OCTO : Seed Report (dem\_entry\_0)

Date: 2017-05-02

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|  |  |  |  |
| --- | --- | --- | --- |
| condition | dementia\_entry | dementia\_ever | n |
| dem\_ever\_0 | 0 | 0 | 477 |
| dem\_entry\_0 | 0 | 1 | 126 |
| all | 1 | 1 | 98 |

# 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) | 2.52 (0.74) <.01 | 0.23 (0.31) .45 | 0.00 (0.14) .99 | -0.05 (0.11) .64 | 1.28 (0.41) <.01 | 2.24 (1.04) .03 | 0.42 (0.24) .08 | -0.13 (0.14) .35 | -0.02 (0.30) .95 | 0.39 (0.36) .27 | --- | 1.69 (1.14) .14 | 0.85 (0.60) .16 | --- |
| ab | Covar (Slopes) | 0.05 (0.02) <.01 | 0.08 (0.03) <.01 | 0.00 (0.01) .74 | 0.01 (0.01) .03 | 0.03 (0.02) .09 | 0.10 (0.03) <.01 | 0.05 (0.01) <.01 | 0.04 (0.02) .01 | 0.17 (0.05) <.01 | 0.04 (0.02) .02 | --- | 0.04 (0.03) .20 | 0.06 (0.02) .02 | --- |
| ab | Covar (Residuals) | 0.39 (0.19) .04 | 0.57 (0.20) <.01 | 0.17 (0.07) .01 | 0.10 (0.06) .08 | 0.23 (0.18) .20 | -0.02 (0.25) .93 | 0.16 (0.08) .04 | 0.30 (0.10) <.01 | 0.91 (0.27) <.01 | 0.39 (0.18) .04 | --- | 0.99 (0.34) <.01 | -0.01 (0.18) .97 | --- |
| er | Corr (Levels) | 0.26 (0.07) <.01 | 0.10 (0.12) .40 | 0.00 (0.11) .99 | -0.04 (0.10) .64 | 0.28 (0.09) <.01 | 0.14 (0.06) .03 | 0.13 (0.07) .06 | -0.10 (0.11) .37 | -0.01 (0.11) .95 | 0.08 (0.07) .27 | --- | 0.12 (0.08) .13 | 0.12 (0.08) .15 | --- |
| er | Corr (Slopes) | 0.63 (0.18) <.01 | 0.76 (0.13) <.01 | 0.12 (0.34) .72 | 0.52 (0.17) <.01 | 0.79 (0.36) .03 | 0.82 (0.20) <.01 | 0.66 (0.13) <.01 | 0.57 (0.15) <.01 | 0.83 (0.08) <.01 | 0.55 (0.18) <.01 | --- | 0.31 (0.23) .18 | 0.73 (0.22) <.01 | --- |
| er | Corr (Residuals) | 0.10 (0.05) .04 | 0.21 (0.06) <.01 | 0.12 (0.05) .01 | 0.10 (0.05) .07 | 0.06 (0.05) .20 | -0.00 (0.05) .93 | 0.10 (0.04) .03 | 0.23 (0.06) <.01 | 0.28 (0.07) <.01 | 0.14 (0.06) .02 | --- | 0.15 (0.05) <.01 | -0.00 (0.06) .97 | --- |
| a | Level | 9.24 (0.23) <.01 | 9.26 (0.23) <.01 | 9.25 (0.23) <.01 | 9.26 (0.23) <.01 | 9.26 (0.23) <.01 | 9.25 (0.23) <.01 | 9.27 (0.23) <.01 | 9.28 (0.23) <.01 | 9.28 (0.23) <.01 | 9.27 (0.23) <.01 | --- | 9.26 (0.23) <.01 | 9.25 (0.23) <.01 | 9.26(0.01) |
| a | Slope | 13.95 (0.75) <.01 | 14.67 (0.26) <.01 | 3.71 (0.14) <.01 | 5.64 (0.12) <.01 | 16.76 (0.44) <.01 | 28.04 (1.20) <.01 | 7.38 (0.26) <.01 | 9.78 (0.14) <.01 | 28.71 (0.28) <.01 | 10.74 (0.40) <.01 | --- | 26.92 (1.18) <.01 | 16.49 (0.68) <.01 | 15.23(8.66) |
| a | Level \* age | -0.17 (0.04) <.01 | -0.17 (0.04) <.01 | -0.17 (0.04) <.01 | -0.18 (0.04) <.01 | -0.17 (0.04) <.01 | -0.17 (0.04) <.01 | -0.17 (0.04) <.01 | -0.18 (0.04) <.01 | -0.18 (0.04) <.01 | -0.17 (0.04) <.01 | --- | -0.17 (0.04) <.01 | -0.17 (0.04) <.01 | -0.17(0.00) |
| a | Level \* education | 0.15 (0.07) .03 | 0.15 (0.07) .03 | 0.15 (0.07) .02 | 0.15 (0.07) .02 | 0.15 (0.07) .03 | 0.15 (0.07) .03 | 0.15 (0.07) .03 | 0.15 (0.07) .03 | 0.15 (0.07) .03 | 0.15 (0.07) .02 | --- | 0.15 (0.07) .02 | 0.15 (0.07) .02 | 0.15(0.00) |
| a | Level \* height | 9.28 (2.00) <.01 | 9.05 (1.99) <.01 | 9.16 (1.99) <.01 | 9.07 (1.98) <.01 | 9.12 (2.00) <.01 | 9.22 (2.00) <.01 | 9.16 (2.01) <.01 | 9.11 (2.00) <.01 | 9.16 (1.98) <.01 | 9.23 (2.01) <.01 | --- | 9.19 (2.00) <.01 | 9.16 (2.00) <.01 | 9.16(0.07) |
| a | Level \* smoking | -0.41 (0.29) .17 | -0.40 (0.30) .18 | -0.42 (0.29) .16 | -0.41 (0.29) .16 | -0.42 (0.30) .15 | -0.41 (0.30) .16 | -0.39 (0.30) .19 | -0.40 (0.29) .18 | -0.42 (0.30) .16 | -0.41 (0.30) .16 | --- | -0.41 (0.29) .17 | -0.41 (0.30) .16 | -0.41(0.01) |
| a | Level \* cardio | -0.10 (0.21) .65 | -0.10 (0.21) .64 | -0.09 (0.21) .68 | -0.10 (0.21) .63 | -0.09 (0.21) .66 | -0.09 (0.21) .68 | -0.11 (0.21) .62 | -0.11 (0.21) .62 | -0.09 (0.21) .66 | -0.10 (0.21) .63 | --- | -0.09 (0.21) .66 | -0.09 (0.21) .66 | -0.10(0.01) |
| a | Level \* diabetes | -0.12 (0.41) .78 | -0.16 (0.41) .70 | -0.14 (0.41) .73 | -0.14 (0.40) .73 | -0.12 (0.41) .76 | -0.12 (0.41) .77 | -0.14 (0.41) .73 | -0.19 (0.42) .65 | -0.18 (0.42) .67 | -0.13 (0.41) .75 | --- | -0.13 (0.41) .75 | -0.12 (0.41) .76 | -0.14(0.02) |
| a | Slope \* age | -0.00 (0.01) .83 | -0.00 (0.01) .77 | 0.00 (0.01) .99 | 0.00 (0.01) .99 | -0.00 (0.01) .92 | -0.00 (0.01) .78 | -0.00 (0.01) .89 | 0.00 (0.01) .96 | -0.00 (0.01) .62 | -0.00 (0.01) .86 | --- | 0.00 (0.01) .95 | 0.00 (0.01) .99 | -0.00(0.00) |
| a | Slope \* education | -0.01 (0.01) .58 | -0.01 (0.01) .49 | -0.01 (0.01) .48 | -0.01 (0.01) .42 | -0.01 (0.01) .50 | -0.01 (0.01) .57 | -0.01 (0.01) .56 | -0.01 (0.01) .58 | -0.01 (0.01) .36 | -0.01 (0.01) .51 | --- | -0.01 (0.01) .46 | -0.01 (0.01) .52 | -0.01(0.00) |
| a | Slope \* height | -0.19 (0.32) .56 | -0.22 (0.34) .52 | -0.18 (0.33) .58 | -0.11 (0.33) .73 | -0.20 (0.33) .56 | -0.25 (0.33) .44 | -0.13 (0.34) .69 | -0.20 (0.34) .55 | -0.26 (0.33) .44 | -0.15 (0.33) .66 | --- | -0.11 (0.32) .73 | -0.18 (0.33) .58 | -0.18(0.05) |
| a | Slope \* smoking | -0.02 (0.05) .72 | -0.01 (0.06) .80 | 0.00 (0.06) .99 | 0.00 (0.06) .98 | 0.00 (0.06) .96 | 0.00 (0.05) .99 | -0.02 (0.06) .67 | -0.00 (0.06) .94 | -0.00 (0.06) .96 | -0.01 (0.06) .81 | --- | -0.01 (0.05) .84 | 0.00 (0.05) .99 | -0.01(0.01) |
| a | Slope \* cardio | -0.03 (0.04) .41 | -0.03 (0.04) .41 | -0.03 (0.04) .40 | -0.02 (0.04) .51 | -0.03 (0.04) .42 | -0.03 (0.04) .36 | -0.03 (0.04) .48 | -0.03 (0.04) .41 | -0.04 (0.04) .38 | -0.03 (0.04) .46 | --- | -0.03 (0.04) .37 | -0.03 (0.04) .46 | -0.03(0.00) |
| a | Slope \* diabetes | -0.05 (0.08) .54 | -0.05 (0.09) .55 | -0.05 (0.09) .54 | -0.06 (0.09) .51 | -0.05 (0.09) .57 | -0.05 (0.09) .55 | -0.05 (0.09) .59 | -0.04 (0.09) .64 | -0.03 (0.08) .69 | -0.06 (0.08) .51 | --- | -0.04 (0.09) .63 | -0.05 (0.09) .54 | -0.05(0.01) |
| b | Level | -0.38 (0.04) <.01 | -0.38 (0.04) <.01 | -0.38 (0.04) <.01 | -0.38 (0.04) <.01 | -0.38 (0.04) <.01 | -0.38 (0.04) <.01 | -0.38 (0.04) <.01 | -0.39 (0.04) <.01 | -0.39 (0.04) <.01 | -0.38 (0.04) <.01 | --- | -0.38 (0.04) <.01 | -0.38 (0.04) <.01 | --- |
| b | Slope | -0.29 (0.11) .01 | -0.29 (0.08) <.01 | -0.10 (0.03) <.01 | -0.12 (0.02) <.01 | -0.17 (0.08) .04 | -0.24 (0.14) .10 | -0.13 (0.06) .02 | -0.10 (0.05) .07 | -0.52 (0.13) <.01 | -0.14 (0.08) .08 | --- | -0.35 (0.18) .05 | -0.11 (0.10) .27 | --- |
| b | Level \* age | -0.49 (0.14) <.01 | -0.11 (0.06) .05 | -0.09 (0.03) <.01 | -0.08 (0.02) <.01 | -0.21 (0.10) .03 | -0.61 (0.23) .01 | -0.19 (0.05) <.01 | -0.03 (0.03) .33 | -0.22 (0.06) <.01 | -0.24 (0.08) <.01 | --- | -0.80 (0.26) <.01 | -0.07 (0.14) .62 | --- |
| b | Level \* education | 0.85 (0.19) <.01 | 0.10 (0.05) .05 | 0.13 (0.04) <.01 | 0.13 (0.03) <.01 | 0.29 (0.12) .02 | 2.40 (0.27) <.01 | 0.12 (0.07) .09 | 0.09 (0.03) .01 | 0.35 (0.07) <.01 | 0.50 (0.10) <.01 | --- | 1.90 (0.35) <.01 | 1.31 (0.13) <.01 | --- |
| b | Level \* height | 4.34 (6.36) .49 | -0.34 (3.11) .91 | -0.12 (1.43) .93 | 0.58 (0.94) .54 | 1.46 (4.36) .74 | 5.58 (11.88) .64 | -1.13 (2.48) .65 | -3.07 (1.43) .03 | 3.47 (3.19) .28 | 0.15 (3.73) .97 | --- | 8.55 (11.04) .44 | 10.04 (5.94) .09 | --- |
| b | Level \* smoking | -0.91 (0.88) .30 | -0.09 (0.24) .70 | -0.14 (0.19) .47 | -0.06 (0.14) .67 | -1.20 (0.60) .05 | 1.62 (1.34) .23 | 0.10 (0.32) .76 | -0.19 (0.18) .29 | -0.45 (0.40) .26 | 0.37 (0.49) .45 | --- | 0.37 (1.59) .82 | 0.82 (0.70) .24 | --- |
| b | Level \* cardio | -0.33 (0.69) .64 | 0.04 (0.23) .88 | 0.14 (0.14) .32 | 0.06 (0.11) .57 | -0.30 (0.46) .51 | 1.42 (1.11) .20 | 0.02 (0.25) .92 | 0.05 (0.14) .74 | -0.12 (0.32) .71 | 0.27 (0.38) .48 | --- | 1.16 (1.15) .31 | 0.47 (0.61) .45 | --- |
| b | Level \* diabetes | 0.24 (1.72) .89 | -0.15 (0.42) .72 | 0.03 (0.26) .92 | 0.11 (0.23) .62 | 0.21 (1.02) .84 | -2.26 (2.59) .38 | -0.11 (0.55) .84 | 0.08 (0.25) .76 | -1.02 (0.79) .20 | -1.91 (0.99) .05 | --- | -1.17 (2.21) .60 | -2.29 (1.20) .06 | --- |
| b | Slope \* age | -0.02 (0.02) .42 | -0.04 (0.02) .02 | 0.01 (0.01) .29 | 0.00 (0.00) .44 | -0.01 (0.02) .69 | -0.06 (0.03) .04 | -0.02 (0.01) .19 | -0.03 (0.01) .04 | -0.06 (0.03) .02 | -0.00 (0.02) .84 | --- | -0.03 (0.04) .48 | 0.00 (0.02) .96 | --- |
| b | Slope \* education | -0.00 (0.04) .96 | 0.04 (0.02) .08 | 0.01 (0.01) .14 | 0.00 (0.01) .89 | -0.02 (0.03) .60 | -0.01 (0.04) .89 | 0.01 (0.02) .59 | 0.03 (0.01) .01 | 0.05 (0.04) .30 | 0.00 (0.02) .80 | --- | -0.00 (0.06) .96 | 0.01 (0.03) .85 | --- |
| b | Slope \* height | 0.95 (0.80) .23 | -0.50 (0.87) .56 | 0.18 (0.25) .49 | -0.05 (0.25) .83 | 0.36 (0.83) .67 | 1.68 (1.48) .26 | 0.75 (0.58) .20 | 0.29 (0.53) .59 | -0.34 (1.22) .78 | 0.60 (0.94) .52 | --- | 1.53 (1.79) .39 | 0.11 (1.00) .91 | --- |
| b | Slope \* smoking | 0.01 (0.15) .94 | -0.03 (0.12) .78 | 0.02 (0.03) .49 | 0.03 (0.04) .41 | 0.20 (0.12) .11 | -0.14 (0.20) .47 | -0.07 (0.09) .44 | 0.02 (0.06) .69 | -0.07 (0.18) .71 | -0.20 (0.10) .06 | --- | -0.37 (0.25) .14 | -0.08 (0.14) .59 | --- |
| b | Slope \* cardio | -0.13 (0.12) .26 | -0.09 (0.09) .34 | -0.04 (0.03) .19 | 0.01 (0.03) .81 | 0.03 (0.10) .76 | -0.47 (0.14) <.01 | -0.09 (0.06) .16 | -0.06 (0.06) .35 | -0.13 (0.14) .36 | -0.16 (0.09) .07 | --- | -0.61 (0.19) <.01 | -0.08 (0.11) .45 | --- |
| b | Slope \* diabetes | -0.13 (0.18) .45 | -0.11 (0.17) .52 | -0.05 (0.07) .44 | -0.05 (0.05) .37 | 0.07 (0.17) .69 | -0.09 (0.39) .82 | -0.08 (0.13) .56 | -0.14 (0.14) .31 | -0.12 (0.22) .60 | 0.07 (0.16) .68 | --- | 0.15 (0.62) .81 | -0.14 (0.21) .50 | --- |
| a | Var (Level) | 2.88 (0.40) <.01 | 2.88 (0.39) <.01 | 2.85 (0.40) <.01 | 2.84 (0.40) <.01 | 2.86 (0.40) <.01 | 2.86 (0.40) <.01 | 2.88 (0.40) <.01 | 2.87 (0.39) <.01 | 2.90 (0.39) <.01 | 2.87 (0.40) <.01 | --- | 2.85 (0.40) <.01 | 2.85 (0.40) <.01 | 2.87(0.02) |
| a | Var (Slope) | 0.03 (0.01) .04 | 0.04 (0.02) .02 | 0.03 (0.01) .04 | 0.03 (0.01) .04 | 0.03 (0.02) .04 | 0.03 (0.01) .04 | 0.04 (0.01) .01 | 0.04 (0.02) .01 | 0.04 (0.02) .01 | 0.03 (0.01) .03 | --- | 0.03 (0.01) .04 | 0.03 (0.01) .04 | 0.03(0.00) |
| a | Var (Residual) | 1.51 (0.15) <.01 | 1.49 (0.15) <.01 | 1.50 (0.15) <.01 | 1.51 (0.15) <.01 | 1.50 (0.15) <.01 | 1.51 (0.15) <.01 | 1.49 (0.15) <.01 | 1.50 (0.15) <.01 | 1.49 (0.14) <.01 | 1.50 (0.15) <.01 | --- | 1.52 (0.15) <.01 | 1.51 (0.15) <.01 | 1.50(0.01) |
| b | Var (Level) | 31.52 (2.99) <.01 | 1.89 (1.18) .11 | 0.60 (0.16) <.01 | 0.47 (0.07) <.01 | 7.13 (1.22) <.01 | 90.60 (7.61) <.01 | 3.66 (0.48) <.01 | 0.60 (0.37) .10 | 2.46 (0.77) <.01 | 7.66 (0.94) <.01 | --- | 68.88 (7.00) <.01 | 18.32 (2.17) <.01 | --- |
| b | Var (Slope) | 0.23 (0.07) <.01 | 0.29 (0.07) <.01 | 0.01 (0.01) .13 | 0.02 (0.00) <.01 | 0.05 (0.04) .24 | 0.49 (0.14) <.01 | 0.13 (0.02) <.01 | 0.15 (0.03) <.01 | 0.91 (0.20) <.01 | 0.17 (0.04) <.01 | --- | 0.52 (0.16) <.01 | 0.19 (0.06) <.01 | --- |
| b | Var (Residual) | 10.95 (0.77) <.01 | 4.70 (0.59) <.01 | 1.29 (0.10) <.01 | 0.68 (0.05) <.01 | 9.17 (0.63) <.01 | 17.49 (1.40) <.01 | 1.99 (0.15) <.01 | 1.21 (0.23) <.01 | 7.36 (0.94) <.01 | 5.10 (0.40) <.01 | --- | 28.60 (2.08) <.01 | 6.79 (0.53) <.01 | --- |
| a | Covar (Level, Slope) | -0.03 (0.05) .49 | -0.03 (0.05) .56 | -0.02 (0.05) .63 | -0.02 (0.04) .63 | -0.03 (0.05) .53 | -0.03 (0.05) .49 | -0.04 (0.04) .35 | -0.04 (0.05) .36 | -0.03 (0.05) .54 | -0.03 (0.05) .48 | --- | -0.03 (0.04) .55 | -0.03 (0.04) .56 | -0.03(0.01) |
| b | Covar (Level, Slope) | -0.65 (0.36) .07 | 0.56 (0.17) <.01 | -0.00 (0.02) .82 | -0.02 (0.02) .20 | -0.14 (0.18) .45 | 1.49 (0.66) .02 | 0.17 (0.06) <.01 | 0.15 (0.05) <.01 | 1.15 (0.27) <.01 | 0.01 (0.13) .91 | --- | -0.36 (0.85) .67 | -0.15 (0.27) .56 | --- |
|  | Correlation of Levels | 0.265 | 0.10 | 0.00076 | -0.045 | 0.284 | 0.1390 | 0.131 | -0.10 | -0.0079 | 0.084 | NaN | 0.12 | 0.1174 | 0.09(0.12) |
|  | Correlation of Slopes | 0.635 | 0.77 | 0.11785 | 0.500 | 0.797 | 0.8220 | 0.661 | 0.58 | 0.8377 | 0.553 | NaN | 0.30 | 0.7316 | 0.61(0.22) |
|  | Correlation of Residuals | 0.096 | 0.21 | 0.12325 | 0.096 | 0.061 | -0.0045 | 0.095 | 0.23 | 0.2750 | 0.140 | NaN | 0.15 | -0.0019 | 0.12(0.09) |
|  | N | 346 | 347 | 347 | 347 | 344 | 345 | 343 | 343 | 347 | 344 | NA | 343 | 343 | 344.92(1.78) |
|  | occasions | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | NA | 5 | 5 | 5.00(0.00) |
|  | parameters | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | NA | 41 | 41 | 41.00(0.00) |
|  | LL | -5,428 | -5,183 | -4,345 | -4,064 | -4,719 | -5,958 | -4,654 | -4,305 | -5,643 | -4,875 | NA | -5,415 | -4,663 | -4,938( 587) |
|  | AIC | 10,938 | 10,447 | 8,772 | 8,211 | 9,519 | 11,997 | 9,390 | 8,692 | 11,368 | 9,831 | NA | 10,913 | 9,407 | 9,957(1,174) |
|  | BIC | 11,096 | 10,605 | 8,930 | 8,368 | 9,677 | 12,155 | 9,547 | 8,849 | 11,526 | 9,989 | NA | 11,070 | 9,564 | 10,115(1,174) |

## block

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 3.96 (0.86) <.01 | 3.42 (0.80) <.01 | 2.59 (0.75) <.01 | 2.52 (0.74) <.01 |
| ab | Covar (Slopes) | 0.06 (0.02) .01 | 0.06 (0.02) .01 | 0.05 (0.02) <.01 | 0.05 (0.02) <.01 |
| ab | Covar (Residuals) | 0.43 (0.19) .03 | 0.44 (0.19) .02 | 0.40 (0.19) .04 | 0.39 (0.19) .04 |
| er | Corr (Levels) | 0.35 (0.07) <.01 | 0.32 (0.07) <.01 | 0.27 (0.07) <.01 | 0.26 (0.07) <.01 |
| er | Corr (Slopes) | 0.64 (0.18) <.01 | 0.63 (0.18) <.01 | 0.62 (0.18) <.01 | 0.63 (0.18) <.01 |
| er | Corr (Residuals) | 0.10 (0.05) .02 | 0.11 (0.05) .02 | 0.10 (0.05) .04 | 0.10 (0.05) .04 |
| a | Level | 8.80 (0.19) <.01 | 8.79 (0.19) <.01 | 9.08 (0.19) <.01 | 9.24 (0.23) <.01 |
| a | Slope | 13.35 (0.64) <.01 | 13.22 (0.60) <.01 | 13.56 (0.64) <.01 | 13.95 (0.75) <.01 |
| a | Level \* age | -0.21 (0.04) <.01 | -0.20 (0.04) <.01 | -0.17 (0.04) <.01 | -0.17 (0.04) <.01 |
| a | Level \* education | --- | 0.16 (0.06) .01 | 0.12 (0.06) .05 | 0.15 (0.07) .03 |
| a | Level \* height | --- | --- | 9.21 (1.97) <.01 | 9.28 (2.00) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.41 (0.29) .17 |
| a | Level \* cardio | --- | --- | --- | -0.10 (0.21) .65 |
| a | Level \* diabetes | --- | --- | --- | -0.12 (0.41) .78 |
| a | Slope \* age | -0.01 (0.01) .44 | -0.01 (0.01) .43 | -0.00 (0.01) .74 | -0.00 (0.01) .83 |
| a | Slope \* education | --- | -0.01 (0.01) .42 | -0.01 (0.01) .54 | -0.01 (0.01) .58 |
| a | Slope \* height | --- | --- | -0.17 (0.33) .60 | -0.19 (0.32) .56 |
| a | Slope \* smoking | --- | --- | --- | -0.02 (0.05) .72 |
| a | Slope \* cardio | --- | --- | --- | -0.03 (0.04) .41 |
| a | Slope \* diabetes | --- | --- | --- | -0.05 (0.08) .54 |
| b | Level | -0.38 (0.03) <.01 | -0.38 (0.03) <.01 | -0.40 (0.03) <.01 | -0.38 (0.04) <.01 |
| b | Slope | -0.35 (0.08) <.01 | -0.35 (0.08) <.01 | -0.35 (0.09) <.01 | -0.29 (0.11) .01 |
| b | Level \* age | -0.55 (0.14) <.01 | -0.51 (0.13) <.01 | -0.48 (0.14) <.01 | -0.49 (0.14) <.01 |
| b | Level \* education | --- | 0.77 (0.19) <.01 | 0.80 (0.19) <.01 | 0.85 (0.19) <.01 |
| b | Level \* height | --- | --- | 4.05 (6.41) .53 | 4.34 (6.36) .49 |
| b | Level \* smoking | --- | --- | --- | -0.91 (0.88) .30 |
| b | Level \* cardio | --- | --- | --- | -0.33 (0.69) .64 |
| b | Level \* diabetes | --- | --- | --- | 0.24 (1.72) .89 |
| b | Slope \* age | -0.03 (0.02) .15 | -0.03 (0.02) .17 | -0.02 (0.02) .34 | -0.02 (0.02) .42 |
| b | Slope \* education | --- | 0.00 (0.03) .90 | 0.00 (0.04) .98 | -0.00 (0.04) .96 |
| b | Slope \* height | --- | --- | 1.04 (0.80) .20 | 0.95 (0.80) .23 |
| b | Slope \* smoking | --- | --- | --- | 0.01 (0.15) .94 |
| b | Slope \* cardio | --- | --- | --- | -0.13 (0.12) .26 |
| b | Slope \* diabetes | --- | --- | --- | -0.13 (0.18) .45 |
| a | Var (Level) | 3.51 (0.45) <.01 | 3.39 (0.42) <.01 | 2.91 (0.41) <.01 | 2.88 (0.40) <.01 |
| a | Var (Slope) | 0.03 (0.02) .05 | 0.03 (0.02) .04 | 0.03 (0.01) .03 | 0.03 (0.01) .04 |
| a | Var (Residual) | 1.58 (0.16) <.01 | 1.58 (0.16) <.01 | 1.51 (0.15) <.01 | 1.51 (0.15) <.01 |
| b | Var (Level) | 35.53 (3.13) <.01 | 33.04 (3.02) <.01 | 31.73 (3.02) <.01 | 31.52 (2.99) <.01 |
| b | Var (Slope) | 0.24 (0.07) <.01 | 0.24 (0.07) <.01 | 0.24 (0.07) <.01 | 0.23 (0.07) <.01 |
| b | Var (Residual) | 10.83 (0.75) <.01 | 10.83 (0.75) <.01 | 10.95 (0.77) <.01 | 10.95 (0.77) <.01 |
| a | Covar (Level, Slope) | -0.04 (0.05) .48 | -0.04 (0.05) .49 | -0.03 (0.05) .48 | -0.03 (0.05) .49 |
| b | Covar (Level, Slope) | -0.64 (0.34) .06 | -0.64 (0.35) .07 | -0.67 (0.36) .06 | -0.65 (0.36) .07 |
|  | Correlation of Levels | 0.36 | 0.32 | 0.270 | 0.265 |
|  | Correlation of Slopes | 0.63 | 0.64 | 0.617 | 0.635 |
|  | Correlation of Residuals | 0.10 | 0.11 | 0.098 | 0.096 |
|  | N | 380 | 378 | 346 | 346 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -5,763 | -5,733 | -5,431 | -5,428 |
|  | AIC | 11,569 | 11,516 | 10,921 | 10,938 |
|  | BIC | 11,651 | 11,614 | 11,032 | 11,096 |

## clock

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 1.08 (0.50) .03 | 0.69 (0.41) .09 | 0.24 (0.31) .43 | 0.23 (0.31) .45 |
| ab | Covar (Slopes) | 0.08 (0.03) <.01 | 0.09 (0.03) <.01 | 0.08 (0.03) <.01 | 0.08 (0.03) <.01 |
| ab | Covar (Residuals) | 0.63 (0.20) <.01 | 0.62 (0.20) <.01 | 0.57 (0.20) <.01 | 0.57 (0.20) <.01 |
| er | Corr (Levels) | 0.26 (0.10) .01 | 0.21 (0.11) .06 | 0.10 (0.12) .39 | 0.10 (0.12) .40 |
| er | Corr (Slopes) | 0.76 (0.13) <.01 | 0.80 (0.12) <.01 | 0.76 (0.13) <.01 | 0.76 (0.13) <.01 |
| er | Corr (Residuals) | 0.23 (0.06) <.01 | 0.22 (0.06) <.01 | 0.21 (0.06) <.01 | 0.21 (0.06) <.01 |
| a | Level | 8.81 (0.19) <.01 | 8.80 (0.19) <.01 | 9.10 (0.19) <.01 | 9.26 (0.23) <.01 |
| a | Slope | 14.50 (0.24) <.01 | 14.56 (0.23) <.01 | 14.65 (0.19) <.01 | 14.67 (0.26) <.01 |
| a | Level \* age | -0.21 (0.04) <.01 | -0.21 (0.04) <.01 | -0.17 (0.04) <.01 | -0.17 (0.04) <.01 |
| a | Level \* education | --- | 0.16 (0.06) .01 | 0.13 (0.06) .05 | 0.15 (0.07) .03 |
| a | Level \* height | --- | --- | 9.00 (1.96) <.01 | 9.05 (1.99) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.40 (0.30) .18 |
| a | Level \* cardio | --- | --- | --- | -0.10 (0.21) .64 |
| a | Level \* diabetes | --- | --- | --- | -0.16 (0.41) .70 |
| a | Slope \* age | -0.01 (0.01) .35 | -0.01 (0.01) .34 | -0.00 (0.01) .68 | -0.00 (0.01) .77 |
| a | Slope \* education | --- | -0.01 (0.01) .36 | -0.01 (0.01) .46 | -0.01 (0.01) .49 |
| a | Slope \* height | --- | --- | -0.20 (0.34) .56 | -0.22 (0.34) .52 |
| a | Slope \* smoking | --- | --- | --- | -0.01 (0.06) .80 |
| a | Slope \* cardio | --- | --- | --- | -0.03 (0.04) .41 |
| a | Slope \* diabetes | --- | --- | --- | -0.05 (0.09) .55 |
| b | Level | -0.38 (0.03) <.01 | -0.38 (0.03) <.01 | -0.40 (0.03) <.01 | -0.38 (0.04) <.01 |
| b | Slope | -0.31 (0.07) <.01 | -0.32 (0.07) <.01 | -0.34 (0.07) <.01 | -0.29 (0.08) <.01 |
| b | Level \* age | -0.18 (0.07) .01 | -0.15 (0.06) .02 | -0.11 (0.05) .04 | -0.11 (0.06) .05 |
| b | Level \* education | --- | 0.08 (0.06) .19 | 0.10 (0.05) .05 | 0.10 (0.05) .05 |
| b | Level \* height | --- | --- | -0.31 (3.14) .92 | -0.34 (3.11) .91 |
| b | Level \* smoking | --- | --- | --- | -0.09 (0.24) .70 |
| b | Level \* cardio | --- | --- | --- | 0.04 (0.23) .88 |
| b | Level \* diabetes | --- | --- | --- | -0.15 (0.42) .72 |
| b | Slope \* age | -0.05 (0.02) <.01 | -0.05 (0.02) <.01 | -0.05 (0.02) .01 | -0.04 (0.02) .02 |
| b | Slope \* education | --- | 0.03 (0.02) .10 | 0.04 (0.02) .06 | 0.04 (0.02) .08 |
| b | Slope \* height | --- | --- | -0.45 (0.87) .60 | -0.50 (0.87) .56 |
| b | Slope \* smoking | --- | --- | --- | -0.03 (0.12) .78 |
| b | Slope \* cardio | --- | --- | --- | -0.09 (0.09) .34 |
| b | Slope \* diabetes | --- | --- | --- | -0.11 (0.17) .52 |
| a | Var (Level) | 3.55 (0.45) <.01 | 3.38 (0.41) <.01 | 2.91 (0.40) <.01 | 2.88 (0.39) <.01 |
| a | Var (Slope) | 0.04 (0.02) .03 | 0.04 (0.02) .02 | 0.04 (0.02) .02 | 0.04 (0.02) .02 |
| a | Var (Residual) | 1.56 (0.16) <.01 | 1.56 (0.15) <.01 | 1.50 (0.15) <.01 | 1.49 (0.15) <.01 |
| b | Var (Level) | 4.99 (1.54) <.01 | 3.29 (1.26) .01 | 1.89 (1.18) .11 | 1.89 (1.18) .11 |
| b | Var (Slope) | 0.30 (0.07) <.01 | 0.29 (0.07) <.01 | 0.30 (0.07) <.01 | 0.29 (0.07) <.01 |
| b | Var (Residual) | 5.01 (0.65) <.01 | 5.05 (0.65) <.01 | 4.70 (0.59) <.01 | 4.70 (0.59) <.01 |
| a | Covar (Level, Slope) | -0.03 (0.06) .64 | -0.02 (0.05) .66 | -0.03 (0.05) .55 | -0.03 (0.05) .56 |
| b | Covar (Level, Slope) | 0.61 (0.25) .01 | 0.65 (0.22) <.01 | 0.56 (0.17) <.01 | 0.56 (0.17) <.01 |
|  | Correlation of Levels | 0.26 | 0.21 | 0.10 | 0.10 |
|  | Correlation of Slopes | 0.75 | 0.80 | 0.76 | 0.77 |
|  | Correlation of Residuals | 0.23 | 0.22 | 0.21 | 0.21 |
|  | N | 386 | 381 | 347 | 347 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -5,639 | -5,570 | -5,185 | -5,183 |
|  | AIC | 11,320 | 11,190 | 10,428 | 10,447 |
|  | BIC | 11,403 | 11,289 | 10,540 | 10,605 |

## digit\_b

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 0.14 (0.17) .40 | 0.05 (0.16) .74 | 0.01 (0.14) .94 | 0.00 (0.14) .99 |
| ab | Covar (Slopes) | 0.00 (0.01) .56 | 0.00 (0.01) .49 | 0.00 (0.01) .63 | 0.00 (0.01) .74 |
| ab | Covar (Residuals) | 0.20 (0.07) <.01 | 0.20 (0.07) <.01 | 0.17 (0.07) .01 | 0.17 (0.07) .01 |
| er | Corr (Levels) | 0.09 (0.10) .38 | 0.04 (0.10) .73 | 0.01 (0.11) .94 | 0.00 (0.11) .99 |
| er | Corr (Slopes) | 0.19 (0.29) .51 | 0.25 (0.30) .42 | 0.17 (0.32) .60 | 0.12 (0.34) .72 |
| er | Corr (Residuals) | 0.14 (0.05) <.01 | 0.14 (0.05) <.01 | 0.12 (0.05) .01 | 0.12 (0.05) .01 |
| a | Level | 8.81 (0.19) <.01 | 8.80 (0.19) <.01 | 9.09 (0.19) <.01 | 9.25 (0.23) <.01 |
| a | Slope | 3.65 (0.12) <.01 | 3.64 (0.11) <.01 | 3.74 (0.12) <.01 | 3.71 (0.14) <.01 |
| a | Level \* age | -0.21 (0.04) <.01 | -0.21 (0.04) <.01 | -0.17 (0.04) <.01 | -0.17 (0.04) <.01 |
| a | Level \* education | --- | 0.17 (0.06) .01 | 0.13 (0.06) .05 | 0.15 (0.07) .02 |
| a | Level \* height | --- | --- | 9.10 (1.97) <.01 | 9.16 (1.99) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.42 (0.29) .16 |
| a | Level \* cardio | --- | --- | --- | -0.09 (0.21) .68 |
| a | Level \* diabetes | --- | --- | --- | -0.14 (0.41) .73 |
| a | Slope \* age | -0.00 (0.01) .59 | -0.00 (0.01) .57 | -0.00 (0.01) .86 | 0.00 (0.01) .99 |
| a | Slope \* education | --- | -0.01 (0.01) .37 | -0.01 (0.01) .48 | -0.01 (0.01) .48 |
| a | Slope \* height | --- | --- | -0.16 (0.34) .64 | -0.18 (0.33) .58 |
| a | Slope \* smoking | --- | --- | --- | 0.00 (0.06) .99 |
| a | Slope \* cardio | --- | --- | --- | -0.03 (0.04) .40 |
| a | Slope \* diabetes | --- | --- | --- | -0.05 (0.09) .54 |
| b | Level | -0.38 (0.03) <.01 | -0.38 (0.03) <.01 | -0.39 (0.03) <.01 | -0.38 (0.04) <.01 |
| b | Slope | -0.11 (0.03) <.01 | -0.11 (0.03) <.01 | -0.12 (0.03) <.01 | -0.10 (0.03) <.01 |
| b | Level \* age | -0.07 (0.03) .01 | -0.07 (0.02) <.01 | -0.09 (0.03) <.01 | -0.09 (0.03) <.01 |
| b | Level \* education | --- | 0.13 (0.03) <.01 | 0.12 (0.03) <.01 | 0.13 (0.04) <.01 |
| b | Level \* height | --- | --- | -0.13 (1.42) .93 | -0.12 (1.43) .93 |
| b | Level \* smoking | --- | --- | --- | -0.14 (0.19) .47 |
| b | Level \* cardio | --- | --- | --- | 0.14 (0.14) .32 |
| b | Level \* diabetes | --- | --- | --- | 0.03 (0.26) .92 |
| b | Slope \* age | -0.00 (0.01) .87 | -0.00 (0.01) .92 | 0.00 (0.01) .40 | 0.01 (0.01) .29 |
| b | Slope \* education | --- | 0.01 (0.01) .12 | 0.01 (0.01) .06 | 0.01 (0.01) .14 |
| b | Slope \* height | --- | --- | 0.21 (0.25) .41 | 0.18 (0.25) .49 |
| b | Slope \* smoking | --- | --- | --- | 0.02 (0.03) .49 |
| b | Slope \* cardio | --- | --- | --- | -0.04 (0.03) .19 |
| b | Slope \* diabetes | --- | --- | --- | -0.05 (0.07) .44 |
| a | Var (Level) | 3.49 (0.44) <.01 | 3.37 (0.42) <.01 | 2.88 (0.40) <.01 | 2.85 (0.40) <.01 |
| a | Var (Slope) | 0.04 (0.02) .04 | 0.04 (0.02) .04 | 0.03 (0.01) .03 | 0.03 (0.01) .04 |
| a | Var (Residual) | 1.57 (0.16) <.01 | 1.57 (0.16) <.01 | 1.50 (0.15) <.01 | 1.50 (0.15) <.01 |
| b | Var (Level) | 0.73 (0.15) <.01 | 0.66 (0.15) <.01 | 0.61 (0.15) <.01 | 0.60 (0.16) <.01 |
| b | Var (Slope) | 0.01 (0.01) .04 | 0.01 (0.01) .08 | 0.01 (0.01) .09 | 0.01 (0.01) .13 |
| b | Var (Residual) | 1.28 (0.10) <.01 | 1.29 (0.10) <.01 | 1.29 (0.10) <.01 | 1.29 (0.10) <.01 |
| a | Covar (Level, Slope) | -0.03 (0.05) .59 | -0.02 (0.05) .61 | -0.02 (0.05) .61 | -0.02 (0.05) .63 |
| b | Covar (Level, Slope) | -0.00 (0.02) .87 | -0.01 (0.02) .75 | -0.01 (0.02) .69 | -0.00 (0.02) .82 |
|  | Correlation of Levels | 0.088 | 0.036 | 0.0075 | 0.00076 |
|  | Correlation of Slopes | 0.188 | 0.255 | 0.1651 | 0.11785 |
|  | Correlation of Residuals | 0.143 | 0.140 | 0.1227 | 0.12325 |
|  | N | 384 | 382 | 347 | 347 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,662 | -4,630 | -4,349 | -4,345 |
|  | AIC | 9,365 | 9,309 | 8,756 | 8,772 |
|  | BIC | 9,448 | 9,408 | 8,867 | 8,930 |

## digit\_f

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 0.06 (0.13) .63 | -0.04 (0.12) .76 | -0.05 (0.11) .67 | -0.05 (0.11) .64 |
| ab | Covar (Slopes) | 0.01 (0.01) .04 | 0.02 (0.01) .03 | 0.01 (0.01) .03 | 0.01 (0.01) .03 |
| ab | Covar (Residuals) | 0.15 (0.06) .01 | 0.14 (0.06) .02 | 0.10 (0.06) .08 | 0.10 (0.06) .08 |
| er | Corr (Levels) | 0.04 (0.09) .63 | -0.03 (0.09) .76 | -0.04 (0.10) .67 | -0.04 (0.10) .64 |
| er | Corr (Slopes) | 0.56 (0.16) <.01 | 0.59 (0.16) <.01 | 0.52 (0.17) <.01 | 0.52 (0.17) <.01 |
| er | Corr (Residuals) | 0.14 (0.05) .01 | 0.14 (0.05) .01 | 0.10 (0.05) .08 | 0.10 (0.05) .07 |
| a | Level | 8.81 (0.19) <.01 | 8.80 (0.19) <.01 | 9.09 (0.19) <.01 | 9.26 (0.23) <.01 |
| a | Slope | 5.60 (0.10) <.01 | 5.59 (0.10) <.01 | 5.66 (0.10) <.01 | 5.64 (0.12) <.01 |
| a | Level \* age | -0.21 (0.04) <.01 | -0.21 (0.04) <.01 | -0.17 (0.04) <.01 | -0.18 (0.04) <.01 |
| a | Level \* education | --- | 0.17 (0.06) .01 | 0.13 (0.06) .05 | 0.15 (0.07) .02 |
| a | Level \* height | --- | --- | 9.01 (1.95) <.01 | 9.07 (1.98) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.41 (0.29) .16 |
| a | Level \* cardio | --- | --- | --- | -0.10 (0.21) .63 |
| a | Level \* diabetes | --- | --- | --- | -0.14 (0.40) .73 |
| a | Slope \* age | -0.00 (0.01) .53 | -0.00 (0.01) .52 | -0.00 (0.01) .87 | 0.00 (0.01) .99 |
| a | Slope \* education | --- | -0.01 (0.01) .30 | -0.01 (0.01) .42 | -0.01 (0.01) .42 |
| a | Slope \* height | --- | --- | -0.08 (0.33) .81 | -0.11 (0.33) .73 |
| a | Slope \* smoking | --- | --- | --- | 0.00 (0.06) .98 |
| a | Slope \* cardio | --- | --- | --- | -0.02 (0.04) .51 |
| a | Slope \* diabetes | --- | --- | --- | -0.06 (0.09) .51 |
| b | Level | -0.38 (0.03) <.01 | -0.38 (0.03) <.01 | -0.39 (0.03) <.01 | -0.38 (0.04) <.01 |
| b | Slope | -0.10 (0.02) <.01 | -0.10 (0.02) <.01 | -0.11 (0.02) <.01 | -0.12 (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 (0.02) <.01 | 0.12 (0.02) <.01 | 0.13 (0.03) <.01 |
| b | Level \* height | --- | --- | 0.54 (0.94) .57 | 0.58 (0.94) .54 |
| b | Level \* smoking | --- | --- | --- | -0.06 (0.14) .67 |
| b | Level \* cardio | --- | --- | --- | 0.06 (0.11) .57 |
| b | Level \* diabetes | --- | --- | --- | 0.11 (0.23) .62 |
| b | Slope \* age | -0.00 (0.00) .78 | -0.00 (0.00) .76 | 0.00 (0.00) .58 | 0.00 (0.00) .44 |
| b | Slope \* education | --- | -0.00 (0.01) .83 | 0.00 (0.01) .73 | 0.00 (0.01) .89 |
| b | Slope \* height | --- | --- | -0.02 (0.26) .94 | -0.05 (0.25) .83 |
| b | Slope \* smoking | --- | --- | --- | 0.03 (0.04) .41 |
| b | Slope \* cardio | --- | --- | --- | 0.01 (0.03) .81 |
| b | Slope \* diabetes | --- | --- | --- | -0.05 (0.05) .37 |
| a | Var (Level) | 3.48 (0.44) <.01 | 3.35 (0.41) <.01 | 2.87 (0.40) <.01 | 2.84 (0.40) <.01 |
| a | Var (Slope) | 0.04 (0.02) .04 | 0.04 (0.02) .03 | 0.03 (0.01) .03 | 0.03 (0.01) .04 |
| a | Var (Residual) | 1.57 (0.15) <.01 | 1.57 (0.15) <.01 | 1.51 (0.15) <.01 | 1.51 (0.15) <.01 |
| b | Var (Level) | 0.58 (0.08) <.01 | 0.49 (0.07) <.01 | 0.47 (0.07) <.01 | 0.47 (0.07) <.01 |
| b | Var (Slope) | 0.02 (0.01) <.01 | 0.02 (0.01) <.01 | 0.02 (0.00) <.01 | 0.02 (0.00) <.01 |
| b | Var (Residual) | 0.73 (0.05) <.01 | 0.72 (0.05) <.01 | 0.68 (0.05) <.01 | 0.68 (0.05) <.01 |
| a | Covar (Level, Slope) | -0.02 (0.05) .63 | -0.02 (0.05) .65 | -0.02 (0.04) .61 | -0.02 (0.04) .63 |
| b | Covar (Level, Slope) | -0.02 (0.02) .34 | -0.02 (0.02) .28 | -0.02 (0.02) .21 | -0.02 (0.02) .20 |
|  | Correlation of Levels | 0.045 | -0.029 | -0.040 | -0.045 |
|  | Correlation of Slopes | 0.538 | 0.610 | 0.542 | 0.500 |
|  | Correlation of Residuals | 0.142 | 0.136 | 0.095 | 0.096 |
|  | N | 385 | 382 | 347 | 347 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,404 | -4,361 | -4,068 | -4,064 |
|  | AIC | 8,850 | 8,772 | 8,194 | 8,211 |
|  | BIC | 8,933 | 8,871 | 8,306 | 8,368 |

## fig\_logic

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 1.92 (0.46) <.01 | 1.68 (0.45) <.01 | 1.35 (0.43) <.01 | 1.28 (0.41) <.01 |
| ab | Covar (Slopes) | 0.03 (0.02) .12 | 0.03 (0.02) .11 | 0.03 (0.02) .09 | 0.03 (0.02) .09 |
| ab | Covar (Residuals) | 0.29 (0.18) .11 | 0.29 (0.18) .11 | 0.23 (0.18) .21 | 0.23 (0.18) .20 |
| er | Corr (Levels) | 0.36 (0.08) <.01 | 0.33 (0.08) <.01 | 0.29 (0.09) <.01 | 0.28 (0.09) <.01 |
| er | Corr (Slopes) | 0.78 (0.38) .04 | 0.76 (0.35) .03 | 0.76 (0.34) .03 | 0.79 (0.36) .03 |
| er | Corr (Residuals) | 0.08 (0.05) .10 | 0.08 (0.05) .10 | 0.06 (0.05) .21 | 0.06 (0.05) .20 |
| a | Level | 8.82 (0.19) <.01 | 8.80 (0.19) <.01 | 9.09 (0.19) <.01 | 9.26 (0.23) <.01 |
| a | Slope | 16.19 (0.38) <.01 | 16.17 (0.38) <.01 | 16.35 (0.39) <.01 | 16.76 (0.44) <.01 |
| a | Level \* age | -0.21 (0.04) <.01 | -0.21 (0.04) <.01 | -0.17 (0.04) <.01 | -0.17 (0.04) <.01 |
| a | Level \* education | --- | 0.16 (0.06) .01 | 0.13 (0.07) .05 | 0.15 (0.07) .03 |
| a | Level \* height | --- | --- | 9.04 (1.98) <.01 | 9.12 (2.00) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.42 (0.30) .15 |
| a | Level \* cardio | --- | --- | --- | -0.09 (0.21) .66 |
| a | Level \* diabetes | --- | --- | --- | -0.12 (0.41) .76 |
| a | Slope \* age | -0.00 (0.01) .52 | -0.00 (0.01) .51 | -0.00 (0.01) .81 | -0.00 (0.01) .92 |
| a | Slope \* education | --- | -0.01 (0.01) .39 | -0.01 (0.01) .51 | -0.01 (0.01) .50 |
| a | Slope \* height | --- | --- | -0.17 (0.33) .61 | -0.20 (0.33) .56 |
| a | Slope \* smoking | --- | --- | --- | 0.00 (0.06) .96 |
| a | Slope \* cardio | --- | --- | --- | -0.03 (0.04) .42 |
| a | Slope \* diabetes | --- | --- | --- | -0.05 (0.09) .57 |
| b | Level | -0.38 (0.03) <.01 | -0.38 (0.03) <.01 | -0.39 (0.03) <.01 | -0.38 (0.04) <.01 |
| b | Slope | -0.11 (0.07) .10 | -0.12 (0.07) .11 | -0.11 (0.08) .14 | -0.17 (0.08) .04 |
| b | Level \* age | -0.20 (0.09) .02 | -0.19 (0.09) .03 | -0.20 (0.09) .04 | -0.21 (0.10) .03 |
| b | Level \* education | --- | 0.24 (0.11) .03 | 0.22 (0.12) .05 | 0.29 (0.12) .02 |
| b | Level \* height | --- | --- | 1.30 (4.40) .77 | 1.46 (4.36) .74 |
| b | Level \* smoking | --- | --- | --- | -1.20 (0.60) .05 |
| b | Level \* cardio | --- | --- | --- | -0.30 (0.46) .51 |
| b | Level \* diabetes | --- | --- | --- | 0.21 (1.02) .84 |
| b | Slope \* age | -0.01 (0.02) .52 | -0.01 (0.02) .58 | -0.01 (0.02) .65 | -0.01 (0.02) .69 |
| b | Slope \* education | --- | -0.00 (0.03) .95 | -0.00 (0.03) .96 | -0.02 (0.03) .60 |
| b | Slope \* height | --- | --- | 0.34 (0.82) .68 | 0.36 (0.83) .67 |
| b | Slope \* smoking | --- | --- | --- | 0.20 (0.12) .11 |
| b | Slope \* cardio | --- | --- | --- | 0.03 (0.10) .76 |
| b | Slope \* diabetes | --- | --- | --- | 0.07 (0.17) .69 |
| a | Var (Level) | 3.49 (0.45) <.01 | 3.37 (0.42) <.01 | 2.89 (0.40) <.01 | 2.86 (0.40) <.01 |
| a | Var (Slope) | 0.04 (0.02) .05 | 0.04 (0.02) .04 | 0.03 (0.02) .03 | 0.03 (0.02) .04 |
| a | Var (Residual) | 1.57 (0.16) <.01 | 1.57 (0.16) <.01 | 1.50 (0.15) <.01 | 1.50 (0.15) <.01 |
| b | Var (Level) | 7.93 (1.27) <.01 | 7.54 (1.21) <.01 | 7.34 (1.20) <.01 | 7.13 (1.22) <.01 |
| b | Var (Slope) | 0.05 (0.04) .28 | 0.05 (0.04) .23 | 0.06 (0.04) .21 | 0.05 (0.04) .24 |
| b | Var (Residual) | 9.14 (0.63) <.01 | 9.08 (0.62) <.01 | 9.18 (0.63) <.01 | 9.17 (0.63) <.01 |
| a | Covar (Level, Slope) | -0.04 (0.05) .49 | -0.03 (0.05) .50 | -0.03 (0.05) .51 | -0.03 (0.05) .53 |
| b | Covar (Level, Slope) | -0.13 (0.18) .47 | -0.14 (0.18) .43 | -0.16 (0.18) .38 | -0.14 (0.18) .45 |
|  | Correlation of Levels | 0.364 | 0.333 | 0.292 | 0.284 |
|  | Correlation of Slopes | 0.789 | 0.774 | 0.756 | 0.797 |
|  | Correlation of Residuals | 0.078 | 0.078 | 0.061 | 0.061 |
|  | N | 378 | 376 | 344 | 344 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,993 | -4,974 | -4,723 | -4,719 |
|  | AIC | 10,029 | 9,998 | 9,504 | 9,519 |
|  | BIC | 10,111 | 10,096 | 9,615 | 9,677 |

## information

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 4.97 (1.30) <.01 | 3.33 (1.05) <.01 | 2.12 (1.03) .04 | 2.24 (1.04) .03 |
| ab | Covar (Slopes) | 0.11 (0.04) <.01 | 0.11 (0.04) <.01 | 0.10 (0.03) <.01 | 0.10 (0.03) <.01 |
| ab | Covar (Residuals) | 0.02 (0.26) .95 | 0.03 (0.25) .90 | -0.01 (0.25) .98 | -0.02 (0.25) .93 |
| er | Corr (Levels) | 0.24 (0.06) <.01 | 0.19 (0.06) <.01 | 0.13 (0.06) .04 | 0.14 (0.06) .03 |
| er | Corr (Slopes) | 0.79 (0.17) <.01 | 0.79 (0.18) <.01 | 0.79 (0.18) <.01 | 0.82 (0.20) <.01 |
| er | Corr (Residuals) | 0.00 (0.05) .95 | 0.01 (0.05) .90 | -0.00 (0.05) .98 | -0.00 (0.05) .93 |
| a | Level | 8.82 (0.19) <.01 | 8.80 (0.19) <.01 | 9.09 (0.19) <.01 | 9.25 (0.23) <.01 |
| a | Slope | 29.00 (1.10) <.01 | 28.64 (0.93) <.01 | 29.07 (1.01) <.01 | 28.04 (1.20) <.01 |
| a | Level \* age | -0.21 (0.04) <.01 | -0.21 (0.04) <.01 | -0.17 (0.04) <.01 | -0.17 (0.04) <.01 |
| a | Level \* education | --- | 0.16 (0.06) .01 | 0.13 (0.06) .05 | 0.15 (0.07) .03 |
| a | Level \* height | --- | --- | 9.14 (1.97) <.01 | 9.22 (2.00) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.41 (0.30) .16 |
| a | Level \* cardio | --- | --- | --- | -0.09 (0.21) .68 |
| a | Level \* diabetes | --- | --- | --- | -0.12 (0.41) .77 |
| a | Slope \* age | -0.01 (0.01) .44 | -0.01 (0.01) .42 | -0.00 (0.01) .67 | -0.00 (0.01) .78 |
| a | Slope \* education | --- | -0.01 (0.01) .45 | -0.01 (0.01) .59 | -0.01 (0.01) .57 |
| a | Slope \* height | --- | --- | -0.23 (0.34) .49 | -0.25 (0.33) .44 |
| a | Slope \* smoking | --- | --- | --- | 0.00 (0.05) .99 |
| a | Slope \* cardio | --- | --- | --- | -0.03 (0.04) .36 |
| a | Slope \* diabetes | --- | --- | --- | -0.05 (0.09) .55 |
| b | Level | -0.38 (0.03) <.01 | -0.38 (0.03) <.01 | -0.39 (0.03) <.01 | -0.38 (0.04) <.01 |
| b | Slope | -0.49 (0.10) <.01 | -0.48 (0.10) <.01 | -0.48 (0.12) <.01 | -0.24 (0.14) .10 |
| b | Level \* age | -0.80 (0.23) <.01 | -0.69 (0.18) <.01 | -0.65 (0.23) <.01 | -0.61 (0.23) .01 |
| b | Level \* education | --- | 2.49 (0.24) <.01 | 2.46 (0.24) <.01 | 2.40 (0.27) <.01 |
| b | Level \* height | --- | --- | 7.44 (11.95) .53 | 5.58 (11.88) .64 |
| b | Level \* smoking | --- | --- | --- | 1.62 (1.34) .23 |
| b | Level \* cardio | --- | --- | --- | 1.42 (1.11) .20 |
| b | Level \* diabetes | --- | --- | --- | -2.26 (2.59) .38 |
| b | Slope \* age | -0.08 (0.03) .01 | -0.08 (0.03) .01 | -0.07 (0.03) .03 | -0.06 (0.03) .04 |
| b | Slope \* education | --- | 0.00 (0.04) .91 | -0.00 (0.04) .95 | -0.01 (0.04) .89 |
| b | Slope \* height | --- | --- | 1.65 (1.52) .28 | 1.68 (1.48) .26 |
| b | Slope \* smoking | --- | --- | --- | -0.14 (0.20) .47 |
| b | Slope \* cardio | --- | --- | --- | -0.47 (0.14) <.01 |
| b | Slope \* diabetes | --- | --- | --- | -0.09 (0.39) .82 |
| a | Var (Level) | 3.49 (0.45) <.01 | 3.38 (0.42) <.01 | 2.89 (0.40) <.01 | 2.86 (0.40) <.01 |
| a | Var (Slope) | 0.03 (0.02) .04 | 0.03 (0.02) .04 | 0.03 (0.01) .03 | 0.03 (0.01) .04 |
| a | Var (Residual) | 1.58 (0.16) <.01 | 1.58 (0.16) <.01 | 1.51 (0.15) <.01 | 1.51 (0.15) <.01 |
| b | Var (Level) | 119.71 (8.35) <.01 | 94.34 (7.22) <.01 | 91.91 (7.75) <.01 | 90.60 (7.61) <.01 |
| b | Var (Slope) | 0.57 (0.15) <.01 | 0.57 (0.15) <.01 | 0.55 (0.15) <.01 | 0.49 (0.14) <.01 |
| b | Var (Residual) | 17.09 (1.35) <.01 | 17.09 (1.35) <.01 | 17.45 (1.39) <.01 | 17.49 (1.40) <.01 |
| a | Covar (Level, Slope) | -0.04 (0.05) .45 | -0.04 (0.05) .44 | -0.03 (0.05) .47 | -0.03 (0.05) .49 |
| b | Covar (Level, Slope) | 1.42 (0.80) .07 | 1.31 (0.64) .04 | 1.29 (0.66) .05 | 1.49 (0.66) .02 |
|  | Correlation of Levels | 0.2433 | 0.1865 | 0.1297 | 0.1390 |
|  | Correlation of Slopes | 0.7895 | 0.7888 | 0.7886 | 0.8220 |
|  | Correlation of Residuals | 0.0033 | 0.0061 | -0.0014 | -0.0045 |
|  | N | 381 | 378 | 345 | 345 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -6,378 | -6,321 | -5,966 | -5,958 |
|  | AIC | 12,799 | 12,692 | 11,991 | 11,997 |
|  | BIC | 12,882 | 12,791 | 12,102 | 12,155 |

## mir

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 0.68 (0.28) .01 | 0.61 (0.27) .02 | 0.42 (0.24) .08 | 0.42 (0.24) .08 |
| ab | Covar (Slopes) | 0.05 (0.01) <.01 | 0.05 (0.01) <.01 | 0.05 (0.01) <.01 | 0.05 (0.01) <.01 |
| ab | Covar (Residuals) | 0.17 (0.08) .04 | 0.17 (0.08) .03 | 0.17 (0.08) .04 | 0.16 (0.08) .04 |
| er | Corr (Levels) | 0.18 (0.07) .01 | 0.17 (0.07) .02 | 0.13 (0.07) .07 | 0.13 (0.07) .06 |
| er | Corr (Slopes) | 0.68 (0.12) <.01 | 0.67 (0.12) <.01 | 0.67 (0.12) <.01 | 0.66 (0.13) <.01 |
| er | Corr (Residuals) | 0.10 (0.04) .03 | 0.10 (0.04) .03 | 0.10 (0.04) .03 | 0.10 (0.04) .03 |
| a | Level | 8.83 (0.19) <.01 | 8.82 (0.19) <.01 | 9.11 (0.19) <.01 | 9.27 (0.23) <.01 |
| a | Slope | 7.30 (0.20) <.01 | 7.27 (0.20) <.01 | 7.41 (0.20) <.01 | 7.38 (0.26) <.01 |
| a | Level \* age | -0.21 (0.04) <.01 | -0.21 (0.04) <.01 | -0.17 (0.04) <.01 | -0.17 (0.04) <.01 |
| a | Level \* education | --- | 0.17 (0.06) .01 | 0.13 (0.06) .05 | 0.15 (0.07) .03 |
| a | Level \* height | --- | --- | 9.10 (1.98) <.01 | 9.16 (2.01) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.39 (0.30) .19 |
| a | Level \* cardio | --- | --- | --- | -0.11 (0.21) .62 |
| a | Level \* diabetes | --- | --- | --- | -0.14 (0.41) .73 |
| a | Slope \* age | -0.01 (0.01) .46 | -0.00 (0.01) .51 | -0.00 (0.01) .82 | -0.00 (0.01) .89 |
| a | Slope \* education | --- | -0.01 (0.01) .41 | -0.01 (0.01) .51 | -0.01 (0.01) .56 |
| a | Slope \* height | --- | --- | -0.12 (0.34) .71 | -0.13 (0.34) .69 |
| a | Slope \* smoking | --- | --- | --- | -0.02 (0.06) .67 |
| a | Slope \* cardio | --- | --- | --- | -0.03 (0.04) .48 |
| a | Slope \* diabetes | --- | --- | --- | -0.05 (0.09) .59 |
| b | Level | -0.39 (0.03) <.01 | -0.39 (0.03) <.01 | -0.40 (0.03) <.01 | -0.38 (0.04) <.01 |
| b | Slope | -0.20 (0.05) <.01 | -0.19 (0.05) <.01 | -0.18 (0.05) <.01 | -0.13 (0.06) .02 |
| b | Level \* age | -0.20 (0.05) <.01 | -0.18 (0.05) <.01 | -0.19 (0.05) <.01 | -0.19 (0.05) <.01 |
| b | Level \* education | --- | 0.10 (0.07) .14 | 0.13 (0.07) .07 | 0.12 (0.07) .09 |
| b | Level \* height | --- | --- | -1.06 (2.52) .67 | -1.13 (2.48) .65 |
| b | Level \* smoking | --- | --- | --- | 0.10 (0.32) .76 |
| b | Level \* cardio | --- | --- | --- | 0.02 (0.25) .92 |
| b | Level \* diabetes | --- | --- | --- | -0.11 (0.55) .84 |
| b | Slope \* age | -0.02 (0.01) .04 | -0.02 (0.01) .04 | -0.02 (0.01) .16 | -0.02 (0.01) .19 |
| b | Slope \* education | --- | 0.01 (0.02) .62 | 0.01 (0.02) .69 | 0.01 (0.02) .59 |
| b | Slope \* height | --- | --- | 0.77 (0.57) .18 | 0.75 (0.58) .20 |
| b | Slope \* smoking | --- | --- | --- | -0.07 (0.09) .44 |
| b | Slope \* cardio | --- | --- | --- | -0.09 (0.06) .16 |
| b | Slope \* diabetes | --- | --- | --- | -0.08 (0.13) .56 |
| a | Var (Level) | 3.51 (0.45) <.01 | 3.39 (0.42) <.01 | 2.91 (0.40) <.01 | 2.88 (0.40) <.01 |
| a | Var (Slope) | 0.04 (0.02) .02 | 0.04 (0.02) .02 | 0.04 (0.01) .01 | 0.04 (0.01) .01 |
| a | Var (Residual) | 1.56 (0.15) <.01 | 1.55 (0.15) <.01 | 1.49 (0.15) <.01 | 1.49 (0.15) <.01 |
| b | Var (Level) | 4.16 (0.50) <.01 | 3.98 (0.48) <.01 | 3.66 (0.48) <.01 | 3.66 (0.48) <.01 |
| b | Var (Slope) | 0.14 (0.02) <.01 | 0.14 (0.02) <.01 | 0.14 (0.02) <.01 | 0.13 (0.02) <.01 |
| b | Var (Residual) | 2.03 (0.15) <.01 | 2.02 (0.15) <.01 | 1.99 (0.15) <.01 | 1.99 (0.15) <.01 |
| a | Covar (Level, Slope) | -0.04 (0.05) .40 | -0.04 (0.05) .42 | -0.04 (0.04) .34 | -0.04 (0.04) .35 |
| b | Covar (Level, Slope) | 0.17 (0.06) .01 | 0.15 (0.07) .02 | 0.16 (0.06) .01 | 0.17 (0.06) <.01 |
|  | Correlation of Levels | 0.179 | 0.167 | 0.129 | 0.131 |
|  | Correlation of Slopes | 0.682 | 0.679 | 0.670 | 0.661 |
|  | Correlation of Residuals | 0.095 | 0.097 | 0.096 | 0.095 |
|  | N | 380 | 376 | 343 | 343 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,972 | -4,942 | -4,657 | -4,654 |
|  | AIC | 9,987 | 9,933 | 9,373 | 9,390 |
|  | BIC | 10,070 | 10,032 | 9,484 | 9,547 |

## mir\_recog

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | -0.04 (0.25) .86 | -0.07 (0.20) .71 | -0.12 (0.14) .39 | -0.13 (0.14) .35 |
| ab | Covar (Slopes) | 0.06 (0.02) .01 | 0.06 (0.02) .01 | 0.04 (0.02) .01 | 0.04 (0.02) .01 |
| ab | Covar (Residuals) | 0.34 (0.11) <.01 | 0.34 (0.11) <.01 | 0.30 (0.10) <.01 | 0.30 (0.10) <.01 |
| er | Corr (Levels) | -0.02 (0.11) .87 | -0.04 (0.11) .72 | -0.09 (0.12) .41 | -0.10 (0.11) .37 |
| er | Corr (Slopes) | 0.65 (0.13) <.01 | 0.64 (0.13) <.01 | 0.58 (0.15) <.01 | 0.57 (0.15) <.01 |
| er | Corr (Residuals) | 0.25 (0.06) <.01 | 0.24 (0.06) <.01 | 0.23 (0.06) <.01 | 0.23 (0.06) <.01 |
| a | Level | 8.84 (0.19) <.01 | 8.82 (0.19) <.01 | 9.11 (0.19) <.01 | 9.28 (0.23) <.01 |
| a | Slope | 9.79 (0.12) <.01 | 9.76 (0.12) <.01 | 9.76 (0.12) <.01 | 9.78 (0.14) <.01 |
| a | Level \* age | -0.21 (0.04) <.01 | -0.21 (0.04) <.01 | -0.17 (0.04) <.01 | -0.18 (0.04) <.01 |
| a | Level \* education | --- | 0.16 (0.06) .01 | 0.13 (0.07) .05 | 0.15 (0.07) .03 |
| a | Level \* height | --- | --- | 9.05 (1.97) <.01 | 9.11 (2.00) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.40 (0.29) .18 |
| a | Level \* cardio | --- | --- | --- | -0.11 (0.21) .62 |
| a | Level \* diabetes | --- | --- | --- | -0.19 (0.42) .65 |
| a | Slope \* age | -0.01 (0.01) .40 | -0.00 (0.01) .53 | -0.00 (0.01) .94 | 0.00 (0.01) .96 |
| a | Slope \* education | --- | -0.01 (0.01) .47 | -0.01 (0.01) .58 | -0.01 (0.01) .58 |
| a | Slope \* height | --- | --- | -0.18 (0.34) .61 | -0.20 (0.34) .55 |
| a | Slope \* smoking | --- | --- | --- | -0.00 (0.06) .94 |
| a | Slope \* cardio | --- | --- | --- | -0.03 (0.04) .41 |
| a | Slope \* diabetes | --- | --- | --- | -0.04 (0.09) .64 |
| b | Level | -0.40 (0.03) <.01 | -0.40 (0.03) <.01 | -0.40 (0.04) <.01 | -0.39 (0.04) <.01 |
| b | Slope | -0.12 (0.05) .01 | -0.12 (0.05) .01 | -0.12 (0.05) .01 | -0.10 (0.05) .07 |
| b | Level \* age | -0.05 (0.03) .11 | -0.03 (0.03) .37 | -0.03 (0.03) .38 | -0.03 (0.03) .33 |
| b | Level \* education | --- | 0.06 (0.03) .02 | 0.07 (0.03) .01 | 0.09 (0.03) .01 |
| b | Level \* height | --- | --- | -3.14 (1.46) .03 | -3.07 (1.43) .03 |
| b | Level \* smoking | --- | --- | --- | -0.19 (0.18) .29 |
| b | Level \* cardio | --- | --- | --- | 0.05 (0.14) .74 |
| b | Level \* diabetes | --- | --- | --- | 0.08 (0.25) .76 |
| b | Slope \* age | -0.04 (0.01) <.01 | -0.04 (0.01) <.01 | -0.03 (0.01) .02 | -0.03 (0.01) .04 |
| b | Slope \* education | --- | 0.02 (0.01) .03 | 0.03 (0.01) <.01 | 0.03 (0.01) .01 |
| b | Slope \* height | --- | --- | 0.37 (0.54) .49 | 0.29 (0.53) .59 |
| b | Slope \* smoking | --- | --- | --- | 0.02 (0.06) .69 |
| b | Slope \* cardio | --- | --- | --- | -0.06 (0.06) .35 |
| b | Slope \* diabetes | --- | --- | --- | -0.14 (0.14) .31 |
| a | Var (Level) | 3.51 (0.44) <.01 | 3.37 (0.41) <.01 | 2.89 (0.40) <.01 | 2.87 (0.39) <.01 |
| a | Var (Slope) | 0.05 (0.02) .01 | 0.05 (0.02) .01 | 0.04 (0.02) .01 | 0.04 (0.02) .01 |
| a | Var (Residual) | 1.55 (0.15) <.01 | 1.54 (0.15) <.01 | 1.50 (0.15) <.01 | 1.50 (0.15) <.01 |
| b | Var (Level) | 1.41 (0.58) .02 | 1.00 (0.47) .03 | 0.61 (0.37) .10 | 0.60 (0.37) .10 |
| b | Var (Slope) | 0.17 (0.04) <.01 | 0.16 (0.04) <.01 | 0.15 (0.03) <.01 | 0.15 (0.03) <.01 |
| b | Var (Residual) | 1.24 (0.23) <.01 | 1.23 (0.22) <.01 | 1.21 (0.23) <.01 | 1.21 (0.23) <.01 |
| a | Covar (Level, Slope) | -0.05 (0.06) .38 | -0.05 (0.05) .39 | -0.04 (0.05) .35 | -0.04 (0.05) .36 |
| b | Covar (Level, Slope) | 0.27 (0.08) <.01 | 0.20 (0.07) <.01 | 0.15 (0.06) .01 | 0.15 (0.05) <.01 |
|  | Correlation of Levels | -0.019 | -0.039 | -0.094 | -0.10 |
|  | Correlation of Slopes | 0.646 | 0.635 | 0.583 | 0.58 |
|  | Correlation of Residuals | 0.247 | 0.245 | 0.226 | 0.23 |
|  | N | 380 | 376 | 343 | 343 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,676 | -4,610 | -4,309 | -4,305 |
|  | AIC | 9,395 | 9,270 | 8,675 | 8,692 |
|  | BIC | 9,478 | 9,369 | 8,786 | 8,849 |

## mmse

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 1.52 (0.61) .01 | 0.72 (0.40) .07 | 0.01 (0.31) .96 | -0.02 (0.30) .95 |
| ab | Covar (Slopes) | 0.18 (0.05) <.01 | 0.20 (0.06) <.01 | 0.17 (0.05) <.01 | 0.17 (0.05) <.01 |
| ab | Covar (Residuals) | 1.14 (0.30) <.01 | 1.08 (0.28) <.01 | 0.91 (0.27) <.01 | 0.91 (0.27) <.01 |
| er | Corr (Levels) | 0.28 (0.09) <.01 | 0.19 (0.09) .04 | 0.00 (0.11) .96 | -0.01 (0.11) .95 |
| er | Corr (Slopes) | 0.82 (0.08) <.01 | 0.85 (0.07) <.01 | 0.83 (0.08) <.01 | 0.83 (0.08) <.01 |
| er | Corr (Residuals) | 0.32 (0.06) <.01 | 0.31 (0.06) <.01 | 0.28 (0.07) <.01 | 0.28 (0.07) <.01 |
| a | Level | 8.79 (0.19) <.01 | 8.81 (0.19) <.01 | 9.11 (0.19) <.01 | 9.28 (0.23) <.01 |
| a | Slope | 28.01 (0.29) <.01 | 28.19 (0.24) <.01 | 28.51 (0.25) <.01 | 28.71 (0.28) <.01 |
| a | Level \* age | -0.21 (0.04) <.01 | -0.21 (0.04) <.01 | -0.17 (0.04) <.01 | -0.18 (0.04) <.01 |
| a | Level \* education | --- | 0.16 (0.06) .01 | 0.12 (0.07) .06 | 0.15 (0.07) .03 |
| a | Level \* height | --- | --- | 9.10 (1.95) <.01 | 9.16 (1.98) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.42 (0.30) .16 |
| a | Level \* cardio | --- | --- | --- | -0.09 (0.21) .66 |
| a | Level \* diabetes | --- | --- | --- | -0.18 (0.42) .67 |
| a | Slope \* age | -0.01 (0.01) .26 | -0.01 (0.01) .24 | -0.00 (0.01) .56 | -0.00 (0.01) .62 |
| a | Slope \* education | --- | -0.01 (0.01) .35 | -0.01 (0.01) .36 | -0.01 (0.01) .36 |
| a | Slope \* height | --- | --- | -0.24 (0.33) .47 | -0.26 (0.33) .44 |
| a | Slope \* smoking | --- | --- | --- | -0.00 (0.06) .96 |
| a | Slope \* cardio | --- | --- | --- | -0.04 (0.04) .38 |
| a | Slope \* diabetes | --- | --- | --- | -0.03 (0.08) .69 |
| b | Level | -0.40 (0.03) <.01 | -0.40 (0.03) <.01 | -0.41 (0.03) <.01 | -0.39 (0.04) <.01 |
| b | Slope | -0.58 (0.11) <.01 | -0.59 (0.11) <.01 | -0.61 (0.11) <.01 | -0.52 (0.13) <.01 |
| b | Level \* age | -0.28 (0.06) <.01 | -0.26 (0.05) <.01 | -0.22 (0.06) <.01 | -0.22 (0.06) <.01 |
| b | Level \* education | --- | 0.34 (0.06) <.01 | 0.33 (0.06) <.01 | 0.35 (0.07) <.01 |
| b | Level \* height | --- | --- | 3.72 (3.36) .27 | 3.47 (3.19) .28 |
| b | Level \* smoking | --- | --- | --- | -0.45 (0.40) .26 |
| b | Level \* cardio | --- | --- | --- | -0.12 (0.32) .71 |
| b | Level \* diabetes | --- | --- | --- | -1.02 (0.79) .20 |
| b | Slope \* age | -0.09 (0.03) <.01 | -0.08 (0.03) <.01 | -0.06 (0.02) .01 | -0.06 (0.03) .02 |
| b | Slope \* education | --- | 0.04 (0.04) .27 | 0.04 (0.04) .27 | 0.05 (0.04) .30 |
| b | Slope \* height | --- | --- | -0.31 (1.20) .80 | -0.34 (1.22) .78 |
| b | Slope \* smoking | --- | --- | --- | -0.07 (0.18) .71 |
| b | Slope \* cardio | --- | --- | --- | -0.13 (0.14) .36 |
| b | Slope \* diabetes | --- | --- | --- | -0.12 (0.22) .60 |
| a | Var (Level) | 3.62 (0.45) <.01 | 3.40 (0.41) <.01 | 2.92 (0.40) <.01 | 2.90 (0.39) <.01 |
| a | Var (Slope) | 0.05 (0.02) .01 | 0.05 (0.02) .01 | 0.04 (0.02) .01 | 0.04 (0.02) .01 |
| a | Var (Residual) | 1.56 (0.15) <.01 | 1.55 (0.15) <.01 | 1.49 (0.15) <.01 | 1.49 (0.14) <.01 |
| b | Var (Level) | 8.27 (2.25) <.01 | 4.15 (1.00) <.01 | 2.57 (0.81) <.01 | 2.46 (0.77) <.01 |
| b | Var (Slope) | 0.99 (0.19) <.01 | 1.04 (0.22) <.01 | 0.92 (0.20) <.01 | 0.91 (0.20) <.01 |
| b | Var (Residual) | 8.07 (0.99) <.01 | 7.74 (0.93) <.01 | 7.36 (0.93) <.01 | 7.36 (0.94) <.01 |
| a | Covar (Level, Slope) | -0.01 (0.06) .79 | -0.02 (0.05) .77 | -0.03 (0.05) .55 | -0.03 (0.05) .54 |
| b | Covar (Level, Slope) | 1.89 (0.41) <.01 | 1.55 (0.32) <.01 | 1.16 (0.26) <.01 | 1.15 (0.27) <.01 |
|  | Correlation of Levels | 0.28 | 0.19 | 0.0051 | -0.0079 |
|  | Correlation of Slopes | 0.83 | 0.85 | 0.8315 | 0.8377 |
|  | Correlation of Residuals | 0.32 | 0.31 | 0.2759 | 0.2750 |
|  | N | 390 | 384 | 347 | 347 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -6,185 | -6,066 | -5,647 | -5,643 |
|  | AIC | 12,413 | 12,182 | 11,352 | 11,368 |
|  | BIC | 12,496 | 12,281 | 11,464 | 11,526 |

## prose\_im

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 1.08 (0.47) .02 | 0.72 (0.42) .08 | 0.35 (0.35) .32 | 0.39 (0.36) .27 |
| ab | Covar (Slopes) | 0.05 (0.02) .03 | 0.05 (0.02) .02 | 0.04 (0.02) .03 | 0.04 (0.02) .02 |
| ab | Covar (Residuals) | 0.41 (0.18) .03 | 0.41 (0.18) .03 | 0.39 (0.19) .04 | 0.39 (0.18) .04 |
| er | Corr (Levels) | 0.18 (0.08) .02 | 0.14 (0.08) .08 | 0.07 (0.07) .32 | 0.08 (0.07) .27 |
| er | Corr (Slopes) | 0.58 (0.17) <.01 | 0.58 (0.17) <.01 | 0.55 (0.18) <.01 | 0.55 (0.18) <.01 |
| er | Corr (Residuals) | 0.14 (0.06) .02 | 0.14 (0.06) .02 | 0.14 (0.06) .03 | 0.14 (0.06) .02 |
| a | Level | 8.82 (0.19) <.01 | 8.81 (0.19) <.01 | 9.11 (0.19) <.01 | 9.27 (0.23) <.01 |
| a | Slope | 10.68 (0.34) <.01 | 10.61 (0.32) <.01 | 10.92 (0.34) <.01 | 10.74 (0.40) <.01 |
| a | Level \* age | -0.21 (0.04) <.01 | -0.21 (0.04) <.01 | -0.17 (0.04) <.01 | -0.17 (0.04) <.01 |
| a | Level \* education | --- | 0.17 (0.06) .01 | 0.13 (0.06) .05 | 0.15 (0.07) .02 |
| a | Level \* height | --- | --- | 9.14 (1.97) <.01 | 9.23 (2.01) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.41 (0.30) .16 |
| a | Level \* cardio | --- | --- | --- | -0.10 (0.21) .63 |
| a | Level \* diabetes | --- | --- | --- | -0.13 (0.41) .75 |
| a | Slope \* age | -0.00 (0.01) .51 | -0.00 (0.01) .52 | -0.00 (0.01) .78 | -0.00 (0.01) .86 |
| a | Slope \* education | --- | -0.01 (0.01) .36 | -0.01 (0.01) .48 | -0.01 (0.01) .51 |
| a | Slope \* height | --- | --- | -0.13 (0.33) .69 | -0.15 (0.33) .66 |
| a | Slope \* smoking | --- | --- | --- | -0.01 (0.06) .81 |
| a | Slope \* cardio | --- | --- | --- | -0.03 (0.04) .46 |
| a | Slope \* diabetes | --- | --- | --- | -0.06 (0.08) .51 |
| b | Level | -0.39 (0.03) <.01 | -0.39 (0.03) <.01 | -0.40 (0.03) <.01 | -0.38 (0.04) <.01 |
| b | Slope | -0.27 (0.07) <.01 | -0.26 (0.07) <.01 | -0.26 (0.07) <.01 | -0.14 (0.08) .08 |
| b | Level \* age | -0.27 (0.08) <.01 | -0.24 (0.07) <.01 | -0.27 (0.08) <.01 | -0.24 (0.08) <.01 |
| b | Level \* education | --- | 0.50 (0.09) <.01 | 0.52 (0.09) <.01 | 0.50 (0.10) <.01 |
| b | Level \* height | --- | --- | 1.02 (3.65) .78 | 0.15 (3.73) .97 |
| b | Level \* smoking | --- | --- | --- | 0.37 (0.49) .45 |
| b | Level \* cardio | --- | --- | --- | 0.27 (0.38) .48 |
| b | Level \* diabetes | --- | --- | --- | -1.91 (0.99) .05 |
| b | Slope \* age | -0.01 (0.02) .67 | -0.01 (0.02) .63 | -0.00 (0.02) .95 | -0.00 (0.02) .84 |
| b | Slope \* education | --- | -0.01 (0.02) .76 | -0.00 (0.02) .86 | 0.00 (0.02) .80 |
| b | Slope \* height | --- | --- | 0.48 (0.92) .60 | 0.60 (0.94) .52 |
| b | Slope \* smoking | --- | --- | --- | -0.20 (0.10) .06 |
| b | Slope \* cardio | --- | --- | --- | -0.16 (0.09) .07 |
| b | Slope \* diabetes | --- | --- | --- | 0.07 (0.16) .68 |
| a | Var (Level) | 3.51 (0.45) <.01 | 3.39 (0.42) <.01 | 2.90 (0.41) <.01 | 2.87 (0.40) <.01 |
| a | Var (Slope) | 0.04 (0.02) .03 | 0.04 (0.02) .03 | 0.03 (0.01) .02 | 0.03 (0.01) .03 |
| a | Var (Residual) | 1.56 (0.15) <.01 | 1.57 (0.15) <.01 | 1.50 (0.15) <.01 | 1.50 (0.15) <.01 |
| b | Var (Level) | 9.80 (1.07) <.01 | 8.54 (0.98) <.01 | 7.89 (0.98) <.01 | 7.66 (0.94) <.01 |
| b | Var (Slope) | 0.20 (0.04) <.01 | 0.20 (0.04) <.01 | 0.19 (0.04) <.01 | 0.17 (0.04) <.01 |
| b | Var (Residual) | 5.15 (0.40) <.01 | 5.15 (0.40) <.01 | 5.12 (0.40) <.01 | 5.10 (0.40) <.01 |
| a | Covar (Level, Slope) | -0.04 (0.06) .49 | -0.03 (0.05) .50 | -0.03 (0.05) .47 | -0.03 (0.05) .48 |
| b | Covar (Level, Slope) | 0.01 (0.16) .94 | 0.02 (0.15) .88 | -0.01 (0.14) .92 | 0.01 (0.13) .91 |
|  | Correlation of Levels | 0.18 | 0.13 | 0.073 | 0.084 |
|  | Correlation of Slopes | 0.58 | 0.59 | 0.553 | 0.553 |
|  | Correlation of Residuals | 0.14 | 0.14 | 0.139 | 0.140 |
|  | N | 381 | 378 | 344 | 344 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -5,230 | -5,190 | -4,883 | -4,875 |
|  | AIC | 10,502 | 10,430 | 9,824 | 9,831 |
|  | BIC | 10,585 | 10,529 | 9,935 | 9,989 |

## psif

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | --- | --- | --- | --- |
| ab | Covar (Slopes) | --- | --- | --- | --- |
| ab | Covar (Residuals) | --- | --- | --- | --- |
| er | Corr (Levels) | --- | --- | --- | --- |
| er | Corr (Slopes) | --- | --- | --- | --- |
| er | Corr (Residuals) | --- | --- | --- | --- |
| a | Level | --- | --- | --- | --- |
| a | Slope | --- | --- | --- | --- |
| a | Level \* age | --- | --- | --- | --- |
| a | Level \* education | --- | --- | --- | --- |
| a | Level \* height | --- | --- | --- | --- |
| a | Level \* smoking | --- | --- | --- | --- |
| a | Level \* cardio | --- | --- | --- | --- |
| a | Level \* diabetes | --- | --- | --- | --- |
| a | Slope \* age | --- | --- | --- | --- |
| a | Slope \* education | --- | --- | --- | --- |
| a | Slope \* height | --- | --- | --- | --- |
| a | Slope \* smoking | --- | --- | --- | --- |
| a | Slope \* cardio | --- | --- | --- | --- |
| a | Slope \* diabetes | --- | --- | --- | --- |
| b | Level | --- | --- | --- | --- |
| b | Slope | --- | --- | --- | --- |
| b | Level \* age | --- | --- | --- | --- |
| b | Level \* education | --- | --- | --- | --- |
| b | Level \* height | --- | --- | --- | --- |
| b | Level \* smoking | --- | --- | --- | --- |
| b | Level \* cardio | --- | --- | --- | --- |
| b | Level \* diabetes | --- | --- | --- | --- |
| b | Slope \* age | --- | --- | --- | --- |
| b | Slope \* education | --- | --- | --- | --- |
| b | Slope \* height | --- | --- | --- | --- |
| b | Slope \* smoking | --- | --- | --- | --- |
| b | Slope \* cardio | --- | --- | --- | --- |
| b | Slope \* diabetes | --- | --- | --- | --- |
| a | Var (Level) | --- | --- | --- | --- |
| a | Var (Slope) | --- | --- | --- | --- |
| a | Var (Residual) | --- | --- | --- | --- |
| b | Var (Level) | --- | --- | --- | --- |
| b | Var (Slope) | --- | --- | --- | --- |
| b | Var (Residual) | --- | --- | --- | --- |
| a | Covar (Level, Slope) | --- | --- | --- | --- |
| b | Covar (Level, Slope) | --- | --- | --- | --- |
|  | Correlation of Levels | NaN | NaN | NaN | NaN |
|  | Correlation of Slopes | NaN | NaN | NaN | NaN |
|  | Correlation of Residuals | NaN | NaN | NaN | NaN |
|  | N | NA | NA | NA | NA |
|  | occasions | NA | NA | NA | NA |
|  | parameters | NA | NA | NA | NA |
|  | LL | NA | NA | NA | NA |
|  | AIC | NA | NA | NA | NA |
|  | BIC | NA | NA | NA | NA |

## symbol

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 4.19 (1.57) .01 | 2.89 (1.35) .03 | 1.58 (1.16) .17 | 1.69 (1.14) .14 |
| ab | Covar (Slopes) | 0.04 (0.03) .23 | 0.04 (0.03) .21 | 0.04 (0.03) .18 | 0.04 (0.03) .20 |
| ab | Covar (Residuals) | 1.10 (0.35) <.01 | 1.08 (0.35) <.01 | 1.01 (0.34) <.01 | 0.99 (0.34) <.01 |
| er | Corr (Levels) | 0.24 (0.08) <.01 | 0.18 (0.08) .03 | 0.11 (0.08) .17 | 0.12 (0.08) .13 |
| er | Corr (Slopes) | 0.28 (0.21) .19 | 0.29 (0.21) .17 | 0.30 (0.21) .15 | 0.31 (0.23) .18 |
| er | Corr (Residuals) | 0.16 (0.05) <.01 | 0.16 (0.05) <.01 | 0.15 (0.05) <.01 | 0.15 (0.05) <.01 |
| a | Level | 8.81 (0.19) <.01 | 8.80 (0.19) <.01 | 9.10 (0.19) <.01 | 9.26 (0.23) <.01 |
| a | Slope | 27.10 (1.09) <.01 | 26.89 (0.98) <.01 | 27.52 (1.02) <.01 | 26.92 (1.18) <.01 |
| a | Level \* age | -0.21 (0.04) <.01 | -0.20 (0.04) <.01 | -0.17 (0.04) <.01 | -0.17 (0.04) <.01 |
| a | Level \* education | --- | 0.17 (0.06) .01 | 0.13 (0.06) .05 | 0.15 (0.07) .02 |
| a | Level \* height | --- | --- | 9.12 (1.97) <.01 | 9.19 (2.00) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.41 (0.29) .17 |
| a | Level \* cardio | --- | --- | --- | -0.09 (0.21) .66 |
| a | Level \* diabetes | --- | --- | --- | -0.13 (0.41) .75 |
| a | Slope \* age | -0.00 (0.01) .52 | -0.00 (0.01) .50 | -0.00 (0.01) .86 | 0.00 (0.01) .95 |
| a | Slope \* education | --- | -0.01 (0.01) .36 | -0.01 (0.01) .45 | -0.01 (0.01) .46 |
| a | Slope \* height | --- | --- | -0.10 (0.32) .75 | -0.11 (0.32) .73 |
| a | Slope \* smoking | --- | --- | --- | -0.01 (0.05) .84 |
| a | Slope \* cardio | --- | --- | --- | -0.03 (0.04) .37 |
| a | Slope \* diabetes | --- | --- | --- | -0.04 (0.09) .63 |
| b | Level | -0.38 (0.03) <.01 | -0.38 (0.03) <.01 | -0.40 (0.03) <.01 | -0.38 (0.04) <.01 |
| b | Slope | -0.68 (0.15) <.01 | -0.67 (0.15) <.01 | -0.68 (0.16) <.01 | -0.35 (0.18) .05 |
| b | Level \* age | -0.91 (0.24) <.01 | -0.90 (0.24) <.01 | -0.82 (0.26) <.01 | -0.80 (0.26) <.01 |
| b | Level \* education | --- | 1.82 (0.31) <.01 | 1.87 (0.33) <.01 | 1.90 (0.35) <.01 |
| b | Level \* height | --- | --- | 8.76 (11.10) .43 | 8.55 (11.04) .44 |
| b | Level \* smoking | --- | --- | --- | 0.37 (1.59) .82 |
| b | Level \* cardio | --- | --- | --- | 1.16 (1.15) .31 |
| b | Level \* diabetes | --- | --- | --- | -1.17 (2.21) .60 |
| b | Slope \* age | -0.05 (0.04) .24 | -0.04 (0.04) .31 | -0.03 (0.04) .46 | -0.03 (0.04) .48 |
| b | Slope \* education | --- | 0.00 (0.06) .99 | -0.01 (0.06) .90 | -0.00 (0.06) .96 |
| b | Slope \* height | --- | --- | 1.45 (1.81) .42 | 1.53 (1.79) .39 |
| b | Slope \* smoking | --- | --- | --- | -0.37 (0.25) .14 |
| b | Slope \* cardio | --- | --- | --- | -0.61 (0.19) <.01 |
| b | Slope \* diabetes | --- | --- | --- | 0.15 (0.62) .81 |
| a | Var (Level) | 3.47 (0.45) <.01 | 3.36 (0.42) <.01 | 2.87 (0.40) <.01 | 2.85 (0.40) <.01 |
| a | Var (Slope) | 0.03 (0.02) .06 | 0.03 (0.02) .05 | 0.03 (0.01) .04 | 0.03 (0.01) .04 |
| a | Var (Residual) | 1.59 (0.16) <.01 | 1.59 (0.16) <.01 | 1.52 (0.15) <.01 | 1.52 (0.15) <.01 |
| b | Var (Level) | 87.83 (8.68) <.01 | 74.30 (7.22) <.01 | 69.58 (7.09) <.01 | 68.88 (7.00) <.01 |
| b | Var (Slope) | 0.63 (0.17) <.01 | 0.64 (0.17) <.01 | 0.65 (0.17) <.01 | 0.52 (0.16) <.01 |
| b | Var (Residual) | 28.74 (2.10) <.01 | 28.78 (2.09) <.01 | 28.55 (2.07) <.01 | 28.60 (2.08) <.01 |
| a | Covar (Level, Slope) | -0.03 (0.05) .57 | -0.03 (0.05) .58 | -0.03 (0.04) .54 | -0.03 (0.04) .55 |
| b | Covar (Level, Slope) | -0.83 (0.88) .34 | -0.92 (0.88) .29 | -0.78 (0.84) .35 | -0.36 (0.85) .67 |
|  | Correlation of Levels | 0.24 | 0.18 | 0.11 | 0.12 |
|  | Correlation of Slopes | 0.28 | 0.29 | 0.30 | 0.30 |
|  | Correlation of Residuals | 0.16 | 0.16 | 0.15 | 0.15 |
|  | N | 376 | 374 | 343 | 343 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -5,744 | -5,704 | -5,423 | -5,415 |
|  | AIC | 11,530 | 11,458 | 10,903 | 10,913 |
|  | BIC | 11,612 | 11,556 | 11,014 | 11,070 |

## synonyms

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 2.15 (0.77) <.01 | 1.22 (0.62) .05 | 0.79 (0.61) .19 | 0.85 (0.60) .16 |
| ab | Covar (Slopes) | 0.06 (0.03) .03 | 0.06 (0.03) .02 | 0.06 (0.02) .02 | 0.06 (0.02) .02 |
| ab | Covar (Residuals) | -0.07 (0.19) .72 | -0.08 (0.19) .67 | -0.00 (0.18) .98 | -0.01 (0.18) .97 |
| er | Corr (Levels) | 0.22 (0.07) <.01 | 0.15 (0.08) .05 | 0.11 (0.08) .19 | 0.12 (0.08) .15 |
| er | Corr (Slopes) | 0.74 (0.23) <.01 | 0.79 (0.22) <.01 | 0.73 (0.21) <.01 | 0.73 (0.22) <.01 |
| er | Corr (Residuals) | -0.02 (0.06) .72 | -0.02 (0.06) .67 | -0.00 (0.06) .98 | -0.00 (0.06) .97 |
| a | Level | 8.81 (0.19) <.01 | 8.80 (0.19) <.01 | 9.09 (0.19) <.01 | 9.25 (0.23) <.01 |
| a | Slope | 16.93 (0.64) <.01 | 16.68 (0.56) <.01 | 16.86 (0.55) <.01 | 16.49 (0.68) <.01 |
| a | Level \* age | -0.21 (0.04) <.01 | -0.21 (0.04) <.01 | -0.17 (0.04) <.01 | -0.17 (0.04) <.01 |
| a | Level \* education | --- | 0.16 (0.06) .01 | 0.13 (0.06) .05 | 0.15 (0.07) .02 |
| a | Level \* height | --- | --- | 9.08 (1.97) <.01 | 9.16 (2.00) <.01 |
| a | Level \* smoking | --- | --- | --- | -0.41 (0.30) .16 |
| a | Level \* cardio | --- | --- | --- | -0.09 (0.21) .66 |
| a | Level \* diabetes | --- | --- | --- | -0.12 (0.41) .76 |
| a | Slope \* age | -0.00 (0.01) .54 | -0.00 (0.01) .55 | -0.00 (0.01) .87 | 0.00 (0.01) .99 |
| a | Slope \* education | --- | -0.01 (0.01) .38 | -0.01 (0.01) .52 | -0.01 (0.01) .52 |
| a | Slope \* height | --- | --- | -0.15 (0.33) .64 | -0.18 (0.33) .58 |
| a | Slope \* smoking | --- | --- | --- | 0.00 (0.05) .99 |
| a | Slope \* cardio | --- | --- | --- | -0.03 (0.04) .46 |
| a | Slope \* diabetes | --- | --- | --- | -0.05 (0.09) .54 |
| b | Level | -0.38 (0.03) <.01 | -0.38 (0.03) <.01 | -0.39 (0.03) <.01 | -0.38 (0.04) <.01 |
| b | Slope | -0.15 (0.08) .04 | -0.16 (0.08) .04 | -0.15 (0.08) .07 | -0.11 (0.10) .27 |
| b | Level \* age | -0.18 (0.15) .22 | -0.16 (0.13) .22 | -0.10 (0.13) .45 | -0.07 (0.14) .62 |
| b | Level \* education | --- | 1.37 (0.13) <.01 | 1.36 (0.12) <.01 | 1.31 (0.13) <.01 |
| b | Level \* height | --- | --- | 10.65 (5.97) .07 | 10.04 (5.94) .09 |
| b | Level \* smoking | --- | --- | --- | 0.82 (0.70) .24 |
| b | Level \* cardio | --- | --- | --- | 0.47 (0.61) .45 |
| b | Level \* diabetes | --- | --- | --- | -2.29 (1.20) .06 |
| b | Slope \* age | -0.01 (0.02) .71 | -0.01 (0.02) .78 | -0.00 (0.02) .91 | 0.00 (0.02) .96 |
| b | Slope \* education | --- | -0.00 (0.03) .87 | -0.00 (0.03) .95 | 0.01 (0.03) .85 |
| b | Slope \* height | --- | --- | 0.19 (1.01) .85 | 0.11 (1.00) .91 |
| b | Slope \* smoking | --- | --- | --- | -0.08 (0.14) .59 |
| b | Slope \* cardio | --- | --- | --- | -0.08 (0.11) .45 |
| b | Slope \* diabetes | --- | --- | --- | -0.14 (0.21) .50 |
| a | Var (Level) | 3.48 (0.44) <.01 | 3.37 (0.42) <.01 | 2.88 (0.40) <.01 | 2.85 (0.40) <.01 |
| a | Var (Slope) | 0.03 (0.02) .05 | 0.03 (0.02) .04 | 0.03 (0.01) .04 | 0.03 (0.01) .04 |
| a | Var (Residual) | 1.59 (0.16) <.01 | 1.59 (0.16) <.01 | 1.51 (0.15) <.01 | 1.51 (0.15) <.01 |
| b | Var (Level) | 26.79 (2.54) <.01 | 19.38 (2.22) <.01 | 18.78 (2.19) <.01 | 18.32 (2.17) <.01 |
| b | Var (Slope) | 0.19 (0.06) <.01 | 0.19 (0.06) <.01 | 0.20 (0.06) <.01 | 0.19 (0.06) <.01 |
| b | Var (Residual) | 6.84 (0.52) <.01 | 6.84 (0.51) <.01 | 6.78 (0.53) <.01 | 6.79 (0.53) <.01 |
| a | Covar (Level, Slope) | -0.03 (0.05) .52 | -0.03 (0.05) .52 | -0.03 (0.04) .55 | -0.03 (0.04) .56 |
| b | Covar (Level, Slope) | -0.24 (0.31) .44 | -0.15 (0.26) .56 | -0.20 (0.26) .44 | -0.15 (0.27) .56 |
|  | Correlation of Levels | 0.223 | 0.151 | 0.1073 | 0.1174 |
|  | Correlation of Slopes | 0.748 | 0.781 | 0.7331 | 0.7316 |
|  | Correlation of Residuals | -0.021 | -0.025 | -0.0016 | -0.0019 |
|  | N | 377 | 375 | 343 | 343 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,978 | -4,926 | -4,668 | -4,663 |
|  | AIC | 9,998 | 9,902 | 9,394 | 9,407 |
|  | BIC | 10,080 | 10,000 | 9,505 | 9,564 |

## Summary

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

Computed correlations:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Levels | block | 0.36 | 0.32 | 0.27 | 0.26 |
| Correlation of Levels | clock | 0.26 | 0.21 | 0.10 | 0.10 |
| Correlation of Levels | digit\_b | 0.09 | 0.04 | 0.01 | 0.00 |
| Correlation of Levels | digit\_f | 0.04 | -0.03 | -0.04 | -0.04 |
| Correlation of Levels | fig\_logic | 0.36 | 0.33 | 0.29 | 0.28 |
| Correlation of Levels | information | 0.24 | 0.19 | 0.13 | 0.14 |
| Correlation of Levels | mir | 0.18 | 0.17 | 0.13 | 0.13 |
| Correlation of Levels | mir\_recog | -0.02 | -0.04 | -0.09 | -0.10 |
| Correlation of Levels | mmse | 0.28 | 0.19 | 0.01 | -0.01 |
| Correlation of Levels | prose\_im | 0.18 | 0.13 | 0.07 | 0.08 |
| Correlation of Levels | psif | . | . | . | . |
| Correlation of Levels | symbol | 0.24 | 0.18 | 0.11 | 0.12 |
| Correlation of Levels | synonyms | 0.22 | 0.15 | 0.11 | 0.12 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Slopes | block | 0.63 | 0.64 | 0.62 | 0.64 |
| Correlation of Slopes | clock | 0.75 | 0.80 | 0.76 | 0.77 |
| Correlation of Slopes | digit\_b | 0.19 | 0.25 | 0.17 | 0.12 |
| Correlation of Slopes | digit\_f | 0.54 | 0.61 | 0.54 | 0.50 |
| Correlation of Slopes | fig\_logic | 0.79 | 0.77 | 0.76 | 0.80 |
| Correlation of Slopes | information | 0.79 | 0.79 | 0.79 | 0.82 |
| Correlation of Slopes | mir | 0.68 | 0.68 | 0.67 | 0.66 |
| Correlation of Slopes | mir\_recog | 0.65 | 0.64 | 0.58 | 0.58 |
| Correlation of Slopes | mmse | 0.83 | 0.85 | 0.83 | 0.84 |
| Correlation of Slopes | prose\_im | 0.58 | 0.59 | 0.55 | 0.55 |
| Correlation of Slopes | psif | . | . | . | . |
| Correlation of Slopes | symbol | 0.28 | 0.29 | 0.30 | 0.30 |
| Correlation of Slopes | synonyms | 0.75 | 0.78 | 0.73 | 0.73 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Residuals | block | 0.10 | 0.11 | 0.10 | 0.10 |
| Correlation of Residuals | clock | 0.23 | 0.22 | 0.21 | 0.21 |
| Correlation of Residuals | digit\_b | 0.14 | 0.14 | 0.12 | 0.12 |
| Correlation of Residuals | digit\_f | 0.14 | 0.14 | 0.10 | 0.10 |
| Correlation of Residuals | fig\_logic | 0.08 | 0.08 | 0.06 | 0.06 |
| Correlation of Residuals | information | 0.00 | 0.01 | -0.00 | -0.00 |
| Correlation of Residuals | mir | 0.10 | 0.10 | 0.10 | 0.10 |
| Correlation of Residuals | mir\_recog | 0.25 | 0.24 | 0.23 | 0.23 |
| Correlation of Residuals | mmse | 0.32 | 0.31 | 0.28 | 0.27 |
| Correlation of Residuals | prose\_im | 0.14 | 0.14 | 0.14 | 0.14 |
| Correlation of Residuals | psif | . | . | . | . |
| Correlation of Residuals | symbol | 0.16 | 0.16 | 0.15 | 0.15 |
| Correlation of Residuals | synonyms | -0.02 | -0.02 | -0.00 | -0.00 |

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 | 0.03 | 0.09 | 0.43 | 0.45 |
| Covariance of Levels | digit\_b | 0.40 | 0.74 | 0.94 | 0.99 |
| Covariance of Levels | digit\_f | 0.63 | 0.76 | 0.67 | 0.64 |
| Covariance of Levels | fig\_logic | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | information | 0.00 | 0.00 | 0.04 | 0.03 |
| Covariance of Levels | mir | 0.01 | 0.02 | 0.08 | 0.08 |
| Covariance of Levels | mir\_recog | 0.86 | 0.71 | 0.39 | 0.35 |
| Covariance of Levels | mmse | 0.01 | 0.07 | 0.96 | 0.95 |
| Covariance of Levels | prose\_im | 0.02 | 0.08 | 0.32 | 0.27 |
| Covariance of Levels | psif | . | . | . | . |
| Covariance of Levels | symbol | 0.01 | 0.03 | 0.17 | 0.14 |
| Covariance of Levels | synonyms | 0.00 | 0.05 | 0.19 | 0.16 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Slopes | block | 0.01 | 0.01 | 0.00 | 0.00 |
| Covariance of Slopes | clock | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Slopes | digit\_b | 0.56 | 0.49 | 0.63 | 0.74 |
| Covariance of Slopes | digit\_f | 0.04 | 0.03 | 0.03 | 0.03 |
| Covariance of Slopes | fig\_logic | 0.12 | 0.11 | 0.09 | 0.09 |
| Covariance of Slopes | information | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Slopes | mir | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Slopes | mir\_recog | 0.01 | 0.01 | 0.01 | 0.01 |
| Covariance of Slopes | mmse | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Slopes | prose\_im | 0.03 | 0.02 | 0.03 | 0.02 |
| Covariance of Slopes | psif | . | . | . | . |
| Covariance of Slopes | symbol | 0.23 | 0.21 | 0.18 | 0.20 |
| Covariance of Slopes | synonyms | 0.03 | 0.02 | 0.02 | 0.02 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Residuals | block | 0.03 | 0.02 | 0.04 | 0.04 |
| Covariance of Residuals | clock | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Residuals | digit\_b | 0.00 | 0.00 | 0.01 | 0.01 |
| Covariance of Residuals | digit\_f | 0.01 | 0.02 | 0.08 | 0.08 |
| Covariance of Residuals | fig\_logic | 0.11 | 0.11 | 0.21 | 0.20 |
| Covariance of Residuals | information | 0.95 | 0.90 | 0.98 | 0.93 |
| Covariance of Residuals | mir | 0.04 | 0.03 | 0.04 | 0.04 |
| Covariance of Residuals | mir\_recog | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Residuals | mmse | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Residuals | prose\_im | 0.03 | 0.03 | 0.04 | 0.04 |
| Covariance of Residuals | psif | . | . | . | . |
| Covariance of Residuals | symbol | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Residuals | synonyms | 0.72 | 0.67 | 0.98 | 0.97 |

# 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) | 4.62 (1.15) <.01 | 0.83 (0.48) .08 | 0.20 (0.21) .34 | -0.38 (0.21) .08 | 3.61 (0.85) <.01 | 0.67 (1.67) .69 | 1.03 (0.47) .03 | 0.09 (0.28) .76 | 0.91 (0.51) .08 | 2.11 (0.78) .01 | --- | 6.22 (1.92) <.01 | 2.04 (0.91) .02 | --- |
| ab | Covar (Slopes) | 0.14 (0.08) .09 | 0.15 (0.07) .05 | 0.03 (0.02) .10 | 0.01 (0.01) .25 | 0.08 (0.06) .22 | 0.18 (0.12) .15 | 0.08 (0.03) .01 | 0.09 (0.05) .05 | 0.23 (0.11) .04 | 0.10 (0.07) .16 | --- | 0.30 (0.15) .05 | 0.05 (0.05) .29 | --- |
| ab | Covar (Residuals) | 0.72 (0.34) .03 | 0.66 (0.24) .01 | 0.02 (0.10) .83 | -0.01 (0.07) .90 | -0.19 (0.30) .52 | 0.78 (0.40) .05 | 0.12 (0.17) .49 | 0.16 (0.13) .22 | 0.80 (0.29) .01 | 0.38 (0.29) .19 | --- | 0.61 (0.43) .15 | 0.17 (0.24) .48 | --- |
| er | Corr (Levels) | 0.37 (0.08) <.01 | 0.28 (0.13) .03 | 0.11 (0.12) .34 | -0.22 (0.11) .05 | 0.58 (0.11) <.01 | 0.04 (0.10) .69 | 0.27 (0.12) .02 | 0.05 (0.17) .76 | 0.25 (0.14) .08 | 0.33 (0.11) <.01 | --- | 0.32 (0.09) <.01 | 0.20 (0.09) .02 | --- |
| er | Corr (Slopes) | 0.89 (0.17) <.01 | 0.78 (0.16) <.01 | 0.72 (0.29) .01 | 0.37 (0.27) .17 | 0.76 (0.67) .26 | 0.56 (0.23) .02 | 0.78 (0.16) <.01 | 0.77 (0.20) <.01 | 0.75 (0.14) <.01 | 0.97 (0.22) <.01 | --- | 0.83 (0.11) <.01 | 0.71 (0.54) .18 | --- |
| er | Corr (Residuals) | 0.16 (0.07) .02 | 0.22 (0.07) <.01 | 0.01 (0.07) .83 | -0.01 (0.06) .90 | -0.05 (0.08) .52 | 0.15 (0.08) .05 | 0.06 (0.08) .48 | 0.07 (0.06) .21 | 0.20 (0.07) <.01 | 0.12 (0.09) .17 | --- | 0.10 (0.07) .14 | 0.05 (0.07) .48 | --- |
| a | Level | 12.17 (0.41) <.01 | 12.19 (0.41) <.01 | 12.20 (0.41) <.01 | 12.18 (0.41) <.01 | 12.12 (0.42) <.01 | 12.17 (0.41) <.01 | 12.15 (0.41) <.01 | 12.20 (0.41) <.01 | 12.24 (0.42) <.01 | 12.16 (0.41) <.01 | --- | 12.14 (0.41) <.01 | 12.14 (0.41) <.01 | 12.17(0.03) |
| a | Slope | 15.30 (1.44) <.01 | 14.19 (0.40) <.01 | 3.73 (0.25) <.01 | 6.04 (0.23) <.01 | 16.84 (0.84) <.01 | 33.60 (2.01) <.01 | 6.71 (0.46) <.01 | 9.85 (0.23) <.01 | 28.24 (0.53) <.01 | 9.82 (0.84) <.01 | --- | 28.87 (2.29) <.01 | 18.17 (1.24) <.01 | 15.95(9.75) |
| a | Level \* age | -0.20 (0.06) <.01 | -0.21 (0.06) <.01 | -0.21 (0.06) <.01 | -0.20 (0.06) <.01 | -0.20 (0.06) <.01 | -0.21 (0.06) <.01 | -0.20 (0.06) <.01 | -0.21 (0.06) <.01 | -0.22 (0.06) <.01 | -0.20 (0.06) <.01 | --- | -0.20 (0.06) <.01 | -0.20 (0.06) <.01 | -0.21(0.01) |
| a | Level \* education | -0.17 (0.05) <.01 | -0.18 (0.05) <.01 | -0.17 (0.05) <.01 | -0.17 (0.05) <.01 | -0.17 (0.05) <.01 | -0.17 (0.05) <.01 | -0.16 (0.05) <.01 | -0.17 (0.05) <.01 | -0.18 (0.05) <.01 | -0.17 (0.05) <.01 | --- | -0.17 (0.05) <.01 | -0.17 (0.05) <.01 | -0.17(0.00) |
| a | Level \* height | 10.97 (3.04) <.01 | 10.70 (3.02) <.01 | 10.89 (3.05) <.01 | 11.00 (3.05) <.01 | 10.74 (3.07) <.01 | 10.69 (3.04) <.01 | 10.91 (3.06) <.01 | 10.82 (3.02) <.01 | 10.63 (3.01) <.01 | 10.82 (3.04) <.01 | --- | 10.69 (3.06) <.01 | 10.82 (3.06) <.01 | 10.81(0.12) |
| a | Level \* smoking | 0.24 (0.37) .51 | 0.26 (0.37) .48 | 0.24 (0.37) .51 | 0.23 (0.37) .53 | 0.27 (0.37) .47 | 0.26 (0.37) .48 | 0.28 (0.37) .44 | 0.25 (0.37) .50 | 0.24 (0.37) .52 | 0.25 (0.37) .49 | --- | 0.25 (0.37) .50 | 0.25 (0.37) .50 | 0.25(0.02) |
| a | Level \* cardio | -0.36 (0.36) .32 | -0.39 (0.36) .28 | -0.39 (0.37) .28 | -0.38 (0.36) .30 | -0.36 (0.37) .33 | -0.38 (0.37) .29 | -0.37 (0.36) .31 | -0.36 (0.36) .32 | -0.37 (0.36) .31 | -0.37 (0.36) .31 | --- | -0.33 (0.37) .36 | -0.36 (0.37) .32 | -0.37(0.02) |
| a | Level \* diabetes | -0.92 (0.65) .15 | -0.97 (0.64) .13 | -0.91 (0.64) .15 | -0.89 (0.64) .16 | -0.92 (0.64) .15 | -0.88 (0.65) .17 | -0.90 (0.65) .17 | -0.92 (0.64) .15 | -0.99 (0.64) .12 | -0.91 (0.64) .16 | --- | -0.87 (0.65) .18 | -0.89 (0.64) .16 | -0.91(0.03) |
| a | Slope \* age | -0.03 (0.02) .14 | -0.02 (0.02) .24 | -0.02 (0.02) .22 | -0.03 (0.02) .11 | -0.03 (0.02) .08 | -0.02 (0.02) .21 | -0.02 (0.02) .15 | -0.02 (0.02) .30 | -0.02 (0.02) .29 | -0.03 (0.02) .07 | --- | -0.02 (0.02) .18 | -0.03 (0.02) .13 | -0.03(0.00) |
| a | Slope \* education | 0.01 (0.01) .34 | 0.01 (0.01) .24 | 0.01 (0.01) .20 | 0.01 (0.01) .27 | 0.01 (0.01) .42 | 0.01 (0.01) .37 | 0.01 (0.01) .41 | 0.01 (0.01) .37 | 0.01 (0.01) .25 | 0.01 (0.01) .38 | --- | 0.01 (0.01) .45 | 0.01 (0.01) .39 | 0.01(0.00) |
| a | Slope \* height | -1.06 (0.62) .09 | -0.86 (0.63) .17 | -0.89 (0.62) .16 | -1.02 (0.63) .11 | -0.81 (0.62) .19 | -0.74 (0.63) .24 | -0.90 (0.62) .14 | -0.88 (0.64) .17 | -0.85 (0.62) .17 | -0.88 (0.62) .16 | --- | -0.83 (0.63) .19 | -0.88 (0.63) .16 | -0.88(0.09) |
| a | Slope \* smoking | -0.06 (0.07) .38 | -0.07 (0.08) .39 | -0.07 (0.08) .36 | -0.06 (0.08) .44 | -0.09 (0.08) .22 | -0.09 (0.08) .25 | -0.08 (0.07) .27 | -0.07 (0.08) .41 | -0.07 (0.08) .36 | -0.08 (0.07) .27 | --- | -0.08 (0.08) .30 | -0.08 (0.08) .32 | -0.08(0.01) |
| a | Slope \* cardio | -0.12 (0.08) .13 | -0.11 (0.08) .17 | -0.09 (0.08) .23 | -0.12 (0.08) .14 | -0.11 (0.08) .16 | -0.11 (0.08) .18 | -0.12 (0.08) .11 | -0.12 (0.08) .16 | -0.12 (0.08) .14 | -0.11 (0.08) .14 | --- | -0.13 (0.08) .10 | -0.12 (0.08) .12 | -0.11(0.01) |
| a | Slope \* diabetes | -0.22 (0.18) .22 | -0.20 (0.17) .26 | -0.22 (0.17) .19 | -0.21 (0.17) .21 | -0.19 (0.17) .27 | -0.23 (0.18) .20 | -0.20 (0.18) .26 | -0.21 (0.18) .23 | -0.24 (0.17) .16 | -0.22 (0.18) .22 | --- | -0.23 (0.19) .22 | -0.20 (0.17) .24 | -0.21(0.01) |
| b | Level | -0.37 (0.08) <.01 | -0.40 (0.08) <.01 | -0.39 (0.08) <.01 | -0.36 (0.08) <.01 | -0.33 (0.08) <.01 | -0.35 (0.08) <.01 | -0.37 (0.08) <.01 | -0.40 (0.08) <.01 | -0.42 (0.08) <.01 | -0.35 (0.07) <.01 | --- | -0.35 (0.08) <.01 | -0.34 (0.08) <.01 | --- |
| b | Slope | -0.38 (0.18) .04 | -0.37 (0.17) .03 | -0.11 (0.09) .23 | -0.15 (0.05) <.01 | -0.03 (0.21) .87 | -0.61 (0.34) .07 | -0.09 (0.11) .40 | -0.30 (0.11) .01 | -0.68 (0.25) .01 | -0.04 (0.18) .85 | --- | -0.84 (0.36) .02 | -0.47 (0.19) .01 | --- |
| b | Level \* age | -0.30 (0.23) .20 | -0.04 (0.06) .53 | -0.06 (0.04) .21 | -0.01 (0.03) .82 | -0.17 (0.13) .16 | -0.30 (0.34) .38 | -0.15 (0.08) .04 | -0.09 (0.06) .11 | -0.14 (0.10) .16 | -0.16 (0.12) .19 | --- | -0.53 (0.41) .20 | 0.18 (0.23) .43 | --- |
| b | Level \* education | 0.57 (0.21) .01 | 0.04 (0.04) .32 | 0.13 (0.03) <.01 | 0.08 (0.02) <.01 | 0.35 (0.10) <.01 | 1.13 (0.19) <.01 | 0.10 (0.05) .05 | 0.08 (0.04) .02 | 0.16 (0.07) .01 | 0.42 (0.09) <.01 | --- | 1.81 (0.25) <.01 | 1.21 (0.13) <.01 | --- |
| b | Level \* height | 15.46 (9.46) .10 | 4.50 (2.48) .07 | 0.70 (1.28) .58 | 1.15 (1.35) .39 | 1.64 (5.85) .78 | 17.84 (11.35) .12 | 2.17 (2.78) .44 | 3.38 (2.01) .09 | 4.97 (3.44) .15 | 4.00 (5.08) .43 | --- | 17.88 (12.45) .15 | 6.63 (6.86) .33 | --- |
| b | Level \* smoking | -3.05 (1.30) .02 | 0.20 (0.41) .63 | -0.21 (0.26) .42 | -0.64 (0.21) <.01 | -1.52 (0.76) .04 | -2.37 (1.66) .15 | -0.40 (0.42) .34 | -0.23 (0.27) .38 | -0.72 (0.46) .12 | -0.28 (0.73) .70 | --- | -5.30 (1.96) .01 | -3.98 (1.13) <.01 | --- |
| b | Level \* cardio | -0.79 (1.06) .46 | 0.14 (0.35) .68 | -0.30 (0.22) .17 | 0.09 (0.16) .59 | 0.47 (0.67) .48 | 1.20 (1.31) .36 | -0.18 (0.36) .61 | 0.08 (0.24) .74 | 0.32 (0.51) .53 | -0.35 (0.62) .57 | --- | -1.03 (1.70) .55 | -0.27 (0.97) .78 | --- |
| b | Level \* diabetes | -0.44 (1.65) .79 | -0.76 (0.63) .23 | 0.04 (0.34) .90 | 0.08 (0.23) .73 | 0.60 (1.16) .61 | -0.25 (1.90) .89 | 0.32 (0.51) .53 | 0.72 (0.23) <.01 | -0.25 (0.80) .75 | 1.38 (0.80) .08 | --- | 1.84 (2.80) .51 | -1.58 (1.35) .24 | --- |
| b | Slope \* age | 0.01 (0.03) .84 | 0.00 (0.04) .89 | 0.01 (0.01) .48 | -0.01 (0.01) .17 | 0.03 (0.04) .39 | 0.05 (0.07) .49 | -0.02 (0.02) .42 | 0.02 (0.02) .26 | -0.05 (0.05) .38 | -0.03 (0.05) .51 | --- | 0.05 (0.07) .42 | 0.00 (0.04) .96 | --- |
| b | Slope \* education | 0.07 (0.04) .12 | 0.04 (0.02) .02 | 0.00 (0.01) .78 | 0.01 (0.01) .12 | -0.01 (0.03) .77 | 0.08 (0.03) .02 | 0.01 (0.02) .44 | 0.00 (0.02) .82 | 0.04 (0.03) .17 | 0.02 (0.02) .24 | --- | 0.04 (0.05) .34 | 0.01 (0.02) .54 | --- |
| b | Slope \* height | -1.71 (1.78) .34 | -0.76 (1.25) .54 | 0.44 (0.45) .33 | -0.53 (0.29) .07 | 2.13 (1.19) .07 | -0.88 (2.60) .74 | -0.14 (0.75) .85 | -0.12 (0.79) .88 | -0.94 (1.83) .61 | 0.12 (1.28) .92 | --- | -1.21 (2.18) .58 | 0.35 (1.07) .74 | --- |
| b | Slope \* smoking | -0.28 (0.15) .06 | -0.19 (0.15) .19 | -0.08 (0.07) .23 | 0.07 (0.05) .13 | -0.28 (0.15) .06 | -0.50 (0.29) .08 | -0.15 (0.10) .14 | -0.04 (0.10) .73 | -0.13 (0.24) .59 | -0.25 (0.14) .07 | --- | -0.06 (0.36) .86 | 0.25 (0.16) .12 | --- |
| b | Slope \* cardio | -0.10 (0.19) .59 | -0.07 (0.15) .66 | 0.06 (0.06) .36 | -0.06 (0.04) .14 | 0.17 (0.15) .27 | -0.17 (0.31) .58 | -0.07 (0.10) .49 | 0.01 (0.10) .92 | -0.09 (0.22) .67 | -0.17 (0.16) .28 | --- | -0.23 (0.31) .46 | -0.01 (0.14) .97 | --- |
| b | Slope \* diabetes | -0.20 (0.42) .64 | 0.06 (0.25) .80 | -0.03 (0.11) .76 | -0.02 (0.05) .65 | -0.12 (0.38) .76 | -0.88 (0.70) .21 | -0.11 (0.18) .55 | -0.19 (0.19) .33 | -0.36 (0.37) .33 | -0.27 (0.30) .37 | --- | -0.70 (0.77) .36 | -0.11 (0.27) .68 | --- |
| a | Var (Level) | 4.27 (0.61) <.01 | 4.25 (0.60) <.01 | 4.25 (0.61) <.01 | 4.26 (0.61) <.01 | 4.38 (0.62) <.01 | 4.25 (0.61) <.01 | 4.30 (0.61) <.01 | 4.29 (0.60) <.01 | 4.28 (0.61) <.01 | 4.28 (0.61) <.01 | --- | 4.37 (0.61) <.01 | 4.25 (0.61) <.01 | 4.29(0.04) |
| a | Var (Slope) | 0.07 (0.03) .05 | 0.09 (0.05) .06 | 0.07 (0.04) .07 | 0.07 (0.04) .08 | 0.07 (0.04) .09 | 0.06 (0.04) .08 | 0.07 (0.04) .04 | 0.10 (0.04) .03 | 0.10 (0.05) .04 | 0.07 (0.04) .07 | --- | 0.08 (0.04) .03 | 0.06 (0.04) .09 | 0.08(0.01) |
| a | Var (Residual) | 1.95 (0.22) <.01 | 1.92 (0.21) <.01 | 1.96 (0.22) <.01 | 1.93 (0.21) <.01 | 1.92 (0.22) <.01 | 1.98 (0.23) <.01 | 1.91 (0.22) <.01 | 1.85 (0.20) <.01 | 1.89 (0.21) <.01 | 1.96 (0.22) <.01 | --- | 1.88 (0.20) <.01 | 1.96 (0.23) <.01 | 1.93(0.04) |
| b | Var (Level) | 37.19 (4.87) <.01 | 2.13 (1.22) .08 | 0.82 (0.24) <.01 | 0.69 (0.14) <.01 | 8.87 (2.13) <.01 | 65.63 (9.73) <.01 | 3.45 (0.62) <.01 | 0.68 (0.70) .34 | 3.05 (1.35) .02 | 9.66 (1.60) <.01 | --- | 85.41 (11.86) <.01 | 24.23 (2.79) <.01 | --- |
| b | Var (Slope) | 0.37 (0.25) .14 | 0.42 (0.16) .01 | 0.03 (0.01) .08 | 0.02 (0.01) <.01 | 0.15 (0.10) .11 | 1.58 (0.47) <.01 | 0.14 (0.03) <.01 | 0.15 (0.06) .02 | 0.97 (0.32) <.01 | 0.15 (0.15) .34 | --- | 1.56 (0.70) .02 | 0.07 (0.07) .30 | --- |
| b | Var (Residual) | 10.59 (1.25) <.01 | 4.68 (0.73) <.01 | 1.22 (0.14) <.01 | 0.58 (0.08) <.01 | 7.79 (0.87) <.01 | 12.95 (1.42) <.01 | 2.23 (0.21) <.01 | 2.43 (0.51) <.01 | 8.70 (1.16) <.01 | 5.20 (0.76) <.01 | --- | 19.64 (2.56) <.01 | 6.02 (0.68) <.01 | --- |
| a | Covar (Level, Slope) | -0.02 (0.11) .84 | -0.02 (0.11) .84 | -0.01 (0.11) .92 | -0.02 (0.11) .87 | -0.05 (0.11) .63 | -0.02 (0.11) .83 | -0.01 (0.11) .92 | -0.00 (0.11) .99 | 0.00 (0.11) .96 | -0.03 (0.11) .81 | --- | -0.05 (0.10) .60 | -0.02 (0.11) .84 | -0.02(0.02) |
| b | Covar (Level, Slope) | -0.57 (0.77) .46 | 0.76 (0.20) <.01 | -0.03 (0.04) .43 | -0.06 (0.02) .01 | -0.46 (0.38) .23 | 0.18 (1.13) .87 | 0.12 (0.09) .21 | 0.27 (0.14) .06 | 1.48 (0.47) <.01 | 0.36 (0.34) .30 | --- | -3.14 (1.90) .10 | -0.23 (0.36) .51 | --- |
|  | Correlation of Levels | 0.37 | 0.28 | 0.109 | -0.2196 | 0.58 | 0.04 | 0.268 | 0.051 | 0.25 | 0.33 | NaN | 0.32 | 0.20 | 0.21(0.20) |
|  | Correlation of Slopes | 0.89 | 0.78 | 0.729 | 0.3738 | 0.76 | 0.56 | 0.787 | 0.772 | 0.75 | 0.97 | NaN | 0.83 | 0.71 | 0.74(0.15) |
|  | Correlation of Residuals | 0.16 | 0.22 | 0.014 | -0.0076 | -0.05 | 0.15 | 0.058 | 0.075 | 0.20 | 0.12 | NaN | 0.10 | 0.05 | 0.09(0.08) |
|  | N | 182 | 182 | 182 | 182 | 181 | 183 | 182 | 182 | 183 | 182 | NA | 181 | 182 | 182.00(0.60) |
|  | occasions | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | NA | 5 | 5 | 5.00(0.00) |
|  | parameters | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | NA | 41 | 41 | 41.00(0.00) |
|  | LL | -2,734 | -2,625 | -2,168 | -2,004 | -2,432 | -2,973 | -2,374 | -2,324 | -2,864 | -2,351 | NA | -2,758 | -2,375 | -2,499(292) |
|  | AIC | 5,551 | 5,332 | 4,419 | 4,091 | 4,947 | 6,029 | 4,830 | 4,730 | 5,810 | 4,784 | NA | 5,597 | 4,833 | 5,079(584) |
|  | BIC | 5,682 | 5,464 | 4,550 | 4,222 | 5,078 | 6,160 | 4,961 | 4,861 | 5,941 | 4,916 | NA | 5,728 | 4,964 | 5,211(584) |

## block

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 6.37 (1.54) <.01 | 6.99 (1.52) <.01 | 4.52 (1.18) <.01 | 4.62 (1.15) <.01 |
| ab | Covar (Slopes) | 0.15 (0.10) .11 | 0.14 (0.09) .13 | 0.15 (0.09) .11 | 0.14 (0.08) .09 |
| ab | Covar (Residuals) | 0.65 (0.30) .03 | 0.67 (0.30) .03 | 0.72 (0.33) .03 | 0.72 (0.34) .03 |
| er | Corr (Levels) | 0.38 (0.07) <.01 | 0.43 (0.07) <.01 | 0.34 (0.08) <.01 | 0.37 (0.08) <.01 |
| er | Corr (Slopes) | 0.78 (0.19) <.01 | 0.76 (0.20) <.01 | 0.84 (0.18) <.01 | 0.89 (0.17) <.01 |
| er | Corr (Residuals) | 0.15 (0.06) .02 | 0.15 (0.06) .02 | 0.16 (0.07) .02 | 0.16 (0.07) .02 |
| a | Level | 11.59 (0.34) <.01 | 11.67 (0.33) <.01 | 12.06 (0.28) <.01 | 12.17 (0.41) <.01 |
| a | Slope | 12.39 (0.98) <.01 | 11.97 (0.95) <.01 | 12.62 (0.92) <.01 | 15.30 (1.44) <.01 |
| a | Level \* age | -0.22 (0.08) <.01 | -0.23 (0.07) <.01 | -0.20 (0.06) <.01 | -0.20 (0.06) <.01 |
| a | Level \* education | --- | -0.12 (0.05) .03 | -0.15 (0.05) <.01 | -0.17 (0.05) <.01 |
| a | Level \* height | --- | --- | 10.82 (3.16) <.01 | 10.97 (3.04) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.24 (0.37) .51 |
| a | Level \* cardio | --- | --- | --- | -0.36 (0.36) .32 |
| a | Level \* diabetes | --- | --- | --- | -0.92 (0.65) .15 |
| a | Slope \* age | -0.02 (0.02) .28 | -0.02 (0.02) .32 | -0.02 (0.02) .29 | -0.03 (0.02) .14 |
| a | Slope \* education | --- | 0.01 (0.01) .32 | 0.01 (0.01) .28 | 0.01 (0.01) .34 |
| a | Slope \* height | --- | --- | -0.80 (0.63) .20 | -1.06 (0.62) .09 |
| a | Slope \* smoking | --- | --- | --- | -0.06 (0.07) .38 |
| a | Slope \* cardio | --- | --- | --- | -0.12 (0.08) .13 |
| a | Slope \* diabetes | --- | --- | --- | -0.22 (0.18) .22 |
| b | Level | -0.50 (0.06) <.01 | -0.51 (0.06) <.01 | -0.51 (0.06) <.01 | -0.37 (0.08) <.01 |
| b | Slope | -0.64 (0.13) <.01 | -0.68 (0.14) <.01 | -0.72 (0.15) <.01 | -0.38 (0.18) .04 |
| b | Level \* age | -0.42 (0.23) .08 | -0.38 (0.24) .11 | -0.29 (0.23) .21 | -0.30 (0.23) .20 |
| b | Level \* education | --- | 0.52 (0.22) .02 | 0.54 (0.21) .01 | 0.57 (0.21) .01 |
| b | Level \* height | --- | --- | 15.35 (9.19) .10 | 15.46 (9.46) .10 |
| b | Level \* smoking | --- | --- | --- | -3.05 (1.30) .02 |
| b | Level \* cardio | --- | --- | --- | -0.79 (1.06) .46 |
| b | Level \* diabetes | --- | --- | --- | -0.44 (1.65) .79 |
| b | Slope \* age | 0.01 (0.04) .68 | 0.03 (0.03) .43 | 0.02 (0.04) .47 | 0.01 (0.03) .84 |
| b | Slope \* education | --- | 0.06 (0.04) .14 | 0.06 (0.04) .13 | 0.07 (0.04) .12 |
| b | Slope \* height | --- | --- | -2.19 (1.82) .23 | -1.71 (1.78) .34 |
| b | Slope \* smoking | --- | --- | --- | -0.28 (0.15) .06 |
| b | Slope \* cardio | --- | --- | --- | -0.10 (0.19) .59 |
| b | Slope \* diabetes | --- | --- | --- | -0.20 (0.42) .64 |
| a | Var (Level) | 6.26 (1.01) <.01 | 6.17 (1.00) <.01 | 4.38 (0.64) <.01 | 4.27 (0.61) <.01 |
| a | Var (Slope) | 0.09 (0.04) .04 | 0.09 (0.04) .04 | 0.08 (0.04) .06 | 0.07 (0.03) .05 |
| a | Var (Residual) | 1.89 (0.20) <.01 | 1.89 (0.20) <.01 | 1.92 (0.21) <.01 | 1.95 (0.22) <.01 |
| b | Var (Level) | 45.75 (5.18) <.01 | 43.65 (5.03) <.01 | 39.23 (5.22) <.01 | 37.19 (4.87) <.01 |
| b | Var (Slope) | 0.42 (0.26) .10 | 0.39 (0.25) .12 | 0.40 (0.26) .12 | 0.37 (0.25) .14 |
| b | Var (Residual) | 10.08 (1.18) <.01 | 10.11 (1.18) <.01 | 10.52 (1.23) <.01 | 10.59 (1.25) <.01 |
| a | Covar (Level, Slope) | -0.06 (0.11) .59 | -0.05 (0.11) .65 | 0.00 (0.11) .98 | -0.02 (0.11) .84 |
| b | Covar (Level, Slope) | -0.33 (0.74) .66 | -0.54 (0.76) .48 | -0.33 (0.72) .65 | -0.57 (0.77) .46 |
|  | Correlation of Levels | 0.38 | 0.43 | 0.34 | 0.37 |
|  | Correlation of Slopes | 0.78 | 0.76 | 0.84 | 0.89 |
|  | Correlation of Residuals | 0.15 | 0.15 | 0.16 | 0.16 |
|  | N | 205 | 205 | 182 | 182 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,015 | -3,002 | -2,749 | -2,734 |
|  | AIC | 6,072 | 6,055 | 5,556 | 5,551 |
|  | BIC | 6,142 | 6,138 | 5,649 | 5,682 |

## clock

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 2.90 (0.94) <.01 | 2.83 (0.92) <.01 | 0.87 (0.48) .07 | 0.83 (0.48) .08 |
| ab | Covar (Slopes) | 0.15 (0.07) .05 | 0.14 (0.07) .05 | 0.16 (0.08) .05 | 0.15 (0.07) .05 |
| ab | Covar (Residuals) | 0.70 (0.23) <.01 | 0.70 (0.23) <.01 | 0.64 (0.24) .01 | 0.66 (0.24) .01 |
| er | Corr (Levels) | 0.50 (0.10) <.01 | 0.51 (0.10) <.01 | 0.29 (0.13) .02 | 0.28 (0.13) .03 |
| er | Corr (Slopes) | 0.77 (0.15) <.01 | 0.76 (0.16) <.01 | 0.76 (0.15) <.01 | 0.78 (0.16) <.01 |
| er | Corr (Residuals) | 0.22 (0.06) <.01 | 0.22 (0.06) <.01 | 0.21 (0.07) <.01 | 0.22 (0.07) <.01 |
| a | Level | 11.70 (0.34) <.01 | 11.75 (0.34) <.01 | 12.08 (0.28) <.01 | 12.19 (0.41) <.01 |
| a | Slope | 14.27 (0.32) <.01 | 14.13 (0.33) <.01 | 14.33 (0.28) <.01 | 14.19 (0.40) <.01 |
| a | Level \* age | -0.28 (0.08) <.01 | -0.27 (0.08) <.01 | -0.21 (0.06) <.01 | -0.21 (0.06) <.01 |
| a | Level \* education | --- | -0.13 (0.06) .02 | -0.15 (0.05) <.01 | -0.18 (0.05) <.01 |
| a | Level \* height | --- | --- | 10.59 (3.14) <.01 | 10.70 (3.02) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.26 (0.37) .48 |
| a | Level \* cardio | --- | --- | --- | -0.39 (0.36) .28 |
| a | Level \* diabetes | --- | --- | --- | -0.97 (0.64) .13 |
| a | Slope \* age | -0.01 (0.02) .44 | -0.01 (0.02) .47 | -0.01 (0.02) .44 | -0.02 (0.02) .24 |
| a | Slope \* education | --- | 0.01 (0.01) .29 | 0.01 (0.01) .20 | 0.01 (0.01) .24 |
| a | Slope \* height | --- | --- | -0.66 (0.62) .29 | -0.86 (0.63) .17 |
| a | Slope \* smoking | --- | --- | --- | -0.07 (0.08) .39 |
| a | Slope \* cardio | --- | --- | --- | -0.11 (0.08) .17 |
| a | Slope \* diabetes | --- | --- | --- | -0.20 (0.17) .26 |
| b | Level | -0.52 (0.06) <.01 | -0.54 (0.07) <.01 | -0.54 (0.07) <.01 | -0.40 (0.08) <.01 |
| b | Slope | -0.51 (0.13) <.01 | -0.54 (0.13) <.01 | -0.56 (0.14) <.01 | -0.37 (0.17) .03 |
| b | Level \* age | -0.22 (0.09) .01 | -0.17 (0.09) .06 | -0.05 (0.06) .46 | -0.04 (0.06) .53 |
| b | Level \* education | --- | 0.02 (0.06) .74 | 0.04 (0.04) .28 | 0.04 (0.04) .32 |
| b | Level \* height | --- | --- | 4.72 (2.49) .06 | 4.50 (2.48) .07 |
| b | Level \* smoking | --- | --- | --- | 0.20 (0.41) .63 |
| b | Level \* cardio | --- | --- | --- | 0.14 (0.35) .68 |
| b | Level \* diabetes | --- | --- | --- | -0.76 (0.63) .23 |
| b | Slope \* age | 0.01 (0.03) .75 | 0.01 (0.03) .72 | 0.01 (0.04) .75 | 0.00 (0.04) .89 |
| b | Slope \* education | --- | 0.04 (0.02) .02 | 0.04 (0.02) .02 | 0.04 (0.02) .02 |
| b | Slope \* height | --- | --- | -1.06 (1.21) .38 | -0.76 (1.25) .54 |
| b | Slope \* smoking | --- | --- | --- | -0.19 (0.15) .19 |
| b | Slope \* cardio | --- | --- | --- | -0.07 (0.15) .66 |
| b | Slope \* diabetes | --- | --- | --- | 0.06 (0.25) .80 |
| a | Var (Level) | 6.56 (1.08) <.01 | 6.41 (1.07) <.01 | 4.38 (0.65) <.01 | 4.25 (0.60) <.01 |
| a | Var (Slope) | 0.10 (0.05) .04 | 0.10 (0.05) .04 | 0.10 (0.05) .06 | 0.09 (0.05) .06 |
| a | Var (Residual) | 1.87 (0.20) <.01 | 1.87 (0.20) <.01 | 1.91 (0.21) <.01 | 1.92 (0.21) <.01 |
| b | Var (Level) | 5.13 (1.75) <.01 | 4.72 (1.76) .01 | 2.12 (1.21) .08 | 2.13 (1.22) .08 |
| b | Var (Slope) | 0.36 (0.14) .01 | 0.35 (0.14) .01 | 0.42 (0.16) .01 | 0.42 (0.16) .01 |
| b | Var (Residual) | 5.50 (0.81) <.01 | 5.47 (0.80) <.01 | 4.71 (0.73) <.01 | 4.68 (0.73) <.01 |
| a | Covar (Level, Slope) | -0.05 (0.12) .69 | -0.04 (0.12) .76 | 0.00 (0.11) .98 | -0.02 (0.11) .84 |
| b | Covar (Level, Slope) | 0.97 (0.22) <.01 | 0.95 (0.21) <.01 | 0.78 (0.20) <.01 | 0.76 (0.20) <.01 |
|  | Correlation of Levels | 0.50 | 0.51 | 0.29 | 0.28 |
|  | Correlation of Slopes | 0.78 | 0.76 | 0.76 | 0.78 |
|  | Correlation of Residuals | 0.22 | 0.22 | 0.21 | 0.22 |
|  | N | 211 | 210 | 182 | 182 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,989 | -2,977 | -2,635 | -2,625 |
|  | AIC | 6,019 | 6,004 | 5,328 | 5,332 |
|  | BIC | 6,090 | 6,087 | 5,421 | 5,464 |

## digit\_b

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 0.56 (0.37) .13 | 0.72 (0.36) .04 | 0.23 (0.22) .30 | 0.20 (0.21) .34 |
| ab | Covar (Slopes) | 0.04 (0.02) .10 | 0.04 (0.02) .11 | 0.03 (0.02) .13 | 0.03 (0.02) .10 |
| ab | Covar (Residuals) | 0.03 (0.10) .79 | 0.03 (0.10) .79 | 0.01 (0.10) .88 | 0.02 (0.10) .83 |
| er | Corr (Levels) | 0.21 (0.13) .10 | 0.30 (0.14) .02 | 0.12 (0.12) .31 | 0.11 (0.12) .34 |
| er | Corr (Slopes) | 0.70 (0.26) .01 | 0.70 (0.27) .01 | 0.72 (0.29) .01 | 0.72 (0.29) .01 |
| er | Corr (Residuals) | 0.02 (0.07) .79 | 0.02 (0.06) .79 | 0.01 (0.07) .88 | 0.01 (0.07) .83 |
| a | Level | 11.62 (0.34) <.01 | 11.69 (0.33) <.01 | 12.08 (0.28) <.01 | 12.20 (0.41) <.01 |
| a | Slope | 3.45 (0.16) <.01 | 3.36 (0.16) <.01 | 3.44 (0.15) <.01 | 3.73 (0.25) <.01 |
| a | Level \* age | -0.22 (0.08) <.01 | -0.23 (0.07) <.01 | -0.20 (0.06) <.01 | -0.21 (0.06) <.01 |
| a | Level \* education | --- | -0.11 (0.05) .03 | -0.15 (0.05) <.01 | -0.17 (0.05) <.01 |
| a | Level \* height | --- | --- | 10.80 (3.17) <.01 | 10.89 (3.05) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.24 (0.37) .51 |
| a | Level \* cardio | --- | --- | --- | -0.39 (0.37) .28 |
| a | Level \* diabetes | --- | --- | --- | -0.91 (0.64) .15 |
| a | Slope \* age | -0.02 (0.02) .36 | -0.01 (0.02) .39 | -0.02 (0.02) .38 | -0.02 (0.02) .22 |
| a | Slope \* education | --- | 0.01 (0.01) .31 | 0.02 (0.01) .17 | 0.01 (0.01) .20 |
| a | Slope \* height | --- | --- | -0.69 (0.62) .26 | -0.89 (0.62) .16 |
| a | Slope \* smoking | --- | --- | --- | -0.07 (0.08) .36 |
| a | Slope \* cardio | --- | --- | --- | -0.09 (0.08) .23 |
| a | Slope \* diabetes | --- | --- | --- | -0.22 (0.17) .19 |
| b | Level | -0.51 (0.06) <.01 | -0.52 (0.06) <.01 | -0.52 (0.06) <.01 | -0.39 (0.08) <.01 |
| b | Slope | -0.16 (0.05) <.01 | -0.16 (0.05) <.01 | -0.15 (0.05) <.01 | -0.11 (0.09) .23 |
| b | Level \* age | -0.06 (0.04) .15 | -0.06 (0.04) .15 | -0.05 (0.04) .25 | -0.06 (0.04) .21 |
| b | Level \* education | --- | 0.14 (0.03) <.01 | 0.13 (0.03) <.01 | 0.13 (0.03) <.01 |
| b | Level \* height | --- | --- | 0.83 (1.29) .52 | 0.70 (1.28) .58 |
| b | Level \* smoking | --- | --- | --- | -0.21 (0.26) .42 |
| b | Level \* cardio | --- | --- | --- | -0.30 (0.22) .17 |
| b | Level \* diabetes | --- | --- | --- | 0.04 (0.34) .90 |
| b | Slope \* age | 0.01 (0.01) .47 | 0.01 (0.01) .38 | 0.01 (0.01) .48 | 0.01 (0.01) .48 |
| b | Slope \* education | --- | -0.00 (0.01) .78 | 0.00 (0.01) .94 | 0.00 (0.01) .78 |
| b | Slope \* height | --- | --- | 0.23 (0.39) .56 | 0.44 (0.45) .33 |
| b | Slope \* smoking | --- | --- | --- | -0.08 (0.07) .23 |
| b | Slope \* cardio | --- | --- | --- | 0.06 (0.06) .36 |
| b | Slope \* diabetes | --- | --- | --- | -0.03 (0.11) .76 |
| a | Var (Level) | 6.24 (1.01) <.01 | 6.15 (1.01) <.01 | 4.38 (0.65) <.01 | 4.25 (0.61) <.01 |
| a | Var (Slope) | 0.09 (0.04) .05 | 0.09 (0.04) .05 | 0.08 (0.05) .07 | 0.07 (0.04) .07 |
| a | Var (Residual) | 1.90 (0.20) <.01 | 1.90 (0.20) <.01 | 1.93 (0.22) <.01 | 1.96 (0.22) <.01 |
| b | Var (Level) | 1.09 (0.27) <.01 | 0.92 (0.23) <.01 | 0.83 (0.24) <.01 | 0.82 (0.24) <.01 |
| b | Var (Slope) | 0.03 (0.01) .04 | 0.03 (0.01) .05 | 0.03 (0.01) .06 | 0.03 (0.01) .08 |
| b | Var (Residual) | 1.26 (0.13) <.01 | 1.27 (0.14) <.01 | 1.23 (0.14) <.01 | 1.22 (0.14) <.01 |
| a | Covar (Level, Slope) | -0.03 (0.10) .76 | -0.02 (0.11) .84 | 0.01 (0.11) .93 | -0.01 (0.11) .92 |
| b | Covar (Level, Slope) | -0.04 (0.05) .42 | -0.03 (0.05) .48 | -0.03 (0.04) .50 | -0.03 (0.04) .43 |
|  | Correlation of Levels | 0.214 | 0.304 | 0.1206 | 0.109 |
|  | Correlation of Slopes | 0.709 | 0.693 | 0.7226 | 0.729 |
|  | Correlation of Residuals | 0.017 | 0.017 | 0.0097 | 0.014 |
|  | N | 208 | 208 | 182 | 182 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,423 | -2,410 | -2,179 | -2,168 |
|  | AIC | 4,889 | 4,870 | 4,416 | 4,419 |
|  | BIC | 4,959 | 4,953 | 4,509 | 4,550 |

## digit\_f

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | -0.25 (0.28) .36 | -0.18 (0.27) .49 | -0.42 (0.22) .06 | -0.38 (0.21) .08 |
| ab | Covar (Slopes) | 0.03 (0.01) .08 | 0.02 (0.01) .11 | 0.02 (0.01) .19 | 0.01 (0.01) .25 |
| ab | Covar (Residuals) | -0.02 (0.06) .70 | -0.02 (0.06) .76 | -0.01 (0.07) .83 | -0.01 (0.07) .90 |
| er | Corr (Levels) | -0.11 (0.12) .36 | -0.08 (0.12) .49 | -0.23 (0.11) .04 | -0.22 (0.11) .05 |
| er | Corr (Slopes) | 0.48 (0.20) .02 | 0.44 (0.21) .04 | 0.37 (0.24) .12 | 0.37 (0.27) .17 |
| er | Corr (Residuals) | -0.02 (0.06) .70 | -0.02 (0.06) .75 | -0.01 (0.06) .83 | -0.01 (0.06) .90 |
| a | Level | 11.62 (0.33) <.01 | 11.69 (0.33) <.01 | 12.06 (0.28) <.01 | 12.18 (0.41) <.01 |
| a | Slope | 5.68 (0.12) <.01 | 5.63 (0.12) <.01 | 5.62 (0.12) <.01 | 6.04 (0.23) <.01 |
| a | Level \* age | -0.21 (0.07) <.01 | -0.22 (0.07) <.01 | -0.20 (0.06) <.01 | -0.20 (0.06) <.01 |
| a | Level \* education | --- | -0.11 (0.05) .03 | -0.15 (0.05) <.01 | -0.17 (0.05) <.01 |
| a | Level \* height | --- | --- | 10.92 (3.17) <.01 | 11.00 (3.05) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.23 (0.37) .53 |
| a | Level \* cardio | --- | --- | --- | -0.38 (0.36) .30 |
| a | Level \* diabetes | --- | --- | --- | -0.89 (0.64) .16 |
| a | Slope \* age | -0.02 (0.02) .20 | -0.02 (0.02) .22 | -0.02 (0.02) .22 | -0.03 (0.02) .11 |
| a | Slope \* education | --- | 0.01 (0.01) .26 | 0.01 (0.01) .20 | 0.01 (0.01) .27 |
| a | Slope \* height | --- | --- | -0.82 (0.61) .18 | -1.02 (0.63) .11 |
| a | Slope \* smoking | --- | --- | --- | -0.06 (0.08) .44 |
| a | Slope \* cardio | --- | --- | --- | -0.12 (0.08) .14 |
| a | Slope \* diabetes | --- | --- | --- | -0.21 (0.17) .21 |
| b | Level | -0.50 (0.06) <.01 | -0.51 (0.06) <.01 | -0.50 (0.06) <.01 | -0.36 (0.08) <.01 |
| b | Slope | -0.12 (0.03) <.01 | -0.13 (0.03) <.01 | -0.12 (0.03) <.01 | -0.15 (0.05) <.01 |
| b | Level \* age | -0.03 (0.03) .31 | -0.03 (0.03) .32 | -0.00 (0.03) .92 | -0.01 (0.03) .82 |
| b | Level \* education | --- | 0.07 (0.02) <.01 | 0.07 (0.02) .01 | 0.08 (0.02) <.01 |
| b | Level \* height | --- | --- | 0.99 (1.35) .46 | 1.15 (1.35) .39 |
| b | Level \* smoking | --- | --- | --- | -0.64 (0.21) <.01 |
| b | Level \* cardio | --- | --- | --- | 0.09 (0.16) .59 |
| b | Level \* diabetes | --- | --- | --- | 0.08 (0.23) .73 |
| b | Slope \* age | -0.01 (0.01) .16 | -0.01 (0.01) .24 | -0.01 (0.01) .21 | -0.01 (0.01) .17 |
| b | Slope \* education | --- | 0.01 (0.01) .09 | 0.01 (0.01) .08 | 0.01 (0.01) .12 |
| b | Slope \* height | --- | --- | -0.47 (0.29) .10 | -0.53 (0.29) .07 |
| b | Slope \* smoking | --- | --- | --- | 0.07 (0.05) .13 |
| b | Slope \* cardio | --- | --- | --- | -0.06 (0.04) .14 |
| b | Slope \* diabetes | --- | --- | --- | -0.02 (0.05) .65 |
| a | Var (Level) | 6.17 (0.99) <.01 | 6.08 (0.98) <.01 | 4.38 (0.64) <.01 | 4.26 (0.61) <.01 |
| a | Var (Slope) | 0.10 (0.05) .04 | 0.10 (0.05) .04 | 0.09 (0.05) .08 | 0.07 (0.04) .08 |
| a | Var (Residual) | 1.87 (0.19) <.01 | 1.87 (0.20) <.01 | 1.91 (0.21) <.01 | 1.93 (0.21) <.01 |
| b | Var (Level) | 0.84 (0.13) <.01 | 0.80 (0.13) <.01 | 0.78 (0.14) <.01 | 0.69 (0.14) <.01 |
| b | Var (Slope) | 0.03 (0.01) <.01 | 0.03 (0.01) <.01 | 0.03 (0.01) <.01 | 0.02 (0.01) <.01 |
| b | Var (Residual) | 0.61 (0.08) <.01 | 0.61 (0.08) <.01 | 0.58 (0.08) <.01 | 0.58 (0.08) <.01 |
| a | Covar (Level, Slope) | -0.04 (0.11) .71 | -0.03 (0.11) .79 | 0.01 (0.11) .95 | -0.02 (0.11) .87 |
| b | Covar (Level, Slope) | -0.08 (0.03) <.01 | -0.08 (0.03) <.01 | -0.08 (0.03) <.01 | -0.06 (0.02) .01 |
|  | Correlation of Levels | -0.112 | -0.084 | -0.227 | -0.2196 |
|  | Correlation of Slopes | 0.482 | 0.447 | 0.357 | 0.3738 |
|  | Correlation of Residuals | -0.023 | -0.019 | -0.013 | -0.0076 |
|  | N | 208 | 208 | 182 | 182 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,254 | -2,243 | -2,018 | -2,004 |
|  | AIC | 4,549 | 4,536 | 4,093 | 4,091 |
|  | BIC | 4,619 | 4,620 | 4,186 | 4,222 |

## fig\_logic

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 5.03 (1.23) <.01 | 5.40 (1.25) <.01 | 3.46 (0.87) <.01 | 3.61 (0.85) <.01 |
| ab | Covar (Slopes) | 0.08 (0.06) .17 | 0.08 (0.06) .19 | 0.08 (0.07) .25 | 0.08 (0.06) .22 |
| ab | Covar (Residuals) | -0.29 (0.29) .31 | -0.29 (0.29) .32 | -0.23 (0.30) .45 | -0.19 (0.30) .52 |
| er | Corr (Levels) | 0.56 (0.10) <.01 | 0.62 (0.10) <.01 | 0.54 (0.11) <.01 | 0.58 (0.11) <.01 |
| er | Corr (Slopes) | 0.71 (0.47) .13 | 0.70 (0.47) .14 | 0.71 (0.62) .25 | 0.76 (0.67) .26 |
| er | Corr (Residuals) | -0.08 (0.07) .31 | -0.07 (0.07) .32 | -0.06 (0.08) .44 | -0.05 (0.08) .52 |
| a | Level | 11.56 (0.34) <.01 | 11.64 (0.34) <.01 | 12.04 (0.28) <.01 | 12.12 (0.42) <.01 |
| a | Slope | 15.71 (0.57) <.01 | 15.53 (0.57) <.01 | 16.03 (0.51) <.01 | 16.84 (0.84) <.01 |
| a | Level \* age | -0.21 (0.08) .01 | -0.22 (0.08) <.01 | -0.20 (0.06) <.01 | -0.20 (0.06) <.01 |
| a | Level \* education | --- | -0.11 (0.05) .04 | -0.15 (0.05) <.01 | -0.17 (0.05) <.01 |
| a | Level \* height | --- | --- | 10.72 (3.19) <.01 | 10.74 (3.07) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.27 (0.37) .47 |
| a | Level \* cardio | --- | --- | --- | -0.36 (0.37) .33 |
| a | Level \* diabetes | --- | --- | --- | -0.92 (0.64) .15 |
| a | Slope \* age | -0.02 (0.02) .19 | -0.02 (0.02) .22 | -0.02 (0.02) .18 | -0.03 (0.02) .08 |
| a | Slope \* education | --- | 0.01 (0.01) .36 | 0.01 (0.01) .34 | 0.01 (0.01) .42 |
| a | Slope \* height | --- | --- | -0.69 (0.61) .26 | -0.81 (0.62) .19 |
| a | Slope \* smoking | --- | --- | --- | -0.09 (0.08) .22 |
| a | Slope \* cardio | --- | --- | --- | -0.11 (0.08) .16 |
| a | Slope \* diabetes | --- | --- | --- | -0.19 (0.17) .27 |
| b | Level | -0.48 (0.06) <.01 | -0.49 (0.06) <.01 | -0.49 (0.06) <.01 | -0.33 (0.08) <.01 |
| b | Slope | -0.21 (0.13) .10 | -0.20 (0.13) .12 | -0.19 (0.13) .15 | -0.03 (0.21) .87 |
| b | Level \* age | -0.19 (0.14) .18 | -0.19 (0.14) .19 | -0.18 (0.14) .19 | -0.17 (0.13) .16 |
| b | Level \* education | --- | 0.29 (0.11) .01 | 0.32 (0.10) <.01 | 0.35 (0.10) <.01 |
| b | Level \* height | --- | --- | 1.56 (5.48) .78 | 1.64 (5.85) .78 |
| b | Level \* smoking | --- | --- | --- | -1.52 (0.76) .04 |
| b | Level \* cardio | --- | --- | --- | 0.47 (0.67) .48 |
| b | Level \* diabetes | --- | --- | --- | 0.60 (1.16) .61 |
| b | Slope \* age | 0.03 (0.03) .42 | 0.03 (0.03) .43 | 0.03 (0.04) .46 | 0.03 (0.04) .39 |
| b | Slope \* education | --- | -0.02 (0.02) .51 | -0.02 (0.02) .41 | -0.01 (0.03) .77 |
| b | Slope \* height | --- | --- | 1.51 (1.09) .17 | 2.13 (1.19) .07 |
| b | Slope \* smoking | --- | --- | --- | -0.28 (0.15) .06 |
| b | Slope \* cardio | --- | --- | --- | 0.17 (0.15) .27 |
| b | Slope \* diabetes | --- | --- | --- | -0.12 (0.38) .76 |
| a | Var (Level) | 6.36 (1.02) <.01 | 6.28 (1.02) <.01 | 4.49 (0.66) <.01 | 4.38 (0.62) <.01 |
| a | Var (Slope) | 0.09 (0.05) .06 | 0.09 (0.05) .06 | 0.08 (0.05) .09 | 0.07 (0.04) .09 |
| a | Var (Residual) | 1.89 (0.20) <.01 | 1.89 (0.20) <.01 | 1.91 (0.21) <.01 | 1.92 (0.22) <.01 |
| b | Var (Level) | 12.48 (2.46) <.01 | 12.08 (2.37) <.01 | 9.25 (1.99) <.01 | 8.87 (2.13) <.01 |
| b | Var (Slope) | 0.15 (0.09) .10 | 0.16 (0.09) .09 | 0.17 (0.11) .12 | 0.15 (0.10) .11 |
| b | Var (Residual) | 7.81 (0.89) <.01 | 7.76 (0.85) <.01 | 7.76 (0.87) <.01 | 7.79 (0.87) <.01 |
| a | Covar (Level, Slope) | -0.09 (0.11) .45 | -0.08 (0.12) .51 | -0.03 (0.11) .78 | -0.05 (0.11) .63 |
| b | Covar (Level, Slope) | -0.39 (0.40) .33 | -0.39 (0.40) .33 | -0.30 (0.38) .44 | -0.46 (0.38) .23 |
|  | Correlation of Levels | 0.564 | 0.620 | 0.54 | 0.58 |
|  | Correlation of Slopes | 0.718 | 0.699 | 0.71 | 0.76 |
|  | Correlation of Residuals | -0.077 | -0.075 | -0.06 | -0.05 |
|  | N | 204 | 204 | 181 | 181 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,654 | -2,647 | -2,450 | -2,432 |
|  | AIC | 5,349 | 5,343 | 4,957 | 4,947 |
|  | BIC | 5,419 | 5,426 | 5,050 | 5,078 |

## information

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 1.22 (2.06) .55 | 2.40 (1.95) .22 | 0.35 (1.71) .84 | 0.67 (1.67) .69 |
| ab | Covar (Slopes) | 0.25 (0.16) .11 | 0.25 (0.15) .11 | 0.23 (0.16) .15 | 0.18 (0.12) .15 |
| ab | Covar (Residuals) | 0.71 (0.37) .06 | 0.69 (0.37) .06 | 0.74 (0.38) .05 | 0.78 (0.40) .05 |
| er | Corr (Levels) | 0.05 (0.09) .55 | 0.12 (0.09) .21 | 0.02 (0.10) .84 | 0.04 (0.10) .69 |
| er | Corr (Slopes) | 0.60 (0.20) <.01 | 0.60 (0.20) <.01 | 0.61 (0.22) <.01 | 0.56 (0.23) .02 |
| er | Corr (Residuals) | 0.14 (0.07) .05 | 0.14 (0.07) .06 | 0.15 (0.07) .05 | 0.15 (0.08) .05 |
| a | Level | 11.63 (0.34) <.01 | 11.70 (0.33) <.01 | 12.08 (0.28) <.01 | 12.17 (0.41) <.01 |
| a | Slope | 32.87 (1.24) <.01 | 32.15 (1.16) <.01 | 32.41 (1.31) <.01 | 33.60 (2.01) <.01 |
| a | Level \* age | -0.23 (0.08) <.01 | -0.24 (0.08) <.01 | -0.21 (0.06) <.01 | -0.21 (0.06) <.01 |
| a | Level \* education | --- | -0.10 (0.05) .04 | -0.15 (0.05) <.01 | -0.17 (0.05) <.01 |
| a | Level \* height | --- | --- | 10.61 (3.15) <.01 | 10.69 (3.04) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.26 (0.37) .48 |
| a | Level \* cardio | --- | --- | --- | -0.38 (0.37) .29 |
| a | Level \* diabetes | --- | --- | --- | -0.88 (0.65) .17 |
| a | Slope \* age | -0.01 (0.02) .39 | -0.01 (0.02) .40 | -0.02 (0.02) .41 | -0.02 (0.02) .21 |
| a | Slope \* education | --- | 0.01 (0.01) .42 | 0.01 (0.01) .30 | 0.01 (0.01) .37 |
| a | Slope \* height | --- | --- | -0.55 (0.63) .38 | -0.74 (0.63) .24 |
| a | Slope \* smoking | --- | --- | --- | -0.09 (0.08) .25 |
| a | Slope \* cardio | --- | --- | --- | -0.11 (0.08) .18 |
| a | Slope \* diabetes | --- | --- | --- | -0.23 (0.18) .20 |
| b | Level | -0.50 (0.06) <.01 | -0.51 (0.06) <.01 | -0.51 (0.06) <.01 | -0.35 (0.08) <.01 |
| b | Slope | -1.27 (0.28) <.01 | -1.34 (0.28) <.01 | -1.21 (0.26) <.01 | -0.61 (0.34) .07 |
| b | Level \* age | -0.44 (0.32) .17 | -0.44 (0.29) .14 | -0.30 (0.33) .36 | -0.30 (0.34) .38 |
| b | Level \* education | --- | 1.27 (0.17) <.01 | 1.09 (0.19) <.01 | 1.13 (0.19) <.01 |
| b | Level \* height | --- | --- | 17.28 (11.60) .14 | 17.84 (11.35) .12 |
| b | Level \* smoking | --- | --- | --- | -2.37 (1.66) .15 |
| b | Level \* cardio | --- | --- | --- | 1.20 (1.31) .36 |
| b | Level \* diabetes | --- | --- | --- | -0.25 (1.90) .89 |
| b | Slope \* age | 0.08 (0.07) .30 | 0.09 (0.07) .23 | 0.06 (0.07) .38 | 0.05 (0.07) .49 |
| b | Slope \* education | --- | 0.06 (0.04) .11 | 0.08 (0.03) .02 | 0.08 (0.03) .02 |
| b | Slope \* height | --- | --- | -1.00 (2.63) .70 | -0.88 (2.60) .74 |
| b | Slope \* smoking | --- | --- | --- | -0.50 (0.29) .08 |
| b | Slope \* cardio | --- | --- | --- | -0.17 (0.31) .58 |
| b | Slope \* diabetes | --- | --- | --- | -0.88 (0.70) .21 |
| a | Var (Level) | 6.21 (1.01) <.01 | 6.12 (1.00) <.01 | 4.37 (0.65) <.01 | 4.25 (0.61) <.01 |
| a | Var (Slope) | 0.08 (0.04) .06 | 0.08 (0.04) .05 | 0.08 (0.05) .08 | 0.06 (0.04) .08 |
| a | Var (Residual) | 1.93 (0.21) <.01 | 1.92 (0.21) <.01 | 1.95 (0.22) <.01 | 1.98 (0.23) <.01 |
| b | Var (Level) | 82.31 (10.34) <.01 | 69.39 (9.23) <.01 | 67.13 (9.96) <.01 | 65.63 (9.73) <.01 |
| b | Var (Slope) | 2.06 (0.63) <.01 | 2.04 (0.63) <.01 | 1.71 (0.57) <.01 | 1.58 (0.47) <.01 |
| b | Var (Residual) | 12.79 (1.34) <.01 | 12.83 (1.36) <.01 | 12.98 (1.44) <.01 | 12.95 (1.42) <.01 |
| a | Covar (Level, Slope) | -0.03 (0.11) .78 | -0.02 (0.11) .82 | 0.00 (0.11) .99 | -0.02 (0.11) .83 |
| b | Covar (Level, Slope) | 1.31 (1.27) .30 | 0.76 (1.28) .55 | 0.45 (1.18) .70 | 0.18 (1.13) .87 |
|  | Correlation of Levels | 0.054 | 0.12 | 0.02 | 0.04 |
|  | Correlation of Slopes | 0.603 | 0.60 | 0.62 | 0.56 |
|  | Correlation of Residuals | 0.142 | 0.14 | 0.15 | 0.15 |
|  | N | 209 | 209 | 183 | 183 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,300 | -3,281 | -2,984 | -2,973 |
|  | AIC | 6,641 | 6,612 | 6,027 | 6,029 |
|  | BIC | 6,712 | 6,696 | 6,120 | 6,160 |

## mir

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 1.42 (0.60) .02 | 1.52 (0.60) .01 | 1.02 (0.48) .03 | 1.03 (0.47) .03 |
| ab | Covar (Slopes) | 0.08 (0.03) .02 | 0.08 (0.03) .02 | 0.09 (0.04) .01 | 0.08 (0.03) .01 |
| ab | Covar (Residuals) | 0.12 (0.16) .46 | 0.12 (0.16) .46 | 0.11 (0.17) .52 | 0.12 (0.17) .49 |
| er | Corr (Levels) | 0.28 (0.11) .01 | 0.31 (0.11) <.01 | 0.26 (0.12) .03 | 0.27 (0.12) .02 |
| er | Corr (Slopes) | 0.68 (0.15) <.01 | 0.68 (0.15) <.01 | 0.79 (0.14) <.01 | 0.78 (0.16) <.01 |
| er | Corr (Residuals) | 0.06 (0.08) .45 | 0.06 (0.08) .45 | 0.05 (0.08) .51 | 0.06 (0.08) .48 |
| a | Level | 11.63 (0.34) <.01 | 11.70 (0.33) <.01 | 12.08 (0.28) <.01 | 12.15 (0.41) <.01 |
| a | Slope | 6.36 (0.30) <.01 | 6.26 (0.31) <.01 | 6.37 (0.29) <.01 | 6.71 (0.46) <.01 |
| a | Level \* age | -0.22 (0.08) <.01 | -0.23 (0.07) <.01 | -0.20 (0.06) <.01 | -0.20 (0.06) <.01 |
| a | Level \* education | --- | -0.10 (0.05) .05 | -0.14 (0.05) <.01 | -0.16 (0.05) <.01 |
| a | Level \* height | --- | --- | 10.83 (3.18) <.01 | 10.91 (3.06) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.28 (0.37) .44 |
| a | Level \* cardio | --- | --- | --- | -0.37 (0.36) .31 |
| a | Level \* diabetes | --- | --- | --- | -0.90 (0.65) .17 |
| a | Slope \* age | -0.02 (0.02) .30 | -0.02 (0.02) .34 | -0.02 (0.02) .31 | -0.02 (0.02) .15 |
| a | Slope \* education | --- | 0.01 (0.01) .34 | 0.01 (0.01) .32 | 0.01 (0.01) .41 |
| a | Slope \* height | --- | --- | -0.71 (0.62) .25 | -0.90 (0.62) .14 |
| a | Slope \* smoking | --- | --- | --- | -0.08 (0.07) .27 |
| a | Slope \* cardio | --- | --- | --- | -0.12 (0.08) .11 |
| a | Slope \* diabetes | --- | --- | --- | -0.20 (0.18) .26 |
| b | Level | -0.52 (0.06) <.01 | -0.53 (0.06) <.01 | -0.53 (0.06) <.01 | -0.37 (0.08) <.01 |
| b | Slope | -0.27 (0.07) <.01 | -0.28 (0.07) <.01 | -0.26 (0.07) <.01 | -0.09 (0.11) .40 |
| b | Level \* age | -0.20 (0.07) .01 | -0.19 (0.07) .01 | -0.15 (0.07) .04 | -0.15 (0.08) .04 |
| b | Level \* education | --- | 0.12 (0.05) .01 | 0.09 (0.05) .04 | 0.10 (0.05) .05 |
| b | Level \* height | --- | --- | 2.08 (2.76) .45 | 2.17 (2.78) .44 |
| b | Level \* smoking | --- | --- | --- | -0.40 (0.42) .34 |
| b | Level \* cardio | --- | --- | --- | -0.18 (0.36) .61 |
| b | Level \* diabetes | --- | --- | --- | 0.32 (0.51) .53 |
| b | Slope \* age | -0.00 (0.02) .81 | -0.00 (0.02) .89 | -0.01 (0.02) .56 | -0.02 (0.02) .42 |
| b | Slope \* education | --- | 0.01 (0.02) .56 | 0.01 (0.02) .45 | 0.01 (0.02) .44 |
| b | Slope \* height | --- | --- | -0.18 (0.73) .80 | -0.14 (0.75) .85 |
| b | Slope \* smoking | --- | --- | --- | -0.15 (0.10) .14 |
| b | Slope \* cardio | --- | --- | --- | -0.07 (0.10) .49 |
| b | Slope \* diabetes | --- | --- | --- | -0.11 (0.18) .55 |
| a | Var (Level) | 6.25 (1.00) <.01 | 6.15 (1.00) <.01 | 4.42 (0.65) <.01 | 4.30 (0.61) <.01 |
| a | Var (Slope) | 0.10 (0.04) .03 | 0.10 (0.04) .03 | 0.09 (0.04) .04 | 0.07 (0.04) .04 |
| a | Var (Residual) | 1.86 (0.20) <.01 | 1.86 (0.20) <.01 | 1.89 (0.21) <.01 | 1.91 (0.22) <.01 |
| b | Var (Level) | 4.00 (0.69) <.01 | 3.91 (0.67) <.01 | 3.50 (0.63) <.01 | 3.45 (0.62) <.01 |
| b | Var (Slope) | 0.15 (0.03) <.01 | 0.14 (0.03) <.01 | 0.15 (0.04) <.01 | 0.14 (0.03) <.01 |
| b | Var (Residual) | 2.26 (0.21) <.01 | 2.26 (0.21) <.01 | 2.22 (0.21) <.01 | 2.23 (0.21) <.01 |
| a | Covar (Level, Slope) | -0.02 (0.11) .82 | -0.02 (0.11) .89 | 0.02 (0.11) .88 | -0.01 (0.11) .92 |
| b | Covar (Level, Slope) | 0.13 (0.09) .16 | 0.12 (0.09) .19 | 0.13 (0.09) .14 | 0.12 (0.09) .21 |
|  | Correlation of Levels | 0.284 | 0.310 | 0.259 | 0.268 |
|  | Correlation of Slopes | 0.681 | 0.678 | 0.789 | 0.787 |
|  | Correlation of Residuals | 0.059 | 0.058 | 0.054 | 0.058 |
|  | N | 206 | 206 | 182 | 182 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,608 | -2,603 | -2,383 | -2,374 |
|  | AIC | 5,258 | 5,257 | 4,824 | 4,830 |
|  | BIC | 5,328 | 5,340 | 4,917 | 4,961 |

## mir\_recog

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 0.26 (0.39) .50 | 0.38 (0.38) .32 | -0.01 (0.30) .97 | 0.09 (0.28) .76 |
| ab | Covar (Slopes) | 0.10 (0.05) .04 | 0.09 (0.05) .04 | 0.10 (0.05) .06 | 0.09 (0.05) .05 |
| ab | Covar (Residuals) | 0.18 (0.14) .20 | 0.18 (0.14) .21 | 0.17 (0.13) .19 | 0.16 (0.13) .22 |
| er | Corr (Levels) | 0.10 (0.15) .51 | 0.15 (0.15) .33 | -0.01 (0.17) .97 | 0.05 (0.17) .76 |
| er | Corr (Slopes) | 0.73 (0.17) <.01 | 0.73 (0.17) <.01 | 0.75 (0.18) <.01 | 0.77 (0.20) <.01 |
| er | Corr (Residuals) | 0.08 (0.06) .19 | 0.08 (0.06) .19 | 0.08 (0.06) .18 | 0.07 (0.06) .21 |
| a | Level | 11.62 (0.33) <.01 | 11.69 (0.33) <.01 | 12.10 (0.28) <.01 | 12.20 (0.41) <.01 |
| a | Slope | 9.78 (0.21) <.01 | 9.70 (0.21) <.01 | 9.79 (0.17) <.01 | 9.85 (0.23) <.01 |
| a | Level \* age | -0.22 (0.07) <.01 | -0.23 (0.07) <.01 | -0.21 (0.06) <.01 | -0.21 (0.06) <.01 |
| a | Level \* education | --- | -0.11 (0.05) .03 | -0.15 (0.05) <.01 | -0.17 (0.05) <.01 |
| a | Level \* height | --- | --- | 10.68 (3.14) <.01 | 10.82 (3.02) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.25 (0.37) .50 |
| a | Level \* cardio | --- | --- | --- | -0.36 (0.36) .32 |
| a | Level \* diabetes | --- | --- | --- | -0.92 (0.64) .15 |
| a | Slope \* age | -0.01 (0.02) .39 | -0.01 (0.02) .44 | -0.01 (0.02) .53 | -0.02 (0.02) .30 |
| a | Slope \* education | --- | 0.01 (0.01) .34 | 0.01 (0.01) .29 | 0.01 (0.01) .37 |
| a | Slope \* height | --- | --- | -0.62 (0.65) .34 | -0.88 (0.64) .17 |
| a | Slope \* smoking | --- | --- | --- | -0.07 (0.08) .41 |
| a | Slope \* cardio | --- | --- | --- | -0.12 (0.08) .16 |
| a | Slope \* diabetes | --- | --- | --- | -0.21 (0.18) .23 |
| b | Level | -0.53 (0.06) <.01 | -0.54 (0.06) <.01 | -0.54 (0.07) <.01 | -0.40 (0.08) <.01 |
| b | Slope | -0.38 (0.09) <.01 | -0.39 (0.09) <.01 | -0.35 (0.08) <.01 | -0.30 (0.11) .01 |
| b | Level \* age | -0.13 (0.07) .09 | -0.12 (0.07) .10 | -0.09 (0.06) .12 | -0.09 (0.06) .11 |
| b | Level \* education | --- | 0.09 (0.04) .01 | 0.07 (0.04) .04 | 0.08 (0.04) .02 |
| b | Level \* height | --- | --- | 3.19 (2.00) .11 | 3.38 (2.01) .09 |
| b | Level \* smoking | --- | --- | --- | -0.23 (0.27) .38 |
| b | Level \* cardio | --- | --- | --- | 0.08 (0.24) .74 |
| b | Level \* diabetes | --- | --- | --- | 0.72 (0.23) <.01 |
| b | Slope \* age | 0.03 (0.02) .19 | 0.03 (0.02) .17 | 0.03 (0.02) .22 | 0.02 (0.02) .26 |
| b | Slope \* education | --- | 0.00 (0.01) .80 | 0.00 (0.01) .81 | 0.00 (0.02) .82 |
| b | Slope \* height | --- | --- | -0.12 (0.74) .87 | -0.12 (0.79) .88 |
| b | Slope \* smoking | --- | --- | --- | -0.04 (0.10) .73 |
| b | Slope \* cardio | --- | --- | --- | 0.01 (0.10) .92 |
| b | Slope \* diabetes | --- | --- | --- | -0.19 (0.19) .33 |
| a | Var (Level) | 6.18 (0.99) <.01 | 6.09 (0.99) <.01 | 4.39 (0.64) <.01 | 4.29 (0.60) <.01 |
| a | Var (Slope) | 0.11 (0.05) .02 | 0.10 (0.05) .02 | 0.11 (0.05) .03 | 0.10 (0.04) .03 |
| a | Var (Residual) | 1.86 (0.19) <.01 | 1.86 (0.19) <.01 | 1.84 (0.20) <.01 | 1.85 (0.20) <.01 |
| b | Var (Level) | 1.11 (0.75) .14 | 1.06 (0.74) .16 | 0.67 (0.70) .34 | 0.68 (0.70) .34 |
| b | Var (Slope) | 0.16 (0.06) .01 | 0.16 (0.06) .01 | 0.15 (0.06) .02 | 0.15 (0.06) .02 |
| b | Var (Residual) | 2.64 (0.55) <.01 | 2.64 (0.55) <.01 | 2.47 (0.52) <.01 | 2.43 (0.51) <.01 |
| a | Covar (Level, Slope) | -0.00 (0.11) .98 | 0.01 (0.12) .94 | 0.02 (0.11) .83 | -0.00 (0.11) .99 |
| b | Covar (Level, Slope) | 0.35 (0.16) .03 | 0.35 (0.16) .03 | 0.26 (0.15) .08 | 0.27 (0.14) .06 |
|  | Correlation of Levels | 0.099 | 0.15 | -0.0064 | 0.051 |
|  | Correlation of Slopes | 0.736 | 0.73 | 0.7515 | 0.772 |
|  | Correlation of Residuals | 0.081 | 0.08 | 0.0792 | 0.075 |
|  | N | 206 | 206 | 182 | 182 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,577 | -2,573 | -2,336 | -2,324 |
|  | AIC | 5,197 | 5,197 | 4,729 | 4,730 |
|  | BIC | 5,267 | 5,280 | 4,822 | 4,861 |

## mmse

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 2.06 (0.90) .02 | 2.29 (0.89) .01 | 0.81 (0.53) .13 | 0.91 (0.51) .08 |
| ab | Covar (Slopes) | 0.27 (0.10) .01 | 0.27 (0.10) .01 | 0.25 (0.12) .03 | 0.23 (0.11) .04 |
| ab | Covar (Residuals) | 0.87 (0.32) .01 | 0.86 (0.32) .01 | 0.80 (0.30) .01 | 0.80 (0.29) .01 |
| er | Corr (Levels) | 0.32 (0.12) .01 | 0.37 (0.12) <.01 | 0.22 (0.15) .14 | 0.25 (0.14) .08 |
| er | Corr (Slopes) | 0.76 (0.10) <.01 | 0.75 (0.11) <.01 | 0.76 (0.12) <.01 | 0.75 (0.14) <.01 |
| er | Corr (Residuals) | 0.20 (0.07) <.01 | 0.20 (0.07) <.01 | 0.20 (0.07) <.01 | 0.20 (0.07) <.01 |
| a | Level | 11.68 (0.33) <.01 | 11.76 (0.33) <.01 | 12.12 (0.28) <.01 | 12.24 (0.42) <.01 |
| a | Slope | 27.81 (0.39) <.01 | 27.67 (0.39) <.01 | 27.83 (0.37) <.01 | 28.24 (0.53) <.01 |
| a | Level \* age | -0.25 (0.07) <.01 | -0.26 (0.07) <.01 | -0.22 (0.06) <.01 | -0.22 (0.06) <.01 |
| a | Level \* education | --- | -0.12 (0.05) .03 | -0.15 (0.05) <.01 | -0.18 (0.05) <.01 |
| a | Level \* height | --- | --- | 10.51 (3.13) <.01 | 10.63 (3.01) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.24 (0.37) .52 |
| a | Level \* cardio | --- | --- | --- | -0.37 (0.36) .31 |
| a | Level \* diabetes | --- | --- | --- | -0.99 (0.64) .12 |
| a | Slope \* age | -0.02 (0.02) .28 | -0.02 (0.02) .31 | -0.01 (0.02) .51 | -0.02 (0.02) .29 |
| a | Slope \* education | --- | 0.01 (0.01) .26 | 0.01 (0.01) .18 | 0.01 (0.01) .25 |
| a | Slope \* height | --- | --- | -0.60 (0.63) .34 | -0.85 (0.62) .17 |
| a | Slope \* smoking | --- | --- | --- | -0.07 (0.08) .36 |
| a | Slope \* cardio | --- | --- | --- | -0.12 (0.08) .14 |
| a | Slope \* diabetes | --- | --- | --- | -0.24 (0.17) .16 |
| b | Level | -0.56 (0.06) <.01 | -0.57 (0.07) <.01 | -0.56 (0.07) <.01 | -0.42 (0.08) <.01 |
| b | Slope | -0.90 (0.18) <.01 | -0.93 (0.18) <.01 | -0.86 (0.19) <.01 | -0.68 (0.25) .01 |
| b | Level \* age | -0.32 (0.13) .01 | -0.31 (0.13) .01 | -0.14 (0.10) .15 | -0.14 (0.10) .16 |
| b | Level \* education | --- | 0.17 (0.06) <.01 | 0.15 (0.06) .02 | 0.16 (0.07) .01 |
| b | Level \* height | --- | --- | 4.71 (3.50) .18 | 4.97 (3.44) .15 |
| b | Level \* smoking | --- | --- | --- | -0.72 (0.46) .12 |
| b | Level \* cardio | --- | --- | --- | 0.32 (0.51) .53 |
| b | Level \* diabetes | --- | --- | --- | -0.25 (0.80) .75 |
| b | Slope \* age | -0.04 (0.05) .40 | -0.04 (0.05) .46 | -0.04 (0.05) .42 | -0.05 (0.05) .38 |
| b | Slope \* education | --- | 0.05 (0.03) .09 | 0.04 (0.03) .14 | 0.04 (0.03) .17 |
| b | Slope \* height | --- | --- | -0.84 (1.75) .63 | -0.94 (1.83) .61 |
| b | Slope \* smoking | --- | --- | --- | -0.13 (0.24) .59 |
| b | Slope \* cardio | --- | --- | --- | -0.09 (0.22) .67 |
| b | Slope \* diabetes | --- | --- | --- | -0.36 (0.37) .33 |
| a | Var (Level) | 6.17 (1.00) <.01 | 6.09 (1.00) <.01 | 4.38 (0.65) <.01 | 4.28 (0.61) <.01 |
| a | Var (Slope) | 0.12 (0.05) .01 | 0.12 (0.05) .01 | 0.11 (0.05) .04 | 0.10 (0.05) .04 |
| a | Var (Residual) | 1.87 (0.20) <.01 | 1.86 (0.20) <.01 | 1.89 (0.21) <.01 | 1.89 (0.21) <.01 |
| b | Var (Level) | 6.68 (2.56) .01 | 6.40 (2.49) .01 | 3.02 (1.39) .03 | 3.05 (1.35) .02 |
| b | Var (Slope) | 1.05 (0.26) <.01 | 1.02 (0.26) <.01 | 0.99 (0.32) <.01 | 0.97 (0.32) <.01 |
| b | Var (Residual) | 9.68 (1.24) <.01 | 9.70 (1.24) <.01 | 8.77 (1.17) <.01 | 8.70 (1.16) <.01 |
| a | Covar (Level, Slope) | 0.06 (0.11) .57 | 0.07 (0.11) .51 | 0.04 (0.11) .73 | 0.00 (0.11) .96 |
| b | Covar (Level, Slope) | 2.46 (0.67) <.01 | 2.36 (0.66) <.01 | 1.52 (0.48) <.01 | 1.48 (0.47) <.01 |
|  | Correlation of Levels | 0.32 | 0.37 | 0.22 | 0.25 |
|  | Correlation of Slopes | 0.76 | 0.75 | 0.76 | 0.75 |
|  | Correlation of Residuals | 0.20 | 0.20 | 0.20 | 0.20 |
|  | N | 211 | 211 | 183 | 183 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,237 | -3,231 | -2,874 | -2,864 |
|  | AIC | 6,516 | 6,512 | 5,807 | 5,810 |
|  | BIC | 6,587 | 6,596 | 5,900 | 5,941 |

## prose\_im

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 3.03 (0.99) <.01 | 3.44 (0.98) <.01 | 2.02 (0.81) .01 | 2.11 (0.78) .01 |
| ab | Covar (Slopes) | 0.11 (0.07) .15 | 0.10 (0.08) .18 | 0.12 (0.08) .15 | 0.10 (0.07) .16 |
| ab | Covar (Residuals) | 0.29 (0.27) .29 | 0.31 (0.27) .25 | 0.40 (0.29) .18 | 0.38 (0.29) .19 |
| er | Corr (Levels) | 0.34 (0.09) <.01 | 0.41 (0.09) <.01 | 0.31 (0.11) <.01 | 0.33 (0.11) <.01 |
| er | Corr (Slopes) | 0.95 (0.19) <.01 | 0.84 (0.22) <.01 | 0.96 (0.18) <.01 | 0.97 (0.22) <.01 |
| er | Corr (Residuals) | 0.09 (0.08) .27 | 0.10 (0.08) .23 | 0.12 (0.09) .15 | 0.12 (0.09) .17 |
| a | Level | 11.62 (0.34) <.01 | 11.68 (0.33) <.01 | 12.06 (0.28) <.01 | 12.16 (0.41) <.01 |
| a | Slope | 9.68 (0.52) <.01 | 9.37 (0.51) <.01 | 9.58 (0.53) <.01 | 9.82 (0.84) <.01 |
| a | Level \* age | -0.22 (0.08) <.01 | -0.23 (0.07) <.01 | -0.20 (0.06) <.01 | -0.20 (0.06) <.01 |
| a | Level \* education | --- | -0.10 (0.05) .04 | -0.15 (0.05) <.01 | -0.17 (0.05) <.01 |
| a | Level \* height | --- | --- | 10.76 (3.16) <.01 | 10.82 (3.04) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.25 (0.37) .49 |
| a | Level \* cardio | --- | --- | --- | -0.37 (0.36) .31 |
| a | Level \* diabetes | --- | --- | --- | -0.91 (0.64) .16 |
| a | Slope \* age | -0.02 (0.02) .17 | -0.02 (0.02) .18 | -0.02 (0.02) .17 | -0.03 (0.02) .07 |
| a | Slope \* education | --- | 0.01 (0.01) .43 | 0.01 (0.01) .31 | 0.01 (0.01) .38 |
| a | Slope \* height | --- | --- | -0.70 (0.63) .27 | -0.88 (0.62) .16 |
| a | Slope \* smoking | --- | --- | --- | -0.08 (0.07) .27 |
| a | Slope \* cardio | --- | --- | --- | -0.11 (0.08) .14 |
| a | Slope \* diabetes | --- | --- | --- | -0.22 (0.18) .22 |
| b | Level | -0.50 (0.06) <.01 | -0.51 (0.06) <.01 | -0.50 (0.06) <.01 | -0.35 (0.07) <.01 |
| b | Slope | -0.36 (0.11) <.01 | -0.37 (0.12) <.01 | -0.36 (0.13) <.01 | -0.04 (0.18) .85 |
| b | Level \* age | -0.24 (0.12) .05 | -0.23 (0.12) .05 | -0.15 (0.12) .23 | -0.16 (0.12) .19 |
| b | Level \* education | --- | 0.42 (0.09) <.01 | 0.41 (0.08) <.01 | 0.42 (0.09) <.01 |
| b | Level \* height | --- | --- | 3.67 (5.08) .47 | 4.00 (5.08) .43 |
| b | Level \* smoking | --- | --- | --- | -0.28 (0.73) .70 |
| b | Level \* cardio | --- | --- | --- | -0.35 (0.62) .57 |
| b | Level \* diabetes | --- | --- | --- | 1.38 (0.80) .08 |
| b | Slope \* age | -0.03 (0.04) .44 | -0.03 (0.04) .54 | -0.02 (0.05) .63 | -0.03 (0.05) .51 |
| b | Slope \* education | --- | 0.02 (0.02) .37 | 0.02 (0.02) .22 | 0.02 (0.02) .24 |
| b | Slope \* height | --- | --- | 0.04 (1.25) .98 | 0.12 (1.28) .92 |
| b | Slope \* smoking | --- | --- | --- | -0.25 (0.14) .07 |
| b | Slope \* cardio | --- | --- | --- | -0.17 (0.16) .28 |
| b | Slope \* diabetes | --- | --- | --- | -0.27 (0.30) .37 |
| a | Var (Level) | 6.25 (1.01) <.01 | 6.15 (1.00) <.01 | 4.39 (0.65) <.01 | 4.28 (0.61) <.01 |
| a | Var (Slope) | 0.09 (0.05) .05 | 0.09 (0.04) .05 | 0.08 (0.05) .08 | 0.07 (0.04) .07 |
| a | Var (Residual) | 1.90 (0.20) <.01 | 1.89 (0.20) <.01 | 1.93 (0.22) <.01 | 1.96 (0.22) <.01 |
| b | Var (Level) | 12.65 (1.57) <.01 | 11.27 (1.62) <.01 | 9.76 (1.59) <.01 | 9.66 (1.60) <.01 |
| b | Var (Slope) | 0.15 (0.14) .29 | 0.17 (0.17) .30 | 0.17 (0.17) .30 | 0.15 (0.15) .34 |
| b | Var (Residual) | 5.39 (0.70) <.01 | 5.28 (0.70) <.01 | 5.25 (0.76) <.01 | 5.20 (0.76) <.01 |
| a | Covar (Level, Slope) | -0.04 (0.11) .71 | -0.03 (0.11) .76 | -0.00 (0.11) .98 | -0.03 (0.11) .81 |
| b | Covar (Level, Slope) | 0.56 (0.32) .08 | 0.43 (0.39) .26 | 0.42 (0.37) .26 | 0.36 (0.34) .30 |
|  | Correlation of Levels | 0.340 | 0.413 | 0.31 | 0.33 |
|  | Correlation of Slopes | 0.947 | 0.844 | 0.96 | 0.97 |
|  | Correlation of Residuals | 0.091 | 0.099 | 0.12 | 0.12 |
|  | N | 208 | 208 | 182 | 182 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,621 | -2,606 | -2,362 | -2,351 |
|  | AIC | 5,284 | 5,262 | 4,783 | 4,784 |
|  | BIC | 5,354 | 5,346 | 4,876 | 4,916 |

## psif

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | --- | --- | --- | --- |
| ab | Covar (Slopes) | --- | --- | --- | --- |
| ab | Covar (Residuals) | --- | --- | --- | --- |
| er | Corr (Levels) | --- | --- | --- | --- |
| er | Corr (Slopes) | --- | --- | --- | --- |
| er | Corr (Residuals) | --- | --- | --- | --- |
| a | Level | --- | --- | --- | --- |
| a | Slope | --- | --- | --- | --- |
| a | Level \* age | --- | --- | --- | --- |
| a | Level \* education | --- | --- | --- | --- |
| a | Level \* height | --- | --- | --- | --- |
| a | Level \* smoking | --- | --- | --- | --- |
| a | Level \* cardio | --- | --- | --- | --- |
| a | Level \* diabetes | --- | --- | --- | --- |
| a | Slope \* age | --- | --- | --- | --- |
| a | Slope \* education | --- | --- | --- | --- |
| a | Slope \* height | --- | --- | --- | --- |
| a | Slope \* smoking | --- | --- | --- | --- |
| a | Slope \* cardio | --- | --- | --- | --- |
| a | Slope \* diabetes | --- | --- | --- | --- |
| b | Level | --- | --- | --- | --- |
| b | Slope | --- | --- | --- | --- |
| b | Level \* age | --- | --- | --- | --- |
| b | Level \* education | --- | --- | --- | --- |
| b | Level \* height | --- | --- | --- | --- |
| b | Level \* smoking | --- | --- | --- | --- |
| b | Level \* cardio | --- | --- | --- | --- |
| b | Level \* diabetes | --- | --- | --- | --- |
| b | Slope \* age | --- | --- | --- | --- |
| b | Slope \* education | --- | --- | --- | --- |
| b | Slope \* height | --- | --- | --- | --- |
| b | Slope \* smoking | --- | --- | --- | --- |
| b | Slope \* cardio | --- | --- | --- | --- |
| b | Slope \* diabetes | --- | --- | --- | --- |
| a | Var (Level) | --- | --- | --- | --- |
| a | Var (Slope) | --- | --- | --- | --- |
| a | Var (Residual) | --- | --- | --- | --- |
| b | Var (Level) | --- | --- | --- | --- |
| b | Var (Slope) | --- | --- | --- | --- |
| b | Var (Residual) | --- | --- | --- | --- |
| a | Covar (Level, Slope) | --- | --- | --- | --- |
| b | Covar (Level, Slope) | --- | --- | --- | --- |
|  | Correlation of Levels | NaN | NaN | NaN | NaN |
|  | Correlation of Slopes | NaN | NaN | NaN | NaN |
|  | Correlation of Residuals | NaN | NaN | NaN | NaN |
|  | N | NA | NA | NA | NA |
|  | occasions | NA | NA | NA | NA |
|  | parameters | NA | NA | NA | NA |
|  | LL | NA | NA | NA | NA |
|  | AIC | NA | NA | NA | NA |
|  | BIC | NA | NA | NA | NA |

## symbol

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 6.64 (2.44) .01 | 8.57 (2.43) <.01 | 5.89 (1.95) <.01 | 6.22 (1.92) <.01 |
| ab | Covar (Slopes) | 0.33 (0.19) .08 | 0.33 (0.19) .08 | 0.33 (0.19) .09 | 0.30 (0.15) .05 |
| ab | Covar (Residuals) | 0.36 (0.42) .39 | 0.36 (0.43) .40 | 0.61 (0.42) .15 | 0.61 (0.43) .15 |
| er | Corr (Levels) | 0.25 (0.08) <.01 | 0.36 (0.08) <.01 | 0.29 (0.09) <.01 | 0.32 (0.09) <.01 |
| er | Corr (Slopes) | 0.82 (0.13) <.01 | 0.80 (0.14) <.01 | 0.82 (0.13) <.01 | 0.83 (0.11) <.01 |
| er | Corr (Residuals) | 0.06 (0.07) .39 | 0.06 (0.07) .40 | 0.10 (0.07) .14 | 0.10 (0.07) .14 |
| a | Level | 11.61 (0.34) <.01 | 11.69 (0.33) <.01 | 12.06 (0.28) <.01 | 12.14 (0.41) <.01 |
| a | Slope | 25.22 (1.56) <.01 | 23.94 (1.42) <.01 | 24.61 (1.45) <.01 | 28.87 (2.29) <.01 |
| a | Level \* age | -0.22 (0.08) <.01 | -0.23 (0.07) <.01 | -0.20 (0.06) <.01 | -0.20 (0.06) <.01 |
| a | Level \* education | --- | -0.11 (0.05) .04 | -0.15 (0.05) <.01 | -0.17 (0.05) <.01 |
| a | Level \* height | --- | --- | 10.60 (3.18) <.01 | 10.69 (3.06) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.25 (0.37) .50 |
| a | Level \* cardio | --- | --- | --- | -0.33 (0.37) .36 |
| a | Level \* diabetes | --- | --- | --- | -0.87 (0.65) .18 |
| a | Slope \* age | -0.02 (0.02) .33 | -0.01 (0.02) .38 | -0.02 (0.02) .39 | -0.02 (0.02) .18 |
| a | Slope \* education | --- | 0.01 (0.01) .40 | 0.01 (0.01) .35 | 0.01 (0.01) .45 |
| a | Slope \* height | --- | --- | -0.62 (0.64) .33 | -0.83 (0.63) .19 |
| a | Slope \* smoking | --- | --- | --- | -0.08 (0.08) .30 |
| a | Slope \* cardio | --- | --- | --- | -0.13 (0.08) .10 |
| a | Slope \* diabetes | --- | --- | --- | -0.23 (0.19) .22 |
| b | Level | -0.51 (0.06) <.01 | -0.52 (0.06) <.01 | -0.52 (0.06) <.01 | -0.35 (0.08) <.01 |
| b | Slope | -1.05 (0.24) <.01 | -1.09 (0.25) <.01 | -1.12 (0.26) <.01 | -0.84 (0.36) .02 |
| b | Level \* age | -0.67 (0.41) .10 | -0.48 (0.39) .21 | -0.48 (0.42) .26 | -0.53 (0.41) .20 |
| b | Level \* education | --- | 1.70 (0.25) <.01 | 1.73 (0.25) <.01 | 1.81 (0.25) <.01 |
| b | Level \* height | --- | --- | 17.29 (12.02) .15 | 17.88 (12.45) .15 |
| b | Level \* smoking | --- | --- | --- | -5.30 (1.96) .01 |
| b | Level \* cardio | --- | --- | --- | -1.03 (1.70) .55 |
| b | Level \* diabetes | --- | --- | --- | 1.84 (2.80) .51 |
| b | Slope \* age | 0.03 (0.07) .67 | 0.04 (0.06) .51 | 0.07 (0.07) .30 | 0.05 (0.07) .42 |
| b | Slope \* education | --- | 0.03 (0.05) .50 | 0.05 (0.05) .27 | 0.04 (0.05) .34 |
| b | Slope \* height | --- | --- | -1.18 (2.10) .57 | -1.21 (2.18) .58 |
| b | Slope \* smoking | --- | --- | --- | -0.06 (0.36) .86 |
| b | Slope \* cardio | --- | --- | --- | -0.23 (0.31) .46 |
| b | Slope \* diabetes | --- | --- | --- | -0.70 (0.77) .36 |
| a | Var (Level) | 6.28 (1.00) <.01 | 6.19 (1.00) <.01 | 4.47 (0.64) <.01 | 4.37 (0.61) <.01 |
| a | Var (Slope) | 0.11 (0.05) .03 | 0.11 (0.05) .02 | 0.10 (0.05) .04 | 0.08 (0.04) .03 |
| a | Var (Residual) | 1.84 (0.19) <.01 | 1.83 (0.19) <.01 | 1.85 (0.19) <.01 | 1.88 (0.20) <.01 |
| b | Var (Level) | 110.73 (13.93) <.01 | 92.25 (13.18) <.01 | 91.04 (13.41) <.01 | 85.41 (11.86) <.01 |
| b | Var (Slope) | 1.56 (0.78) .05 | 1.53 (0.76) .04 | 1.59 (0.80) .05 | 1.56 (0.70) .02 |
| b | Var (Residual) | 20.07 (2.53) <.01 | 20.08 (2.53) <.01 | 19.74 (2.57) <.01 | 19.64 (2.56) <.01 |
| a | Covar (Level, Slope) | -0.07 (0.11) .52 | -0.07 (0.11) .56 | -0.03 (0.11) .77 | -0.05 (0.10) .60 |
| b | Covar (Level, Slope) | -2.16 (1.76) .22 | -2.48 (1.83) .18 | -2.85 (1.88) .13 | -3.14 (1.90) .10 |
|  | Correlation of Levels | 0.25 | 0.359 | 0.29 | 0.32 |
|  | Correlation of Slopes | 0.82 | 0.806 | 0.82 | 0.83 |
|  | Correlation of Residuals | 0.06 | 0.059 | 0.10 | 0.10 |
|  | N | 203 | 203 | 181 | 181 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,994 | -2,971 | -2,771 | -2,758 |
|  | AIC | 6,030 | 5,993 | 5,600 | 5,597 |
|  | BIC | 6,099 | 6,075 | 5,693 | 5,728 |

## synonyms

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 1.37 (1.28) .28 | 2.88 (1.11) .01 | 1.99 (0.92) .03 | 2.04 (0.91) .02 |
| ab | Covar (Slopes) | 0.04 (0.04) .29 | 0.04 (0.04) .32 | 0.06 (0.04) .13 | 0.05 (0.05) .29 |
| ab | Covar (Residuals) | 0.16 (0.24) .50 | 0.20 (0.23) .41 | 0.12 (0.24) .63 | 0.17 (0.24) .48 |
| er | Corr (Levels) | 0.09 (0.08) .28 | 0.22 (0.08) .01 | 0.18 (0.08) .02 | 0.20 (0.09) .02 |
| er | Corr (Slopes) | 0.59 (0.41) .15 | 0.54 (0.41) .19 | 0.83 (0.39) .03 | 0.71 (0.54) .18 |
| er | Corr (Residuals) | 0.05 (0.07) .49 | 0.06 (0.07) .40 | 0.03 (0.07) .63 | 0.05 (0.07) .48 |
| a | Level | 11.60 (0.34) <.01 | 11.68 (0.33) <.01 | 12.05 (0.28) <.01 | 12.14 (0.41) <.01 |
| a | Slope | 15.53 (0.90) <.01 | 14.72 (0.80) <.01 | 14.96 (0.84) <.01 | 18.17 (1.24) <.01 |
| a | Level \* age | -0.22 (0.08) <.01 | -0.23 (0.07) <.01 | -0.20 (0.06) <.01 | -0.20 (0.06) <.01 |
| a | Level \* education | --- | -0.11 (0.05) .04 | -0.15 (0.05) <.01 | -0.17 (0.05) <.01 |
| a | Level \* height | --- | --- | 10.77 (3.17) <.01 | 10.82 (3.06) <.01 |
| a | Level \* smoking | --- | --- | --- | 0.25 (0.37) .50 |
| a | Level \* cardio | --- | --- | --- | -0.36 (0.37) .32 |
| a | Level \* diabetes | --- | --- | --- | -0.89 (0.64) .16 |
| a | Slope \* age | -0.02 (0.02) .26 | -0.02 (0.02) .28 | -0.02 (0.02) .28 | -0.03 (0.02) .13 |
| a | Slope \* education | --- | 0.01 (0.01) .37 | 0.01 (0.01) .32 | 0.01 (0.01) .39 |
| a | Slope \* height | --- | --- | -0.72 (0.62) .25 | -0.88 (0.63) .16 |
| a | Slope \* smoking | --- | --- | --- | -0.08 (0.08) .32 |
| a | Slope \* cardio | --- | --- | --- | -0.12 (0.08) .12 |
| a | Slope \* diabetes | --- | --- | --- | -0.20 (0.17) .24 |
| b | Level | -0.49 (0.06) <.01 | -0.50 (0.06) <.01 | -0.50 (0.06) <.01 | -0.34 (0.08) <.01 |
| b | Slope | -0.27 (0.12) .02 | -0.30 (0.12) .01 | -0.29 (0.12) .01 | -0.47 (0.19) .01 |
| b | Level \* age | 0.16 (0.24) .50 | 0.19 (0.21) .36 | 0.21 (0.23) .38 | 0.18 (0.23) .43 |
| b | Level \* education | --- | 1.19 (0.14) <.01 | 1.15 (0.13) <.01 | 1.21 (0.13) <.01 |
| b | Level \* height | --- | --- | 6.19 (6.58) .35 | 6.63 (6.86) .33 |
| b | Level \* smoking | --- | --- | --- | -3.98 (1.13) <.01 |
| b | Level \* cardio | --- | --- | --- | -0.27 (0.97) .78 |
| b | Level \* diabetes | --- | --- | --- | -1.58 (1.35) .24 |
| b | Slope \* age | -0.02 (0.04) .55 | -0.01 (0.04) .79 | -0.01 (0.04) .88 | 0.00 (0.04) .96 |
| b | Slope \* education | --- | 0.01 (0.02) .46 | 0.02 (0.02) .26 | 0.01 (0.02) .54 |
| b | Slope \* height | --- | --- | 0.49 (1.06) .64 | 0.35 (1.07) .74 |
| b | Slope \* smoking | --- | --- | --- | 0.25 (0.16) .12 |
| b | Slope \* cardio | --- | --- | --- | -0.01 (0.14) .97 |
| b | Slope \* diabetes | --- | --- | --- | -0.11 (0.27) .68 |
| a | Var (Level) | 6.24 (1.01) <.01 | 6.13 (1.00) <.01 | 4.37 (0.65) <.01 | 4.25 (0.61) <.01 |
| a | Var (Slope) | 0.09 (0.05) .07 | 0.08 (0.05) .07 | 0.08 (0.05) .10 | 0.06 (0.04) .09 |
| a | Var (Residual) | 1.91 (0.21) <.01 | 1.91 (0.21) <.01 | 1.94 (0.22) <.01 | 1.96 (0.23) <.01 |
| b | Var (Level) | 38.55 (3.69) <.01 | 27.83 (3.02) <.01 | 27.58 (3.24) <.01 | 24.23 (2.79) <.01 |
| b | Var (Slope) | 0.07 (0.05) .20 | 0.07 (0.05) .18 | 0.07 (0.06) .26 | 0.07 (0.07) .30 |
| b | Var (Residual) | 6.50 (0.81) <.01 | 6.50 (0.79) <.01 | 6.16 (0.71) <.01 | 6.02 (0.68) <.01 |
| a | Covar (Level, Slope) | -0.06 (0.11) .62 | -0.04 (0.11) .70 | 0.00 (0.11) .99 | -0.02 (0.11) .84 |
| b | Covar (Level, Slope) | -0.28 (0.38) .47 | -0.43 (0.32) .17 | -0.37 (0.33) .26 | -0.23 (0.36) .51 |
|  | Correlation of Levels | 0.088 | 0.220 | 0.181 | 0.20 |
|  | Correlation of Slopes | 0.584 | 0.537 | 0.826 | 0.71 |
|  | Correlation of Residuals | 0.047 | 0.055 | 0.033 | 0.05 |
|  | N | 204 | 204 | 182 | 182 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,621 | -2,588 | -2,392 | -2,375 |
|  | AIC | 5,283 | 5,227 | 4,842 | 4,833 |
|  | BIC | 5,353 | 5,310 | 4,935 | 4,964 |

## Summary

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

Computed correlations:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Levels | block | 0.38 | 0.43 | 0.34 | 0.37 |
| Correlation of Levels | clock | 0.50 | 0.51 | 0.29 | 0.28 |
| Correlation of Levels | digit\_b | 0.21 | 0.30 | 0.12 | 0.11 |
| Correlation of Levels | digit\_f | -0.11 | -0.08 | -0.23 | -0.22 |
| Correlation of Levels | fig\_logic | 0.56 | 0.62 | 0.54 | 0.58 |
| Correlation of Levels | information | 0.05 | 0.12 | 0.02 | 0.04 |
| Correlation of Levels | mir | 0.28 | 0.31 | 0.26 | 0.27 |
| Correlation of Levels | mir\_recog | 0.10 | 0.15 | -0.01 | 0.05 |
| Correlation of Levels | mmse | 0.32 | 0.37 | 0.22 | 0.25 |
| Correlation of Levels | prose\_im | 0.34 | 0.41 | 0.31 | 0.33 |
| Correlation of Levels | psif | . | . | . | . |
| Correlation of Levels | symbol | 0.25 | 0.36 | 0.29 | 0.32 |
| Correlation of Levels | synonyms | 0.09 | 0.22 | 0.18 | 0.20 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Slopes | block | 0.78 | 0.76 | 0.84 | 0.89 |
| Correlation of Slopes | clock | 0.78 | 0.76 | 0.76 | 0.78 |
| Correlation of Slopes | digit\_b | 0.71 | 0.69 | 0.72 | 0.73 |
| Correlation of Slopes | digit\_f | 0.48 | 0.45 | 0.36 | 0.37 |
| Correlation of Slopes | fig\_logic | 0.72 | 0.70 | 0.71 | 0.76 |
| Correlation of Slopes | information | 0.60 | 0.60 | 0.62 | 0.56 |
| Correlation of Slopes | mir | 0.68 | 0.68 | 0.79 | 0.79 |
| Correlation of Slopes | mir\_recog | 0.74 | 0.73 | 0.75 | 0.77 |
| Correlation of Slopes | mmse | 0.76 | 0.75 | 0.76 | 0.75 |
| Correlation of Slopes | prose\_im | 0.95 | 0.84 | 0.96 | 0.97 |
| Correlation of Slopes | psif | . | . | . | . |
| Correlation of Slopes | symbol | 0.82 | 0.81 | 0.82 | 0.83 |
| Correlation of Slopes | synonyms | 0.58 | 0.54 | 0.83 | 0.71 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Residuals | block | 0.15 | 0.15 | 0.16 | 0.16 |
| Correlation of Residuals | clock | 0.22 | 0.22 | 0.21 | 0.22 |
| Correlation of Residuals | digit\_b | 0.02 | 0.02 | 0.01 | 0.01 |
| Correlation of Residuals | digit\_f | -0.02 | -0.02 | -0.01 | -0.01 |
| Correlation of Residuals | fig\_logic | -0.08 | -0.08 | -0.06 | -0.05 |
| Correlation of Residuals | information | 0.14 | 0.14 | 0.15 | 0.15 |
| Correlation of Residuals | mir | 0.06 | 0.06 | 0.05 | 0.06 |
| Correlation of Residuals | mir\_recog | 0.08 | 0.08 | 0.08 | 0.07 |
| Correlation of Residuals | mmse | 0.20 | 0.20 | 0.20 | 0.20 |
| Correlation of Residuals | prose\_im | 0.09 | 0.10 | 0.12 | 0.12 |
| Correlation of Residuals | psif | . | . | . | . |
| Correlation of Residuals | symbol | 0.06 | 0.06 | 0.10 | 0.10 |
| Correlation of Residuals | synonyms | 0.05 | 0.06 | 0.03 | 0.05 |

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 | 0.00 | 0.00 | 0.07 | 0.08 |
| Covariance of Levels | digit\_b | 0.13 | 0.04 | 0.30 | 0.34 |
| Covariance of Levels | digit\_f | 0.36 | 0.49 | 0.06 | 0.08 |
| Covariance of Levels | fig\_logic | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | information | 0.55 | 0.22 | 0.84 | 0.69 |
| Covariance of Levels | mir | 0.02 | 0.01 | 0.03 | 0.03 |
| Covariance of Levels | mir\_recog | 0.50 | 0.32 | 0.97 | 0.76 |
| Covariance of Levels | mmse | 0.02 | 0.01 | 0.13 | 0.08 |
| Covariance of Levels | prose\_im | 0.00 | 0.00 | 0.01 | 0.01 |
| Covariance of Levels | psif | . | . | . | . |
| Covariance of Levels | symbol | 0.01 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | synonyms | 0.28 | 0.01 | 0.03 | 0.02 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Slopes | block | 0.11 | 0.13 | 0.11 | 0.09 |
| Covariance of Slopes | clock | 0.05 | 0.05 | 0.05 | 0.05 |
| Covariance of Slopes | digit\_b | 0.10 | 0.11 | 0.13 | 0.10 |
| Covariance of Slopes | digit\_f | 0.08 | 0.11 | 0.19 | 0.25 |
| Covariance of Slopes | fig\_logic | 0.17 | 0.19 | 0.25 | 0.22 |
| Covariance of Slopes | information | 0.11 | 0.11 | 0.15 | 0.15 |
| Covariance of Slopes | mir | 0.02 | 0.02 | 0.01 | 0.01 |
| Covariance of Slopes | mir\_recog | 0.04 | 0.04 | 0.06 | 0.05 |
| Covariance of Slopes | mmse | 0.01 | 0.01 | 0.03 | 0.04 |
| Covariance of Slopes | prose\_im | 0.15 | 0.18 | 0.15 | 0.16 |
| Covariance of Slopes | psif | . | . | . | . |
| Covariance of Slopes | symbol | 0.08 | 0.08 | 0.09 | 0.05 |
| Covariance of Slopes | synonyms | 0.29 | 0.32 | 0.13 | 0.29 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Residuals | block | 0.03 | 0.03 | 0.03 | 0.03 |
| Covariance of Residuals | clock | 0.00 | 0.00 | 0.01 | 0.01 |
| Covariance of Residuals | digit\_b | 0.79 | 0.79 | 0.88 | 0.83 |
| Covariance of Residuals | digit\_f | 0.70 | 0.76 | 0.83 | 0.90 |
| Covariance of Residuals | fig\_logic | 0.31 | 0.32 | 0.45 | 0.52 |
| Covariance of Residuals | information | 0.06 | 0.06 | 0.05 | 0.05 |
| Covariance of Residuals | mir | 0.46 | 0.46 | 0.52 | 0.49 |
| Covariance of Residuals | mir\_recog | 0.20 | 0.21 | 0.19 | 0.22 |
| Covariance of Residuals | mmse | 0.01 | 0.01 | 0.01 | 0.01 |
| Covariance of Residuals | prose\_im | 0.29 | 0.25 | 0.18 | 0.19 |
| Covariance of Residuals | psif | . | . | . | . |
| Covariance of Residuals | symbol | 0.39 | 0.40 | 0.15 | 0.15 |
| Covariance of Residuals | synonyms | 0.50 | 0.41 | 0.63 | 0.48 |

#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] stats graphics grDevices utils datasets methods base   
  
other attached packages:  
[1] ggplot2\_2.2.1 magrittr\_1.5 knitr\_1.15.1   
  
loaded via a namespace (and not attached):  
 [1] Rcpp\_0.12.9 munsell\_0.4.3 testit\_0.6 colorspace\_1.3-2 R6\_2.2.0 highr\_0.6   
 [7] stringr\_1.1.0 plyr\_1.8.4 dplyr\_0.5.0 tools\_3.3.2 DT\_0.2 grid\_3.3.2   
[13] gtable\_0.2.0 DBI\_0.5-1 htmltools\_0.3.5 yaml\_2.1.14 lazyeval\_0.2.0 assertthat\_0.1   
[19] rprojroot\_1.2 digest\_0.6.12 tibble\_1.2 readr\_1.0.0 tidyr\_0.6.1 htmlwidgets\_0.8   
[25] rsconnect\_0.7 evaluate\_0.10 rmarkdown\_1.3 stringi\_1.1.2 scales\_0.4.1 backports\_1.0.5