OCTO : Seed Report

Date: 2016-12-29

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

# Available models

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

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

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

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

# female

Gender = *female*; Model type: *aehplus*; Process (a) = *pef*; 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) | 86.13 (33.62) .01 | 21.65 (11.29) .06 | 8.67 (5.94) .14 | -0.03 (5.00) .99 | 36.04 (22.44) .11 | 61.57 (51.70) .23 | 13.19 (10.49) .21 | 2.85 (2.73) .30 | 9.72 (12.23) .43 | 27.30 (17.51) .12 | 23.19 (20.50) .26 | 202.50 (47.95) <.01 | 44.38 (26.85) .10 | --- |
| ab | Covar (Slopes) | 0.05 (0.63) .94 | 0.21 (0.59) .72 | 0.04 (0.12) .77 | -0.12 (0.11) .28 | 0.29 (0.69) .68 | 0.56 (0.85) .51 | 0.27 (0.42) .53 | 0.26 (0.28) .36 | 0.57 (0.87) .51 | -0.09 (0.56) .87 | 0.10 (0.51) .84 | 2.24 (1.02) .03 | 0.62 (0.67) .36 | --- |
| ab | Covar (Residuals) | 22.80 (9.33) .01 | 6.30 (6.30) .32 | 0.81 (2.51) .74 | 0.46 (1.85) .80 | 1.95 (7.96) .81 | 10.61 (10.96) .33 | 3.53 (3.78) .35 | 3.84 (1.89) .04 | 19.74 (7.54) .01 | 7.16 (5.99) .23 | 3.54 (9.89) .72 | 8.33 (13.91) .55 | -7.00 (6.72) .30 | --- |
| er | Corr (Levels) | 0.24 (0.09) .01 | 0.24 (0.11) .03 | 0.18 (0.13) .16 | -0.00 (0.10) .99 | 0.20 (0.12) .10 | 0.11 (0.09) .23 | 0.13 (0.10) .20 | 0.07 (0.07) .30 | 0.10 (0.13) .42 | 0.15 (0.09) .11 | 0.13 (0.11) .25 | 0.38 (0.08) <.01 | 0.16 (0.10) .09 | --- |
| er | Corr (Slopes) | 0.02 (0.32) .94 | 0.11 (0.31) .72 | 0.16 (0.50) .76 | -0.30 (0.25) .24 | 0.18 (0.43) .67 | 0.20 (0.30) .51 | 0.18 (0.28) .53 | 0.52 (0.32) .10 | 0.20 (0.32) .52 | -0.06 (0.37) .87 | 0.07 (0.35) .84 | 0.66 (0.17) <.01 | 0.27 (0.32) .40 | --- |
| er | Corr (Residuals) | 0.15 (0.06) .01 | 0.09 (0.09) .30 | 0.02 (0.05) .75 | 0.01 (0.05) .80 | 0.01 (0.06) .81 | 0.06 (0.06) .33 | 0.06 (0.06) .35 | 0.15 (0.06) .02 | 0.20 (0.07) <.01 | 0.07 (0.06) .24 | 0.03 (0.08) .72 | 0.03 (0.06) .55 | -0.06 (0.06) .30 | --- |
| a | Level | 327.57 (8.79) <.01 | 326.08 (8.90) <.01 | 326.96 (8.91) <.01 | 326.73 (8.86) <.01 | 327.49 (8.84) <.01 | 326.90 (8.81) <.01 | 326.75 (8.85) <.01 | 327.38 (8.86) <.01 | 327.32 (8.92) <.01 | 326.74 (8.81) <.01 | 324.42 (8.89) <.01 | 327.13 (8.81) <.01 | 327.06 (8.81) <.01 | 326.81(0.82) |
| a | Slope | -7.17 (1.40) <.01 | -6.81 (1.45) <.01 | -6.99 (1.40) <.01 | -6.96 (1.41) <.01 | -7.09 (1.42) <.01 | -6.99 (1.40) <.01 | -7.09 (1.39) <.01 | -7.38 (1.42) <.01 | -7.46 (1.44) <.01 | -6.99 (1.39) <.01 | -5.19 (1.86) <.01 | -7.08 (1.36) <.01 | -6.97 (1.41) <.01 | -6.94(0.55) |
| a | Level \* age | -6.21 (2.05) <.01 | -6.28 (2.07) <.01 | -6.11 (2.09) <.01 | -5.96 (2.08) <.01 | -6.07 (2.06) <.01 | -5.93 (2.08) <.01 | -6.05 (2.08) <.01 | -5.96 (2.06) <.01 | -6.48 (2.07) <.01 | -6.02 (2.07) <.01 | -5.83 (2.07) <.01 | -6.19 (2.04) <.01 | -5.99 (2.08) <.01 | -6.08(0.17) |
| a | Level \* education | 5.57 (2.64) .04 | 5.70 (2.67) .03 | 5.83 (2.65) .03 | 5.63 (2.65) .03 | 5.66 (2.64) .03 | 5.60 (2.66) .04 | 5.74 (2.63) .03 | 5.54 (2.67) .04 | 6.08 (2.63) .02 | 5.82 (2.65) .03 | 4.95 (2.60) .06 | 5.70 (2.68) .03 | 5.63 (2.66) .03 | 5.65(0.26) |
| a | Level \* height | 274.80 (104.28) .01 | 246.80 (105.87) .02 | 264.84 (104.20) .01 | 267.35 (104.97) .01 | 270.14 (104.08) .01 | 268.86 (104.27) .01 | 265.27 (104.75) .01 | 273.15 (104.04) .01 | 260.83 (106.01) .01 | 267.10 (104.74) .01 | 280.15 (108.46) .01 | 271.97 (103.86) .01 | 270.35 (104.05) .01 | 267.82(7.99) |
| a | Level \* smoking | -34.71 (12.33) <.01 | -33.91 (12.31) .01 | -34.15 (12.29) <.01 | -34.47 (12.35) <.01 | -34.45 (12.30) <.01 | -35.14 (12.45) <.01 | -33.95 (12.21) <.01 | -34.24 (12.30) <.01 | -35.09 (12.31) <.01 | -34.78 (12.27) <.01 | -31.21 (12.04) .01 | -34.68 (12.19) <.01 | -34.68 (12.26) <.01 | -34.27(1.00) |
| a | Level \* cardio | 1.77 (10.33) .86 | 2.72 (10.42) .79 | 1.18 (10.40) .91 | 2.04 (10.43) .84 | 1.44 (10.43) .89 | 1.80 (10.43) .86 | 2.10 (10.38) .84 | 1.14 (10.39) .91 | 1.62 (10.53) .88 | 1.73 (10.39) .87 | 1.61 (10.59) .88 | 1.11 (10.45) .92 | 1.79 (10.44) .86 | 1.70(0.44) |
| a | Level \* diabetes | 4.25 (15.73) .79 | 3.50 (15.86) .82 | 3.50 (15.83) .82 | 3.60 (15.99) .82 | 2.69 (16.01) .87 | 2.58 (15.81) .87 | 2.15 (15.99) .89 | 3.89 (15.88) .81 | 4.31 (16.12) .79 | 2.20 (16.06) .89 | -0.05 (16.25) .99 | 4.00 (16.05) .80 | 2.40 (16.04) .88 | 3.00(1.20) |
| a | Slope \* age | 0.80 (0.36) .03 | 1.00 (0.37) .01 | 0.93 (0.36) .01 | 0.96 (0.35) .01 | 0.94 (0.35) .01 | 0.88 (0.35) .01 | 0.85 (0.38) .02 | 0.72 (0.40) .07 | 0.74 (0.41) .07 | 0.91 (0.36) .01 | 0.90 (0.39) .02 | 0.96 (0.34) .01 | 0.94 (0.36) .01 | 0.89(0.09) |
| a | Slope \* education | -0.17 (0.42) .69 | -0.33 (0.43) .44 | -0.26 (0.43) .54 | -0.27 (0.43) .53 | -0.25 (0.43) .56 | -0.22 (0.42) .60 | -0.17 (0.43) .69 | -0.06 (0.45) .90 | -0.20 (0.43) .64 | -0.25 (0.43) .57 | 0.13 (0.52) .81 | -0.19 (0.45) .67 | -0.27 (0.43) .54 | -0.19(0.12) |
| a | Slope \* height | -22.05 (20.17) .27 | -19.01 (20.31) .35 | -21.74 (20.79) .30 | -21.17 (20.92) .31 | -21.58 (20.54) .29 | -23.45 (20.97) .26 | -21.94 (20.70) .29 | -29.94 (22.56) .18 | -25.30 (21.31) .23 | -21.28 (21.04) .31 | -26.12 (25.55) .31 | -21.57 (20.87) .30 | -21.84 (20.69) .29 | -22.85(2.80) |
| a | Slope \* smoking | -3.75 (2.04) .06 | -3.51 (2.04) .08 | -3.40 (2.01) .09 | -3.31 (2.08) .11 | -3.37 (2.02) .10 | -3.23 (2.04) .11 | -3.30 (1.96) .09 | -3.24 (2.02) .11 | -3.98 (2.05) .05 | -3.39 (2.01) .09 | -5.37 (2.30) .02 | -3.23 (2.03) .11 | -3.37 (2.03) .10 | -3.57(0.58) |
| a | Slope \* cardio | -2.67 (1.60) .10 | -2.99 (1.60) .06 | -2.61 (1.64) .11 | -2.73 (1.65) .10 | -2.56 (1.64) .12 | -2.85 (1.64) .08 | -2.56 (1.61) .11 | -2.29 (1.68) .17 | -2.36 (1.64) .15 | -2.65 (1.62) .10 | -2.91 (2.02) .15 | -2.75 (1.64) .09 | -2.60 (1.66) .12 | -2.66(0.20) |
| a | Slope \* diabetes | 3.42 (2.76) .21 | 4.17 (2.90) .15 | 4.07 (3.03) .18 | 3.66 (2.94) .21 | 3.97 (2.92) .17 | 3.87 (3.03) .20 | 3.85 (2.88) .18 | 3.91 (3.09) .21 | 3.01 (2.81) .28 | 4.05 (2.90) .16 | 6.07 (3.01) .04 | 3.81 (2.92) .19 | 4.33 (2.98) .15 | 4.02(0.70) |
| b | Level | 14.77 (0.81) <.01 | 14.81 (0.26) <.01 | 3.86 (0.14) <.01 | 5.67 (0.13) <.01 | 17.11 (0.45) <.01 | 29.64 (1.17) <.01 | 7.73 (0.24) <.01 | 9.82 (0.10) <.01 | 29.14 (0.26) <.01 | 11.17 (0.41) <.01 | 11.39 (0.50) <.01 | 28.45 (1.25) <.01 | 17.08 (0.65) <.01 | --- |
| b | Slope | -0.19 (0.11) .08 | -0.12 (0.07) .08 | -0.08 (0.03) <.01 | -0.07 (0.02) <.01 | -0.09 (0.08) .28 | -0.12 (0.14) .39 | -0.00 (0.06) .94 | 0.02 (0.01) .30 | -0.21 (0.09) .01 | -0.05 (0.07) .48 | -0.11 (0.09) .22 | -0.10 (0.18) .60 | -0.02 (0.10) .84 | --- |
| b | Level \* age | -0.58 (0.15) <.01 | -0.12 (0.05) .01 | -0.10 (0.03) <.01 | -0.08 (0.02) <.01 | -0.28 (0.09) <.01 | -0.67 (0.23) <.01 | -0.16 (0.05) <.01 | -0.04 (0.03) .19 | -0.24 (0.05) <.01 | -0.25 (0.09) <.01 | -0.18 (0.12) .15 | -0.80 (0.28) <.01 | -0.11 (0.13) .41 | --- |
| b | Level \* education | 0.78 (0.21) <.01 | 0.06 (0.04) .12 | 0.12 (0.04) <.01 | 0.14 (0.03) <.01 | 0.28 (0.13) .03 | 2.13 (0.26) <.01 | 0.03 (0.07) .72 | 0.03 (0.01) .03 | 0.27 (0.06) <.01 | 0.46 (0.11) <.01 | 0.36 (0.13) <.01 | 1.66 (0.40) <.01 | 1.27 (0.14) <.01 | --- |
| b | Level \* height | -1.51 (6.77) .82 | -1.25 (2.85) .66 | -0.41 (1.34) .76 | 0.75 (1.06) .48 | -1.72 (4.49) .70 | 0.53 (12.79) .97 | -1.51 (2.04) .46 | -2.21 (0.93) .02 | 1.17 (2.62) .66 | 1.06 (4.00) .79 | 3.43 (5.09) .50 | 8.17 (11.97) .49 | 11.51 (6.92) .10 | --- |
| b | Level \* smoking | -1.34 (1.02) .19 | 0.03 (0.19) .88 | -0.32 (0.19) .09 | -0.15 (0.15) .31 | -1.05 (0.63) .10 | 0.93 (1.31) .48 | 0.09 (0.31) .76 | 0.12 (0.06) .07 | -0.51 (0.36) .15 | 0.24 (0.50) .62 | 0.22 (0.60) .72 | -0.68 (1.78) .70 | 0.25 (0.77) .75 | --- |
| b | Level \* cardio | -0.26 (0.77) .73 | 0.28 (0.24) .24 | 0.06 (0.14) .68 | 0.05 (0.13) .70 | -0.53 (0.49) .28 | 1.40 (1.14) .22 | 0.06 (0.25) .80 | -0.01 (0.10) .93 | -0.31 (0.29) .28 | 0.24 (0.42) .57 | 1.31 (0.56) .02 | 0.92 (1.23) .45 | 0.44 (0.66) .51 | --- |
| b | Level \* diabetes | 1.67 (2.32) .47 | -0.49 (0.45) .28 | -0.10 (0.30) .75 | 0.08 (0.26) .76 | 0.91 (0.97) .35 | -0.72 (2.68) .79 | 0.26 (0.44) .55 | 0.04 (0.18) .80 | -0.38 (0.66) .57 | -1.81 (1.19) .13 | -2.32 (0.76) <.01 | -2.40 (3.22) .46 | -2.34 (1.38) .09 | --- |
| b | Slope \* age | 0.01 (0.02) .75 | -0.02 (0.01) .11 | 0.01 (0.01) .16 | 0.00 (0.00) .54 | -0.00 (0.02) .89 | -0.04 (0.03) .24 | -0.02 (0.01) .15 | -0.01 (0.01) .08 | -0.05 (0.02) .01 | 0.03 (0.02) .11 | 0.00 (0.03) .95 | 0.00 (0.04) .98 | 0.00 (0.02) .96 | --- |
| b | Slope \* education | -0.04 (0.04) .20 | -0.01 (0.02) .73 | 0.00 (0.01) .98 | -0.01 (0.00) .01 | -0.03 (0.03) .32 | -0.03 (0.04) .38 | -0.00 (0.02) .84 | 0.00 (0.00) .33 | 0.02 (0.03) .56 | -0.04 (0.02) .03 | -0.02 (0.03) .48 | -0.05 (0.06) .43 | -0.01 (0.03) .75 | --- |
| b | Slope \* height | 1.28 (0.80) .11 | -0.61 (0.63) .34 | 0.15 (0.26) .57 | -0.16 (0.20) .40 | 0.60 (0.84) .47 | 1.73 (1.39) .21 | 0.51 (0.57) .37 | 0.05 (0.23) .83 | -0.34 (0.93) .72 | 0.72 (0.77) .35 | 0.85 (1.16) .46 | 1.43 (2.00) .47 | 0.21 (1.00) .83 | --- |
| b | Slope \* smoking | 0.06 (0.14) .68 | 0.00 (0.08) .97 | 0.04 (0.03) .11 | 0.05 (0.03) .09 | 0.12 (0.12) .30 | -0.07 (0.19) .70 | -0.07 (0.09) .39 | -0.01 (0.01) .62 | -0.14 (0.15) .35 | -0.13 (0.10) .18 | 0.04 (0.13) .78 | -0.30 (0.28) .28 | -0.10 (0.16) .53 | --- |
| b | Slope \* cardio | -0.18 (0.12) .15 | -0.07 (0.08) .38 | -0.04 (0.03) .24 | -0.00 (0.02) .86 | 0.03 (0.10) .76 | -0.46 (0.16) <.01 | -0.07 (0.07) .33 | 0.00 (0.02) .98 | -0.03 (0.12) .77 | -0.06 (0.09) .46 | -0.30 (0.14) .03 | -0.78 (0.19) <.01 | -0.05 (0.12) .68 | --- |
| b | Slope \* diabetes | 0.07 (0.20) .72 | -0.09 (0.13) .46 | 0.05 (0.05) .36 | 0.00 (0.05) .91 | -0.01 (0.16) .93 | 0.45 (0.40) .26 | 0.08 (0.13) .52 | 0.02 (0.04) .67 | 0.00 (0.20) .99 | 0.11 (0.15) .45 | 0.65 (0.21) <.01 | 1.76 (0.46) <.01 | 0.02 (0.28) .95 | --- |
| a | Var (Level) | 4237.35 (516.10) <.01 | 4320.18 (529.34) <.01 | 4270.88 (524.57) <.01 | 4275.53 (525.07) <.01 | 4276.97 (523.33) <.01 | 4281.65 (526.40) <.01 | 4275.42 (522.13) <.01 | 4268.15 (521.16) <.01 | 4256.74 (519.91) <.01 | 4296.75 (527.84) <.01 | 4238.81 (528.99) <.01 | 4286.99 (514.14) <.01 | 4253.38 (522.82) <.01 | 4272.22(22.73) |
| a | Var (Slope) | 26.21 (14.54) .07 | 29.89 (18.05) .10 | 29.23 (15.77) .06 | 29.79 (15.69) .06 | 29.19 (15.69) .06 | 28.66 (15.67) .07 | 26.66 (15.34) .08 | 38.76 (21.28) .07 | 23.99 (14.21) .09 | 29.13 (15.83) .07 | 41.80 (21.75) .06 | 28.44 (13.96) .04 | 28.71 (15.68) .07 | 30.04(4.88) |
| a | Var (Residual) | 2131.63 (187.24) <.01 | 2127.74 (188.93) <.01 | 2111.57 (185.24) <.01 | 2113.37 (185.12) <.01 | 2111.10 (184.25) <.01 | 2116.31 (186.09) <.01 | 2120.92 (185.71) <.01 | 2115.34 (188.54) <.01 | 2161.85 (195.34) <.01 | 2107.88 (186.60) <.01 | 2134.78 (204.24) <.01 | 2110.85 (183.60) <.01 | 2118.21 (186.46) <.01 | 2121.66(14.70) |
| b | Var (Level) | 30.26 (3.20) <.01 | 1.84 (0.96) .06 | 0.51 (0.15) <.01 | 0.55 (0.07) <.01 | 7.28 (1.15) <.01 | 76.44 (8.51) <.01 | 2.42 (0.48) <.01 | 0.40 (0.16) .01 | 2.11 (0.57) <.01 | 7.80 (0.97) <.01 | 7.41 (1.49) <.01 | 67.51 (7.82) <.01 | 17.20 (2.19) <.01 | --- |
| b | Var (Slope) | 0.15 (0.07) .04 | 0.12 (0.04) <.01 | 0.00 (0.00) .13 | 0.01 (0.00) .04 | 0.08 (0.05) .08 | 0.29 (0.09) <.01 | 0.09 (0.02) <.01 | 0.01 (0.01) .32 | 0.33 (0.08) <.01 | 0.08 (0.03) .01 | 0.05 (0.04) .27 | 0.41 (0.12) <.01 | 0.18 (0.06) <.01 | --- |
| b | Var (Residual) | 10.94 (0.85) <.01 | 2.30 (0.41) <.01 | 1.18 (0.10) <.01 | 0.61 (0.04) <.01 | 7.80 (0.57) <.01 | 16.49 (1.43) <.01 | 1.85 (0.17) <.01 | 0.32 (0.10) <.01 | 4.48 (0.68) <.01 | 4.32 (0.38) <.01 | 6.25 (0.90) <.01 | 27.73 (2.28) <.01 | 6.78 (0.58) <.01 | --- |
| a | Covar (Level, Slope) | -145.97 (85.83) .09 | -166.45 (94.83) .08 | -161.45 (89.24) .07 | -168.38 (89.69) .06 | -164.01 (89.78) .07 | -164.42 (89.98) .07 | -149.88 (90.26) .10 | -146.16 (90.59) .11 | -99.57 (95.93) .30 | -163.22 (90.55) .07 | -181.19 (104.57) .08 | -161.93 (84.44) .06 | -162.22 (89.56) .07 | -156.53(19.59) |
| b | Covar (Level, Slope) | -0.83 (0.38) .03 | 0.09 (0.12) .48 | -0.01 (0.01) .34 | -0.04 (0.01) .01 | -0.31 (0.18) .08 | 0.90 (0.64) .16 | -0.00 (0.07) .94 | 0.05 (0.03) .12 | 0.28 (0.18) .11 | -0.40 (0.14) <.01 | -0.41 (0.30) .16 | -2.18 (0.85) .01 | -0.18 (0.29) .54 | --- |
|  | Correlation of Levels | 0.241 | 0.24 | 0.185 | -0.00056 | 0.204 | 0.108 | 0.130 | 0.069 | 0.1 | 0.149 | 0.131 | 0.376 | 0.164 | 0.16(0.09) |
|  | Correlation of Slopes | 0.023 | 0.11 | 0.145 | -0.28855 | 0.185 | 0.195 | 0.176 | 0.541 | 0.2 | -0.060 | 0.071 | 0.659 | 0.270 | 0.17(0.24) |
|  | Correlation of Residuals | 0.149 | 0.09 | 0.016 | 0.01275 | 0.015 | 0.057 | 0.056 | 0.147 | 0.2 | 0.075 | 0.031 | 0.034 | -0.058 | 0.06(0.07) |
|  | N | 272 | 275 | 276 | 276 | 268 | 275 | 271 | 271 | 276 | 268 | 254 | 264 | 265 | 270.08(6.38) |
|  | occasions | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 4.92(0.28) |
|  | parameters | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41.00(0.00) |
|  | LL | -6,365 | -5,891 | -5,442 | -5,199 | -5,869 | -6,824 | -5,680 | -4,912 | -6,297 | -5,854 | -4,683 | -6,377 | -5,859 | -5,789( 613) |
|  | AIC | 12,813 | 11,865 | 10,966 | 10,480 | 11,820 | 13,731 | 11,443 | 9,906 | 12,676 | 11,791 | 9,448 | 12,836 | 11,801 | 11,660(1,226) |
|  | BIC | 12,960 | 12,013 | 11,115 | 10,629 | 11,967 | 13,879 | 11,590 | 10,054 | 12,825 | 11,938 | 9,593 | 12,983 | 11,948 | 11,807(1,226) |

## block

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 116.49 (38.38) <.01 | 105.02 (37.38) <.01 | 91.86 (35.33) .01 | 86.13 (33.62) .01 |
| ab | Covar (Slopes) | 0.26 (0.65) .69 | 0.19 (0.65) .77 | 0.27 (0.64) .68 | 0.05 (0.63) .94 |
| ab | Covar (Residuals) | 22.29 (9.15) .01 | 22.53 (9.20) .01 | 23.18 (9.42) .01 | 22.80 (9.33) .01 |
| er | Corr (Levels) | 0.29 (0.08) <.01 | 0.27 (0.09) <.01 | 0.25 (0.09) <.01 | 0.24 (0.09) .01 |
| er | Corr (Slopes) | 0.11 (0.28) .69 | 0.08 (0.29) .77 | 0.12 (0.29) .68 | 0.02 (0.32) .94 |
| er | Corr (Residuals) | 0.15 (0.06) .01 | 0.15 (0.06) .01 | 0.15 (0.06) .01 | 0.15 (0.06) .01 |
| a | Level | 312.14 (7.38) <.01 | 311.44 (7.46) <.01 | 318.41 (7.78) <.01 | 327.57 (8.79) <.01 |
| a | Slope | -8.86 (1.05) <.01 | -8.77 (1.06) <.01 | -9.21 (1.12) <.01 | -7.17 (1.40) <.01 |
| a | Level \* age | -6.37 (2.06) <.01 | -6.19 (2.10) <.01 | -5.57 (2.02) .01 | -6.21 (2.05) <.01 |
| a | Level \* education | --- | 3.13 (2.65) .24 | 3.09 (2.51) .22 | 5.57 (2.64) .04 |
| a | Level \* height | --- | --- | 262.09 (106.11) .01 | 274.80 (104.28) .01 |
| a | Level \* smoking | --- | --- | --- | -34.71 (12.33) <.01 |
| a | Level \* cardio | --- | --- | --- | 1.77 (10.33) .86 |
| a | Level \* diabetes | --- | --- | --- | 4.25 (15.73) .79 |
| a | Slope \* age | 0.96 (0.37) .01 | 0.96 (0.37) .01 | 0.87 (0.35) .01 | 0.80 (0.36) .03 |
| a | Slope \* education | --- | -0.40 (0.36) .27 | -0.31 (0.38) .41 | -0.17 (0.42) .69 |
| a | Slope \* height | --- | --- | -23.58 (20.31) .25 | -22.05 (20.17) .27 |
| a | Slope \* smoking | --- | --- | --- | -3.75 (2.04) .06 |
| a | Slope \* cardio | --- | --- | --- | -2.67 (1.60) .10 |
| a | Slope \* diabetes | --- | --- | --- | 3.42 (2.76) .21 |
| b | Level | 14.34 (0.65) <.01 | 14.12 (0.62) <.01 | 14.35 (0.66) <.01 | 14.77 (0.81) <.01 |
| b | Slope | -0.27 (0.08) <.01 | -0.26 (0.08) <.01 | -0.25 (0.09) <.01 | -0.19 (0.11) .08 |
| b | Level \* age | -0.61 (0.15) <.01 | -0.56 (0.15) <.01 | -0.55 (0.16) <.01 | -0.58 (0.15) <.01 |
| b | Level \* education | --- | 0.68 (0.20) <.01 | 0.70 (0.21) <.01 | 0.78 (0.21) <.01 |
| b | Level \* height | --- | --- | -1.30 (6.80) .85 | -1.51 (6.77) .82 |
| b | Level \* smoking | --- | --- | --- | -1.34 (1.02) .19 |
| b | Level \* cardio | --- | --- | --- | -0.26 (0.77) .73 |
| b | Level \* diabetes | --- | --- | --- | 1.67 (2.32) .47 |
| b | Slope \* age | 0.00 (0.02) .92 | 0.00 (0.02) .95 | 0.00 (0.02) .81 | 0.01 (0.02) .75 |
| b | Slope \* education | --- | -0.03 (0.04) .47 | -0.04 (0.04) .32 | -0.04 (0.04) .20 |
| b | Slope \* height | --- | --- | 1.35 (0.81) .10 | 1.28 (0.80) .11 |
| b | Slope \* smoking | --- | --- | --- | 0.06 (0.14) .68 |
| b | Slope \* cardio | --- | --- | --- | -0.18 (0.12) .15 |
| b | Slope \* diabetes | --- | --- | --- | 0.07 (0.20) .72 |
| a | Var (Level) | 4810.90 (559.07) <.01 | 4748.41 (551.25) <.01 | 4414.60 (523.63) <.01 | 4237.35 (516.10) <.01 |
| a | Var (Slope) | 32.14 (15.66) .04 | 30.50 (15.65) .05 | 29.50 (15.74) .06 | 26.21 (14.54) .07 |
| a | Var (Residual) | 2116.87 (186.70) <.01 | 2124.67 (186.94) <.01 | 2139.36 (188.57) <.01 | 2131.63 (187.24) <.01 |
| b | Var (Level) | 34.18 (3.44) <.01 | 31.90 (3.27) <.01 | 30.61 (3.30) <.01 | 30.26 (3.20) <.01 |
| b | Var (Slope) | 0.17 (0.07) .01 | 0.17 (0.07) .01 | 0.16 (0.07) .03 | 0.15 (0.07) .04 |
| b | Var (Residual) | 10.74 (0.82) <.01 | 10.76 (0.82) <.01 | 10.95 (0.84) <.01 | 10.94 (0.85) <.01 |
| a | Covar (Level, Slope) | -157.56 (100.01) .12 | -149.60 (98.76) .13 | -133.20 (93.08) .15 | -145.97 (85.83) .09 |
| b | Covar (Level, Slope) | -0.99 (0.37) .01 | -0.92 (0.37) .01 | -0.86 (0.38) .02 | -0.83 (0.38) .03 |
|  | Correlation of Levels | 0.29 | 0.270 | 0.25 | 0.241 |
|  | Correlation of Slopes | 0.11 | 0.084 | 0.12 | 0.023 |
|  | Correlation of Residuals | 0.15 | 0.149 | 0.15 | 0.149 |
|  | N | 293 | 291 | 272 | 272 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -6,578 | -6,560 | -6,378 | -6,365 |
|  | AIC | 13,198 | 13,171 | 12,814 | 12,813 |
|  | BIC | 13,275 | 13,263 | 12,919 | 12,960 |

## clock

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 55.05 (23.73) .02 | 35.76 (16.39) .03 | 21.86 (11.29) .05 | 21.65 (11.29) .06 |
| ab | Covar (Slopes) | 0.54 (0.90) .55 | 0.39 (0.82) .64 | 0.13 (0.61) .83 | 0.21 (0.59) .72 |
| ab | Covar (Residuals) | 7.97 (6.93) .25 | 8.24 (6.99) .24 | 6.14 (6.24) .32 | 6.30 (6.30) .32 |
| er | Corr (Levels) | 0.32 (0.12) .01 | 0.27 (0.11) .01 | 0.24 (0.11) .03 | 0.24 (0.11) .03 |
| er | Corr (Slopes) | 0.22 (0.32) .49 | 0.17 (0.34) .61 | 0.06 (0.31) .83 | 0.11 (0.31) .72 |
| er | Corr (Residuals) | 0.11 (0.09) .23 | 0.11 (0.09) .22 | 0.09 (0.09) .31 | 0.09 (0.09) .30 |
| a | Level | 310.57 (7.52) <.01 | 310.81 (7.54) <.01 | 317.48 (7.89) <.01 | 326.08 (8.90) <.01 |
| a | Slope | -8.32 (1.15) <.01 | -8.34 (1.11) <.01 | -8.87 (1.17) <.01 | -6.81 (1.45) <.01 |
| a | Level \* age | -6.65 (2.12) <.01 | -6.42 (2.13) <.01 | -5.63 (2.05) .01 | -6.28 (2.07) <.01 |
| a | Level \* education | --- | 2.98 (2.68) .26 | 3.21 (2.53) .20 | 5.70 (2.67) .03 |
| a | Level \* height | --- | --- | 234.21 (107.81) .03 | 246.80 (105.87) .02 |
| a | Level \* smoking | --- | --- | --- | -33.91 (12.31) .01 |
| a | Level \* cardio | --- | --- | --- | 2.72 (10.42) .79 |
| a | Level \* diabetes | --- | --- | --- | 3.50 (15.86) .82 |
| a | Slope \* age | 1.25 (0.41) <.01 | 1.21 (0.40) <.01 | 1.08 (0.36) <.01 | 1.00 (0.37) .01 |
| a | Slope \* education | --- | -0.54 (0.38) .15 | -0.44 (0.38) .25 | -0.33 (0.43) .44 |
| a | Slope \* height | --- | --- | -20.43 (20.47) .32 | -19.01 (20.31) .35 |
| a | Slope \* smoking | --- | --- | --- | -3.51 (2.04) .08 |
| a | Slope \* cardio | --- | --- | --- | -2.99 (1.60) .06 |
| a | Slope \* diabetes | --- | --- | --- | 4.17 (2.90) .15 |
| b | Level | 14.77 (0.23) <.01 | 14.86 (0.21) <.01 | 14.94 (0.15) <.01 | 14.81 (0.26) <.01 |
| b | Slope | -0.12 (0.06) .04 | -0.12 (0.06) .04 | -0.15 (0.05) <.01 | -0.12 (0.07) .08 |
| b | Level \* age | -0.20 (0.07) <.01 | -0.17 (0.06) .01 | -0.13 (0.05) .01 | -0.12 (0.05) .01 |
| b | Level \* education | --- | 0.05 (0.05) .31 | 0.06 (0.04) .18 | 0.06 (0.04) .12 |
| b | Level \* height | --- | --- | -1.26 (2.85) .66 | -1.25 (2.85) .66 |
| b | Level \* smoking | --- | --- | --- | 0.03 (0.19) .88 |
| b | Level \* cardio | --- | --- | --- | 0.28 (0.24) .24 |
| b | Level \* diabetes | --- | --- | --- | -0.49 (0.45) .28 |
| b | Slope \* age | -0.02 (0.01) .21 | -0.02 (0.01) .18 | -0.03 (0.01) .06 | -0.02 (0.01) .11 |
| b | Slope \* education | --- | -0.01 (0.01) .55 | -0.00 (0.01) .76 | -0.01 (0.02) .73 |
| b | Slope \* height | --- | --- | -0.56 (0.64) .38 | -0.61 (0.63) .34 |
| b | Slope \* smoking | --- | --- | --- | 0.00 (0.08) .97 |
| b | Slope \* cardio | --- | --- | --- | -0.07 (0.08) .38 |
| b | Slope \* diabetes | --- | --- | --- | -0.09 (0.13) .46 |
| a | Var (Level) | 5115.43 (662.90) <.01 | 4907.94 (595.52) <.01 | 4497.98 (539.11) <.01 | 4320.18 (529.34) <.01 |
| a | Var (Slope) | 42.47 (27.57) .12 | 36.62 (22.39) .10 | 33.52 (19.12) .08 | 29.89 (18.05) .10 |
| a | Var (Residual) | 2126.72 (191.36) <.01 | 2135.22 (191.81) <.01 | 2134.31 (190.24) <.01 | 2127.74 (188.93) <.01 |
| b | Var (Level) | 5.90 (1.64) <.01 | 3.58 (1.23) <.01 | 1.87 (0.96) .05 | 1.84 (0.96) .06 |
| b | Var (Slope) | 0.14 (0.06) .01 | 0.14 (0.06) .02 | 0.12 (0.04) <.01 | 0.12 (0.04) <.01 |
| b | Var (Residual) | 2.58 (0.46) <.01 | 2.60 (0.47) <.01 | 2.30 (0.40) <.01 | 2.30 (0.41) <.01 |
| a | Covar (Level, Slope) | -221.17 (136.57) .10 | -186.76 (117.12) .11 | -155.02 (101.00) .12 | -166.45 (94.83) .08 |
| b | Covar (Level, Slope) | -0.23 (0.29) .43 | -0.11 (0.26) .66 | 0.08 (0.12) .47 | 0.09 (0.12) .48 |
|  | Correlation of Levels | 0.32 | 0.27 | 0.238 | 0.24 |
|  | Correlation of Slopes | 0.22 | 0.17 | 0.065 | 0.11 |
|  | Correlation of Residuals | 0.11 | 0.11 | 0.088 | 0.09 |
|  | N | 302 | 297 | 275 | 275 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -6,238 | -6,168 | -5,904 | -5,891 |
|  | AIC | 12,519 | 12,387 | 11,866 | 11,865 |
|  | BIC | 12,597 | 12,479 | 11,971 | 12,013 |

## digit\_b

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 10.77 (6.75) .11 | 9.34 (6.21) .13 | 10.36 (6.31) .10 | 8.67 (5.94) .14 |
| ab | Covar (Slopes) | 0.02 (0.18) .92 | 0.04 (0.15) .80 | 0.05 (0.16) .77 | 0.04 (0.12) .77 |
| ab | Covar (Residuals) | 0.32 (2.66) .90 | 0.29 (2.56) .91 | 0.51 (2.63) .85 | 0.81 (2.51) .74 |
| er | Corr (Levels) | 0.20 (0.13) .12 | 0.19 (0.13) .15 | 0.21 (0.14) .11 | 0.18 (0.13) .16 |
| er | Corr (Slopes) | 0.06 (0.58) .92 | 0.15 (0.58) .79 | 0.17 (0.56) .76 | 0.16 (0.50) .76 |
| er | Corr (Residuals) | 0.01 (0.05) .90 | 0.01 (0.05) .91 | 0.01 (0.05) .85 | 0.02 (0.05) .75 |
| a | Level | 310.92 (7.47) <.01 | 310.40 (7.55) <.01 | 317.61 (7.90) <.01 | 326.96 (8.91) <.01 |
| a | Slope | -8.50 (1.04) <.01 | -8.42 (1.03) <.01 | -8.93 (1.11) <.01 | -6.99 (1.40) <.01 |
| a | Level \* age | -5.83 (2.11) .01 | -5.75 (2.13) .01 | -5.45 (2.07) .01 | -6.11 (2.09) <.01 |
| a | Level \* education | --- | 3.39 (2.68) .21 | 3.44 (2.53) .17 | 5.83 (2.65) .03 |
| a | Level \* height | --- | --- | 252.87 (105.87) .02 | 264.84 (104.20) .01 |
| a | Level \* smoking | --- | --- | --- | -34.15 (12.29) <.01 |
| a | Level \* cardio | --- | --- | --- | 1.18 (10.40) .91 |
| a | Level \* diabetes | --- | --- | --- | 3.50 (15.83) .82 |
| a | Slope \* age | 1.08 (0.36) <.01 | 1.07 (0.36) <.01 | 1.00 (0.34) <.01 | 0.93 (0.36) .01 |
| a | Slope \* education | --- | -0.48 (0.38) .20 | -0.38 (0.38) .32 | -0.26 (0.43) .54 |
| a | Slope \* height | --- | --- | -23.23 (20.93) .27 | -21.74 (20.79) .30 |
| a | Slope \* smoking | --- | --- | --- | -3.40 (2.01) .09 |
| a | Slope \* cardio | --- | --- | --- | -2.61 (1.64) .11 |
| a | Slope \* diabetes | --- | --- | --- | 4.07 (3.03) .18 |
| b | Level | 3.73 (0.12) <.01 | 3.72 (0.12) <.01 | 3.79 (0.12) <.01 | 3.86 (0.14) <.01 |
| b | Slope | -0.08 (0.02) <.01 | -0.08 (0.02) <.01 | -0.09 (0.02) <.01 | -0.08 (0.03) <.01 |
| b | Level \* age | -0.07 (0.03) .01 | -0.07 (0.03) .01 | -0.09 (0.03) <.01 | -0.10 (0.03) <.01 |
| b | Level \* education | --- | 0.10 (0.03) <.01 | 0.10 (0.03) .01 | 0.12 (0.04) <.01 |
| b | Level \* height | --- | --- | -0.44 (1.35) .75 | -0.41 (1.34) .76 |
| b | Level \* smoking | --- | --- | --- | -0.32 (0.19) .09 |
| b | Level \* cardio | --- | --- | --- | 0.06 (0.14) .68 |
| b | Level \* diabetes | --- | --- | --- | -0.10 (0.30) .75 |
| b | Slope \* age | 0.00 (0.01) .46 | 0.00 (0.01) .37 | 0.01 (0.01) .15 | 0.01 (0.01) .16 |
| b | Slope \* education | --- | 0.00 (0.01) .46 | 0.00 (0.01) .56 | 0.00 (0.01) .98 |
| b | Slope \* height | --- | --- | 0.14 (0.27) .59 | 0.15 (0.26) .57 |
| b | Slope \* smoking | --- | --- | --- | 0.04 (0.03) .11 |
| b | Slope \* cardio | --- | --- | --- | -0.04 (0.03) .24 |
| b | Slope \* diabetes | --- | --- | --- | 0.05 (0.05) .36 |
| a | Var (Level) | 4826.28 (563.01) <.01 | 4758.60 (551.98) <.01 | 4445.66 (530.67) <.01 | 4270.88 (524.57) <.01 |
| a | Var (Slope) | 34.59 (16.04) .03 | 32.99 (16.23) .04 | 32.52 (16.58) .05 | 29.23 (15.77) .06 |
| a | Var (Residual) | 2106.57 (185.11) <.01 | 2112.88 (185.07) <.01 | 2119.86 (185.69) <.01 | 2111.57 (185.24) <.01 |
| b | Var (Level) | 0.59 (0.15) <.01 | 0.52 (0.14) <.01 | 0.53 (0.15) <.01 | 0.51 (0.15) <.01 |
| b | Var (Slope) | 0.00 (0.00) .36 | 0.00 (0.00) .25 | 0.00 (0.00) .29 | 0.00 (0.00) .13 |
| b | Var (Residual) | 1.16 (0.10) <.01 | 1.17 (0.10) <.01 | 1.18 (0.10) <.01 | 1.18 (0.10) <.01 |
| a | Covar (Level, Slope) | -173.87 (100.72) .08 | -164.41 (99.82) .10 | -148.15 (95.68) .12 | -161.45 (89.24) .07 |
| b | Covar (Level, Slope) | -0.01 (0.02) .41 | -0.01 (0.02) .35 | -0.02 (0.02) .32 | -0.01 (0.01) .34 |
|  | Correlation of Levels | 0.2026 | 0.1871 | 0.21 | 0.185 |
|  | Correlation of Slopes | 0.0559 | 0.1479 | 0.18 | 0.145 |
|  | Correlation of Residuals | 0.0066 | 0.0058 | 0.01 | 0.016 |
|  | N | 299 | 297 | 276 | 276 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -5,619 | -5,601 | -5,455 | -5,442 |
|  | AIC | 11,280 | 11,252 | 10,967 | 10,966 |
|  | BIC | 11,358 | 11,344 | 11,072 | 11,115 |

## digit\_f

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 2.31 (6.10) .71 | 0.51 (5.38) .92 | 1.31 (5.01) .79 | -0.03 (5.00) .99 |
| ab | Covar (Slopes) | -0.13 (0.13) .32 | -0.14 (0.13) .26 | -0.13 (0.12) .29 | -0.12 (0.11) .28 |
| ab | Covar (Residuals) | 0.61 (1.92) .75 | 0.61 (1.87) .74 | 0.31 (1.88) .87 | 0.46 (1.85) .80 |
| er | Corr (Levels) | 0.04 (0.10) .71 | 0.01 (0.10) .92 | 0.03 (0.10) .79 | -0.00 (0.10) .99 |
| er | Corr (Slopes) | -0.26 (0.24) .27 | -0.30 (0.24) .20 | -0.30 (0.25) .23 | -0.30 (0.25) .24 |
| er | Corr (Residuals) | 0.02 (0.05) .75 | 0.02 (0.05) .74 | 0.01 (0.05) .87 | 0.01 (0.05) .80 |
| a | Level | 311.38 (7.37) <.01 | 311.06 (7.42) <.01 | 317.58 (7.81) <.01 | 326.73 (8.86) <.01 |
| a | Slope | -8.45 (1.04) <.01 | -8.39 (1.03) <.01 | -8.87 (1.11) <.01 | -6.96 (1.41) <.01 |
| a | Level \* age | -5.74 (2.12) .01 | -5.76 (2.13) .01 | -5.27 (2.07) .01 | -5.96 (2.08) <.01 |
| a | Level \* education | --- | 3.01 (2.66) .26 | 3.15 (2.52) .21 | 5.63 (2.65) .03 |
| a | Level \* height | --- | --- | 254.79 (106.62) .02 | 267.35 (104.97) .01 |
| a | Level \* smoking | --- | --- | --- | -34.47 (12.35) <.01 |
| a | Level \* cardio | --- | --- | --- | 2.04 (10.43) .84 |
| a | Level \* diabetes | --- | --- | --- | 3.60 (15.99) .82 |
| a | Slope \* age | 1.10 (0.35) <.01 | 1.10 (0.35) <.01 | 1.02 (0.34) <.01 | 0.96 (0.35) .01 |
| a | Slope \* education | --- | -0.47 (0.37) .21 | -0.38 (0.38) .32 | -0.27 (0.43) .53 |
| a | Slope \* height | --- | --- | -22.68 (20.99) .28 | -21.17 (20.92) .31 |
| a | Slope \* smoking | --- | --- | --- | -3.31 (2.08) .11 |
| a | Slope \* cardio | --- | --- | --- | -2.73 (1.65) .10 |
| a | Slope \* diabetes | --- | --- | --- | 3.66 (2.94) .21 |
| b | Level | 5.60 (0.11) <.01 | 5.58 (0.11) <.01 | 5.66 (0.11) <.01 | 5.67 (0.13) <.01 |
| b | Slope | -0.06 (0.02) <.01 | -0.06 (0.02) <.01 | -0.06 (0.02) <.01 | -0.07 (0.02) <.01 |
| b | Level \* age | -0.07 (0.02) <.01 | -0.06 (0.02) <.01 | -0.08 (0.02) <.01 | -0.08 (0.02) <.01 |
| b | Level \* education | --- | 0.13 (0.03) <.01 | 0.13 (0.03) <.01 | 0.14 (0.03) <.01 |
| b | Level \* height | --- | --- | 0.72 (1.06) .49 | 0.75 (1.06) .48 |
| b | Level \* smoking | --- | --- | --- | -0.15 (0.15) .31 |
| b | Level \* cardio | --- | --- | --- | 0.05 (0.13) .70 |
| b | Level \* diabetes | --- | --- | --- | 0.08 (0.26) .76 |
| b | Slope \* age | 0.00 (0.00) .75 | 0.00 (0.00) .79 | 0.00 (0.00) .65 | 0.00 (0.00) .54 |
| b | Slope \* education | --- | -0.01 (0.00) .04 | -0.01 (0.00) .06 | -0.01 (0.00) .01 |
| b | Slope \* height | --- | --- | -0.16 (0.20) .40 | -0.16 (0.20) .40 |
| b | Slope \* smoking | --- | --- | --- | 0.05 (0.03) .09 |
| b | Slope \* cardio | --- | --- | --- | -0.00 (0.02) .86 |
| b | Slope \* diabetes | --- | --- | --- | 0.00 (0.05) .91 |
| a | Var (Level) | 4824.14 (559.67) <.01 | 4763.93 (552.19) <.01 | 4452.35 (532.93) <.01 | 4275.53 (525.07) <.01 |
| a | Var (Slope) | 35.26 (16.06) .03 | 33.58 (16.11) .04 | 33.19 (16.52) .04 | 29.79 (15.69) .06 |
| a | Var (Residual) | 2107.84 (185.00) <.01 | 2114.48 (185.06) <.01 | 2121.33 (185.69) <.01 | 2113.37 (185.12) <.01 |
| b | Var (Level) | 0.72 (0.10) <.01 | 0.60 (0.08) <.01 | 0.55 (0.07) <.01 | 0.55 (0.07) <.01 |
| b | Var (Slope) | 0.01 (0.00) .01 | 0.01 (0.00) .02 | 0.01 (0.00) .04 | 0.01 (0.00) .04 |
| b | Var (Residual) | 0.62 (0.04) <.01 | 0.61 (0.04) <.01 | 0.61 (0.04) <.01 | 0.61 (0.04) <.01 |
| a | Covar (Level, Slope) | -181.72 (100.42) .07 | -172.36 (99.64) .08 | -156.20 (95.85) .10 | -168.38 (89.69) .06 |
| b | Covar (Level, Slope) | -0.05 (0.01) <.01 | -0.04 (0.01) <.01 | -0.04 (0.01) .01 | -0.04 (0.01) .01 |
|  | Correlation of Levels | 0.039 | 0.0096 | 0.0266 | -0.00056 |
|  | Correlation of Slopes | -0.264 | -0.2929 | -0.2913 | -0.28855 |
|  | Correlation of Residuals | 0.017 | 0.0170 | 0.0086 | 0.01275 |
|  | N | 300 | 297 | 276 | 276 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -5,389 | -5,356 | -5,211 | -5,199 |
|  | AIC | 10,819 | 10,761 | 10,480 | 10,480 |
|  | BIC | 10,897 | 10,854 | 10,585 | 10,629 |

## fig\_logic

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 49.43 (24.41) .04 | 44.47 (22.94) .05 | 40.09 (23.16) .08 | 36.04 (22.44) .11 |
| ab | Covar (Slopes) | 0.27 (0.70) .70 | 0.23 (0.71) .75 | 0.27 (0.71) .70 | 0.29 (0.69) .68 |
| ab | Covar (Residuals) | 2.64 (8.03) .74 | 2.29 (7.96) .77 | 1.93 (7.96) .81 | 1.95 (7.96) .81 |
| er | Corr (Levels) | 0.25 (0.11) .03 | 0.23 (0.11) .04 | 0.22 (0.12) .07 | 0.20 (0.12) .10 |
| er | Corr (Slopes) | 0.16 (0.41) .69 | 0.14 (0.42) .74 | 0.16 (0.42) .69 | 0.18 (0.43) .67 |
| er | Corr (Residuals) | 0.02 (0.06) .74 | 0.02 (0.06) .77 | 0.01 (0.06) .81 | 0.01 (0.06) .81 |
| a | Level | 311.69 (7.41) <.01 | 311.19 (7.49) <.01 | 318.19 (7.80) <.01 | 327.49 (8.84) <.01 |
| a | Slope | -8.61 (1.06) <.01 | -8.51 (1.05) <.01 | -8.97 (1.12) <.01 | -7.09 (1.42) <.01 |
| a | Level \* age | -5.97 (2.08) <.01 | -5.92 (2.11) <.01 | -5.43 (2.05) .01 | -6.07 (2.06) <.01 |
| a | Level \* education | --- | 3.19 (2.64) .23 | 3.23 (2.52) .20 | 5.66 (2.64) .03 |
| a | Level \* height | --- | --- | 257.36 (105.85) .01 | 270.14 (104.08) .01 |
| a | Level \* smoking | --- | --- | --- | -34.45 (12.30) <.01 |
| a | Level \* cardio | --- | --- | --- | 1.44 (10.43) .89 |
| a | Level \* diabetes | --- | --- | --- | 2.69 (16.01) .87 |
| a | Slope \* age | 1.10 (0.36) <.01 | 1.09 (0.36) <.01 | 1.00 (0.34) <.01 | 0.94 (0.35) .01 |
| a | Slope \* education | --- | -0.47 (0.37) .20 | -0.37 (0.38) .33 | -0.25 (0.43) .56 |
| a | Slope \* height | --- | --- | -23.54 (20.61) .25 | -21.58 (20.54) .29 |
| a | Slope \* smoking | --- | --- | --- | -3.37 (2.02) .10 |
| a | Slope \* cardio | --- | --- | --- | -2.56 (1.64) .12 |
| a | Slope \* diabetes | --- | --- | --- | 3.97 (2.92) .17 |
| b | Level | 16.54 (0.39) <.01 | 16.49 (0.39) <.01 | 16.63 (0.40) <.01 | 17.11 (0.45) <.01 |
| b | Slope | -0.07 (0.07) .32 | -0.06 (0.07) .38 | -0.05 (0.08) .50 | -0.09 (0.08) .28 |
| b | Level \* age | -0.25 (0.09) .01 | -0.23 (0.09) .01 | -0.25 (0.10) .01 | -0.28 (0.09) <.01 |
| b | Level \* education | --- | 0.23 (0.12) .05 | 0.22 (0.12) .06 | 0.28 (0.13) .03 |
| b | Level \* height | --- | --- | -1.51 (4.58) .74 | -1.72 (4.49) .70 |
| b | Level \* smoking | --- | --- | --- | -1.05 (0.63) .10 |
| b | Level \* cardio | --- | --- | --- | -0.53 (0.49) .28 |
| b | Level \* diabetes | --- | --- | --- | 0.91 (0.97) .35 |
| b | Slope \* age | -0.00 (0.02) .84 | -0.00 (0.02) .81 | -0.00 (0.02) .82 | -0.00 (0.02) .89 |
| b | Slope \* education | --- | -0.02 (0.03) .50 | -0.02 (0.03) .47 | -0.03 (0.03) .32 |
| b | Slope \* height | --- | --- | 0.55 (0.83) .51 | 0.60 (0.84) .47 |
| b | Slope \* smoking | --- | --- | --- | 0.12 (0.12) .30 |
| b | Slope \* cardio | --- | --- | --- | 0.03 (0.10) .76 |
| b | Slope \* diabetes | --- | --- | --- | -0.01 (0.16) .93 |
| a | Var (Level) | 4836.15 (560.06) <.01 | 4773.84 (553.24) <.01 | 4451.54 (529.71) <.01 | 4276.97 (523.33) <.01 |
| a | Var (Slope) | 34.69 (16.16) .03 | 33.08 (16.28) .04 | 32.51 (16.55) .05 | 29.19 (15.69) .06 |
| a | Var (Residual) | 2102.94 (184.24) <.01 | 2110.03 (184.15) <.01 | 2119.14 (185.13) <.01 | 2111.10 (184.25) <.01 |
| b | Var (Level) | 8.38 (1.26) <.01 | 7.92 (1.18) <.01 | 7.54 (1.13) <.01 | 7.28 (1.15) <.01 |
| b | Var (Slope) | 0.08 (0.04) .07 | 0.08 (0.04) .08 | 0.09 (0.05) .07 | 0.08 (0.05) .08 |
| b | Var (Residual) | 7.81 (0.58) <.01 | 7.73 (0.58) <.01 | 7.79 (0.57) <.01 | 7.80 (0.57) <.01 |
| a | Covar (Level, Slope) | -175.94 (101.19) .08 | -167.34 (100.64) .10 | -150.99 (96.10) .12 | -164.01 (89.78) .07 |
| b | Covar (Level, Slope) | -0.34 (0.18) .06 | -0.32 (0.18) .07 | -0.34 (0.18) .06 | -0.31 (0.18) .08 |
|  | Correlation of Levels | 0.246 | 0.229 | 0.219 | 0.204 |
|  | Correlation of Slopes | 0.165 | 0.140 | 0.164 | 0.185 |
|  | Correlation of Residuals | 0.021 | 0.018 | 0.015 | 0.015 |
|  | N | 284 | 283 | 268 | 268 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -6,040 | -6,030 | -5,881 | -5,869 |
|  | AIC | 12,122 | 12,110 | 11,820 | 11,820 |
|  | BIC | 12,199 | 12,201 | 11,924 | 11,967 |

## information

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 88.04 (59.66) .14 | 62.21 (52.88) .24 | 55.57 (51.93) .28 | 61.57 (51.70) .23 |
| ab | Covar (Slopes) | 0.80 (0.99) .42 | 0.71 (1.00) .48 | 0.88 (0.98) .37 | 0.56 (0.85) .51 |
| ab | Covar (Residuals) | 10.45 (10.51) .32 | 10.70 (10.54) .31 | 10.34 (10.75) .34 | 10.61 (10.96) .33 |
| er | Corr (Levels) | 0.12 (0.08) .14 | 0.10 (0.08) .24 | 0.10 (0.09) .28 | 0.11 (0.09) .23 |
| er | Corr (Slopes) | 0.23 (0.29) .43 | 0.21 (0.30) .49 | 0.27 (0.30) .38 | 0.20 (0.30) .51 |
| er | Corr (Residuals) | 0.06 (0.06) .32 | 0.06 (0.06) .31 | 0.06 (0.06) .34 | 0.06 (0.06) .33 |
| a | Level | 311.47 (7.35) <.01 | 310.92 (7.41) <.01 | 317.48 (7.79) <.01 | 326.90 (8.81) <.01 |
| a | Slope | -8.43 (1.04) <.01 | -8.37 (1.04) <.01 | -8.90 (1.13) <.01 | -6.99 (1.40) <.01 |
| a | Level \* age | -5.96 (2.12) <.01 | -5.85 (2.13) .01 | -5.27 (2.06) .01 | -5.93 (2.08) <.01 |
| a | Level \* education | --- | 3.04 (2.67) .26 | 3.08 (2.53) .22 | 5.60 (2.66) .04 |
| a | Level \* height | --- | --- | 255.71 (106.19) .02 | 268.86 (104.27) .01 |
| a | Level \* smoking | --- | --- | --- | -35.14 (12.45) <.01 |
| a | Level \* cardio | --- | --- | --- | 1.80 (10.43) .86 |
| a | Level \* diabetes | --- | --- | --- | 2.58 (15.81) .87 |
| a | Slope \* age | 1.05 (0.36) <.01 | 1.04 (0.36) <.01 | 0.95 (0.35) .01 | 0.88 (0.35) .01 |
| a | Slope \* education | --- | -0.42 (0.37) .26 | -0.31 (0.38) .41 | -0.22 (0.42) .60 |
| a | Slope \* height | --- | --- | -25.39 (21.05) .23 | -23.45 (20.97) .26 |
| a | Slope \* smoking | --- | --- | --- | -3.23 (2.04) .11 |
| a | Slope \* cardio | --- | --- | --- | -2.85 (1.64) .08 |
| a | Slope \* diabetes | --- | --- | --- | 3.87 (3.03) .20 |
| b | Level | 30.88 (1.07) <.01 | 30.34 (0.90) <.01 | 30.48 (1.01) <.01 | 29.64 (1.17) <.01 |
| b | Slope | -0.33 (0.09) <.01 | -0.33 (0.09) <.01 | -0.32 (0.10) <.01 | -0.12 (0.14) .39 |
| b | Level \* age | -0.87 (0.23) <.01 | -0.74 (0.18) <.01 | -0.69 (0.23) <.01 | -0.67 (0.23) <.01 |
| b | Level \* education | --- | 2.23 (0.24) <.01 | 2.14 (0.24) <.01 | 2.13 (0.26) <.01 |
| b | Level \* height | --- | --- | 0.93 (12.79) .94 | 0.53 (12.79) .97 |
| b | Level \* smoking | --- | --- | --- | 0.93 (1.31) .48 |
| b | Level \* cardio | --- | --- | --- | 1.40 (1.14) .22 |
| b | Level \* diabetes | --- | --- | --- | -0.72 (2.68) .79 |
| b | Slope \* age | -0.04 (0.03) .20 | -0.04 (0.03) .18 | -0.03 (0.03) .27 | -0.04 (0.03) .24 |
| b | Slope \* education | --- | -0.01 (0.03) .84 | -0.02 (0.04) .61 | -0.03 (0.04) .38 |
| b | Slope \* height | --- | --- | 1.52 (1.44) .29 | 1.73 (1.39) .21 |
| b | Slope \* smoking | --- | --- | --- | -0.07 (0.19) .70 |
| b | Slope \* cardio | --- | --- | --- | -0.46 (0.16) <.01 |
| b | Slope \* diabetes | --- | --- | --- | 0.45 (0.40) .26 |
| a | Var (Level) | 4833.60 (562.84) <.01 | 4782.90 (556.82) <.01 | 4462.03 (534.80) <.01 | 4281.65 (526.40) <.01 |
| a | Var (Slope) | 33.74 (16.08) .04 | 32.70 (16.31) .04 | 31.94 (16.59) .05 | 28.66 (15.67) .07 |
| a | Var (Residual) | 2113.69 (186.91) <.01 | 2116.37 (186.61) <.01 | 2125.87 (187.53) <.01 | 2116.31 (186.09) <.01 |
| b | Var (Level) | 102.81 (9.50) <.01 | 79.64 (8.09) <.01 | 77.07 (8.60) <.01 | 76.44 (8.51) <.01 |
| b | Var (Slope) | 0.35 (0.10) <.01 | 0.35 (0.10) <.01 | 0.34 (0.10) <.01 | 0.29 (0.09) <.01 |
| b | Var (Residual) | 16.14 (1.37) <.01 | 16.15 (1.38) <.01 | 16.53 (1.42) <.01 | 16.49 (1.43) <.01 |
| a | Covar (Level, Slope) | -178.04 (100.10) .07 | -171.26 (100.29) .09 | -153.19 (95.84) .11 | -164.42 (89.98) .07 |
| b | Covar (Level, Slope) | 0.49 (0.77) .53 | 0.56 (0.65) .39 | 0.73 (0.66) .28 | 0.90 (0.64) .16 |
|  | Correlation of Levels | 0.125 | 0.101 | 0.095 | 0.108 |
|  | Correlation of Slopes | 0.233 | 0.209 | 0.268 | 0.195 |
|  | Correlation of Residuals | 0.057 | 0.058 | 0.055 | 0.057 |
|  | N | 301 | 299 | 275 | 275 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -7,115 | -7,074 | -6,840 | -6,824 |
|  | AIC | 14,273 | 14,198 | 13,738 | 13,731 |
|  | BIC | 14,351 | 14,290 | 13,843 | 13,879 |

## mir

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 19.87 (13.30) .14 | 17.72 (12.28) .15 | 13.27 (10.62) .21 | 13.19 (10.49) .21 |
| ab | Covar (Slopes) | 0.42 (0.43) .33 | 0.40 (0.44) .36 | 0.44 (0.43) .32 | 0.27 (0.42) .53 |
| ab | Covar (Residuals) | 3.65 (3.69) .32 | 3.66 (3.70) .32 | 3.47 (3.76) .36 | 3.53 (3.78) .35 |
| er | Corr (Levels) | 0.16 (0.10) .12 | 0.15 (0.10) .14 | 0.13 (0.10) .20 | 0.13 (0.10) .20 |
| er | Corr (Slopes) | 0.24 (0.25) .33 | 0.24 (0.26) .36 | 0.26 (0.26) .31 | 0.18 (0.28) .53 |
| er | Corr (Residuals) | 0.06 (0.06) .32 | 0.06 (0.06) .32 | 0.06 (0.06) .35 | 0.06 (0.06) .35 |
| a | Level | 311.04 (7.41) <.01 | 310.51 (7.48) <.01 | 317.75 (7.83) <.01 | 326.75 (8.85) <.01 |
| a | Slope | -8.41 (1.04) <.01 | -8.33 (1.04) <.01 | -8.90 (1.10) <.01 | -7.09 (1.39) <.01 |
| a | Level \* age | -5.93 (2.12) <.01 | -5.81 (2.14) .01 | -5.41 (2.06) .01 | -6.05 (2.08) <.01 |
| a | Level \* education | --- | 3.23 (2.64) .22 | 3.29 (2.52) .19 | 5.74 (2.63) .03 |
| a | Level \* height | --- | --- | 251.97 (106.59) .02 | 265.27 (104.75) .01 |
| a | Level \* smoking | --- | --- | --- | -33.95 (12.21) <.01 |
| a | Level \* cardio | --- | --- | --- | 2.10 (10.38) .84 |
| a | Level \* diabetes | --- | --- | --- | 2.15 (15.99) .89 |
| a | Slope \* age | 1.00 (0.38) .01 | 1.00 (0.38) .01 | 0.92 (0.37) .01 | 0.85 (0.38) .02 |
| a | Slope \* education | --- | -0.36 (0.37) .32 | -0.26 (0.38) .50 | -0.17 (0.43) .69 |
| a | Slope \* height | --- | --- | -23.88 (20.82) .25 | -21.94 (20.70) .29 |
| a | Slope \* smoking | --- | --- | --- | -3.30 (1.96) .09 |
| a | Slope \* cardio | --- | --- | --- | -2.56 (1.61) .11 |
| a | Slope \* diabetes | --- | --- | --- | 3.85 (2.88) .18 |
| b | Level | 7.62 (0.20) <.01 | 7.61 (0.20) <.01 | 7.79 (0.18) <.01 | 7.73 (0.24) <.01 |
| b | Slope | -0.06 (0.05) .24 | -0.05 (0.05) .30 | -0.05 (0.05) .28 | -0.00 (0.06) .94 |
| b | Level \* age | -0.15 (0.05) <.01 | -0.13 (0.05) .01 | -0.16 (0.05) <.01 | -0.16 (0.05) <.01 |
| b | Level \* education | --- | 0.02 (0.07) .75 | 0.03 (0.07) .68 | 0.03 (0.07) .72 |
| b | Level \* height | --- | --- | -1.54 (2.06) .45 | -1.51 (2.04) .46 |
| b | Level \* smoking | --- | --- | --- | 0.09 (0.31) .76 |
| b | Level \* cardio | --- | --- | --- | 0.06 (0.25) .80 |
| b | Level \* diabetes | --- | --- | --- | 0.26 (0.44) .55 |
| b | Slope \* age | -0.02 (0.01) .12 | -0.02 (0.01) .10 | -0.02 (0.01) .18 | -0.02 (0.01) .15 |
| b | Slope \* education | --- | -0.01 (0.02) .74 | -0.01 (0.02) .71 | -0.00 (0.02) .84 |
| b | Slope \* height | --- | --- | 0.50 (0.56) .38 | 0.51 (0.57) .37 |
| b | Slope \* smoking | --- | --- | --- | -0.07 (0.09) .39 |
| b | Slope \* cardio | --- | --- | --- | -0.07 (0.07) .33 |
| b | Slope \* diabetes | --- | --- | --- | 0.08 (0.13) .52 |
| a | Var (Level) | 4855.56 (562.48) <.01 | 4786.51 (554.79) <.01 | 4455.73 (528.79) <.01 | 4275.42 (522.13) <.01 |
| a | Var (Slope) | 32.46 (16.33) .05 | 31.25 (16.50) .06 | 30.44 (16.49) .06 | 26.66 (15.34) .08 |
| a | Var (Residual) | 2112.93 (185.92) <.01 | 2118.48 (185.91) <.01 | 2127.21 (187.14) <.01 | 2120.92 (185.71) <.01 |
| b | Var (Level) | 3.18 (0.54) <.01 | 2.91 (0.50) <.01 | 2.44 (0.48) <.01 | 2.42 (0.48) <.01 |
| b | Var (Slope) | 0.09 (0.02) <.01 | 0.09 (0.02) <.01 | 0.09 (0.02) <.01 | 0.09 (0.02) <.01 |
| b | Var (Residual) | 1.88 (0.17) <.01 | 1.87 (0.16) <.01 | 1.85 (0.17) <.01 | 1.85 (0.17) <.01 |
| a | Covar (Level, Slope) | -166.08 (104.17) .11 | -158.39 (103.50) .13 | -138.60 (97.25) .15 | -149.88 (90.26) .10 |
| b | Covar (Level, Slope) | -0.03 (0.08) .68 | -0.05 (0.07) .51 | -0.02 (0.07) .81 | -0.00 (0.07) .94 |
|  | Correlation of Levels | 0.160 | 0.150 | 0.127 | 0.130 |
|  | Correlation of Slopes | 0.244 | 0.236 | 0.263 | 0.176 |
|  | Correlation of Residuals | 0.058 | 0.058 | 0.055 | 0.056 |
|  | N | 293 | 289 | 271 | 271 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -5,878 | -5,853 | -5,691 | -5,680 |
|  | AIC | 11,799 | 11,757 | 11,439 | 11,443 |
|  | BIC | 11,876 | 11,848 | 11,544 | 11,590 |

## mir\_recog

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 8.26 (9.14) .37 | 1.52 (3.65) .68 | 2.31 (2.83) .42 | 2.85 (2.73) .30 |
| ab | Covar (Slopes) | 0.48 (0.49) .33 | 0.26 (0.32) .43 | 0.30 (0.31) .34 | 0.26 (0.28) .36 |
| ab | Covar (Residuals) | 3.75 (1.99) .06 | 3.75 (2.01) .06 | 3.83 (1.97) .05 | 3.84 (1.89) .04 |
| er | Corr (Levels) | 0.10 (0.11) .34 | 0.03 (0.08) .68 | 0.06 (0.07) .42 | 0.07 (0.07) .30 |
| er | Corr (Slopes) | 0.61 (0.34) .07 | 0.51 (0.35) .15 | 0.56 (0.31) .07 | 0.52 (0.32) .10 |
| er | Corr (Residuals) | 0.14 (0.06) .03 | 0.14 (0.07) .03 | 0.15 (0.06) .02 | 0.15 (0.06) .02 |
| a | Level | 311.87 (7.38) <.01 | 311.33 (7.46) <.01 | 317.99 (7.82) <.01 | 327.38 (8.86) <.01 |
| a | Slope | -8.75 (1.10) <.01 | -8.66 (1.09) <.01 | -9.14 (1.16) <.01 | -7.38 (1.42) <.01 |
| a | Level \* age | -6.12 (2.07) <.01 | -5.87 (2.12) .01 | -5.30 (2.05) .01 | -5.96 (2.06) <.01 |
| a | Level \* education | --- | 3.00 (2.66) .26 | 3.09 (2.53) .22 | 5.54 (2.67) .04 |
| a | Level \* height | --- | --- | 259.72 (105.93) .01 | 273.15 (104.04) .01 |
| a | Level \* smoking | --- | --- | --- | -34.24 (12.30) <.01 |
| a | Level \* cardio | --- | --- | --- | 1.14 (10.39) .91 |
| a | Level \* diabetes | --- | --- | --- | 3.89 (15.88) .81 |
| a | Slope \* age | 0.83 (0.43) .06 | 0.91 (0.39) .02 | 0.78 (0.40) .05 | 0.72 (0.40) .07 |
| a | Slope \* education | --- | -0.30 (0.38) .44 | -0.16 (0.42) .70 | -0.06 (0.45) .90 |
| a | Slope \* height | --- | --- | -32.13 (22.89) .16 | -29.94 (22.56) .18 |
| a | Slope \* smoking | --- | --- | --- | -3.24 (2.02) .11 |
| a | Slope \* cardio | --- | --- | --- | -2.29 (1.68) .17 |
| a | Slope \* diabetes | --- | --- | --- | 3.91 (3.09) .21 |
| b | Level | 9.89 (0.09) <.01 | 9.86 (0.08) <.01 | 9.85 (0.08) <.01 | 9.82 (0.10) <.01 |
| b | Slope | 0.01 (0.01) .62 | 0.01 (0.01) .50 | 0.01 (0.01) .33 | 0.02 (0.01) .30 |
| b | Level \* age | -0.06 (0.03) .04 | -0.03 (0.02) .24 | -0.04 (0.02) .16 | -0.04 (0.03) .19 |
| b | Level \* education | --- | 0.04 (0.02) .01 | 0.04 (0.02) .02 | 0.03 (0.01) .03 |
| b | Level \* height | --- | --- | -2.20 (0.93) .02 | -2.21 (0.93) .02 |
| b | Level \* smoking | --- | --- | --- | 0.12 (0.06) .07 |
| b | Level \* cardio | --- | --- | --- | -0.01 (0.10) .93 |
| b | Level \* diabetes | --- | --- | --- | 0.04 (0.18) .80 |
| b | Slope \* age | -0.01 (0.00) .03 | -0.01 (0.00) .07 | -0.01 (0.01) .08 | -0.01 (0.01) .08 |
| b | Slope \* education | --- | 0.00 (0.00) .54 | 0.00 (0.00) .42 | 0.00 (0.00) .33 |
| b | Slope \* height | --- | --- | 0.05 (0.23) .84 | 0.05 (0.23) .83 |
| b | Slope \* smoking | --- | --- | --- | -0.01 (0.01) .62 |
| b | Slope \* cardio | --- | --- | --- | 0.00 (0.02) .98 |
| b | Slope \* diabetes | --- | --- | --- | 0.02 (0.04) .67 |
| a | Var (Level) | 4874.14 (577.54) <.01 | 4771.71 (553.26) <.01 | 4439.71 (528.55) <.01 | 4268.15 (521.16) <.01 |
| a | Var (Slope) | 55.27 (38.16) .15 | 45.16 (25.12) .07 | 43.80 (23.63) .06 | 38.76 (21.28) .07 |
| a | Var (Residual) | 2102.44 (188.56) <.01 | 2108.95 (188.49) <.01 | 2121.84 (190.03) <.01 | 2115.34 (188.54) <.01 |
| b | Var (Level) | 1.27 (0.46) .01 | 0.48 (0.19) .01 | 0.40 (0.16) .01 | 0.40 (0.16) .01 |
| b | Var (Slope) | 0.01 (0.01) .09 | 0.01 (0.01) .39 | 0.01 (0.01) .32 | 0.01 (0.01) .32 |
| b | Var (Residual) | 0.35 (0.10) <.01 | 0.34 (0.10) <.01 | 0.32 (0.10) <.01 | 0.32 (0.10) <.01 |
| a | Covar (Level, Slope) | -129.51 (106.23) .22 | -141.18 (103.11) .17 | -133.14 (97.99) .17 | -146.16 (90.59) .11 |
| b | Covar (Level, Slope) | 0.11 (0.05) .02 | 0.04 (0.04) .21 | 0.05 (0.03) .13 | 0.05 (0.03) .12 |
|  | Correlation of Levels | 0.11 | 0.032 | 0.055 | 0.069 |
|  | Correlation of Slopes | 0.62 | 0.492 | 0.577 | 0.541 |
|  | Correlation of Residuals | 0.14 | 0.140 | 0.146 | 0.147 |
|  | N | 294 | 290 | 271 | 271 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -5,197 | -5,067 | -4,923 | -4,912 |
|  | AIC | 10,437 | 10,184 | 9,903 | 9,906 |
|  | BIC | 10,514 | 10,276 | 10,008 | 10,054 |

## mmse

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 68.33 (34.75) .05 | 24.25 (15.82) .12 | 11.02 (12.74) .39 | 9.72 (12.23) .43 |
| ab | Covar (Slopes) | 0.43 (0.81) .59 | 0.66 (0.87) .45 | 0.78 (0.89) .38 | 0.57 (0.87) .51 |
| ab | Covar (Residuals) | 23.60 (8.58) .01 | 22.41 (8.14) .01 | 20.08 (7.61) .01 | 19.74 (7.54) .01 |
| er | Corr (Levels) | 0.31 (0.12) .01 | 0.18 (0.12) .11 | 0.11 (0.13) .38 | 0.10 (0.13) .42 |
| er | Corr (Slopes) | 0.15 (0.28) .60 | 0.22 (0.29) .45 | 0.26 (0.30) .39 | 0.20 (0.32) .52 |
| er | Corr (Residuals) | 0.22 (0.07) <.01 | 0.22 (0.07) <.01 | 0.20 (0.07) <.01 | 0.20 (0.07) <.01 |
| a | Level | 310.37 (7.62) <.01 | 311.46 (7.57) <.01 | 317.96 (7.83) <.01 | 327.32 (8.92) <.01 |
| a | Slope | -8.75 (1.03) <.01 | -8.78 (1.04) <.01 | -9.49 (1.14) <.01 | -7.46 (1.44) <.01 |
| a | Level \* age | -7.24 (2.15) <.01 | -6.96 (2.14) <.01 | -5.81 (2.04) <.01 | -6.48 (2.07) <.01 |
| a | Level \* education | --- | 3.97 (2.68) .14 | 3.60 (2.52) .15 | 6.08 (2.63) .02 |
| a | Level \* height | --- | --- | 249.59 (107.62) .02 | 260.83 (106.01) .01 |
| a | Level \* smoking | --- | --- | --- | -35.09 (12.31) <.01 |
| a | Level \* cardio | --- | --- | --- | 1.62 (10.53) .88 |
| a | Level \* diabetes | --- | --- | --- | 4.31 (16.12) .79 |
| a | Slope \* age | 0.90 (0.43) .04 | 0.85 (0.43) .04 | 0.80 (0.41) .05 | 0.74 (0.41) .07 |
| a | Slope \* education | --- | -0.44 (0.37) .23 | -0.37 (0.38) .33 | -0.20 (0.43) .64 |
| a | Slope \* height | --- | --- | -27.93 (21.37) .19 | -25.30 (21.31) .23 |
| a | Slope \* smoking | --- | --- | --- | -3.98 (2.05) .05 |
| a | Slope \* cardio | --- | --- | --- | -2.36 (1.64) .15 |
| a | Slope \* diabetes | --- | --- | --- | 3.01 (2.81) .28 |
| b | Level | 28.42 (0.31) <.01 | 28.63 (0.23) <.01 | 28.84 (0.21) <.01 | 29.14 (0.26) <.01 |
| b | Slope | -0.22 (0.07) <.01 | -0.22 (0.07) <.01 | -0.27 (0.07) <.01 | -0.21 (0.09) .01 |
| b | Level \* age | -0.31 (0.06) <.01 | -0.28 (0.05) <.01 | -0.24 (0.05) <.01 | -0.24 (0.05) <.01 |
| b | Level \* education | --- | 0.28 (0.06) <.01 | 0.25 (0.06) <.01 | 0.27 (0.06) <.01 |
| b | Level \* height | --- | --- | 1.16 (2.65) .66 | 1.17 (2.62) .66 |
| b | Level \* smoking | --- | --- | --- | -0.51 (0.36) .15 |
| b | Level \* cardio | --- | --- | --- | -0.31 (0.29) .28 |
| b | Level \* diabetes | --- | --- | --- | -0.38 (0.66) .57 |
| b | Slope \* age | -0.07 (0.02) <.01 | -0.07 (0.02) .01 | -0.05 (0.02) .01 | -0.05 (0.02) .01 |
| b | Slope \* education | --- | 0.02 (0.02) .47 | 0.01 (0.03) .75 | 0.02 (0.03) .56 |
| b | Slope \* height | --- | --- | -0.37 (0.92) .69 | -0.34 (0.93) .72 |
| b | Slope \* smoking | --- | --- | --- | -0.14 (0.15) .35 |
| b | Slope \* cardio | --- | --- | --- | -0.03 (0.12) .77 |
| b | Slope \* diabetes | --- | --- | --- | 0.00 (0.20) .99 |
| a | Var (Level) | 5177.94 (675.27) <.01 | 4838.02 (568.44) <.01 | 4434.70 (526.82) <.01 | 4256.74 (519.91) <.01 |
| a | Var (Slope) | 28.72 (14.93) .05 | 28.05 (14.75) .06 | 27.91 (15.14) .06 | 23.99 (14.21) .09 |
| a | Var (Residual) | 2179.63 (202.30) <.01 | 2174.64 (199.61) <.01 | 2170.90 (197.64) <.01 | 2161.85 (195.34) <.01 |
| b | Var (Level) | 9.62 (3.20) <.01 | 3.57 (0.80) <.01 | 2.16 (0.57) <.01 | 2.11 (0.57) <.01 |
| b | Var (Slope) | 0.31 (0.07) <.01 | 0.33 (0.08) <.01 | 0.33 (0.08) <.01 | 0.33 (0.08) <.01 |
| b | Var (Residual) | 5.06 (0.73) <.01 | 4.86 (0.70) <.01 | 4.49 (0.68) <.01 | 4.48 (0.68) <.01 |
| a | Covar (Level, Slope) | -117.51 (120.56) .33 | -93.23 (109.22) .39 | -80.38 (104.02) .44 | -99.57 (95.93) .30 |
| b | Covar (Level, Slope) | 0.49 (0.34) .15 | 0.41 (0.22) .06 | 0.29 (0.18) .11 | 0.28 (0.18) .11 |
|  | Correlation of Levels | 0.31 | 0.18 | 0.11 | 0.1 |
|  | Correlation of Slopes | 0.15 | 0.22 | 0.26 | 0.2 |
|  | Correlation of Residuals | 0.22 | 0.22 | 0.20 | 0.2 |
|  | N | 311 | 305 | 276 | 276 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -6,714 | -6,584 | -6,309 | -6,297 |
|  | AIC | 13,471 | 13,217 | 12,676 | 12,676 |
|  | BIC | 13,549 | 13,310 | 12,781 | 12,825 |

## prose\_im

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 33.88 (19.91) .09 | 24.96 (17.94) .16 | 23.60 (17.90) .19 | 27.30 (17.51) .12 |
| ab | Covar (Slopes) | 0.11 (0.58) .85 | -0.01 (0.60) .99 | 0.10 (0.57) .86 | -0.09 (0.56) .87 |
| ab | Covar (Residuals) | 7.22 (5.90) .22 | 7.11 (5.92) .23 | 7.11 (5.98) .23 | 7.16 (5.99) .23 |
| er | Corr (Levels) | 0.16 (0.09) .08 | 0.13 (0.09) .16 | 0.12 (0.09) .18 | 0.15 (0.09) .11 |
| er | Corr (Slopes) | 0.05 (0.30) .86 | -0.00 (0.33) .99 | 0.06 (0.34) .86 | -0.06 (0.37) .87 |
| er | Corr (Residuals) | 0.08 (0.06) .22 | 0.07 (0.06) .23 | 0.07 (0.06) .24 | 0.07 (0.06) .24 |
| a | Level | 310.75 (7.37) <.01 | 310.27 (7.45) <.01 | 317.44 (7.81) <.01 | 326.74 (8.81) <.01 |
| a | Slope | -8.45 (1.05) <.01 | -8.37 (1.05) <.01 | -8.89 (1.12) <.01 | -6.99 (1.39) <.01 |
| a | Level \* age | -5.87 (2.08) <.01 | -5.74 (2.11) .01 | -5.38 (2.06) .01 | -6.02 (2.07) <.01 |
| a | Level \* education | --- | 3.37 (2.66) .21 | 3.28 (2.54) .20 | 5.82 (2.65) .03 |
| a | Level \* height | --- | --- | 254.20 (106.57) .02 | 267.10 (104.74) .01 |
| a | Level \* smoking | --- | --- | --- | -34.78 (12.27) <.01 |
| a | Level \* cardio | --- | --- | --- | 1.73 (10.39) .87 |
| a | Level \* diabetes | --- | --- | --- | 2.20 (16.06) .89 |
| a | Slope \* age | 1.08 (0.37) <.01 | 1.06 (0.37) <.01 | 0.99 (0.36) .01 | 0.91 (0.36) .01 |
| a | Slope \* education | --- | -0.45 (0.36) .22 | -0.34 (0.38) .36 | -0.25 (0.43) .57 |
| a | Slope \* height | --- | --- | -23.40 (21.13) .27 | -21.28 (21.04) .31 |
| a | Slope \* smoking | --- | --- | --- | -3.39 (2.01) .09 |
| a | Slope \* cardio | --- | --- | --- | -2.65 (1.62) .10 |
| a | Slope \* diabetes | --- | --- | --- | 4.05 (2.90) .16 |
| b | Level | 11.13 (0.35) <.01 | 11.02 (0.31) <.01 | 11.30 (0.34) <.01 | 11.17 (0.41) <.01 |
| b | Slope | -0.12 (0.06) .03 | -0.11 (0.05) .04 | -0.10 (0.05) .06 | -0.05 (0.07) .48 |
| b | Level \* age | -0.27 (0.08) <.01 | -0.23 (0.07) <.01 | -0.28 (0.08) <.01 | -0.25 (0.09) <.01 |
| b | Level \* education | --- | 0.47 (0.10) <.01 | 0.47 (0.11) <.01 | 0.46 (0.11) <.01 |
| b | Level \* height | --- | --- | 1.04 (3.85) .79 | 1.06 (4.00) .79 |
| b | Level \* smoking | --- | --- | --- | 0.24 (0.50) .62 |
| b | Level \* cardio | --- | --- | --- | 0.24 (0.42) .57 |
| b | Level \* diabetes | --- | --- | --- | -1.81 (1.19) .13 |
| b | Slope \* age | 0.02 (0.01) .10 | 0.02 (0.01) .11 | 0.03 (0.01) .06 | 0.03 (0.02) .11 |
| b | Slope \* education | --- | -0.05 (0.02) .03 | -0.05 (0.02) .01 | -0.04 (0.02) .03 |
| b | Slope \* height | --- | --- | 0.70 (0.75) .35 | 0.72 (0.77) .35 |
| b | Slope \* smoking | --- | --- | --- | -0.13 (0.10) .18 |
| b | Slope \* cardio | --- | --- | --- | -0.06 (0.09) .46 |
| b | Slope \* diabetes | --- | --- | --- | 0.11 (0.15) .45 |
| a | Var (Level) | 4855.25 (562.84) <.01 | 4789.18 (554.61) <.01 | 4471.45 (533.13) <.01 | 4296.75 (527.84) <.01 |
| a | Var (Slope) | 34.86 (16.00) .03 | 33.28 (16.19) .04 | 32.85 (16.69) .05 | 29.13 (15.83) .07 |
| a | Var (Residual) | 2097.09 (185.65) <.01 | 2102.87 (185.59) <.01 | 2111.70 (186.67) <.01 | 2107.88 (186.60) <.01 |
| b | Var (Level) | 9.71 (1.18) <.01 | 8.25 (1.01) <.01 | 8.00 (1.02) <.01 | 7.80 (0.97) <.01 |
| b | Var (Slope) | 0.11 (0.04) <.01 | 0.10 (0.04) <.01 | 0.09 (0.03) .01 | 0.08 (0.03) .01 |
| b | Var (Residual) | 4.35 (0.38) <.01 | 4.34 (0.38) <.01 | 4.33 (0.38) <.01 | 4.32 (0.38) <.01 |
| a | Covar (Level, Slope) | -172.74 (100.36) .08 | -163.99 (99.66) .10 | -148.82 (96.53) .12 | -163.22 (90.55) .07 |
| b | Covar (Level, Slope) | -0.54 (0.17) <.01 | -0.44 (0.15) <.01 | -0.42 (0.15) <.01 | -0.40 (0.14) <.01 |
|  | Correlation of Levels | 0.156 | 0.1256 | 0.125 | 0.149 |
|  | Correlation of Slopes | 0.055 | -0.0044 | 0.059 | -0.060 |
|  | Correlation of Residuals | 0.076 | 0.0744 | 0.074 | 0.075 |
|  | N | 289 | 286 | 268 | 268 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -6,071 | -6,042 | -5,868 | -5,854 |
|  | AIC | 12,185 | 12,134 | 11,794 | 11,791 |
|  | BIC | 12,262 | 12,226 | 11,898 | 11,938 |

## psif

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 27.83 (24.94) .26 | 22.55 (23.59) .34 | 18.00 (21.84) .41 | 23.19 (20.50) .26 |
| ab | Covar (Slopes) | 0.28 (0.75) .71 | 0.35 (0.67) .60 | 0.37 (0.68) .58 | 0.10 (0.51) .84 |
| ab | Covar (Residuals) | 4.13 (10.53) .69 | 2.79 (10.38) .79 | 3.18 (10.50) .76 | 3.54 (9.89) .72 |
| er | Corr (Levels) | 0.13 (0.12) .26 | 0.11 (0.12) .33 | 0.10 (0.12) .40 | 0.13 (0.11) .25 |
| er | Corr (Slopes) | 0.16 (0.41) .70 | 0.19 (0.35) .59 | 0.22 (0.37) .56 | 0.07 (0.35) .84 |
| er | Corr (Residuals) | 0.04 (0.09) .69 | 0.02 (0.09) .79 | 0.03 (0.09) .76 | 0.03 (0.08) .72 |
| a | Level | 309.74 (7.49) <.01 | 309.35 (7.57) <.01 | 316.26 (7.86) <.01 | 324.42 (8.89) <.01 |
| a | Slope | -7.31 (1.34) <.01 | -7.23 (1.34) <.01 | -7.85 (1.42) <.01 | -5.19 (1.86) <.01 |
| a | Level \* age | -5.91 (2.11) <.01 | -5.88 (2.13) .01 | -5.32 (2.06) .01 | -5.83 (2.07) <.01 |
| a | Level \* education | --- | 2.73 (2.60) .29 | 2.85 (2.47) .25 | 4.95 (2.60) .06 |
| a | Level \* height | --- | --- | 267.25 (109.48) .01 | 280.15 (108.46) .01 |
| a | Level \* smoking | --- | --- | --- | -31.21 (12.04) .01 |
| a | Level \* cardio | --- | --- | --- | 1.61 (10.59) .88 |
| a | Level \* diabetes | --- | --- | --- | -0.05 (16.25) .99 |
| a | Slope \* age | 1.18 (0.41) <.01 | 1.17 (0.41) <.01 | 1.06 (0.39) .01 | 0.90 (0.39) .02 |
| a | Slope \* education | --- | -0.34 (0.46) .46 | -0.22 (0.48) .65 | 0.13 (0.52) .81 |
| a | Slope \* height | --- | --- | -29.74 (24.85) .23 | -26.12 (25.55) .31 |
| a | Slope \* smoking | --- | --- | --- | -5.37 (2.30) .02 |
| a | Slope \* cardio | --- | --- | --- | -2.91 (2.02) .15 |
| a | Slope \* diabetes | --- | --- | --- | 6.07 (3.01) .04 |
| b | Level | 11.83 (0.46) <.01 | 11.75 (0.45) <.01 | 11.91 (0.46) <.01 | 11.39 (0.50) <.01 |
| b | Slope | -0.22 (0.07) <.01 | -0.22 (0.07) <.01 | -0.21 (0.08) .01 | -0.11 (0.09) .22 |
| b | Level \* age | -0.21 (0.12) .07 | -0.19 (0.12) .10 | -0.17 (0.12) .16 | -0.18 (0.12) .15 |
| b | Level \* education | --- | 0.34 (0.13) .01 | 0.32 (0.14) .02 | 0.36 (0.13) <.01 |
| b | Level \* height | --- | --- | 2.99 (5.08) .56 | 3.43 (5.09) .50 |
| b | Level \* smoking | --- | --- | --- | 0.22 (0.60) .72 |
| b | Level \* cardio | --- | --- | --- | 1.31 (0.56) .02 |
| b | Level \* diabetes | --- | --- | --- | -2.32 (0.76) <.01 |
| b | Slope \* age | -0.01 (0.03) .85 | -0.00 (0.03) .91 | -0.00 (0.03) .93 | 0.00 (0.03) .95 |
| b | Slope \* education | --- | -0.00 (0.02) .93 | 0.00 (0.02) .99 | -0.02 (0.03) .48 |
| b | Slope \* height | --- | --- | 0.58 (1.08) .59 | 0.85 (1.16) .46 |
| b | Slope \* smoking | --- | --- | --- | 0.04 (0.13) .78 |
| b | Slope \* cardio | --- | --- | --- | -0.30 (0.14) .03 |
| b | Slope \* diabetes | --- | --- | --- | 0.65 (0.21) <.01 |
| a | Var (Level) | 4747.33 (568.15) <.01 | 4698.02 (560.83) <.01 | 4360.62 (536.29) <.01 | 4238.81 (528.99) <.01 |
| a | Var (Slope) | 50.62 (22.65) .02 | 49.77 (22.66) .03 | 47.85 (22.90) .04 | 41.80 (21.75) .06 |
| a | Var (Residual) | 2138.36 (204.66) <.01 | 2142.86 (204.55) <.01 | 2153.24 (205.80) <.01 | 2134.78 (204.24) <.01 |
| b | Var (Level) | 9.08 (1.81) <.01 | 8.34 (1.71) <.01 | 7.90 (1.69) <.01 | 7.41 (1.49) <.01 |
| b | Var (Slope) | 0.06 (0.09) .47 | 0.07 (0.07) .32 | 0.06 (0.07) .38 | 0.05 (0.04) .27 |
| b | Var (Residual) | 6.33 (0.89) <.01 | 6.29 (0.90) <.01 | 6.30 (0.90) <.01 | 6.25 (0.90) <.01 |
| a | Covar (Level, Slope) | -192.35 (116.04) .10 | -186.70 (115.34) .11 | -162.43 (111.57) .14 | -181.19 (104.57) .08 |
| b | Covar (Level, Slope) | -0.53 (0.44) .22 | -0.56 (0.39) .15 | -0.49 (0.38) .21 | -0.41 (0.30) .16 |
|  | Correlation of Levels | 0.134 | 0.114 | 0.097 | 0.131 |
|  | Correlation of Slopes | 0.157 | 0.189 | 0.217 | 0.071 |
|  | Correlation of Residuals | 0.035 | 0.024 | 0.027 | 0.031 |
|  | N | 268 | 266 | 254 | 254 |
|  | occasions | 4 | 4 | 4 | 4 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,819 | -4,805 | -4,699 | -4,683 |
|  | AIC | 9,680 | 9,661 | 9,456 | 9,448 |
|  | BIC | 9,756 | 9,750 | 9,559 | 9,593 |

## symbol

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 247.25 (55.36) <.01 | 219.03 (49.90) <.01 | 203.06 (47.87) <.01 | 202.50 (47.95) <.01 |
| ab | Covar (Slopes) | 3.01 (1.04) <.01 | 2.99 (1.11) .01 | 3.02 (1.10) .01 | 2.24 (1.02) .03 |
| ab | Covar (Residuals) | 9.30 (14.19) .51 | 8.71 (14.19) .54 | 10.03 (14.25) .48 | 8.33 (13.91) .55 |
| er | Corr (Levels) | 0.39 (0.07) <.01 | 0.37 (0.07) <.01 | 0.37 (0.08) <.01 | 0.38 (0.08) <.01 |
| er | Corr (Slopes) | 0.67 (0.17) <.01 | 0.66 (0.17) <.01 | 0.68 (0.17) <.01 | 0.66 (0.17) <.01 |
| er | Corr (Residuals) | 0.04 (0.06) .51 | 0.04 (0.06) .54 | 0.04 (0.06) .48 | 0.03 (0.06) .55 |
| a | Level | 310.78 (7.38) <.01 | 310.40 (7.46) <.01 | 317.53 (7.82) <.01 | 327.13 (8.81) <.01 |
| a | Slope | -8.43 (1.01) <.01 | -8.38 (1.01) <.01 | -8.93 (1.08) <.01 | -7.08 (1.36) <.01 |
| a | Level \* age | -6.18 (2.06) <.01 | -6.12 (2.08) <.01 | -5.53 (2.03) .01 | -6.19 (2.04) <.01 |
| a | Level \* education | --- | 3.07 (2.69) .25 | 3.21 (2.57) .21 | 5.70 (2.68) .03 |
| a | Level \* height | --- | --- | 259.16 (105.56) .01 | 271.97 (103.86) .01 |
| a | Level \* smoking | --- | --- | --- | -34.68 (12.19) <.01 |
| a | Level \* cardio | --- | --- | --- | 1.11 (10.45) .92 |
| a | Level \* diabetes | --- | --- | --- | 4.00 (16.05) .80 |
| a | Slope \* age | 1.12 (0.34) <.01 | 1.11 (0.35) <.01 | 1.03 (0.33) <.01 | 0.96 (0.34) .01 |
| a | Slope \* education | --- | -0.38 (0.38) .32 | -0.28 (0.40) .49 | -0.19 (0.45) .67 |
| a | Slope \* height | --- | --- | -23.66 (20.76) .26 | -21.57 (20.87) .30 |
| a | Slope \* smoking | --- | --- | --- | -3.23 (2.03) .11 |
| a | Slope \* cardio | --- | --- | --- | -2.75 (1.64) .09 |
| a | Slope \* diabetes | --- | --- | --- | 3.81 (2.92) .19 |
| b | Level | 28.40 (1.13) <.01 | 28.04 (1.04) <.01 | 28.60 (1.07) <.01 | 28.45 (1.25) <.01 |
| b | Slope | -0.49 (0.14) <.01 | -0.48 (0.15) <.01 | -0.49 (0.15) <.01 | -0.10 (0.18) .60 |
| b | Level \* age | -0.90 (0.26) <.01 | -0.87 (0.27) <.01 | -0.81 (0.28) <.01 | -0.80 (0.28) <.01 |
| b | Level \* education | --- | 1.57 (0.36) <.01 | 1.57 (0.37) <.01 | 1.66 (0.40) <.01 |
| b | Level \* height | --- | --- | 7.71 (11.95) .52 | 8.17 (11.97) .49 |
| b | Level \* smoking | --- | --- | --- | -0.68 (1.78) .70 |
| b | Level \* cardio | --- | --- | --- | 0.92 (1.23) .45 |
| b | Level \* diabetes | --- | --- | --- | -2.40 (3.22) .46 |
| b | Slope \* age | 0.01 (0.04) .83 | 0.02 (0.04) .69 | 0.02 (0.04) .62 | 0.00 (0.04) .98 |
| b | Slope \* education | --- | -0.02 (0.06) .71 | -0.03 (0.06) .62 | -0.05 (0.06) .43 |
| b | Slope \* height | --- | --- | 1.24 (2.10) .56 | 1.43 (2.00) .47 |
| b | Slope \* smoking | --- | --- | --- | -0.30 (0.28) .28 |
| b | Slope \* cardio | --- | --- | --- | -0.78 (0.19) <.01 |
| b | Slope \* diabetes | --- | --- | --- | 1.76 (0.46) <.01 |
| a | Var (Level) | 4845.30 (549.90) <.01 | 4787.87 (542.42) <.01 | 4461.36 (519.15) <.01 | 4286.99 (514.14) <.01 |
| a | Var (Slope) | 32.77 (14.11) .02 | 31.95 (14.42) .03 | 31.44 (14.52) .03 | 28.44 (13.96) .04 |
| a | Var (Residual) | 2111.19 (184.60) <.01 | 2114.02 (184.23) <.01 | 2120.91 (184.44) <.01 | 2110.85 (183.60) <.01 |
| b | Var (Level) | 84.39 (9.77) <.01 | 72.42 (8.06) <.01 | 67.94 (7.95) <.01 | 67.51 (7.82) <.01 |
| b | Var (Slope) | 0.62 (0.16) <.01 | 0.63 (0.16) <.01 | 0.62 (0.15) <.01 | 0.41 (0.12) <.01 |
| b | Var (Residual) | 28.13 (2.33) <.01 | 28.19 (2.33) <.01 | 27.89 (2.33) <.01 | 27.73 (2.28) <.01 |
| a | Covar (Level, Slope) | -171.11 (95.20) .07 | -166.51 (95.34) .08 | -150.09 (90.42) .10 | -161.93 (84.44) .06 |
| b | Covar (Level, Slope) | -3.03 (0.91) <.01 | -3.00 (0.94) <.01 | -2.66 (0.87) <.01 | -2.18 (0.85) .01 |
|  | Correlation of Levels | 0.387 | 0.372 | 0.369 | 0.376 |
|  | Correlation of Slopes | 0.667 | 0.665 | 0.684 | 0.659 |
|  | Correlation of Residuals | 0.038 | 0.036 | 0.041 | 0.034 |
|  | N | 278 | 277 | 264 | 264 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -6,592 | -6,568 | -6,397 | -6,377 |
|  | AIC | 13,225 | 13,186 | 12,852 | 12,836 |
|  | BIC | 13,302 | 13,277 | 12,955 | 12,983 |

## synonyms

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 67.39 (32.48) .04 | 48.63 (27.23) .07 | 40.44 (27.78) .15 | 44.38 (26.85) .10 |
| ab | Covar (Slopes) | 0.46 (0.62) .45 | 0.48 (0.65) .46 | 0.58 (0.66) .38 | 0.62 (0.67) .36 |
| ab | Covar (Residuals) | -5.64 (6.87) .41 | -6.05 (6.83) .38 | -6.94 (6.84) .31 | -7.00 (6.72) .30 |
| er | Corr (Levels) | 0.19 (0.09) .03 | 0.17 (0.09) .07 | 0.15 (0.10) .14 | 0.16 (0.10) .09 |
| er | Corr (Slopes) | 0.19 (0.27) .48 | 0.20 (0.29) .49 | 0.24 (0.29) .42 | 0.27 (0.32) .40 |
| er | Corr (Residuals) | -0.05 (0.06) .41 | -0.05 (0.06) .38 | -0.06 (0.06) .31 | -0.06 (0.06) .30 |
| a | Level | 311.97 (7.35) <.01 | 311.30 (7.42) <.01 | 317.78 (7.78) <.01 | 327.06 (8.81) <.01 |
| a | Slope | -8.46 (1.03) <.01 | -8.37 (1.03) <.01 | -8.84 (1.11) <.01 | -6.97 (1.41) <.01 |
| a | Level \* age | -5.97 (2.10) <.01 | -5.87 (2.12) .01 | -5.32 (2.06) .01 | -5.99 (2.08) <.01 |
| a | Level \* education | --- | 3.06 (2.66) .25 | 3.16 (2.52) .21 | 5.63 (2.66) .03 |
| a | Level \* height | --- | --- | 257.09 (105.92) .01 | 270.35 (104.05) .01 |
| a | Level \* smoking | --- | --- | --- | -34.68 (12.26) <.01 |
| a | Level \* cardio | --- | --- | --- | 1.79 (10.44) .86 |
| a | Level \* diabetes | --- | --- | --- | 2.40 (16.04) .88 |
| a | Slope \* age | 1.10 (0.35) <.01 | 1.09 (0.36) <.01 | 1.00 (0.34) <.01 | 0.94 (0.36) .01 |
| a | Slope \* education | --- | -0.48 (0.37) .19 | -0.38 (0.38) .31 | -0.27 (0.43) .54 |
| a | Slope \* height | --- | --- | -23.56 (20.70) .26 | -21.84 (20.69) .29 |
| a | Slope \* smoking | --- | --- | --- | -3.37 (2.03) .10 |
| a | Slope \* cardio | --- | --- | --- | -2.60 (1.66) .12 |
| a | Slope \* diabetes | --- | --- | --- | 4.33 (2.98) .15 |
| b | Level | 17.58 (0.64) <.01 | 17.13 (0.55) <.01 | 17.29 (0.56) <.01 | 17.08 (0.65) <.01 |
| b | Slope | -0.08 (0.08) .30 | -0.07 (0.08) .35 | -0.06 (0.08) .47 | -0.02 (0.10) .84 |
| b | Level \* age | -0.23 (0.16) .15 | -0.18 (0.13) .15 | -0.14 (0.13) .29 | -0.11 (0.13) .41 |
| b | Level \* education | --- | 1.33 (0.14) <.01 | 1.28 (0.14) <.01 | 1.27 (0.14) <.01 |
| b | Level \* height | --- | --- | 10.89 (6.98) .12 | 11.51 (6.92) .10 |
| b | Level \* smoking | --- | --- | --- | 0.25 (0.77) .75 |
| b | Level \* cardio | --- | --- | --- | 0.44 (0.66) .51 |
| b | Level \* diabetes | --- | --- | --- | -2.34 (1.38) .09 |
| b | Slope \* age | 0.00 (0.02) .99 | 0.00 (0.02) .99 | 0.00 (0.02) .96 | 0.00 (0.02) .96 |
| b | Slope \* education | --- | -0.02 (0.03) .54 | -0.02 (0.03) .55 | -0.01 (0.03) .75 |
| b | Slope \* height | --- | --- | 0.31 (1.01) .76 | 0.21 (1.00) .83 |
| b | Slope \* smoking | --- | --- | --- | -0.10 (0.16) .53 |
| b | Slope \* cardio | --- | --- | --- | -0.05 (0.12) .68 |
| b | Slope \* diabetes | --- | --- | --- | 0.02 (0.28) .95 |
| a | Var (Level) | 4787.93 (557.55) <.01 | 4740.55 (552.27) <.01 | 4424.03 (529.29) <.01 | 4253.38 (522.82) <.01 |
| a | Var (Slope) | 33.61 (16.54) .04 | 32.50 (16.69) .05 | 31.84 (16.86) .06 | 28.71 (15.68) .07 |
| a | Var (Residual) | 2114.96 (186.49) <.01 | 2118.07 (186.51) <.01 | 2126.82 (187.50) <.01 | 2118.21 (186.46) <.01 |
| b | Var (Level) | 25.10 (2.54) <.01 | 17.88 (2.20) <.01 | 17.43 (2.20) <.01 | 17.20 (2.19) <.01 |
| b | Var (Slope) | 0.18 (0.06) <.01 | 0.18 (0.06) <.01 | 0.18 (0.06) <.01 | 0.18 (0.06) <.01 |
| b | Var (Residual) | 6.86 (0.56) <.01 | 6.85 (0.56) <.01 | 6.79 (0.58) <.01 | 6.78 (0.58) <.01 |
| a | Covar (Level, Slope) | -172.07 (101.45) .09 | -165.22 (101.27) .10 | -148.09 (96.47) .12 | -162.22 (89.56) .07 |
| b | Covar (Level, Slope) | -0.31 (0.34) .36 | -0.18 (0.28) .51 | -0.20 (0.28) .48 | -0.18 (0.29) .54 |
|  | Correlation of Levels | 0.194 | 0.17 | 0.146 | 0.164 |
|  | Correlation of Slopes | 0.190 | 0.20 | 0.239 | 0.270 |
|  | Correlation of Residuals | -0.047 | -0.05 | -0.058 | -0.058 |
|  | N | 280 | 280 | 265 | 265 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -6,059 | -6,024 | -5,872 | -5,859 |
|  | AIC | 12,159 | 12,098 | 11,801 | 11,801 |
|  | BIC | 12,236 | 12,189 | 11,905 | 11,948 |

## Summary

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

Computed correlations:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Levels | block | 0.29 | 0.27 | 0.25 | 0.24 |
| Correlation of Levels | clock | 0.32 | 0.27 | 0.24 | 0.24 |
| Correlation of Levels | digit\_b | 0.20 | 0.19 | 0.21 | 0.19 |
| Correlation of Levels | digit\_f | 0.04 | 0.01 | 0.03 | -0.00 |
| Correlation of Levels | fig\_logic | 0.25 | 0.23 | 0.22 | 0.20 |
| Correlation of Levels | information | 0.12 | 0.10 | 0.09 | 0.11 |
| Correlation of Levels | mir | 0.16 | 0.15 | 0.13 | 0.13 |
| Correlation of Levels | mir\_recog | 0.11 | 0.03 | 0.05 | 0.07 |
| Correlation of Levels | mmse | 0.31 | 0.18 | 0.11 | 0.10 |
| Correlation of Levels | prose\_im | 0.16 | 0.13 | 0.12 | 0.15 |
| Correlation of Levels | psif | 0.13 | 0.11 | 0.10 | 0.13 |
| Correlation of Levels | symbol | 0.39 | 0.37 | 0.37 | 0.38 |
| Correlation of Levels | synonyms | 0.19 | 0.17 | 0.15 | 0.16 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Slopes | block | 0.11 | 0.08 | 0.12 | 0.02 |
| Correlation of Slopes | clock | 0.22 | 0.17 | 0.07 | 0.11 |
| Correlation of Slopes | digit\_b | 0.06 | 0.15 | 0.18 | 0.14 |
| Correlation of Slopes | digit\_f | -0.26 | -0.29 | -0.29 | -0.29 |
| Correlation of Slopes | fig\_logic | 0.16 | 0.14 | 0.16 | 0.18 |
| Correlation of Slopes | information | 0.23 | 0.21 | 0.27 | 0.19 |
| Correlation of Slopes | mir | 0.24 | 0.24 | 0.26 | 0.18 |
| Correlation of Slopes | mir\_recog | 0.62 | 0.49 | 0.58 | 0.54 |
| Correlation of Slopes | mmse | 0.15 | 0.22 | 0.26 | 0.20 |
| Correlation of Slopes | prose\_im | 0.05 | -0.00 | 0.06 | -0.06 |
| Correlation of Slopes | psif | 0.16 | 0.19 | 0.22 | 0.07 |
| Correlation of Slopes | symbol | 0.67 | 0.67 | 0.68 | 0.66 |
| Correlation of Slopes | synonyms | 0.19 | 0.20 | 0.24 | 0.27 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Residuals | block | 0.15 | 0.15 | 0.15 | 0.15 |
| Correlation of Residuals | clock | 0.11 | 0.11 | 0.09 | 0.09 |
| Correlation of Residuals | digit\_b | 0.01 | 0.01 | 0.01 | 0.02 |
| Correlation of Residuals | digit\_f | 0.02 | 0.02 | 0.01 | 0.01 |
| Correlation of Residuals | fig\_logic | 0.02 | 0.02 | 0.02 | 0.02 |
| Correlation of Residuals | information | 0.06 | 0.06 | 0.06 | 0.06 |
| Correlation of Residuals | mir | 0.06 | 0.06 | 0.06 | 0.06 |
| Correlation of Residuals | mir\_recog | 0.14 | 0.14 | 0.15 | 0.15 |
| Correlation of Residuals | mmse | 0.22 | 0.22 | 0.20 | 0.20 |
| Correlation of Residuals | prose\_im | 0.08 | 0.07 | 0.07 | 0.07 |
| Correlation of Residuals | psif | 0.04 | 0.02 | 0.03 | 0.03 |
| Correlation of Residuals | symbol | 0.04 | 0.04 | 0.04 | 0.03 |
| Correlation of Residuals | synonyms | -0.05 | -0.05 | -0.06 | -0.06 |

P-values for corresponding covariances:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Levels | block | 0.00 | 0.00 | 0.01 | 0.01 |
| Covariance of Levels | clock | 0.02 | 0.03 | 0.05 | 0.06 |
| Covariance of Levels | digit\_b | 0.11 | 0.13 | 0.10 | 0.14 |
| Covariance of Levels | digit\_f | 0.71 | 0.92 | 0.79 | 1.00 |
| Covariance of Levels | fig\_logic | 0.04 | 0.05 | 0.08 | 0.11 |
| Covariance of Levels | information | 0.14 | 0.24 | 0.28 | 0.23 |
| Covariance of Levels | mir | 0.14 | 0.15 | 0.21 | 0.21 |
| Covariance of Levels | mir\_recog | 0.37 | 0.68 | 0.42 | 0.30 |
| Covariance of Levels | mmse | 0.05 | 0.12 | 0.39 | 0.43 |
| Covariance of Levels | prose\_im | 0.09 | 0.16 | 0.19 | 0.12 |
| Covariance of Levels | psif | 0.26 | 0.34 | 0.41 | 0.26 |
| Covariance of Levels | symbol | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | synonyms | 0.04 | 0.07 | 0.15 | 0.10 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Slopes | block | 0.69 | 0.77 | 0.68 | 0.94 |
| Covariance of Slopes | clock | 0.55 | 0.64 | 0.83 | 0.72 |
| Covariance of Slopes | digit\_b | 0.92 | 0.80 | 0.77 | 0.77 |
| Covariance of Slopes | digit\_f | 0.32 | 0.26 | 0.29 | 0.28 |
| Covariance of Slopes | fig\_logic | 0.70 | 0.75 | 0.70 | 0.68 |
| Covariance of Slopes | information | 0.42 | 0.48 | 0.37 | 0.51 |
| Covariance of Slopes | mir | 0.33 | 0.36 | 0.32 | 0.53 |
| Covariance of Slopes | mir\_recog | 0.33 | 0.43 | 0.34 | 0.36 |
| Covariance of Slopes | mmse | 0.59 | 0.45 | 0.38 | 0.51 |
| Covariance of Slopes | prose\_im | 0.85 | 0.99 | 0.86 | 0.87 |
| Covariance of Slopes | psif | 0.71 | 0.60 | 0.58 | 0.84 |
| Covariance of Slopes | symbol | 0.00 | 0.01 | 0.01 | 0.03 |
| Covariance of Slopes | synonyms | 0.45 | 0.46 | 0.38 | 0.36 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Residuals | block | 0.01 | 0.01 | 0.01 | 0.01 |
| Covariance of Residuals | clock | 0.25 | 0.24 | 0.32 | 0.32 |
| Covariance of Residuals | digit\_b | 0.90 | 0.91 | 0.85 | 0.74 |
| Covariance of Residuals | digit\_f | 0.75 | 0.74 | 0.87 | 0.80 |
| Covariance of Residuals | fig\_logic | 0.74 | 0.77 | 0.81 | 0.81 |
| Covariance of Residuals | information | 0.32 | 0.31 | 0.34 | 0.33 |
| Covariance of Residuals | mir | 0.32 | 0.32 | 0.36 | 0.35 |
| Covariance of Residuals | mir\_recog | 0.06 | 0.06 | 0.05 | 0.04 |
| Covariance of Residuals | mmse | 0.01 | 0.01 | 0.01 | 0.01 |
| Covariance of Residuals | prose\_im | 0.22 | 0.23 | 0.23 | 0.23 |
| Covariance of Residuals | psif | 0.69 | 0.79 | 0.76 | 0.72 |
| Covariance of Residuals | symbol | 0.51 | 0.54 | 0.48 | 0.55 |
| Covariance of Residuals | synonyms | 0.41 | 0.38 | 0.31 | 0.30 |

# male

Gender = *male*; Model type: *aehplus*; Process (a) = *pef*; 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) | 158.68 (61.01) .01 | 31.30 (18.79) .10 | 29.48 (12.37) .02 | -7.21 (11.26) .52 | 67.17 (33.87) .05 | 40.22 (74.88) .59 | 76.75 (20.62) <.01 | 40.64 (25.66) .11 | 102.71 (31.38) <.01 | 63.89 (39.91) .11 | 87.96 (36.10) .01 | 244.57 (93.20) .01 | 49.67 (58.44) .40 | --- |
| ab | Covar (Slopes) | 1.05 (0.82) .20 | -0.17 (0.56) .76 | 0.37 (0.34) .28 | 0.36 (0.19) .06 | 1.08 (0.60) .07 | -0.27 (1.54) .86 | 0.84 (0.44) .06 | 0.22 (0.58) .70 | 0.29 (0.73) .69 | -0.17 (0.42) .69 | 1.14 (0.91) .21 | 3.13 (1.47) .03 | 0.14 (0.67) .84 | --- |
| ab | Covar (Residuals) | 19.93 (11.46) .08 | 3.87 (10.84) .72 | -5.41 (4.73) .25 | 0.45 (2.57) .86 | 2.25 (13.70) .87 | 9.16 (14.72) .53 | -1.34 (6.98) .85 | 2.71 (3.72) .47 | 22.58 (24.55) .36 | 11.87 (16.64) .48 | -9.02 (10.59) .39 | -9.63 (17.12) .57 | 6.29 (13.70) .65 | --- |
| er | Corr (Levels) | 0.30 (0.12) .01 | 0.27 (0.14) .06 | 0.31 (0.13) .02 | -0.09 (0.14) .52 | 0.29 (0.13) .03 | 0.06 (0.12) .59 | 0.58 (0.12) <.01 | 0.51 (0.17) <.01 | 0.66 (0.14) <.01 | 0.22 (0.13) .10 | 0.36 (0.12) <.01 | 0.31 (0.11) <.01 | 0.11 (0.13) .38 | --- |
| er | Corr (Slopes) | 0.75 (0.18) <.01 | -0.17 (0.53) .74 | 0.46 (0.40) .25 | 0.63 (0.17) <.01 | 0.79 (0.14) <.01 | -0.07 (0.39) .86 | 0.43 (0.17) .01 | 0.28 (0.60) .65 | 0.15 (0.37) .69 | -0.26 (0.53) .62 | 0.51 (0.29) .08 | 0.73 (0.14) <.01 | 0.10 (0.48) .83 | --- |
| er | Corr (Residuals) | 0.11 (0.07) .08 | 0.04 (0.11) .72 | -0.10 (0.08) .23 | 0.01 (0.06) .86 | 0.01 (0.08) .87 | 0.05 (0.08) .53 | -0.02 (0.09) .85 | 0.04 (0.06) .46 | 0.14 (0.16) .38 | 0.10 (0.14) .47 | -0.09 (0.10) .39 | -0.04 (0.07) .57 | 0.05 (0.10) .64 | --- |
| a | Level | 464.58 (24.51) <.01 | 466.55 (24.68) <.01 | 466.63 (24.80) <.01 | 469.38 (25.05) <.01 | 464.67 (24.82) <.01 | 468.98 (24.57) <.01 | 461.87 (24.41) <.01 | 467.18 (25.09) <.01 | 464.92 (24.59) <.01 | 465.57 (24.94) <.01 | 459.07 (24.84) <.01 | 463.73 (24.64) <.01 | 466.66 (24.93) <.01 | 465.37(2.78) |
| a | Slope | -3.65 (3.15) .25 | -4.22 (3.56) .23 | -3.16 (3.40) .35 | -4.53 (3.31) .17 | -3.12 (3.27) .34 | -3.50 (3.36) .30 | -1.94 (3.34) .56 | -3.94 (3.40) .25 | -3.94 (3.44) .25 | -3.29 (3.46) .34 | 0.60 (3.31) .85 | -3.27 (3.27) .32 | -3.27 (3.42) .34 | -3.17(1.30) |
| a | Level \* age | -12.12 (4.28) <.01 | -12.43 (4.29) <.01 | -11.56 (4.21) .01 | -11.48 (4.21) .01 | -11.47 (4.19) .01 | -12.10 (4.14) <.01 | -12.23 (4.27) <.01 | -13.94 (4.58) <.01 | -13.64 (4.21) <.01 | -12.13 (4.21) <.01 | -11.05 (4.21) .01 | -11.96 (4.29) <.01 | -11.40 (4.21) .01 | -12.12(0.85) |
| a | Level \* education | 6.95 (2.12) <.01 | 6.98 (2.14) <.01 | 6.74 (2.13) <.01 | 6.98 (2.13) <.01 | 7.13 (2.10) <.01 | 6.88 (2.12) <.01 | 7.74 (2.18) <.01 | 7.54 (2.25) <.01 | 6.54 (2.22) <.01 | 7.03 (2.12) <.01 | 7.77 (2.15) <.01 | 6.98 (2.11) <.01 | 6.93 (2.12) <.01 | 7.09(0.37) |
| a | Level \* height | 210.68 (146.69) .15 | 206.07 (147.19) .16 | 205.61 (146.76) .16 | 211.21 (150.10) .16 | 203.44 (145.96) .16 | 213.90 (146.65) .14 | 225.54 (146.92) .12 | 229.10 (149.52) .12 | 182.88 (147.87) .22 | 212.01 (145.66) .15 | 226.63 (154.07) .14 | 209.46 (145.93) .15 | 217.96 (148.61) .14 | 211.88(12.02) |
| a | Level \* smoking | -32.02 (23.04) .16 | -33.04 (23.62) .16 | -33.42 (23.25) .15 | -36.65 (23.07) .11 | -34.05 (23.08) .14 | -35.18 (22.68) .12 | -31.02 (22.66) .17 | -30.65 (24.43) .21 | -31.65 (23.06) .17 | -33.30 (23.00) .15 | -32.32 (22.77) .16 | -31.07 (22.70) .17 | -34.78 (23.00) .13 | -33.01(1.80) |
| a | Level \* cardio | -21.12 (20.17) .29 | -22.54 (20.57) .27 | -22.21 (20.13) .27 | -22.91 (20.18) .26 | -20.82 (20.02) .30 | -22.02 (20.05) .27 | -19.89 (20.41) .33 | -24.86 (20.87) .23 | -17.64 (20.55) .39 | -21.06 (20.12) .29 | -24.13 (20.43) .24 | -20.79 (20.19) .30 | -20.95 (20.08) .30 | -21.61(1.85) |
| a | Level \* diabetes | 43.86 (23.98) .07 | 38.56 (25.06) .12 | 41.37 (23.50) .08 | 43.66 (24.41) .07 | 43.14 (24.37) .08 | 36.40 (24.41) .14 | 45.14 (23.76) .06 | 48.84 (24.26) .04 | 21.03 (25.89) .42 | 39.26 (24.51) .11 | 55.49 (23.92) .02 | 44.25 (23.94) .06 | 41.14 (24.16) .09 | 41.70(7.86) |
| a | Slope \* age | 0.14 (0.95) .88 | 0.20 (0.97) .83 | -0.01 (0.93) .99 | 0.18 (0.95) .85 | 0.05 (0.94) .96 | 0.11 (0.92) .90 | 0.02 (0.91) .98 | 0.31 (0.90) .73 | 0.22 (0.96) .82 | 0.14 (0.92) .88 | -0.34 (0.99) .73 | 0.26 (0.94) .78 | -0.04 (0.91) .97 | 0.10(0.17) |
| a | Slope \* education | -0.36 (0.62) .55 | -0.41 (0.60) .50 | -0.46 (0.60) .45 | -0.44 (0.59) .46 | -0.48 (0.64) .45 | -0.42 (0.60) .49 | -0.54 (0.55) .33 | -0.53 (0.59) .38 | -0.42 (0.61) .49 | -0.40 (0.60) .50 | -1.12 (0.59) .06 | -0.43 (0.57) .45 | -0.46 (0.61) .44 | -0.50(0.19) |
| a | Slope \* height | 22.60 (26.64) .40 | 22.87 (26.23) .38 | 25.17 (26.65) .34 | 27.73 (26.88) .30 | 24.00 (26.08) .36 | 21.72 (26.35) .41 | 27.40 (26.61) .30 | 21.08 (26.72) .43 | 23.65 (27.02) .38 | 22.22 (26.29) .40 | 10.43 (31.01) .74 | 27.14 (26.22) .30 | 24.52 (26.22) .35 | 23.12(4.39) |
| a | Slope \* smoking | -4.95 (3.26) .13 | -5.04 (3.49) .15 | -5.31 (3.34) .11 | -5.22 (3.27) .11 | -5.22 (3.26) .11 | -5.36 (3.36) .11 | -5.85 (3.18) .07 | -5.18 (3.32) .12 | -5.04 (3.40) .14 | -5.28 (3.24) .10 | -5.49 (3.19) .08 | -5.73 (3.07) .06 | -5.42 (3.40) .11 | -5.31(0.26) |
| a | Slope \* cardio | -2.46 (3.12) .43 | -2.27 (3.14) .47 | -2.81 (3.19) .38 | -1.79 (2.99) .55 | -2.69 (3.01) .37 | -2.66 (3.18) .40 | -2.91 (3.13) .35 | -2.01 (3.16) .52 | -2.40 (3.14) .45 | -2.61 (3.18) .41 | -0.67 (3.48) .85 | -2.60 (3.07) .40 | -2.78 (3.21) .39 | -2.36(0.60) |
| a | Slope \* diabetes | -6.08 (3.52) .08 | -5.33 (3.55) .13 | -4.65 (3.51) .19 | -5.16 (3.38) .13 | -4.72 (3.28) .15 | -6.56 (4.21) .12 | -4.92 (3.76) .19 | -5.62 (3.45) .10 | -4.06 (4.19) .33 | -5.43 (3.56) .13 | -15.36 (5.03) <.01 | -6.18 (3.33) .06 | -4.10 (3.74) .27 | -6.01(2.91) |
| b | Level | 16.78 (1.57) <.01 | 14.58 (0.36) <.01 | 3.97 (0.28) <.01 | 6.02 (0.27) <.01 | 17.23 (0.82) <.01 | 35.48 (1.81) <.01 | 7.33 (0.45) <.01 | 10.01 (0.17) <.01 | 28.76 (0.52) <.01 | 11.03 (0.84) <.01 | 12.47 (0.78) <.01 | 31.50 (2.48) <.01 | 19.06 (1.27) <.01 | --- |
| b | Slope | -0.42 (0.16) .01 | 0.08 (0.06) .22 | -0.06 (0.09) .47 | -0.10 (0.06) .08 | 0.06 (0.18) .73 | -0.01 (0.31) .96 | 0.07 (0.10) .52 | -0.10 (0.07) .17 | -0.07 (0.15) .64 | 0.13 (0.15) .38 | -0.22 (0.25) .38 | -0.54 (0.36) .14 | -0.37 (0.23) .11 | --- |
| b | Level \* age | -0.49 (0.24) .04 | -0.10 (0.07) .17 | -0.08 (0.05) .10 | -0.02 (0.03) .46 | -0.15 (0.12) .20 | -0.37 (0.31) .24 | -0.22 (0.08) <.01 | -0.14 (0.06) .03 | -0.25 (0.11) .02 | -0.27 (0.14) .05 | -0.34 (0.14) .02 | -0.67 (0.40) .09 | 0.11 (0.26) .67 | --- |
| b | Level \* education | 0.62 (0.21) <.01 | 0.03 (0.04) .45 | 0.12 (0.03) <.01 | 0.07 (0.03) .01 | 0.36 (0.10) <.01 | 1.06 (0.17) <.01 | 0.08 (0.05) .11 | 0.03 (0.03) .31 | 0.14 (0.06) .03 | 0.42 (0.10) <.01 | 0.35 (0.09) <.01 | 1.71 (0.25) <.01 | 1.24 (0.15) <.01 | --- |
| b | Level \* height | 15.14 (8.91) .09 | 2.49 (2.42) .30 | 0.21 (1.70) .90 | 1.16 (1.63) .48 | 2.70 (4.65) .56 | 19.14 (11.05) .08 | -0.04 (3.03) .99 | 1.87 (1.44) .19 | 2.95 (3.03) .33 | 0.62 (6.01) .92 | 3.59 (5.26) .49 | 25.19 (12.19) .04 | 9.97 (8.13) .22 | --- |
| b | Level \* smoking | -3.60 (1.45) .01 | 0.25 (0.38) .52 | -0.19 (0.29) .50 | -0.47 (0.25) .06 | -1.98 (0.72) .01 | -2.77 (1.74) .11 | -0.24 (0.43) .57 | 0.04 (0.28) .88 | -0.47 (0.49) .34 | -0.82 (0.88) .35 | -1.73 (0.79) .03 | -5.97 (2.39) .01 | -4.56 (1.21) <.01 | --- |
| b | Level \* cardio | -0.78 (1.14) .49 | -0.08 (0.34) .81 | -0.57 (0.26) .03 | -0.01 (0.19) .94 | 0.37 (0.66) .57 | 0.98 (1.36) .47 | -0.40 (0.32) .22 | -0.17 (0.23) .48 | -0.07 (0.49) .89 | -0.48 (0.73) .52 | 0.12 (0.69) .86 | -1.66 (1.89) .38 | 0.20 (1.10) .85 | --- |
| b | Level \* diabetes | -2.36 (1.27) .06 | -1.28 (0.81) .11 | -0.30 (0.43) .49 | -0.04 (0.24) .88 | -1.03 (1.20) .39 | -2.49 (1.64) .13 | 0.04 (0.54) .94 | 0.44 (0.19) .02 | -1.12 (0.92) .22 | 0.87 (0.90) .33 | -1.13 (1.52) .46 | -1.92 (2.29) .40 | -3.52 (1.53) .02 | --- |
| b | Slope \* age | 0.04 (0.03) .18 | -0.01 (0.02) .50 | 0.00 (0.01) .91 | -0.01 (0.01) .09 | 0.01 (0.03) .72 | -0.03 (0.07) .62 | -0.03 (0.02) .17 | 0.01 (0.02) .40 | -0.08 (0.04) .03 | -0.00 (0.04) .91 | 0.01 (0.05) .85 | 0.04 (0.07) .52 | 0.01 (0.05) .89 | --- |
| b | Slope \* education | 0.02 (0.04) .61 | 0.03 (0.01) .01 | -0.00 (0.01) .70 | 0.01 (0.01) .21 | -0.02 (0.03) .53 | 0.03 (0.02) .22 | -0.01 (0.02) .69 | -0.00 (0.01) .64 | 0.02 (0.02) .47 | -0.01 (0.01) .64 | 0.00 (0.03) .92 | 0.02 (0.04) .71 | 0.00 (0.02) .82 | --- |
| b | Slope \* height | -0.38 (1.22) .75 | 0.67 (0.83) .42 | 0.63 (0.37) .09 | -0.36 (0.25) .16 | 1.54 (1.12) .17 | 0.19 (2.14) .93 | 0.10 (0.75) .89 | -0.21 (0.42) .62 | -0.13 (0.90) .88 | 1.00 (0.77) .19 | -1.27 (1.52) .40 | -2.40 (1.84) .19 | 0.36 (1.23) .77 | --- |
| b | Slope \* smoking | 0.02 (0.14) .91 | -0.25 (0.08) <.01 | -0.04 (0.08) .64 | 0.06 (0.05) .19 | -0.17 (0.15) .25 | -0.39 (0.25) .12 | -0.07 (0.09) .40 | 0.05 (0.06) .44 | -0.11 (0.13) .39 | -0.15 (0.12) .23 | -0.07 (0.23) .75 | 0.10 (0.32) .76 | 0.20 (0.17) .25 | --- |
| b | Slope \* cardio | -0.15 (0.16) .35 | -0.10 (0.09) .23 | 0.09 (0.05) .11 | -0.02 (0.04) .51 | 0.08 (0.14) .55 | -0.24 (0.23) .30 | -0.13 (0.10) .19 | -0.04 (0.06) .47 | -0.06 (0.13) .66 | -0.16 (0.11) .13 | -0.10 (0.18) .56 | -0.14 (0.26) .59 | -0.00 (0.14) .97 | --- |
| b | Slope \* diabetes | 0.33 (0.29) .26 | 0.18 (0.12) .15 | -0.03 (0.12) .79 | 0.00 (0.05) .96 | 0.37 (0.36) .30 | -0.46 (0.65) .48 | 0.13 (0.13) .34 | 0.02 (0.04) .65 | -0.02 (0.29) .94 | -0.20 (0.18) .26 | -0.17 (0.37) .63 | -0.20 (0.50) .69 | -0.07 (0.30) .82 | --- |
| a | Var (Level) | 8396.19 (1363.86) <.01 | 8436.58 (1455.47) <.01 | 8314.65 (1388.99) <.01 | 8305.94 (1346.32) <.01 | 8355.68 (1380.83) <.01 | 8264.70 (1403.80) <.01 | 8722.86 (1418.96) <.01 | 9052.91 (1741.85) <.01 | 8728.49 (1477.55) <.01 | 8318.77 (1391.94) <.01 | 8740.62 (1354.54) <.01 | 8372.72 (1382.88) <.01 | 8313.12 (1411.74) <.01 | 8486.40(243.25) |
| a | Var (Slope) | 37.14 (19.46) .06 | 24.38 (20.41) .23 | 31.82 (18.17) .08 | 27.92 (12.18) .02 | 37.20 (19.57) .06 | 28.05 (20.13) .16 | 51.22 (17.05) <.01 | 43.17 (24.04) .07 | 34.81 (20.57) .09 | 35.05 (22.68) .12 | 29.31 (14.05) .04 | 39.41 (16.28) .01 | 31.26 (19.98) .12 | 34.67(7.22) |
| a | Var (Residual) | 3322.17 (490.88) <.01 | 3400.36 (507.22) <.01 | 3366.06 (484.32) <.01 | 3391.63 (461.05) <.01 | 3330.32 (481.60) <.01 | 3380.14 (503.61) <.01 | 3247.21 (453.01) <.01 | 3329.79 (482.17) <.01 | 3405.13 (431.17) <.01 | 3350.55 (499.48) <.01 | 2866.45 (496.77) <.01 | 3295.67 (463.26) <.01 | 3361.90 (499.42) <.01 | 3311.34(140.86) |
| b | Var (Level) | 32.27 (5.01) <.01 | 1.60 (0.79) .04 | 1.06 (0.26) <.01 | 0.81 (0.16) <.01 | 6.50 (1.57) <.01 | 50.42 (8.03) <.01 | 2.03 (0.37) <.01 | 0.69 (0.64) .28 | 2.77 (1.27) .03 | 10.17 (1.86) <.01 | 6.98 (1.60) <.01 | 73.70 (11.17) <.01 | 23.39 (3.18) <.01 | --- |
| b | Var (Slope) | 0.05 (0.05) .27 | 0.04 (0.04) .29 | 0.02 (0.01) .17 | 0.01 (0.00) <.01 | 0.05 (0.03) .06 | 0.58 (0.17) <.01 | 0.07 (0.02) <.01 | 0.01 (0.01) .26 | 0.11 (0.05) .01 | 0.01 (0.01) .21 | 0.17 (0.11) .14 | 0.47 (0.21) .03 | 0.06 (0.04) .14 | --- |
| b | Var (Residual) | 9.21 (1.01) <.01 | 2.82 (0.66) <.01 | 0.95 (0.13) <.01 | 0.52 (0.08) <.01 | 7.82 (0.90) <.01 | 11.10 (1.44) <.01 | 1.93 (0.23) <.01 | 1.23 (0.44) <.01 | 7.12 (1.39) <.01 | 4.11 (0.63) <.01 | 3.72 (0.60) <.01 | 17.14 (2.26) <.01 | 5.50 (0.63) <.01 | --- |
| a | Covar (Level, Slope) | -296.60 (137.29) .03 | -251.55 (153.17) .10 | -276.72 (145.15) .06 | -274.76 (121.53) .02 | -295.58 (142.16) .04 | -252.06 (146.44) .08 | -373.25 (135.63) .01 | -360.91 (173.09) .04 | -325.68 (166.88) .05 | -286.00 (152.78) .06 | -339.97 (152.95) .03 | -281.61 (133.75) .04 | -268.85 (148.73) .07 | -298.73(39.45) |
| b | Covar (Level, Slope) | -0.06 (0.43) .88 | 0.19 (0.10) .05 | -0.09 (0.05) .06 | -0.07 (0.02) <.01 | -0.44 (0.22) .05 | -0.28 (0.72) .70 | -0.02 (0.07) .78 | -0.01 (0.11) .90 | 0.11 (0.20) .56 | -0.16 (0.15) .30 | -0.29 (0.42) .50 | -3.00 (1.11) .01 | -0.14 (0.35) .70 | --- |
|  | Correlation of Levels | 0.30 | 0.27 | 0.313 | -0.088 | 0.288 | 0.062 | 0.577 | 0.513 | 0.66 | 0.22 | 0.356 | 0.311 | 0.113 | 0.30(0.21) |
|  | Correlation of Slopes | 0.75 | -0.17 | 0.458 | 0.620 | 0.784 | -0.067 | 0.430 | 0.278 | 0.15 | -0.25 | 0.512 | 0.728 | 0.104 | 0.33(0.36) |
|  | Correlation of Residuals | 0.11 | 0.04 | -0.096 | 0.011 | 0.014 | 0.047 | -0.017 | 0.042 | 0.14 | 0.10 | -0.087 | -0.041 | 0.046 | 0.02(0.07) |
|  | N | 136 | 138 | 138 | 138 | 133 | 138 | 137 | 137 | 140 | 136 | 127 | 133 | 132 | 135.62(3.50) |
|  | occasions | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 4.92(0.28) |
|  | parameters | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41.00(0.00) |
|  | LL | -3,179 | -2,976 | -2,723 | -2,614 | -2,984 | -3,356 | -2,859 | -2,732 | -3,198 | -2,871 | -2,411 | -3,202 | -2,964 | -2,928(267) |
|  | AIC | 6,440 | 6,034 | 5,529 | 5,310 | 6,051 | 6,793 | 5,800 | 5,546 | 6,478 | 5,823 | 4,904 | 6,486 | 6,010 | 5,939(534) |
|  | BIC | 6,559 | 6,154 | 5,649 | 5,430 | 6,169 | 6,913 | 5,919 | 5,665 | 6,598 | 5,943 | 5,021 | 6,604 | 6,129 | 6,058(534) |

## block

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 281.77 (76.41) <.01 | 241.90 (71.45) <.01 | 186.16 (66.69) <.01 | 158.68 (61.01) .01 |
| ab | Covar (Slopes) | 1.05 (0.89) .24 | 0.97 (0.87) .26 | 1.08 (0.83) .20 | 1.05 (0.82) .20 |
| ab | Covar (Residuals) | 15.41 (11.37) .17 | 15.83 (11.24) .16 | 17.47 (11.54) .13 | 19.93 (11.46) .08 |
| er | Corr (Levels) | 0.43 (0.10) <.01 | 0.40 (0.11) <.01 | 0.33 (0.11) <.01 | 0.30 (0.12) .01 |
| er | Corr (Slopes) | 0.66 (0.25) .01 | 0.66 (0.28) .02 | 0.76 (0.16) <.01 | 0.75 (0.18) <.01 |
| er | Corr (Residuals) | 0.09 (0.06) .18 | 0.09 (0.06) .16 | 0.10 (0.06) .13 | 0.11 (0.07) .08 |
| a | Level | 430.61 (16.17) <.01 | 424.11 (16.50) <.01 | 434.66 (16.36) <.01 | 464.58 (24.51) <.01 |
| a | Slope | -10.48 (2.30) <.01 | -10.20 (2.35) <.01 | -10.21 (2.30) <.01 | -3.65 (3.15) .25 |
| a | Level \* age | -12.89 (4.23) <.01 | -12.03 (4.16) <.01 | -12.51 (4.25) <.01 | -12.12 (4.28) <.01 |
| a | Level \* education | --- | 6.71 (2.06) <.01 | 6.40 (1.96) <.01 | 6.95 (2.12) <.01 |
| a | Level \* height | --- | --- | 185.79 (144.10) .20 | 210.68 (146.69) .15 |
| a | Level \* smoking | --- | --- | --- | -32.02 (23.04) .16 |
| a | Level \* cardio | --- | --- | --- | -21.12 (20.17) .29 |
| a | Level \* diabetes | --- | --- | --- | 43.86 (23.98) .07 |
| a | Slope \* age | 0.74 (0.87) .40 | 0.71 (0.88) .42 | 0.76 (0.91) .40 | 0.14 (0.95) .88 |
| a | Slope \* education | --- | -0.28 (0.64) .66 | -0.43 (0.60) .47 | -0.36 (0.62) .55 |
| a | Slope \* height | --- | --- | 17.24 (23.50) .46 | 22.60 (26.64) .40 |
| a | Slope \* smoking | --- | --- | --- | -4.95 (3.26) .13 |
| a | Slope \* cardio | --- | --- | --- | -2.46 (3.12) .43 |
| a | Slope \* diabetes | --- | --- | --- | -6.08 (3.52) .08 |
| b | Level | 13.25 (0.99) <.01 | 12.59 (0.92) <.01 | 13.57 (0.90) <.01 | 16.78 (1.57) <.01 |
| b | Slope | -0.47 (0.11) <.01 | -0.47 (0.10) <.01 | -0.49 (0.12) <.01 | -0.42 (0.16) .01 |
| b | Level \* age | -0.53 (0.24) .03 | -0.46 (0.23) .04 | -0.49 (0.24) .04 | -0.49 (0.24) .04 |
| b | Level \* education | --- | 0.66 (0.21) <.01 | 0.56 (0.21) .01 | 0.62 (0.21) <.01 |
| b | Level \* height | --- | --- | 14.88 (8.96) .10 | 15.14 (8.91) .09 |
| b | Level \* smoking | --- | --- | --- | -3.60 (1.45) .01 |
| b | Level \* cardio | --- | --- | --- | -0.78 (1.14) .49 |
| b | Level \* diabetes | --- | --- | --- | -2.36 (1.27) .06 |
| b | Slope \* age | 0.04 (0.03) .16 | 0.05 (0.03) .14 | 0.06 (0.03) .10 | 0.04 (0.03) .18 |
| b | Slope \* education | --- | 0.01 (0.04) .67 | 0.03 (0.04) .52 | 0.02 (0.04) .61 |
| b | Slope \* height | --- | --- | -0.71 (1.33) .60 | -0.38 (1.22) .75 |
| b | Slope \* smoking | --- | --- | --- | 0.02 (0.14) .91 |
| b | Slope \* cardio | --- | --- | --- | -0.15 (0.16) .35 |
| b | Slope \* diabetes | --- | --- | --- | 0.33 (0.29) .26 |
| a | Var (Level) | 9797.20 (1496.62) <.01 | 9363.06 (1423.37) <.01 | 8797.58 (1458.42) <.01 | 8396.19 (1363.86) <.01 |
| a | Var (Slope) | 39.27 (23.45) .09 | 37.89 (23.46) .11 | 39.57 (23.66) .09 | 37.14 (19.46) .06 |
| a | Var (Residual) | 3395.47 (506.26) <.01 | 3396.88 (507.12) <.01 | 3379.05 (505.61) <.01 | 3322.17 (490.88) <.01 |
| b | Var (Level) | 44.13 (5.75) <.01 | 40.03 (5.46) <.01 | 35.84 (5.67) <.01 | 32.27 (5.01) <.01 |
| b | Var (Slope) | 0.06 (0.07) .39 | 0.06 (0.07) .42 | 0.05 (0.05) .34 | 0.05 (0.05) .27 |
| b | Var (Residual) | 8.97 (1.01) <.01 | 9.01 (1.02) <.01 | 9.26 (1.03) <.01 | 9.21 (1.01) <.01 |
| a | Covar (Level, Slope) | -293.51 (165.55) .08 | -272.09 (157.68) .08 | -265.47 (152.36) .08 | -296.60 (137.29) .03 |
| b | Covar (Level, Slope) | 0.06 (0.42) .90 | -0.06 (0.50) .91 | -0.04 (0.44) .93 | -0.06 (0.43) .88 |
|  | Correlation of Levels | 0.429 | 0.40 | 0.331 | 0.30 |
|  | Correlation of Slopes | 0.664 | 0.66 | 0.757 | 0.75 |
|  | Correlation of Residuals | 0.088 | 0.09 | 0.099 | 0.11 |
|  | N | 151 | 151 | 136 | 136 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,352 | -3,344 | -3,191 | -3,179 |
|  | AIC | 6,746 | 6,739 | 6,441 | 6,440 |
|  | BIC | 6,809 | 6,814 | 6,525 | 6,559 |

## clock

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 118.67 (51.57) .02 | 100.97 (53.53) .06 | 26.38 (18.76) .16 | 31.30 (18.79) .10 |
| ab | Covar (Slopes) | 0.07 (0.52) .89 | 0.00 (0.91) .99 | 0.05 (0.79) .95 | -0.17 (0.56) .76 |
| ab | Covar (Residuals) | 3.26 (13.54) .81 | 2.86 (13.32) .83 | 3.37 (10.58) .75 | 3.87 (10.84) .72 |
| er | Corr (Levels) | 0.47 (0.16) <.01 | 0.43 (0.18) .02 | 0.22 (0.15) .15 | 0.27 (0.14) .06 |
| er | Corr (Slopes) | 0.07 (0.50) .89 | 0.00 (0.77) .99 | 0.04 (0.67) .95 | -0.17 (0.53) .74 |
| er | Corr (Residuals) | 0.03 (0.12) .81 | 0.03 (0.12) .83 | 0.03 (0.11) .75 | 0.04 (0.11) .72 |
| a | Level | 433.50 (16.07) <.01 | 424.90 (16.19) <.01 | 434.71 (16.09) <.01 | 466.55 (24.68) <.01 |
| a | Slope | -11.11 (2.31) <.01 | -10.71 (2.36) <.01 | -10.58 (2.31) <.01 | -4.22 (3.56) .23 |
| a | Level \* age | -16.51 (4.48) <.01 | -14.44 (4.25) <.01 | -12.79 (4.29) <.01 | -12.43 (4.29) <.01 |
| a | Level \* education | --- | 6.46 (2.13) <.01 | 6.52 (1.95) <.01 | 6.98 (2.14) <.01 |
| a | Level \* height | --- | --- | 182.48 (143.72) .20 | 206.07 (147.19) .16 |
| a | Level \* smoking | --- | --- | --- | -33.04 (23.62) .16 |
| a | Level \* cardio | --- | --- | --- | -22.54 (20.57) .27 |
| a | Level \* diabetes | --- | --- | --- | 38.56 (25.06) .12 |
| a | Slope \* age | 0.74 (0.88) .40 | 0.74 (0.87) .40 | 0.73 (0.92) .43 | 0.20 (0.97) .83 |
| a | Slope \* education | --- | -0.28 (0.65) .67 | -0.43 (0.62) .49 | -0.41 (0.60) .50 |
| a | Slope \* height | --- | --- | 17.95 (22.87) .43 | 22.87 (26.23) .38 |
| a | Slope \* smoking | --- | --- | --- | -5.04 (3.49) .15 |
| a | Slope \* cardio | --- | --- | --- | -2.27 (3.14) .47 |
| a | Slope \* diabetes | --- | --- | --- | -5.33 (3.55) .13 |
| b | Level | 14.61 (0.33) <.01 | 14.42 (0.33) <.01 | 14.60 (0.27) <.01 | 14.58 (0.36) <.01 |
| b | Slope | -0.19 (0.08) .02 | -0.21 (0.08) .01 | -0.17 (0.06) .01 | 0.08 (0.06) .22 |
| b | Level \* age | -0.31 (0.10) <.01 | -0.24 (0.09) .01 | -0.10 (0.07) .14 | -0.10 (0.07) .17 |
| b | Level \* education | --- | 0.05 (0.06) .44 | 0.04 (0.04) .30 | 0.03 (0.04) .45 |
| b | Level \* height | --- | --- | 3.06 (2.34) .19 | 2.49 (2.42) .30 |
| b | Level \* smoking | --- | --- | --- | 0.25 (0.38) .52 |
| b | Level \* cardio | --- | --- | --- | -0.08 (0.34) .81 |
| b | Level \* diabetes | --- | --- | --- | -1.28 (0.81) .11 |
| b | Slope \* age | 0.00 (0.02) .80 | 0.01 (0.02) .69 | -0.00 (0.02) .91 | -0.01 (0.02) .50 |
| b | Slope \* education | --- | 0.03 (0.01) <.01 | 0.02 (0.01) .01 | 0.03 (0.01) .01 |
| b | Slope \* height | --- | --- | 0.23 (0.81) .77 | 0.67 (0.83) .42 |
| b | Slope \* smoking | --- | --- | --- | -0.25 (0.08) <.01 |
| b | Slope \* cardio | --- | --- | --- | -0.10 (0.09) .23 |
| b | Slope \* diabetes | --- | --- | --- | 0.18 (0.12) .15 |
| a | Var (Level) | 11017.17 (2144.99) <.01 | 10331.62 (2016.18) <.01 | 8794.55 (1498.86) <.01 | 8436.58 (1455.47) <.01 |
| a | Var (Slope) | 27.02 (21.56) .21 | 29.89 (22.95) .19 | 28.28 (23.52) .23 | 24.38 (20.41) .23 |
| a | Var (Residual) | 3453.67 (516.90) <.01 | 3431.47 (515.92) <.01 | 3441.27 (523.02) <.01 | 3400.36 (507.22) <.01 |
| b | Var (Level) | 5.67 (1.74) <.01 | 5.30 (1.93) .01 | 1.64 (0.90) .07 | 1.60 (0.79) .04 |
| b | Var (Slope) | 0.04 (0.03) .16 | 0.05 (0.06) .44 | 0.05 (0.05) .31 | 0.04 (0.04) .29 |
| b | Var (Residual) | 3.63 (0.72) <.01 | 3.55 (0.74) <.01 | 2.84 (0.68) <.01 | 2.82 (0.66) <.01 |
| a | Covar (Level, Slope) | -194.43 (192.66) .31 | -202.60 (188.31) .28 | -192.59 (154.64) .21 | -251.55 (153.17) .10 |
| b | Covar (Level, Slope) | 0.47 (0.16) <.01 | 0.39 (0.21) .06 | 0.23 (0.13) .08 | 0.19 (0.10) .05 |
|  | Correlation of Levels | 0.475 | 0.4315 | 0.219 | 0.27 |
|  | Correlation of Slopes | 0.067 | 0.0034 | 0.038 | -0.17 |
|  | Correlation of Residuals | 0.029 | 0.0259 | 0.034 | 0.04 |
|  | N | 162 | 161 | 138 | 138 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,266 | -3,255 | -2,989 | -2,976 |
|  | AIC | 6,574 | 6,560 | 6,036 | 6,034 |
|  | BIC | 6,638 | 6,637 | 6,121 | 6,154 |

## digit\_b

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 48.96 (16.46) <.01 | 39.16 (15.65) .01 | 33.56 (13.46) .01 | 29.48 (12.37) .02 |
| ab | Covar (Slopes) | 0.36 (0.43) .40 | 0.30 (0.43) .48 | 0.25 (0.42) .55 | 0.37 (0.34) .28 |
| ab | Covar (Residuals) | -5.22 (4.95) .29 | -5.10 (5.00) .31 | -5.05 (5.00) .31 | -5.41 (4.73) .25 |
| er | Corr (Levels) | 0.40 (0.12) <.01 | 0.35 (0.13) .01 | 0.33 (0.13) .01 | 0.31 (0.13) .02 |
| er | Corr (Slopes) | 0.41 (0.47) .39 | 0.34 (0.49) .48 | 0.28 (0.49) .56 | 0.46 (0.40) .25 |
| er | Corr (Residuals) | -0.09 (0.08) .27 | -0.09 (0.08) .29 | -0.09 (0.08) .29 | -0.10 (0.08) .23 |
| a | Level | 432.05 (16.13) <.01 | 425.69 (16.51) <.01 | 435.16 (16.38) <.01 | 466.63 (24.80) <.01 |
| a | Slope | -10.44 (2.36) <.01 | -10.17 (2.39) <.01 | -10.10 (2.31) <.01 | -3.16 (3.40) .35 |
| a | Level \* age | -12.44 (4.20) <.01 | -11.61 (4.13) <.01 | -12.08 (4.22) <.01 | -11.56 (4.21) .01 |
| a | Level \* education | --- | 6.30 (2.10) <.01 | 6.22 (1.97) <.01 | 6.74 (2.13) <.01 |
| a | Level \* height | --- | --- | 184.96 (142.92) .20 | 205.61 (146.76) .16 |
| a | Level \* smoking | --- | --- | --- | -33.42 (23.25) .15 |
| a | Level \* cardio | --- | --- | --- | -22.21 (20.13) .27 |
| a | Level \* diabetes | --- | --- | --- | 41.37 (23.50) .08 |
| a | Slope \* age | 0.72 (0.85) .40 | 0.69 (0.86) .42 | 0.74 (0.88) .40 | -0.01 (0.93) .99 |
| a | Slope \* education | --- | -0.30 (0.64) .63 | -0.47 (0.62) .46 | -0.46 (0.60) .45 |
| a | Slope \* height | --- | --- | 15.82 (23.45) .50 | 25.17 (26.65) .34 |
| a | Slope \* smoking | --- | --- | --- | -5.31 (3.34) .11 |
| a | Slope \* cardio | --- | --- | --- | -2.81 (3.19) .38 |
| a | Slope \* diabetes | --- | --- | --- | -4.65 (3.51) .19 |
| b | Level | 3.52 (0.19) <.01 | 3.37 (0.19) <.01 | 3.52 (0.18) <.01 | 3.97 (0.28) <.01 |
| b | Slope | -0.05 (0.04) .24 | -0.04 (0.04) .35 | -0.05 (0.04) .26 | -0.06 (0.09) .47 |
| b | Level \* age | -0.08 (0.04) .08 | -0.06 (0.04) .15 | -0.07 (0.04) .12 | -0.08 (0.05) .10 |
| b | Level \* education | --- | 0.15 (0.03) <.01 | 0.13 (0.03) <.01 | 0.12 (0.03) <.01 |
| b | Level \* height | --- | --- | 0.19 (1.71) .91 | 0.21 (1.70) .90 |
| b | Level \* smoking | --- | --- | --- | -0.19 (0.29) .50 |
| b | Level \* cardio | --- | --- | --- | -0.57 (0.26) .03 |
| b | Level \* diabetes | --- | --- | --- | -0.30 (0.43) .49 |
| b | Slope \* age | -0.00 (0.01) .91 | -0.00 (0.01) .89 | 0.00 (0.01) .92 | 0.00 (0.01) .91 |
| b | Slope \* education | --- | -0.00 (0.01) .50 | -0.01 (0.01) .42 | -0.00 (0.01) .70 |
| b | Slope \* height | --- | --- | 0.58 (0.34) .09 | 0.63 (0.37) .09 |
| b | Slope \* smoking | --- | --- | --- | -0.04 (0.08) .64 |
| b | Slope \* cardio | --- | --- | --- | 0.09 (0.05) .11 |
| b | Slope \* diabetes | --- | --- | --- | -0.03 (0.12) .79 |
| a | Var (Level) | 9680.48 (1524.92) <.01 | 9267.11 (1449.63) <.01 | 8710.16 (1483.61) <.01 | 8314.65 (1388.99) <.01 |
| a | Var (Slope) | 31.07 (22.08) .16 | 30.21 (22.08) .17 | 31.64 (24.06) .19 | 31.82 (18.17) .08 |
| a | Var (Residual) | 3447.78 (510.51) <.01 | 3444.74 (511.88) <.01 | 3428.27 (516.77) <.01 | 3366.06 (484.32) <.01 |
| b | Var (Level) | 1.57 (0.32) <.01 | 1.34 (0.29) <.01 | 1.16 (0.29) <.01 | 1.06 (0.26) <.01 |
| b | Var (Slope) | 0.02 (0.02) .12 | 0.03 (0.02) .12 | 0.02 (0.02) .12 | 0.02 (0.01) .17 |
| b | Var (Residual) | 0.97 (0.13) <.01 | 0.97 (0.13) <.01 | 0.95 (0.14) <.01 | 0.95 (0.13) <.01 |
| a | Covar (Level, Slope) | -261.81 (163.97) .11 | -240.04 (155.24) .12 | -229.42 (154.32) .14 | -276.72 (145.15) .06 |
| b | Covar (Level, Slope) | -0.13 (0.06) .04 | -0.12 (0.06) .04 | -0.10 (0.06) .06 | -0.09 (0.05) .06 |
|  | Correlation of Levels | 0.40 | 0.351 | 0.333 | 0.313 |
|  | Correlation of Slopes | 0.41 | 0.341 | 0.285 | 0.458 |
|  | Correlation of Residuals | -0.09 | -0.088 | -0.089 | -0.096 |
|  | N | 158 | 158 | 138 | 138 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,881 | -2,871 | -2,735 | -2,723 |
|  | AIC | 5,805 | 5,791 | 5,528 | 5,529 |
|  | BIC | 5,869 | 5,868 | 5,613 | 5,649 |

## digit\_f

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 2.40 (12.78) .85 | -2.50 (12.58) .84 | -4.15 (12.37) .74 | -7.21 (11.26) .52 |
| ab | Covar (Slopes) | 0.20 (0.29) .50 | 0.16 (0.29) .57 | 0.19 (0.31) .54 | 0.36 (0.19) .06 |
| ab | Covar (Residuals) | 0.56 (2.99) .85 | 0.94 (2.95) .75 | 0.66 (2.65) .80 | 0.45 (2.57) .86 |
| er | Corr (Levels) | 0.03 (0.14) .85 | -0.03 (0.14) .84 | -0.05 (0.14) .74 | -0.09 (0.14) .52 |
| er | Corr (Slopes) | 0.29 (0.42) .49 | 0.25 (0.43) .56 | 0.26 (0.44) .55 | 0.63 (0.17) <.01 |
| er | Corr (Residuals) | 0.01 (0.07) .85 | 0.02 (0.07) .75 | 0.02 (0.06) .80 | 0.01 (0.06) .86 |
| a | Level | 434.38 (16.20) <.01 | 427.54 (16.51) <.01 | 435.13 (16.42) <.01 | 469.38 (25.05) <.01 |
| a | Slope | -10.32 (2.37) <.01 | -10.04 (2.42) <.01 | -10.09 (2.39) <.01 | -4.53 (3.31) .17 |
| a | Level \* age | -12.51 (4.33) <.01 | -11.41 (4.22) .01 | -11.93 (4.25) <.01 | -11.48 (4.21) .01 |
| a | Level \* education | --- | 6.30 (2.09) <.01 | 6.33 (1.94) <.01 | 6.98 (2.13) <.01 |
| a | Level \* height | --- | --- | 195.50 (145.31) .18 | 211.21 (150.10) .16 |
| a | Level \* smoking | --- | --- | --- | -36.65 (23.07) .11 |
| a | Level \* cardio | --- | --- | --- | -22.91 (20.18) .26 |
| a | Level \* diabetes | --- | --- | --- | 43.66 (24.41) .07 |
| a | Slope \* age | 0.53 (0.91) .56 | 0.50 (0.92) .59 | 0.71 (0.94) .45 | 0.18 (0.95) .85 |
| a | Slope \* education | --- | -0.27 (0.61) .66 | -0.46 (0.60) .44 | -0.44 (0.59) .46 |
| a | Slope \* height | --- | --- | 14.75 (23.82) .54 | 27.73 (26.88) .30 |
| a | Slope \* smoking | --- | --- | --- | -5.22 (3.27) .11 |
| a | Slope \* cardio | --- | --- | --- | -1.79 (2.99) .55 |
| a | Slope \* diabetes | --- | --- | --- | -5.16 (3.38) .13 |
| b | Level | 5.70 (0.14) <.01 | 5.64 (0.14) <.01 | 5.67 (0.15) <.01 | 6.02 (0.27) <.01 |
| b | Slope | -0.04 (0.03) .12 | -0.05 (0.03) .06 | -0.06 (0.03) .02 | -0.10 (0.06) .08 |
| b | Level \* age | -0.05 (0.03) .11 | -0.04 (0.03) .16 | -0.02 (0.03) .51 | -0.02 (0.03) .46 |
| b | Level \* education | --- | 0.06 (0.02) .02 | 0.06 (0.02) .02 | 0.07 (0.03) .01 |
| b | Level \* height | --- | --- | 1.03 (1.61) .52 | 1.16 (1.63) .48 |
| b | Level \* smoking | --- | --- | --- | -0.47 (0.25) .06 |
| b | Level \* cardio | --- | --- | --- | -0.01 (0.19) .94 |
| b | Level \* diabetes | --- | --- | --- | -0.04 (0.24) .88 |
| b | Slope \* age | -0.02 (0.01) .04 | -0.02 (0.01) .07 | -0.01 (0.01) .10 | -0.01 (0.01) .09 |
| b | Slope \* education | --- | 0.01 (0.00) .10 | 0.01 (0.01) .15 | 0.01 (0.01) .21 |
| b | Slope \* height | --- | --- | -0.29 (0.23) .19 | -0.36 (0.25) .16 |
| b | Slope \* smoking | --- | --- | --- | 0.06 (0.05) .19 |
| b | Slope \* cardio | --- | --- | --- | -0.02 (0.04) .51 |
| b | Slope \* diabetes | --- | --- | --- | 0.00 (0.05) .96 |
| a | Var (Level) | 9626.81 (1493.92) <.01 | 9231.00 (1415.39) <.01 | 8804.69 (1475.95) <.01 | 8305.94 (1346.32) <.01 |
| a | Var (Slope) | 31.99 (20.14) .11 | 31.89 (20.25) .12 | 39.29 (24.92) .12 | 27.92 (12.18) .02 |
| a | Var (Residual) | 3436.54 (500.34) <.01 | 3430.58 (501.41) <.01 | 3383.19 (504.69) <.01 | 3391.63 (461.05) <.01 |
| b | Var (Level) | 0.91 (0.17) <.01 | 0.88 (0.17) <.01 | 0.86 (0.17) <.01 | 0.81 (0.16) <.01 |
| b | Var (Slope) | 0.01 (0.01) .04 | 0.01 (0.01) .04 | 0.01 (0.01) .03 | 0.01 (0.00) <.01 |
| b | Var (Residual) | 0.57 (0.08) <.01 | 0.56 (0.08) <.01 | 0.52 (0.08) <.01 | 0.52 (0.08) <.01 |
| a | Covar (Level, Slope) | -258.20 (157.66) .10 | -242.12 (150.09) .11 | -267.44 (159.46) .09 | -274.76 (121.53) .02 |
| b | Covar (Level, Slope) | -0.07 (0.03) .01 | -0.07 (0.03) .01 | -0.08 (0.03) <.01 | -0.07 (0.02) <.01 |
|  | Correlation of Levels | 0.026 | -0.028 | -0.048 | -0.088 |
|  | Correlation of Slopes | 0.294 | 0.245 | 0.266 | 0.620 |
|  | Correlation of Residuals | 0.013 | 0.022 | 0.016 | 0.011 |
|  | N | 158 | 158 | 138 | 138 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,769 | -2,759 | -2,624 | -2,614 |
|  | AIC | 5,579 | 5,568 | 5,306 | 5,310 |
|  | BIC | 5,644 | 5,645 | 5,391 | 5,430 |

## fig\_logic

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 133.17 (48.04) .01 | 114.72 (45.51) .01 | 81.03 (36.00) .02 | 67.17 (33.87) .05 |
| ab | Covar (Slopes) | 1.28 (0.77) .10 | 1.23 (0.73) .09 | 1.19 (0.70) .09 | 1.08 (0.60) .07 |
| ab | Covar (Residuals) | -1.79 (14.13) .90 | -2.24 (14.07) .87 | -1.77 (13.92) .90 | 2.25 (13.70) .87 |
| er | Corr (Levels) | 0.41 (0.12) <.01 | 0.38 (0.13) <.01 | 0.32 (0.13) .01 | 0.29 (0.13) .03 |
| er | Corr (Slopes) | 0.76 (0.19) <.01 | 0.76 (0.18) <.01 | 0.80 (0.16) <.01 | 0.79 (0.14) <.01 |
| er | Corr (Residuals) | -0.01 (0.09) .90 | -0.01 (0.09) .87 | -0.01 (0.09) .90 | 0.01 (0.08) .87 |
| a | Level | 428.97 (16.50) <.01 | 422.48 (16.73) <.01 | 433.64 (16.37) <.01 | 464.67 (24.82) <.01 |
| a | Slope | -9.96 (2.38) <.01 | -9.61 (2.43) <.01 | -9.80 (2.35) <.01 | -3.12 (3.27) .34 |
| a | Level \* age | -11.93 (4.28) <.01 | -11.07 (4.20) .01 | -11.88 (4.24) <.01 | -11.47 (4.19) .01 |
| a | Level \* education | --- | 6.81 (2.06) <.01 | 6.56 (1.95) <.01 | 7.13 (2.10) <.01 |
| a | Level \* height | --- | --- | 179.40 (143.79) .21 | 203.44 (145.96) .16 |
| a | Level \* smoking | --- | --- | --- | -34.05 (23.08) .14 |
| a | Level \* cardio | --- | --- | --- | -20.82 (20.02) .30 |
| a | Level \* diabetes | --- | --- | --- | 43.14 (24.37) .08 |
| a | Slope \* age | 0.59 (0.88) .50 | 0.56 (0.88) .52 | 0.64 (0.90) .48 | 0.05 (0.94) .96 |
| a | Slope \* education | --- | -0.36 (0.66) .59 | -0.51 (0.62) .41 | -0.48 (0.64) .45 |
| a | Slope \* height | --- | --- | 17.36 (23.72) .46 | 24.00 (26.08) .36 |
| a | Slope \* smoking | --- | --- | --- | -5.22 (3.26) .11 |
| a | Slope \* cardio | --- | --- | --- | -2.69 (3.01) .37 |
| a | Slope \* diabetes | --- | --- | --- | -4.72 (3.28) .15 |
| b | Level | 15.76 (0.55) <.01 | 15.48 (0.54) <.01 | 15.96 (0.47) <.01 | 17.23 (0.82) <.01 |
| b | Slope | -0.05 (0.10) .63 | -0.03 (0.11) .81 | -0.03 (0.10) .78 | 0.06 (0.18) .73 |
| b | Level \* age | -0.17 (0.13) .20 | -0.14 (0.12) .25 | -0.17 (0.12) .18 | -0.15 (0.12) .20 |
| b | Level \* education | --- | 0.35 (0.10) <.01 | 0.33 (0.10) <.01 | 0.36 (0.10) <.01 |
| b | Level \* height | --- | --- | 2.74 (4.93) .58 | 2.70 (4.65) .56 |
| b | Level \* smoking | --- | --- | --- | -1.98 (0.72) .01 |
| b | Level \* cardio | --- | --- | --- | 0.37 (0.66) .57 |
| b | Level \* diabetes | --- | --- | --- | -1.03 (1.20) .39 |
| b | Slope \* age | 0.01 (0.03) .68 | 0.01 (0.03) .73 | 0.01 (0.03) .62 | 0.01 (0.03) .72 |
| b | Slope \* education | --- | -0.03 (0.02) .15 | -0.03 (0.02) .19 | -0.02 (0.03) .53 |
| b | Slope \* height | --- | --- | 0.81 (1.06) .45 | 1.54 (1.12) .17 |
| b | Slope \* smoking | --- | --- | --- | -0.17 (0.15) .25 |
| b | Slope \* cardio | --- | --- | --- | 0.08 (0.14) .55 |
| b | Slope \* diabetes | --- | --- | --- | 0.37 (0.36) .30 |
| a | Var (Level) | 9890.84 (1525.37) <.01 | 9447.54 (1445.15) <.01 | 8831.38 (1462.91) <.01 | 8355.68 (1380.83) <.01 |
| a | Var (Slope) | 43.75 (23.01) .06 | 43.01 (22.72) .06 | 42.73 (23.29) .07 | 37.20 (19.57) .06 |
| a | Var (Residual) | 3378.99 (493.40) <.01 | 3374.02 (492.31) <.01 | 3359.74 (492.57) <.01 | 3330.32 (481.60) <.01 |
| b | Var (Level) | 10.64 (2.51) <.01 | 9.73 (2.29) <.01 | 7.40 (1.62) <.01 | 6.50 (1.57) <.01 |
| b | Var (Slope) | 0.06 (0.04) .13 | 0.06 (0.04) .11 | 0.05 (0.03) .12 | 0.05 (0.03) .06 |
| b | Var (Residual) | 7.84 (0.95) <.01 | 7.79 (0.93) <.01 | 7.70 (0.90) <.01 | 7.82 (0.90) <.01 |
| a | Covar (Level, Slope) | -313.20 (168.94) .06 | -290.03 (158.43) .07 | -273.71 (152.47) .07 | -295.58 (142.16) .04 |
| b | Covar (Level, Slope) | -0.52 (0.31) .10 | -0.44 (0.30) .14 | -0.33 (0.24) .17 | -0.44 (0.22) .05 |
|  | Correlation of Levels | 0.410 | 0.378 | 0.317 | 0.288 |
|  | Correlation of Slopes | 0.762 | 0.766 | 0.796 | 0.784 |
|  | Correlation of Residuals | -0.011 | -0.014 | -0.011 | 0.014 |
|  | N | 146 | 146 | 133 | 133 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,120 | -3,115 | -3,000 | -2,984 |
|  | AIC | 6,283 | 6,280 | 6,058 | 6,051 |
|  | BIC | 6,345 | 6,354 | 6,142 | 6,169 |

## information

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 143.85 (91.93) .12 | 74.44 (85.07) .38 | 51.89 (80.16) .52 | 40.22 (74.88) .59 |
| ab | Covar (Slopes) | -0.29 (2.10) .89 | -0.19 (2.10) .93 | 0.12 (1.92) .95 | -0.27 (1.54) .86 |
| ab | Covar (Residuals) | 10.05 (14.83) .50 | 9.78 (14.86) .51 | 8.79 (15.19) .56 | 9.16 (14.72) .53 |
| er | Corr (Levels) | 0.17 (0.11) .11 | 0.10 (0.12) .38 | 0.08 (0.12) .52 | 0.06 (0.12) .59 |
| er | Corr (Slopes) | -0.05 (0.39) .89 | -0.04 (0.39) .93 | 0.02 (0.38) .95 | -0.07 (0.39) .86 |
| er | Corr (Residuals) | 0.05 (0.08) .50 | 0.05 (0.08) .51 | 0.04 (0.08) .56 | 0.05 (0.08) .53 |
| a | Level | 435.21 (16.07) <.01 | 427.94 (16.47) <.01 | 435.91 (16.40) <.01 | 468.98 (24.57) <.01 |
| a | Slope | -10.46 (2.35) <.01 | -10.10 (2.38) <.01 | -10.12 (2.34) <.01 | -3.50 (3.36) .30 |
| a | Level \* age | -13.60 (4.21) <.01 | -12.41 (4.13) <.01 | -12.67 (4.15) <.01 | -12.10 (4.14) <.01 |
| a | Level \* education | --- | 6.49 (2.07) <.01 | 6.40 (1.95) <.01 | 6.88 (2.12) <.01 |
| a | Level \* height | --- | --- | 191.67 (143.21) .18 | 213.90 (146.65) .14 |
| a | Level \* smoking | --- | --- | --- | -35.18 (22.68) .12 |
| a | Level \* cardio | --- | --- | --- | -22.02 (20.05) .27 |
| a | Level \* diabetes | --- | --- | --- | 36.40 (24.41) .14 |
| a | Slope \* age | 0.74 (0.86) .39 | 0.69 (0.86) .42 | 0.76 (0.88) .39 | 0.11 (0.92) .90 |
| a | Slope \* education | --- | -0.37 (0.65) .57 | -0.51 (0.61) .41 | -0.42 (0.60) .49 |
| a | Slope \* height | --- | --- | 19.73 (23.97) .41 | 21.72 (26.35) .41 |
| a | Slope \* smoking | --- | --- | --- | -5.36 (3.36) .11 |
| a | Slope \* cardio | --- | --- | --- | -2.66 (3.18) .40 |
| a | Slope \* diabetes | --- | --- | --- | -6.56 (4.21) .12 |
| b | Level | 34.34 (1.13) <.01 | 33.32 (1.02) <.01 | 33.76 (1.16) <.01 | 35.48 (1.81) <.01 |
| b | Slope | -0.51 (0.18) <.01 | -0.56 (0.18) <.01 | -0.49 (0.17) <.01 | -0.01 (0.31) .96 |
| b | Level \* age | -0.58 (0.32) .07 | -0.50 (0.29) .08 | -0.38 (0.30) .21 | -0.37 (0.31) .24 |
| b | Level \* education | --- | 1.22 (0.17) <.01 | 1.00 (0.17) <.01 | 1.06 (0.17) <.01 |
| b | Level \* height | --- | --- | 19.47 (11.43) .09 | 19.14 (11.05) .08 |
| b | Level \* smoking | --- | --- | --- | -2.77 (1.74) .11 |
| b | Level \* cardio | --- | --- | --- | 0.98 (1.36) .47 |
| b | Level \* diabetes | --- | --- | --- | -2.49 (1.64) .13 |
| b | Slope \* age | -0.01 (0.07) .92 | 0.01 (0.07) .93 | -0.02 (0.07) .81 | -0.03 (0.07) .62 |
| b | Slope \* education | --- | 0.03 (0.03) .30 | 0.03 (0.03) .32 | 0.03 (0.02) .22 |
| b | Slope \* height | --- | --- | 0.19 (2.04) .93 | 0.19 (2.14) .93 |
| b | Slope \* smoking | --- | --- | --- | -0.39 (0.25) .12 |
| b | Slope \* cardio | --- | --- | --- | -0.24 (0.23) .30 |
| b | Slope \* diabetes | --- | --- | --- | -0.46 (0.65) .48 |
| a | Var (Level) | 9757.08 (1547.22) <.01 | 9333.16 (1465.48) <.01 | 8752.33 (1494.31) <.01 | 8264.70 (1403.80) <.01 |
| a | Var (Slope) | 41.52 (26.95) .12 | 40.12 (26.57) .13 | 38.23 (27.66) .17 | 28.05 (20.13) .16 |
| a | Var (Residual) | 3396.31 (517.39) <.01 | 3393.12 (516.87) <.01 | 3399.27 (522.14) <.01 | 3380.14 (503.61) <.01 |
| b | Var (Level) | 70.19 (8.69) <.01 | 56.89 (7.69) <.01 | 52.30 (7.86) <.01 | 50.42 (8.03) <.01 |
| b | Var (Slope) | 0.72 (0.22) <.01 | 0.72 (0.23) <.01 | 0.64 (0.21) <.01 | 0.58 (0.17) <.01 |
| b | Var (Residual) | 11.08 (1.38) <.01 | 11.08 (1.39) <.01 | 11.06 (1.47) <.01 | 11.10 (1.44) <.01 |
| a | Covar (Level, Slope) | -284.72 (174.12) .10 | -259.60 (164.34) .11 | -244.68 (163.97) .14 | -252.06 (146.44) .08 |
| b | Covar (Level, Slope) | 0.30 (0.73) .68 | 0.00 (0.79) .99 | 0.01 (0.73) .99 | -0.28 (0.72) .70 |
|  | Correlation of Levels | 0.174 | 0.102 | 0.077 | 0.062 |
|  | Correlation of Slopes | -0.053 | -0.036 | 0.025 | -0.067 |
|  | Correlation of Residuals | 0.052 | 0.050 | 0.045 | 0.047 |
|  | N | 156 | 156 | 138 | 138 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,571 | -3,555 | -3,368 | -3,356 |
|  | AIC | 7,183 | 7,159 | 6,793 | 6,793 |
|  | BIC | 7,247 | 7,235 | 6,878 | 6,913 |

## mir

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 96.98 (25.51) <.01 | 91.96 (24.57) <.01 | 81.58 (21.32) <.01 | 76.75 (20.62) <.01 |
| ab | Covar (Slopes) | 0.61 (0.48) .21 | 0.60 (0.48) .21 | 0.77 (0.47) .10 | 0.84 (0.44) .06 |
| ab | Covar (Residuals) | -1.70 (7.50) .82 | -1.96 (7.39) .79 | -1.40 (7.27) .85 | -1.34 (6.98) .85 |
| er | Corr (Levels) | 0.61 (0.11) <.01 | 0.60 (0.12) <.01 | 0.60 (0.12) <.01 | 0.58 (0.12) <.01 |
| er | Corr (Slopes) | 0.34 (0.23) .14 | 0.34 (0.23) .14 | 0.42 (0.20) .04 | 0.43 (0.17) .01 |
| er | Corr (Residuals) | -0.02 (0.09) .82 | -0.02 (0.09) .79 | -0.02 (0.09) .85 | -0.02 (0.09) .85 |
| a | Level | 432.47 (16.15) <.01 | 424.11 (16.46) <.01 | 433.91 (16.26) <.01 | 461.87 (24.41) <.01 |
| a | Slope | -9.93 (2.28) <.01 | -9.46 (2.33) <.01 | -9.41 (2.32) <.01 | -1.94 (3.34) .56 |
| a | Level \* age | -13.81 (4.31) <.01 | -12.66 (4.20) <.01 | -12.72 (4.29) <.01 | -12.23 (4.27) <.01 |
| a | Level \* education | --- | 7.98 (2.17) <.01 | 7.28 (2.00) <.01 | 7.74 (2.18) <.01 |
| a | Level \* height | --- | --- | 207.25 (144.00) .15 | 225.54 (146.92) .12 |
| a | Level \* smoking | --- | --- | --- | -31.02 (22.66) .17 |
| a | Level \* cardio | --- | --- | --- | -19.89 (20.41) .33 |
| a | Level \* diabetes | --- | --- | --- | 45.14 (23.76) .06 |
| a | Slope \* age | 0.78 (0.80) .33 | 0.73 (0.81) .36 | 0.74 (0.84) .38 | 0.02 (0.91) .98 |
| a | Slope \* education | --- | -0.43 (0.63) .49 | -0.63 (0.57) .28 | -0.54 (0.55) .33 |
| a | Slope \* height | --- | --- | 19.80 (23.94) .41 | 27.40 (26.61) .30 |
| a | Slope \* smoking | --- | --- | --- | -5.85 (3.18) .07 |
| a | Slope \* cardio | --- | --- | --- | -2.91 (3.13) .35 |
| a | Slope \* diabetes | --- | --- | --- | -4.92 (3.76) .19 |
| b | Level | 7.02 (0.27) <.01 | 6.91 (0.28) <.01 | 6.97 (0.27) <.01 | 7.33 (0.45) <.01 |
| b | Slope | -0.09 (0.07) .21 | -0.09 (0.07) .23 | -0.06 (0.08) .46 | 0.07 (0.10) .52 |
| b | Level \* age | -0.27 (0.07) <.01 | -0.25 (0.07) <.01 | -0.22 (0.07) <.01 | -0.22 (0.08) <.01 |
| b | Level \* education | --- | 0.11 (0.05) .02 | 0.08 (0.05) .08 | 0.08 (0.05) .11 |
| b | Level \* height | --- | --- | -0.01 (2.96) .99 | -0.04 (3.03) .99 |
| b | Level \* smoking | --- | --- | --- | -0.24 (0.43) .57 |
| b | Level \* cardio | --- | --- | --- | -0.40 (0.32) .22 |
| b | Level \* diabetes | --- | --- | --- | 0.04 (0.54) .94 |
| b | Slope \* age | -0.01 (0.02) .49 | -0.01 (0.02) .50 | -0.02 (0.02) .27 | -0.03 (0.02) .17 |
| b | Slope \* education | --- | -0.00 (0.02) .84 | -0.00 (0.02) .80 | -0.01 (0.02) .69 |
| b | Slope \* height | --- | --- | -0.02 (0.73) .98 | 0.10 (0.75) .89 |
| b | Slope \* smoking | --- | --- | --- | -0.07 (0.09) .40 |
| b | Slope \* cardio | --- | --- | --- | -0.13 (0.10) .19 |
| b | Slope \* diabetes | --- | --- | --- | 0.13 (0.13) .34 |
| a | Var (Level) | 10139.41 (1577.96) <.01 | 9667.40 (1481.71) <.01 | 9047.71 (1489.25) <.01 | 8722.86 (1418.96) <.01 |
| a | Var (Slope) | 40.22 (18.29) .03 | 39.42 (17.64) .02 | 48.49 (22.35) .03 | 51.22 (17.05) <.01 |
| a | Var (Residual) | 3405.14 (471.17) <.01 | 3400.68 (468.63) <.01 | 3325.09 (474.60) <.01 | 3247.21 (453.01) <.01 |
| b | Var (Level) | 2.50 (0.50) <.01 | 2.41 (0.48) <.01 | 2.03 (0.40) <.01 | 2.03 (0.37) <.01 |
| b | Var (Slope) | 0.08 (0.02) <.01 | 0.08 (0.02) <.01 | 0.07 (0.02) <.01 | 0.07 (0.02) <.01 |
| b | Var (Residual) | 2.09 (0.24) <.01 | 2.09 (0.24) <.01 | 1.98 (0.23) <.01 | 1.93 (0.23) <.01 |
| a | Covar (Level, Slope) | -323.22 (155.30) .04 | -298.34 (144.34) .04 | -306.77 (154.67) .05 | -373.25 (135.63) .01 |
| b | Covar (Level, Slope) | 0.02 (0.08) .84 | 0.02 (0.08) .80 | 0.03 (0.07) .65 | -0.02 (0.07) .78 |
|  | Correlation of Levels | 0.61 | 0.603 | 0.602 | 0.577 |
|  | Correlation of Slopes | 0.34 | 0.338 | 0.417 | 0.430 |
|  | Correlation of Residuals | -0.02 | -0.023 | -0.017 | -0.017 |
|  | N | 153 | 153 | 137 | 137 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,006 | -3,002 | -2,869 | -2,859 |
|  | AIC | 6,053 | 6,053 | 5,796 | 5,800 |
|  | BIC | 6,117 | 6,129 | 5,881 | 5,919 |

## mir\_recog

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 79.04 (40.17) .05 | 75.49 (39.03) .05 | 46.09 (28.17) .10 | 40.64 (25.66) .11 |
| ab | Covar (Slopes) | -0.14 (0.65) .84 | -0.13 (0.63) .84 | 0.08 (0.53) .87 | 0.22 (0.58) .70 |
| ab | Covar (Residuals) | 3.20 (4.88) .51 | 3.19 (4.88) .51 | 2.52 (3.75) .50 | 2.71 (3.72) .47 |
| er | Corr (Levels) | 0.63 (0.14) <.01 | 0.63 (0.15) <.01 | 0.56 (0.17) <.01 | 0.51 (0.17) <.01 |
| er | Corr (Slopes) | -0.18 (0.91) .84 | -0.17 (0.90) .84 | 0.11 (0.64) .87 | 0.28 (0.60) .65 |
| er | Corr (Residuals) | 0.04 (0.07) .50 | 0.04 (0.07) .51 | 0.04 (0.06) .50 | 0.04 (0.06) .46 |
| a | Level | 435.28 (17.27) <.01 | 426.99 (17.53) <.01 | 437.08 (16.59) <.01 | 467.18 (25.09) <.01 |
| a | Slope | -10.35 (2.35) <.01 | -9.85 (2.38) <.01 | -10.03 (2.30) <.01 | -3.94 (3.40) .25 |
| a | Level \* age | -16.45 (5.12) <.01 | -15.24 (4.98) <.01 | -14.45 (4.67) <.01 | -13.94 (4.58) <.01 |
| a | Level \* education | --- | 7.91 (2.25) <.01 | 7.24 (2.07) <.01 | 7.54 (2.25) <.01 |
| a | Level \* height | --- | --- | 210.75 (147.00) .15 | 229.10 (149.52) .12 |
| a | Level \* smoking | --- | --- | --- | -30.65 (24.43) .21 |
| a | Level \* cardio | --- | --- | --- | -24.86 (20.87) .23 |
| a | Level \* diabetes | --- | --- | --- | 48.84 (24.26) .04 |
| a | Slope \* age | 0.95 (0.84) .26 | 0.90 (0.85) .29 | 0.87 (0.85) .31 | 0.31 (0.90) .73 |
| a | Slope \* education | --- | -0.47 (0.65) .46 | -0.59 (0.62) .34 | -0.53 (0.59) .38 |
| a | Slope \* height | --- | --- | 13.72 (23.08) .55 | 21.08 (26.72) .43 |
| a | Slope \* smoking | --- | --- | --- | -5.18 (3.32) .12 |
| a | Slope \* cardio | --- | --- | --- | -2.01 (3.16) .52 |
| a | Slope \* diabetes | --- | --- | --- | -5.62 (3.45) .10 |
| b | Level | 9.98 (0.19) <.01 | 9.92 (0.19) <.01 | 10.00 (0.12) <.01 | 10.01 (0.17) <.01 |
| b | Slope | -0.09 (0.04) .01 | -0.10 (0.04) .01 | -0.08 (0.04) .02 | -0.10 (0.07) .17 |
| b | Level \* age | -0.17 (0.08) .04 | -0.16 (0.08) .05 | -0.13 (0.06) .04 | -0.14 (0.06) .03 |
| b | Level \* education | --- | 0.06 (0.03) .05 | 0.03 (0.03) .21 | 0.03 (0.03) .31 |
| b | Level \* height | --- | --- | 1.70 (1.43) .23 | 1.87 (1.44) .19 |
| b | Level \* smoking | --- | --- | --- | 0.04 (0.28) .88 |
| b | Level \* cardio | --- | --- | --- | -0.17 (0.23) .48 |
| b | Level \* diabetes | --- | --- | --- | 0.44 (0.19) .02 |
| b | Slope \* age | 0.01 (0.02) .46 | 0.01 (0.02) .43 | 0.01 (0.02) .43 | 0.01 (0.02) .40 |
| b | Slope \* education | --- | 0.00 (0.01) .88 | 0.00 (0.01) .97 | -0.00 (0.01) .64 |
| b | Slope \* height | --- | --- | -0.11 (0.43) .79 | -0.21 (0.42) .62 |
| b | Slope \* smoking | --- | --- | --- | 0.05 (0.06) .44 |
| b | Slope \* cardio | --- | --- | --- | -0.04 (0.06) .47 |
| b | Slope \* diabetes | --- | --- | --- | 0.02 (0.04) .65 |
| a | Var (Level) | 11911.15 (2616.11) <.01 | 11339.13 (2482.52) <.01 | 9654.77 (1902.52) <.01 | 9052.91 (1741.85) <.01 |
| a | Var (Slope) | 53.38 (29.85) .07 | 51.63 (29.11) .08 | 46.33 (27.33) .09 | 43.17 (24.04) .07 |
| a | Var (Residual) | 3407.18 (499.07) <.01 | 3402.88 (498.73) <.01 | 3380.57 (499.18) <.01 | 3329.79 (482.17) <.01 |
| b | Var (Level) | 1.31 (0.83) .12 | 1.28 (0.82) .12 | 0.70 (0.67) .29 | 0.69 (0.64) .28 |
| b | Var (Slope) | 0.01 (0.01) .45 | 0.01 (0.01) .45 | 0.01 (0.01) .29 | 0.01 (0.01) .26 |
| b | Var (Residual) | 1.48 (0.47) <.01 | 1.48 (0.47) <.01 | 1.25 (0.44) <.01 | 1.23 (0.44) <.01 |
| a | Covar (Level, Slope) | -475.33 (245.06) .05 | -440.27 (230.57) .06 | -339.26 (182.71) .06 | -360.91 (173.09) .04 |
| b | Covar (Level, Slope) | 0.04 (0.14) .78 | 0.04 (0.13) .78 | -0.00 (0.11) .97 | -0.01 (0.11) .90 |
|  | Correlation of Levels | 0.632 | 0.626 | 0.559 | 0.513 |
|  | Correlation of Slopes | -0.176 | -0.172 | 0.108 | 0.278 |
|  | Correlation of Residuals | 0.045 | 0.045 | 0.039 | 0.042 |
|  | N | 153 | 153 | 137 | 137 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,904 | -2,902 | -2,740 | -2,732 |
|  | AIC | 5,851 | 5,853 | 5,539 | 5,546 |
|  | BIC | 5,915 | 5,929 | 5,624 | 5,665 |

## mmse

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 265.52 (92.60) <.01 | 246.13 (88.66) .01 | 109.69 (34.45) <.01 | 102.71 (31.38) <.01 |
| ab | Covar (Slopes) | -0.17 (1.38) .90 | -0.10 (1.32) .94 | 0.49 (0.79) .53 | 0.29 (0.73) .69 |
| ab | Covar (Residuals) | 27.22 (26.30) .30 | 27.18 (26.64) .31 | 24.66 (24.61) .32 | 22.58 (24.55) .36 |
| er | Corr (Levels) | 0.75 (0.09) <.01 | 0.73 (0.10) <.01 | 0.67 (0.13) <.01 | 0.66 (0.14) <.01 |
| er | Corr (Slopes) | -0.06 (0.46) .90 | -0.04 (0.45) .94 | 0.23 (0.36) .52 | 0.15 (0.37) .69 |
| er | Corr (Residuals) | 0.16 (0.16) .32 | 0.16 (0.17) .33 | 0.16 (0.16) .34 | 0.14 (0.16) .38 |
| a | Level | 430.45 (16.39) <.01 | 423.70 (16.60) <.01 | 434.60 (16.32) <.01 | 464.92 (24.59) <.01 |
| a | Slope | -10.58 (2.43) <.01 | -10.24 (2.53) <.01 | -10.10 (2.42) <.01 | -3.94 (3.44) .25 |
| a | Level \* age | -17.99 (4.29) <.01 | -16.83 (4.19) <.01 | -14.07 (4.18) <.01 | -13.64 (4.21) <.01 |
| a | Level \* education | --- | 6.56 (2.21) <.01 | 6.12 (2.08) <.01 | 6.54 (2.22) <.01 |
| a | Level \* height | --- | --- | 166.37 (143.87) .25 | 182.88 (147.87) .22 |
| a | Level \* smoking | --- | --- | --- | -31.65 (23.06) .17 |
| a | Level \* cardio | --- | --- | --- | -17.64 (20.55) .39 |
| a | Level \* diabetes | --- | --- | --- | 21.03 (25.89) .42 |
| a | Slope \* age | 0.92 (0.89) .30 | 0.89 (0.89) .32 | 0.76 (0.92) .41 | 0.22 (0.96) .82 |
| a | Slope \* education | --- | -0.29 (0.64) .65 | -0.45 (0.61) .46 | -0.42 (0.61) .49 |
| a | Slope \* height | --- | --- | 16.62 (23.58) .48 | 23.65 (27.02) .38 |
| a | Slope \* smoking | --- | --- | --- | -5.04 (3.40) .14 |
| a | Slope \* cardio | --- | --- | --- | -2.40 (3.14) .45 |
| a | Slope \* diabetes | --- | --- | --- | -4.06 (4.19) .33 |
| b | Level | 28.15 (0.40) <.01 | 27.96 (0.40) <.01 | 28.27 (0.34) <.01 | 28.76 (0.52) <.01 |
| b | Slope | -0.29 (0.12) .02 | -0.32 (0.13) .01 | -0.19 (0.11) .07 | -0.07 (0.15) .64 |
| b | Level \* age | -0.44 (0.15) <.01 | -0.42 (0.15) <.01 | -0.26 (0.11) .02 | -0.25 (0.11) .02 |
| b | Level \* education | --- | 0.17 (0.06) <.01 | 0.14 (0.06) .02 | 0.14 (0.06) .03 |
| b | Level \* height | --- | --- | 3.17 (3.00) .29 | 2.95 (3.03) .33 |
| b | Level \* smoking | --- | --- | --- | -0.47 (0.49) .34 |
| b | Level \* cardio | --- | --- | --- | -0.07 (0.49) .89 |
| b | Level \* diabetes | --- | --- | --- | -1.12 (0.92) .22 |
| b | Slope \* age | -0.06 (0.04) .12 | -0.05 (0.04) .15 | -0.07 (0.04) .05 | -0.08 (0.04) .03 |
| b | Slope \* education | --- | 0.03 (0.02) .17 | 0.02 (0.02) .49 | 0.02 (0.02) .47 |
| b | Slope \* height | --- | --- | -0.28 (0.97) .78 | -0.13 (0.90) .88 |
| b | Slope \* smoking | --- | --- | --- | -0.11 (0.13) .39 |
| b | Slope \* cardio | --- | --- | --- | -0.06 (0.13) .66 |
| b | Slope \* diabetes | --- | --- | --- | -0.02 (0.29) .94 |
| a | Var (Level) | 12774.58 (2819.13) <.01 | 12053.21 (2626.97) <.01 | 9142.05 (1557.21) <.01 | 8728.49 (1477.55) <.01 |
| a | Var (Slope) | 39.46 (24.83) .11 | 38.84 (24.41) .11 | 36.82 (23.23) .11 | 34.81 (20.57) .09 |
| a | Var (Residual) | 3500.77 (426.65) <.01 | 3496.97 (426.50) <.01 | 3472.15 (437.08) <.01 | 3405.13 (431.17) <.01 |
| b | Var (Level) | 9.85 (3.90) .01 | 9.48 (3.91) .01 | 2.90 (1.34) .03 | 2.77 (1.27) .03 |
| b | Var (Slope) | 0.22 (0.11) .04 | 0.21 (0.10) .04 | 0.12 (0.05) .01 | 0.11 (0.05) .01 |
| b | Var (Residual) | 7.77 (1.35) <.01 | 7.81 (1.37) <.01 | 7.10 (1.39) <.01 | 7.12 (1.39) <.01 |
| a | Covar (Level, Slope) | -412.22 (287.78) .15 | -386.28 (269.18) .15 | -287.22 (176.86) .10 | -325.68 (166.88) .05 |
| b | Covar (Level, Slope) | 0.98 (0.59) .09 | 0.90 (0.58) .12 | 0.13 (0.21) .53 | 0.11 (0.20) .56 |
|  | Correlation of Levels | 0.748 | 0.728 | 0.67 | 0.66 |
|  | Correlation of Slopes | -0.057 | -0.035 | 0.23 | 0.15 |
|  | Correlation of Residuals | 0.165 | 0.164 | 0.16 | 0.14 |
|  | N | 164 | 164 | 140 | 140 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,492 | -3,489 | -3,206 | -3,198 |
|  | AIC | 7,027 | 7,028 | 6,470 | 6,478 |
|  | BIC | 7,092 | 7,106 | 6,556 | 6,598 |

## prose\_im

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 116.89 (47.77) .01 | 81.94 (45.08) .07 | 73.12 (42.14) .08 | 63.89 (39.91) .11 |
| ab | Covar (Slopes) | -0.59 (0.64) .35 | -0.59 (0.60) .33 | -0.28 (0.67) .68 | -0.17 (0.42) .69 |
| ab | Covar (Residuals) | 15.32 (16.90) .36 | 15.53 (17.09) .36 | 14.68 (17.43) .40 | 11.87 (16.64) .48 |
| er | Corr (Levels) | 0.32 (0.12) .01 | 0.26 (0.13) .05 | 0.25 (0.14) .07 | 0.22 (0.13) .10 |
| er | Corr (Slopes) | -0.61 (0.38) .11 | -0.61 (0.37) .09 | -0.42 (0.75) .58 | -0.26 (0.53) .62 |
| er | Corr (Residuals) | 0.13 (0.14) .36 | 0.13 (0.14) .36 | 0.12 (0.14) .39 | 0.10 (0.14) .47 |
| a | Level | 432.49 (16.18) <.01 | 425.34 (16.52) <.01 | 434.45 (16.40) <.01 | 465.57 (24.94) <.01 |
| a | Slope | -10.09 (2.38) <.01 | -9.70 (2.42) <.01 | -9.85 (2.40) <.01 | -3.29 (3.46) .34 |
| a | Level \* age | -13.54 (4.22) <.01 | -12.57 (4.13) <.01 | -12.54 (4.20) <.01 | -12.13 (4.21) <.01 |
| a | Level \* education | --- | 7.07 (2.10) <.01 | 6.64 (1.95) <.01 | 7.03 (2.12) <.01 |
| a | Level \* height | --- | --- | 192.30 (142.01) .18 | 212.01 (145.66) .15 |
| a | Level \* smoking | --- | --- | --- | -33.30 (23.00) .15 |
| a | Level \* cardio | --- | --- | --- | -21.06 (20.12) .29 |
| a | Level \* diabetes | --- | --- | --- | 39.26 (24.51) .11 |
| a | Slope \* age | 0.72 (0.87) .41 | 0.68 (0.87) .43 | 0.72 (0.90) .42 | 0.14 (0.92) .88 |
| a | Slope \* education | --- | -0.38 (0.65) .55 | -0.53 (0.62) .40 | -0.40 (0.60) .50 |
| a | Slope \* height | --- | --- | 18.02 (23.39) .44 | 22.22 (26.29) .40 |
| a | Slope \* smoking | --- | --- | --- | -5.28 (3.24) .10 |
| a | Slope \* cardio | --- | --- | --- | -2.61 (3.18) .41 |
| a | Slope \* diabetes | --- | --- | --- | -5.43 (3.56) .13 |
| b | Level | 10.58 (0.57) <.01 | 10.09 (0.53) <.01 | 10.29 (0.57) <.01 | 11.03 (0.84) <.01 |
| b | Slope | -0.17 (0.08) .03 | -0.17 (0.08) .04 | -0.11 (0.08) .15 | 0.13 (0.15) .38 |
| b | Level \* age | -0.35 (0.14) .01 | -0.31 (0.12) .01 | -0.27 (0.14) .05 | -0.27 (0.14) .05 |
| b | Level \* education | --- | 0.47 (0.08) <.01 | 0.42 (0.09) <.01 | 0.42 (0.10) <.01 |
| b | Level \* height | --- | --- | -0.04 (5.78) .99 | 0.62 (6.01) .92 |
| b | Level \* smoking | --- | --- | --- | -0.82 (0.88) .35 |
| b | Level \* cardio | --- | --- | --- | -0.48 (0.73) .52 |
| b | Level \* diabetes | --- | --- | --- | 0.87 (0.90) .33 |
| b | Slope \* age | 0.00 (0.04) .91 | 0.01 (0.04) .88 | 0.00 (0.04) .93 | -0.00 (0.04) .91 |
| b | Slope \* education | --- | -0.00 (0.01) .80 | -0.01 (0.01) .56 | -0.01 (0.01) .64 |
| b | Slope \* height | --- | --- | 1.10 (0.68) .10 | 1.00 (0.77) .19 |
| b | Slope \* smoking | --- | --- | --- | -0.15 (0.12) .23 |
| b | Slope \* cardio | --- | --- | --- | -0.16 (0.11) .13 |
| b | Slope \* diabetes | --- | --- | --- | -0.20 (0.18) .26 |
| a | Var (Level) | 9819.53 (1524.89) <.01 | 9349.35 (1442.57) <.01 | 8733.87 (1471.56) <.01 | 8318.77 (1391.94) <.01 |
| a | Var (Slope) | 44.06 (24.11) .07 | 42.69 (23.81) .07 | 38.70 (25.81) .13 | 35.05 (22.68) .12 |
| a | Var (Residual) | 3381.95 (500.37) <.01 | 3379.49 (500.07) <.01 | 3396.39 (514.43) <.01 | 3350.55 (499.48) <.01 |
| b | Var (Level) | 13.17 (1.73) <.01 | 10.77 (1.73) <.01 | 10.13 (1.83) <.01 | 10.17 (1.86) <.01 |
| b | Var (Slope) | 0.02 (0.02) .34 | 0.02 (0.02) .30 | 0.01 (0.02) .47 | 0.01 (0.01) .21 |
| b | Var (Residual) | 4.27 (0.59) <.01 | 4.27 (0.59) <.01 | 4.15 (0.63) <.01 | 4.11 (0.63) <.01 |
| a | Covar (Level, Slope) | -308.41 (172.58) .07 | -282.33 (163.25) .08 | -251.84 (160.86) .12 | -286.00 (152.78) .06 |
| b | Covar (Level, Slope) | 0.10 (0.23) .66 | 0.11 (0.20) .58 | 0.06 (0.20) .75 | -0.16 (0.15) .30 |
|  | Correlation of Levels | 0.32 | 0.26 | 0.25 | 0.22 |
|  | Correlation of Slopes | -0.61 | -0.61 | -0.41 | -0.25 |
|  | Correlation of Residuals | 0.13 | 0.13 | 0.12 | 0.10 |
|  | N | 153 | 153 | 136 | 136 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,045 | -3,032 | -2,881 | -2,871 |
|  | AIC | 6,131 | 6,115 | 5,821 | 5,823 |
|  | BIC | 6,195 | 6,190 | 5,905 | 5,943 |

## psif

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 130.04 (42.89) <.01 | 104.43 (42.86) .01 | 97.49 (42.16) .02 | 87.96 (36.10) .01 |
| ab | Covar (Slopes) | 1.78 (1.03) .08 | 1.86 (0.94) .05 | 1.78 (1.02) .08 | 1.14 (0.91) .21 |
| ab | Covar (Residuals) | -11.57 (11.00) .29 | -11.61 (10.48) .27 | -12.18 (10.44) .24 | -9.02 (10.59) .39 |
| er | Corr (Levels) | 0.44 (0.12) <.01 | 0.38 (0.13) <.01 | 0.37 (0.14) .01 | 0.36 (0.12) <.01 |
| er | Corr (Slopes) | 0.62 (0.29) .03 | 0.69 (0.21) <.01 | 0.68 (0.24) <.01 | 0.51 (0.29) .08 |
| er | Corr (Residuals) | -0.11 (0.10) .28 | -0.11 (0.10) .26 | -0.12 (0.10) .23 | -0.09 (0.10) .39 |
| a | Level | 427.71 (16.30) <.01 | 420.21 (16.50) <.01 | 428.80 (16.34) <.01 | 459.07 (24.84) <.01 |
| a | Slope | -6.68 (2.49) .01 | -5.65 (2.55) .03 | -5.93 (2.58) .02 | 0.60 (3.31) .85 |
| a | Level \* age | -11.76 (4.32) .01 | -10.81 (4.21) .01 | -11.40 (4.26) .01 | -11.05 (4.21) .01 |
| a | Level \* education | --- | 7.39 (2.12) <.01 | 7.28 (1.98) <.01 | 7.77 (2.15) <.01 |
| a | Level \* height | --- | --- | 204.42 (154.51) .19 | 226.63 (154.07) .14 |
| a | Level \* smoking | --- | --- | --- | -32.32 (22.77) .16 |
| a | Level \* cardio | --- | --- | --- | -24.13 (20.43) .24 |
| a | Level \* diabetes | --- | --- | --- | 55.49 (23.92) .02 |
| a | Slope \* age | 0.24 (0.96) .80 | 0.03 (0.94) .98 | 0.16 (0.96) .87 | -0.34 (0.99) .73 |
| a | Slope \* education | --- | -1.23 (0.58) .03 | -1.31 (0.57) .02 | -1.12 (0.59) .06 |
| a | Slope \* height | --- | --- | 4.82 (36.20) .89 | 10.43 (31.01) .74 |
| a | Slope \* smoking | --- | --- | --- | -5.49 (3.19) .08 |
| a | Slope \* cardio | --- | --- | --- | -0.67 (3.48) .85 |
| a | Slope \* diabetes | --- | --- | --- | -15.36 (5.03) <.01 |
| b | Level | 11.42 (0.57) <.01 | 11.14 (0.52) <.01 | 11.28 (0.54) <.01 | 12.47 (0.78) <.01 |
| b | Slope | -0.35 (0.14) .02 | -0.35 (0.14) .01 | -0.36 (0.15) .02 | -0.22 (0.25) .38 |
| b | Level \* age | -0.38 (0.14) .01 | -0.35 (0.13) .01 | -0.35 (0.15) .02 | -0.34 (0.14) .02 |
| b | Level \* education | --- | 0.33 (0.09) <.01 | 0.32 (0.09) <.01 | 0.35 (0.09) <.01 |
| b | Level \* height | --- | --- | 4.49 (5.18) .39 | 3.59 (5.26) .49 |
| b | Level \* smoking | --- | --- | --- | -1.73 (0.79) .03 |
| b | Level \* cardio | --- | --- | --- | 0.12 (0.69) .86 |
| b | Level \* diabetes | --- | --- | --- | -1.13 (1.52) .46 |
| b | Slope \* age | 0.03 (0.05) .57 | 0.03 (0.04) .48 | 0.03 (0.05) .57 | 0.01 (0.05) .85 |
| b | Slope \* education | --- | -0.00 (0.03) .93 | 0.00 (0.03) .96 | 0.00 (0.03) .92 |
| b | Slope \* height | --- | --- | -1.53 (1.31) .24 | -1.27 (1.52) .40 |
| b | Slope \* smoking | --- | --- | --- | -0.07 (0.23) .75 |
| b | Slope \* cardio | --- | --- | --- | -0.10 (0.18) .56 |
| b | Slope \* diabetes | --- | --- | --- | -0.17 (0.37) .63 |
| a | Var (Level) | 10193.12 (1513.33) <.01 | 9682.09 (1408.16) <.01 | 9177.35 (1447.29) <.01 | 8740.62 (1354.54) <.01 |
| a | Var (Slope) | 42.89 (32.26) .18 | 38.59 (22.93) .09 | 38.89 (26.46) .14 | 29.31 (14.05) .04 |
| a | Var (Residual) | 3004.95 (547.45) <.01 | 2969.38 (535.11) <.01 | 2952.67 (546.84) <.01 | 2866.45 (496.77) <.01 |
| b | Var (Level) | 8.57 (1.99) <.01 | 7.64 (1.90) <.01 | 7.59 (1.88) <.01 | 6.98 (1.60) <.01 |
| b | Var (Slope) | 0.19 (0.12) .11 | 0.19 (0.11) .10 | 0.18 (0.12) .13 | 0.17 (0.11) .14 |
| b | Var (Residual) | 3.69 (0.60) <.01 | 3.69 (0.59) <.01 | 3.70 (0.59) <.01 | 3.72 (0.60) <.01 |
| a | Covar (Level, Slope) | -413.96 (195.21) .03 | -350.02 (174.26) .04 | -336.23 (184.32) .07 | -339.97 (152.95) .03 |
| b | Covar (Level, Slope) | -0.26 (0.45) .56 | -0.28 (0.45) .53 | -0.24 (0.45) .59 | -0.29 (0.42) .50 |
|  | Correlation of Levels | 0.44 | 0.38 | 0.37 | 0.356 |
|  | Correlation of Slopes | 0.62 | 0.69 | 0.68 | 0.512 |
|  | Correlation of Residuals | -0.11 | -0.11 | -0.12 | -0.087 |
|  | N | 135 | 135 | 127 | 127 |
|  | occasions | 4 | 4 | 4 | 4 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -2,496 | -2,488 | -2,423 | -2,411 |
|  | AIC | 5,034 | 5,027 | 4,903 | 4,904 |
|  | BIC | 5,095 | 5,099 | 4,986 | 5,021 |

## symbol

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 393.06 (116.45) <.01 | 319.37 (108.55) <.01 | 287.45 (107.14) .01 | 244.57 (93.20) .01 |
| ab | Covar (Slopes) | 2.55 (1.58) .11 | 2.35 (1.50) .12 | 2.73 (1.53) .07 | 3.13 (1.47) .03 |
| ab | Covar (Residuals) | -7.16 (18.67) .70 | -8.09 (18.62) .66 | -11.59 (17.84) .52 | -9.63 (17.12) .57 |
| er | Corr (Levels) | 0.39 (0.10) <.01 | 0.36 (0.10) <.01 | 0.34 (0.11) <.01 | 0.31 (0.11) <.01 |
| er | Corr (Slopes) | 0.63 (0.27) .02 | 0.62 (0.26) .02 | 0.66 (0.20) <.01 | 0.73 (0.14) <.01 |
| er | Corr (Residuals) | -0.03 (0.08) .70 | -0.03 (0.07) .66 | -0.05 (0.07) .51 | -0.04 (0.07) .57 |
| a | Level | 433.61 (16.00) <.01 | 427.24 (16.39) <.01 | 435.14 (16.32) <.01 | 463.73 (24.64) <.01 |
| a | Slope | -11.04 (2.35) <.01 | -10.77 (2.40) <.01 | -10.70 (2.38) <.01 | -3.27 (3.27) .32 |
| a | Level \* age | -12.85 (4.25) <.01 | -12.00 (4.18) <.01 | -12.39 (4.26) <.01 | -11.96 (4.29) <.01 |
| a | Level \* education | --- | 6.24 (2.12) <.01 | 6.54 (1.97) <.01 | 6.98 (2.11) <.01 |
| a | Level \* height | --- | --- | 190.70 (142.39) .18 | 209.46 (145.93) .15 |
| a | Level \* smoking | --- | --- | --- | -31.07 (22.70) .17 |
| a | Level \* cardio | --- | --- | --- | -20.79 (20.19) .30 |
| a | Level \* diabetes | --- | --- | --- | 44.25 (23.94) .06 |
| a | Slope \* age | 0.93 (0.85) .28 | 0.88 (0.87) .31 | 0.98 (0.92) .28 | 0.26 (0.94) .78 |
| a | Slope \* education | --- | -0.32 (0.63) .61 | -0.56 (0.58) .34 | -0.43 (0.57) .45 |
| a | Slope \* height | --- | --- | 20.69 (23.83) .38 | 27.14 (26.22) .30 |
| a | Slope \* smoking | --- | --- | --- | -5.73 (3.07) .06 |
| a | Slope \* cardio | --- | --- | --- | -2.60 (3.07) .40 |
| a | Slope \* diabetes | --- | --- | --- | -6.18 (3.33) .06 |
| b | Level | 26.89 (1.56) <.01 | 25.48 (1.35) <.01 | 26.10 (1.39) <.01 | 31.50 (2.48) <.01 |
| b | Slope | -0.53 (0.19) <.01 | -0.51 (0.19) .01 | -0.56 (0.18) <.01 | -0.54 (0.36) .14 |
| b | Level \* age | -0.76 (0.39) .05 | -0.59 (0.36) .10 | -0.61 (0.40) .12 | -0.67 (0.40) .09 |
| b | Level \* education | --- | 1.61 (0.25) <.01 | 1.63 (0.24) <.01 | 1.71 (0.25) <.01 |
| b | Level \* height | --- | --- | 24.99 (12.61) .05 | 25.19 (12.19) .04 |
| b | Level \* smoking | --- | --- | --- | -5.97 (2.39) .01 |
| b | Level \* cardio | --- | --- | --- | -1.66 (1.89) .38 |
| b | Level \* diabetes | --- | --- | --- | -1.92 (2.29) .40 |
| b | Slope \* age | 0.03 (0.07) .64 | 0.03 (0.06) .61 | 0.06 (0.06) .36 | 0.04 (0.07) .52 |
| b | Slope \* education | --- | -0.00 (0.04) .97 | 0.02 (0.04) .62 | 0.02 (0.04) .71 |
| b | Slope \* height | --- | --- | -2.27 (1.76) .20 | -2.40 (1.84) .19 |
| b | Slope \* smoking | --- | --- | --- | 0.10 (0.32) .76 |
| b | Slope \* cardio | --- | --- | --- | -0.14 (0.26) .59 |
| b | Slope \* diabetes | --- | --- | --- | -0.20 (0.50) .69 |
| a | Var (Level) | 9516.95 (1460.66) <.01 | 9160.66 (1401.59) <.01 | 8730.29 (1450.66) <.01 | 8372.72 (1382.88) <.01 |
| a | Var (Slope) | 30.85 (17.80) .08 | 30.60 (17.95) .09 | 41.06 (20.69) .05 | 39.41 (16.28) .01 |
| a | Var (Residual) | 3437.48 (479.88) <.01 | 3431.81 (481.64) <.01 | 3356.80 (476.45) <.01 | 3295.67 (463.26) <.01 |
| b | Var (Level) | 105.74 (14.74) <.01 | 83.89 (13.19) <.01 | 82.54 (13.20) <.01 | 73.70 (11.17) <.01 |
| b | Var (Slope) | 0.52 (0.22) .02 | 0.46 (0.21) .03 | 0.42 (0.20) .03 | 0.47 (0.21) .03 |
| b | Var (Residual) | 17.55 (2.13) <.01 | 17.84 (2.16) <.01 | 17.29 (2.21) <.01 | 17.14 (2.26) <.01 |
| a | Covar (Level, Slope) | -225.52 (148.11) .13 | -213.22 (143.25) .14 | -235.20 (147.03) .11 | -281.61 (133.75) .04 |
| b | Covar (Level, Slope) | -2.70 (1.21) .03 | -2.64 (1.29) .04 | -2.88 (1.22) .02 | -3.00 (1.11) .01 |
|  | Correlation of Levels | 0.392 | 0.364 | 0.339 | 0.311 |
|  | Correlation of Slopes | 0.633 | 0.625 | 0.657 | 0.728 |
|  | Correlation of Residuals | -0.029 | -0.033 | -0.048 | -0.041 |
|  | N | 142 | 142 | 133 | 133 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,344 | -3,328 | -3,214 | -3,202 |
|  | AIC | 6,730 | 6,707 | 6,485 | 6,486 |
|  | BIC | 6,792 | 6,780 | 6,569 | 6,604 |

## synonyms

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 115.95 (78.75) .14 | 55.55 (67.33) .41 | 69.69 (65.86) .29 | 49.67 (58.44) .40 |
| ab | Covar (Slopes) | -0.34 (0.78) .66 | -0.44 (0.75) .55 | -0.12 (0.87) .89 | 0.14 (0.67) .84 |
| ab | Covar (Residuals) | 2.96 (14.33) .84 | 2.69 (14.34) .85 | 4.29 (15.15) .78 | 6.29 (13.70) .65 |
| er | Corr (Levels) | 0.18 (0.12) .12 | 0.11 (0.13) .40 | 0.14 (0.13) .27 | 0.11 (0.13) .38 |
| er | Corr (Slopes) | -0.24 (0.56) .67 | -0.32 (0.54) .56 | -0.08 (0.62) .89 | 0.10 (0.48) .83 |
| er | Corr (Residuals) | 0.02 (0.10) .84 | 0.02 (0.10) .85 | 0.03 (0.11) .78 | 0.05 (0.10) .64 |
| a | Level | 433.05 (16.15) <.01 | 426.58 (16.56) <.01 | 434.97 (16.38) <.01 | 466.66 (24.93) <.01 |
| a | Slope | -10.48 (2.34) <.01 | -10.12 (2.39) <.01 | -10.09 (2.37) <.01 | -3.27 (3.42) .34 |
| a | Level \* age | -12.25 (4.27) <.01 | -11.43 (4.18) .01 | -11.94 (4.23) <.01 | -11.40 (4.21) .01 |
| a | Level \* education | --- | 6.42 (2.10) <.01 | 6.36 (1.96) <.01 | 6.93 (2.12) <.01 |
| a | Level \* height | --- | --- | 199.60 (143.10) .16 | 217.96 (148.61) .14 |
| a | Level \* smoking | --- | --- | --- | -34.78 (23.00) .13 |
| a | Level \* cardio | --- | --- | --- | -20.95 (20.08) .30 |
| a | Level \* diabetes | --- | --- | --- | 41.14 (24.16) .09 |
| a | Slope \* age | 0.70 (0.86) .42 | 0.65 (0.87) .46 | 0.71 (0.89) .42 | -0.04 (0.91) .97 |
| a | Slope \* education | --- | -0.37 (0.64) .56 | -0.54 (0.61) .37 | -0.46 (0.61) .44 |
| a | Slope \* height | --- | --- | 17.64 (23.21) .45 | 24.52 (26.22) .35 |
| a | Slope \* smoking | --- | --- | --- | -5.42 (3.40) .11 |
| a | Slope \* cardio | --- | --- | --- | -2.78 (3.21) .39 |
| a | Slope \* diabetes | --- | --- | --- | -4.10 (3.74) .27 |
| b | Level | 16.18 (1.02) <.01 | 15.21 (0.90) <.01 | 15.51 (0.97) <.01 | 19.06 (1.27) <.01 |
| b | Slope | -0.20 (0.12) .09 | -0.21 (0.11) .06 | -0.21 (0.12) .09 | -0.37 (0.23) .11 |
| b | Level \* age | 0.13 (0.26) .62 | 0.19 (0.23) .39 | 0.16 (0.25) .53 | 0.11 (0.26) .67 |
| b | Level \* education | --- | 1.21 (0.14) <.01 | 1.11 (0.13) <.01 | 1.24 (0.15) <.01 |
| b | Level \* height | --- | --- | 10.08 (8.27) .22 | 9.97 (8.13) .22 |
| b | Level \* smoking | --- | --- | --- | -4.56 (1.21) <.01 |
| b | Level \* cardio | --- | --- | --- | 0.20 (1.10) .85 |
| b | Level \* diabetes | --- | --- | --- | -3.52 (1.53) .02 |
| b | Slope \* age | -0.02 (0.04) .66 | -0.01 (0.04) .81 | -0.00 (0.05) .98 | 0.01 (0.05) .89 |
| b | Slope \* education | --- | 0.01 (0.02) .69 | 0.01 (0.02) .52 | 0.00 (0.02) .82 |
| b | Slope \* height | --- | --- | 0.57 (1.14) .62 | 0.36 (1.23) .77 |
| b | Slope \* smoking | --- | --- | --- | 0.20 (0.17) .25 |
| b | Slope \* cardio | --- | --- | --- | -0.00 (0.14) .97 |
| b | Slope \* diabetes | --- | --- | --- | -0.07 (0.30) .82 |
| a | Var (Level) | 9620.60 (1497.10) <.01 | 9226.00 (1419.89) <.01 | 8719.72 (1469.50) <.01 | 8313.12 (1411.74) <.01 |
| a | Var (Slope) | 31.94 (22.80) .16 | 31.11 (22.28) .16 | 31.92 (24.17) .19 | 31.26 (19.98) .12 |
| a | Var (Residual) | 3432.96 (513.57) <.01 | 3428.71 (512.11) <.01 | 3416.31 (515.90) <.01 | 3361.90 (499.42) <.01 |
| b | Var (Level) | 42.09 (4.21) <.01 | 29.04 (3.37) <.01 | 28.59 (3.62) <.01 | 23.39 (3.18) <.01 |
| b | Var (Slope) | 0.06 (0.04) .09 | 0.06 (0.04) .08 | 0.06 (0.05) .25 | 0.06 (0.04) .14 |
| b | Var (Residual) | 5.99 (0.81) <.01 | 6.01 (0.80) <.01 | 5.51 (0.67) <.01 | 5.50 (0.63) <.01 |
| a | Covar (Level, Slope) | -256.43 (162.91) .12 | -235.50 (152.97) .12 | -226.25 (153.29) .14 | -268.85 (148.73) .07 |
| b | Covar (Level, Slope) | -0.36 (0.38) .34 | -0.48 (0.31) .13 | -0.36 (0.33) .27 | -0.14 (0.35) .70 |
|  | Correlation of Levels | 0.182 | 0.107 | 0.140 | 0.113 |
|  | Correlation of Slopes | -0.241 | -0.315 | -0.085 | 0.104 |
|  | Correlation of Residuals | 0.021 | 0.019 | 0.031 | 0.046 |
|  | N | 142 | 142 | 132 | 132 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,118 | -3,093 | -2,982 | -2,964 |
|  | AIC | 6,277 | 6,236 | 6,022 | 6,010 |
|  | BIC | 6,339 | 6,310 | 6,105 | 6,129 |

## Summary

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

Computed correlations:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Levels | block | 0.43 | 0.40 | 0.33 | 0.30 |
| Correlation of Levels | clock | 0.47 | 0.43 | 0.22 | 0.27 |
| Correlation of Levels | digit\_b | 0.40 | 0.35 | 0.33 | 0.31 |
| Correlation of Levels | digit\_f | 0.03 | -0.03 | -0.05 | -0.09 |
| Correlation of Levels | fig\_logic | 0.41 | 0.38 | 0.32 | 0.29 |
| Correlation of Levels | information | 0.17 | 0.10 | 0.08 | 0.06 |
| Correlation of Levels | mir | 0.61 | 0.60 | 0.60 | 0.58 |
| Correlation of Levels | mir\_recog | 0.63 | 0.63 | 0.56 | 0.51 |
| Correlation of Levels | mmse | 0.75 | 0.73 | 0.67 | 0.66 |
| Correlation of Levels | prose\_im | 0.32 | 0.26 | 0.25 | 0.22 |
| Correlation of Levels | psif | 0.44 | 0.38 | 0.37 | 0.36 |
| Correlation of Levels | symbol | 0.39 | 0.36 | 0.34 | 0.31 |
| Correlation of Levels | synonyms | 0.18 | 0.11 | 0.14 | 0.11 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Slopes | block | 0.66 | 0.66 | 0.76 | 0.75 |
| Correlation of Slopes | clock | 0.07 | 0.00 | 0.04 | -0.17 |
| Correlation of Slopes | digit\_b | 0.41 | 0.34 | 0.28 | 0.46 |
| Correlation of Slopes | digit\_f | 0.29 | 0.25 | 0.27 | 0.62 |
| Correlation of Slopes | fig\_logic | 0.76 | 0.77 | 0.80 | 0.78 |
| Correlation of Slopes | information | -0.05 | -0.04 | 0.02 | -0.07 |
| Correlation of Slopes | mir | 0.34 | 0.34 | 0.42 | 0.43 |
| Correlation of Slopes | mir\_recog | -0.18 | -0.17 | 0.11 | 0.28 |
| Correlation of Slopes | mmse | -0.06 | -0.04 | 0.23 | 0.15 |
| Correlation of Slopes | prose\_im | -0.61 | -0.61 | -0.41 | -0.25 |
| Correlation of Slopes | psif | 0.62 | 0.69 | 0.68 | 0.51 |
| Correlation of Slopes | symbol | 0.63 | 0.62 | 0.66 | 0.73 |
| Correlation of Slopes | synonyms | -0.24 | -0.32 | -0.08 | 0.10 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Residuals | block | 0.09 | 0.09 | 0.10 | 0.11 |
| Correlation of Residuals | clock | 0.03 | 0.03 | 0.03 | 0.04 |
| Correlation of Residuals | digit\_b | -0.09 | -0.09 | -0.09 | -0.10 |
| Correlation of Residuals | digit\_f | 0.01 | 0.02 | 0.02 | 0.01 |
| Correlation of Residuals | fig\_logic | -0.01 | -0.01 | -0.01 | 0.01 |
| Correlation of Residuals | information | 0.05 | 0.05 | 0.05 | 0.05 |
| Correlation of Residuals | mir | -0.02 | -0.02 | -0.02 | -0.02 |
| Correlation of Residuals | mir\_recog | 0.05 | 0.05 | 0.04 | 0.04 |
| Correlation of Residuals | mmse | 0.17 | 0.16 | 0.16 | 0.14 |
| Correlation of Residuals | prose\_im | 0.13 | 0.13 | 0.12 | 0.10 |
| Correlation of Residuals | psif | -0.11 | -0.11 | -0.12 | -0.09 |
| Correlation of Residuals | symbol | -0.03 | -0.03 | -0.05 | -0.04 |
| Correlation of Residuals | synonyms | 0.02 | 0.02 | 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 | 0.01 |
| Covariance of Levels | clock | 0.02 | 0.06 | 0.16 | 0.10 |
| Covariance of Levels | digit\_b | 0.00 | 0.01 | 0.01 | 0.02 |
| Covariance of Levels | digit\_f | 0.85 | 0.84 | 0.74 | 0.52 |
| Covariance of Levels | fig\_logic | 0.01 | 0.01 | 0.02 | 0.05 |
| Covariance of Levels | information | 0.12 | 0.38 | 0.52 | 0.59 |
| Covariance of Levels | mir | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | mir\_recog | 0.05 | 0.05 | 0.10 | 0.11 |
| Covariance of Levels | mmse | 0.00 | 0.01 | 0.00 | 0.00 |
| Covariance of Levels | prose\_im | 0.01 | 0.07 | 0.08 | 0.11 |
| Covariance of Levels | psif | 0.00 | 0.01 | 0.02 | 0.01 |
| Covariance of Levels | symbol | 0.00 | 0.00 | 0.01 | 0.01 |
| Covariance of Levels | synonyms | 0.14 | 0.41 | 0.29 | 0.40 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Slopes | block | 0.24 | 0.26 | 0.20 | 0.20 |
| Covariance of Slopes | clock | 0.89 | 1.00 | 0.95 | 0.76 |
| Covariance of Slopes | digit\_b | 0.40 | 0.48 | 0.55 | 0.28 |
| Covariance of Slopes | digit\_f | 0.50 | 0.57 | 0.54 | 0.06 |
| Covariance of Slopes | fig\_logic | 0.10 | 0.09 | 0.09 | 0.07 |
| Covariance of Slopes | information | 0.89 | 0.93 | 0.95 | 0.86 |
| Covariance of Slopes | mir | 0.21 | 0.21 | 0.10 | 0.06 |
| Covariance of Slopes | mir\_recog | 0.84 | 0.84 | 0.87 | 0.70 |
| Covariance of Slopes | mmse | 0.90 | 0.94 | 0.53 | 0.69 |
| Covariance of Slopes | prose\_im | 0.35 | 0.33 | 0.68 | 0.69 |
| Covariance of Slopes | psif | 0.08 | 0.05 | 0.08 | 0.21 |
| Covariance of Slopes | symbol | 0.11 | 0.12 | 0.07 | 0.03 |
| Covariance of Slopes | synonyms | 0.66 | 0.55 | 0.89 | 0.84 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Residuals | block | 0.17 | 0.16 | 0.13 | 0.08 |
| Covariance of Residuals | clock | 0.81 | 0.83 | 0.75 | 0.72 |
| Covariance of Residuals | digit\_b | 0.29 | 0.31 | 0.31 | 0.25 |
| Covariance of Residuals | digit\_f | 0.85 | 0.75 | 0.80 | 0.86 |
| Covariance of Residuals | fig\_logic | 0.90 | 0.87 | 0.90 | 0.87 |
| Covariance of Residuals | information | 0.50 | 0.51 | 0.56 | 0.53 |
| Covariance of Residuals | mir | 0.82 | 0.79 | 0.85 | 0.85 |
| Covariance of Residuals | mir\_recog | 0.51 | 0.51 | 0.50 | 0.47 |
| Covariance of Residuals | mmse | 0.30 | 0.31 | 0.32 | 0.36 |
| Covariance of Residuals | prose\_im | 0.36 | 0.36 | 0.40 | 0.48 |
| Covariance of Residuals | psif | 0.29 | 0.27 | 0.24 | 0.39 |
| Covariance of Residuals | symbol | 0.70 | 0.66 | 0.52 | 0.57 |
| Covariance of Residuals | synonyms | 0.84 | 0.85 | 0.78 | 0.65 |

#Session Info

R version 3.3.1 (2016-06-21)  
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] knitr\_1.14 ggplot2\_2.2.0 IalsaSynthesis\_0.1.8.9000 MplusAutomation\_0.6-4   
[5] magrittr\_1.5   
  
loaded via a namespace (and not attached):  
 [1] Rcpp\_0.12.7 formatR\_1.4 plyr\_1.8.4 highr\_0.6 tools\_3.3.1 boot\_1.3-18   
 [7] digest\_0.6.10 evaluate\_0.10 tibble\_1.2 gtable\_0.2.0 lattice\_0.20-34 texreg\_1.36.7   
[13] DBI\_0.5-1 yaml\_2.1.13 proto\_0.3-10 coda\_0.18-1 dplyr\_0.5.0 stringr\_1.1.0   
[19] htmlwidgets\_0.7 grid\_3.3.1 DT\_0.2 R6\_2.2.0 gsubfn\_0.6-6 rmarkdown\_1.1   
[25] pander\_0.6.0 tidyr\_0.6.0 readr\_1.0.0 scales\_0.4.1 htmltools\_0.3.5 rsconnect\_0.5   
[31] assertthat\_0.1 testit\_0.5 xtable\_1.8-2 colorspace\_1.2-7 stringi\_1.1.2 lazyeval\_0.2.0   
[37] munsell\_0.4.3