.37 | 0.25 | 0.24 |
| Correlation of Levels | synonyms | 0.10 | 0.18 | 0.10 | 0.08 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Slopes | block | -0.49 | -0.67 | -0.20 | -0.25 |
| Correlation of Slopes | clock | 0.21 | 0.18 | 0.25 | 0.31 |
| Correlation of Slopes | digit\_b | 0.03 | 0.00 | 0.03 | 0.19 |
| Correlation of Slopes | digit\_f | 0.43 | 0.40 | 0.29 | 0.23 |
| Correlation of Slopes | fig\_logic | 0.62 | 0.58 | 0.59 | 0.74 |
| Correlation of Slopes | information | -0.29 | -0.28 | -0.26 | -0.45 |
| Correlation of Slopes | mir | 0.29 | 0.31 | 0.53 | 0.56 |
| Correlation of Slopes | mir\_recog | -0.30 | -0.30 | -0.40 | -0.35 |
| Correlation of Slopes | mmse | 0.22 | 0.17 | -0.07 | -0.12 |
| Correlation of Slopes | prose\_im | -0.33 | -0.31 | -0.21 | -0.37 |
| Correlation of Slopes | psif | 0.25 | 0.29 | 0.00 | -0.08 |
| Correlation of Slopes | symbol | 0.09 | 0.07 | 0.01 | -0.08 |
| Correlation of Slopes | synonyms | -0.21 | -0.29 | 0.00 | -0.14 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Residuals | block | 0.13 | 0.13 | 0.13 | 0.14 |
| Correlation of Residuals | clock | 0.17 | 0.17 | 0.14 | 0.14 |
| Correlation of Residuals | digit\_b | -0.11 | -0.11 | -0.13 | -0.13 |
| Correlation of Residuals | digit\_f | -0.08 | -0.08 | -0.08 | -0.07 |
| Correlation of Residuals | fig\_logic | -0.09 | -0.09 | -0.08 | -0.05 |
| Correlation of Residuals | information | 0.17 | 0.17 | 0.17 | 0.18 |
| Correlation of Residuals | mir | 0.03 | 0.02 | 0.02 | 0.01 |
| Correlation of Residuals | mir\_recog | 0.03 | 0.03 | 0.04 | 0.03 |
| Correlation of Residuals | mmse | 0.15 | 0.15 | 0.15 | 0.15 |
| Correlation of Residuals | prose\_im | 0.08 | 0.08 | 0.14 | 0.14 |
| Correlation of Residuals | psif | 0.11 | 0.13 | 0.14 | 0.12 |
| Correlation of Residuals | symbol | 0.08 | 0.07 | 0.14 | 0.15 |
| Correlation of Residuals | synonyms | 0.15 | 0.16 | 0.14 | 0.15 |

P-values for corresponding covariances:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Levels | block | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | clock | 0.01 | 0.01 | 0.13 | 0.15 |
| Covariance of Levels | digit\_b | 0.12 | 0.08 | 0.41 | 0.61 |
| Covariance of Levels | digit\_f | 0.76 | 0.71 | 0.31 | 0.28 |
| Covariance of Levels | fig\_logic | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | information | 0.14 | 0.08 | 0.69 | 0.67 |
| Covariance of Levels | mir | 0.02 | 0.02 | 0.02 | 0.03 |
| Covariance of Levels | mir\_recog | 0.26 | 0.21 | 0.68 | 0.57 |
| Covariance of Levels | mmse | 0.02 | 0.02 | 0.06 | 0.07 |
| Covariance of Levels | prose\_im | 0.00 | 0.00 | 0.01 | 0.01 |
| Covariance of Levels | psif | 0.40 | 0.22 | 0.63 | 0.50 |
| Covariance of Levels | symbol | 0.01 | 0.00 | 0.01 | 0.02 |
| Covariance of Levels | synonyms | 0.33 | 0.10 | 0.31 | 0.42 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Slopes | block | 0.53 | 0.47 | 0.81 | 0.75 |
| Covariance of Slopes | clock | 0.60 | 0.67 | 0.50 | 0.48 |
| Covariance of Slopes | digit\_b | 0.96 | 1.00 | 0.92 | 0.70 |
| Covariance of Slopes | digit\_f | 0.23 | 0.32 | 0.41 | 0.51 |
| Covariance of Slopes | fig\_logic | 0.27 | 0.30 | 0.41 | 0.44 |
| Covariance of Slopes | information | 0.34 | 0.34 | 0.42 | 0.17 |
| Covariance of Slopes | mir | 0.28 | 0.25 | 0.05 | 0.05 |
| Covariance of Slopes | mir\_recog | 0.62 | 0.62 | 0.42 | 0.47 |
| Covariance of Slopes | mmse | 0.56 | 0.65 | 0.84 | 0.74 |
| Covariance of Slopes | prose\_im | 0.82 | 0.80 | 0.89 | 0.79 |
| Covariance of Slopes | psif | 0.54 | 0.47 | 0.99 | 0.90 |
| Covariance of Slopes | symbol | 0.83 | 0.88 | 0.99 | 0.86 |
| Covariance of Slopes | synonyms | 0.71 | 0.60 | 1.00 | 0.84 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Residuals | block | 0.04 | 0.04 | 0.06 | 0.04 |
| Covariance of Residuals | clock | 0.08 | 0.08 | 0.18 | 0.19 |
| Covariance of Residuals | digit\_b | 0.13 | 0.15 | 0.08 | 0.10 |
| Covariance of Residuals | digit\_f | 0.25 | 0.29 | 0.30 | 0.33 |
| Covariance of Residuals | fig\_logic | 0.13 | 0.12 | 0.21 | 0.43 |
| Covariance of Residuals | information | 0.05 | 0.06 | 0.06 | 0.04 |
| Covariance of Residuals | mir | 0.77 | 0.79 | 0.85 | 0.93 |
| Covariance of Residuals | mir\_recog | 0.59 | 0.60 | 0.48 | 0.58 |
| Covariance of Residuals | mmse | 0.06 | 0.06 | 0.06 | 0.06 |
| Covariance of Residuals | prose\_im | 0.41 | 0.42 | 0.17 | 0.19 |
| Covariance of Residuals | psif | 0.37 | 0.28 | 0.26 | 0.33 |
| Covariance of Residuals | symbol | 0.35 | 0.36 | 0.08 | 0.06 |
| Covariance of Residuals | synonyms | 0.07 | 0.05 | 0.10 | 0.08 |

#Session Info

R version 3.3.2 (2016-10-31)  
Platform: x86\_64-w64-mingw32/x64 (64-bit)  
Running under: Windows >= 8 x64 (build 9200)  
  
locale:  
[1] LC\_COLLATE=English\_United States.1252 LC\_CTYPE=English\_United States.1252 LC\_MONETARY=English\_United States.1252  
[4] LC\_NUMERIC=C LC\_TIME=English\_United States.1252   
  
attached base packages:  
[1] grid stats graphics grDevices utils datasets methods base   
  
other attached packages:  
[1] knitr\_1.15.1 IalsaSynthesis\_0.1.8.9000 MplusAutomation\_0.6-4 ggplot2\_2.2.1   
[5] forestplot\_1.7 checkmate\_1.8.2 magrittr\_1.5   
  
loaded via a namespace (and not attached):  
 [1] Rcpp\_0.12.8 munsell\_0.4.3 testit\_0.6 xtable\_1.8-2 lattice\_0.20-34 colorspace\_1.3-2  
 [7] R6\_2.2.0 highr\_0.6 plyr\_1.8.4 stringr\_1.1.0 dplyr\_0.5.0 tools\_3.3.2   
[13] DT\_0.2 gtable\_0.2.0 texreg\_1.36.18 coda\_0.19-1 DBI\_0.5-1 htmltools\_0.3.5   
[19] yaml\_2.1.14 lazyeval\_0.2.0 assertthat\_0.1 digest\_0.6.11 rprojroot\_1.1 tibble\_1.2   
[25] readr\_1.0.0 tidyr\_0.6.1 htmlwidgets\_0.8 evaluate\_0.10 gsubfn\_0.6-6 rmarkdown\_1.3   
[31] stringi\_1.1.2 pander\_0.6.0 scales\_0.4.1 backports\_1.0.4 boot\_1.3-18 proto\_1.0.0