OCTO : Seed Report (all)

Date: 2017-05-02

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

# Available models

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

|  |  |  |
| --- | --- | --- |
| process\_a | process\_b | n\_models |
| 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) | 112.92 (33.36) <.01 | 30.68 (17.32) .08 | 7.29 (6.41) .26 | 1.33 (5.08) .79 | 41.64 (18.56) .02 | 50.91 (51.83) .33 | 30.97 (14.51) .03 | 14.41 (10.17) .16 | 28.49 (19.45) .14 | 30.33 (19.37) .12 | --- | 231.88 (49.49) <.01 | 34.15 (25.55) .18 | --- |
| ab | Covar (Slopes) | 0.19 (0.64) .77 | 0.54 (0.92) .55 | -0.15 (0.18) .40 | -0.13 (0.19) .50 | 0.14 (0.46) .76 | -0.05 (1.02) .96 | 0.37 (0.42) .38 | 0.57 (0.77) .46 | 1.46 (2.14) .49 | -0.39 (0.65) .55 | --- | 2.62 (1.01) .01 | 0.75 (0.60) .22 | --- |
| ab | Covar (Residuals) | 24.91 (8.29) <.01 | 20.06 (8.32) .02 | 5.97 (2.86) .04 | 2.52 (2.16) .24 | 7.85 (7.93) .32 | 7.78 (10.56) .46 | 2.54 (3.65) .48 | 7.49 (4.89) .13 | 29.19 (10.68) .01 | 11.22 (6.28) .07 | --- | 9.36 (13.34) .48 | -10.80 (6.57) .10 | --- |
| er | Corr (Levels) | 0.29 (0.08) <.01 | 0.19 (0.10) .06 | 0.13 (0.12) .26 | 0.03 (0.10) .79 | 0.25 (0.11) .02 | 0.08 (0.08) .33 | 0.20 (0.09) .03 | 0.13 (0.09) .13 | 0.14 (0.09) .12 | 0.14 (0.09) .11 | --- | 0.40 (0.07) <.01 | 0.12 (0.09) .18 | --- |
| er | Corr (Slopes) | 0.08 (0.28) .77 | 0.19 (0.32) .55 | -0.33 (0.38) .38 | -0.20 (0.29) .50 | 0.24 (0.70) .73 | -0.01 (0.26) .96 | 0.21 (0.24) .37 | 0.25 (0.32) .43 | 0.25 (0.36) .48 | -0.17 (0.29) .54 | --- | 0.69 (0.14) <.01 | 0.35 (0.32) .27 | --- |
| er | Corr (Residuals) | 0.16 (0.05) <.01 | 0.19 (0.07) .01 | 0.11 (0.05) .04 | 0.06 (0.05) .24 | 0.05 (0.05) .32 | 0.04 (0.05) .46 | 0.04 (0.06) .48 | 0.14 (0.08) .11 | 0.22 (0.07) <.01 | 0.11 (0.06) .07 | --- | 0.04 (0.05) .48 | -0.09 (0.05) .10 | --- |
| a | Level | 322.53 (8.38) <.01 | 320.62 (8.51) <.01 | 321.94 (8.47) <.01 | 321.88 (8.37) <.01 | 323.74 (8.37) <.01 | 323.41 (8.34) <.01 | 321.36 (8.44) <.01 | 322.32 (8.53) <.01 | 320.19 (8.61) <.01 | 322.08 (8.30) <.01 | --- | 321.51 (8.45) <.01 | 323.62 (8.35) <.01 | 322.10(1.12) |
| a | Slope | 13.34 (0.76) <.01 | 14.20 (0.36) <.01 | 3.59 (0.14) <.01 | 5.51 (0.13) <.01 | 16.65 (0.42) <.01 | 27.62 (1.22) <.01 | 6.87 (0.31) <.01 | 9.35 (0.23) <.01 | 27.91 (0.43) <.01 | 10.22 (0.44) <.01 | --- | 25.96 (1.23) <.01 | 16.34 (0.67) <.01 | 14.80(8.50) |
| a | Level \* age | -5.67 (1.77) <.01 | -5.44 (1.82) <.01 | -5.39 (1.81) <.01 | -5.09 (1.82) <.01 | -5.48 (1.79) <.01 | -5.43 (1.79) <.01 | -5.28 (1.81) <.01 | -5.61 (1.80) <.01 | -5.47 (1.81) <.01 | -5.36 (1.79) <.01 | --- | -5.41 (1.79) <.01 | -5.38 (1.80) <.01 | -5.42(0.15) |
| a | Level \* education | 7.04 (2.34) <.01 | 7.27 (2.35) <.01 | 7.00 (2.34) <.01 | 6.62 (2.35) <.01 | 6.81 (2.34) <.01 | 6.79 (2.34) <.01 | 7.04 (2.35) <.01 | 7.25 (2.38) <.01 | 7.46 (2.38) <.01 | 7.15 (2.35) <.01 | --- | 7.13 (2.38) <.01 | 6.67 (2.36) <.01 | 7.02(0.26) |
| a | Level \* height | 302.35 (91.62) <.01 | 295.66 (92.86) <.01 | 301.03 (91.59) <.01 | 312.20 (91.78) <.01 | 299.35 (91.51) <.01 | 297.24 (91.36) <.01 | 295.60 (91.91) <.01 | 305.09 (91.71) <.01 | 298.25 (92.97) <.01 | 299.38 (91.73) <.01 | --- | 301.74 (91.43) <.01 | 300.08 (91.65) <.01 | 300.66(4.56) |
| a | Level \* smoking | -29.84 (10.81) .01 | -29.30 (10.79) .01 | -28.14 (10.76) .01 | -27.49 (10.77) .01 | -28.97 (10.75) .01 | -29.27 (10.76) .01 | -28.53 (10.71) .01 | -29.99 (10.75) <.01 | -29.62 (10.80) .01 | -29.87 (10.77) .01 | --- | -28.72 (10.66) .01 | -28.80 (10.74) .01 | -29.04(0.76) |
| a | Level \* cardio | -4.70 (9.09) .60 | -3.82 (9.13) .68 | -6.32 (9.11) .49 | -5.48 (9.12) .55 | -5.67 (9.19) .54 | -5.81 (9.19) .53 | -4.40 (9.04) .63 | -4.35 (9.04) .63 | -4.08 (9.12) .66 | -5.68 (9.07) .53 | --- | -5.33 (9.12) .56 | -5.56 (9.20) .55 | -5.10(0.80) |
| a | Level \* diabetes | -11.85 (14.98) .43 | -12.10 (15.11) .42 | -11.17 (14.91) .45 | -11.51 (15.26) .45 | -11.96 (15.07) .43 | -13.05 (14.98) .38 | -13.60 (14.94) .36 | -12.03 (14.66) .41 | -13.24 (15.12) .38 | -12.12 (15.06) .42 | --- | -9.21 (15.10) .54 | -13.28 (15.32) .39 | -12.09(1.19) |
| a | Slope \* age | 0.62 (0.30) .04 | 0.63 (0.30) .04 | 0.67 (0.31) .03 | 0.66 (0.31) .03 | 0.68 (0.31) .03 | 0.66 (0.30) .03 | 0.65 (0.29) .03 | 0.63 (0.31) .04 | 0.56 (0.30) .06 | 0.66 (0.30) .03 | --- | 0.64 (0.30) .03 | 0.67 (0.31) .03 | 0.64(0.03) |
| a | Slope \* education | -0.10 (0.40) .80 | -0.13 (0.43) .77 | -0.24 (0.41) .56 | -0.22 (0.42) .60 | -0.24 (0.41) .56 | -0.17 (0.41) .68 | -0.04 (0.42) .92 | 0.04 (0.45) .92 | -0.05 (0.40) .91 | -0.17 (0.42) .69 | --- | -0.14 (0.43) .75 | -0.25 (0.41) .55 | -0.14(0.09) |
| a | Slope \* height | -17.99 (18.31) .33 | -20.41 (18.99) .28 | -19.65 (18.70) .29 | -18.38 (18.84) .33 | -17.54 (18.91) .35 | -19.85 (19.15) .30 | -18.44 (18.71) .32 | -19.99 (19.07) .29 | -21.11 (19.09) .27 | -18.20 (19.25) .34 | --- | -19.37 (18.91) .31 | -18.36 (18.96) .33 | -19.11(1.11) |
| a | Slope \* smoking | -3.48 (1.86) .06 | -3.42 (1.85) .06 | -3.10 (1.84) .09 | -2.96 (1.86) .11 | -2.96 (1.85) .11 | -3.17 (1.85) .09 | -3.41 (1.81) .06 | -3.57 (1.93) .06 | -3.76 (1.90) .05 | -3.26 (1.88) .08 | --- | -3.18 (1.90) .09 | -2.95 (1.86) .11 | -3.27(0.26) |
| a | Slope \* cardio | -1.51 (1.53) .32 | -1.71 (1.49) .25 | -1.43 (1.54) .35 | -1.26 (1.57) .42 | -1.26 (1.56) .42 | -1.62 (1.57) .30 | -1.44 (1.52) .34 | -1.51 (1.56) .33 | -1.42 (1.54) .36 | -1.52 (1.51) .32 | --- | -1.32 (1.55) .39 | -1.28 (1.57) .41 | -1.44(0.14) |
| a | Slope \* diabetes | 2.74 (2.42) .26 | 3.26 (2.58) .21 | 3.35 (2.66) .21 | 3.36 (2.60) .20 | 3.70 (2.43) .13 | 3.18 (2.58) .22 | 2.91 (2.47) .24 | 2.52 (2.71) .35 | 3.08 (2.41) .20 | 3.48 (2.41) .15 | --- | 1.77 (2.96) .55 | 3.82 (2.53) .13 | 3.10(0.56) |
| b | Level | -7.58 (1.31) <.01 | -7.72 (1.44) <.01 | -6.99 (1.34) <.01 | -7.10 (1.33) <.01 | -7.23 (1.33) <.01 | -7.28 (1.32) <.01 | -7.63 (1.34) <.01 | -7.88 (1.49) <.01 | -8.31 (1.52) <.01 | -7.32 (1.35) <.01 | --- | -7.14 (1.30) <.01 | -7.18 (1.30) <.01 | --- |
| b | Slope | -0.25 (0.10) .02 | -0.35 (0.09) <.01 | -0.09 (0.03) <.01 | -0.10 (0.02) <.01 | -0.12 (0.08) .13 | -0.23 (0.15) .12 | -0.11 (0.06) .05 | -0.12 (0.06) .04 | -0.69 (0.17) <.01 | -0.13 (0.08) .11 | --- | -0.24 (0.17) .17 | -0.05 (0.10) .59 | --- |
| b | Level \* age | -0.49 (0.14) <.01 | -0.12 (0.07) .10 | -0.09 (0.02) <.01 | -0.05 (0.02) .01 | -0.19 (0.08) .02 | -0.70 (0.23) <.01 | -0.18 (0.05) <.01 | -0.05 (0.04) .23 | -0.17 (0.07) .01 | -0.25 (0.08) <.01 | --- | -0.75 (0.25) <.01 | -0.03 (0.13) .83 | --- |
| b | Level \* education | 1.10 (0.19) <.01 | 0.28 (0.07) <.01 | 0.17 (0.04) <.01 | 0.14 (0.03) <.01 | 0.37 (0.12) <.01 | 2.70 (0.27) <.01 | 0.31 (0.08) <.01 | 0.26 (0.05) <.01 | 0.60 (0.09) <.01 | 0.72 (0.10) <.01 | --- | 2.36 (0.35) <.01 | 1.36 (0.12) <.01 | --- |
| b | Level \* height | 4.23 (6.08) .49 | 0.73 (3.65) .84 | 0.15 (1.37) .91 | 0.75 (0.92) .41 | 1.92 (4.16) .64 | 7.52 (11.71) .52 | -1.32 (2.54) .60 | -2.31 (1.90) .22 | 3.44 (3.81) .37 | 0.69 (3.83) .86 | --- | 10.06 (11.12) .37 | 10.32 (5.78) .07 | --- |
| b | Level \* smoking | -2.04 (0.87) .02 | -0.45 (0.37) .22 | -0.18 (0.18) .32 | -0.04 (0.14) .75 | -1.64 (0.54) <.01 | 0.82 (1.28) .52 | -0.55 (0.37) .14 | -0.50 (0.26) .05 | -1.02 (0.50) .04 | -0.44 (0.53) .40 | --- | -1.75 (1.49) .24 | 0.50 (0.69) .46 | --- |
| b | Level \* cardio | 0.10 (0.68) .88 | 0.34 (0.30) .26 | 0.18 (0.14) .20 | 0.06 (0.12) .61 | -0.22 (0.45) .63 | 1.79 (1.11) .11 | 0.42 (0.28) .14 | 0.42 (0.21) .05 | 0.20 (0.42) .63 | 0.65 (0.41) .11 | --- | 1.86 (1.13) .10 | 0.45 (0.60) .45 | --- |
| b | Level \* diabetes | -0.18 (1.71) .92 | -0.35 (0.61) .56 | 0.03 (0.25) .90 | 0.10 (0.21) .65 | -0.10 (0.96) .92 | -2.28 (2.53) .37 | -0.34 (0.65) .61 | -0.13 (0.45) .77 | -1.27 (0.91) .16 | -1.78 (0.94) .06 | --- | -2.22 (2.57) .39 | -2.36 (1.21) .05 | --- |
| b | Slope \* age | -0.02 (0.02) .23 | -0.05 (0.02) .01 | 0.01 (0.01) .32 | -0.00 (0.00) .89 | -0.01 (0.02) .49 | -0.06 (0.03) .06 | -0.01 (0.01) .25 | -0.03 (0.01) .04 | -0.08 (0.03) .02 | 0.00 (0.02) .97 | --- | -0.05 (0.04) .22 | -0.00 (0.02) .96 | --- |
| b | Slope \* education | -0.00 (0.03) .89 | 0.07 (0.02) <.01 | 0.01 (0.01) .21 | 0.00 (0.01) .46 | -0.02 (0.03) .40 | 0.01 (0.04) .83 | 0.01 (0.02) .50 | 0.06 (0.01) <.01 | 0.12 (0.04) .01 | 0.01 (0.02) .57 | --- | -0.00 (0.06) .93 | 0.01 (0.03) .85 | --- |
| b | Slope \* height | 0.87 (0.77) .26 | -0.75 (0.85) .38 | 0.23 (0.26) .36 | 0.12 (0.26) .64 | 0.49 (0.82) .55 | 1.66 (1.49) .27 | 0.87 (0.56) .12 | 0.42 (0.56) .45 | -0.09 (1.36) .95 | 0.63 (0.95) .51 | --- | 1.44 (1.82) .43 | 0.12 (0.94) .90 | --- |
| b | Slope \* smoking | 0.01 (0.14) .97 | -0.11 (0.12) .38 | 0.01 (0.03) .74 | 0.02 (0.03) .59 | 0.20 (0.12) .10 | -0.22 (0.20) .27 | -0.09 (0.08) .29 | -0.11 (0.07) .15 | -0.34 (0.19) .08 | -0.26 (0.11) .02 | --- | -0.50 (0.24) .03 | -0.13 (0.15) .41 | --- |
| b | Slope \* cardio | -0.14 (0.11) .20 | -0.06 (0.10) .51 | -0.05 (0.03) .08 | 0.01 (0.03) .82 | 0.03 (0.10) .72 | -0.54 (0.15) <.01 | -0.11 (0.06) .08 | -0.04 (0.06) .49 | -0.07 (0.16) .66 | -0.20 (0.09) .03 | --- | -0.59 (0.19) <.01 | -0.08 (0.11) .48 | --- |
| b | Slope \* diabetes | -0.02 (0.17) .90 | -0.11 (0.18) .54 | -0.06 (0.07) .41 | -0.03 (0.06) .55 | 0.15 (0.14) .30 | 0.04 (0.38) .92 | -0.06 (0.13) .66 | -0.17 (0.14) .24 | -0.02 (0.25) .94 | 0.09 (0.16) .57 | --- | 0.43 (0.60) .47 | -0.09 (0.21) .68 | --- |
| a | Var (Level) | 4374.92 (475.91) <.01 | 4437.30 (494.37) <.01 | 4351.71 (480.16) <.01 | 4374.22 (483.41) <.01 | 4359.84 (479.15) <.01 | 4343.21 (479.00) <.01 | 4357.52 (477.22) <.01 | 4353.37 (492.84) <.01 | 4415.76 (489.92) <.01 | 4373.65 (482.88) <.01 | --- | 4390.75 (470.76) <.01 | 4347.02 (476.96) <.01 | 4373.27(28.76) |
| a | Var (Slope) | 24.16 (13.10) .06 | 24.36 (13.37) .07 | 25.98 (13.49) .05 | 26.44 (13.83) .06 | 26.77 (14.13) .06 | 26.55 (14.08) .06 | 23.60 (12.69) .06 | 28.34 (14.59) .05 | 22.78 (11.92) .06 | 25.70 (13.64) .06 | --- | 27.12 (12.03) .02 | 26.94 (13.94) .05 | 25.73(1.65) |
| a | Var (Residual) | 2195.82 (167.75) <.01 | 2235.40 (174.11) <.01 | 2202.20 (167.73) <.01 | 2192.38 (167.20) <.01 | 2187.81 (166.33) <.01 | 2192.11 (168.06) <.01 | 2197.72 (167.66) <.01 | 2216.63 (174.91) <.01 | 2276.16 (182.51) <.01 | 2194.31 (169.26) <.01 | --- | 2179.59 (165.01) <.01 | 2190.46 (167.58) <.01 | 2205.05(26.73) |
| b | Var (Level) | 34.01 (3.01) <.01 | 6.02 (1.54) <.01 | 0.69 (0.15) <.01 | 0.53 (0.10) <.01 | 6.33 (1.06) <.01 | 96.41 (7.52) <.01 | 5.74 (0.58) <.01 | 2.83 (0.58) <.01 | 8.89 (1.87) <.01 | 10.80 (1.12) <.01 | --- | 78.63 (7.14) <.01 | 18.05 (2.10) <.01 | --- |
| b | Var (Slope) | 0.21 (0.07) <.01 | 0.34 (0.07) <.01 | 0.01 (0.00) .08 | 0.02 (0.01) <.01 | 0.01 (0.01) .42 | 0.59 (0.21) <.01 | 0.13 (0.02) <.01 | 0.18 (0.04) <.01 | 1.48 (0.30) <.01 | 0.20 (0.04) <.01 | --- | 0.52 (0.15) <.01 | 0.17 (0.06) <.01 | --- |
| b | Var (Residual) | 10.78 (0.75) <.01 | 4.93 (0.60) <.01 | 1.37 (0.10) <.01 | 0.79 (0.06) <.01 | 9.84 (0.59) <.01 | 17.70 (1.41) <.01 | 1.90 (0.14) <.01 | 1.38 (0.24) <.01 | 7.61 (0.90) <.01 | 4.96 (0.38) <.01 | --- | 28.43 (2.01) <.01 | 6.96 (0.53) <.01 | --- |
| a | Covar (Level, Slope) | -144.66 (80.89) .07 | -130.28 (87.35) .14 | -157.79 (81.71) .05 | -158.40 (82.52) .06 | -161.02 (83.22) .05 | -157.96 (83.06) .06 | -133.76 (80.65) .10 | -120.17 (86.94) .17 | -88.12 (85.07) .30 | -152.41 (82.52) .06 | --- | -157.21 (75.85) .04 | -161.59 (82.14) .05 | -143.61(22.20) |
| b | Covar (Level, Slope) | -0.64 (0.35) .07 | 0.87 (0.20) <.01 | -0.01 (0.02) .76 | -0.00 (0.02) .77 | 0.01 (0.11) .94 | 1.16 (0.71) .10 | 0.10 (0.07) .13 | 0.35 (0.10) <.01 | 2.79 (0.51) <.01 | -0.10 (0.15) .53 | --- | -0.63 (0.85) .46 | -0.13 (0.26) .61 | --- |
|  | Correlation of Levels | 0.293 | 0.19 | 0.13 | 0.028 | 0.251 | 0.079 | 0.196 | 0.13 | 0.14 | 0.14 | NaN | 0.395 | 0.122 | 0.17(0.10) |
|  | Correlation of Slopes | 0.083 | 0.19 | -0.33 | -0.198 | 0.242 | -0.012 | 0.215 | 0.25 | 0.25 | -0.17 | NaN | 0.694 | 0.351 | 0.13(0.28) |
|  | Correlation of Residuals | 0.162 | 0.19 | 0.11 | 0.060 | 0.054 | 0.040 | 0.039 | 0.14 | 0.22 | 0.11 | NaN | 0.038 | -0.087 | 0.09(0.08) |
|  | N | 370 | 377 | 380 | 380 | 353 | 373 | 372 | 372 | 380 | 368 | NA | 354 | 347 | 368.83(11.39) |
|  | occasions | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | NA | 5 | 5 | 5.00(0.00) |
|  | parameters | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | NA | 41 | 41 | 41.00(0.00) |
|  | LL | -8,209 | -8,131 | -7,076 | -6,830 | -7,360 | -8,711 | -7,426 | -7,247 | -8,669 | -7,664 | NA | -8,126 | -7,286 | -7,728( 625) |
|  | AIC | 16,500 | 16,343 | 14,234 | 13,742 | 14,802 | 17,504 | 14,935 | 14,576 | 17,421 | 15,410 | NA | 16,334 | 14,654 | 15,538(1,249) |
|  | BIC | 16,661 | 16,504 | 14,396 | 13,904 | 14,961 | 17,664 | 15,096 | 14,737 | 17,582 | 15,570 | NA | 16,492 | 14,812 | 15,698(1,250) |

## block

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 160.65 (38.20) <.01 | 134.35 (36.89) <.01 | 122.60 (35.01) <.01 | 112.92 (33.36) <.01 |
| ab | Covar (Slopes) | 0.26 (0.62) .67 | 0.26 (0.64) .69 | 0.34 (0.64) .60 | 0.19 (0.64) .77 |
| ab | Covar (Residuals) | 24.43 (7.86) <.01 | 24.86 (8.02) <.01 | 24.79 (8.27) <.01 | 24.91 (8.29) <.01 |
| er | Corr (Levels) | 0.35 (0.07) <.01 | 0.31 (0.08) <.01 | 0.31 (0.08) <.01 | 0.29 (0.08) <.01 |
| er | Corr (Slopes) | 0.10 (0.24) .68 | 0.10 (0.25) .69 | 0.14 (0.26) .61 | 0.08 (0.28) .77 |
| er | Corr (Residuals) | 0.16 (0.05) <.01 | 0.16 (0.05) <.01 | 0.16 (0.05) <.01 | 0.16 (0.05) <.01 |
| a | Level | 302.33 (7.20) <.01 | 302.86 (7.15) <.01 | 311.02 (7.47) <.01 | 322.53 (8.38) <.01 |
| a | Slope | 12.10 (0.64) <.01 | 12.21 (0.60) <.01 | 12.77 (0.64) <.01 | 13.34 (0.76) <.01 |
| a | Level \* age | -6.60 (1.70) <.01 | -6.27 (1.74) <.01 | -5.35 (1.74) <.01 | -5.67 (1.77) <.01 |
| a | Level \* education | --- | 5.57 (2.35) .02 | 5.25 (2.24) .02 | 7.04 (2.34) <.01 |
| a | Level \* height | --- | --- | 295.06 (92.84) <.01 | 302.35 (91.62) <.01 |
| a | Level \* smoking | --- | --- | --- | -29.84 (10.81) .01 |
| a | Level \* cardio | --- | --- | --- | -4.70 (9.09) .60 |
| a | Level \* diabetes | --- | --- | --- | -11.85 (14.98) .43 |
| a | Slope \* age | 0.79 (0.30) .01 | 0.77 (0.30) .01 | 0.70 (0.29) .02 | 0.62 (0.30) .04 |
| a | Slope \* education | --- | -0.37 (0.35) .29 | -0.29 (0.37) .43 | -0.10 (0.40) .80 |
| a | Slope \* height | --- | --- | -19.07 (18.51) .30 | -17.99 (18.31) .33 |
| a | Slope \* smoking | --- | --- | --- | -3.48 (1.86) .06 |
| a | Slope \* cardio | --- | --- | --- | -1.51 (1.53) .32 |
| a | Slope \* diabetes | --- | --- | --- | 2.74 (2.42) .26 |
| b | Level | -8.71 (1.12) <.01 | -8.65 (1.10) <.01 | -9.02 (1.15) <.01 | -7.58 (1.31) <.01 |
| b | Slope | -0.30 (0.07) <.01 | -0.30 (0.08) <.01 | -0.31 (0.08) <.01 | -0.25 (0.10) .02 |
| b | Level \* age | -0.59 (0.13) <.01 | -0.50 (0.13) <.01 | -0.47 (0.14) <.01 | -0.49 (0.14) <.01 |
| b | Level \* education | --- | 0.91 (0.19) <.01 | 0.95 (0.19) <.01 | 1.10 (0.19) <.01 |
| b | Level \* height | --- | --- | 3.86 (6.31) .54 | 4.23 (6.08) .49 |
| b | Level \* smoking | --- | --- | --- | -2.04 (0.87) .02 |
| b | Level \* cardio | --- | --- | --- | 0.10 (0.68) .88 |
| b | Level \* diabetes | --- | --- | --- | -0.18 (1.71) .92 |
| b | Slope \* age | -0.03 (0.02) .10 | -0.03 (0.02) .11 | -0.02 (0.02) .23 | -0.02 (0.02) .23 |
| b | Slope \* education | --- | 0.01 (0.03) .84 | -0.00 (0.03) .96 | -0.00 (0.03) .89 |
| b | Slope \* height | --- | --- | 0.93 (0.78) .23 | 0.87 (0.77) .26 |
| b | Slope \* smoking | --- | --- | --- | 0.01 (0.14) .97 |
| b | Slope \* cardio | --- | --- | --- | -0.14 (0.11) .20 |
| b | Slope \* diabetes | --- | --- | --- | -0.02 (0.17) .90 |
| a | Var (Level) | 5023.67 (514.60) <.01 | 4909.06 (501.36) <.01 | 4530.95 (483.43) <.01 | 4374.92 (475.91) <.01 |
| a | Var (Slope) | 29.58 (14.03) .04 | 29.57 (14.45) .04 | 27.70 (14.30) .05 | 24.16 (13.10) .06 |
| a | Var (Residual) | 2167.32 (164.84) <.01 | 2169.91 (164.39) <.01 | 2183.89 (167.72) <.01 | 2195.82 (167.75) <.01 |
| b | Var (Level) | 42.08 (3.21) <.01 | 37.34 (3.08) <.01 | 35.14 (3.11) <.01 | 34.01 (3.01) <.01 |
| b | Var (Slope) | 0.22 (0.06) <.01 | 0.23 (0.06) <.01 | 0.22 (0.07) <.01 | 0.21 (0.07) <.01 |
| b | Var (Residual) | 10.41 (0.70) <.01 | 10.57 (0.72) <.01 | 10.76 (0.74) <.01 | 10.78 (0.75) <.01 |
| a | Covar (Level, Slope) | -159.23 (92.50) .08 | -155.80 (93.03) .09 | -134.92 (87.69) .12 | -144.66 (80.89) .07 |
| b | Covar (Level, Slope) | -0.82 (0.35) .02 | -0.77 (0.36) .03 | -0.69 (0.36) .06 | -0.64 (0.35) .07 |
|  | Correlation of Levels | 0.35 | 0.314 | 0.31 | 0.293 |
|  | Correlation of Slopes | 0.10 | 0.099 | 0.14 | 0.083 |
|  | Correlation of Residuals | 0.16 | 0.164 | 0.16 | 0.162 |
|  | N | 431 | 413 | 372 | 370 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -8,679 | -8,563 | -8,232 | -8,209 |
|  | AIC | 17,401 | 17,177 | 16,522 | 16,500 |
|  | BIC | 17,486 | 17,277 | 16,635 | 16,661 |

## clock

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 98.57 (41.84) .02 | 59.44 (29.97) .05 | 40.81 (19.39) .04 | 30.68 (17.32) .08 |
| ab | Covar (Slopes) | 0.32 (1.02) .76 | 0.44 (0.96) .65 | 0.42 (0.94) .66 | 0.54 (0.92) .55 |
| ab | Covar (Residuals) | 20.53 (8.21) .01 | 21.15 (8.58) .01 | 19.57 (8.25) .02 | 20.06 (8.32) .02 |
| er | Corr (Levels) | 0.28 (0.11) .01 | 0.23 (0.11) .03 | 0.22 (0.10) .02 | 0.19 (0.10) .06 |
| er | Corr (Slopes) | 0.10 (0.32) .75 | 0.15 (0.32) .65 | 0.14 (0.31) .66 | 0.19 (0.32) .55 |
| er | Corr (Residuals) | 0.20 (0.07) .01 | 0.20 (0.08) .01 | 0.19 (0.07) .01 | 0.19 (0.07) .01 |
| a | Level | 299.51 (7.49) <.01 | 300.57 (7.37) <.01 | 308.81 (7.66) <.01 | 320.62 (8.51) <.01 |
| a | Slope | 13.25 (0.39) <.01 | 13.57 (0.34) <.01 | 14.05 (0.29) <.01 | 14.20 (0.36) <.01 |
| a | Level \* age | -6.91 (1.79) <.01 | -6.12 (1.78) <.01 | -5.09 (1.80) <.01 | -5.44 (1.82) <.01 |
| a | Level \* education | --- | 5.60 (2.38) .02 | 5.35 (2.26) .02 | 7.27 (2.35) <.01 |
| a | Level \* height | --- | --- | 280.13 (94.39) <.01 | 295.66 (92.86) <.01 |
| a | Level \* smoking | --- | --- | --- | -29.30 (10.79) .01 |
| a | Level \* cardio | --- | --- | --- | -3.82 (9.13) .68 |
| a | Level \* diabetes | --- | --- | --- | -12.10 (15.11) .42 |
| a | Slope \* age | 0.82 (0.37) .03 | 0.76 (0.32) .02 | 0.71 (0.30) .02 | 0.63 (0.30) .04 |
| a | Slope \* education | --- | -0.40 (0.38) .30 | -0.30 (0.39) .44 | -0.13 (0.43) .77 |
| a | Slope \* height | --- | --- | -21.16 (18.92) .26 | -20.41 (18.99) .28 |
| a | Slope \* smoking | --- | --- | --- | -3.42 (1.85) .06 |
| a | Slope \* cardio | --- | --- | --- | -1.71 (1.49) .25 |
| a | Slope \* diabetes | --- | --- | --- | 3.26 (2.58) .21 |
| b | Level | -8.55 (1.54) <.01 | -8.73 (1.44) <.01 | -9.21 (1.36) <.01 | -7.72 (1.44) <.01 |
| b | Slope | -0.33 (0.07) <.01 | -0.37 (0.07) <.01 | -0.41 (0.07) <.01 | -0.35 (0.09) <.01 |
| b | Level \* age | -0.36 (0.09) <.01 | -0.18 (0.08) .03 | -0.11 (0.07) .11 | -0.12 (0.07) .10 |
| b | Level \* education | --- | 0.23 (0.08) .01 | 0.20 (0.07) .01 | 0.28 (0.07) <.01 |
| b | Level \* height | --- | --- | -0.52 (4.05) .90 | 0.73 (3.65) .84 |
| b | Level \* smoking | --- | --- | --- | -0.45 (0.37) .22 |
| b | Level \* cardio | --- | --- | --- | 0.34 (0.30) .26 |
| b | Level \* diabetes | --- | --- | --- | -0.35 (0.61) .56 |
| b | Slope \* age | -0.04 (0.02) .01 | -0.05 (0.02) <.01 | -0.05 (0.02) .01 | -0.05 (0.02) .01 |
| b | Slope \* education | --- | 0.05 (0.02) .01 | 0.06 (0.02) <.01 | 0.07 (0.02) <.01 |
| b | Slope \* height | --- | --- | -0.74 (0.86) .39 | -0.75 (0.85) .38 |
| b | Slope \* smoking | --- | --- | --- | -0.11 (0.12) .38 |
| b | Slope \* cardio | --- | --- | --- | -0.06 (0.10) .51 |
| b | Slope \* diabetes | --- | --- | --- | -0.11 (0.18) .54 |
| a | Var (Level) | 5274.48 (623.52) <.01 | 5023.48 (552.68) <.01 | 4630.21 (513.64) <.01 | 4437.30 (494.37) <.01 |
| a | Var (Slope) | 28.93 (15.16) .06 | 27.50 (13.64) .04 | 27.42 (14.01) .05 | 24.36 (13.37) .07 |
| a | Var (Residual) | 2217.50 (172.38) <.01 | 2227.98 (173.06) <.01 | 2223.06 (173.44) <.01 | 2235.40 (174.11) <.01 |
| b | Var (Level) | 23.12 (2.18) <.01 | 13.55 (1.93) <.01 | 7.33 (1.66) <.01 | 6.02 (1.54) <.01 |
| b | Var (Slope) | 0.33 (0.07) <.01 | 0.33 (0.07) <.01 | 0.34 (0.07) <.01 | 0.34 (0.07) <.01 |
| b | Var (Residual) | 4.89 (0.58) <.01 | 5.12 (0.61) <.01 | 4.93 (0.60) <.01 | 4.93 (0.60) <.01 |
| a | Covar (Level, Slope) | -157.70 (121.14) .19 | -134.64 (106.44) .21 | -118.92 (97.23) .22 | -130.28 (87.35) .14 |
| b | Covar (Level, Slope) | 0.14 (0.24) .55 | 0.66 (0.25) .01 | 0.88 (0.21) <.01 | 0.87 (0.20) <.01 |
|  | Correlation of Levels | 0.28 | 0.23 | 0.22 | 0.19 |
|  | Correlation of Slopes | 0.10 | 0.15 | 0.14 | 0.19 |
|  | Correlation of Residuals | 0.20 | 0.20 | 0.19 | 0.19 |
|  | N | 472 | 432 | 381 | 377 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -9,015 | -8,686 | -8,181 | -8,131 |
|  | AIC | 18,071 | 17,423 | 16,419 | 16,343 |
|  | BIC | 18,158 | 17,524 | 16,534 | 16,504 |

## digit\_b

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 15.32 (8.75) .08 | 8.83 (7.39) .23 | 8.49 (6.50) .19 | 7.29 (6.41) .26 |
| ab | Covar (Slopes) | -0.19 (0.21) .38 | -0.16 (0.20) .43 | -0.15 (0.19) .44 | -0.15 (0.18) .40 |
| ab | Covar (Residuals) | 5.59 (2.88) .05 | 5.51 (2.90) .06 | 5.58 (2.89) .05 | 5.97 (2.86) .04 |
| er | Corr (Levels) | 0.20 (0.11) .07 | 0.13 (0.11) .23 | 0.15 (0.12) .19 | 0.13 (0.12) .26 |
| er | Corr (Slopes) | -0.30 (0.33) .37 | -0.29 (0.36) .42 | -0.29 (0.37) .43 | -0.33 (0.38) .38 |
| er | Corr (Residuals) | 0.10 (0.05) .05 | 0.10 (0.05) .06 | 0.10 (0.05) .06 | 0.11 (0.05) .04 |
| a | Level | 300.94 (7.43) <.01 | 302.15 (7.27) <.01 | 310.30 (7.56) <.01 | 321.94 (8.47) <.01 |
| a | Slope | 3.37 (0.12) <.01 | 3.45 (0.12) <.01 | 3.63 (0.12) <.01 | 3.59 (0.14) <.01 |
| a | Level \* age | -6.04 (1.78) <.01 | -5.84 (1.80) <.01 | -5.08 (1.80) <.01 | -5.39 (1.81) <.01 |
| a | Level \* education | --- | 5.66 (2.36) .02 | 5.36 (2.24) .02 | 7.00 (2.34) <.01 |
| a | Level \* height | --- | --- | 292.24 (92.61) <.01 | 301.03 (91.59) <.01 |
| a | Level \* smoking | --- | --- | --- | -28.14 (10.76) .01 |
| a | Level \* cardio | --- | --- | --- | -6.32 (9.11) .49 |
| a | Level \* diabetes | --- | --- | --- | -11.17 (14.91) .45 |
| a | Slope \* age | 0.82 (0.31) .01 | 0.80 (0.31) .01 | 0.76 (0.30) .01 | 0.67 (0.31) .03 |
| a | Slope \* education | --- | -0.48 (0.36) .18 | -0.40 (0.38) .29 | -0.24 (0.41) .56 |
| a | Slope \* height | --- | --- | -20.19 (18.91) .29 | -19.65 (18.70) .29 |
| a | Slope \* smoking | --- | --- | --- | -3.10 (1.84) .09 |
| a | Slope \* cardio | --- | --- | --- | -1.43 (1.54) .35 |
| a | Slope \* diabetes | --- | --- | --- | 3.35 (2.66) .21 |
| b | Level | -7.69 (1.09) <.01 | -7.78 (1.05) <.01 | -8.32 (1.14) <.01 | -6.99 (1.34) <.01 |
| b | Slope | -0.09 (0.02) <.01 | -0.09 (0.02) <.01 | -0.11 (0.02) <.01 | -0.09 (0.03) <.01 |
| b | Level \* age | -0.08 (0.03) <.01 | -0.07 (0.02) .01 | -0.09 (0.02) <.01 | -0.09 (0.02) <.01 |
| b | Level \* education | --- | 0.16 (0.03) <.01 | 0.15 (0.03) <.01 | 0.17 (0.04) <.01 |
| b | Level \* height | --- | --- | 0.09 (1.36) .95 | 0.15 (1.37) .91 |
| b | Level \* smoking | --- | --- | --- | -0.18 (0.18) .32 |
| b | Level \* cardio | --- | --- | --- | 0.18 (0.14) .20 |
| b | Level \* diabetes | --- | --- | --- | 0.03 (0.25) .90 |
| b | Slope \* age | -0.00 (0.01) .67 | -0.00 (0.01) .72 | 0.00 (0.00) .41 | 0.01 (0.01) .32 |
| b | Slope \* education | --- | 0.01 (0.01) .15 | 0.01 (0.01) .13 | 0.01 (0.01) .21 |
| b | Slope \* height | --- | --- | 0.26 (0.26) .31 | 0.23 (0.26) .36 |
| b | Slope \* smoking | --- | --- | --- | 0.01 (0.03) .74 |
| b | Slope \* cardio | --- | --- | --- | -0.05 (0.03) .08 |
| b | Slope \* diabetes | --- | --- | --- | -0.06 (0.07) .41 |
| a | Var (Level) | 5009.00 (526.39) <.01 | 4846.19 (498.02) <.01 | 4500.72 (487.61) <.01 | 4351.71 (480.16) <.01 |
| a | Var (Slope) | 30.93 (14.20) .03 | 29.44 (14.22) .04 | 29.39 (14.54) .04 | 25.98 (13.49) .05 |
| a | Var (Residual) | 2186.02 (166.41) <.01 | 2190.84 (166.03) <.01 | 2191.69 (167.59) <.01 | 2202.20 (167.73) <.01 |
| b | Var (Level) | 1.24 (0.17) <.01 | 0.90 (0.16) <.01 | 0.70 (0.15) <.01 | 0.69 (0.15) <.01 |
| b | Var (Slope) | 0.01 (0.01) .02 | 0.01 (0.00) .06 | 0.01 (0.00) .08 | 0.01 (0.00) .08 |
| b | Var (Residual) | 1.35 (0.10) <.01 | 1.38 (0.10) <.01 | 1.38 (0.10) <.01 | 1.37 (0.10) <.01 |
| a | Covar (Level, Slope) | -178.39 (92.73) .05 | -163.94 (91.18) .07 | -148.90 (88.13) .09 | -157.79 (81.71) .05 |
| b | Covar (Level, Slope) | -0.03 (0.02) .29 | -0.02 (0.02) .35 | -0.01 (0.02) .68 | -0.01 (0.02) .76 |
|  | Correlation of Levels | 0.19 | 0.13 | 0.15 | 0.13 |
|  | Correlation of Slopes | -0.31 | -0.29 | -0.30 | -0.33 |
|  | Correlation of Residuals | 0.10 | 0.10 | 0.10 | 0.11 |
|  | N | 453 | 431 | 382 | 380 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -7,515 | -7,398 | -7,095 | -7,076 |
|  | AIC | 15,072 | 14,846 | 14,248 | 14,234 |
|  | BIC | 15,159 | 14,948 | 14,362 | 14,396 |

## digit\_f

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 6.95 (6.77) .30 | 1.55 (5.44) .78 | 2.08 (5.10) .68 | 1.33 (5.08) .79 |
| ab | Covar (Slopes) | -0.29 (0.26) .26 | -0.21 (0.23) .37 | -0.16 (0.20) .41 | -0.13 (0.19) .50 |
| ab | Covar (Residuals) | 3.55 (2.63) .18 | 2.95 (2.28) .20 | 2.47 (2.19) .26 | 2.52 (2.16) .24 |
| er | Corr (Levels) | 0.11 (0.11) .30 | 0.03 (0.10) .78 | 0.04 (0.10) .68 | 0.03 (0.10) .79 |
| er | Corr (Slopes) | -0.34 (0.30) .25 | -0.26 (0.29) .37 | -0.23 (0.28) .40 | -0.20 (0.29) .50 |
| er | Corr (Residuals) | 0.08 (0.06) .17 | 0.07 (0.05) .20 | 0.06 (0.05) .26 | 0.06 (0.05) .24 |
| a | Level | 301.77 (7.37) <.01 | 302.77 (7.21) <.01 | 310.73 (7.52) <.01 | 321.88 (8.37) <.01 |
| a | Slope | 5.39 (0.10) <.01 | 5.45 (0.10) <.01 | 5.53 (0.10) <.01 | 5.51 (0.13) <.01 |
| a | Level \* age | -5.77 (1.82) <.01 | -5.56 (1.81) <.01 | -4.74 (1.81) .01 | -5.09 (1.82) <.01 |
| a | Level \* education | --- | 5.09 (2.39) .03 | 4.99 (2.26) .03 | 6.62 (2.35) <.01 |
| a | Level \* height | --- | --- | 303.98 (92.81) <.01 | 312.20 (91.78) <.01 |
| a | Level \* smoking | --- | --- | --- | -27.49 (10.77) .01 |
| a | Level \* cardio | --- | --- | --- | -5.48 (9.12) .55 |
| a | Level \* diabetes | --- | --- | --- | -11.51 (15.26) .45 |
| a | Slope \* age | 0.81 (0.31) .01 | 0.79 (0.30) .01 | 0.73 (0.30) .01 | 0.66 (0.31) .03 |
| a | Slope \* education | --- | -0.46 (0.37) .21 | -0.39 (0.38) .30 | -0.22 (0.42) .60 |
| a | Slope \* height | --- | --- | -19.42 (18.98) .31 | -18.38 (18.84) .33 |
| a | Slope \* smoking | --- | --- | --- | -2.96 (1.86) .11 |
| a | Slope \* cardio | --- | --- | --- | -1.26 (1.57) .42 |
| a | Slope \* diabetes | --- | --- | --- | 3.36 (2.60) .20 |
| b | Level | -7.69 (1.10) <.01 | -7.79 (1.06) <.01 | -8.21 (1.14) <.01 | -7.10 (1.33) <.01 |
| b | Slope | -0.10 (0.02) <.01 | -0.10 (0.02) <.01 | -0.10 (0.02) <.01 | -0.10 (0.02) <.01 |
| b | Level \* age | -0.06 (0.02) <.01 | -0.05 (0.02) .01 | -0.05 (0.02) .01 | -0.05 (0.02) .01 |
| b | Level \* education | --- | 0.14 (0.02) <.01 | 0.13 (0.02) <.01 | 0.14 (0.03) <.01 |
| b | Level \* height | --- | --- | 0.68 (0.91) .46 | 0.75 (0.92) .41 |
| b | Level \* smoking | --- | --- | --- | -0.04 (0.14) .75 |
| b | Level \* cardio | --- | --- | --- | 0.06 (0.12) .61 |
| b | Level \* diabetes | --- | --- | --- | 0.10 (0.21) .65 |
| b | Slope \* age | -0.01 (0.01) .16 | -0.00 (0.00) .31 | -0.00 (0.00) .75 | -0.00 (0.00) .89 |
| b | Slope \* education | --- | 0.00 (0.01) .68 | 0.01 (0.01) .41 | 0.00 (0.01) .46 |
| b | Slope \* height | --- | --- | 0.15 (0.27) .58 | 0.12 (0.26) .64 |
| b | Slope \* smoking | --- | --- | --- | 0.02 (0.03) .59 |
| b | Slope \* cardio | --- | --- | --- | 0.01 (0.03) .82 |
| b | Slope \* diabetes | --- | --- | --- | -0.03 (0.06) .55 |
| a | Var (Level) | 5047.19 (532.26) <.01 | 4877.05 (501.33) <.01 | 4521.68 (491.06) <.01 | 4374.22 (483.41) <.01 |
| a | Var (Slope) | 31.29 (14.19) .03 | 29.80 (14.21) .04 | 30.05 (14.69) .04 | 26.44 (13.83) .06 |
| a | Var (Residual) | 2184.65 (166.02) <.01 | 2185.97 (165.32) <.01 | 2184.94 (166.93) <.01 | 2192.38 (167.20) <.01 |
| b | Var (Level) | 0.76 (0.14) <.01 | 0.55 (0.10) <.01 | 0.52 (0.10) <.01 | 0.53 (0.10) <.01 |
| b | Var (Slope) | 0.02 (0.01) <.01 | 0.02 (0.01) <.01 | 0.02 (0.01) <.01 | 0.02 (0.01) <.01 |
| b | Var (Residual) | 0.95 (0.09) <.01 | 0.83 (0.06) <.01 | 0.79 (0.06) <.01 | 0.79 (0.06) <.01 |
| a | Covar (Level, Slope) | -181.97 (92.77) .05 | -166.41 (90.75) .07 | -152.87 (88.00) .08 | -158.40 (82.52) .06 |
| b | Covar (Level, Slope) | 0.03 (0.02) .23 | 0.00 (0.02) .88 | -0.00 (0.02) .85 | -0.00 (0.02) .77 |
|  | Correlation of Levels | 0.112 | 0.030 | 0.043 | 0.028 |
|  | Correlation of Slopes | -0.343 | -0.257 | -0.235 | -0.198 |
|  | Correlation of Residuals | 0.078 | 0.069 | 0.059 | 0.060 |
|  | N | 457 | 432 | 382 | 380 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -7,367 | -7,161 | -6,845 | -6,830 |
|  | AIC | 14,776 | 14,373 | 13,749 | 13,742 |
|  | BIC | 14,863 | 14,474 | 13,863 | 13,904 |

## fig\_logic

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 56.94 (20.99) .01 | 51.45 (19.81) .01 | 47.19 (19.68) .02 | 41.64 (18.56) .02 |
| ab | Covar (Slopes) | 0.03 (0.57) .95 | 0.03 (0.59) .96 | 0.07 (0.59) .90 | 0.14 (0.46) .76 |
| ab | Covar (Residuals) | 8.60 (8.11) .29 | 8.21 (8.10) .31 | 7.82 (8.18) .34 | 7.85 (7.93) .32 |
| er | Corr (Levels) | 0.29 (0.10) <.01 | 0.28 (0.10) .01 | 0.27 (0.11) .01 | 0.25 (0.11) .02 |
| er | Corr (Slopes) | 0.05 (0.87) .95 | 0.04 (0.81) .96 | 0.10 (0.81) .90 | 0.24 (0.70) .73 |
| er | Corr (Residuals) | 0.06 (0.06) .28 | 0.06 (0.06) .31 | 0.05 (0.06) .34 | 0.05 (0.05) .32 |
| a | Level | 305.03 (7.09) <.01 | 304.62 (7.11) <.01 | 312.27 (7.46) <.01 | 323.74 (8.37) <.01 |
| a | Slope | 15.91 (0.37) <.01 | 15.83 (0.36) <.01 | 16.14 (0.37) <.01 | 16.65 (0.42) <.01 |
| a | Level \* age | -5.96 (1.74) <.01 | -5.82 (1.77) <.01 | -5.14 (1.78) <.01 | -5.48 (1.79) <.01 |
| a | Level \* education | --- | 5.45 (2.34) .02 | 5.13 (2.25) .02 | 6.81 (2.34) <.01 |
| a | Level \* height | --- | --- | 290.52 (92.65) <.01 | 299.35 (91.51) <.01 |
| a | Level \* smoking | --- | --- | --- | -28.97 (10.75) .01 |
| a | Level \* cardio | --- | --- | --- | -5.67 (9.19) .54 |
| a | Level \* diabetes | --- | --- | --- | -11.96 (15.07) .43 |
| a | Slope \* age | 0.84 (0.31) .01 | 0.82 (0.31) .01 | 0.77 (0.30) .01 | 0.68 (0.31) .03 |
| a | Slope \* education | --- | -0.48 (0.36) .19 | -0.40 (0.38) .28 | -0.24 (0.41) .56 |
| a | Slope \* height | --- | --- | -18.60 (19.00) .33 | -17.54 (18.91) .35 |
| a | Slope \* smoking | --- | --- | --- | -2.96 (1.85) .11 |
| a | Slope \* cardio | --- | --- | --- | -1.26 (1.56) .42 |
| a | Slope \* diabetes | --- | --- | --- | 3.70 (2.43) .13 |
| b | Level | -8.06 (1.08) <.01 | -8.01 (1.06) <.01 | -8.41 (1.14) <.01 | -7.23 (1.33) <.01 |
| b | Slope | -0.07 (0.07) .29 | -0.07 (0.07) .34 | -0.07 (0.07) .36 | -0.12 (0.08) .13 |
| b | Level \* age | -0.18 (0.08) .03 | -0.14 (0.08) .09 | -0.18 (0.09) .03 | -0.19 (0.08) .02 |
| b | Level \* education | --- | 0.29 (0.11) .01 | 0.28 (0.11) .01 | 0.37 (0.12) <.01 |
| b | Level \* height | --- | --- | 1.59 (4.29) .71 | 1.92 (4.16) .64 |
| b | Level \* smoking | --- | --- | --- | -1.64 (0.54) <.01 |
| b | Level \* cardio | --- | --- | --- | -0.22 (0.45) .63 |
| b | Level \* diabetes | --- | --- | --- | -0.10 (0.96) .92 |
| b | Slope \* age | -0.01 (0.02) .49 | -0.01 (0.02) .44 | -0.01 (0.02) .52 | -0.01 (0.02) .49 |
| b | Slope \* education | --- | -0.01 (0.03) .75 | -0.01 (0.03) .73 | -0.02 (0.03) .40 |
| b | Slope \* height | --- | --- | 0.43 (0.80) .60 | 0.49 (0.82) .55 |
| b | Slope \* smoking | --- | --- | --- | 0.20 (0.12) .10 |
| b | Slope \* cardio | --- | --- | --- | 0.03 (0.10) .72 |
| b | Slope \* diabetes | --- | --- | --- | 0.15 (0.14) .30 |
| a | Var (Level) | 4944.47 (504.54) <.01 | 4835.97 (491.72) <.01 | 4497.47 (484.86) <.01 | 4359.84 (479.15) <.01 |
| a | Var (Slope) | 31.85 (14.64) .03 | 30.37 (14.68) .04 | 30.40 (15.06) .04 | 26.77 (14.13) .06 |
| a | Var (Residual) | 2169.04 (165.29) <.01 | 2175.94 (164.92) <.01 | 2178.72 (166.74) <.01 | 2187.81 (166.33) <.01 |
| b | Var (Level) | 7.61 (1.23) <.01 | 7.20 (1.18) <.01 | 6.68 (1.13) <.01 | 6.33 (1.06) <.01 |
| b | Var (Slope) | 0.01 (0.04) .71 | 0.02 (0.04) .65 | 0.02 (0.04) .66 | 0.01 (0.01) .42 |
| b | Var (Residual) | 9.78 (0.66) <.01 | 9.70 (0.66) <.01 | 9.84 (0.66) <.01 | 9.84 (0.59) <.01 |
| a | Covar (Level, Slope) | -178.18 (91.85) .05 | -166.81 (91.31) .07 | -152.77 (88.78) .08 | -161.02 (83.22) .05 |
| b | Covar (Level, Slope) | -0.04 (0.16) .81 | -0.04 (0.16) .79 | -0.02 (0.16) .89 | 0.01 (0.11) .94 |
|  | Correlation of Levels | 0.293 | 0.276 | 0.272 | 0.251 |
|  | Correlation of Slopes | 0.051 | 0.043 | 0.099 | 0.242 |
|  | Correlation of Residuals | 0.059 | 0.056 | 0.053 | 0.054 |
|  | N | 379 | 376 | 353 | 353 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -7,603 | -7,582 | -7,373 | -7,360 |
|  | AIC | 15,247 | 15,214 | 14,803 | 14,802 |
|  | BIC | 15,330 | 15,313 | 14,915 | 14,961 |

## information

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 99.22 (59.95) .10 | 45.37 (53.91) .40 | 45.43 (51.88) .38 | 50.91 (51.83) .33 |
| ab | Covar (Slopes) | 0.10 (1.09) .93 | 0.04 (1.09) .97 | 0.09 (1.10) .94 | -0.05 (1.02) .96 |
| ab | Covar (Residuals) | 6.45 (10.28) .53 | 6.75 (10.37) .52 | 6.94 (10.46) .51 | 7.78 (10.56) .46 |
| er | Corr (Levels) | 0.12 (0.07) .10 | 0.06 (0.08) .40 | 0.07 (0.08) .38 | 0.08 (0.08) .33 |
| er | Corr (Slopes) | 0.02 (0.24) .93 | 0.01 (0.25) .97 | 0.02 (0.26) .94 | -0.01 (0.26) .96 |
| er | Corr (Residuals) | 0.03 (0.05) .53 | 0.03 (0.05) .52 | 0.04 (0.05) .51 | 0.04 (0.05) .46 |
| a | Level | 304.64 (7.07) <.01 | 304.64 (7.04) <.01 | 311.49 (7.47) <.01 | 323.41 (8.34) <.01 |
| a | Slope | 28.02 (1.10) <.01 | 27.81 (0.94) <.01 | 28.49 (1.03) <.01 | 27.62 (1.22) <.01 |
| a | Level \* age | -6.07 (1.75) <.01 | -5.88 (1.77) <.01 | -5.05 (1.78) <.01 | -5.43 (1.79) <.01 |
| a | Level \* education | --- | 5.36 (2.35) .02 | 5.10 (2.24) .02 | 6.79 (2.34) <.01 |
| a | Level \* height | --- | --- | 287.42 (92.59) <.01 | 297.24 (91.36) <.01 |
| a | Level \* smoking | --- | --- | --- | -29.27 (10.76) .01 |
| a | Level \* cardio | --- | --- | --- | -5.81 (9.19) .53 |
| a | Level \* diabetes | --- | --- | --- | -13.05 (14.98) .38 |
| a | Slope \* age | 0.82 (0.30) .01 | 0.80 (0.30) .01 | 0.73 (0.29) .01 | 0.66 (0.30) .03 |
| a | Slope \* education | --- | -0.43 (0.36) .24 | -0.35 (0.37) .35 | -0.17 (0.41) .68 |
| a | Slope \* height | --- | --- | -20.90 (19.31) .28 | -19.85 (19.15) .30 |
| a | Slope \* smoking | --- | --- | --- | -3.17 (1.85) .09 |
| a | Slope \* cardio | --- | --- | --- | -1.62 (1.57) .30 |
| a | Slope \* diabetes | --- | --- | --- | 3.18 (2.58) .22 |
| b | Level | -8.18 (1.05) <.01 | -8.20 (1.04) <.01 | -8.63 (1.16) <.01 | -7.28 (1.32) <.01 |
| b | Slope | -0.55 (0.11) <.01 | -0.55 (0.11) <.01 | -0.53 (0.13) <.01 | -0.23 (0.15) .12 |
| b | Level \* age | -0.96 (0.22) <.01 | -0.79 (0.19) <.01 | -0.75 (0.22) <.01 | -0.70 (0.23) <.01 |
| b | Level \* education | --- | 2.64 (0.25) <.01 | 2.60 (0.26) <.01 | 2.70 (0.27) <.01 |
| b | Level \* height | --- | --- | 6.25 (11.66) .59 | 7.52 (11.71) .52 |
| b | Level \* smoking | --- | --- | --- | 0.82 (1.28) .52 |
| b | Level \* cardio | --- | --- | --- | 1.79 (1.11) .11 |
| b | Level \* diabetes | --- | --- | --- | -2.28 (2.53) .37 |
| b | Slope \* age | -0.06 (0.03) .04 | -0.06 (0.03) .05 | -0.06 (0.03) .06 | -0.06 (0.03) .06 |
| b | Slope \* education | --- | 0.02 (0.03) .60 | 0.01 (0.04) .78 | 0.01 (0.04) .83 |
| b | Slope \* height | --- | --- | 1.56 (1.54) .31 | 1.66 (1.49) .27 |
| b | Slope \* smoking | --- | --- | --- | -0.22 (0.20) .27 |
| b | Slope \* cardio | --- | --- | --- | -0.54 (0.15) <.01 |
| b | Slope \* diabetes | --- | --- | --- | 0.04 (0.38) .92 |
| a | Var (Level) | 4931.56 (507.44) <.01 | 4811.17 (492.00) <.01 | 4445.22 (481.59) <.01 | 4343.21 (479.00) <.01 |
| a | Var (Slope) | 32.51 (14.98) .03 | 30.06 (14.62) .04 | 26.69 (14.21) .06 | 26.55 (14.08) .06 |
| a | Var (Residual) | 2169.69 (165.59) <.01 | 2181.76 (166.69) <.01 | 2202.44 (171.16) <.01 | 2192.11 (168.06) <.01 |
| b | Var (Level) | 136.20 (8.09) <.01 | 105.50 (7.17) <.01 | 98.59 (7.49) <.01 | 96.41 (7.52) <.01 |
| b | Var (Slope) | 0.64 (0.21) <.01 | 0.64 (0.21) <.01 | 0.67 (0.22) <.01 | 0.59 (0.21) <.01 |
| b | Var (Residual) | 17.56 (1.38) <.01 | 17.65 (1.39) <.01 | 17.73 (1.41) <.01 | 17.70 (1.41) <.01 |
| a | Covar (Level, Slope) | -178.46 (92.38) .05 | -164.17 (90.62) .07 | -137.27 (85.31) .11 | -157.96 (83.06) .06 |
| b | Covar (Level, Slope) | 1.14 (0.85) .18 | 0.92 (0.72) .20 | 0.90 (0.74) .22 | 1.16 (0.71) .10 |
|  | Correlation of Levels | 0.121 | 0.0637 | 0.069 | 0.079 |
|  | Correlation of Slopes | 0.021 | 0.0084 | 0.021 | -0.012 |
|  | Correlation of Residuals | 0.033 | 0.0344 | 0.035 | 0.040 |
|  | N | 425 | 418 | 375 | 373 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -9,202 | -9,111 | -8,737 | -8,711 |
|  | AIC | 18,446 | 18,273 | 17,532 | 17,504 |
|  | BIC | 18,531 | 18,373 | 17,646 | 17,664 |

## mir

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 47.58 (17.95) .01 | 37.79 (16.28) .02 | 34.63 (14.52) .02 | 30.97 (14.51) .03 |
| ab | Covar (Slopes) | 0.44 (0.43) .30 | 0.44 (0.43) .31 | 0.49 (0.44) .26 | 0.37 (0.42) .38 |
| ab | Covar (Residuals) | 3.06 (3.51) .38 | 3.22 (3.60) .37 | 2.51 (3.65) .49 | 2.54 (3.65) .48 |
| er | Corr (Levels) | 0.24 (0.09) .01 | 0.21 (0.09) .02 | 0.21 (0.09) .01 | 0.20 (0.09) .03 |
| er | Corr (Slopes) | 0.23 (0.22) .30 | 0.23 (0.22) .30 | 0.26 (0.23) .26 | 0.21 (0.24) .37 |
| er | Corr (Residuals) | 0.05 (0.05) .38 | 0.05 (0.06) .37 | 0.04 (0.06) .49 | 0.04 (0.06) .48 |
| a | Level | 301.63 (7.28) <.01 | 301.94 (7.22) <.01 | 310.14 (7.55) <.01 | 321.36 (8.44) <.01 |
| a | Slope | 6.60 (0.25) <.01 | 6.63 (0.25) <.01 | 6.89 (0.24) <.01 | 6.87 (0.31) <.01 |
| a | Level \* age | -6.05 (1.76) <.01 | -5.67 (1.78) <.01 | -4.95 (1.79) .01 | -5.28 (1.81) <.01 |
| a | Level \* education | --- | 5.55 (2.35) .02 | 5.32 (2.25) .02 | 7.04 (2.35) <.01 |
| a | Level \* height | --- | --- | 289.12 (92.99) <.01 | 295.60 (91.91) <.01 |
| a | Level \* smoking | --- | --- | --- | -28.53 (10.71) .01 |
| a | Level \* cardio | --- | --- | --- | -4.40 (9.04) .63 |
| a | Level \* diabetes | --- | --- | --- | -13.60 (14.94) .36 |
| a | Slope \* age | 0.80 (0.30) .01 | 0.79 (0.30) .01 | 0.72 (0.29) .01 | 0.65 (0.29) .03 |
| a | Slope \* education | --- | -0.31 (0.36) .39 | -0.23 (0.38) .54 | -0.04 (0.42) .92 |
| a | Slope \* height | --- | --- | -19.69 (18.88) .30 | -18.44 (18.71) .32 |
| a | Slope \* smoking | --- | --- | --- | -3.41 (1.81) .06 |
| a | Slope \* cardio | --- | --- | --- | -1.44 (1.52) .34 |
| a | Slope \* diabetes | --- | --- | --- | 2.91 (2.47) .24 |
| b | Level | -8.49 (1.17) <.01 | -8.51 (1.15) <.01 | -8.92 (1.19) <.01 | -7.63 (1.34) <.01 |
| b | Slope | -0.20 (0.05) <.01 | -0.20 (0.05) <.01 | -0.19 (0.05) <.01 | -0.11 (0.06) .05 |
| b | Level \* age | -0.25 (0.05) <.01 | -0.18 (0.05) <.01 | -0.18 (0.05) <.01 | -0.18 (0.05) <.01 |
| b | Level \* education | --- | 0.24 (0.08) <.01 | 0.26 (0.08) <.01 | 0.31 (0.08) <.01 |
| b | Level \* height | --- | --- | -1.07 (2.64) .68 | -1.32 (2.54) .60 |
| b | Level \* smoking | --- | --- | --- | -0.55 (0.37) .14 |
| b | Level \* cardio | --- | --- | --- | 0.42 (0.28) .14 |
| b | Level \* diabetes | --- | --- | --- | -0.34 (0.65) .61 |
| b | Slope \* age | -0.01 (0.01) .15 | -0.01 (0.01) .13 | -0.01 (0.01) .25 | -0.01 (0.01) .25 |
| b | Slope \* education | --- | 0.01 (0.02) .65 | 0.01 (0.01) .70 | 0.01 (0.02) .50 |
| b | Slope \* height | --- | --- | 0.88 (0.55) .11 | 0.87 (0.56) .12 |
| b | Slope \* smoking | --- | --- | --- | -0.09 (0.08) .29 |
| b | Slope \* cardio | --- | --- | --- | -0.11 (0.06) .08 |
| b | Slope \* diabetes | --- | --- | --- | -0.06 (0.13) .66 |
| a | Var (Level) | 4991.74 (513.71) <.01 | 4859.35 (496.01) <.01 | 4507.45 (485.15) <.01 | 4357.52 (477.22) <.01 |
| a | Var (Slope) | 28.48 (13.49) .04 | 27.53 (13.67) .04 | 27.11 (13.92) .05 | 23.60 (12.69) .06 |
| a | Var (Residual) | 2178.80 (166.34) <.01 | 2184.71 (166.05) <.01 | 2187.51 (168.09) <.01 | 2197.72 (167.66) <.01 |
| b | Var (Level) | 7.91 (0.62) <.01 | 6.80 (0.59) <.01 | 5.94 (0.60) <.01 | 5.74 (0.58) <.01 |
| b | Var (Slope) | 0.13 (0.02) <.01 | 0.14 (0.02) <.01 | 0.13 (0.02) <.01 | 0.13 (0.02) <.01 |
| b | Var (Residual) | 1.88 (0.14) <.01 | 1.92 (0.14) <.01 | 1.90 (0.14) <.01 | 1.90 (0.14) <.01 |
| a | Covar (Level, Slope) | -151.59 (92.42) .10 | -141.85 (91.52) .12 | -124.20 (88.13) .16 | -133.76 (80.65) .10 |
| b | Covar (Level, Slope) | 0.06 (0.08) .45 | 0.07 (0.08) .35 | 0.10 (0.07) .13 | 0.10 (0.07) .13 |
|  | Correlation of Levels | 0.239 | 0.21 | 0.212 | 0.196 |
|  | Correlation of Slopes | 0.227 | 0.23 | 0.260 | 0.215 |
|  | Correlation of Residuals | 0.048 | 0.05 | 0.039 | 0.039 |
|  | N | 437 | 413 | 374 | 372 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -7,872 | -7,750 | -7,447 | -7,426 |
|  | AIC | 15,786 | 15,550 | 14,951 | 14,935 |
|  | BIC | 15,872 | 15,651 | 15,065 | 15,096 |

## mir\_recog

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 36.37 (20.35) .07 | 20.45 (15.78) .20 | 19.84 (10.98) .07 | 14.41 (10.17) .16 |
| ab | Covar (Slopes) | 0.36 (0.85) .67 | 0.57 (0.85) .50 | 0.59 (0.83) .47 | 0.57 (0.77) .46 |
| ab | Covar (Residuals) | 7.64 (5.07) .13 | 6.96 (4.95) .16 | 7.28 (4.90) .14 | 7.49 (4.89) .13 |
| er | Corr (Levels) | 0.18 (0.10) .06 | 0.13 (0.10) .18 | 0.17 (0.09) .05 | 0.13 (0.09) .13 |
| er | Corr (Slopes) | 0.15 (0.34) .66 | 0.23 (0.32) .48 | 0.24 (0.32) .46 | 0.25 (0.32) .43 |
| er | Corr (Residuals) | 0.14 (0.09) .12 | 0.12 (0.09) .15 | 0.13 (0.09) .12 | 0.14 (0.08) .11 |
| a | Level | 302.48 (7.38) <.01 | 302.90 (7.32) <.01 | 310.68 (7.63) <.01 | 322.32 (8.53) <.01 |
| a | Slope | 9.16 (0.24) <.01 | 9.20 (0.21) <.01 | 9.39 (0.19) <.01 | 9.35 (0.23) <.01 |
| a | Level \* age | -6.63 (1.73) <.01 | -6.10 (1.76) <.01 | -5.27 (1.79) <.01 | -5.61 (1.80) <.01 |
| a | Level \* education | --- | 5.48 (2.37) .02 | 5.45 (2.27) .02 | 7.25 (2.38) <.01 |
| a | Level \* height | --- | --- | 300.26 (92.73) <.01 | 305.09 (91.71) <.01 |
| a | Level \* smoking | --- | --- | --- | -29.99 (10.75) <.01 |
| a | Level \* cardio | --- | --- | --- | -4.35 (9.04) .63 |
| a | Level \* diabetes | --- | --- | --- | -12.03 (14.66) .41 |
| a | Slope \* age | 0.78 (0.31) .01 | 0.77 (0.31) .01 | 0.71 (0.30) .02 | 0.63 (0.31) .04 |
| a | Slope \* education | --- | -0.28 (0.38) .47 | -0.16 (0.40) .68 | 0.04 (0.45) .92 |
| a | Slope \* height | --- | --- | -20.21 (19.17) .29 | -19.99 (19.07) .29 |
| a | Slope \* smoking | --- | --- | --- | -3.57 (1.93) .06 |
| a | Slope \* cardio | --- | --- | --- | -1.51 (1.56) .33 |
| a | Slope \* diabetes | --- | --- | --- | 2.52 (2.71) .35 |
| b | Level | -8.86 (1.38) <.01 | -8.98 (1.37) <.01 | -9.37 (1.39) <.01 | -7.88 (1.49) <.01 |
| b | Slope | -0.20 (0.05) <.01 | -0.20 (0.05) <.01 | -0.18 (0.06) <.01 | -0.12 (0.06) .04 |
| b | Level \* age | -0.18 (0.06) <.01 | -0.07 (0.05) .15 | -0.05 (0.04) .24 | -0.05 (0.04) .23 |
| b | Level \* education | --- | 0.19 (0.05) <.01 | 0.21 (0.04) <.01 | 0.26 (0.05) <.01 |
| b | Level \* height | --- | --- | -2.02 (2.03) .32 | -2.31 (1.90) .22 |
| b | Level \* smoking | --- | --- | --- | -0.50 (0.26) .05 |
| b | Level \* cardio | --- | --- | --- | 0.42 (0.21) .05 |
| b | Level \* diabetes | --- | --- | --- | -0.13 (0.45) .77 |
| b | Slope \* age | -0.04 (0.01) <.01 | -0.03 (0.01) .02 | -0.03 (0.01) .04 | -0.03 (0.01) .04 |
| b | Slope \* education | --- | 0.04 (0.01) <.01 | 0.05 (0.01) <.01 | 0.06 (0.01) <.01 |
| b | Slope \* height | --- | --- | 0.56 (0.59) .34 | 0.42 (0.56) .45 |
| b | Slope \* smoking | --- | --- | --- | -0.11 (0.07) .15 |
| b | Slope \* cardio | --- | --- | --- | -0.04 (0.06) .49 |
| b | Slope \* diabetes | --- | --- | --- | -0.17 (0.14) .24 |
| a | Var (Level) | 5053.55 (551.82) <.01 | 4881.22 (516.98) <.01 | 4537.42 (508.45) <.01 | 4353.37 (492.84) <.01 |
| a | Var (Slope) | 31.68 (14.71) .03 | 32.06 (15.22) .04 | 31.71 (15.34) .04 | 28.34 (14.59) .05 |
| a | Var (Residual) | 2198.78 (174.87) <.01 | 2198.94 (172.61) <.01 | 2206.24 (174.96) <.01 | 2216.63 (174.91) <.01 |
| b | Var (Level) | 7.98 (1.01) <.01 | 5.27 (0.86) <.01 | 3.08 (0.63) <.01 | 2.83 (0.58) <.01 |
| b | Var (Slope) | 0.19 (0.04) <.01 | 0.20 (0.04) <.01 | 0.20 (0.04) <.01 | 0.18 (0.04) <.01 |
| b | Var (Residual) | 1.44 (0.23) <.01 | 1.41 (0.23) <.01 | 1.38 (0.24) <.01 | 1.38 (0.24) <.01 |
| a | Covar (Level, Slope) | -133.18 (101.35) .19 | -123.57 (97.21) .20 | -106.85 (94.67) .26 | -120.17 (86.94) .17 |
| b | Covar (Level, Slope) | 0.55 (0.14) <.01 | 0.49 (0.13) <.01 | 0.40 (0.10) <.01 | 0.35 (0.10) <.01 |
|  | Correlation of Levels | 0.18 | 0.13 | 0.17 | 0.13 |
|  | Correlation of Slopes | 0.15 | 0.23 | 0.24 | 0.25 |
|  | Correlation of Residuals | 0.14 | 0.12 | 0.13 | 0.14 |
|  | N | 441 | 416 | 374 | 372 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -7,824 | -7,641 | -7,276 | -7,247 |
|  | AIC | 15,690 | 15,332 | 14,611 | 14,576 |
|  | BIC | 15,776 | 15,433 | 14,725 | 14,737 |

## mmse

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 156.69 (75.68) .04 | 71.70 (38.30) .06 | 43.67 (22.72) .06 | 28.49 (19.45) .14 |
| ab | Covar (Slopes) | 0.41 (1.80) .82 | 1.25 (2.25) .58 | 1.43 (2.34) .54 | 1.46 (2.14) .49 |
| ab | Covar (Residuals) | 35.06 (11.68) <.01 | 33.29 (11.61) <.01 | 30.13 (10.98) .01 | 29.19 (10.68) .01 |
| er | Corr (Levels) | 0.28 (0.13) .02 | 0.21 (0.11) .05 | 0.20 (0.09) .04 | 0.14 (0.09) .12 |
| er | Corr (Slopes) | 0.08 (0.33) .82 | 0.21 (0.36) .57 | 0.23 (0.37) .53 | 0.25 (0.36) .48 |
| er | Corr (Residuals) | 0.25 (0.07) <.01 | 0.24 (0.07) <.01 | 0.23 (0.07) <.01 | 0.22 (0.07) <.01 |
| a | Level | 297.75 (7.78) <.01 | 299.08 (7.52) <.01 | 307.89 (7.83) <.01 | 320.19 (8.61) <.01 |
| a | Slope | 25.66 (0.59) <.01 | 26.51 (0.42) <.01 | 27.47 (0.38) <.01 | 27.91 (0.43) <.01 |
| a | Level \* age | -7.11 (1.76) <.01 | -6.17 (1.76) <.01 | -5.12 (1.80) <.01 | -5.47 (1.81) <.01 |
| a | Level \* education | --- | 5.96 (2.39) .01 | 5.60 (2.28) .01 | 7.46 (2.38) <.01 |
| a | Level \* height | --- | --- | 282.82 (94.54) <.01 | 298.25 (92.97) <.01 |
| a | Level \* smoking | --- | --- | --- | -29.62 (10.80) .01 |
| a | Level \* cardio | --- | --- | --- | -4.08 (9.12) .66 |
| a | Level \* diabetes | --- | --- | --- | -13.24 (15.12) .38 |
| a | Slope \* age | 0.69 (0.32) .03 | 0.66 (0.30) .03 | 0.65 (0.30) .03 | 0.56 (0.30) .06 |
| a | Slope \* education | --- | -0.34 (0.35) .34 | -0.28 (0.36) .44 | -0.05 (0.40) .91 |
| a | Slope \* height | --- | --- | -23.05 (19.32) .23 | -21.11 (19.09) .27 |
| a | Slope \* smoking | --- | --- | --- | -3.76 (1.90) .05 |
| a | Slope \* cardio | --- | --- | --- | -1.42 (1.54) .36 |
| a | Slope \* diabetes | --- | --- | --- | 3.08 (2.41) .20 |
| b | Level | -8.85 (1.50) <.01 | -9.23 (1.46) <.01 | -9.80 (1.50) <.01 | -8.31 (1.52) <.01 |
| b | Slope | -0.68 (0.12) <.01 | -0.78 (0.13) <.01 | -0.84 (0.14) <.01 | -0.69 (0.17) <.01 |
| b | Level \* age | -0.46 (0.12) <.01 | -0.19 (0.08) .01 | -0.17 (0.07) .02 | -0.17 (0.07) .01 |
| b | Level \* education | --- | 0.58 (0.10) <.01 | 0.50 (0.09) <.01 | 0.60 (0.09) <.01 |
| b | Level \* height | --- | --- | 2.02 (4.38) .64 | 3.44 (3.81) .37 |
| b | Level \* smoking | --- | --- | --- | -1.02 (0.50) .04 |
| b | Level \* cardio | --- | --- | --- | 0.20 (0.42) .63 |
| b | Level \* diabetes | --- | --- | --- | -1.27 (0.91) .16 |
| b | Slope \* age | -0.11 (0.03) <.01 | -0.10 (0.03) <.01 | -0.07 (0.03) .02 | -0.08 (0.03) .02 |
| b | Slope \* education | --- | 0.09 (0.04) .02 | 0.09 (0.04) .02 | 0.12 (0.04) .01 |
| b | Slope \* height | --- | --- | -0.55 (1.38) .69 | -0.09 (1.36) .95 |
| b | Slope \* smoking | --- | --- | --- | -0.34 (0.19) .08 |
| b | Slope \* cardio | --- | --- | --- | -0.07 (0.16) .66 |
| b | Slope \* diabetes | --- | --- | --- | -0.02 (0.25) .94 |
| a | Var (Level) | 5314.50 (668.46) <.01 | 5043.38 (561.69) <.01 | 4618.69 (519.34) <.01 | 4415.76 (489.92) <.01 |
| a | Var (Slope) | 25.39 (13.26) .06 | 26.01 (13.63) .06 | 25.75 (13.46) .06 | 22.78 (11.92) .06 |
| a | Var (Residual) | 2281.97 (189.51) <.01 | 2277.41 (186.78) <.01 | 2272.72 (185.80) <.01 | 2276.16 (182.51) <.01 |
| b | Var (Level) | 56.69 (6.34) <.01 | 22.93 (3.77) <.01 | 10.77 (2.13) <.01 | 8.89 (1.87) <.01 |
| b | Var (Slope) | 1.19 (0.21) <.01 | 1.41 (0.26) <.01 | 1.52 (0.29) <.01 | 1.48 (0.30) <.01 |
| b | Var (Residual) | 8.56 (0.98) <.01 | 8.36 (0.98) <.01 | 7.69 (0.92) <.01 | 7.61 (0.90) <.01 |
| a | Covar (Level, Slope) | -106.29 (114.68) .35 | -81.99 (105.29) .44 | -74.92 (97.64) .44 | -88.12 (85.07) .30 |
| b | Covar (Level, Slope) | 2.69 (0.66) <.01 | 3.18 (0.56) <.01 | 3.06 (0.54) <.01 | 2.79 (0.51) <.01 |
|  | Correlation of Levels | 0.285 | 0.21 | 0.20 | 0.14 |
|  | Correlation of Slopes | 0.076 | 0.21 | 0.23 | 0.25 |
|  | Correlation of Residuals | 0.251 | 0.24 | 0.23 | 0.22 |
|  | N | 487 | 444 | 384 | 380 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -9,821 | -9,356 | -8,725 | -8,669 |
|  | AIC | 19,685 | 18,761 | 17,508 | 17,421 |
|  | BIC | 19,773 | 18,863 | 17,622 | 17,582 |

## prose\_im

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 56.81 (24.24) .02 | 36.47 (21.24) .09 | 32.61 (19.68) .10 | 30.33 (19.37) .12 |
| ab | Covar (Slopes) | -0.27 (0.65) .68 | -0.30 (0.65) .64 | -0.23 (0.68) .73 | -0.39 (0.65) .55 |
| ab | Covar (Residuals) | 12.23 (6.19) .05 | 12.15 (6.30) .05 | 11.06 (6.30) .08 | 11.22 (6.28) .07 |
| er | Corr (Levels) | 0.20 (0.08) .01 | 0.14 (0.08) .08 | 0.14 (0.08) .09 | 0.14 (0.09) .11 |
| er | Corr (Slopes) | -0.10 (0.25) .68 | -0.12 (0.26) .64 | -0.09 (0.27) .73 | -0.17 (0.29) .54 |
| er | Corr (Residuals) | 0.12 (0.06) .05 | 0.12 (0.06) .05 | 0.11 (0.06) .08 | 0.11 (0.06) .07 |
| a | Level | 301.38 (7.28) <.01 | 301.80 (7.22) <.01 | 310.04 (7.58) <.01 | 322.08 (8.30) <.01 |
| a | Slope | 9.79 (0.41) <.01 | 9.83 (0.38) <.01 | 10.32 (0.38) <.01 | 10.22 (0.44) <.01 |
| a | Level \* age | -6.12 (1.72) <.01 | -5.78 (1.75) <.01 | -5.03 (1.77) <.01 | -5.36 (1.79) <.01 |
| a | Level \* education | --- | 5.68 (2.37) .02 | 5.35 (2.26) .02 | 7.15 (2.35) <.01 |
| a | Level \* height | --- | --- | 291.35 (92.98) <.01 | 299.38 (91.73) <.01 |
| a | Level \* smoking | --- | --- | --- | -29.87 (10.77) .01 |
| a | Level \* cardio | --- | --- | --- | -5.68 (9.07) .53 |
| a | Level \* diabetes | --- | --- | --- | -12.12 (15.06) .42 |
| a | Slope \* age | 0.82 (0.31) .01 | 0.80 (0.30) .01 | 0.74 (0.30) .01 | 0.66 (0.30) .03 |
| a | Slope \* education | --- | -0.40 (0.36) .27 | -0.33 (0.38) .39 | -0.17 (0.42) .69 |
| a | Slope \* height | --- | --- | -19.73 (19.43) .31 | -18.20 (19.25) .34 |
| a | Slope \* smoking | --- | --- | --- | -3.26 (1.88) .08 |
| a | Slope \* cardio | --- | --- | --- | -1.52 (1.51) .32 |
| a | Slope \* diabetes | --- | --- | --- | 3.48 (2.41) .15 |
| b | Level | -8.23 (1.18) <.01 | -8.27 (1.16) <.01 | -8.67 (1.24) <.01 | -7.32 (1.35) <.01 |
| b | Slope | -0.29 (0.06) <.01 | -0.29 (0.06) <.01 | -0.28 (0.07) <.01 | -0.13 (0.08) .11 |
| b | Level \* age | -0.34 (0.09) <.01 | -0.26 (0.08) <.01 | -0.26 (0.08) <.01 | -0.25 (0.08) <.01 |
| b | Level \* education | --- | 0.66 (0.10) <.01 | 0.67 (0.10) <.01 | 0.72 (0.10) <.01 |
| b | Level \* height | --- | --- | 1.98 (3.81) .60 | 0.69 (3.83) .86 |
| b | Level \* smoking | --- | --- | --- | -0.44 (0.53) .40 |
| b | Level \* cardio | --- | --- | --- | 0.65 (0.41) .11 |
| b | Level \* diabetes | --- | --- | --- | -1.78 (0.94) .06 |
| b | Slope \* age | 0.00 (0.02) .78 | 0.00 (0.02) .85 | 0.00 (0.02) .79 | 0.00 (0.02) .97 |
| b | Slope \* education | --- | -0.00 (0.02) .85 | -0.00 (0.02) .89 | 0.01 (0.02) .57 |
| b | Slope \* height | --- | --- | 0.41 (0.93) .66 | 0.63 (0.95) .51 |
| b | Slope \* smoking | --- | --- | --- | -0.26 (0.11) .02 |
| b | Slope \* cardio | --- | --- | --- | -0.20 (0.09) .03 |
| b | Slope \* diabetes | --- | --- | --- | 0.09 (0.16) .57 |
| a | Var (Level) | 5007.88 (520.85) <.01 | 4872.88 (501.67) <.01 | 4522.56 (491.70) <.01 | 4373.65 (482.88) <.01 |
| a | Var (Slope) | 30.78 (14.13) .03 | 29.49 (14.24) .04 | 29.53 (14.74) .04 | 25.70 (13.64) .06 |
| a | Var (Residual) | 2172.36 (166.62) <.01 | 2178.87 (166.56) <.01 | 2181.01 (168.62) <.01 | 2194.31 (169.26) <.01 |
| b | Var (Level) | 16.34 (1.28) <.01 | 13.20 (1.19) <.01 | 11.45 (1.15) <.01 | 10.80 (1.12) <.01 |
| b | Var (Slope) | 0.22 (0.04) <.01 | 0.22 (0.04) <.01 | 0.21 (0.04) <.01 | 0.20 (0.04) <.01 |
| b | Var (Residual) | 4.97 (0.38) <.01 | 5.04 (0.38) <.01 | 4.99 (0.38) <.01 | 4.96 (0.38) <.01 |
| a | Covar (Level, Slope) | -165.66 (91.78) .07 | -155.12 (90.86) .09 | -142.33 (89.05) .11 | -152.41 (82.52) .06 |
| b | Covar (Level, Slope) | -0.19 (0.17) .26 | -0.16 (0.17) .36 | -0.13 (0.16) .41 | -0.10 (0.15) .53 |
|  | Correlation of Levels | 0.20 | 0.14 | 0.143 | 0.14 |
|  | Correlation of Slopes | -0.10 | -0.12 | -0.092 | -0.17 |
|  | Correlation of Residuals | 0.12 | 0.12 | 0.106 | 0.11 |
|  | N | 432 | 414 | 370 | 368 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -8,143 | -8,033 | -7,692 | -7,664 |
|  | AIC | 16,329 | 16,116 | 15,443 | 15,410 |
|  | BIC | 16,414 | 16,217 | 15,556 | 15,570 |

## psif

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

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

## symbol

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 310.34 (59.91) <.01 | 252.45 (53.20) <.01 | 240.11 (50.45) <.01 | 231.88 (49.49) <.01 |
| ab | Covar (Slopes) | 3.12 (0.93) <.01 | 3.11 (0.96) <.01 | 3.18 (0.97) <.01 | 2.62 (1.01) .01 |
| ab | Covar (Residuals) | 8.01 (13.12) .54 | 7.76 (13.16) .56 | 9.47 (13.27) .47 | 9.36 (13.34) .48 |
| er | Corr (Levels) | 0.42 (0.07) <.01 | 0.38 (0.07) <.01 | 0.40 (0.07) <.01 | 0.40 (0.07) <.01 |
| er | Corr (Slopes) | 0.69 (0.12) <.01 | 0.70 (0.12) <.01 | 0.72 (0.12) <.01 | 0.69 (0.14) <.01 |
| er | Corr (Residuals) | 0.03 (0.05) .54 | 0.03 (0.05) .55 | 0.04 (0.05) .47 | 0.04 (0.05) .48 |
| a | Level | 302.19 (7.22) <.01 | 302.41 (7.16) <.01 | 310.19 (7.55) <.01 | 321.51 (8.45) <.01 |
| a | Slope | 25.50 (1.11) <.01 | 25.42 (0.99) <.01 | 26.30 (1.03) <.01 | 25.96 (1.23) <.01 |
| a | Level \* age | -6.20 (1.72) <.01 | -5.98 (1.75) <.01 | -5.06 (1.78) <.01 | -5.41 (1.79) <.01 |
| a | Level \* education | --- | 5.54 (2.38) .02 | 5.45 (2.29) .02 | 7.13 (2.38) <.01 |
| a | Level \* height | --- | --- | 296.57 (92.63) <.01 | 301.74 (91.43) <.01 |
| a | Level \* smoking | --- | --- | --- | -28.72 (10.66) .01 |
| a | Level \* cardio | --- | --- | --- | -5.33 (9.12) .56 |
| a | Level \* diabetes | --- | --- | --- | -9.21 (15.10) .54 |
| a | Slope \* age | 0.79 (0.30) .01 | 0.77 (0.30) .01 | 0.70 (0.30) .02 | 0.64 (0.30) .03 |
| a | Slope \* education | --- | -0.38 (0.37) .30 | -0.30 (0.39) .44 | -0.14 (0.43) .75 |
| a | Slope \* height | --- | --- | -21.07 (18.89) .26 | -19.37 (18.91) .31 |
| a | Slope \* smoking | --- | --- | --- | -3.18 (1.90) .09 |
| a | Slope \* cardio | --- | --- | --- | -1.32 (1.55) .39 |
| a | Slope \* diabetes | --- | --- | --- | 1.77 (2.96) .55 |
| b | Level | -7.83 (1.07) <.01 | -7.82 (1.06) <.01 | -8.37 (1.13) <.01 | -7.14 (1.30) <.01 |
| b | Slope | -0.58 (0.14) <.01 | -0.57 (0.14) <.01 | -0.60 (0.15) <.01 | -0.24 (0.17) .17 |
| b | Level \* age | -0.95 (0.24) <.01 | -0.81 (0.24) <.01 | -0.76 (0.25) <.01 | -0.75 (0.25) <.01 |
| b | Level \* education | --- | 2.09 (0.32) <.01 | 2.18 (0.34) <.01 | 2.36 (0.35) <.01 |
| b | Level \* height | --- | --- | 11.86 (11.54) .30 | 10.06 (11.12) .37 |
| b | Level \* smoking | --- | --- | --- | -1.75 (1.49) .24 |
| b | Level \* cardio | --- | --- | --- | 1.86 (1.13) .10 |
| b | Level \* diabetes | --- | --- | --- | -2.22 (2.57) .39 |
| b | Slope \* age | -0.05 (0.04) .17 | -0.05 (0.04) .17 | -0.04 (0.04) .29 | -0.05 (0.04) .22 |
| b | Slope \* education | --- | -0.01 (0.06) .91 | -0.02 (0.06) .74 | -0.00 (0.06) .93 |
| b | Slope \* height | --- | --- | 1.17 (1.79) .51 | 1.44 (1.82) .43 |
| b | Slope \* smoking | --- | --- | --- | -0.50 (0.24) .03 |
| b | Slope \* cardio | --- | --- | --- | -0.59 (0.19) <.01 |
| b | Slope \* diabetes | --- | --- | --- | 0.43 (0.60) .47 |
| a | Var (Level) | 5019.28 (504.46) <.01 | 4897.27 (487.35) <.01 | 4539.61 (475.52) <.01 | 4390.75 (470.76) <.01 |
| a | Var (Slope) | 30.66 (11.85) .01 | 29.98 (12.13) .01 | 29.67 (12.03) .01 | 27.12 (12.03) .02 |
| a | Var (Residual) | 2168.09 (163.91) <.01 | 2170.70 (163.31) <.01 | 2174.70 (164.67) <.01 | 2179.59 (165.01) <.01 |
| b | Var (Level) | 110.50 (9.04) <.01 | 88.31 (7.42) <.01 | 81.29 (7.35) <.01 | 78.63 (7.14) <.01 |
| b | Var (Slope) | 0.66 (0.16) <.01 | 0.66 (0.16) <.01 | 0.65 (0.16) <.01 | 0.52 (0.15) <.01 |
| b | Var (Residual) | 28.48 (2.01) <.01 | 28.64 (2.01) <.01 | 28.47 (2.01) <.01 | 28.43 (2.01) <.01 |
| a | Covar (Level, Slope) | -171.85 (84.50) .04 | -164.22 (84.28) .05 | -147.78 (79.68) .06 | -157.21 (75.85) .04 |
| b | Covar (Level, Slope) | -1.74 (0.95) .06 | -1.60 (0.93) .09 | -1.11 (0.87) .20 | -0.63 (0.85) .46 |
|  | Correlation of Levels | 0.417 | 0.384 | 0.395 | 0.395 |
|  | Correlation of Slopes | 0.692 | 0.698 | 0.725 | 0.694 |
|  | Correlation of Residuals | 0.032 | 0.031 | 0.038 | 0.038 |
|  | N | 388 | 380 | 355 | 354 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -8,491 | -8,412 | -8,146 | -8,126 |
|  | AIC | 17,024 | 16,875 | 16,349 | 16,334 |
|  | BIC | 17,107 | 16,973 | 16,462 | 16,492 |

## synonyms

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 64.58 (31.73) .04 | 35.50 (27.21) .19 | 31.66 (26.38) .23 | 34.15 (25.55) .18 |
| ab | Covar (Slopes) | 0.58 (0.56) .30 | 0.60 (0.59) .31 | 0.72 (0.60) .23 | 0.75 (0.60) .22 |
| ab | Covar (Residuals) | -8.90 (6.64) .18 | -9.18 (6.62) .17 | -10.69 (6.63) .11 | -10.80 (6.57) .10 |
| er | Corr (Levels) | 0.17 (0.08) .04 | 0.11 (0.09) .19 | 0.11 (0.09) .22 | 0.12 (0.09) .18 |
| er | Corr (Slopes) | 0.25 (0.26) .34 | 0.27 (0.28) .35 | 0.31 (0.29) .28 | 0.35 (0.32) .27 |
| er | Corr (Residuals) | -0.07 (0.05) .18 | -0.07 (0.05) .16 | -0.09 (0.05) .11 | -0.09 (0.05) .10 |
| a | Level | 305.77 (7.01) <.01 | 305.36 (7.04) <.01 | 312.16 (7.45) <.01 | 323.62 (8.35) <.01 |
| a | Slope | 16.68 (0.63) <.01 | 16.43 (0.54) <.01 | 16.62 (0.53) <.01 | 16.34 (0.67) <.01 |
| a | Level \* age | -6.01 (1.75) <.01 | -5.86 (1.78) <.01 | -5.04 (1.79) <.01 | -5.38 (1.80) <.01 |
| a | Level \* education | --- | 5.17 (2.36) .03 | 4.99 (2.26) .03 | 6.67 (2.36) <.01 |
| a | Level \* height | --- | --- | 291.62 (92.75) <.01 | 300.08 (91.65) <.01 |
| a | Level \* smoking | --- | --- | --- | -28.80 (10.74) .01 |
| a | Level \* cardio | --- | --- | --- | -5.56 (9.20) .55 |
| a | Level \* diabetes | --- | --- | --- | -13.28 (15.32) .39 |
| a | Slope \* age | 0.84 (0.30) .01 | 0.82 (0.31) .01 | 0.76 (0.30) .01 | 0.67 (0.31) .03 |
| a | Slope \* education | --- | -0.48 (0.37) .19 | -0.41 (0.38) .29 | -0.25 (0.41) .55 |
| a | Slope \* height | --- | --- | -19.21 (19.02) .31 | -18.36 (18.96) .33 |
| a | Slope \* smoking | --- | --- | --- | -2.95 (1.86) .11 |
| a | Slope \* cardio | --- | --- | --- | -1.28 (1.57) .41 |
| a | Slope \* diabetes | --- | --- | --- | 3.82 (2.53) .13 |
| b | Level | -8.00 (1.02) <.01 | -7.96 (1.01) <.01 | -8.34 (1.11) <.01 | -7.18 (1.30) <.01 |
| b | Slope | -0.12 (0.07) .10 | -0.12 (0.07) .09 | -0.10 (0.08) .17 | -0.05 (0.10) .59 |
| b | Level \* age | -0.16 (0.15) .27 | -0.11 (0.13) .41 | -0.06 (0.13) .65 | -0.03 (0.13) .83 |
| b | Level \* education | --- | 1.35 (0.13) <.01 | 1.38 (0.12) <.01 | 1.36 (0.12) <.01 |
| b | Level \* height | --- | --- | 11.06 (5.82) .06 | 10.32 (5.78) .07 |
| b | Level \* smoking | --- | --- | --- | 0.50 (0.69) .46 |
| b | Level \* cardio | --- | --- | --- | 0.45 (0.60) .45 |
| b | Level \* diabetes | --- | --- | --- | -2.36 (1.21) .05 |
| b | Slope \* age | -0.00 (0.02) .91 | -0.00 (0.02) .90 | -0.00 (0.02) .87 | -0.00 (0.02) .96 |
| b | Slope \* education | --- | -0.01 (0.03) .79 | -0.01 (0.03) .82 | 0.01 (0.03) .85 |
| b | Slope \* height | --- | --- | 0.20 (0.95) .83 | 0.12 (0.94) .90 |
| b | Slope \* smoking | --- | --- | --- | -0.13 (0.15) .41 |
| b | Slope \* cardio | --- | --- | --- | -0.08 (0.11) .48 |
| b | Slope \* diabetes | --- | --- | --- | -0.09 (0.21) .68 |
| a | Var (Level) | 4914.52 (502.59) <.01 | 4818.91 (491.14) <.01 | 4484.38 (483.86) <.01 | 4347.02 (476.96) <.01 |
| a | Var (Slope) | 31.73 (14.89) .03 | 30.59 (14.89) .04 | 30.41 (15.13) .04 | 26.94 (13.94) .05 |
| a | Var (Residual) | 2173.96 (165.75) <.01 | 2178.34 (165.89) <.01 | 2182.53 (167.84) <.01 | 2190.46 (167.58) <.01 |
| b | Var (Level) | 27.66 (2.54) <.01 | 20.14 (2.25) <.01 | 18.49 (2.12) <.01 | 18.05 (2.10) <.01 |
| b | Var (Slope) | 0.17 (0.06) <.01 | 0.17 (0.06) <.01 | 0.17 (0.06) <.01 | 0.17 (0.06) <.01 |
| b | Var (Residual) | 7.01 (0.52) <.01 | 7.01 (0.52) <.01 | 6.97 (0.53) <.01 | 6.96 (0.53) <.01 |
| a | Covar (Level, Slope) | -177.64 (91.62) .05 | -167.67 (91.25) .07 | -153.00 (88.33) .08 | -161.59 (82.14) .05 |
| b | Covar (Level, Slope) | -0.29 (0.31) .36 | -0.18 (0.26) .48 | -0.17 (0.25) .50 | -0.13 (0.26) .61 |
|  | Correlation of Levels | 0.175 | 0.114 | 0.110 | 0.122 |
|  | Correlation of Slopes | 0.253 | 0.268 | 0.313 | 0.351 |
|  | Correlation of Residuals | -0.072 | -0.074 | -0.087 | -0.087 |
|  | N | 370 | 368 | 347 | 347 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -7,567 | -7,514 | -7,298 | -7,286 |
|  | AIC | 15,175 | 15,078 | 14,654 | 14,654 |
|  | BIC | 15,257 | 15,176 | 14,766 | 14,812 |

## Summary

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

Computed correlations:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Levels | block | 0.35 | 0.31 | 0.31 | 0.29 |
| Correlation of Levels | clock | 0.28 | 0.23 | 0.22 | 0.19 |
| Correlation of Levels | digit\_b | 0.19 | 0.13 | 0.15 | 0.13 |
| Correlation of Levels | digit\_f | 0.11 | 0.03 | 0.04 | 0.03 |
| Correlation of Levels | fig\_logic | 0.29 | 0.28 | 0.27 | 0.25 |
| Correlation of Levels | information | 0.12 | 0.06 | 0.07 | 0.08 |
| Correlation of Levels | mir | 0.24 | 0.21 | 0.21 | 0.20 |
| Correlation of Levels | mir\_recog | 0.18 | 0.13 | 0.17 | 0.13 |
| Correlation of Levels | mmse | 0.29 | 0.21 | 0.20 | 0.14 |
| Correlation of Levels | prose\_im | 0.20 | 0.14 | 0.14 | 0.14 |
| Correlation of Levels | psif | . | . | . | . |
| Correlation of Levels | symbol | 0.42 | 0.38 | 0.40 | 0.39 |
| Correlation of Levels | synonyms | 0.18 | 0.11 | 0.11 | 0.12 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Slopes | block | 0.10 | 0.10 | 0.14 | 0.08 |
| Correlation of Slopes | clock | 0.10 | 0.15 | 0.14 | 0.19 |
| Correlation of Slopes | digit\_b | -0.31 | -0.29 | -0.30 | -0.33 |
| Correlation of Slopes | digit\_f | -0.34 | -0.26 | -0.24 | -0.20 |
| Correlation of Slopes | fig\_logic | 0.05 | 0.04 | 0.10 | 0.24 |
| Correlation of Slopes | information | 0.02 | 0.01 | 0.02 | -0.01 |
| Correlation of Slopes | mir | 0.23 | 0.23 | 0.26 | 0.22 |
| Correlation of Slopes | mir\_recog | 0.15 | 0.23 | 0.24 | 0.25 |
| Correlation of Slopes | mmse | 0.08 | 0.21 | 0.23 | 0.25 |
| Correlation of Slopes | prose\_im | -0.10 | -0.12 | -0.09 | -0.17 |
| Correlation of Slopes | psif | . | . | . | . |
| Correlation of Slopes | symbol | 0.69 | 0.70 | 0.72 | 0.69 |
| Correlation of Slopes | synonyms | 0.25 | 0.27 | 0.31 | 0.35 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Residuals | block | 0.16 | 0.16 | 0.16 | 0.16 |
| Correlation of Residuals | clock | 0.20 | 0.20 | 0.19 | 0.19 |
| Correlation of Residuals | digit\_b | 0.10 | 0.10 | 0.10 | 0.11 |
| Correlation of Residuals | digit\_f | 0.08 | 0.07 | 0.06 | 0.06 |
| Correlation of Residuals | fig\_logic | 0.06 | 0.06 | 0.05 | 0.05 |
| Correlation of Residuals | information | 0.03 | 0.03 | 0.04 | 0.04 |
| Correlation of Residuals | mir | 0.05 | 0.05 | 0.04 | 0.04 |
| Correlation of Residuals | mir\_recog | 0.14 | 0.12 | 0.13 | 0.14 |
| Correlation of Residuals | mmse | 0.25 | 0.24 | 0.23 | 0.22 |
| Correlation of Residuals | prose\_im | 0.12 | 0.12 | 0.11 | 0.11 |
| Correlation of Residuals | psif | . | . | . | . |
| Correlation of Residuals | symbol | 0.03 | 0.03 | 0.04 | 0.04 |
| Correlation of Residuals | synonyms | -0.07 | -0.07 | -0.09 | -0.09 |

P-values for corresponding covariances:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Levels | block | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | clock | 0.02 | 0.05 | 0.04 | 0.08 |
| Covariance of Levels | digit\_b | 0.08 | 0.23 | 0.19 | 0.26 |
| Covariance of Levels | digit\_f | 0.30 | 0.78 | 0.68 | 0.79 |
| Covariance of Levels | fig\_logic | 0.01 | 0.01 | 0.02 | 0.02 |
| Covariance of Levels | information | 0.10 | 0.40 | 0.38 | 0.33 |
| Covariance of Levels | mir | 0.01 | 0.02 | 0.02 | 0.03 |
| Covariance of Levels | mir\_recog | 0.07 | 0.20 | 0.07 | 0.16 |
| Covariance of Levels | mmse | 0.04 | 0.06 | 0.06 | 0.14 |
| Covariance of Levels | prose\_im | 0.02 | 0.09 | 0.10 | 0.12 |
| Covariance of Levels | psif | . | . | . | . |
| Covariance of Levels | symbol | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | synonyms | 0.04 | 0.19 | 0.23 | 0.18 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Slopes | block | 0.67 | 0.69 | 0.60 | 0.77 |
| Covariance of Slopes | clock | 0.76 | 0.65 | 0.66 | 0.55 |
| Covariance of Slopes | digit\_b | 0.38 | 0.43 | 0.44 | 0.40 |
| Covariance of Slopes | digit\_f | 0.26 | 0.37 | 0.41 | 0.50 |
| Covariance of Slopes | fig\_logic | 0.95 | 0.96 | 0.90 | 0.76 |
| Covariance of Slopes | information | 0.93 | 0.97 | 0.94 | 0.96 |
| Covariance of Slopes | mir | 0.30 | 0.31 | 0.26 | 0.38 |
| Covariance of Slopes | mir\_recog | 0.67 | 0.50 | 0.47 | 0.46 |
| Covariance of Slopes | mmse | 0.82 | 0.58 | 0.54 | 0.49 |
| Covariance of Slopes | prose\_im | 0.68 | 0.64 | 0.73 | 0.55 |
| Covariance of Slopes | psif | . | . | . | . |
| Covariance of Slopes | symbol | 0.00 | 0.00 | 0.00 | 0.01 |
| Covariance of Slopes | synonyms | 0.30 | 0.31 | 0.23 | 0.22 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Residuals | block | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Residuals | clock | 0.01 | 0.01 | 0.02 | 0.02 |
| Covariance of Residuals | digit\_b | 0.05 | 0.06 | 0.05 | 0.04 |
| Covariance of Residuals | digit\_f | 0.18 | 0.20 | 0.26 | 0.24 |
| Covariance of Residuals | fig\_logic | 0.29 | 0.31 | 0.34 | 0.32 |
| Covariance of Residuals | information | 0.53 | 0.52 | 0.51 | 0.46 |
| Covariance of Residuals | mir | 0.38 | 0.37 | 0.49 | 0.48 |
| Covariance of Residuals | mir\_recog | 0.13 | 0.16 | 0.14 | 0.13 |
| Covariance of Residuals | mmse | 0.00 | 0.00 | 0.01 | 0.01 |
| Covariance of Residuals | prose\_im | 0.05 | 0.05 | 0.08 | 0.07 |
| Covariance of Residuals | psif | . | . | . | . |
| Covariance of Residuals | symbol | 0.54 | 0.56 | 0.47 | 0.48 |
| Covariance of Residuals | synonyms | 0.18 | 0.17 | 0.11 | 0.10 |

# 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) | 287.36 (53.98) <.01 | 104.37 (34.65) <.01 | 34.81 (11.99) <.01 | 5.83 (11.66) .62 | 118.00 (29.77) <.01 | 215.77 (92.42) .02 | 128.29 (24.58) <.01 | 91.03 (22.26) <.01 | 237.49 (56.45) <.01 | 113.59 (36.62) <.01 | --- | 441.69 (92.35) <.01 | 95.24 (50.49) .06 | --- |
| ab | Covar (Slopes) | 2.38 (1.46) .10 | -0.30 (1.47) .84 | -0.35 (0.42) .41 | -0.12 (0.33) .73 | 1.01 (0.75) .17 | 0.88 (3.22) .78 | 0.96 (0.39) .01 | -1.17 (0.92) .20 | 0.88 (3.88) .82 | -1.39 (0.95) .14 | --- | 4.78 (1.95) .01 | -0.09 (0.69) .90 | --- |
| ab | Covar (Residuals) | 25.44 (11.92) .03 | 21.24 (16.74) .20 | -0.07 (5.13) .99 | -2.68 (3.46) .44 | -8.70 (12.69) .49 | 18.71 (14.77) .20 | -5.83 (6.03) .33 | 7.58 (6.98) .28 | 27.25 (21.82) .21 | 19.11 (16.03) .23 | --- | -1.03 (17.69) .95 | 6.06 (14.79) .68 | --- |
| er | Corr (Levels) | 0.43 (0.07) <.01 | 0.37 (0.10) <.01 | 0.38 (0.13) <.01 | 0.07 (0.13) .62 | 0.42 (0.11) <.01 | 0.22 (0.09) .01 | 0.52 (0.08) <.01 | 0.48 (0.09) <.01 | 0.63 (0.09) <.01 | 0.32 (0.10) <.01 | --- | 0.44 (0.07) <.01 | 0.20 (0.10) .05 | --- |
| er | Corr (Slopes) | 0.64 (0.18) <.01 | -0.08 (0.37) .83 | -0.39 (0.40) .33 | -0.15 (0.40) .71 | 0.48 (0.31) .13 | 0.10 (0.35) .78 | 0.40 (0.12) <.01 | -0.46 (0.32) .14 | 0.11 (0.48) .82 | -0.65 (0.26) .01 | --- | 0.64 (0.14) <.01 | -0.05 (0.39) .90 | --- |
| er | Corr (Residuals) | 0.14 (0.06) .03 | 0.16 (0.12) .19 | -0.00 (0.08) .99 | -0.05 (0.07) .43 | -0.05 (0.07) .50 | 0.09 (0.07) .20 | -0.07 (0.07) .34 | 0.08 (0.07) .28 | 0.15 (0.13) .23 | 0.14 (0.12) .22 | --- | -0.00 (0.07) .95 | 0.04 (0.10) .68 | --- |
| a | Level | 413.55 (22.02) <.01 | 410.03 (22.19) <.01 | 418.90 (22.34) <.01 | 422.96 (22.69) <.01 | 422.57 (22.31) <.01 | 423.77 (21.74) <.01 | 409.99 (22.12) <.01 | 412.80 (23.19) <.01 | 399.79 (24.48) <.01 | 417.78 (22.03) <.01 | --- | 413.47 (22.58) <.01 | 423.53 (22.22) <.01 | 415.76(7.24) |
| a | Slope | 12.80 (1.39) <.01 | 12.58 (0.70) <.01 | 3.31 (0.26) <.01 | 5.55 (0.26) <.01 | 16.49 (0.77) <.01 | 29.66 (2.30) <.01 | 5.17 (0.54) <.01 | 8.18 (0.49) <.01 | 25.40 (0.98) <.01 | 8.16 (0.88) <.01 | --- | 25.11 (2.36) <.01 | 17.62 (1.18) <.01 | 14.17(8.81) |
| a | Level \* age | -11.72 (3.44) <.01 | -11.96 (3.51) <.01 | -11.00 (3.48) <.01 | -11.15 (3.50) <.01 | -11.05 (3.45) <.01 | -12.00 (3.44) <.01 | -10.63 (3.42) <.01 | -12.20 (3.55) <.01 | -11.64 (3.54) <.01 | -11.39 (3.41) <.01 | --- | -11.22 (3.50) <.01 | -10.96 (3.48) <.01 | -11.41(0.49) |
| a | Level \* education | 9.15 (1.93) <.01 | 9.35 (1.99) <.01 | 8.66 (1.93) <.01 | 8.64 (1.93) <.01 | 9.07 (1.93) <.01 | 8.95 (1.94) <.01 | 10.09 (1.98) <.01 | 10.12 (2.03) <.01 | 9.48 (2.10) <.01 | 9.40 (1.94) <.01 | --- | 9.39 (1.94) <.01 | 8.78 (1.93) <.01 | 9.26(0.49) |
| a | Level \* height | 209.87 (140.45) .14 | 220.12 (144.89) .13 | 222.30 (142.31) .12 | 265.30 (145.37) .07 | 207.56 (141.72) .14 | 223.26 (142.74) .12 | 225.73 (141.51) .11 | 227.69 (144.22) .11 | 197.39 (149.15) .19 | 216.61 (138.63) .12 | --- | 211.87 (141.40) .13 | 218.87 (143.19) .13 | 220.55(16.53) |
| a | Level \* smoking | -0.09 (20.14) .99 | 5.54 (20.49) .79 | -2.91 (20.77) .89 | -4.68 (20.96) .82 | -8.53 (20.43) .68 | -4.98 (20.03) .80 | -1.10 (19.89) .96 | -0.61 (20.69) .98 | 9.57 (21.41) .66 | -5.25 (20.26) .80 | --- | -0.14 (20.30) .99 | -7.96 (20.37) .70 | -1.76(5.27) |
| a | Level \* cardio | -10.44 (18.24) .57 | -14.86 (18.56) .42 | -13.43 (18.34) .46 | -15.18 (18.34) .41 | -10.21 (18.29) .58 | -17.13 (18.38) .35 | -10.55 (18.33) .56 | -11.62 (18.66) .53 | -11.73 (19.09) .54 | -12.56 (18.40) .49 | --- | -11.91 (18.21) .51 | -10.88 (18.31) .55 | -12.54(2.19) |
| a | Level \* diabetes | 33.53 (26.43) .20 | 40.30 (25.38) .11 | 33.90 (26.41) .20 | 40.34 (25.83) .12 | 33.54 (27.14) .22 | 35.02 (26.25) .18 | 42.36 (26.37) .11 | 42.68 (26.02) .10 | 35.56 (26.11) .17 | 35.67 (26.55) .18 | --- | 41.03 (26.06) .12 | 31.54 (26.97) .24 | 37.12(3.93) |
| a | Slope \* age | -0.40 (0.67) .54 | -0.25 (0.68) .71 | -0.52 (0.67) .44 | -0.42 (0.70) .55 | -0.48 (0.68) .48 | -0.28 (0.70) .69 | -0.63 (0.61) .30 | -0.44 (0.69) .52 | -0.47 (0.67) .49 | -0.47 (0.68) .49 | --- | -0.28 (0.69) .69 | -0.47 (0.67) .48 | -0.43(0.11) |
| a | Slope \* education | -0.29 (0.61) .63 | -0.26 (0.62) .68 | -0.52 (0.61) .39 | -0.44 (0.61) .47 | -0.50 (0.63) .42 | -0.40 (0.60) .50 | -0.64 (0.54) .24 | -0.53 (0.60) .38 | -0.36 (0.60) .54 | -0.55 (0.59) .35 | --- | -0.44 (0.58) .45 | -0.53 (0.59) .37 | -0.45(0.11) |
| a | Slope \* height | 16.44 (26.39) .53 | 25.97 (26.04) .32 | 24.19 (24.63) .33 | 23.29 (25.91) .37 | 25.43 (24.35) .30 | 25.84 (26.23) .32 | 24.28 (24.41) .32 | 23.90 (24.92) .34 | 24.46 (25.84) .34 | 24.60 (24.10) .31 | --- | 26.11 (25.65) .31 | 26.09 (25.21) .30 | 24.22(2.63) |
| a | Slope \* smoking | -6.41 (2.76) .02 | -5.18 (2.94) .08 | -6.43 (2.79) .02 | -5.74 (2.75) .04 | -6.37 (2.74) .02 | -6.73 (2.92) .02 | -7.67 (2.71) <.01 | -6.93 (2.99) .02 | -5.30 (3.15) .09 | -6.22 (2.86) .03 | --- | -7.19 (2.73) .01 | -6.35 (2.85) .03 | -6.38(0.73) |
| a | Slope \* cardio | -2.69 (2.76) .33 | -1.41 (2.83) .62 | -2.31 (2.84) .42 | -1.77 (2.71) .51 | -2.27 (2.67) .40 | -1.94 (2.84) .49 | -3.02 (2.75) .27 | -2.29 (2.75) .40 | -1.97 (2.76) .47 | -2.71 (2.89) .35 | --- | -2.59 (2.69) .33 | -2.15 (2.87) .45 | -2.26(0.45) |
| a | Slope \* diabetes | -7.11 (3.26) .03 | -6.80 (2.99) .02 | -4.85 (3.05) .11 | -5.60 (2.90) .05 | -4.55 (3.05) .14 | -7.05 (3.46) .04 | -5.21 (2.97) .08 | -5.47 (3.08) .07 | -6.12 (3.33) .07 | -5.76 (3.11) .06 | --- | -7.20 (3.16) .02 | -4.53 (3.14) .15 | -5.85(1.00) |
| b | Level | -1.25 (2.60) .63 | -5.14 (3.42) .13 | -0.74 (2.88) .80 | -2.35 (3.07) .44 | -1.22 (2.78) .66 | -2.21 (3.04) .47 | 1.34 (2.59) .60 | -0.79 (3.41) .82 | -3.89 (3.99) .33 | -0.64 (2.96) .83 | --- | -1.50 (2.86) .60 | -1.46 (2.93) .62 | --- |
| b | Slope | -0.41 (0.19) .03 | -0.71 (0.18) <.01 | -0.11 (0.08) .17 | -0.15 (0.06) .01 | -0.13 (0.22) .56 | -0.99 (0.40) .01 | -0.12 (0.11) .28 | -0.48 (0.12) <.01 | -1.52 (0.36) <.01 | -0.12 (0.17) .49 | --- | -0.69 (0.37) .06 | -0.52 (0.20) .01 | --- |
| b | Level \* age | -0.42 (0.20) .04 | -0.10 (0.10) .31 | -0.07 (0.04) .09 | 0.02 (0.03) .56 | -0.24 (0.10) .02 | -0.72 (0.32) .02 | -0.16 (0.07) .04 | -0.12 (0.07) .06 | -0.10 (0.12) .39 | -0.19 (0.12) .12 | --- | -0.59 (0.37) .11 | 0.17 (0.20) .40 | --- |
| b | Level \* education | 0.75 (0.21) <.01 | 0.14 (0.05) .01 | 0.15 (0.03) <.01 | 0.09 (0.02) <.01 | 0.40 (0.10) <.01 | 1.46 (0.20) <.01 | 0.20 (0.05) <.01 | 0.18 (0.05) <.01 | 0.32 (0.08) <.01 | 0.54 (0.09) <.01 | --- | 2.11 (0.26) <.01 | 1.25 (0.12) <.01 | --- |
| b | Level \* height | 19.35 (8.40) .02 | 7.26 (3.82) .06 | 1.59 (1.21) .19 | 1.91 (1.25) .13 | 4.51 (5.57) .42 | 27.34 (11.85) .02 | 3.59 (2.94) .22 | 5.34 (2.46) .03 | 7.63 (4.64) .10 | 6.59 (4.77) .17 | --- | 26.82 (12.31) .03 | 9.07 (6.70) .18 | --- |
| b | Level \* smoking | -1.28 (1.17) .27 | 1.38 (0.60) .02 | 0.13 (0.24) .59 | -0.25 (0.21) .23 | -1.25 (0.70) .07 | 1.54 (1.88) .41 | 0.49 (0.46) .29 | 0.97 (0.42) .02 | 1.26 (0.77) .10 | 0.59 (0.71) .41 | --- | -2.67 (1.91) .16 | -3.44 (1.03) <.01 | --- |
| b | Level \* cardio | -0.20 (1.02) .85 | 0.57 (0.47) .22 | -0.21 (0.21) .32 | 0.08 (0.17) .64 | 0.58 (0.59) .33 | 1.88 (1.42) .19 | 0.39 (0.37) .29 | 0.62 (0.32) .05 | 0.79 (0.65) .22 | 0.28 (0.60) .64 | --- | -0.14 (1.64) .93 | -0.22 (0.90) .81 | --- |
| b | Level \* diabetes | -0.31 (1.58) .84 | -0.70 (0.72) .33 | 0.14 (0.29) .63 | 0.12 (0.21) .57 | 0.43 (1.09) .69 | -0.23 (2.05) .91 | 0.20 (0.58) .72 | 0.50 (0.47) .28 | -0.36 (0.96) .71 | 1.44 (0.82) .08 | --- | 1.45 (2.89) .62 | -1.69 (1.33) .20 | --- |
| b | Slope \* age | 0.01 (0.03) .61 | -0.01 (0.03) .74 | 0.01 (0.01) .53 | -0.02 (0.01) .01 | 0.04 (0.04) .21 | 0.06 (0.07) .45 | -0.00 (0.02) .78 | 0.01 (0.02) .64 | -0.09 (0.05) .08 | -0.03 (0.04) .46 | --- | 0.03 (0.06) .56 | 0.01 (0.04) .85 | --- |
| b | Slope \* education | 0.06 (0.04) .17 | 0.06 (0.02) <.01 | 0.00 (0.01) .74 | 0.01 (0.01) .05 | -0.01 (0.03) .81 | 0.10 (0.04) <.01 | 0.01 (0.01) .67 | 0.02 (0.02) .33 | 0.08 (0.04) .02 | 0.02 (0.01) .24 | --- | 0.02 (0.05) .60 | 0.02 (0.02) .42 | --- |
| b | Slope \* height | -2.22 (1.69) .19 | -0.96 (1.21) .43 | 0.34 (0.44) .43 | -0.31 (0.33) .35 | 1.48 (1.22) .22 | -1.54 (2.98) .60 | -0.21 (0.70) .76 | 0.10 (0.81) .90 | -0.80 (2.11) .71 | -0.04 (1.22) .97 | --- | -1.88 (2.20) .39 | 0.10 (1.10) .93 | --- |
| b | Slope \* smoking | -0.16 (0.16) .32 | 0.11 (0.17) .52 | -0.05 (0.06) .41 | 0.11 (0.05) .03 | -0.21 (0.16) .19 | -0.21 (0.32) .52 | -0.11 (0.10) .25 | 0.12 (0.11) .31 | 0.55 (0.31) .08 | -0.14 (0.14) .31 | --- | -0.13 (0.36) .73 | 0.26 (0.15) .09 | --- |
| b | Slope \* cardio | -0.18 (0.18) .33 | -0.05 (0.14) .73 | 0.03 (0.06) .54 | -0.05 (0.04) .19 | 0.14 (0.15) .34 | -0.28 (0.29) .33 | -0.12 (0.10) .23 | 0.03 (0.10) .74 | -0.00 (0.25) .99 | -0.23 (0.14) .10 | --- | -0.28 (0.30) .36 | 0.02 (0.13) .88 | --- |
| b | Slope \* diabetes | -0.25 (0.44) .57 | 0.01 (0.28) .98 | -0.09 (0.11) .41 | -0.03 (0.06) .64 | -0.12 (0.37) .76 | -0.84 (0.68) .22 | -0.17 (0.17) .34 | -0.27 (0.20) .17 | -0.43 (0.43) .32 | -0.30 (0.24) .21 | --- | -0.92 (0.82) .26 | -0.19 (0.26) .46 | --- |
| a | Var (Level) | 10413.74 (1258.08) <.01 | 10702.97 (1355.53) <.01 | 10355.57 (1281.41) <.01 | 10444.66 (1320.79) <.01 | 10394.07 (1278.99) <.01 | 10367.45 (1280.94) <.01 | 10525.82 (1243.01) <.01 | 10978.11 (1391.74) <.01 | 11844.42 (1660.42) <.01 | 10313.42 (1267.82) <.01 | --- | 10401.00 (1286.41) <.01 | 10321.43 (1283.29) <.01 | 10588.55(439.06) |
| a | Var (Slope) | 44.57 (18.80) .02 | 32.54 (19.33) .09 | 42.10 (22.50) .06 | 36.76 (22.02) .10 | 45.80 (20.95) .03 | 42.59 (24.77) .09 | 43.82 (9.74) <.01 | 37.68 (23.98) .12 | 34.62 (20.95) .10 | 41.63 (20.17) .04 | --- | 42.19 (16.94) .01 | 41.19 (23.34) .08 | 40.46(4.12) |
| a | Var (Residual) | 3277.37 (402.95) <.01 | 3366.51 (427.78) <.01 | 3281.36 (424.28) <.01 | 3292.94 (426.60) <.01 | 3256.30 (409.59) <.01 | 3269.60 (431.78) <.01 | 3271.56 (371.24) <.01 | 3292.69 (423.75) <.01 | 3355.47 (384.10) <.01 | 3299.28 (414.79) <.01 | --- | 3272.46 (392.77) <.01 | 3272.21 (433.76) <.01 | 3292.31(34.28) |
| b | Var (Level) | 41.87 (5.25) <.01 | 7.50 (1.71) <.01 | 0.83 (0.21) <.01 | 0.76 (0.20) <.01 | 7.42 (1.84) <.01 | 94.62 (11.14) <.01 | 5.72 (0.64) <.01 | 3.22 (0.58) <.01 | 12.09 (2.61) <.01 | 12.53 (1.61) <.01 | --- | 98.41 (13.26) <.01 | 23.00 (2.61) <.01 | --- |
| b | Var (Slope) | 0.32 (0.21) .13 | 0.46 (0.12) <.01 | 0.02 (0.01) .17 | 0.02 (0.01) .02 | 0.10 (0.07) .15 | 1.88 (0.56) <.01 | 0.13 (0.03) <.01 | 0.17 (0.04) <.01 | 1.84 (0.38) <.01 | 0.11 (0.07) .14 | --- | 1.34 (0.61) .03 | 0.08 (0.04) .08 | --- |
| b | Var (Residual) | 10.30 (1.21) <.01 | 5.52 (0.76) <.01 | 1.39 (0.14) <.01 | 0.80 (0.12) <.01 | 8.96 (1.04) <.01 | 13.21 (1.48) <.01 | 2.04 (0.20) <.01 | 2.87 (0.46) <.01 | 9.30 (1.12) <.01 | 5.30 (0.70) <.01 | --- | 20.45 (2.68) <.01 | 6.24 (0.65) <.01 | --- |
| a | Covar (Level, Slope) | -348.00 (128.45) .01 | -183.27 (159.44) .25 | -366.36 (148.27) .01 | -332.25 (159.90) .04 | -378.64 (149.74) .01 | -305.16 (150.18) .04 | -373.38 (94.19) <.01 | -359.18 (191.46) .06 | -261.62 (214.00) .22 | -363.81 (146.70) .01 | --- | -305.16 (134.12) .02 | -349.38 (151.43) .02 | -327.18(56.90) |
| b | Covar (Level, Slope) | -0.81 (0.78) .30 | 1.21 (0.22) <.01 | -0.00 (0.04) .96 | -0.01 (0.03) .81 | -0.11 (0.31) .72 | 1.11 (1.25) .37 | 0.04 (0.09) .68 | 0.67 (0.10) <.01 | 4.26 (0.73) <.01 | 0.39 (0.20) .05 | --- | -3.10 (2.08) .14 | -0.06 (0.30) .83 | --- |
|  | Correlation of Levels | 0.44 | 0.368 | 0.3764 | 0.066 | 0.425 | 0.218 | 0.523 | 0.484 | 0.63 | 0.32 | NaN | 0.437 | 0.195 | 0.37(0.15) |
|  | Correlation of Slopes | 0.63 | -0.079 | -0.3975 | -0.145 | 0.481 | 0.098 | 0.398 | -0.465 | 0.11 | -0.65 | NaN | 0.635 | -0.049 | 0.05(0.43) |
|  | Correlation of Residuals | 0.14 | 0.156 | -0.0011 | -0.052 | -0.051 | 0.090 | -0.071 | 0.078 | 0.15 | 0.14 | NaN | -0.004 | 0.042 | 0.05(0.09) |
|  | N | 209 | 213 | 214 | 214 | 198 | 210 | 212 | 212 | 216 | 210 | NA | 202 | 194 | 208.67(6.93) |
|  | occasions | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | NA | 5 | 5 | 5.00(0.00) |
|  | parameters | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | NA | 41 | 41 | 41.00(0.00) |
|  | LL | -4,532 | -4,537 | -3,906 | -3,781 | -4,095 | -4,740 | -4,122 | -4,164 | -4,809 | -4,128 | NA | -4,489 | -4,008 | -4,276(334) |
|  | AIC | 9,146 | 9,156 | 7,894 | 7,643 | 8,271 | 9,562 | 8,327 | 8,409 | 9,700 | 8,339 | NA | 9,060 | 8,097 | 8,634(667) |
|  | BIC | 9,283 | 9,294 | 8,032 | 7,781 | 8,406 | 9,699 | 8,464 | 8,547 | 9,838 | 8,476 | NA | 9,196 | 8,231 | 8,771(667) |

## block

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 369.26 (60.70) <.01 | 318.16 (57.16) <.01 | 287.55 (54.88) <.01 | 287.36 (53.98) <.01 |
| ab | Covar (Slopes) | 2.80 (1.57) .07 | 2.60 (1.55) .09 | 2.82 (1.57) .07 | 2.38 (1.46) .10 |
| ab | Covar (Residuals) | 20.19 (10.86) .06 | 21.95 (11.20) .05 | 23.95 (11.84) .04 | 25.44 (11.92) .03 |
| er | Corr (Levels) | 0.49 (0.07) <.01 | 0.45 (0.07) <.01 | 0.43 (0.07) <.01 | 0.43 (0.07) <.01 |
| er | Corr (Slopes) | 0.62 (0.19) <.01 | 0.59 (0.21) <.01 | 0.66 (0.17) <.01 | 0.64 (0.18) <.01 |
| er | Corr (Residuals) | 0.12 (0.06) .06 | 0.12 (0.06) .05 | 0.13 (0.06) .04 | 0.14 (0.06) .03 |
| a | Level | 407.51 (14.58) <.01 | 404.63 (14.56) <.01 | 412.29 (14.55) <.01 | 413.55 (22.02) <.01 |
| a | Slope | 10.87 (0.88) <.01 | 10.77 (0.86) <.01 | 11.72 (0.84) <.01 | 12.80 (1.39) <.01 |
| a | Level \* age | -14.74 (3.56) <.01 | -13.31 (3.48) <.01 | -11.93 (3.38) <.01 | -11.72 (3.44) <.01 |
| a | Level \* education | --- | 8.88 (2.00) <.01 | 8.95 (1.84) <.01 | 9.15 (1.93) <.01 |
| a | Level \* height | --- | --- | 198.75 (140.38) .16 | 209.87 (140.45) .14 |
| a | Level \* smoking | --- | --- | --- | -0.09 (20.14) .99 |
| a | Level \* cardio | --- | --- | --- | -10.44 (18.24) .57 |
| a | Level \* diabetes | --- | --- | --- | 33.53 (26.43) .20 |
| a | Slope \* age | 0.24 (0.60) .68 | 0.24 (0.62) .70 | 0.16 (0.64) .80 | -0.40 (0.67) .54 |
| a | Slope \* education | --- | -0.14 (0.62) .82 | -0.31 (0.60) .61 | -0.29 (0.61) .63 |
| a | Slope \* height | --- | --- | 14.86 (24.60) .55 | 16.44 (26.39) .53 |
| a | Slope \* smoking | --- | --- | --- | -6.41 (2.76) .02 |
| a | Slope \* cardio | --- | --- | --- | -2.69 (2.76) .33 |
| a | Slope \* diabetes | --- | --- | --- | -7.11 (3.26) .03 |
| b | Level | -9.36 (2.18) <.01 | -9.40 (2.23) <.01 | -9.27 (2.19) <.01 | -1.25 (2.60) .63 |
| b | Slope | -0.59 (0.11) <.01 | -0.63 (0.12) <.01 | -0.66 (0.13) <.01 | -0.41 (0.19) .03 |
| b | Level \* age | -0.62 (0.17) <.01 | -0.49 (0.19) .01 | -0.42 (0.20) .03 | -0.42 (0.20) .04 |
| b | Level \* education | --- | 0.68 (0.22) <.01 | 0.70 (0.21) <.01 | 0.75 (0.21) <.01 |
| b | Level \* height | --- | --- | 19.35 (8.12) .02 | 19.35 (8.40) .02 |
| b | Level \* smoking | --- | --- | --- | -1.28 (1.17) .27 |
| b | Level \* cardio | --- | --- | --- | -0.20 (1.02) .85 |
| b | Level \* diabetes | --- | --- | --- | -0.31 (1.58) .84 |
| b | Slope \* age | 0.02 (0.02) .44 | 0.03 (0.03) .24 | 0.03 (0.03) .23 | 0.01 (0.03) .61 |
| b | Slope \* education | --- | 0.06 (0.04) .13 | 0.06 (0.04) .16 | 0.06 (0.04) .17 |
| b | Slope \* height | --- | --- | -2.11 (1.68) .21 | -2.22 (1.69) .19 |
| b | Slope \* smoking | --- | --- | --- | -0.16 (0.16) .32 |
| b | Slope \* cardio | --- | --- | --- | -0.18 (0.18) .33 |
| b | Slope \* diabetes | --- | --- | --- | -0.25 (0.44) .57 |
| a | Var (Level) | 11391.54 (1291.63) <.01 | 10827.83 (1240.28) <.01 | 10508.30 (1259.57) <.01 | 10413.74 (1258.08) <.01 |
| a | Var (Slope) | 55.04 (24.78) .03 | 53.44 (24.93) .03 | 53.15 (24.66) .03 | 44.57 (18.80) .02 |
| a | Var (Residual) | 3287.18 (418.55) <.01 | 3291.15 (420.45) <.01 | 3281.00 (420.55) <.01 | 3277.37 (402.95) <.01 |
| b | Var (Level) | 50.42 (5.12) <.01 | 46.31 (4.93) <.01 | 42.59 (5.41) <.01 | 41.87 (5.25) <.01 |
| b | Var (Slope) | 0.37 (0.21) .08 | 0.36 (0.22) .10 | 0.34 (0.22) .13 | 0.32 (0.21) .13 |
| b | Var (Residual) | 9.39 (1.08) <.01 | 9.67 (1.11) <.01 | 10.19 (1.19) <.01 | 10.30 (1.21) <.01 |
| a | Covar (Level, Slope) | -349.97 (160.88) .03 | -332.36 (155.10) .03 | -321.85 (143.62) .02 | -348.00 (128.45) .01 |
| b | Covar (Level, Slope) | -0.79 (0.75) .30 | -0.96 (0.80) .23 | -0.67 (0.76) .38 | -0.81 (0.78) .30 |
|  | Correlation of Levels | 0.49 | 0.45 | 0.43 | 0.44 |
|  | Correlation of Slopes | 0.62 | 0.60 | 0.67 | 0.63 |
|  | Correlation of Residuals | 0.11 | 0.12 | 0.13 | 0.14 |
|  | N | 263 | 247 | 211 | 209 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,938 | -4,837 | -4,549 | -4,532 |
|  | AIC | 9,917 | 9,724 | 9,155 | 9,146 |
|  | BIC | 9,992 | 9,812 | 9,253 | 9,283 |

## clock

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 272.93 (66.44) <.01 | 183.82 (53.65) <.01 | 116.19 (40.05) <.01 | 104.37 (34.65) <.01 |
| ab | Covar (Slopes) | -0.47 (1.58) .77 | -0.30 (1.52) .84 | 0.15 (1.68) .93 | -0.30 (1.47) .84 |
| ab | Covar (Residuals) | 19.09 (16.32) .24 | 19.58 (17.35) .26 | 20.14 (16.30) .22 | 21.24 (16.74) .20 |
| er | Corr (Levels) | 0.46 (0.09) <.01 | 0.40 (0.10) <.01 | 0.35 (0.10) <.01 | 0.37 (0.10) <.01 |
| er | Corr (Slopes) | -0.12 (0.38) .76 | -0.07 (0.36) .84 | 0.03 (0.38) .93 | -0.08 (0.37) .83 |
| er | Corr (Residuals) | 0.14 (0.12) .23 | 0.14 (0.12) .25 | 0.15 (0.12) .20 | 0.16 (0.12) .19 |
| a | Level | 403.45 (14.63) <.01 | 400.56 (14.53) <.01 | 409.51 (14.58) <.01 | 410.03 (22.19) <.01 |
| a | Slope | 12.57 (0.51) <.01 | 12.82 (0.45) <.01 | 13.57 (0.41) <.01 | 12.58 (0.70) <.01 |
| a | Level \* age | -17.93 (3.69) <.01 | -14.33 (3.50) <.01 | -12.21 (3.48) <.01 | -11.96 (3.51) <.01 |
| a | Level \* education | --- | 9.39 (2.07) <.01 | 9.09 (1.90) <.01 | 9.35 (1.99) <.01 |
| a | Level \* height | --- | --- | 196.53 (145.08) .18 | 220.12 (144.89) .13 |
| a | Level \* smoking | --- | --- | --- | 5.54 (20.49) .79 |
| a | Level \* cardio | --- | --- | --- | -14.86 (18.56) .42 |
| a | Level \* diabetes | --- | --- | --- | 40.30 (25.38) .11 |
| a | Slope \* age | 0.06 (0.61) .93 | 0.11 (0.61) .85 | 0.22 (0.65) .74 | -0.25 (0.68) .71 |
| a | Slope \* education | --- | -0.13 (0.66) .84 | -0.29 (0.63) .65 | -0.26 (0.62) .68 |
| a | Slope \* height | --- | --- | 24.10 (23.63) .31 | 25.97 (26.04) .32 |
| a | Slope \* smoking | --- | --- | --- | -5.18 (2.94) .08 |
| a | Slope \* cardio | --- | --- | --- | -1.41 (2.83) .62 |
| a | Slope \* diabetes | --- | --- | --- | -6.80 (2.99) .02 |
| b | Level | -12.02 (2.54) <.01 | -11.87 (2.58) <.01 | -11.39 (2.56) <.01 | -5.14 (3.42) .13 |
| b | Slope | -0.53 (0.10) <.01 | -0.61 (0.11) <.01 | -0.65 (0.12) <.01 | -0.71 (0.18) <.01 |
| b | Level \* age | -0.55 (0.10) <.01 | -0.28 (0.10) .01 | -0.13 (0.10) .20 | -0.10 (0.10) .31 |
| b | Level \* education | --- | 0.17 (0.08) .02 | 0.14 (0.06) .02 | 0.14 (0.05) .01 |
| b | Level \* height | --- | --- | 6.65 (4.58) .15 | 7.26 (3.82) .06 |
| b | Level \* smoking | --- | --- | --- | 1.38 (0.60) .02 |
| b | Level \* cardio | --- | --- | --- | 0.57 (0.47) .22 |
| b | Level \* diabetes | --- | --- | --- | -0.70 (0.72) .33 |
| b | Slope \* age | 0.00 (0.02) .81 | 0.00 (0.02) .94 | -0.01 (0.03) .75 | -0.01 (0.03) .74 |
| b | Slope \* education | --- | 0.06 (0.02) <.01 | 0.06 (0.02) <.01 | 0.06 (0.02) <.01 |
| b | Slope \* height | --- | --- | -0.87 (1.16) .45 | -0.96 (1.21) .43 |
| b | Slope \* smoking | --- | --- | --- | 0.11 (0.17) .52 |
| b | Slope \* cardio | --- | --- | --- | -0.05 (0.14) .73 |
| b | Slope \* diabetes | --- | --- | --- | 0.01 (0.28) .98 |
| a | Var (Level) | 12785.48 (1568.21) <.01 | 11672.75 (1417.68) <.01 | 10921.62 (1359.55) <.01 | 10702.97 (1355.53) <.01 |
| a | Var (Slope) | 47.69 (27.09) .08 | 49.69 (26.73) .06 | 44.66 (24.79) .07 | 32.54 (19.33) .09 |
| a | Var (Residual) | 3362.57 (435.20) <.01 | 3356.14 (433.10) <.01 | 3364.63 (441.63) <.01 | 3366.51 (427.78) <.01 |
| b | Var (Level) | 27.06 (2.50) <.01 | 17.74 (2.31) <.01 | 9.85 (2.05) <.01 | 7.50 (1.71) <.01 |
| b | Var (Slope) | 0.35 (0.11) <.01 | 0.35 (0.11) <.01 | 0.43 (0.12) <.01 | 0.46 (0.12) <.01 |
| b | Var (Residual) | 5.59 (0.76) <.01 | 6.01 (0.79) <.01 | 5.57 (0.77) <.01 | 5.52 (0.76) <.01 |
| a | Covar (Level, Slope) | -99.70 (209.63) .63 | -104.39 (181.69) .57 | -131.06 (171.43) .44 | -183.27 (159.44) .25 |
| b | Covar (Level, Slope) | 0.23 (0.26) .39 | 0.88 (0.25) <.01 | 1.23 (0.24) <.01 | 1.21 (0.22) <.01 |
|  | Correlation of Levels | 0.46 | 0.404 | 0.354 | 0.368 |
|  | Correlation of Slopes | -0.11 | -0.073 | 0.034 | -0.079 |
|  | Correlation of Residuals | 0.14 | 0.138 | 0.147 | 0.156 |
|  | N | 302 | 266 | 217 | 213 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -5,305 | -5,035 | -4,581 | -4,537 |
|  | AIC | 10,652 | 10,120 | 9,221 | 9,156 |
|  | BIC | 10,730 | 10,210 | 9,319 | 9,294 |

## digit\_b

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 59.73 (15.91) <.01 | 40.51 (13.96) <.01 | 35.09 (12.02) <.01 | 34.81 (11.99) <.01 |
| ab | Covar (Slopes) | -0.29 (0.50) .56 | -0.30 (0.50) .55 | -0.35 (0.48) .46 | -0.35 (0.42) .41 |
| ab | Covar (Residuals) | -0.41 (5.14) .94 | -0.25 (5.28) .96 | -0.09 (5.27) .99 | -0.07 (5.13) .99 |
| er | Corr (Levels) | 0.44 (0.11) <.01 | 0.37 (0.12) <.01 | 0.38 (0.13) <.01 | 0.38 (0.13) <.01 |
| er | Corr (Slopes) | -0.28 (0.44) .53 | -0.30 (0.46) .51 | -0.39 (0.46) .40 | -0.39 (0.40) .33 |
| er | Corr (Residuals) | -0.01 (0.08) .94 | -0.00 (0.08) .96 | -0.00 (0.08) .99 | -0.00 (0.08) .99 |
| a | Level | 408.90 (14.74) <.01 | 407.33 (14.62) <.01 | 414.22 (14.62) <.01 | 418.90 (22.34) <.01 |
| a | Slope | 3.10 (0.16) <.01 | 3.12 (0.15) <.01 | 3.32 (0.15) <.01 | 3.31 (0.26) <.01 |
| a | Level \* age | -14.07 (3.61) <.01 | -12.53 (3.54) <.01 | -11.28 (3.43) <.01 | -11.00 (3.48) <.01 |
| a | Level \* education | --- | 8.46 (2.02) <.01 | 8.53 (1.84) <.01 | 8.66 (1.93) <.01 |
| a | Level \* height | --- | --- | 207.67 (140.94) .14 | 222.30 (142.31) .12 |
| a | Level \* smoking | --- | --- | --- | -2.91 (20.77) .89 |
| a | Level \* cardio | --- | --- | --- | -13.43 (18.34) .46 |
| a | Level \* diabetes | --- | --- | --- | 33.90 (26.41) .20 |
| a | Slope \* age | 0.13 (0.59) .83 | 0.07 (0.61) .91 | 0.05 (0.64) .94 | -0.52 (0.67) .44 |
| a | Slope \* education | --- | -0.36 (0.63) .57 | -0.54 (0.62) .39 | -0.52 (0.61) .39 |
| a | Slope \* height | --- | --- | 20.99 (22.56) .35 | 24.19 (24.63) .33 |
| a | Slope \* smoking | --- | --- | --- | -6.43 (2.79) .02 |
| a | Slope \* cardio | --- | --- | --- | -2.31 (2.84) .42 |
| a | Slope \* diabetes | --- | --- | --- | -4.85 (3.05) .11 |
| b | Level | -8.89 (2.24) <.01 | -8.77 (2.24) <.01 | -8.29 (2.15) <.01 | -0.74 (2.88) .80 |
| b | Slope | -0.13 (0.04) <.01 | -0.13 (0.04) <.01 | -0.15 (0.05) <.01 | -0.11 (0.08) .17 |
| b | Level \* age | -0.09 (0.03) .01 | -0.06 (0.03) .07 | -0.07 (0.04) .09 | -0.07 (0.04) .09 |
| b | Level \* education | --- | 0.16 (0.03) <.01 | 0.15 (0.03) <.01 | 0.15 (0.03) <.01 |
| b | Level \* height | --- | --- | 1.62 (1.19) .17 | 1.59 (1.21) .19 |
| b | Level \* smoking | --- | --- | --- | 0.13 (0.24) .59 |
| b | Level \* cardio | --- | --- | --- | -0.21 (0.21) .32 |
| b | Level \* diabetes | --- | --- | --- | 0.14 (0.29) .63 |
| b | Slope \* age | 0.00 (0.01) .98 | 0.00 (0.01) .85 | 0.01 (0.01) .50 | 0.01 (0.01) .53 |
| b | Slope \* education | --- | 0.00 (0.01) .97 | 0.00 (0.01) .90 | 0.00 (0.01) .74 |
| b | Slope \* height | --- | --- | 0.30 (0.38) .43 | 0.34 (0.44) .43 |
| b | Slope \* smoking | --- | --- | --- | -0.05 (0.06) .41 |
| b | Slope \* cardio | --- | --- | --- | 0.03 (0.06) .54 |
| b | Slope \* diabetes | --- | --- | --- | -0.09 (0.11) .41 |
| a | Var (Level) | 11621.00 (1380.36) <.01 | 10840.97 (1279.99) <.01 | 10456.23 (1288.13) <.01 | 10355.57 (1281.41) <.01 |
| a | Var (Slope) | 46.34 (23.85) .05 | 45.42 (23.81) .06 | 45.91 (25.03) .07 | 42.10 (22.50) .06 |
| a | Var (Residual) | 3305.09 (428.45) <.01 | 3306.00 (429.03) <.01 | 3294.93 (435.49) <.01 | 3281.36 (424.28) <.01 |
| b | Var (Level) | 1.59 (0.25) <.01 | 1.10 (0.22) <.01 | 0.81 (0.21) <.01 | 0.83 (0.21) <.01 |
| b | Var (Slope) | 0.02 (0.01) .10 | 0.02 (0.01) .14 | 0.02 (0.01) .20 | 0.02 (0.01) .17 |
| b | Var (Residual) | 1.38 (0.13) <.01 | 1.42 (0.14) <.01 | 1.42 (0.14) <.01 | 1.39 (0.14) <.01 |
| a | Covar (Level, Slope) | -332.94 (172.01) .05 | -306.66 (158.36) .05 | -316.94 (150.55) .04 | -366.36 (148.27) .01 |
| b | Covar (Level, Slope) | -0.03 (0.04) .47 | -0.02 (0.04) .64 | 0.00 (0.04) .98 | -0.00 (0.04) .96 |
|  | Correlation of Levels | 0.4393 | 0.3711 | 0.3815 | 0.3764 |
|  | Correlation of Slopes | -0.2809 | -0.3041 | -0.3984 | -0.3975 |
|  | Correlation of Residuals | -0.0061 | -0.0037 | -0.0013 | -0.0011 |
|  | N | 280 | 260 | 216 | 214 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,274 | -4,178 | -3,919 | -3,906 |
|  | AIC | 8,590 | 8,407 | 7,896 | 7,894 |
|  | BIC | 8,667 | 8,496 | 7,994 | 8,032 |

## digit\_f

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 20.88 (15.29) .17 | 6.37 (11.88) .59 | 6.54 (11.34) .56 | 5.83 (11.66) .62 |
| ab | Covar (Slopes) | -0.22 (0.52) .67 | -0.22 (0.42) .60 | -0.12 (0.38) .76 | -0.12 (0.33) .73 |
| ab | Covar (Residuals) | -3.12 (4.74) .51 | -2.33 (3.78) .54 | -2.54 (3.64) .48 | -2.68 (3.46) .44 |
| er | Corr (Levels) | 0.18 (0.13) .16 | 0.07 (0.12) .59 | 0.07 (0.13) .57 | 0.07 (0.13) .62 |
| er | Corr (Slopes) | -0.18 (0.39) .66 | -0.19 (0.35) .59 | -0.12 (0.40) .75 | -0.15 (0.40) .71 |
| er | Corr (Residuals) | -0.05 (0.08) .50 | -0.04 (0.07) .53 | -0.05 (0.07) .48 | -0.05 (0.07) .43 |
| a | Level | 412.62 (14.96) <.01 | 408.94 (14.78) <.01 | 416.11 (14.81) <.01 | 422.96 (22.69) <.01 |
| a | Slope | 5.38 (0.13) <.01 | 5.42 (0.12) <.01 | 5.42 (0.13) <.01 | 5.55 (0.26) <.01 |
| a | Level \* age | -14.34 (3.71) <.01 | -12.16 (3.55) <.01 | -11.19 (3.45) <.01 | -11.15 (3.50) <.01 |
| a | Level \* education | --- | 8.65 (1.99) <.01 | 8.41 (1.84) <.01 | 8.64 (1.93) <.01 |
| a | Level \* height | --- | --- | 250.83 (143.76) .08 | 265.30 (145.37) .07 |
| a | Level \* smoking | --- | --- | --- | -4.68 (20.96) .82 |
| a | Level \* cardio | --- | --- | --- | -15.18 (18.34) .41 |
| a | Level \* diabetes | --- | --- | --- | 40.34 (25.83) .12 |
| a | Slope \* age | -0.13 (0.65) .84 | -0.14 (0.67) .84 | -0.02 (0.68) .98 | -0.42 (0.70) .55 |
| a | Slope \* education | --- | -0.29 (0.62) .64 | -0.41 (0.61) .49 | -0.44 (0.61) .47 |
| a | Slope \* height | --- | --- | 20.71 (22.92) .37 | 23.29 (25.91) .37 |
| a | Slope \* smoking | --- | --- | --- | -5.74 (2.75) .04 |
| a | Slope \* cardio | --- | --- | --- | -1.77 (2.71) .51 |
| a | Slope \* diabetes | --- | --- | --- | -5.60 (2.90) .05 |
| b | Level | -9.11 (2.34) <.01 | -8.83 (2.39) <.01 | -8.74 (2.31) <.01 | -2.35 (3.07) .44 |
| b | Slope | -0.11 (0.03) <.01 | -0.12 (0.03) <.01 | -0.10 (0.02) <.01 | -0.15 (0.06) .01 |
| b | Level \* age | -0.04 (0.03) .17 | -0.01 (0.02) .57 | 0.02 (0.03) .50 | 0.02 (0.03) .56 |
| b | Level \* education | --- | 0.08 (0.02) <.01 | 0.08 (0.02) <.01 | 0.09 (0.02) <.01 |
| b | Level \* height | --- | --- | 1.59 (1.25) .20 | 1.91 (1.25) .13 |
| b | Level \* smoking | --- | --- | --- | -0.25 (0.21) .23 |
| b | Level \* cardio | --- | --- | --- | 0.08 (0.17) .64 |
| b | Level \* diabetes | --- | --- | --- | 0.12 (0.21) .57 |
| b | Slope \* age | -0.03 (0.01) <.01 | -0.02 (0.01) .04 | -0.02 (0.01) .01 | -0.02 (0.01) .01 |
| b | Slope \* education | --- | 0.01 (0.01) .01 | 0.01 (0.01) .03 | 0.01 (0.01) .05 |
| b | Slope \* height | --- | --- | -0.08 (0.32) .81 | -0.31 (0.33) .35 |
| b | Slope \* smoking | --- | --- | --- | 0.11 (0.05) .03 |
| b | Slope \* cardio | --- | --- | --- | -0.05 (0.04) .19 |
| b | Slope \* diabetes | --- | --- | --- | -0.03 (0.06) .64 |
| a | Var (Level) | 12095.24 (1516.74) <.01 | 11115.38 (1338.38) <.01 | 10604.49 (1325.21) <.01 | 10444.66 (1320.79) <.01 |
| a | Var (Slope) | 46.61 (24.06) .05 | 46.43 (24.16) .06 | 44.97 (25.41) .08 | 36.76 (22.02) .10 |
| a | Var (Residual) | 3287.59 (427.56) <.01 | 3284.85 (429.21) <.01 | 3283.18 (435.87) <.01 | 3292.94 (426.60) <.01 |
| b | Var (Level) | 1.05 (0.22) <.01 | 0.82 (0.17) <.01 | 0.77 (0.19) <.01 | 0.76 (0.20) <.01 |
| b | Var (Slope) | 0.04 (0.01) .01 | 0.03 (0.01) <.01 | 0.02 (0.01) .02 | 0.02 (0.01) .02 |
| b | Var (Residual) | 1.03 (0.17) <.01 | 0.83 (0.11) <.01 | 0.82 (0.12) <.01 | 0.80 (0.12) <.01 |
| a | Covar (Level, Slope) | -279.89 (201.41) .16 | -280.40 (173.94) .11 | -285.03 (163.05) .08 | -332.25 (159.90) .04 |
| b | Covar (Level, Slope) | 0.03 (0.04) .50 | -0.02 (0.04) .56 | -0.02 (0.03) .51 | -0.01 (0.03) .81 |
|  | Correlation of Levels | 0.185 | 0.066 | 0.072 | 0.066 |
|  | Correlation of Slopes | -0.175 | -0.187 | -0.125 | -0.145 |
|  | Correlation of Residuals | -0.054 | -0.044 | -0.049 | -0.052 |
|  | N | 283 | 261 | 216 | 214 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,215 | -4,046 | -3,795 | -3,781 |
|  | AIC | 8,472 | 8,143 | 7,647 | 7,643 |
|  | BIC | 8,548 | 8,232 | 7,745 | 7,781 |

## fig\_logic

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 177.81 (36.16) <.01 | 156.06 (34.95) <.01 | 122.00 (29.65) <.01 | 118.00 (29.77) <.01 |
| ab | Covar (Slopes) | 1.82 (0.76) .02 | 1.79 (0.75) .02 | 1.42 (0.85) .10 | 1.01 (0.75) .17 |
| ab | Covar (Residuals) | -13.03 (12.17) .28 | -13.20 (12.19) .28 | -11.30 (12.78) .38 | -8.70 (12.69) .49 |
| er | Corr (Levels) | 0.50 (0.09) <.01 | 0.47 (0.09) <.01 | 0.43 (0.10) <.01 | 0.42 (0.11) <.01 |
| er | Corr (Slopes) | 0.86 (0.06) <.01 | 0.85 (0.07) <.01 | 0.58 (0.32) .07 | 0.48 (0.31) .13 |
| er | Corr (Residuals) | -0.08 (0.07) .29 | -0.08 (0.07) .28 | -0.07 (0.08) .38 | -0.05 (0.07) .50 |
| a | Level | 413.30 (14.58) <.01 | 407.71 (14.64) <.01 | 415.86 (14.58) <.01 | 422.57 (22.31) <.01 |
| a | Slope | 15.50 (0.50) <.01 | 15.27 (0.50) <.01 | 15.92 (0.45) <.01 | 16.49 (0.77) <.01 |
| a | Level \* age | -13.01 (3.69) <.01 | -11.67 (3.57) <.01 | -11.24 (3.42) <.01 | -11.05 (3.45) <.01 |
| a | Level \* education | --- | 8.73 (2.04) <.01 | 8.76 (1.86) <.01 | 9.07 (1.93) <.01 |
| a | Level \* height | --- | --- | 194.28 (141.16) .17 | 207.56 (141.72) .14 |
| a | Level \* smoking | --- | --- | --- | -8.53 (20.43) .68 |
| a | Level \* cardio | --- | --- | --- | -10.21 (18.29) .58 |
| a | Level \* diabetes | --- | --- | --- | 33.54 (27.14) .22 |
| a | Slope \* age | 0.06 (0.60) .93 | 0.02 (0.62) .98 | 0.02 (0.65) .97 | -0.48 (0.68) .48 |
| a | Slope \* education | --- | -0.34 (0.64) .59 | -0.52 (0.62) .40 | -0.50 (0.63) .42 |
| a | Slope \* height | --- | --- | 22.33 (22.35) .32 | 25.43 (24.35) .30 |
| a | Slope \* smoking | --- | --- | --- | -6.37 (2.74) .02 |
| a | Slope \* cardio | --- | --- | --- | -2.27 (2.67) .40 |
| a | Slope \* diabetes | --- | --- | --- | -4.55 (3.05) .14 |
| b | Level | -9.05 (2.12) <.01 | -8.83 (2.19) <.01 | -8.69 (2.14) <.01 | -1.22 (2.78) .66 |
| b | Slope | -0.22 (0.11) .06 | -0.20 (0.11) .07 | -0.24 (0.13) .07 | -0.13 (0.22) .56 |
| b | Level \* age | -0.23 (0.11) .04 | -0.18 (0.12) .13 | -0.23 (0.11) .03 | -0.24 (0.10) .02 |
| b | Level \* education | --- | 0.32 (0.11) <.01 | 0.37 (0.10) <.01 | 0.40 (0.10) <.01 |
| b | Level \* height | --- | --- | 4.21 (5.38) .43 | 4.51 (5.57) .42 |
| b | Level \* smoking | --- | --- | --- | -1.25 (0.70) .07 |
| b | Level \* cardio | --- | --- | --- | 0.58 (0.59) .33 |
| b | Level \* diabetes | --- | --- | --- | 0.43 (1.09) .69 |
| b | Slope \* age | 0.03 (0.03) .28 | 0.03 (0.03) .31 | 0.04 (0.04) .27 | 0.04 (0.04) .21 |
| b | Slope \* education | --- | -0.01 (0.02) .62 | -0.02 (0.03) .49 | -0.01 (0.03) .81 |
| b | Slope \* height | --- | --- | 1.01 (1.12) .36 | 1.48 (1.22) .22 |
| b | Slope \* smoking | --- | --- | --- | -0.21 (0.16) .19 |
| b | Slope \* cardio | --- | --- | --- | 0.14 (0.15) .34 |
| b | Slope \* diabetes | --- | --- | --- | -0.12 (0.37) .76 |
| a | Var (Level) | 11482.21 (1291.63) <.01 | 10893.24 (1234.26) <.01 | 10479.37 (1277.76) <.01 | 10394.07 (1278.99) <.01 |
| a | Var (Slope) | 51.23 (18.37) <.01 | 50.08 (17.90) <.01 | 51.28 (24.60) .04 | 45.80 (20.95) .03 |
| a | Var (Residual) | 3296.04 (393.61) <.01 | 3295.47 (394.08) <.01 | 3265.22 (423.36) <.01 | 3256.30 (409.59) <.01 |
| b | Var (Level) | 10.98 (1.96) <.01 | 10.28 (1.88) <.01 | 7.81 (1.74) <.01 | 7.42 (1.84) <.01 |
| b | Var (Slope) | 0.09 (0.03) .01 | 0.09 (0.03) .01 | 0.12 (0.08) .17 | 0.10 (0.07) .15 |
| b | Var (Residual) | 9.03 (1.05) <.01 | 9.04 (1.05) <.01 | 8.87 (1.01) <.01 | 8.96 (1.04) <.01 |
| a | Covar (Level, Slope) | -351.16 (143.39) .01 | -324.41 (136.76) .02 | -326.49 (152.09) .03 | -378.64 (149.74) .01 |
| b | Covar (Level, Slope) | -0.12 (0.25) .63 | -0.10 (0.24) .66 | -0.02 (0.31) .95 | -0.11 (0.31) .72 |
|  | Correlation of Levels | 0.501 | 0.466 | 0.427 | 0.425 |
|  | Correlation of Slopes | 0.864 | 0.856 | 0.580 | 0.481 |
|  | Correlation of Residuals | -0.076 | -0.076 | -0.066 | -0.051 |
|  | N | 220 | 218 | 198 | 198 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,290 | -4,275 | -4,105 | -4,095 |
|  | AIC | 8,622 | 8,599 | 8,269 | 8,271 |
|  | BIC | 8,693 | 8,684 | 8,364 | 8,406 |

## information

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 364.01 (113.76) <.01 | 231.62 (100.99) .02 | 208.32 (93.37) .03 | 215.77 (92.42) .02 |
| ab | Covar (Slopes) | 1.00 (4.16) .81 | 1.30 (4.10) .75 | 1.43 (3.84) .71 | 0.88 (3.22) .78 |
| ab | Covar (Residuals) | 20.13 (15.23) .19 | 20.40 (15.38) .18 | 19.11 (15.12) .21 | 18.71 (14.77) .20 |
| er | Corr (Levels) | 0.29 (0.08) <.01 | 0.21 (0.09) .02 | 0.20 (0.09) .02 | 0.22 (0.09) .01 |
| er | Corr (Slopes) | 0.09 (0.36) .80 | 0.12 (0.35) .74 | 0.14 (0.35) .70 | 0.10 (0.35) .78 |
| er | Corr (Residuals) | 0.10 (0.07) .18 | 0.10 (0.07) .18 | 0.09 (0.07) .20 | 0.09 (0.07) .20 |
| a | Level | 415.36 (14.59) <.01 | 409.97 (14.71) <.01 | 415.33 (14.66) <.01 | 423.77 (21.74) <.01 |
| a | Slope | 31.65 (1.32) <.01 | 30.98 (1.24) <.01 | 31.61 (1.34) <.01 | 29.66 (2.30) <.01 |
| a | Level \* age | -15.10 (3.64) <.01 | -13.49 (3.54) <.01 | -12.18 (3.37) <.01 | -12.00 (3.44) <.01 |
| a | Level \* education | --- | 8.80 (2.04) <.01 | 8.74 (1.85) <.01 | 8.95 (1.94) <.01 |
| a | Level \* height | --- | --- | 199.19 (140.75) .16 | 223.26 (142.74) .12 |
| a | Level \* smoking | --- | --- | --- | -4.98 (20.03) .80 |
| a | Level \* cardio | --- | --- | --- | -17.13 (18.38) .35 |
| a | Level \* diabetes | --- | --- | --- | 35.02 (26.25) .18 |
| a | Slope \* age | 0.26 (0.63) .68 | 0.20 (0.65) .76 | 0.23 (0.68) .73 | -0.28 (0.70) .69 |
| a | Slope \* education | --- | -0.36 (0.63) .56 | -0.46 (0.60) .44 | -0.40 (0.60) .50 |
| a | Slope \* height | --- | --- | 24.56 (24.43) .32 | 25.84 (26.23) .32 |
| a | Slope \* smoking | --- | --- | --- | -6.73 (2.92) .02 |
| a | Slope \* cardio | --- | --- | --- | -1.94 (2.84) .49 |
| a | Slope \* diabetes | --- | --- | --- | -7.05 (3.46) .04 |
| b | Level | -9.90 (2.50) <.01 | -9.73 (2.58) <.01 | -9.54 (2.50) <.01 | -2.21 (3.04) .47 |
| b | Slope | -1.40 (0.27) <.01 | -1.47 (0.28) <.01 | -1.36 (0.29) <.01 | -0.99 (0.40) .01 |
| b | Level \* age | -1.23 (0.33) <.01 | -1.03 (0.32) <.01 | -0.82 (0.32) .01 | -0.72 (0.32) .02 |
| b | Level \* education | --- | 1.64 (0.21) <.01 | 1.39 (0.21) <.01 | 1.46 (0.20) <.01 |
| b | Level \* height | --- | --- | 23.38 (12.04) .05 | 27.34 (11.85) .02 |
| b | Level \* smoking | --- | --- | --- | 1.54 (1.88) .41 |
| b | Level \* cardio | --- | --- | --- | 1.88 (1.42) .19 |
| b | Level \* diabetes | --- | --- | --- | -0.23 (2.05) .91 |
| b | Slope \* age | 0.07 (0.06) .24 | 0.10 (0.07) .14 | 0.07 (0.07) .33 | 0.06 (0.07) .45 |
| b | Slope \* education | --- | 0.09 (0.03) .01 | 0.11 (0.04) <.01 | 0.10 (0.04) <.01 |
| b | Slope \* height | --- | --- | -1.06 (2.98) .72 | -1.54 (2.98) .60 |
| b | Slope \* smoking | --- | --- | --- | -0.21 (0.32) .52 |
| b | Slope \* cardio | --- | --- | --- | -0.28 (0.29) .33 |
| b | Slope \* diabetes | --- | --- | --- | -0.84 (0.68) .22 |
| a | Var (Level) | 11636.74 (1359.47) <.01 | 10979.66 (1286.14) <.01 | 10547.00 (1294.13) <.01 | 10367.45 (1280.94) <.01 |
| a | Var (Slope) | 60.35 (30.08) .04 | 59.88 (30.35) .05 | 57.54 (30.90) .06 | 42.59 (24.77) .09 |
| a | Var (Residual) | 3251.33 (433.52) <.01 | 3249.80 (434.19) <.01 | 3249.42 (438.97) <.01 | 3269.60 (431.78) <.01 |
| b | Var (Level) | 137.17 (12.53) <.01 | 108.64 (10.82) <.01 | 97.62 (11.30) <.01 | 94.62 (11.14) <.01 |
| b | Var (Slope) | 2.13 (0.64) <.01 | 2.09 (0.64) <.01 | 1.92 (0.60) <.01 | 1.88 (0.56) <.01 |
| b | Var (Residual) | 13.63 (1.58) <.01 | 13.74 (1.62) <.01 | 13.33 (1.56) <.01 | 13.21 (1.48) <.01 |
| a | Covar (Level, Slope) | -326.11 (182.35) .07 | -301.59 (170.41) .08 | -302.14 (163.07) .06 | -305.16 (150.18) .04 |
| b | Covar (Level, Slope) | 2.79 (1.45) .05 | 1.61 (1.49) .28 | 0.97 (1.33) .47 | 1.11 (1.25) .37 |
|  | Correlation of Levels | 0.288 | 0.212 | 0.205 | 0.218 |
|  | Correlation of Slopes | 0.088 | 0.116 | 0.136 | 0.098 |
|  | Correlation of Residuals | 0.096 | 0.097 | 0.092 | 0.090 |
|  | N | 252 | 247 | 212 | 210 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -5,150 | -5,088 | -4,758 | -4,740 |
|  | AIC | 10,342 | 10,226 | 9,574 | 9,562 |
|  | BIC | 10,416 | 10,314 | 9,672 | 9,699 |

## mir

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 160.56 (29.42) <.01 | 136.51 (27.37) <.01 | 128.60 (25.90) <.01 | 128.29 (24.58) <.01 |
| ab | Covar (Slopes) | 0.93 (0.60) .12 | 0.91 (0.61) .13 | 1.21 (0.56) .03 | 0.96 (0.39) .01 |
| ab | Covar (Residuals) | -3.42 (5.90) .56 | -3.69 (6.09) .54 | -5.40 (6.22) .38 | -5.83 (6.03) .33 |
| er | Corr (Levels) | 0.54 (0.08) <.01 | 0.51 (0.09) <.01 | 0.51 (0.09) <.01 | 0.52 (0.08) <.01 |
| er | Corr (Slopes) | 0.33 (0.20) .09 | 0.33 (0.21) .10 | 0.44 (0.17) .01 | 0.40 (0.12) <.01 |
| er | Corr (Residuals) | -0.04 (0.07) .56 | -0.04 (0.07) .55 | -0.07 (0.08) .39 | -0.07 (0.07) .34 |
| a | Level | 405.99 (14.78) <.01 | 401.24 (14.73) <.01 | 408.66 (14.65) <.01 | 409.99 (22.12) <.01 |
| a | Slope | 5.51 (0.33) <.01 | 5.47 (0.33) <.01 | 5.72 (0.32) <.01 | 5.17 (0.54) <.01 |
| a | Level \* age | -14.96 (3.48) <.01 | -12.45 (3.42) <.01 | -11.04 (3.39) <.01 | -10.63 (3.42) <.01 |
| a | Level \* education | --- | 10.56 (2.08) <.01 | 9.89 (1.89) <.01 | 10.09 (1.98) <.01 |
| a | Level \* height | --- | --- | 220.83 (140.67) .12 | 225.73 (141.51) .11 |
| a | Level \* smoking | --- | --- | --- | -1.10 (19.89) .96 |
| a | Level \* cardio | --- | --- | --- | -10.55 (18.33) .56 |
| a | Level \* diabetes | --- | --- | --- | 42.36 (26.37) .11 |
| a | Slope \* age | 0.26 (0.58) .66 | 0.14 (0.61) .82 | 0.03 (0.62) .96 | -0.63 (0.61) .30 |
| a | Slope \* education | --- | -0.51 (0.61) .40 | -0.70 (0.57) .22 | -0.64 (0.54) .24 |
| a | Slope \* height | --- | --- | 19.37 (22.81) .40 | 24.28 (24.41) .32 |
| a | Slope \* smoking | --- | --- | --- | -7.67 (2.71) <.01 |
| a | Slope \* cardio | --- | --- | --- | -3.02 (2.75) .27 |
| a | Slope \* diabetes | --- | --- | --- | -5.21 (2.97) .08 |
| b | Level | -8.09 (2.22) <.01 | -7.90 (2.27) <.01 | -7.67 (2.17) <.01 | 1.34 (2.59) .60 |
| b | Slope | -0.29 (0.06) <.01 | -0.30 (0.06) <.01 | -0.28 (0.07) <.01 | -0.12 (0.11) .28 |
| b | Level \* age | -0.30 (0.07) <.01 | -0.21 (0.07) <.01 | -0.17 (0.08) .02 | -0.16 (0.07) .04 |
| b | Level \* education | --- | 0.24 (0.06) <.01 | 0.20 (0.05) <.01 | 0.20 (0.05) <.01 |
| b | Level \* height | --- | --- | 4.09 (2.89) .16 | 3.59 (2.94) .22 |
| b | Level \* smoking | --- | --- | --- | 0.49 (0.46) .29 |
| b | Level \* cardio | --- | --- | --- | 0.39 (0.37) .29 |
| b | Level \* diabetes | --- | --- | --- | 0.20 (0.58) .72 |
| b | Slope \* age | 0.01 (0.01) .40 | 0.01 (0.01) .38 | 0.00 (0.02) .91 | -0.00 (0.02) .78 |
| b | Slope \* education | --- | 0.01 (0.02) .67 | 0.01 (0.02) .69 | 0.01 (0.01) .67 |
| b | Slope \* height | --- | --- | -0.13 (0.68) .85 | -0.21 (0.70) .76 |
| b | Slope \* smoking | --- | --- | --- | -0.11 (0.10) .25 |
| b | Slope \* cardio | --- | --- | --- | -0.12 (0.10) .23 |
| b | Slope \* diabetes | --- | --- | --- | -0.17 (0.17) .34 |
| a | Var (Level) | 11911.64 (1360.62) <.01 | 11117.03 (1274.57) <.01 | 10682.44 (1266.87) <.01 | 10525.82 (1243.01) <.01 |
| a | Var (Slope) | 57.61 (23.66) .01 | 55.09 (23.29) .02 | 52.49 (20.67) .01 | 43.82 (9.74) <.01 |
| a | Var (Residual) | 3260.42 (417.46) <.01 | 3261.05 (418.47) <.01 | 3252.66 (405.29) <.01 | 3271.56 (371.24) <.01 |
| b | Var (Level) | 7.50 (0.68) <.01 | 6.54 (0.65) <.01 | 5.87 (0.67) <.01 | 5.72 (0.64) <.01 |
| b | Var (Slope) | 0.13 (0.03) <.01 | 0.14 (0.03) <.01 | 0.14 (0.03) <.01 | 0.13 (0.03) <.01 |
| b | Var (Residual) | 1.97 (0.19) <.01 | 2.04 (0.19) <.01 | 2.04 (0.20) <.01 | 2.04 (0.20) <.01 |
| a | Covar (Level, Slope) | -400.96 (170.99) .02 | -355.70 (159.11) .02 | -332.31 (143.08) .02 | -373.38 (94.19) <.01 |
| b | Covar (Level, Slope) | -0.02 (0.10) .81 | 0.01 (0.10) .93 | 0.04 (0.10) .70 | 0.04 (0.09) .68 |
|  | Correlation of Levels | 0.537 | 0.506 | 0.514 | 0.523 |
|  | Correlation of Slopes | 0.335 | 0.334 | 0.444 | 0.398 |
|  | Correlation of Residuals | -0.043 | -0.045 | -0.066 | -0.071 |
|  | N | 268 | 248 | 214 | 212 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,476 | -4,378 | -4,137 | -4,122 |
|  | AIC | 8,994 | 8,806 | 8,333 | 8,327 |
|  | BIC | 9,069 | 8,894 | 8,430 | 8,464 |

## mir\_recog

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 184.22 (38.26) <.01 | 132.84 (32.32) <.01 | 95.62 (24.46) <.01 | 91.03 (22.26) <.01 |
| ab | Covar (Slopes) | -1.53 (1.06) .15 | -1.43 (1.09) .19 | -1.48 (1.05) .16 | -1.17 (0.92) .20 |
| ab | Covar (Residuals) | 8.30 (7.94) .30 | 7.82 (7.82) .32 | 7.41 (7.26) .31 | 7.58 (6.98) .28 |
| er | Corr (Levels) | 0.54 (0.08) <.01 | 0.49 (0.09) <.01 | 0.47 (0.09) <.01 | 0.48 (0.09) <.01 |
| er | Corr (Slopes) | -0.52 (0.30) .08 | -0.48 (0.31) .12 | -0.49 (0.29) .09 | -0.46 (0.32) .14 |
| er | Corr (Residuals) | 0.08 (0.08) .30 | 0.08 (0.08) .32 | 0.08 (0.07) .31 | 0.08 (0.07) .28 |
| a | Level | 406.20 (15.31) <.01 | 401.29 (15.26) <.01 | 410.23 (14.98) <.01 | 412.80 (23.19) <.01 |
| a | Slope | 8.88 (0.34) <.01 | 8.85 (0.31) <.01 | 9.20 (0.26) <.01 | 8.18 (0.49) <.01 |
| a | Level \* age | -17.64 (3.64) <.01 | -14.19 (3.57) <.01 | -12.46 (3.51) <.01 | -12.20 (3.55) <.01 |
| a | Level \* education | --- | 10.39 (2.05) <.01 | 9.91 (1.92) <.01 | 10.12 (2.03) <.01 |
| a | Level \* height | --- | --- | 231.10 (144.09) .11 | 227.69 (144.22) .11 |
| a | Level \* smoking | --- | --- | --- | -0.61 (20.69) .98 |
| a | Level \* cardio | --- | --- | --- | -11.62 (18.66) .53 |
| a | Level \* diabetes | --- | --- | --- | 42.68 (26.02) .10 |
| a | Slope \* age | 0.32 (0.59) .58 | 0.17 (0.63) .79 | 0.06 (0.65) .93 | -0.44 (0.69) .52 |
| a | Slope \* education | --- | -0.47 (0.64) .47 | -0.64 (0.62) .30 | -0.53 (0.60) .38 |
| a | Slope \* height | --- | --- | 18.45 (22.88) .42 | 23.90 (24.92) .34 |
| a | Slope \* smoking | --- | --- | --- | -6.93 (2.99) .02 |
| a | Slope \* cardio | --- | --- | --- | -2.29 (2.75) .40 |
| a | Slope \* diabetes | --- | --- | --- | -5.47 (3.08) .07 |
| b | Level | -8.31 (2.54) <.01 | -8.18 (2.63) <.01 | -7.85 (2.48) <.01 | -0.79 (3.41) .82 |
| b | Slope | -0.43 (0.08) <.01 | -0.46 (0.08) <.01 | -0.41 (0.08) <.01 | -0.48 (0.12) <.01 |
| b | Level \* age | -0.36 (0.08) <.01 | -0.21 (0.08) .01 | -0.15 (0.07) .04 | -0.12 (0.07) .06 |
| b | Level \* education | --- | 0.22 (0.05) <.01 | 0.19 (0.05) <.01 | 0.18 (0.05) <.01 |
| b | Level \* height | --- | --- | 6.09 (2.54) .02 | 5.34 (2.46) .03 |
| b | Level \* smoking | --- | --- | --- | 0.97 (0.42) .02 |
| b | Level \* cardio | --- | --- | --- | 0.62 (0.32) .05 |
| b | Level \* diabetes | --- | --- | --- | 0.50 (0.47) .28 |
| b | Slope \* age | 0.01 (0.02) .62 | 0.02 (0.02) .33 | 0.01 (0.02) .69 | 0.01 (0.02) .64 |
| b | Slope \* education | --- | 0.02 (0.02) .13 | 0.02 (0.02) .25 | 0.02 (0.02) .33 |
| b | Slope \* height | --- | --- | 0.48 (0.79) .54 | 0.10 (0.81) .90 |
| b | Slope \* smoking | --- | --- | --- | 0.12 (0.11) .31 |
| b | Slope \* cardio | --- | --- | --- | 0.03 (0.10) .74 |
| b | Slope \* diabetes | --- | --- | --- | -0.27 (0.20) .17 |
| a | Var (Level) | 13256.34 (1683.95) <.01 | 12024.70 (1515.13) <.01 | 11222.75 (1414.72) <.01 | 10978.11 (1391.74) <.01 |
| a | Var (Slope) | 54.35 (29.55) .07 | 50.50 (27.62) .07 | 49.12 (28.81) .09 | 37.68 (23.98) .12 |
| a | Var (Residual) | 3298.20 (429.26) <.01 | 3295.83 (429.65) <.01 | 3289.55 (435.39) <.01 | 3292.69 (423.75) <.01 |
| b | Var (Level) | 8.85 (1.22) <.01 | 6.20 (1.01) <.01 | 3.71 (0.75) <.01 | 3.22 (0.58) <.01 |
| b | Var (Slope) | 0.16 (0.05) <.01 | 0.18 (0.05) <.01 | 0.18 (0.05) <.01 | 0.17 (0.04) <.01 |
| b | Var (Residual) | 3.01 (0.50) <.01 | 2.99 (0.49) <.01 | 2.89 (0.48) <.01 | 2.87 (0.46) <.01 |
| a | Covar (Level, Slope) | -447.27 (252.48) .08 | -376.63 (225.62) .10 | -366.02 (206.15) .08 | -359.18 (191.46) .06 |
| b | Covar (Level, Slope) | 0.88 (0.15) <.01 | 0.88 (0.14) <.01 | 0.73 (0.12) <.01 | 0.67 (0.10) <.01 |
|  | Correlation of Levels | 0.538 | 0.487 | 0.468 | 0.484 |
|  | Correlation of Slopes | -0.520 | -0.477 | -0.495 | -0.465 |
|  | Correlation of Residuals | 0.083 | 0.079 | 0.076 | 0.078 |
|  | N | 270 | 249 | 214 | 212 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,606 | -4,474 | -4,188 | -4,164 |
|  | AIC | 9,254 | 8,998 | 8,434 | 8,409 |
|  | BIC | 9,330 | 9,086 | 8,532 | 8,547 |

## mmse

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 863.51 (185.75) <.01 | 453.57 (111.08) <.01 | 269.23 (65.80) <.01 | 237.49 (56.45) <.01 |
| ab | Covar (Slopes) | 1.16 (2.57) .65 | 1.06 (3.25) .74 | 1.72 (3.85) .66 | 0.88 (3.88) .82 |
| ab | Covar (Residuals) | 35.37 (25.11) .16 | 34.93 (25.14) .16 | 31.38 (22.51) .16 | 27.25 (21.82) .21 |
| er | Corr (Levels) | 0.74 (0.08) <.01 | 0.65 (0.10) <.01 | 0.62 (0.09) <.01 | 0.63 (0.09) <.01 |
| er | Corr (Slopes) | 0.13 (0.29) .65 | 0.12 (0.37) .74 | 0.18 (0.39) .64 | 0.11 (0.48) .82 |
| er | Corr (Residuals) | 0.19 (0.14) .18 | 0.19 (0.14) .19 | 0.18 (0.13) .19 | 0.15 (0.13) .23 |
| a | Level | 386.88 (17.91) <.01 | 388.44 (16.67) <.01 | 401.43 (15.97) <.01 | 399.79 (24.48) <.01 |
| a | Slope | 24.59 (0.85) <.01 | 25.20 (0.64) <.01 | 26.40 (0.55) <.01 | 25.40 (0.98) <.01 |
| a | Level \* age | -20.77 (3.90) <.01 | -14.74 (3.44) <.01 | -11.90 (3.51) <.01 | -11.64 (3.54) <.01 |
| a | Level \* education | --- | 10.60 (2.13) <.01 | 9.34 (2.08) <.01 | 9.48 (2.10) <.01 |
| a | Level \* height | --- | --- | 166.82 (151.59) .27 | 197.39 (149.15) .19 |
| a | Level \* smoking | --- | --- | --- | 9.57 (21.41) .66 |
| a | Level \* cardio | --- | --- | --- | -11.73 (19.09) .54 |
| a | Level \* diabetes | --- | --- | --- | 35.56 (26.11) .17 |
| a | Slope \* age | 0.28 (0.59) .64 | 0.01 (0.60) .99 | -0.02 (0.63) .97 | -0.47 (0.67) .49 |
| a | Slope \* education | --- | -0.27 (0.64) .67 | -0.40 (0.61) .51 | -0.36 (0.60) .54 |
| a | Slope \* height | --- | --- | 22.43 (23.69) .34 | 24.46 (25.84) .34 |
| a | Slope \* smoking | --- | --- | --- | -5.30 (3.15) .09 |
| a | Slope \* cardio | --- | --- | --- | -1.97 (2.76) .47 |
| a | Slope \* diabetes | --- | --- | --- | -6.12 (3.33) .07 |
| b | Level | -8.87 (2.95) <.01 | -9.48 (3.07) <.01 | -10.04 (2.87) <.01 | -3.89 (3.99) .33 |
| b | Slope | -0.89 (0.17) <.01 | -1.09 (0.18) <.01 | -1.19 (0.20) <.01 | -1.52 (0.36) <.01 |
| b | Level \* age | -0.75 (0.20) <.01 | -0.27 (0.14) .06 | -0.13 (0.12) .29 | -0.10 (0.12) .39 |
| b | Level \* education | --- | 0.44 (0.09) <.01 | 0.32 (0.09) <.01 | 0.32 (0.08) <.01 |
| b | Level \* height | --- | --- | 6.38 (5.19) .22 | 7.63 (4.64) .10 |
| b | Level \* smoking | --- | --- | --- | 1.26 (0.77) .10 |
| b | Level \* cardio | --- | --- | --- | 0.79 (0.65) .22 |
| b | Level \* diabetes | --- | --- | --- | -0.36 (0.96) .71 |
| b | Slope \* age | -0.11 (0.04) .01 | -0.10 (0.05) .04 | -0.10 (0.05) .06 | -0.09 (0.05) .08 |
| b | Slope \* education | --- | 0.10 (0.03) <.01 | 0.09 (0.04) .01 | 0.08 (0.04) .02 |
| b | Slope \* height | --- | --- | -0.41 (2.04) .84 | -0.80 (2.11) .71 |
| b | Slope \* smoking | --- | --- | --- | 0.55 (0.31) .08 |
| b | Slope \* cardio | --- | --- | --- | -0.00 (0.25) .99 |
| b | Slope \* diabetes | --- | --- | --- | -0.43 (0.43) .32 |
| a | Var (Level) | 19083.41 (3739.35) <.01 | 14514.04 (2382.45) <.01 | 12413.58 (1799.97) <.01 | 11844.42 (1660.42) <.01 |
| a | Var (Slope) | 65.45 (39.22) .10 | 50.99 (27.32) .06 | 45.62 (24.79) .07 | 34.62 (20.95) .10 |
| a | Var (Residual) | 3400.04 (366.21) <.01 | 3397.77 (368.95) <.01 | 3377.00 (379.05) <.01 | 3355.47 (384.10) <.01 |
| b | Var (Level) | 71.97 (7.98) <.01 | 33.55 (5.51) <.01 | 14.97 (3.18) <.01 | 12.09 (2.61) <.01 |
| b | Var (Slope) | 1.21 (0.30) <.01 | 1.49 (0.33) <.01 | 1.92 (0.40) <.01 | 1.84 (0.38) <.01 |
| b | Var (Residual) | 10.29 (1.39) <.01 | 10.25 (1.36) <.01 | 9.40 (1.17) <.01 | 9.30 (1.12) <.01 |
| a | Covar (Level, Slope) | -643.07 (419.56) .12 | -362.24 (283.40) .20 | -243.80 (218.25) .26 | -261.62 (214.00) .22 |
| b | Covar (Level, Slope) | 2.10 (0.89) .02 | 3.74 (0.85) <.01 | 4.70 (0.81) <.01 | 4.26 (0.73) <.01 |
|  | Correlation of Levels | 0.74 | 0.65 | 0.62 | 0.63 |
|  | Correlation of Slopes | 0.13 | 0.12 | 0.18 | 0.11 |
|  | Correlation of Residuals | 0.19 | 0.19 | 0.18 | 0.15 |
|  | N | 308 | 271 | 220 | 216 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -5,737 | -5,383 | -4,854 | -4,809 |
|  | AIC | 11,517 | 10,816 | 9,766 | 9,700 |
|  | BIC | 11,595 | 10,906 | 9,865 | 9,838 |

## prose\_im

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 184.18 (43.30) <.01 | 133.12 (39.90) <.01 | 121.12 (37.79) <.01 | 113.59 (36.62) <.01 |
| ab | Covar (Slopes) | -0.85 (1.03) .41 | -0.94 (0.90) .29 | -0.80 (1.24) .52 | -1.39 (0.95) .14 |
| ab | Covar (Residuals) | 23.84 (15.46) .12 | 25.04 (16.10) .12 | 20.62 (16.72) .22 | 19.11 (16.03) .23 |
| er | Corr (Levels) | 0.41 (0.09) <.01 | 0.34 (0.10) <.01 | 0.33 (0.10) <.01 | 0.32 (0.10) <.01 |
| er | Corr (Slopes) | -0.41 (0.46) .37 | -0.48 (0.36) .19 | -0.36 (0.53) .50 | -0.65 (0.26) .01 |
| er | Corr (Residuals) | 0.18 (0.11) .11 | 0.18 (0.11) .10 | 0.15 (0.12) .20 | 0.14 (0.12) .22 |
| a | Level | 408.76 (14.50) <.01 | 404.59 (14.54) <.01 | 411.46 (14.56) <.01 | 417.78 (22.03) <.01 |
| a | Slope | 8.61 (0.52) <.01 | 8.40 (0.51) <.01 | 8.84 (0.53) <.01 | 8.16 (0.88) <.01 |
| a | Level \* age | -15.04 (3.59) <.01 | -13.25 (3.52) <.01 | -11.65 (3.37) <.01 | -11.39 (3.41) <.01 |
| a | Level \* education | --- | 9.24 (2.11) <.01 | 9.27 (1.85) <.01 | 9.40 (1.94) <.01 |
| a | Level \* height | --- | --- | 206.04 (136.97) .13 | 216.61 (138.63) .12 |
| a | Level \* smoking | --- | --- | --- | -5.25 (20.26) .80 |
| a | Level \* cardio | --- | --- | --- | -12.56 (18.40) .49 |
| a | Level \* diabetes | --- | --- | --- | 35.67 (26.55) .18 |
| a | Slope \* age | 0.18 (0.61) .77 | 0.10 (0.64) .87 | 0.09 (0.67) .89 | -0.47 (0.68) .49 |
| a | Slope \* education | --- | -0.44 (0.64) .49 | -0.60 (0.60) .32 | -0.55 (0.59) .35 |
| a | Slope \* height | --- | --- | 23.58 (22.22) .29 | 24.60 (24.10) .31 |
| a | Slope \* smoking | --- | --- | --- | -6.22 (2.86) .03 |
| a | Slope \* cardio | --- | --- | --- | -2.71 (2.89) .35 |
| a | Slope \* diabetes | --- | --- | --- | -5.76 (3.11) .06 |
| b | Level | -8.60 (2.32) <.01 | -8.40 (2.37) <.01 | -8.30 (2.33) <.01 | -0.64 (2.96) .83 |
| b | Slope | -0.38 (0.09) <.01 | -0.40 (0.09) <.01 | -0.37 (0.11) <.01 | -0.12 (0.17) .49 |
| b | Level \* age | -0.42 (0.10) <.01 | -0.31 (0.10) <.01 | -0.21 (0.12) .08 | -0.19 (0.12) .12 |
| b | Level \* education | --- | 0.56 (0.10) <.01 | 0.54 (0.09) <.01 | 0.54 (0.09) <.01 |
| b | Level \* height | --- | --- | 6.96 (4.89) .15 | 6.59 (4.77) .17 |
| b | Level \* smoking | --- | --- | --- | 0.59 (0.71) .41 |
| b | Level \* cardio | --- | --- | --- | 0.28 (0.60) .64 |
| b | Level \* diabetes | --- | --- | --- | 1.44 (0.82) .08 |
| b | Slope \* age | 0.00 (0.02) .99 | 0.00 (0.02) .87 | -0.01 (0.03) .68 | -0.03 (0.04) .46 |
| b | Slope \* education | --- | 0.01 (0.01) .32 | 0.02 (0.02) .26 | 0.02 (0.01) .24 |
| b | Slope \* height | --- | --- | 0.28 (1.20) .81 | -0.04 (1.22) .97 |
| b | Slope \* smoking | --- | --- | --- | -0.14 (0.14) .31 |
| b | Slope \* cardio | --- | --- | --- | -0.23 (0.14) .10 |
| b | Slope \* diabetes | --- | --- | --- | -0.30 (0.24) .21 |
| a | Var (Level) | 11458.34 (1308.34) <.01 | 10802.16 (1244.48) <.01 | 10449.27 (1273.43) <.01 | 10313.42 (1267.82) <.01 |
| a | Var (Slope) | 52.44 (23.84) .03 | 50.14 (22.52) .03 | 48.44 (25.01) .05 | 41.63 (20.17) .04 |
| a | Var (Residual) | 3298.45 (428.77) <.01 | 3304.69 (424.52) <.01 | 3293.46 (439.72) <.01 | 3299.28 (414.79) <.01 |
| b | Var (Level) | 17.75 (1.61) <.01 | 14.27 (1.47) <.01 | 12.79 (1.58) <.01 | 12.53 (1.61) <.01 |
| b | Var (Slope) | 0.08 (0.06) .14 | 0.07 (0.04) .08 | 0.10 (0.08) .21 | 0.11 (0.07) .14 |
| b | Var (Residual) | 5.46 (0.67) <.01 | 5.64 (0.67) <.01 | 5.47 (0.74) <.01 | 5.30 (0.70) <.01 |
| a | Covar (Level, Slope) | -352.40 (165.65) .03 | -319.52 (155.08) .04 | -315.48 (152.35) .04 | -363.81 (146.70) .01 |
| b | Covar (Level, Slope) | 0.47 (0.20) .02 | 0.48 (0.18) .01 | 0.47 (0.22) .04 | 0.39 (0.20) .05 |
|  | Correlation of Levels | 0.41 | 0.34 | 0.33 | 0.32 |
|  | Correlation of Slopes | -0.41 | -0.48 | -0.36 | -0.65 |
|  | Correlation of Residuals | 0.18 | 0.18 | 0.15 | 0.14 |
|  | N | 266 | 251 | 212 | 210 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,512 | -4,426 | -4,148 | -4,128 |
|  | AIC | 9,066 | 8,903 | 8,354 | 8,339 |
|  | BIC | 9,142 | 8,991 | 8,451 | 8,476 |

## psif

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

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

## symbol

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 587.50 (109.67) <.01 | 451.12 (98.45) <.01 | 437.85 (94.90) <.01 | 441.69 (92.35) <.01 |
| ab | Covar (Slopes) | 3.30 (2.68) .22 | 3.09 (2.63) .24 | 4.60 (2.45) .06 | 4.78 (1.95) .01 |
| ab | Covar (Residuals) | -0.57 (18.90) .98 | -0.17 (19.01) .99 | -2.54 (18.00) .89 | -1.03 (17.69) .95 |
| er | Corr (Levels) | 0.47 (0.07) <.01 | 0.42 (0.08) <.01 | 0.43 (0.08) <.01 | 0.44 (0.07) <.01 |
| er | Corr (Slopes) | 0.38 (0.29) .18 | 0.36 (0.29) .21 | 0.55 (0.23) .02 | 0.64 (0.14) <.01 |
| er | Corr (Residuals) | -0.00 (0.07) .98 | -0.00 (0.07) .99 | -0.01 (0.07) .89 | -0.00 (0.07) .95 |
| a | Level | 411.72 (14.70) <.01 | 407.30 (14.67) <.01 | 412.79 (14.67) <.01 | 413.47 (22.58) <.01 |
| a | Slope | 23.32 (1.50) <.01 | 22.42 (1.38) <.01 | 23.25 (1.40) <.01 | 25.11 (2.36) <.01 |
| a | Level \* age | -14.15 (3.68) <.01 | -12.64 (3.56) <.01 | -11.45 (3.44) <.01 | -11.22 (3.50) <.01 |
| a | Level \* education | --- | 9.20 (1.98) <.01 | 9.27 (1.86) <.01 | 9.39 (1.94) <.01 |
| a | Level \* height | --- | --- | 207.06 (139.74) .14 | 211.87 (141.40) .13 |
| a | Level \* smoking | --- | --- | --- | -0.14 (20.30) .99 |
| a | Level \* cardio | --- | --- | --- | -11.91 (18.21) .51 |
| a | Level \* diabetes | --- | --- | --- | 41.03 (26.06) .12 |
| a | Slope \* age | 0.29 (0.61) .63 | 0.21 (0.64) .74 | 0.33 (0.67) .62 | -0.28 (0.69) .69 |
| a | Slope \* education | --- | -0.34 (0.63) .60 | -0.50 (0.60) .40 | -0.44 (0.58) .45 |
| a | Slope \* height | --- | --- | 23.99 (24.20) .32 | 26.11 (25.65) .31 |
| a | Slope \* smoking | --- | --- | --- | -7.19 (2.73) .01 |
| a | Slope \* cardio | --- | --- | --- | -2.59 (2.69) .33 |
| a | Slope \* diabetes | --- | --- | --- | -7.20 (3.16) .02 |
| b | Level | -10.09 (2.35) <.01 | -9.99 (2.41) <.01 | -10.24 (2.38) <.01 | -1.50 (2.86) .60 |
| b | Slope | -1.00 (0.24) <.01 | -1.00 (0.25) <.01 | -1.07 (0.26) <.01 | -0.69 (0.37) .06 |
| b | Level \* age | -0.97 (0.36) .01 | -0.56 (0.37) .12 | -0.56 (0.37) .13 | -0.59 (0.37) .11 |
| b | Level \* education | --- | 1.99 (0.26) <.01 | 2.04 (0.26) <.01 | 2.11 (0.26) <.01 |
| b | Level \* height | --- | --- | 27.27 (12.12) .02 | 26.82 (12.31) .03 |
| b | Level \* smoking | --- | --- | --- | -2.67 (1.91) .16 |
| b | Level \* cardio | --- | --- | --- | -0.14 (1.64) .93 |
| b | Level \* diabetes | --- | --- | --- | 1.45 (2.89) .62 |
| b | Slope \* age | 0.03 (0.06) .67 | 0.02 (0.06) .71 | 0.06 (0.06) .29 | 0.03 (0.06) .56 |
| b | Slope \* education | --- | 0.03 (0.05) .54 | 0.04 (0.05) .45 | 0.02 (0.05) .60 |
| b | Slope \* height | --- | --- | -1.20 (2.08) .57 | -1.88 (2.20) .39 |
| b | Slope \* smoking | --- | --- | --- | -0.13 (0.36) .73 |
| b | Slope \* cardio | --- | --- | --- | -0.28 (0.30) .36 |
| b | Slope \* diabetes | --- | --- | --- | -0.92 (0.82) .26 |
| a | Var (Level) | 11446.65 (1329.09) <.01 | 10842.51 (1272.43) <.01 | 10472.86 (1284.89) <.01 | 10401.00 (1286.41) <.01 |
| a | Var (Slope) | 51.18 (24.52) .04 | 50.66 (24.78) .04 | 49.75 (24.10) .04 | 42.19 (16.94) .01 |
| a | Var (Residual) | 3279.10 (421.83) <.01 | 3276.74 (423.41) <.01 | 3275.46 (417.41) <.01 | 3272.46 (392.77) <.01 |
| b | Var (Level) | 136.02 (15.12) <.01 | 105.49 (13.66) <.01 | 100.19 (13.86) <.01 | 98.41 (13.26) <.01 |
| b | Var (Slope) | 1.46 (0.74) .05 | 1.42 (0.73) .05 | 1.39 (0.75) .06 | 1.34 (0.61) .03 |
| b | Var (Residual) | 20.47 (2.58) <.01 | 20.63 (2.60) <.01 | 20.50 (2.69) <.01 | 20.45 (2.68) <.01 |
| a | Covar (Level, Slope) | -297.62 (170.62) .08 | -280.54 (163.10) .08 | -262.10 (148.31) .08 | -305.16 (134.12) .02 |
| b | Covar (Level, Slope) | -2.54 (1.99) .20 | -2.75 (2.03) .18 | -2.62 (1.99) .19 | -3.10 (2.08) .14 |
|  | Correlation of Levels | 0.4708 | 0.42182 | 0.4274 | 0.437 |
|  | Correlation of Slopes | 0.3822 | 0.36358 | 0.5530 | 0.635 |
|  | Correlation of Residuals | -0.0022 | -0.00067 | -0.0098 | -0.004 |
|  | N | 229 | 222 | 203 | 202 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,760 | -4,695 | -4,501 | -4,489 |
|  | AIC | 9,562 | 9,440 | 9,061 | 9,060 |
|  | BIC | 9,635 | 9,525 | 9,157 | 9,196 |

## synonyms

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 155.65 (64.79) .02 | 80.83 (55.87) .15 | 98.82 (53.10) .06 | 95.24 (50.49) .06 |
| ab | Covar (Slopes) | -0.24 (0.65) .71 | -0.36 (0.62) .56 | -0.14 (0.76) .85 | -0.09 (0.69) .90 |
| ab | Covar (Residuals) | 2.01 (14.20) .89 | 1.49 (14.13) .92 | 2.02 (15.23) .90 | 6.06 (14.79) .68 |
| er | Corr (Levels) | 0.24 (0.09) .01 | 0.15 (0.10) .14 | 0.19 (0.10) .05 | 0.20 (0.10) .05 |
| er | Corr (Slopes) | -0.15 (0.41) .72 | -0.21 (0.38) .58 | -0.09 (0.50) .86 | -0.05 (0.39) .90 |
| er | Corr (Residuals) | 0.01 (0.10) .89 | 0.01 (0.10) .92 | 0.01 (0.10) .89 | 0.04 (0.10) .68 |
| a | Level | 417.04 (14.44) <.01 | 411.77 (14.46) <.01 | 416.43 (14.61) <.01 | 423.53 (22.22) <.01 |
| a | Slope | 15.23 (0.83) <.01 | 14.62 (0.75) <.01 | 14.80 (0.78) <.01 | 17.62 (1.18) <.01 |
| a | Level \* age | -13.24 (3.68) <.01 | -12.10 (3.52) <.01 | -11.18 (3.42) <.01 | -10.96 (3.48) <.01 |
| a | Level \* education | --- | 8.61 (1.99) <.01 | 8.54 (1.85) <.01 | 8.78 (1.93) <.01 |
| a | Level \* height | --- | --- | 205.21 (141.34) .15 | 218.87 (143.19) .13 |
| a | Level \* smoking | --- | --- | --- | -7.96 (20.37) .70 |
| a | Level \* cardio | --- | --- | --- | -10.88 (18.31) .55 |
| a | Level \* diabetes | --- | --- | --- | 31.54 (26.97) .24 |
| a | Slope \* age | 0.16 (0.61) .79 | 0.07 (0.63) .91 | 0.11 (0.65) .86 | -0.47 (0.67) .48 |
| a | Slope \* education | --- | -0.47 (0.61) .45 | -0.61 (0.59) .30 | -0.53 (0.59) .37 |
| a | Slope \* height | --- | --- | 23.26 (23.09) .31 | 26.09 (25.21) .30 |
| a | Slope \* smoking | --- | --- | --- | -6.35 (2.85) .03 |
| a | Slope \* cardio | --- | --- | --- | -2.15 (2.87) .45 |
| a | Slope \* diabetes | --- | --- | --- | -4.53 (3.14) .15 |
| b | Level | -9.13 (2.14) <.01 | -8.90 (2.20) <.01 | -8.69 (2.18) <.01 | -1.46 (2.93) .62 |
| b | Slope | -0.28 (0.11) .01 | -0.31 (0.11) <.01 | -0.29 (0.12) .01 | -0.52 (0.20) .01 |
| b | Level \* age | 0.12 (0.22) .59 | 0.22 (0.20) .29 | 0.22 (0.20) .28 | 0.17 (0.20) .40 |
| b | Level \* education | --- | 1.18 (0.13) <.01 | 1.17 (0.12) <.01 | 1.25 (0.12) <.01 |
| b | Level \* height | --- | --- | 8.42 (6.54) .20 | 9.07 (6.70) .18 |
| b | Level \* smoking | --- | --- | --- | -3.44 (1.03) <.01 |
| b | Level \* cardio | --- | --- | --- | -0.22 (0.90) .81 |
| b | Level \* diabetes | --- | --- | --- | -1.69 (1.33) .20 |
| b | Slope \* age | -0.01 (0.04) .78 | 0.00 (0.04) .99 | 0.00 (0.04) .99 | 0.01 (0.04) .85 |
| b | Slope \* education | --- | 0.02 (0.02) .27 | 0.02 (0.02) .21 | 0.02 (0.02) .42 |
| b | Slope \* height | --- | --- | 0.36 (1.08) .73 | 0.10 (1.10) .93 |
| b | Slope \* smoking | --- | --- | --- | 0.26 (0.15) .09 |
| b | Slope \* cardio | --- | --- | --- | 0.02 (0.13) .88 |
| b | Slope \* diabetes | --- | --- | --- | -0.19 (0.26) .46 |
| a | Var (Level) | 11268.70 (1308.09) <.01 | 10713.56 (1246.10) <.01 | 10425.58 (1276.66) <.01 | 10321.43 (1283.29) <.01 |
| a | Var (Slope) | 49.76 (25.22) .05 | 48.67 (25.17) .05 | 46.83 (26.00) .07 | 41.19 (23.34) .08 |
| a | Var (Residual) | 3290.41 (434.29) <.01 | 3288.03 (434.64) <.01 | 3282.60 (440.28) <.01 | 3272.21 (433.76) <.01 |
| b | Var (Level) | 38.30 (3.73) <.01 | 27.25 (2.92) <.01 | 25.64 (3.01) <.01 | 23.00 (2.61) <.01 |
| b | Var (Slope) | 0.05 (0.02) .03 | 0.06 (0.02) .02 | 0.05 (0.04) .18 | 0.08 (0.04) .08 |
| b | Var (Residual) | 6.75 (0.76) <.01 | 6.76 (0.76) <.01 | 6.46 (0.70) <.01 | 6.24 (0.65) <.01 |
| a | Covar (Level, Slope) | -343.08 (165.51) .04 | -316.81 (157.93) .04 | -313.83 (154.75) .04 | -349.38 (151.43) .02 |
| b | Covar (Level, Slope) | -0.14 (0.35) .70 | -0.34 (0.27) .22 | -0.19 (0.29) .50 | -0.06 (0.30) .83 |
|  | Correlation of Levels | 0.237 | 0.15 | 0.191 | 0.195 |
|  | Correlation of Slopes | -0.148 | -0.21 | -0.091 | -0.049 |
|  | Correlation of Residuals | 0.013 | 0.01 | 0.014 | 0.042 |
|  | N | 212 | 210 | 194 | 194 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,227 | -4,185 | -4,021 | -4,008 |
|  | AIC | 8,496 | 8,420 | 8,101 | 8,097 |
|  | BIC | 8,567 | 8,504 | 8,195 | 8,231 |

## Summary

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

Computed correlations:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Levels | block | 0.49 | 0.45 | 0.43 | 0.44 |
| Correlation of Levels | clock | 0.46 | 0.40 | 0.35 | 0.37 |
| Correlation of Levels | digit\_b | 0.44 | 0.37 | 0.38 | 0.38 |
| Correlation of Levels | digit\_f | 0.19 | 0.07 | 0.07 | 0.07 |
| Correlation of Levels | fig\_logic | 0.50 | 0.47 | 0.43 | 0.42 |
| Correlation of Levels | information | 0.29 | 0.21 | 0.21 | 0.22 |
| Correlation of Levels | mir | 0.54 | 0.51 | 0.51 | 0.52 |
| Correlation of Levels | mir\_recog | 0.54 | 0.49 | 0.47 | 0.48 |
| Correlation of Levels | mmse | 0.74 | 0.65 | 0.62 | 0.63 |
| Correlation of Levels | prose\_im | 0.41 | 0.34 | 0.33 | 0.32 |
| Correlation of Levels | psif | . | . | . | . |
| Correlation of Levels | symbol | 0.47 | 0.42 | 0.43 | 0.44 |
| Correlation of Levels | synonyms | 0.24 | 0.15 | 0.19 | 0.20 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Slopes | block | 0.62 | 0.60 | 0.67 | 0.63 |
| Correlation of Slopes | clock | -0.11 | -0.07 | 0.03 | -0.08 |
| Correlation of Slopes | digit\_b | -0.28 | -0.30 | -0.40 | -0.40 |
| Correlation of Slopes | digit\_f | -0.18 | -0.19 | -0.13 | -0.15 |
| Correlation of Slopes | fig\_logic | 0.86 | 0.86 | 0.58 | 0.48 |
| Correlation of Slopes | information | 0.09 | 0.12 | 0.14 | 0.10 |
| Correlation of Slopes | mir | 0.33 | 0.33 | 0.44 | 0.40 |
| Correlation of Slopes | mir\_recog | -0.52 | -0.48 | -0.50 | -0.47 |
| Correlation of Slopes | mmse | 0.13 | 0.12 | 0.18 | 0.11 |
| Correlation of Slopes | prose\_im | -0.41 | -0.48 | -0.36 | -0.65 |
| Correlation of Slopes | psif | . | . | . | . |
| Correlation of Slopes | symbol | 0.38 | 0.36 | 0.55 | 0.63 |
| Correlation of Slopes | synonyms | -0.15 | -0.21 | -0.09 | -0.05 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Residuals | block | 0.11 | 0.12 | 0.13 | 0.14 |
| Correlation of Residuals | clock | 0.14 | 0.14 | 0.15 | 0.16 |
| Correlation of Residuals | digit\_b | -0.01 | -0.00 | -0.00 | -0.00 |
| Correlation of Residuals | digit\_f | -0.05 | -0.04 | -0.05 | -0.05 |
| Correlation of Residuals | fig\_logic | -0.08 | -0.08 | -0.07 | -0.05 |
| Correlation of Residuals | information | 0.10 | 0.10 | 0.09 | 0.09 |
| Correlation of Residuals | mir | -0.04 | -0.05 | -0.07 | -0.07 |
| Correlation of Residuals | mir\_recog | 0.08 | 0.08 | 0.08 | 0.08 |
| Correlation of Residuals | mmse | 0.19 | 0.19 | 0.18 | 0.15 |
| Correlation of Residuals | prose\_im | 0.18 | 0.18 | 0.15 | 0.14 |
| Correlation of Residuals | psif | . | . | . | . |
| Correlation of Residuals | symbol | -0.00 | -0.00 | -0.01 | -0.00 |
| Correlation of Residuals | synonyms | 0.01 | 0.01 | 0.01 | 0.04 |

P-values for corresponding covariances:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Levels | block | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | clock | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | digit\_b | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | digit\_f | 0.17 | 0.59 | 0.56 | 0.62 |
| Covariance of Levels | fig\_logic | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | information | 0.00 | 0.02 | 0.03 | 0.02 |
| Covariance of Levels | mir | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | mir\_recog | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | mmse | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | prose\_im | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | psif | . | . | . | . |
| Covariance of Levels | symbol | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | synonyms | 0.02 | 0.15 | 0.06 | 0.06 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Slopes | block | 0.07 | 0.09 | 0.07 | 0.10 |
| Covariance of Slopes | clock | 0.77 | 0.84 | 0.93 | 0.84 |
| Covariance of Slopes | digit\_b | 0.56 | 0.55 | 0.46 | 0.41 |
| Covariance of Slopes | digit\_f | 0.67 | 0.60 | 0.76 | 0.73 |
| Covariance of Slopes | fig\_logic | 0.02 | 0.02 | 0.10 | 0.17 |
| Covariance of Slopes | information | 0.81 | 0.75 | 0.71 | 0.78 |
| Covariance of Slopes | mir | 0.12 | 0.13 | 0.03 | 0.01 |
| Covariance of Slopes | mir\_recog | 0.15 | 0.19 | 0.16 | 0.20 |
| Covariance of Slopes | mmse | 0.65 | 0.74 | 0.66 | 0.82 |
| Covariance of Slopes | prose\_im | 0.41 | 0.29 | 0.52 | 0.14 |
| Covariance of Slopes | psif | . | . | . | . |
| Covariance of Slopes | symbol | 0.22 | 0.24 | 0.06 | 0.01 |
| Covariance of Slopes | synonyms | 0.71 | 0.56 | 0.85 | 0.90 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Residuals | block | 0.06 | 0.05 | 0.04 | 0.03 |
| Covariance of Residuals | clock | 0.24 | 0.26 | 0.22 | 0.20 |
| Covariance of Residuals | digit\_b | 0.94 | 0.96 | 0.99 | 0.99 |
| Covariance of Residuals | digit\_f | 0.51 | 0.54 | 0.48 | 0.44 |
| Covariance of Residuals | fig\_logic | 0.28 | 0.28 | 0.38 | 0.49 |
| Covariance of Residuals | information | 0.19 | 0.18 | 0.21 | 0.20 |
| Covariance of Residuals | mir | 0.56 | 0.54 | 0.38 | 0.33 |
| Covariance of Residuals | mir\_recog | 0.30 | 0.32 | 0.31 | 0.28 |
| Covariance of Residuals | mmse | 0.16 | 0.16 | 0.16 | 0.21 |
| Covariance of Residuals | prose\_im | 0.12 | 0.12 | 0.22 | 0.23 |
| Covariance of Residuals | psif | . | . | . | . |
| Covariance of Residuals | symbol | 0.98 | 0.99 | 0.89 | 0.95 |
| Covariance of Residuals | synonyms | 0.89 | 0.92 | 0.90 | 0.68 |

#Session Info

R version 3.3.2 (2016-10-31)  
Platform: x86\_64-w64-mingw32/x64 (64-bit)  
Running under: Windows >= 8 x64 (build 9200)  
  
locale:  
[1] LC\_COLLATE=English\_United States.1252 LC\_CTYPE=English\_United States.1252 LC\_MONETARY=English\_United States.1252  
[4] LC\_NUMERIC=C LC\_TIME=English\_United States.1252   
  
attached base packages:  
[1] stats graphics grDevices utils datasets methods base   
  
other attached packages:  
[1] ggplot2\_2.2.1 magrittr\_1.5 knitr\_1.15.1   
  
loaded via a namespace (and not attached):  
 [1] Rcpp\_0.12.9 munsell\_0.4.3 testit\_0.6 colorspace\_1.3-2 R6\_2.2.0 highr\_0.6   
 [7] stringr\_1.1.0 plyr\_1.8.4 dplyr\_0.5.0 tools\_3.3.2 DT\_0.2 grid\_3.3.2   
[13] gtable\_0.2.0 DBI\_0.5-1 htmltools\_0.3.5 yaml\_2.1.14 lazyeval\_0.2.0 assertthat\_0.1   
[19] rprojroot\_1.2 digest\_0.6.12 tibble\_1.2 readr\_1.0.0 tidyr\_0.6.1 htmlwidgets\_0.8   
[25] rsconnect\_0.7 evaluate\_0.10 rmarkdown\_1.3 stringi\_1.1.2 scales\_0.4.1 backports\_1.0.5