OCTO : Seed Report (dem\_entry\_0)

Date: 2017-05-02

Table of Contents

|  |  |  |  |
| --- | --- | --- | --- |
| 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) | 108.72 (32.52) <.01 | 19.79 (10.13) .05 | 6.97 (6.04) .25 | 0.29 (4.68) .95 | 35.31 (20.05) .08 | 56.23 (50.63) .27 | 24.90 (11.34) .03 | 3.69 (6.03) .54 | 11.33 (12.90) .38 | 24.30 (15.76) .12 | --- | 222.62 (45.56) <.01 | 36.34 (25.53) .15 | --- |
| ab | Covar (Slopes) | 0.26 (0.64) .69 | 0.43 (0.69) .54 | -0.09 (0.20) .65 | -0.09 (0.18) .62 | 0.07 (0.58) .90 | 0.26 (0.87) .76 | 0.38 (0.42) .37 | 0.36 (0.60) .56 | 0.36 (1.44) .80 | -0.42 (0.64) .51 | --- | 2.49 (1.02) .01 | 0.69 (0.61) .26 | --- |
| ab | Covar (Residuals) | 25.42 (8.32) <.01 | 16.30 (7.61) .03 | 4.22 (2.76) .13 | 1.87 (1.89) .32 | 9.88 (7.95) .21 | 5.92 (10.23) .56 | 3.53 (3.76) .35 | 6.51 (4.78) .17 | 29.73 (10.47) <.01 | 12.18 (6.42) .06 | --- | 7.29 (13.00) .57 | -8.56 (6.37) .18 | --- |
| er | Corr (Levels) | 0.30 (0.08) <.01 | 0.24 (0.11) .02 | 0.14 (0.12) .25 | 0.01 (0.10) .95 | 0.21 (0.11) .07 | 0.09 (0.08) .27 | 0.20 (0.09) .02 | 0.07 (0.11) .50 | 0.11 (0.12) .37 | 0.14 (0.09) .12 | --- | 0.41 (0.07) <.01 | 0.13 (0.09) .15 | --- |
| er | Corr (Slopes) | 0.11 (0.28) .68 | 0.16 (0.26) .53 | -0.18 (0.40) .66 | -0.13 (0.26) .63 | 0.08 (0.66) .90 | 0.07 (0.25) .76 | 0.21 (0.23) .36 | 0.17 (0.28) .54 | 0.08 (0.32) .80 | -0.19 (0.28) .51 | --- | 0.65 (0.17) <.01 | 0.31 (0.31) .31 | --- |
| er | Corr (Residuals) | 0.16 (0.05) <.01 | 0.16 (0.07) .03 | 0.08 (0.05) .13 | 0.05 (0.05) .32 | 0.07 (0.06) .21 | 0.03 (0.05) .56 | 0.05 (0.06) .34 | 0.13 (0.09) .15 | 0.23 (0.07) <.01 | 0.12 (0.06) .06 | --- | 0.03 (0.05) .57 | -0.07 (0.05) .18 | --- |
| a | Level | 325.56 (8.26) <.01 | 323.80 (8.43) <.01 | 324.18 (8.41) <.01 | 324.17 (8.34) <.01 | 325.49 (8.33) <.01 | 325.10 (8.31) <.01 | 324.39 (8.34) <.01 | 324.93 (8.35) <.01 | 323.74 (8.40) <.01 | 324.50 (8.26) <.01 | --- | 324.80 (8.32) <.01 | 325.32 (8.32) <.01 | 324.66(0.63) |
| a | Slope | 13.92 (0.74) <.01 | 14.66 (0.25) <.01 | 3.70 (0.14) <.01 | 5.64 (0.12) <.01 | 16.71 (0.44) <.01 | 28.05 (1.20) <.01 | 7.37 (0.26) <.01 | 9.77 (0.14) <.01 | 28.70 (0.28) <.01 | 10.78 (0.40) <.01 | --- | 26.90 (1.18) <.01 | 16.47 (0.68) <.01 | 15.22(8.66) |
| a | Level \* age | -5.98 (1.84) <.01 | -5.73 (1.87) <.01 | -5.72 (1.90) <.01 | -5.48 (1.89) <.01 | -5.76 (1.87) <.01 | -5.68 (1.88) <.01 | -5.66 (1.88) <.01 | -5.83 (1.87) <.01 | -5.86 (1.86) <.01 | -5.68 (1.87) <.01 | --- | -5.79 (1.85) <.01 | -5.68 (1.88) <.01 | -5.74(0.12) |
| a | Level \* education | 6.70 (2.37) <.01 | 6.75 (2.38) <.01 | 6.81 (2.38) <.01 | 6.52 (2.39) .01 | 6.65 (2.38) <.01 | 6.60 (2.38) .01 | 6.71 (2.37) <.01 | 6.69 (2.38) <.01 | 6.97 (2.38) <.01 | 6.83 (2.38) <.01 | --- | 6.72 (2.41) <.01 | 6.60 (2.40) .01 | 6.71(0.12) |
| a | Level \* height | 290.76 (92.07) <.01 | 282.06 (92.92) <.01 | 285.16 (92.00) <.01 | 287.66 (92.42) <.01 | 284.77 (91.78) <.01 | 283.13 (91.88) <.01 | 284.64 (92.32) <.01 | 293.05 (92.13) <.01 | 289.90 (93.20) <.01 | 285.06 (92.17) <.01 | --- | 291.13 (91.56) <.01 | 284.36 (92.10) <.01 | 286.81(3.57) |
| a | Level \* smoking | -35.75 (10.89) <.01 | -35.59 (10.88) <.01 | -33.87 (10.95) <.01 | -34.42 (10.92) <.01 | -34.56 (10.91) <.01 | -34.94 (11.00) <.01 | -34.03 (10.81) <.01 | -34.74 (10.79) <.01 | -34.87 (10.86) <.01 | -35.26 (10.83) <.01 | --- | -34.64 (10.79) <.01 | -35.00 (10.91) <.01 | -34.81(0.56) |
| a | Level \* cardio | -3.17 (9.06) .73 | -2.02 (9.09) .82 | -3.94 (9.10) .66 | -3.20 (9.11) .72 | -3.46 (9.18) .71 | -3.26 (9.16) .72 | -2.68 (9.03) .77 | -2.88 (9.03) .75 | -2.65 (9.08) .77 | -3.42 (9.11) .71 | --- | -3.48 (9.13) .70 | -3.28 (9.19) .72 | -3.12(0.50) |
| a | Level \* diabetes | -6.03 (15.15) .69 | -7.05 (15.34) .65 | -5.78 (15.17) .70 | -6.27 (15.52) .69 | -6.65 (15.38) .67 | -7.76 (15.26) .61 | -8.28 (15.21) .59 | -7.07 (15.02) .64 | -8.74 (15.32) .57 | -7.55 (15.39) .62 | --- | -4.87 (15.29) .75 | -7.73 (15.53) .62 | -6.98(1.12) |
| a | Slope \* age | 0.74 (0.31) .02 | 0.74 (0.31) .02 | 0.81 (0.32) .01 | 0.82 (0.31) .01 | 0.82 (0.31) .01 | 0.78 (0.31) .01 | 0.76 (0.31) .01 | 0.78 (0.32) .01 | 0.71 (0.32) .02 | 0.79 (0.31) .01 | --- | 0.80 (0.31) .01 | 0.81 (0.32) .01 | 0.78(0.04) |
| a | Slope \* education | -0.19 (0.41) .65 | -0.22 (0.42) .59 | -0.29 (0.42) .49 | -0.28 (0.42) .51 | -0.29 (0.42) .50 | -0.24 (0.42) .57 | -0.13 (0.43) .76 | -0.20 (0.44) .65 | -0.25 (0.38) .51 | -0.25 (0.42) .55 | --- | -0.20 (0.44) .65 | -0.30 (0.42) .47 | -0.24(0.05) |
| a | Slope \* height | -16.90 (18.35) .36 | -18.85 (18.87) .32 | -18.39 (18.67) .32 | -17.24 (18.82) .36 | -16.45 (18.76) .38 | -19.04 (19.10) .32 | -17.45 (18.72) .35 | -17.76 (19.05) .35 | -20.76 (19.02) .28 | -17.08 (19.14) .37 | --- | -17.66 (18.87) .35 | -17.27 (18.93) .36 | -17.90(1.19) |
| a | Slope \* smoking | -3.04 (1.91) .11 | -3.10 (1.90) .10 | -2.88 (1.90) .13 | -2.75 (1.91) .15 | -2.83 (1.90) .14 | -2.91 (1.90) .12 | -2.99 (1.85) .11 | -2.66 (1.90) .16 | -3.01 (1.88) .11 | -2.95 (1.89) .12 | --- | -2.69 (1.93) .16 | -2.78 (1.90) .14 | -2.88(0.14) |
| a | Slope \* cardio | -2.00 (1.52) .19 | -2.21 (1.50) .14 | -1.89 (1.53) .22 | -1.77 (1.55) .25 | -1.74 (1.54) .26 | -2.09 (1.54) .17 | -1.97 (1.52) .20 | -2.11 (1.55) .17 | -1.99 (1.54) .20 | -2.03 (1.51) .18 | --- | -1.82 (1.54) .24 | -1.79 (1.55) .25 | -1.95(0.15) |
| a | Slope \* diabetes | 2.66 (2.46) .28 | 3.20 (2.63) .22 | 3.31 (2.70) .22 | 3.23 (2.65) .22 | 3.55 (2.49) .15 | 3.07 (2.65) .25 | 2.84 (2.54) .26 | 2.66 (2.67) .32 | 2.89 (2.44) .24 | 3.48 (2.48) .16 | --- | 1.70 (2.95) .56 | 3.67 (2.58) .15 | 3.02(0.53) |
| b | Level | -7.62 (1.31) <.01 | -7.62 (1.38) <.01 | -7.20 (1.33) <.01 | -7.31 (1.33) <.01 | -7.38 (1.33) <.01 | -7.32 (1.32) <.01 | -7.62 (1.31) <.01 | -7.62 (1.42) <.01 | -8.09 (1.44) <.01 | -7.36 (1.33) <.01 | --- | -7.38 (1.30) <.01 | -7.32 (1.31) <.01 | --- |
| b | Slope | -0.23 (0.11) .03 | -0.27 (0.08) <.01 | -0.10 (0.03) <.01 | -0.11 (0.02) <.01 | -0.12 (0.08) .15 | -0.18 (0.14) .20 | -0.11 (0.06) .06 | -0.08 (0.05) .11 | -0.52 (0.13) <.01 | -0.13 (0.08) .10 | --- | -0.26 (0.18) .14 | -0.04 (0.10) .65 | --- |
| b | Level \* age | -0.49 (0.14) <.01 | -0.10 (0.05) .04 | -0.09 (0.03) <.01 | -0.08 (0.02) <.01 | -0.20 (0.10) .04 | -0.61 (0.24) .01 | -0.19 (0.05) <.01 | -0.03 (0.03) .31 | -0.22 (0.06) <.01 | -0.24 (0.08) <.01 | --- | -0.81 (0.26) <.01 | -0.06 (0.14) .63 | --- |
| b | Level \* education | 0.85 (0.19) <.01 | 0.10 (0.05) .04 | 0.14 (0.04) <.01 | 0.13 (0.03) <.01 | 0.29 (0.12) .02 | 2.39 (0.27) <.01 | 0.12 (0.07) .10 | 0.08 (0.03) .01 | 0.36 (0.07) <.01 | 0.50 (0.10) <.01 | --- | 1.90 (0.35) <.01 | 1.32 (0.13) <.01 | --- |
| b | Level \* height | 3.76 (6.35) .55 | -0.27 (2.99) .93 | -0.18 (1.43) .90 | 0.54 (0.94) .57 | 1.09 (4.31) .80 | 4.97 (11.78) .67 | -1.23 (2.49) .62 | -3.19 (1.44) .03 | 3.27 (3.18) .30 | -0.08 (3.74) .98 | --- | 8.53 (11.01) .44 | 9.99 (5.90) .09 | --- |
| b | Level \* smoking | -1.02 (0.88) .25 | -0.10 (0.23) .66 | -0.14 (0.19) .48 | -0.06 (0.14) .66 | -1.21 (0.60) .04 | 1.64 (1.34) .22 | 0.09 (0.32) .79 | -0.20 (0.18) .28 | -0.45 (0.40) .26 | 0.38 (0.49) .44 | --- | 0.13 (1.59) .93 | 0.78 (0.71) .27 | --- |
| b | Level \* cardio | -0.32 (0.69) .64 | 0.03 (0.23) .90 | 0.14 (0.14) .31 | 0.07 (0.12) .56 | -0.33 (0.46) .47 | 1.37 (1.11) .22 | 0.04 (0.26) .86 | 0.06 (0.14) .64 | -0.13 (0.32) .69 | 0.22 (0.39) .56 | --- | 1.25 (1.14) .27 | 0.46 (0.61) .46 | --- |
| b | Level \* diabetes | 0.63 (1.75) .72 | -0.15 (0.40) .70 | 0.01 (0.26) .96 | 0.11 (0.23) .62 | 0.31 (1.03) .76 | -2.30 (2.60) .38 | -0.09 (0.54) .86 | 0.07 (0.25) .78 | -1.02 (0.79) .19 | -1.93 (0.99) .05 | --- | -0.77 (2.30) .74 | -2.10 (1.23) .09 | --- |
| b | Slope \* age | -0.03 (0.02) .23 | -0.05 (0.02) .01 | 0.01 (0.01) .34 | 0.00 (0.00) .46 | -0.01 (0.02) .48 | -0.06 (0.03) .03 | -0.02 (0.01) .16 | -0.03 (0.01) .04 | -0.06 (0.03) .01 | 0.00 (0.02) .99 | --- | -0.04 (0.04) .39 | -0.00 (0.02) .96 | --- |
| b | Slope \* education | -0.01 (0.03) .87 | 0.04 (0.02) .03 | 0.01 (0.01) .23 | 0.00 (0.01) .93 | -0.02 (0.03) .42 | -0.01 (0.04) .85 | 0.01 (0.02) .42 | 0.03 (0.01) <.01 | 0.04 (0.04) .32 | 0.01 (0.02) .69 | --- | -0.01 (0.06) .81 | -0.00 (0.03) .91 | --- |
| b | Slope \* height | 1.14 (0.78) .15 | -0.50 (0.85) .56 | 0.24 (0.26) .36 | -0.02 (0.25) .94 | 0.63 (0.83) .45 | 2.02 (1.45) .16 | 0.90 (0.58) .12 | 0.47 (0.55) .39 | -0.06 (1.26) .96 | 0.72 (0.94) .44 | --- | 1.96 (1.81) .28 | 0.23 (0.94) .81 | --- |
| b | Slope \* smoking | 0.01 (0.15) .97 | -0.05 (0.11) .69 | 0.02 (0.03) .52 | 0.03 (0.04) .40 | 0.20 (0.12) .09 | -0.15 (0.20) .43 | -0.09 (0.09) .32 | 0.00 (0.05) .98 | -0.07 (0.18) .69 | -0.24 (0.11) .03 | --- | -0.34 (0.24) .16 | -0.08 (0.15) .59 | --- |
| b | Slope \* cardio | -0.12 (0.12) .29 | -0.08 (0.09) .35 | -0.04 (0.03) .14 | 0.00 (0.03) .91 | 0.05 (0.10) .58 | -0.47 (0.14) <.01 | -0.09 (0.06) .15 | -0.06 (0.06) .32 | -0.13 (0.14) .35 | -0.16 (0.09) .08 | --- | -0.59 (0.19) <.01 | -0.08 (0.11) .47 | --- |
| b | Slope \* diabetes | -0.09 (0.17) .59 | -0.09 (0.17) .60 | -0.03 (0.07) .64 | -0.04 (0.06) .44 | 0.12 (0.15) .42 | 0.00 (0.39) .99 | -0.06 (0.14) .65 | -0.11 (0.14) .43 | -0.07 (0.22) .76 | 0.11 (0.16) .48 | --- | 0.41 (0.65) .53 | -0.06 (0.21) .78 | --- |
| a | Var (Level) | 4216.89 (467.10) <.01 | 4262.12 (482.20) <.01 | 4222.91 (474.98) <.01 | 4231.74 (473.89) <.01 | 4235.76 (472.77) <.01 | 4215.96 (472.92) <.01 | 4214.85 (469.81) <.01 | 4194.49 (483.33) <.01 | 4223.52 (475.71) <.01 | 4239.20 (474.05) <.01 | --- | 4221.64 (461.71) <.01 | 4215.12 (470.88) <.01 | 4224.52(16.61) |
| a | Var (Slope) | 26.12 (13.52) .05 | 26.45 (14.55) .07 | 27.88 (14.20) .05 | 28.25 (14.21) .05 | 28.38 (14.39) .05 | 28.24 (14.38) .05 | 25.59 (13.32) .06 | 30.69 (15.11) .04 | 22.75 (12.19) .06 | 27.95 (14.10) .05 | --- | 27.91 (12.60) .03 | 28.54 (14.37) .05 | 27.39(1.97) |
| a | Var (Residual) | 2156.52 (166.57) <.01 | 2183.71 (171.11) <.01 | 2158.35 (165.46) <.01 | 2151.99 (164.32) <.01 | 2148.58 (164.35) <.01 | 2153.89 (166.19) <.01 | 2157.25 (166.08) <.01 | 2170.01 (176.73) <.01 | 2240.23 (184.12) <.01 | 2154.26 (166.82) <.01 | --- | 2143.43 (163.21) <.01 | 2152.24 (165.49) <.01 | 2164.21(26.13) |
| b | Var (Level) | 31.41 (2.98) <.01 | 1.63 (0.66) .01 | 0.62 (0.16) <.01 | 0.48 (0.07) <.01 | 6.88 (1.18) <.01 | 90.61 (7.59) <.01 | 3.70 (0.48) <.01 | 0.61 (0.35) .08 | 2.48 (0.73) <.01 | 7.68 (0.95) <.01 | --- | 69.72 (6.98) <.01 | 18.32 (2.15) <.01 | --- |
| b | Var (Slope) | 0.20 (0.07) <.01 | 0.26 (0.06) <.01 | 0.01 (0.01) .10 | 0.02 (0.00) <.01 | 0.03 (0.03) .44 | 0.44 (0.14) <.01 | 0.13 (0.02) <.01 | 0.14 (0.03) <.01 | 0.89 (0.18) <.01 | 0.18 (0.04) <.01 | --- | 0.53 (0.15) <.01 | 0.17 (0.06) <.01 | --- |
| b | Var (Residual) | 11.02 (0.78) <.01 | 4.84 (0.53) <.01 | 1.29 (0.10) <.01 | 0.69 (0.05) <.01 | 9.32 (0.62) <.01 | 17.56 (1.40) <.01 | 1.98 (0.15) <.01 | 1.20 (0.22) <.01 | 7.39 (0.92) <.01 | 5.07 (0.39) <.01 | --- | 28.32 (2.02) <.01 | 6.82 (0.53) <.01 | --- |
| a | Covar (Level, Slope) | -149.63 (79.37) .06 | -138.47 (84.05) .10 | -163.74 (80.68) .04 | -165.12 (80.86) .04 | -166.70 (81.70) .04 | -165.72 (81.58) .04 | -141.66 (79.74) .08 | -138.41 (84.66) .10 | -107.83 (82.03) .19 | -162.13 (81.31) .05 | --- | -157.40 (75.82) .04 | -166.94 (81.22) .04 | -151.98(17.84) |
| b | Covar (Level, Slope) | -0.61 (0.35) .08 | 0.63 (0.11) <.01 | -0.01 (0.02) .62 | -0.02 (0.02) .18 | -0.09 (0.16) .59 | 1.22 (0.65) .06 | 0.15 (0.06) .01 | 0.15 (0.05) <.01 | 1.13 (0.26) <.01 | -0.05 (0.13) .69 | --- | -0.83 (0.84) .32 | -0.21 (0.26) .43 | --- |
|  | Correlation of Levels | 0.30 | 0.24 | 0.14 | 0.0065 | 0.207 | 0.091 | 0.199 | 0.073 | 0.111 | 0.13 | NaN | 0.41 | 0.131 | 0.17(0.11) |
|  | Correlation of Slopes | 0.11 | 0.16 | -0.18 | -0.1284 | 0.081 | 0.075 | 0.211 | 0.170 | 0.079 | -0.19 | NaN | 0.65 | 0.310 | 0.11(0.23) |
|  | Correlation of Residuals | 0.16 | 0.16 | 0.08 | 0.0487 | 0.070 | 0.030 | 0.054 | 0.128 | 0.231 | 0.12 | NaN | 0.03 | -0.071 | 0.09(0.08) |
|  | N | 340 | 345 | 347 | 347 | 331 | 344 | 340 | 340 | 347 | 336 | NA | 328 | 328 | 339.42(7.19) |
|  | 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 | -7,843 | -7,627 | -6,756 | -6,479 | -7,128 | -8,378 | -7,076 | -6,734 | -8,111 | -7,291 | NA | -7,819 | -7,072 | -7,360( 593) |
|  | AIC | 15,769 | 15,337 | 13,593 | 13,040 | 14,337 | 16,838 | 14,234 | 13,550 | 16,304 | 14,665 | NA | 15,719 | 14,226 | 14,801(1,187) |
|  | BIC | 15,926 | 15,494 | 13,751 | 13,198 | 14,493 | 16,996 | 14,391 | 13,707 | 16,462 | 14,821 | NA | 15,875 | 14,381 | 14,958(1,187) |

## block

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 143.02 (35.89) <.01 | 128.10 (35.34) <.01 | 113.59 (33.92) <.01 | 108.72 (32.52) <.01 |
| ab | Covar (Slopes) | 0.38 (0.63) .54 | 0.36 (0.64) .57 | 0.41 (0.64) .52 | 0.26 (0.64) .69 |
| ab | Covar (Residuals) | 25.01 (8.16) <.01 | 25.12 (8.20) <.01 | 25.18 (8.33) <.01 | 25.42 (8.32) <.01 |
| er | Corr (Levels) | 0.35 (0.08) <.01 | 0.32 (0.08) <.01 | 0.30 (0.08) <.01 | 0.30 (0.08) <.01 |
| er | Corr (Slopes) | 0.15 (0.25) .54 | 0.14 (0.26) .58 | 0.17 (0.26) .52 | 0.11 (0.28) .68 |
| 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 | 306.35 (6.91) <.01 | 305.92 (6.94) <.01 | 314.12 (7.35) <.01 | 325.56 (8.26) <.01 |
| a | Slope | 13.30 (0.64) <.01 | 13.17 (0.60) <.01 | 13.51 (0.64) <.01 | 13.92 (0.74) <.01 |
| a | Level \* age | -6.11 (1.77) <.01 | -5.98 (1.81) <.01 | -5.58 (1.81) <.01 | -5.98 (1.84) <.01 |
| a | Level \* education | --- | 4.29 (2.39) .07 | 4.39 (2.27) .05 | 6.70 (2.37) <.01 |
| a | Level \* height | --- | --- | 275.38 (93.67) <.01 | 290.76 (92.07) <.01 |
| a | Level \* smoking | --- | --- | --- | -35.75 (10.89) <.01 |
| a | Level \* cardio | --- | --- | --- | -3.17 (9.06) .73 |
| a | Level \* diabetes | --- | --- | --- | -6.03 (15.15) .69 |
| a | Slope \* age | 0.86 (0.32) .01 | 0.85 (0.32) .01 | 0.81 (0.30) .01 | 0.74 (0.31) .02 |
| a | Slope \* education | --- | -0.40 (0.36) .28 | -0.33 (0.37) .37 | -0.19 (0.41) .65 |
| a | Slope \* height | --- | --- | -17.48 (18.53) .35 | -16.90 (18.35) .36 |
| a | Slope \* smoking | --- | --- | --- | -3.04 (1.91) .11 |
| a | Slope \* cardio | --- | --- | --- | -2.00 (1.52) .19 |
| a | Slope \* diabetes | --- | --- | --- | 2.66 (2.46) .28 |
| b | Level | -8.81 (1.06) <.01 | -8.75 (1.05) <.01 | -9.17 (1.12) <.01 | -7.62 (1.31) <.01 |
| b | Slope | -0.29 (0.08) <.01 | -0.29 (0.08) <.01 | -0.28 (0.09) <.01 | -0.23 (0.11) .03 |
| b | Level \* age | -0.53 (0.14) <.01 | -0.49 (0.13) <.01 | -0.48 (0.14) <.01 | -0.49 (0.14) <.01 |
| b | Level \* education | --- | 0.76 (0.19) <.01 | 0.80 (0.19) <.01 | 0.85 (0.19) <.01 |
| b | Level \* height | --- | --- | 3.35 (6.42) .60 | 3.76 (6.35) .55 |
| b | Level \* smoking | --- | --- | --- | -1.02 (0.88) .25 |
| b | Level \* cardio | --- | --- | --- | -0.32 (0.69) .64 |
| b | Level \* diabetes | --- | --- | --- | 0.63 (1.75) .72 |
| b | Slope \* age | -0.04 (0.02) .09 | -0.04 (0.02) .09 | -0.03 (0.02) .19 | -0.03 (0.02) .23 |
| b | Slope \* education | --- | 0.00 (0.03) .97 | -0.00 (0.03) .92 | -0.01 (0.03) .87 |
| b | Slope \* height | --- | --- | 1.21 (0.79) .12 | 1.14 (0.78) .15 |
| b | Slope \* smoking | --- | --- | --- | 0.01 (0.15) .97 |
| b | Slope \* cardio | --- | --- | --- | -0.12 (0.12) .29 |
| b | Slope \* diabetes | --- | --- | --- | -0.09 (0.17) .59 |
| a | Var (Level) | 4835.40 (499.43) <.01 | 4743.02 (490.17) <.01 | 4405.15 (476.19) <.01 | 4216.89 (467.10) <.01 |
| a | Var (Slope) | 32.06 (14.51) .03 | 30.60 (14.52) .04 | 29.71 (14.62) .04 | 26.12 (13.52) .05 |
| a | Var (Residual) | 2128.96 (164.88) <.01 | 2137.03 (165.07) <.01 | 2152.13 (166.82) <.01 | 2156.52 (166.57) <.01 |
| b | Var (Level) | 35.35 (3.13) <.01 | 32.91 (3.01) <.01 | 31.64 (3.02) <.01 | 31.41 (2.98) <.01 |
| b | Var (Slope) | 0.21 (0.06) <.01 | 0.21 (0.06) <.01 | 0.20 (0.07) <.01 | 0.20 (0.07) <.01 |
| b | Var (Residual) | 10.89 (0.75) <.01 | 10.90 (0.76) <.01 | 11.02 (0.78) <.01 | 11.02 (0.78) <.01 |
| a | Covar (Level, Slope) | -166.34 (91.20) .07 | -157.85 (90.23) .08 | -141.88 (86.03) .10 | -149.63 (79.37) .06 |
| b | Covar (Level, Slope) | -0.65 (0.34) .05 | -0.64 (0.34) .06 | -0.64 (0.35) .07 | -0.61 (0.35) .08 |
|  | Correlation of Levels | 0.35 | 0.32 | 0.30 | 0.30 |
|  | Correlation of Slopes | 0.15 | 0.14 | 0.17 | 0.11 |
|  | Correlation of Residuals | 0.16 | 0.16 | 0.16 | 0.16 |
|  | N | 366 | 364 | 340 | 340 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -8,096 | -8,075 | -7,856 | -7,843 |
|  | AIC | 16,234 | 16,201 | 15,770 | 15,769 |
|  | BIC | 16,316 | 16,298 | 15,881 | 15,926 |

## clock

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 42.28 (21.21) .05 | 30.62 (16.98) .07 | 20.84 (11.52) .07 | 19.79 (10.13) .05 |
| ab | Covar (Slopes) | 0.25 (0.87) .78 | 0.37 (0.87) .67 | 0.34 (0.76) .66 | 0.43 (0.69) .54 |
| ab | Covar (Residuals) | 17.27 (8.16) .03 | 17.28 (8.22) .04 | 15.46 (7.70) .04 | 16.30 (7.61) .03 |
| er | Corr (Levels) | 0.27 (0.12) .03 | 0.24 (0.12) .05 | 0.24 (0.12) .05 | 0.24 (0.11) .02 |
| er | Corr (Slopes) | 0.08 (0.29) .77 | 0.13 (0.30) .67 | 0.12 (0.28) .66 | 0.16 (0.26) .53 |
| er | Corr (Residuals) | 0.16 (0.07) .03 | 0.16 (0.07) .03 | 0.15 (0.07) .04 | 0.16 (0.07) .03 |
| a | Level | 304.46 (7.11) <.01 | 304.71 (7.10) <.01 | 312.85 (7.50) <.01 | 323.80 (8.43) <.01 |
| a | Slope | 14.45 (0.24) <.01 | 14.52 (0.23) <.01 | 14.64 (0.18) <.01 | 14.66 (0.25) <.01 |
| a | Level \* age | -5.97 (1.82) <.01 | -5.87 (1.84) <.01 | -5.33 (1.85) <.01 | -5.73 (1.87) <.01 |
| a | Level \* education | --- | 4.09 (2.40) .09 | 4.41 (2.28) .05 | 6.75 (2.38) <.01 |
| a | Level \* height | --- | --- | 267.02 (94.48) <.01 | 282.06 (92.92) <.01 |
| a | Level \* smoking | --- | --- | --- | -35.59 (10.88) <.01 |
| a | Level \* cardio | --- | --- | --- | -2.02 (9.09) .82 |
| a | Level \* diabetes | --- | --- | --- | -7.05 (15.34) .65 |
| a | Slope \* age | 0.87 (0.34) .01 | 0.86 (0.33) .01 | 0.82 (0.31) .01 | 0.74 (0.31) .02 |
| a | Slope \* education | --- | -0.44 (0.37) .24 | -0.36 (0.38) .34 | -0.22 (0.42) .59 |
| a | Slope \* height | --- | --- | -19.62 (18.91) .30 | -18.85 (18.87) .32 |
| a | Slope \* smoking | --- | --- | --- | -3.10 (1.90) .10 |
| a | Slope \* cardio | --- | --- | --- | -2.21 (1.50) .14 |
| a | Slope \* diabetes | --- | --- | --- | 3.20 (2.63) .22 |
| b | Level | -8.76 (1.15) <.01 | -8.78 (1.12) <.01 | -9.27 (1.18) <.01 | -7.62 (1.38) <.01 |
| b | Slope | -0.29 (0.07) <.01 | -0.30 (0.07) <.01 | -0.32 (0.07) <.01 | -0.27 (0.08) <.01 |
| b | Level \* age | -0.16 (0.06) .01 | -0.14 (0.06) .02 | -0.10 (0.05) .04 | -0.10 (0.05) .04 |
| b | Level \* education | --- | 0.08 (0.06) .18 | 0.10 (0.05) .05 | 0.10 (0.05) .04 |
| b | Level \* height | --- | --- | -0.25 (3.05) .93 | -0.27 (2.99) .93 |
| b | Level \* smoking | --- | --- | --- | -0.10 (0.23) .66 |
| b | Level \* cardio | --- | --- | --- | 0.03 (0.23) .90 |
| b | Level \* diabetes | --- | --- | --- | -0.15 (0.40) .70 |
| b | Slope \* age | -0.05 (0.02) <.01 | -0.05 (0.02) <.01 | -0.05 (0.02) <.01 | -0.05 (0.02) .01 |
| b | Slope \* education | --- | 0.04 (0.02) .06 | 0.04 (0.02) .03 | 0.04 (0.02) .03 |
| b | Slope \* height | --- | --- | -0.47 (0.85) .58 | -0.50 (0.85) .56 |
| b | Slope \* smoking | --- | --- | --- | -0.05 (0.11) .69 |
| b | Slope \* cardio | --- | --- | --- | -0.08 (0.09) .35 |
| b | Slope \* diabetes | --- | --- | --- | -0.09 (0.17) .60 |
| a | Var (Level) | 4977.30 (555.37) <.01 | 4819.14 (519.17) <.01 | 4451.88 (491.75) <.01 | 4262.12 (482.20) <.01 |
| a | Var (Slope) | 31.46 (14.75) .03 | 30.04 (14.31) .04 | 29.44 (14.37) .04 | 26.45 (14.55) .07 |
| a | Var (Residual) | 2168.97 (170.50) <.01 | 2176.21 (170.44) <.01 | 2178.20 (170.36) <.01 | 2183.71 (171.11) <.01 |
| b | Var (Level) | 5.01 (1.53) <.01 | 3.32 (1.26) .01 | 1.64 (0.99) .10 | 1.63 (0.66) .01 |
| b | Var (Slope) | 0.27 (0.07) <.01 | 0.27 (0.07) <.01 | 0.26 (0.06) <.01 | 0.26 (0.06) <.01 |
| b | Var (Residual) | 5.03 (0.65) <.01 | 5.07 (0.66) <.01 | 4.84 (0.59) <.01 | 4.84 (0.53) <.01 |
| a | Covar (Level, Slope) | -158.75 (102.38) .12 | -144.36 (96.58) .14 | -128.82 (89.05) .15 | -138.47 (84.05) .10 |
| b | Covar (Level, Slope) | 0.62 (0.24) .01 | 0.66 (0.22) <.01 | 0.63 (0.13) <.01 | 0.63 (0.11) <.01 |
|  | Correlation of Levels | 0.268 | 0.24 | 0.24 | 0.24 |
|  | Correlation of Slopes | 0.084 | 0.13 | 0.12 | 0.16 |
|  | Correlation of Residuals | 0.165 | 0.16 | 0.15 | 0.16 |
|  | N | 379 | 374 | 345 | 345 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -8,006 | -7,947 | -7,639 | -7,627 |
|  | AIC | 16,054 | 15,943 | 15,336 | 15,337 |
|  | BIC | 16,137 | 16,042 | 15,448 | 15,494 |

## digit\_b

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 9.85 (6.89) .15 | 7.70 (6.53) .24 | 7.86 (6.22) .21 | 6.97 (6.04) .25 |
| ab | Covar (Slopes) | -0.13 (0.22) .56 | -0.09 (0.21) .66 | -0.08 (0.21) .70 | -0.09 (0.20) .65 |
| ab | Covar (Residuals) | 3.81 (2.77) .17 | 3.73 (2.77) .18 | 3.85 (2.77) .16 | 4.22 (2.76) .13 |
| er | Corr (Levels) | 0.16 (0.11) .15 | 0.14 (0.12) .24 | 0.15 (0.12) .21 | 0.14 (0.12) .25 |
| er | Corr (Slopes) | -0.20 (0.34) .56 | -0.15 (0.35) .66 | -0.14 (0.37) .70 | -0.18 (0.40) .66 |
| er | Corr (Residuals) | 0.07 (0.05) .17 | 0.07 (0.05) .18 | 0.07 (0.05) .17 | 0.08 (0.05) .13 |
| a | Level | 304.81 (7.08) <.01 | 304.61 (7.09) <.01 | 312.90 (7.48) <.01 | 324.18 (8.41) <.01 |
| a | Slope | 3.65 (0.12) <.01 | 3.64 (0.11) <.01 | 3.73 (0.12) <.01 | 3.70 (0.14) <.01 |
| a | Level \* age | -5.59 (1.84) <.01 | -5.55 (1.87) <.01 | -5.33 (1.86) <.01 | -5.72 (1.90) <.01 |
| a | Level \* education | --- | 4.54 (2.39) .06 | 4.65 (2.29) .04 | 6.81 (2.38) <.01 |
| a | Level \* height | --- | --- | 270.60 (93.52) <.01 | 285.16 (92.00) <.01 |
| a | Level \* smoking | --- | --- | --- | -33.87 (10.95) <.01 |
| a | Level \* cardio | --- | --- | --- | -3.94 (9.10) .66 |
| a | Level \* diabetes | --- | --- | --- | -5.78 (15.17) .70 |
| a | Slope \* age | 0.93 (0.32) <.01 | 0.92 (0.32) <.01 | 0.89 (0.31) <.01 | 0.81 (0.32) .01 |
| a | Slope \* education | --- | -0.49 (0.37) .19 | -0.42 (0.38) .28 | -0.29 (0.42) .49 |
| a | Slope \* height | --- | --- | -18.69 (18.87) .32 | -18.39 (18.67) .32 |
| a | Slope \* smoking | --- | --- | --- | -2.88 (1.90) .13 |
| a | Slope \* cardio | --- | --- | --- | -1.89 (1.53) .22 |
| a | Slope \* diabetes | --- | --- | --- | 3.31 (2.70) .22 |
| b | Level | -8.19 (1.04) <.01 | -8.17 (1.03) <.01 | -8.70 (1.12) <.01 | -7.20 (1.33) <.01 |
| b | Slope | -0.10 (0.02) <.01 | -0.10 (0.02) <.01 | -0.11 (0.02) <.01 | -0.10 (0.03) <.01 |
| b | Level \* age | -0.07 (0.03) .01 | -0.07 (0.02) <.01 | -0.09 (0.02) <.01 | -0.09 (0.03) <.01 |
| b | Level \* education | --- | 0.13 (0.03) <.01 | 0.12 (0.03) <.01 | 0.14 (0.04) <.01 |
| b | Level \* height | --- | --- | -0.18 (1.43) .90 | -0.18 (1.43) .90 |
| b | Level \* smoking | --- | --- | --- | -0.14 (0.19) .48 |
| b | Level \* cardio | --- | --- | --- | 0.14 (0.14) .31 |
| b | Level \* diabetes | --- | --- | --- | 0.01 (0.26) .96 |
| b | Slope \* age | -0.00 (0.01) .90 | 0.00 (0.01) .94 | 0.00 (0.01) .43 | 0.01 (0.01) .34 |
| b | Slope \* education | --- | 0.01 (0.01) .16 | 0.01 (0.01) .11 | 0.01 (0.01) .23 |
| b | Slope \* height | --- | --- | 0.25 (0.26) .32 | 0.24 (0.26) .36 |
| b | Slope \* smoking | --- | --- | --- | 0.02 (0.03) .52 |
| b | Slope \* cardio | --- | --- | --- | -0.04 (0.03) .14 |
| b | Slope \* diabetes | --- | --- | --- | -0.03 (0.07) .64 |
| a | Var (Level) | 4820.98 (504.60) <.01 | 4720.13 (491.80) <.01 | 4406.58 (484.63) <.01 | 4222.91 (474.98) <.01 |
| a | Var (Slope) | 33.28 (14.64) .02 | 31.84 (14.79) .03 | 31.26 (15.04) .04 | 27.88 (14.20) .05 |
| a | Var (Residual) | 2141.23 (164.45) <.01 | 2146.41 (164.12) <.01 | 2154.96 (165.26) <.01 | 2158.35 (165.46) <.01 |
| b | Var (Level) | 0.76 (0.16) <.01 | 0.68 (0.15) <.01 | 0.63 (0.15) <.01 | 0.62 (0.16) <.01 |
| b | Var (Slope) | 0.01 (0.00) .02 | 0.01 (0.00) .05 | 0.01 (0.01) .06 | 0.01 (0.01) .10 |
| b | Var (Residual) | 1.28 (0.10) <.01 | 1.29 (0.10) <.01 | 1.29 (0.10) <.01 | 1.29 (0.10) <.01 |
| a | Covar (Level, Slope) | -182.17 (90.65) .04 | -171.16 (90.12) .06 | -154.94 (87.03) .07 | -163.74 (80.68) .04 |
| b | Covar (Level, Slope) | -0.01 (0.02) .57 | -0.01 (0.02) .48 | -0.01 (0.02) .49 | -0.01 (0.02) .62 |
|  | Correlation of Levels | 0.163 | 0.136 | 0.149 | 0.14 |
|  | Correlation of Slopes | -0.203 | -0.159 | -0.136 | -0.18 |
|  | Correlation of Residuals | 0.073 | 0.071 | 0.073 | 0.08 |
|  | N | 378 | 376 | 347 | 347 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -6,990 | -6,968 | -6,768 | -6,756 |
|  | AIC | 14,022 | 13,985 | 13,595 | 13,593 |
|  | BIC | 14,104 | 14,084 | 13,706 | 13,751 |

## digit\_f

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 2.23 (5.51) .69 | 0.03 (5.03) .99 | 0.82 (4.73) .86 | 0.29 (4.68) .95 |
| ab | Covar (Slopes) | -0.16 (0.20) .43 | -0.14 (0.20) .50 | -0.11 (0.19) .56 | -0.09 (0.18) .62 |
| ab | Covar (Residuals) | 2.38 (2.05) .25 | 2.29 (2.02) .26 | 1.88 (1.92) .33 | 1.87 (1.89) .32 |
| er | Corr (Levels) | 0.04 (0.10) .69 | 0.00 (0.10) .99 | 0.02 (0.10) .86 | 0.01 (0.10) .95 |
| er | Corr (Slopes) | -0.20 (0.26) .43 | -0.18 (0.26) .50 | -0.15 (0.26) .56 | -0.13 (0.26) .63 |
| er | Corr (Residuals) | 0.06 (0.05) .24 | 0.06 (0.05) .26 | 0.05 (0.05) .33 | 0.05 (0.05) .32 |
| a | Level | 305.29 (7.01) <.01 | 305.33 (7.00) <.01 | 313.04 (7.44) <.01 | 324.17 (8.34) <.01 |
| a | Slope | 5.60 (0.10) <.01 | 5.59 (0.10) <.01 | 5.66 (0.10) <.01 | 5.64 (0.12) <.01 |
| a | Level \* age | -5.36 (1.85) <.01 | -5.43 (1.86) <.01 | -5.08 (1.87) .01 | -5.48 (1.89) <.01 |
| a | Level \* education | --- | 4.01 (2.41) .10 | 4.28 (2.29) .06 | 6.52 (2.39) .01 |
| a | Level \* height | --- | --- | 272.42 (93.91) <.01 | 287.66 (92.42) <.01 |
| a | Level \* smoking | --- | --- | --- | -34.42 (10.92) <.01 |
| a | Level \* cardio | --- | --- | --- | -3.20 (9.11) .72 |
| a | Level \* diabetes | --- | --- | --- | -6.27 (15.52) .69 |
| a | Slope \* age | 0.93 (0.32) <.01 | 0.93 (0.32) <.01 | 0.89 (0.31) <.01 | 0.82 (0.31) .01 |
| a | Slope \* education | --- | -0.47 (0.37) .21 | -0.41 (0.38) .28 | -0.28 (0.42) .51 |
| a | Slope \* height | --- | --- | -17.77 (18.94) .35 | -17.24 (18.82) .36 |
| a | Slope \* smoking | --- | --- | --- | -2.75 (1.91) .15 |
| a | Slope \* cardio | --- | --- | --- | -1.77 (1.55) .25 |
| a | Slope \* diabetes | --- | --- | --- | 3.23 (2.65) .22 |
| b | Level | -8.21 (1.04) <.01 | -8.21 (1.02) <.01 | -8.64 (1.12) <.01 | -7.31 (1.33) <.01 |
| b | Slope | -0.10 (0.02) <.01 | -0.10 (0.02) <.01 | -0.10 (0.02) <.01 | -0.11 (0.02) <.01 |
| b | Level \* age | -0.07 (0.02) <.01 | -0.06 (0.02) <.01 | -0.08 (0.02) <.01 | -0.08 (0.02) <.01 |
| b | Level \* education | --- | 0.13 (0.02) <.01 | 0.12 (0.02) <.01 | 0.13 (0.03) <.01 |
| b | Level \* height | --- | --- | 0.49 (0.94) .60 | 0.54 (0.94) .57 |
| b | Level \* smoking | --- | --- | --- | -0.06 (0.14) .66 |
| b | Level \* cardio | --- | --- | --- | 0.07 (0.12) .56 |
| b | Level \* diabetes | --- | --- | --- | 0.11 (0.23) .62 |
| b | Slope \* age | -0.00 (0.00) .82 | -0.00 (0.00) .78 | 0.00 (0.00) .60 | 0.00 (0.00) .46 |
| b | Slope \* education | --- | -0.00 (0.01) .78 | 0.00 (0.01) .75 | 0.00 (0.01) .93 |
| b | Slope \* height | --- | --- | 0.01 (0.26) .96 | -0.02 (0.25) .94 |
| b | Slope \* smoking | --- | --- | --- | 0.03 (0.04) .40 |
| b | Slope \* cardio | --- | --- | --- | 0.00 (0.03) .91 |
| b | Slope \* diabetes | --- | --- | --- | -0.04 (0.06) .44 |
| a | Var (Level) | 4814.84 (503.30) <.01 | 4723.92 (491.20) <.01 | 4411.47 (483.90) <.01 | 4231.74 (473.89) <.01 |
| a | Var (Slope) | 33.31 (14.57) .02 | 31.87 (14.65) .03 | 31.59 (14.97) .04 | 28.25 (14.21) .05 |
| a | Var (Residual) | 2139.55 (163.72) <.01 | 2144.58 (163.42) <.01 | 2151.69 (164.35) <.01 | 2151.99 (164.32) <.01 |
| b | Var (Level) | 0.58 (0.08) <.01 | 0.49 (0.07) <.01 | 0.48 (0.07) <.01 | 0.48 (0.07) <.01 |
| b | Var (Slope) | 0.02 (0.01) <.01 | 0.02 (0.01) <.01 | 0.02 (0.00) <.01 | 0.02 (0.00) <.01 |
| b | Var (Residual) | 0.73 (0.05) <.01 | 0.72 (0.05) <.01 | 0.69 (0.05) <.01 | 0.69 (0.05) <.01 |
| a | Covar (Level, Slope) | -183.45 (90.00) .04 | -172.65 (89.33) .05 | -158.28 (86.50) .07 | -165.12 (80.86) .04 |
| b | Covar (Level, Slope) | -0.02 (0.02) .29 | -0.02 (0.02) .25 | -0.02 (0.02) .20 | -0.02 (0.02) .18 |
|  | Correlation of Levels | 0.042 | 0.00058 | 0.018 | 0.0065 |
|  | Correlation of Slopes | -0.201 | -0.17734 | -0.149 | -0.1284 |
|  | Correlation of Residuals | 0.060 | 0.05807 | 0.049 | 0.0487 |
|  | N | 379 | 376 | 347 | 347 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -6,739 | -6,705 | -6,491 | -6,479 |
|  | AIC | 13,520 | 13,461 | 13,040 | 13,040 |
|  | BIC | 13,602 | 13,559 | 13,152 | 13,198 |

## fig\_logic

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 48.41 (21.34) .02 | 44.50 (20.29) .03 | 39.78 (20.61) .05 | 35.31 (20.05) .08 |
| ab | Covar (Slopes) | -0.03 (0.61) .96 | -0.04 (0.62) .95 | 0.00 (0.63) .99 | 0.07 (0.58) .90 |
| ab | Covar (Residuals) | 10.46 (7.99) .19 | 10.09 (7.96) .20 | 9.90 (8.02) .22 | 9.88 (7.95) .21 |
| er | Corr (Levels) | 0.25 (0.11) .02 | 0.24 (0.10) .02 | 0.22 (0.11) .05 | 0.21 (0.11) .07 |
| er | Corr (Slopes) | -0.04 (0.68) .96 | -0.04 (0.66) .95 | 0.00 (0.64) .99 | 0.08 (0.66) .90 |
| er | Corr (Residuals) | 0.07 (0.06) .18 | 0.07 (0.06) .20 | 0.07 (0.06) .21 | 0.07 (0.06) .21 |
| a | Level | 306.71 (6.94) <.01 | 306.48 (6.98) <.01 | 314.26 (7.40) <.01 | 325.49 (8.33) <.01 |
| a | Slope | 16.15 (0.38) <.01 | 16.12 (0.38) <.01 | 16.29 (0.39) <.01 | 16.71 (0.44) <.01 |
| a | Level \* age | -5.64 (1.81) <.01 | -5.67 (1.84) <.01 | -5.36 (1.85) <.01 | -5.76 (1.87) <.01 |
| a | Level \* education | --- | 4.36 (2.37) .07 | 4.42 (2.29) .05 | 6.65 (2.38) <.01 |
| a | Level \* height | --- | --- | 269.54 (93.45) <.01 | 284.77 (91.78) <.01 |
| a | Level \* smoking | --- | --- | --- | -34.56 (10.91) <.01 |
| a | Level \* cardio | --- | --- | --- | -3.46 (9.18) .71 |
| a | Level \* diabetes | --- | --- | --- | -6.65 (15.38) .67 |
| a | Slope \* age | 0.95 (0.32) <.01 | 0.95 (0.32) <.01 | 0.91 (0.31) <.01 | 0.82 (0.31) .01 |
| a | Slope \* education | --- | -0.48 (0.37) .19 | -0.42 (0.38) .27 | -0.29 (0.42) .50 |
| a | Slope \* height | --- | --- | -17.29 (18.88) .36 | -16.45 (18.76) .38 |
| a | Slope \* smoking | --- | --- | --- | -2.83 (1.90) .14 |
| a | Slope \* cardio | --- | --- | --- | -1.74 (1.54) .26 |
| a | Slope \* diabetes | --- | --- | --- | 3.55 (2.49) .15 |
| b | Level | -8.41 (1.06) <.01 | -8.36 (1.04) <.01 | -8.77 (1.12) <.01 | -7.38 (1.33) <.01 |
| b | Slope | -0.07 (0.07) .29 | -0.07 (0.07) .31 | -0.06 (0.07) .43 | -0.12 (0.08) .15 |
| b | Level \* age | -0.18 (0.09) .06 | -0.17 (0.09) .07 | -0.18 (0.10) .05 | -0.20 (0.10) .04 |
| b | Level \* education | --- | 0.23 (0.11) .04 | 0.22 (0.11) .06 | 0.29 (0.12) .02 |
| b | Level \* height | --- | --- | 0.92 (4.37) .83 | 1.09 (4.31) .80 |
| b | Level \* smoking | --- | --- | --- | -1.21 (0.60) .04 |
| b | Level \* cardio | --- | --- | --- | -0.33 (0.46) .47 |
| b | Level \* diabetes | --- | --- | --- | 0.31 (1.03) .76 |
| b | Slope \* age | -0.01 (0.02) .44 | -0.01 (0.02) .46 | -0.01 (0.02) .48 | -0.01 (0.02) .48 |
| b | Slope \* education | --- | -0.01 (0.03) .82 | -0.01 (0.03) .78 | -0.02 (0.03) .42 |
| b | Slope \* height | --- | --- | 0.55 (0.81) .50 | 0.63 (0.83) .45 |
| b | Slope \* smoking | --- | --- | --- | 0.20 (0.12) .09 |
| b | Slope \* cardio | --- | --- | --- | 0.05 (0.10) .58 |
| b | Slope \* diabetes | --- | --- | --- | 0.12 (0.15) .42 |
| a | Var (Level) | 4816.74 (496.32) <.01 | 4725.11 (486.30) <.01 | 4411.79 (481.09) <.01 | 4235.76 (472.77) <.01 |
| a | Var (Slope) | 34.05 (14.91) .02 | 32.47 (14.97) .03 | 31.95 (15.23) .04 | 28.38 (14.39) .05 |
| a | Var (Residual) | 2128.57 (163.63) <.01 | 2135.78 (163.34) <.01 | 2146.18 (164.66) <.01 | 2148.58 (164.35) <.01 |
| b | Var (Level) | 7.56 (1.24) <.01 | 7.23 (1.19) <.01 | 7.06 (1.19) <.01 | 6.88 (1.18) <.01 |
| b | Var (Slope) | 0.02 (0.04) .53 | 0.03 (0.04) .48 | 0.03 (0.04) .44 | 0.03 (0.03) .44 |
| b | Var (Residual) | 9.28 (0.64) <.01 | 9.21 (0.63) <.01 | 9.32 (0.64) <.01 | 9.32 (0.62) <.01 |
| a | Covar (Level, Slope) | -184.49 (90.85) .04 | -174.09 (90.17) .05 | -158.66 (87.44) .07 | -166.70 (81.70) .04 |
| b | Covar (Level, Slope) | -0.08 (0.17) .62 | -0.09 (0.17) .59 | -0.11 (0.17) .53 | -0.09 (0.16) .59 |
|  | Correlation of Levels | 0.254 | 0.241 | 0.2254 | 0.207 |
|  | Correlation of Slopes | -0.035 | -0.038 | 0.0051 | 0.081 |
|  | Correlation of Residuals | 0.074 | 0.072 | 0.0700 | 0.070 |
|  | N | 351 | 350 | 331 | 331 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -7,316 | -7,305 | -7,141 | -7,128 |
|  | AIC | 14,674 | 14,661 | 14,339 | 14,337 |
|  | BIC | 14,755 | 14,757 | 14,450 | 14,493 |

## information

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 94.81 (56.63) .09 | 56.18 (50.88) .27 | 45.92 (50.63) .36 | 56.23 (50.63) .27 |
| ab | Covar (Slopes) | 0.35 (0.97) .72 | 0.28 (0.96) .77 | 0.40 (0.97) .68 | 0.26 (0.87) .76 |
| ab | Covar (Residuals) | 4.53 (9.92) .65 | 4.82 (9.97) .63 | 4.58 (10.09) .65 | 5.92 (10.23) .56 |
| er | Corr (Levels) | 0.12 (0.07) .09 | 0.08 (0.08) .27 | 0.07 (0.08) .36 | 0.09 (0.08) .27 |
| er | Corr (Slopes) | 0.08 (0.24) .72 | 0.07 (0.25) .77 | 0.10 (0.25) .69 | 0.07 (0.25) .76 |
| er | Corr (Residuals) | 0.02 (0.05) .65 | 0.02 (0.05) .63 | 0.02 (0.05) .65 | 0.03 (0.05) .56 |
| a | Level | 306.55 (6.88) <.01 | 306.32 (6.91) <.01 | 313.73 (7.40) <.01 | 325.10 (8.31) <.01 |
| a | Slope | 29.02 (1.10) <.01 | 28.64 (0.93) <.01 | 29.07 (1.02) <.01 | 28.05 (1.20) <.01 |
| a | Level \* age | -5.70 (1.82) <.01 | -5.65 (1.84) <.01 | -5.28 (1.85) <.01 | -5.68 (1.88) <.01 |
| a | Level \* education | --- | 4.25 (2.38) .07 | 4.36 (2.28) .06 | 6.60 (2.38) .01 |
| a | Level \* height | --- | --- | 268.42 (93.51) <.01 | 283.13 (91.88) <.01 |
| a | Level \* smoking | --- | --- | --- | -34.94 (11.00) <.01 |
| a | Level \* cardio | --- | --- | --- | -3.26 (9.16) .72 |
| a | Level \* diabetes | --- | --- | --- | -7.76 (15.26) .61 |
| a | Slope \* age | 0.91 (0.32) <.01 | 0.90 (0.32) <.01 | 0.85 (0.31) <.01 | 0.78 (0.31) .01 |
| a | Slope \* education | --- | -0.44 (0.37) .23 | -0.37 (0.38) .33 | -0.24 (0.42) .57 |
| a | Slope \* height | --- | --- | -19.71 (19.19) .30 | -19.04 (19.10) .32 |
| a | Slope \* smoking | --- | --- | --- | -2.91 (1.90) .12 |
| a | Slope \* cardio | --- | --- | --- | -2.09 (1.54) .17 |
| a | Slope \* diabetes | --- | --- | --- | 3.07 (2.65) .25 |
| b | Level | -8.36 (1.04) <.01 | -8.36 (1.03) <.01 | -8.83 (1.14) <.01 | -7.32 (1.32) <.01 |
| b | Slope | -0.45 (0.10) <.01 | -0.45 (0.10) <.01 | -0.42 (0.11) <.01 | -0.18 (0.14) .20 |
| b | Level \* age | -0.80 (0.23) <.01 | -0.69 (0.19) <.01 | -0.66 (0.23) <.01 | -0.61 (0.24) .01 |
| b | Level \* education | --- | 2.49 (0.24) <.01 | 2.45 (0.24) <.01 | 2.39 (0.27) <.01 |
| b | Level \* height | --- | --- | 6.84 (11.85) .56 | 4.97 (11.78) .67 |
| b | Level \* smoking | --- | --- | --- | 1.64 (1.34) .22 |
| b | Level \* cardio | --- | --- | --- | 1.37 (1.11) .22 |
| b | Level \* diabetes | --- | --- | --- | -2.30 (2.60) .38 |
| b | Slope \* age | -0.07 (0.03) .01 | -0.07 (0.03) .01 | -0.07 (0.03) .03 | -0.06 (0.03) .03 |
| b | Slope \* education | --- | 0.01 (0.03) .84 | -0.00 (0.04) .90 | -0.01 (0.04) .85 |
| b | Slope \* height | --- | --- | 1.96 (1.49) .19 | 2.02 (1.45) .16 |
| b | Slope \* smoking | --- | --- | --- | -0.15 (0.20) .43 |
| b | Slope \* cardio | --- | --- | --- | -0.47 (0.14) <.01 |
| b | Slope \* diabetes | --- | --- | --- | 0.00 (0.39) .99 |
| a | Var (Level) | 4793.55 (499.23) <.01 | 4688.84 (486.61) <.01 | 4389.58 (482.64) <.01 | 4215.96 (472.92) <.01 |
| a | Var (Slope) | 34.20 (15.18) .02 | 31.01 (14.68) .04 | 31.37 (15.31) .04 | 28.24 (14.38) .05 |
| a | Var (Residual) | 2134.56 (165.13) <.01 | 2149.15 (166.58) <.01 | 2154.64 (167.25) <.01 | 2153.89 (166.19) <.01 |
| b | Var (Level) | 119.43 (8.33) <.01 | 94.22 (7.20) <.01 | 91.89 (7.74) <.01 | 90.61 (7.59) <.01 |
| b | Var (Slope) | 0.51 (0.14) <.01 | 0.51 (0.14) <.01 | 0.50 (0.14) <.01 | 0.44 (0.14) <.01 |
| b | Var (Residual) | 17.20 (1.36) <.01 | 17.21 (1.36) <.01 | 17.56 (1.40) <.01 | 17.56 (1.40) <.01 |
| a | Covar (Level, Slope) | -185.75 (90.95) .04 | -169.60 (88.55) .06 | -157.05 (87.24) .07 | -165.72 (81.58) .04 |
| b | Covar (Level, Slope) | 1.02 (0.75) .17 | 0.95 (0.63) .14 | 1.01 (0.65) .12 | 1.22 (0.65) .06 |
|  | Correlation of Levels | 0.125 | 0.085 | 0.072 | 0.091 |
|  | Correlation of Slopes | 0.084 | 0.071 | 0.101 | 0.075 |
|  | Correlation of Residuals | 0.024 | 0.025 | 0.024 | 0.030 |
|  | N | 376 | 374 | 344 | 344 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -8,716 | -8,667 | -8,396 | -8,378 |
|  | AIC | 17,474 | 17,385 | 16,850 | 16,838 |
|  | BIC | 17,556 | 17,483 | 16,962 | 16,996 |

## mir

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 30.63 (12.81) .02 | 27.70 (12.25) .02 | 24.89 (11.51) .03 | 24.90 (11.34) .03 |
| ab | Covar (Slopes) | 0.45 (0.45) .31 | 0.45 (0.44) .31 | 0.50 (0.44) .26 | 0.38 (0.42) .37 |
| ab | Covar (Residuals) | 3.74 (3.73) .32 | 3.78 (3.75) .31 | 3.52 (3.76) .35 | 3.53 (3.76) .35 |
| er | Corr (Levels) | 0.21 (0.09) .01 | 0.20 (0.09) .02 | 0.20 (0.09) .02 | 0.20 (0.09) .02 |
| er | Corr (Slopes) | 0.22 (0.22) .31 | 0.22 (0.21) .30 | 0.26 (0.22) .25 | 0.21 (0.23) .36 |
| er | Corr (Residuals) | 0.06 (0.06) .31 | 0.06 (0.06) .31 | 0.05 (0.06) .35 | 0.05 (0.06) .34 |
| a | Level | 305.50 (6.95) <.01 | 305.21 (6.97) <.01 | 313.50 (7.43) <.01 | 324.39 (8.34) <.01 |
| a | Slope | 7.29 (0.20) <.01 | 7.26 (0.20) <.01 | 7.41 (0.20) <.01 | 7.37 (0.26) <.01 |
| a | Level \* age | -5.62 (1.82) <.01 | -5.55 (1.85) <.01 | -5.28 (1.85) <.01 | -5.66 (1.88) <.01 |
| a | Level \* education | --- | 4.28 (2.37) .07 | 4.47 (2.28) .05 | 6.71 (2.37) <.01 |
| a | Level \* height | --- | --- | 269.91 (93.82) <.01 | 284.64 (92.32) <.01 |
| a | Level \* smoking | --- | --- | --- | -34.03 (10.81) <.01 |
| a | Level \* cardio | --- | --- | --- | -2.68 (9.03) .77 |
| a | Level \* diabetes | --- | --- | --- | -8.28 (15.21) .59 |
| a | Slope \* age | 0.87 (0.32) .01 | 0.86 (0.32) .01 | 0.83 (0.30) .01 | 0.76 (0.31) .01 |
| a | Slope \* education | --- | -0.32 (0.37) .39 | -0.25 (0.38) .51 | -0.13 (0.43) .76 |
| a | Slope \* height | --- | --- | -18.44 (18.88) .33 | -17.45 (18.72) .35 |
| a | Slope \* smoking | --- | --- | --- | -2.99 (1.85) .11 |
| a | Slope \* cardio | --- | --- | --- | -1.97 (1.52) .20 |
| a | Slope \* diabetes | --- | --- | --- | 2.84 (2.54) .26 |
| b | Level | -8.63 (1.06) <.01 | -8.60 (1.05) <.01 | -9.12 (1.13) <.01 | -7.62 (1.31) <.01 |
| b | Slope | -0.18 (0.05) <.01 | -0.18 (0.05) <.01 | -0.17 (0.05) <.01 | -0.11 (0.06) .06 |
| b | Level \* age | -0.19 (0.05) <.01 | -0.17 (0.05) <.01 | -0.19 (0.05) <.01 | -0.19 (0.05) <.01 |
| b | Level \* education | --- | 0.10 (0.07) .15 | 0.12 (0.07) .08 | 0.12 (0.07) .10 |
| b | Level \* height | --- | --- | -1.18 (2.53) .64 | -1.23 (2.49) .62 |
| b | Level \* smoking | --- | --- | --- | 0.09 (0.32) .79 |
| b | Level \* cardio | --- | --- | --- | 0.04 (0.26) .86 |
| b | Level \* diabetes | --- | --- | --- | -0.09 (0.54) .86 |
| b | Slope \* age | -0.03 (0.01) .03 | -0.03 (0.01) .03 | -0.02 (0.01) .14 | -0.02 (0.01) .16 |
| b | Slope \* education | --- | 0.01 (0.02) .55 | 0.01 (0.02) .56 | 0.01 (0.02) .42 |
| b | Slope \* height | --- | --- | 0.90 (0.57) .12 | 0.90 (0.58) .12 |
| b | Slope \* smoking | --- | --- | --- | -0.09 (0.09) .32 |
| b | Slope \* cardio | --- | --- | --- | -0.09 (0.06) .15 |
| b | Slope \* diabetes | --- | --- | --- | -0.06 (0.14) .65 |
| a | Var (Level) | 4818.65 (496.90) <.01 | 4723.86 (487.08) <.01 | 4395.15 (478.29) <.01 | 4214.85 (469.81) <.01 |
| a | Var (Slope) | 31.11 (14.10) .03 | 30.06 (14.31) .04 | 29.15 (14.34) .04 | 25.59 (13.32) .06 |
| a | Var (Residual) | 2137.86 (165.33) <.01 | 2143.28 (164.97) <.01 | 2154.10 (166.58) <.01 | 2157.25 (166.08) <.01 |
| b | Var (Level) | 4.20 (0.49) <.01 | 4.02 (0.47) <.01 | 3.71 (0.48) <.01 | 3.70 (0.48) <.01 |
| b | Var (Slope) | 0.14 (0.02) <.01 | 0.14 (0.02) <.01 | 0.13 (0.02) <.01 | 0.13 (0.02) <.01 |
| b | Var (Residual) | 2.02 (0.14) <.01 | 2.01 (0.14) <.01 | 1.98 (0.14) <.01 | 1.98 (0.15) <.01 |
| a | Covar (Level, Slope) | -159.04 (90.88) .08 | -151.06 (90.43) .10 | -132.53 (86.47) .12 | -141.66 (79.74) .08 |
| b | Covar (Level, Slope) | 0.14 (0.06) .02 | 0.13 (0.06) .04 | 0.14 (0.06) .02 | 0.15 (0.06) .01 |
|  | Correlation of Levels | 0.215 | 0.201 | 0.195 | 0.199 |
|  | Correlation of Slopes | 0.220 | 0.224 | 0.255 | 0.211 |
|  | Correlation of Residuals | 0.057 | 0.058 | 0.054 | 0.054 |
|  | N | 368 | 364 | 340 | 340 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -7,308 | -7,288 | -7,088 | -7,076 |
|  | AIC | 14,658 | 14,626 | 14,233 | 14,234 |
|  | BIC | 14,740 | 14,723 | 14,344 | 14,391 |

## mir\_recog

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 8.37 (8.70) .34 | 3.42 (7.08) .63 | 4.58 (6.20) .46 | 3.69 (6.03) .54 |
| ab | Covar (Slopes) | 0.21 (0.74) .77 | 0.33 (0.69) .63 | 0.36 (0.64) .58 | 0.36 (0.60) .56 |
| ab | Covar (Residuals) | 6.34 (4.96) .20 | 6.08 (4.89) .21 | 6.79 (4.83) .16 | 6.51 (4.78) .17 |
| er | Corr (Levels) | 0.10 (0.10) .30 | 0.05 (0.10) .62 | 0.09 (0.11) .41 | 0.07 (0.11) .50 |
| er | Corr (Slopes) | 0.09 (0.30) .77 | 0.14 (0.29) .62 | 0.16 (0.28) .57 | 0.17 (0.28) .54 |
| er | Corr (Residuals) | 0.12 (0.09) .18 | 0.12 (0.09) .20 | 0.13 (0.09) .14 | 0.13 (0.09) .15 |
| a | Level | 306.41 (6.91) <.01 | 306.23 (6.93) <.01 | 313.86 (7.42) <.01 | 324.93 (8.35) <.01 |
| a | Slope | 9.79 (0.12) <.01 | 9.76 (0.12) <.01 | 9.75 (0.12) <.01 | 9.77 (0.14) <.01 |
| a | Level \* age | -6.09 (1.80) <.01 | -5.91 (1.83) <.01 | -5.45 (1.84) <.01 | -5.83 (1.87) <.01 |
| a | Level \* education | --- | 4.09 (2.39) .09 | 4.44 (2.28) .05 | 6.69 (2.38) <.01 |
| a | Level \* height | --- | --- | 279.37 (93.37) <.01 | 293.05 (92.13) <.01 |
| a | Level \* smoking | --- | --- | --- | -34.74 (10.79) <.01 |
| a | Level \* cardio | --- | --- | --- | -2.88 (9.03) .75 |
| a | Level \* diabetes | --- | --- | --- | -7.07 (15.02) .64 |
| a | Slope \* age | 0.90 (0.33) .01 | 0.87 (0.32) .01 | 0.85 (0.31) .01 | 0.78 (0.32) .01 |
| a | Slope \* education | --- | -0.42 (0.38) .27 | -0.31 (0.40) .43 | -0.20 (0.44) .65 |
| a | Slope \* height | --- | --- | -18.26 (19.15) .34 | -17.76 (19.05) .35 |
| a | Slope \* smoking | --- | --- | --- | -2.66 (1.90) .16 |
| a | Slope \* cardio | --- | --- | --- | -2.11 (1.55) .17 |
| a | Slope \* diabetes | --- | --- | --- | 2.66 (2.67) .32 |
| b | Level | -8.63 (1.16) <.01 | -8.56 (1.14) <.01 | -9.15 (1.25) <.01 | -7.62 (1.42) <.01 |
| b | Slope | -0.11 (0.05) .02 | -0.11 (0.05) .02 | -0.11 (0.05) .02 | -0.08 (0.05) .11 |
| b | Level \* age | -0.05 (0.03) .11 | -0.02 (0.03) .37 | -0.03 (0.03) .35 | -0.03 (0.03) .31 |
| b | Level \* education | --- | 0.06 (0.03) .02 | 0.07 (0.03) .01 | 0.08 (0.03) .01 |
| b | Level \* height | --- | --- | -3.26 (1.47) .03 | -3.19 (1.44) .03 |
| b | Level \* smoking | --- | --- | --- | -0.20 (0.18) .28 |
| b | Level \* cardio | --- | --- | --- | 0.06 (0.14) .64 |
| b | Level \* diabetes | --- | --- | --- | 0.07 (0.25) .78 |
| b | Slope \* age | -0.04 (0.01) <.01 | -0.04 (0.01) <.01 | -0.03 (0.01) .02 | -0.03 (0.01) .04 |
| b | Slope \* education | --- | 0.02 (0.01) .03 | 0.03 (0.01) <.01 | 0.03 (0.01) <.01 |
| b | Slope \* height | --- | --- | 0.52 (0.55) .35 | 0.47 (0.55) .39 |
| b | Slope \* smoking | --- | --- | --- | 0.00 (0.05) .98 |
| b | Slope \* cardio | --- | --- | --- | -0.06 (0.06) .32 |
| b | Slope \* diabetes | --- | --- | --- | -0.11 (0.14) .43 |
| a | Var (Level) | 4840.75 (520.33) <.01 | 4710.18 (501.05) <.01 | 4375.34 (494.52) <.01 | 4194.49 (483.33) <.01 |
| a | Var (Slope) | 35.59 (15.58) .02 | 34.41 (15.65) .03 | 33.73 (15.80) .03 | 30.69 (15.11) .04 |
| a | Var (Residual) | 2150.42 (175.99) <.01 | 2154.29 (175.14) <.01 | 2173.72 (178.42) <.01 | 2170.01 (176.73) <.01 |
| b | Var (Level) | 1.40 (0.57) .01 | 1.00 (0.46) .03 | 0.62 (0.36) .08 | 0.61 (0.35) .08 |
| b | Var (Slope) | 0.17 (0.04) <.01 | 0.16 (0.04) <.01 | 0.15 (0.03) <.01 | 0.14 (0.03) <.01 |
| b | Var (Residual) | 1.24 (0.22) <.01 | 1.22 (0.22) <.01 | 1.20 (0.22) <.01 | 1.20 (0.22) <.01 |
| a | Covar (Level, Slope) | -156.65 (97.52) .11 | -145.75 (94.46) .12 | -128.74 (91.59) .16 | -138.41 (84.66) .10 |
| b | Covar (Level, Slope) | 0.26 (0.08) <.01 | 0.19 (0.07) <.01 | 0.15 (0.05) .01 | 0.15 (0.05) <.01 |
|  | Correlation of Levels | 0.101 | 0.05 | 0.088 | 0.073 |
|  | Correlation of Slopes | 0.087 | 0.14 | 0.161 | 0.170 |
|  | Correlation of Residuals | 0.123 | 0.12 | 0.133 | 0.128 |
|  | N | 370 | 366 | 340 | 340 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -7,027 | -6,972 | -6,747 | -6,734 |
|  | AIC | 14,095 | 13,994 | 13,551 | 13,550 |
|  | BIC | 14,178 | 14,092 | 13,662 | 13,707 |

## mmse

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 58.11 (25.66) .02 | 29.15 (16.23) .07 | 13.68 (13.45) .31 | 11.33 (12.90) .38 |
| ab | Covar (Slopes) | -0.00 (1.57) .99 | 0.47 (1.61) .77 | 0.39 (1.49) .79 | 0.36 (1.44) .80 |
| ab | Covar (Residuals) | 34.73 (11.86) <.01 | 32.97 (11.17) <.01 | 30.21 (10.70) <.01 | 29.73 (10.47) <.01 |
| er | Corr (Levels) | 0.28 (0.10) .01 | 0.20 (0.10) .05 | 0.13 (0.12) .29 | 0.11 (0.12) .37 |
| er | Corr (Slopes) | -0.00 (0.31) .99 | 0.09 (0.31) .77 | 0.08 (0.31) .79 | 0.08 (0.32) .80 |
| er | Corr (Residuals) | 0.26 (0.08) <.01 | 0.25 (0.07) <.01 | 0.23 (0.07) <.01 | 0.23 (0.07) <.01 |
| a | Level | 303.06 (7.23) <.01 | 304.00 (7.10) <.01 | 312.66 (7.48) <.01 | 323.74 (8.40) <.01 |
| a | Slope | 28.01 (0.29) <.01 | 28.19 (0.24) <.01 | 28.50 (0.25) <.01 | 28.70 (0.28) <.01 |
| a | Level \* age | -6.41 (1.81) <.01 | -6.26 (1.83) <.01 | -5.49 (1.83) <.01 | -5.86 (1.86) <.01 |
| a | Level \* education | --- | 4.75 (2.40) .05 | 4.71 (2.29) .04 | 6.97 (2.38) <.01 |
| a | Level \* height | --- | --- | 277.29 (94.29) <.01 | 289.90 (93.20) <.01 |
| a | Level \* smoking | --- | --- | --- | -34.87 (10.86) <.01 |
| a | Level \* cardio | --- | --- | --- | -2.65 (9.08) .77 |
| a | Level \* diabetes | --- | --- | --- | -8.74 (15.32) .57 |
| a | Slope \* age | 0.84 (0.33) .01 | 0.81 (0.33) .01 | 0.79 (0.32) .01 | 0.71 (0.32) .02 |
| a | Slope \* education | --- | -0.46 (0.34) .17 | -0.40 (0.35) .25 | -0.25 (0.38) .51 |
| a | Slope \* height | --- | --- | -21.86 (19.04) .25 | -20.76 (19.02) .28 |
| a | Slope \* smoking | --- | --- | --- | -3.01 (1.88) .11 |
| a | Slope \* cardio | --- | --- | --- | -1.99 (1.54) .20 |
| a | Slope \* diabetes | --- | --- | --- | 2.89 (2.44) .24 |
| b | Level | -8.99 (1.16) <.01 | -9.09 (1.14) <.01 | -9.65 (1.27) <.01 | -8.09 (1.44) <.01 |
| b | Slope | -0.58 (0.11) <.01 | -0.59 (0.11) <.01 | -0.60 (0.11) <.01 | -0.52 (0.13) <.01 |
| b | Level \* age | -0.28 (0.06) <.01 | -0.26 (0.05) <.01 | -0.22 (0.06) <.01 | -0.22 (0.06) <.01 |
| b | Level \* education | --- | 0.35 (0.06) <.01 | 0.33 (0.06) <.01 | 0.36 (0.07) <.01 |
| b | Level \* height | --- | --- | 3.54 (3.34) .29 | 3.27 (3.18) .30 |
| b | Level \* smoking | --- | --- | --- | -0.45 (0.40) .26 |
| b | Level \* cardio | --- | --- | --- | -0.13 (0.32) .69 |
| b | Level \* diabetes | --- | --- | --- | -1.02 (0.79) .19 |
| b | Slope \* age | -0.09 (0.03) <.01 | -0.08 (0.03) <.01 | -0.06 (0.02) .01 | -0.06 (0.03) .01 |
| b | Slope \* education | --- | 0.04 (0.04) .28 | 0.04 (0.04) .29 | 0.04 (0.04) .32 |
| b | Slope \* height | --- | --- | -0.07 (1.24) .95 | -0.06 (1.26) .96 |
| b | Slope \* smoking | --- | --- | --- | -0.07 (0.18) .69 |
| b | Slope \* cardio | --- | --- | --- | -0.13 (0.14) .35 |
| b | Slope \* diabetes | --- | --- | --- | -0.07 (0.22) .76 |
| a | Var (Level) | 5087.58 (582.64) <.01 | 4840.89 (517.25) <.01 | 4412.23 (490.53) <.01 | 4223.52 (475.71) <.01 |
| a | Var (Slope) | 27.59 (13.75) .04 | 26.61 (13.34) .05 | 26.12 (13.63) .06 | 22.75 (12.19) .06 |
| a | Var (Residual) | 2248.49 (193.65) <.01 | 2246.24 (189.81) <.01 | 2241.20 (187.29) <.01 | 2240.23 (184.12) <.01 |
| b | Var (Level) | 8.31 (2.26) <.01 | 4.18 (0.99) <.01 | 2.60 (0.80) <.01 | 2.48 (0.73) <.01 |
| b | Var (Slope) | 0.96 (0.18) <.01 | 1.01 (0.20) <.01 | 0.90 (0.18) <.01 | 0.89 (0.18) <.01 |
| b | Var (Residual) | 8.12 (0.99) <.01 | 7.79 (0.92) <.01 | 7.39 (0.92) <.01 | 7.39 (0.92) <.01 |
| a | Covar (Level, Slope) | -128.82 (102.04) .21 | -109.27 (95.79) .25 | -98.79 (90.73) .28 | -107.83 (82.03) .19 |
| b | Covar (Level, Slope) | 1.85 (0.40) <.01 | 1.52 (0.31) <.01 | 1.14 (0.26) <.01 | 1.13 (0.26) <.01 |
|  | Correlation of Levels | 0.28266 | 0.20 | 0.128 | 0.111 |
|  | Correlation of Slopes | -0.00078 | 0.09 | 0.081 | 0.079 |
|  | Correlation of Residuals | 0.25699 | 0.25 | 0.235 | 0.231 |
|  | N | 390 | 384 | 347 | 347 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -8,587 | -8,479 | -8,124 | -8,111 |
|  | AIC | 17,215 | 17,009 | 16,306 | 16,304 |
|  | BIC | 17,299 | 17,107 | 16,418 | 16,462 |

## prose\_im

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 34.03 (17.79) .06 | 24.10 (16.44) .14 | 21.38 (16.10) .18 | 24.30 (15.76) .12 |
| ab | Covar (Slopes) | -0.30 (0.66) .65 | -0.33 (0.66) .61 | -0.26 (0.66) .69 | -0.42 (0.64) .51 |
| ab | Covar (Residuals) | 12.19 (6.38) .06 | 11.97 (6.42) .06 | 11.82 (6.41) .06 | 12.18 (6.42) .06 |
| er | Corr (Levels) | 0.16 (0.08) .05 | 0.12 (0.08) .14 | 0.11 (0.08) .18 | 0.14 (0.09) .12 |
| er | Corr (Slopes) | -0.11 (0.25) .65 | -0.13 (0.26) .61 | -0.10 (0.27) .69 | -0.19 (0.28) .51 |
| er | Corr (Residuals) | 0.12 (0.06) .06 | 0.11 (0.06) .06 | 0.11 (0.06) .06 | 0.12 (0.06) .06 |
| a | Level | 304.87 (6.92) <.01 | 304.69 (6.94) <.01 | 313.06 (7.43) <.01 | 324.50 (8.26) <.01 |
| a | Slope | 10.69 (0.35) <.01 | 10.62 (0.32) <.01 | 10.93 (0.34) <.01 | 10.78 (0.40) <.01 |
| a | Level \* age | -5.61 (1.79) <.01 | -5.54 (1.83) <.01 | -5.31 (1.84) <.01 | -5.68 (1.87) <.01 |
| a | Level \* education | --- | 4.41 (2.40) .07 | 4.51 (2.29) .05 | 6.83 (2.38) <.01 |
| a | Level \* height | --- | --- | 270.73 (93.74) <.01 | 285.06 (92.17) <.01 |
| a | Level \* smoking | --- | --- | --- | -35.26 (10.83) <.01 |
| a | Level \* cardio | --- | --- | --- | -3.42 (9.11) .71 |
| a | Level \* diabetes | --- | --- | --- | -7.55 (15.39) .62 |
| a | Slope \* age | 0.92 (0.32) <.01 | 0.91 (0.32) <.01 | 0.87 (0.31) <.01 | 0.79 (0.31) .01 |
| a | Slope \* education | --- | -0.42 (0.36) .25 | -0.36 (0.38) .34 | -0.25 (0.42) .55 |
| a | Slope \* height | --- | --- | -18.24 (19.29) .34 | -17.08 (19.14) .37 |
| a | Slope \* smoking | --- | --- | --- | -2.95 (1.89) .12 |
| a | Slope \* cardio | --- | --- | --- | -2.03 (1.51) .18 |
| a | Slope \* diabetes | --- | --- | --- | 3.48 (2.48) .16 |
| b | Level | -8.47 (1.09) <.01 | -8.46 (1.08) <.01 | -8.92 (1.18) <.01 | -7.36 (1.33) <.01 |
| b | Slope | -0.27 (0.07) <.01 | -0.26 (0.07) <.01 | -0.26 (0.07) <.01 | -0.13 (0.08) .10 |
| b | Level \* age | -0.26 (0.08) <.01 | -0.23 (0.07) <.01 | -0.27 (0.08) <.01 | -0.24 (0.08) <.01 |
| b | Level \* education | --- | 0.49 (0.09) <.01 | 0.52 (0.09) <.01 | 0.50 (0.10) <.01 |
| b | Level \* height | --- | --- | 0.76 (3.67) .84 | -0.08 (3.74) .98 |
| b | Level \* smoking | --- | --- | --- | 0.38 (0.49) .44 |
| b | Level \* cardio | --- | --- | --- | 0.22 (0.39) .56 |
| b | Level \* diabetes | --- | --- | --- | -1.93 (0.99) .05 |
| b | Slope \* age | -0.00 (0.02) .94 | -0.00 (0.02) .91 | 0.00 (0.02) .83 | 0.00 (0.02) .99 |
| b | Slope \* education | --- | -0.01 (0.02) .74 | -0.00 (0.02) .78 | 0.01 (0.02) .69 |
| b | Slope \* height | --- | --- | 0.57 (0.92) .53 | 0.72 (0.94) .44 |
| b | Slope \* smoking | --- | --- | --- | -0.24 (0.11) .03 |
| b | Slope \* cardio | --- | --- | --- | -0.16 (0.09) .08 |
| b | Slope \* diabetes | --- | --- | --- | 0.11 (0.16) .48 |
| a | Var (Level) | 4839.23 (502.08) <.01 | 4743.67 (492.07) <.01 | 4420.47 (483.71) <.01 | 4239.20 (474.05) <.01 |
| a | Var (Slope) | 33.53 (14.62) .02 | 32.10 (14.76) .03 | 31.66 (15.06) .04 | 27.95 (14.10) .05 |
| a | Var (Residual) | 2132.39 (165.23) <.01 | 2138.59 (165.14) <.01 | 2147.91 (166.60) <.01 | 2154.26 (166.82) <.01 |
| b | Var (Level) | 9.85 (1.08) <.01 | 8.60 (0.99) <.01 | 7.94 (0.98) <.01 | 7.68 (0.95) <.01 |
| b | Var (Slope) | 0.21 (0.04) <.01 | 0.21 (0.04) <.01 | 0.20 (0.04) <.01 | 0.18 (0.04) <.01 |
| b | Var (Residual) | 5.13 (0.40) <.01 | 5.13 (0.40) <.01 | 5.08 (0.39) <.01 | 5.07 (0.39) <.01 |
| a | Covar (Level, Slope) | -175.97 (90.48) .05 | -166.60 (89.83) .06 | -152.11 (87.58) .08 | -162.13 (81.31) .05 |
| b | Covar (Level, Slope) | -0.11 (0.15) .47 | -0.09 (0.15) .53 | -0.10 (0.14) .48 | -0.05 (0.13) .69 |
|  | Correlation of Levels | 0.16 | 0.12 | 0.11 | 0.13 |
|  | Correlation of Slopes | -0.11 | -0.13 | -0.11 | -0.19 |
|  | Correlation of Residuals | 0.12 | 0.11 | 0.11 | 0.12 |
|  | N | 365 | 362 | 336 | 336 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -7,562 | -7,533 | -7,308 | -7,291 |
|  | AIC | 15,166 | 15,115 | 14,675 | 14,665 |
|  | BIC | 15,248 | 15,213 | 14,786 | 14,821 |

## 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) | 272.86 (51.81) <.01 | 238.94 (48.03) <.01 | 221.88 (46.26) <.01 | 222.62 (45.56) <.01 |
| ab | Covar (Slopes) | 2.99 (0.93) <.01 | 3.02 (0.97) <.01 | 3.05 (0.96) <.01 | 2.49 (1.02) .01 |
| ab | Covar (Residuals) | 7.45 (12.88) .56 | 7.05 (12.88) .58 | 7.68 (12.97) .55 | 7.29 (13.00) .57 |
| er | Corr (Levels) | 0.42 (0.07) <.01 | 0.40 (0.07) <.01 | 0.40 (0.07) <.01 | 0.41 (0.07) <.01 |
| er | Corr (Slopes) | 0.66 (0.15) <.01 | 0.67 (0.14) <.01 | 0.69 (0.14) <.01 | 0.65 (0.17) <.01 |
| er | Corr (Residuals) | 0.03 (0.05) .56 | 0.03 (0.05) .58 | 0.03 (0.05) .55 | 0.03 (0.05) .57 |
| a | Level | 305.31 (6.92) <.01 | 305.22 (6.94) <.01 | 313.47 (7.39) <.01 | 324.80 (8.32) <.01 |
| a | Slope | 27.07 (1.09) <.01 | 26.87 (0.98) <.01 | 27.48 (1.02) <.01 | 26.90 (1.18) <.01 |
| a | Level \* age | -5.75 (1.78) <.01 | -5.77 (1.81) <.01 | -5.38 (1.83) <.01 | -5.79 (1.85) <.01 |
| a | Level \* education | --- | 4.14 (2.41) .09 | 4.45 (2.32) .06 | 6.72 (2.41) <.01 |
| a | Level \* height | --- | --- | 275.52 (93.06) <.01 | 291.13 (91.56) <.01 |
| a | Level \* smoking | --- | --- | --- | -34.64 (10.79) <.01 |
| a | Level \* cardio | --- | --- | --- | -3.48 (9.13) .70 |
| a | Level \* diabetes | --- | --- | --- | -4.87 (15.29) .75 |
| a | Slope \* age | 0.90 (0.31) <.01 | 0.89 (0.32) <.01 | 0.85 (0.30) <.01 | 0.80 (0.31) .01 |
| a | Slope \* education | --- | -0.38 (0.38) .32 | -0.32 (0.40) .42 | -0.20 (0.44) .65 |
| a | Slope \* height | --- | --- | -18.74 (18.83) .32 | -17.66 (18.87) .35 |
| a | Slope \* smoking | --- | --- | --- | -2.69 (1.93) .16 |
| a | Slope \* cardio | --- | --- | --- | -1.82 (1.54) .24 |
| a | Slope \* diabetes | --- | --- | --- | 1.70 (2.95) .56 |
| b | Level | -8.18 (1.03) <.01 | -8.15 (1.03) <.01 | -8.69 (1.11) <.01 | -7.38 (1.30) <.01 |
| b | Slope | -0.60 (0.14) <.01 | -0.59 (0.14) <.01 | -0.58 (0.15) <.01 | -0.26 (0.18) .14 |
| b | Level \* age | -0.87 (0.25) <.01 | -0.87 (0.24) <.01 | -0.82 (0.26) <.01 | -0.81 (0.26) <.01 |
| b | Level \* education | --- | 1.79 (0.32) <.01 | 1.86 (0.33) <.01 | 1.90 (0.35) <.01 |
| b | Level \* height | --- | --- | 8.43 (11.14) .45 | 8.53 (11.01) .44 |
| b | Level \* smoking | --- | --- | --- | 0.13 (1.59) .93 |
| b | Level \* cardio | --- | --- | --- | 1.25 (1.14) .27 |
| b | Level \* diabetes | --- | --- | --- | -0.77 (2.30) .74 |
| b | Slope \* age | -0.04 (0.04) .26 | -0.04 (0.04) .33 | -0.03 (0.04) .44 | -0.04 (0.04) .39 |
| b | Slope \* education | --- | -0.00 (0.06) .94 | -0.01 (0.06) .80 | -0.01 (0.06) .81 |
| b | Slope \* height | --- | --- | 1.80 (1.80) .32 | 1.96 (1.81) .28 |
| b | Slope \* smoking | --- | --- | --- | -0.34 (0.24) .16 |
| b | Slope \* cardio | --- | --- | --- | -0.59 (0.19) <.01 |
| b | Slope \* diabetes | --- | --- | --- | 0.41 (0.65) .53 |
| a | Var (Level) | 4809.44 (486.72) <.01 | 4731.76 (479.64) <.01 | 4401.16 (468.92) <.01 | 4221.64 (461.71) <.01 |
| a | Var (Slope) | 32.00 (12.51) .01 | 31.30 (12.81) .01 | 30.46 (12.62) .02 | 27.91 (12.60) .03 |
| a | Var (Residual) | 2132.80 (163.57) <.01 | 2135.44 (162.92) <.01 | 2146.13 (163.70) <.01 | 2143.43 (163.21) <.01 |
| b | Var (Level) | 88.40 (8.55) <.01 | 75.14 (7.18) <.01 | 70.54 (7.08) <.01 | 69.72 (6.98) <.01 |
| b | Var (Slope) | 0.65 (0.16) <.01 | 0.66 (0.16) <.01 | 0.64 (0.15) <.01 | 0.53 (0.15) <.01 |
| b | Var (Residual) | 28.37 (2.02) <.01 | 28.43 (2.02) <.01 | 28.27 (2.01) <.01 | 28.32 (2.02) <.01 |
| a | Covar (Level, Slope) | -171.67 (84.19) .04 | -166.30 (84.40) .05 | -148.63 (79.74) .06 | -157.40 (75.82) .04 |
| b | Covar (Level, Slope) | -1.51 (0.86) .08 | -1.58 (0.88) .07 | -1.25 (0.83) .13 | -0.83 (0.84) .32 |
|  | Correlation of Levels | 0.42 | 0.401 | 0.398 | 0.41 |
|  | Correlation of Slopes | 0.65 | 0.665 | 0.689 | 0.65 |
|  | Correlation of Residuals | 0.03 | 0.029 | 0.031 | 0.03 |
|  | N | 346 | 345 | 328 | 328 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -8,059 | -8,030 | -7,833 | -7,819 |
|  | AIC | 16,161 | 16,111 | 15,724 | 15,719 |
|  | BIC | 16,241 | 16,207 | 15,834 | 15,875 |

## synonyms

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 63.24 (30.47) .04 | 39.68 (26.13) .13 | 30.84 (26.40) .24 | 36.34 (25.53) .15 |
| ab | Covar (Slopes) | 0.53 (0.57) .36 | 0.56 (0.60) .35 | 0.66 (0.61) .28 | 0.69 (0.61) .26 |
| ab | Covar (Residuals) | -7.50 (6.47) .25 | -7.76 (6.45) .23 | -8.67 (6.44) .18 | -8.56 (6.37) .18 |
| er | Corr (Levels) | 0.18 (0.08) .03 | 0.13 (0.08) .12 | 0.11 (0.09) .24 | 0.13 (0.09) .15 |
| er | Corr (Slopes) | 0.22 (0.25) .39 | 0.24 (0.27) .39 | 0.28 (0.28) .32 | 0.31 (0.31) .31 |
| er | Corr (Residuals) | -0.06 (0.05) .25 | -0.06 (0.05) .23 | -0.07 (0.05) .18 | -0.07 (0.05) .18 |
| a | Level | 307.12 (6.89) <.01 | 306.73 (6.93) <.01 | 313.98 (7.40) <.01 | 325.32 (8.32) <.01 |
| a | Slope | 16.96 (0.64) <.01 | 16.68 (0.55) <.01 | 16.82 (0.55) <.01 | 16.47 (0.68) <.01 |
| a | Level \* age | -5.70 (1.82) <.01 | -5.67 (1.85) <.01 | -5.28 (1.86) <.01 | -5.68 (1.88) <.01 |
| a | Level \* education | --- | 4.16 (2.39) .08 | 4.33 (2.29) .06 | 6.60 (2.40) .01 |
| a | Level \* height | --- | --- | 269.10 (93.74) <.01 | 284.36 (92.10) <.01 |
| a | Level \* smoking | --- | --- | --- | -35.00 (10.91) <.01 |
| a | Level \* cardio | --- | --- | --- | -3.28 (9.19) .72 |
| a | Level \* diabetes | --- | --- | --- | -7.73 (15.53) .62 |
| a | Slope \* age | 0.95 (0.32) <.01 | 0.94 (0.32) <.01 | 0.89 (0.31) <.01 | 0.81 (0.32) .01 |
| a | Slope \* education | --- | -0.49 (0.38) .20 | -0.43 (0.39) .26 | -0.30 (0.42) .47 |
| a | Slope \* height | --- | --- | -17.79 (18.98) .35 | -17.27 (18.93) .36 |
| a | Slope \* smoking | --- | --- | --- | -2.78 (1.90) .14 |
| a | Slope \* cardio | --- | --- | --- | -1.79 (1.55) .25 |
| a | Slope \* diabetes | --- | --- | --- | 3.67 (2.58) .15 |
| b | Level | -8.33 (1.02) <.01 | -8.28 (1.01) <.01 | -8.68 (1.11) <.01 | -7.32 (1.31) <.01 |
| b | Slope | -0.11 (0.07) .14 | -0.10 (0.07) .15 | -0.09 (0.08) .25 | -0.04 (0.10) .65 |
| b | Level \* age | -0.18 (0.15) .25 | -0.16 (0.13) .23 | -0.10 (0.14) .47 | -0.06 (0.14) .63 |
| b | Level \* education | --- | 1.37 (0.13) <.01 | 1.36 (0.12) <.01 | 1.32 (0.13) <.01 |
| b | Level \* height | --- | --- | 10.52 (5.93) .08 | 9.99 (5.90) .09 |
| b | Level \* smoking | --- | --- | --- | 0.78 (0.71) .27 |
| b | Level \* cardio | --- | --- | --- | 0.46 (0.61) .46 |
| b | Level \* diabetes | --- | --- | --- | -2.10 (1.23) .09 |
| b | Slope \* age | -0.00 (0.02) .82 | -0.00 (0.02) .83 | -0.00 (0.02) .87 | -0.00 (0.02) .96 |
| b | Slope \* education | --- | -0.01 (0.03) .68 | -0.01 (0.03) .71 | -0.00 (0.03) .91 |
| b | Slope \* height | --- | --- | 0.30 (0.95) .75 | 0.23 (0.94) .81 |
| b | Slope \* smoking | --- | --- | --- | -0.08 (0.15) .59 |
| b | Slope \* cardio | --- | --- | --- | -0.08 (0.11) .47 |
| b | Slope \* diabetes | --- | --- | --- | -0.06 (0.21) .78 |
| a | Var (Level) | 4778.70 (495.10) <.01 | 4702.31 (486.90) <.01 | 4390.75 (480.35) <.01 | 4215.12 (470.88) <.01 |
| a | Var (Slope) | 33.71 (15.28) .03 | 32.58 (15.33) .03 | 31.84 (15.43) .04 | 28.54 (14.37) .05 |
| a | Var (Residual) | 2136.20 (164.52) <.01 | 2139.82 (164.60) <.01 | 2151.39 (166.05) <.01 | 2152.24 (165.49) <.01 |
| b | Var (Level) | 26.77 (2.51) <.01 | 19.41 (2.21) <.01 | 18.74 (2.18) <.01 | 18.32 (2.15) <.01 |
| b | Var (Slope) | 0.17 (0.06) <.01 | 0.17 (0.06) <.01 | 0.18 (0.06) <.01 | 0.17 (0.06) <.01 |
| b | Var (Residual) | 6.87 (0.52) <.01 | 6.88 (0.52) <.01 | 6.82 (0.53) <.01 | 6.82 (0.53) <.01 |
| a | Covar (Level, Slope) | -183.15 (91.03) .04 | -174.45 (90.66) .05 | -158.47 (87.41) .07 | -166.94 (81.22) .04 |
| b | Covar (Level, Slope) | -0.33 (0.31) .28 | -0.22 (0.25) .39 | -0.24 (0.26) .34 | -0.21 (0.26) .43 |
|  | Correlation of Levels | 0.177 | 0.131 | 0.108 | 0.131 |
|  | Correlation of Slopes | 0.219 | 0.236 | 0.278 | 0.310 |
|  | Correlation of Residuals | -0.062 | -0.064 | -0.072 | -0.071 |
|  | N | 346 | 346 | 328 | 328 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -7,298 | -7,257 | -7,086 | -7,072 |
|  | AIC | 14,639 | 14,564 | 14,229 | 14,226 |
|  | BIC | 14,720 | 14,660 | 14,339 | 14,381 |

## Summary

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

Computed correlations:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Levels | block | 0.35 | 0.32 | 0.30 | 0.30 |
| Correlation of Levels | clock | 0.27 | 0.24 | 0.24 | 0.24 |
| Correlation of Levels | digit\_b | 0.16 | 0.14 | 0.15 | 0.14 |
| Correlation of Levels | digit\_f | 0.04 | 0.00 | 0.02 | 0.01 |
| Correlation of Levels | fig\_logic | 0.25 | 0.24 | 0.23 | 0.21 |
| Correlation of Levels | information | 0.13 | 0.08 | 0.07 | 0.09 |
| Correlation of Levels | mir | 0.22 | 0.20 | 0.19 | 0.20 |
| Correlation of Levels | mir\_recog | 0.10 | 0.05 | 0.09 | 0.07 |
| Correlation of Levels | mmse | 0.28 | 0.20 | 0.13 | 0.11 |
| Correlation of Levels | prose\_im | 0.16 | 0.12 | 0.11 | 0.13 |
| Correlation of Levels | psif | . | . | . | . |
| Correlation of Levels | symbol | 0.42 | 0.40 | 0.40 | 0.41 |
| Correlation of Levels | synonyms | 0.18 | 0.13 | 0.11 | 0.13 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Slopes | block | 0.15 | 0.14 | 0.17 | 0.11 |
| Correlation of Slopes | clock | 0.08 | 0.13 | 0.12 | 0.16 |
| Correlation of Slopes | digit\_b | -0.20 | -0.16 | -0.14 | -0.18 |
| Correlation of Slopes | digit\_f | -0.20 | -0.18 | -0.15 | -0.13 |
| Correlation of Slopes | fig\_logic | -0.04 | -0.04 | 0.01 | 0.08 |
| Correlation of Slopes | information | 0.08 | 0.07 | 0.10 | 0.08 |
| Correlation of Slopes | mir | 0.22 | 0.22 | 0.25 | 0.21 |
| Correlation of Slopes | mir\_recog | 0.09 | 0.14 | 0.16 | 0.17 |
| Correlation of Slopes | mmse | -0.00 | 0.09 | 0.08 | 0.08 |
| Correlation of Slopes | prose\_im | -0.11 | -0.13 | -0.11 | -0.19 |
| Correlation of Slopes | psif | . | . | . | . |
| Correlation of Slopes | symbol | 0.65 | 0.67 | 0.69 | 0.65 |
| Correlation of Slopes | synonyms | 0.22 | 0.24 | 0.28 | 0.31 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Residuals | block | 0.16 | 0.16 | 0.16 | 0.16 |
| Correlation of Residuals | clock | 0.17 | 0.16 | 0.15 | 0.16 |
| Correlation of Residuals | digit\_b | 0.07 | 0.07 | 0.07 | 0.08 |
| Correlation of Residuals | digit\_f | 0.06 | 0.06 | 0.05 | 0.05 |
| Correlation of Residuals | fig\_logic | 0.07 | 0.07 | 0.07 | 0.07 |
| Correlation of Residuals | information | 0.02 | 0.03 | 0.02 | 0.03 |
| Correlation of Residuals | mir | 0.06 | 0.06 | 0.05 | 0.05 |
| Correlation of Residuals | mir\_recog | 0.12 | 0.12 | 0.13 | 0.13 |
| Correlation of Residuals | mmse | 0.26 | 0.25 | 0.23 | 0.23 |
| Correlation of Residuals | prose\_im | 0.12 | 0.11 | 0.11 | 0.12 |
| Correlation of Residuals | psif | . | . | . | . |
| Correlation of Residuals | symbol | 0.03 | 0.03 | 0.03 | 0.03 |
| Correlation of Residuals | synonyms | -0.06 | -0.06 | -0.07 | -0.07 |

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 | 0.05 | 0.07 | 0.07 | 0.05 |
| Covariance of Levels | digit\_b | 0.15 | 0.24 | 0.21 | 0.25 |
| Covariance of Levels | digit\_f | 0.69 | 0.99 | 0.86 | 0.95 |
| Covariance of Levels | fig\_logic | 0.02 | 0.03 | 0.05 | 0.08 |
| Covariance of Levels | information | 0.09 | 0.27 | 0.36 | 0.27 |
| Covariance of Levels | mir | 0.02 | 0.02 | 0.03 | 0.03 |
| Covariance of Levels | mir\_recog | 0.34 | 0.63 | 0.46 | 0.54 |
| Covariance of Levels | mmse | 0.02 | 0.07 | 0.31 | 0.38 |
| Covariance of Levels | prose\_im | 0.06 | 0.14 | 0.18 | 0.12 |
| Covariance of Levels | psif | . | . | . | . |
| Covariance of Levels | symbol | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | synonyms | 0.04 | 0.13 | 0.24 | 0.15 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Slopes | block | 0.54 | 0.57 | 0.52 | 0.69 |
| Covariance of Slopes | clock | 0.78 | 0.67 | 0.66 | 0.54 |
| Covariance of Slopes | digit\_b | 0.56 | 0.66 | 0.70 | 0.65 |
| Covariance of Slopes | digit\_f | 0.43 | 0.50 | 0.56 | 0.62 |
| Covariance of Slopes | fig\_logic | 0.96 | 0.95 | 0.99 | 0.90 |
| Covariance of Slopes | information | 0.72 | 0.77 | 0.68 | 0.76 |
| Covariance of Slopes | mir | 0.31 | 0.31 | 0.26 | 0.37 |
| Covariance of Slopes | mir\_recog | 0.77 | 0.63 | 0.58 | 0.56 |
| Covariance of Slopes | mmse | 1.00 | 0.77 | 0.79 | 0.80 |
| Covariance of Slopes | prose\_im | 0.65 | 0.61 | 0.69 | 0.51 |
| Covariance of Slopes | psif | . | . | . | . |
| Covariance of Slopes | symbol | 0.00 | 0.00 | 0.00 | 0.01 |
| Covariance of Slopes | synonyms | 0.36 | 0.35 | 0.28 | 0.26 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Residuals | block | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Residuals | clock | 0.03 | 0.04 | 0.04 | 0.03 |
| Covariance of Residuals | digit\_b | 0.17 | 0.18 | 0.16 | 0.13 |
| Covariance of Residuals | digit\_f | 0.25 | 0.26 | 0.33 | 0.32 |
| Covariance of Residuals | fig\_logic | 0.19 | 0.20 | 0.22 | 0.21 |
| Covariance of Residuals | information | 0.65 | 0.63 | 0.65 | 0.56 |
| Covariance of Residuals | mir | 0.32 | 0.31 | 0.35 | 0.35 |
| Covariance of Residuals | mir\_recog | 0.20 | 0.21 | 0.16 | 0.17 |
| Covariance of Residuals | mmse | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Residuals | prose\_im | 0.06 | 0.06 | 0.06 | 0.06 |
| Covariance of Residuals | psif | . | . | . | . |
| Covariance of Residuals | symbol | 0.56 | 0.58 | 0.55 | 0.57 |
| Covariance of Residuals | synonyms | 0.25 | 0.23 | 0.18 | 0.18 |

# 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) | 207.98 (52.64) <.01 | --- | 27.61 (11.05) .01 | -8.77 (10.07) .38 | 86.48 (26.57) <.01 | 60.85 (72.91) .40 | 77.50 (21.67) <.01 | 17.09 (13.75) .21 | 91.95 (27.36) <.01 | --- | --- | 303.36 (79.08) <.01 | 69.95 (48.17) .15 | --- |
| ab | Covar (Slopes) | 2.65 (1.58) .10 | --- | -0.10 (0.45) .83 | 0.05 (0.33) .89 | 1.57 (0.66) .02 | 2.48 (2.91) .39 | 0.91 (0.53) .09 | -0.98 (0.69) .15 | 0.96 (2.56) .71 | --- | --- | 4.68 (1.81) .01 | 0.29 (0.47) .53 | --- |
| ab | Covar (Residuals) | 26.62 (12.09) .03 | --- | -3.56 (4.92) .47 | -1.64 (2.63) .53 | -9.71 (11.92) .41 | 13.60 (14.90) .36 | -3.99 (6.54) .54 | 7.51 (6.62) .26 | 29.32 (21.26) .17 | --- | --- | -5.86 (16.86) .73 | 7.02 (13.37) .60 | --- |
| er | Corr (Levels) | 0.36 (0.09) <.01 | --- | 0.32 (0.13) .01 | -0.11 (0.12) .37 | 0.32 (0.09) <.01 | 0.08 (0.10) .40 | 0.43 (0.12) <.01 | 0.22 (0.17) .20 | 0.55 (0.16) <.01 | --- | --- | 0.35 (0.08) <.01 | 0.15 (0.10) .14 | --- |
| er | Corr (Slopes) | 0.72 (0.14) <.01 | --- | -0.10 (0.44) .82 | 0.05 (0.39) .89 | 0.89 (0.04) <.01 | 0.30 (0.30) .31 | 0.36 (0.18) .05 | -0.42 (0.28) .14 | 0.16 (0.41) .70 | --- | --- | 0.68 (0.14) <.01 | 0.22 (0.28) .42 | --- |
| er | Corr (Residuals) | 0.14 (0.06) .03 | --- | -0.06 (0.08) .46 | -0.04 (0.06) .53 | -0.06 (0.07) .42 | 0.07 (0.07) .35 | -0.05 (0.08) .54 | 0.08 (0.07) .26 | 0.17 (0.13) .19 | --- | --- | -0.02 (0.06) .73 | 0.05 (0.09) .59 | --- |
| a | Level | 455.98 (21.25) <.01 | --- | 458.10 (21.48) <.01 | 460.02 (21.72) <.01 | 457.55 (21.65) <.01 | 460.01 (21.45) <.01 | 456.25 (21.36) <.01 | 459.79 (21.71) <.01 | 458.66 (21.55) <.01 | --- | --- | 456.33 (21.33) <.01 | 457.31 (21.43) <.01 | 458.00(1.58) |
| a | Slope | 15.37 (1.45) <.01 | --- | 3.75 (0.25) <.01 | 6.03 (0.23) <.01 | 16.86 (0.82) <.01 | 33.61 (2.02) <.01 | 6.73 (0.46) <.01 | 9.84 (0.23) <.01 | 28.23 (0.52) <.01 | --- | --- | 29.15 (2.25) <.01 | 18.20 (1.24) <.01 | 16.78(10.57) |
| a | Level \* age | -11.96 (3.67) <.01 | --- | -11.49 (3.67) <.01 | -11.43 (3.65) <.01 | -11.51 (3.65) <.01 | -11.98 (3.61) <.01 | -11.56 (3.68) <.01 | -11.92 (3.67) <.01 | -12.71 (3.64) <.01 | --- | --- | -11.82 (3.69) <.01 | -11.40 (3.67) <.01 | -11.78(0.40) |
| a | Level \* education | 7.30 (1.97) <.01 | --- | 7.17 (1.98) <.01 | 7.38 (1.99) <.01 | 7.46 (1.98) <.01 | 7.24 (1.98) <.01 | 7.87 (1.97) <.01 | 7.53 (1.97) <.01 | 6.95 (2.06) <.01 | --- | --- | 7.45 (1.96) <.01 | 7.39 (1.97) <.01 | 7.37(0.24) |
| a | Level \* height | 130.36 (138.31) .35 | --- | 129.01 (139.53) .35 | 144.59 (141.34) .31 | 129.79 (138.65) .35 | 132.94 (139.24) .34 | 143.89 (139.26) .30 | 144.11 (139.53) .30 | 129.16 (142.06) .36 | --- | --- | 132.43 (137.99) .34 | 132.62 (139.51) .34 | 134.89(6.57) |
| a | Level \* smoking | -35.97 (19.05) .06 | --- | -37.76 (19.48) .05 | -40.14 (19.46) .04 | -37.96 (19.37) .05 | -37.97 (19.32) .05 | -38.03 (19.19) .05 | -40.24 (19.65) .04 | -38.16 (19.35) .05 | --- | --- | -35.92 (18.96) .06 | -37.97 (19.18) .05 | -38.01(1.42) |
| a | Level \* cardio | -14.29 (18.06) .43 | --- | -14.50 (18.00) .42 | -14.82 (17.95) .41 | -12.78 (18.03) .48 | -15.30 (17.96) .39 | -15.07 (18.01) .40 | -16.21 (18.07) .37 | -14.44 (18.06) .42 | --- | --- | -14.65 (17.92) .41 | -12.99 (18.00) .47 | -14.50(1.02) |
| a | Level \* diabetes | 49.67 (22.60) .03 | --- | 50.04 (22.68) .03 | 55.13 (22.62) .01 | 50.98 (22.94) .03 | 50.77 (22.55) .02 | 56.62 (22.99) .01 | 56.05 (22.81) .01 | 43.03 (23.97) .07 | --- | --- | 53.43 (22.63) .02 | 49.31 (22.88) .03 | 51.51(4.04) |
| a | Slope \* age | -0.06 (0.83) .94 | --- | -0.18 (0.81) .82 | -0.06 (0.86) .94 | -0.16 (0.82) .84 | 0.08 (0.85) .93 | -0.22 (0.79) .78 | -0.13 (0.81) .87 | -0.12 (0.82) .89 | --- | --- | 0.15 (0.83) .86 | -0.18 (0.82) .83 | -0.09(0.12) |
| a | Slope \* education | -0.20 (0.60) .73 | --- | -0.43 (0.61) .48 | -0.39 (0.59) .51 | -0.40 (0.61) .51 | -0.31 (0.59) .60 | -0.47 (0.54) .38 | -0.44 (0.57) .44 | -0.33 (0.58) .57 | --- | --- | -0.40 (0.57) .49 | -0.47 (0.58) .41 | -0.38(0.08) |
| a | Slope \* height | 23.28 (26.67) .38 | --- | 30.02 (24.65) .22 | 29.26 (26.30) .27 | 31.19 (23.03) .18 | 32.03 (25.89) .22 | 31.02 (24.75) .21 | 30.79 (24.57) .21 | 28.79 (25.99) .27 | --- | --- | 32.68 (25.09) .19 | 31.95 (24.93) .20 | 30.10(2.69) |
| a | Slope \* smoking | -5.23 (2.79) .06 | --- | -4.80 (2.80) .09 | -4.71 (2.78) .09 | -5.48 (2.62) .04 | -6.16 (2.93) .04 | -5.60 (2.77) .04 | -4.96 (2.82) .08 | -4.79 (2.88) .10 | --- | --- | -5.51 (2.73) .04 | -5.25 (2.85) .06 | -5.25(0.46) |
| a | Slope \* cardio | -2.68 (2.77) .33 | --- | -2.59 (2.79) .35 | -2.18 (2.71) .42 | -2.12 (2.59) .41 | -1.91 (2.85) .50 | -2.52 (2.77) .36 | -2.20 (2.73) .42 | -2.29 (2.80) .41 | --- | --- | -2.82 (2.70) .30 | -2.35 (2.84) .41 | -2.37(0.28) |
| a | Slope \* diabetes | -8.04 (3.15) .01 | --- | -5.46 (2.96) .06 | -5.83 (2.94) .05 | -5.23 (2.97) .08 | -8.26 (3.54) .02 | -5.99 (2.89) .04 | -5.81 (2.91) .05 | -5.72 (3.27) .08 | --- | --- | -7.90 (3.07) .01 | -5.06 (3.02) .09 | -6.33(1.23) |
| b | Level | -3.33 (2.62) .20 | --- | -3.17 (2.75) .25 | -4.06 (2.89) .16 | -3.21 (2.75) .24 | -3.67 (2.89) .20 | -2.10 (2.75) .44 | -3.05 (2.79) .28 | -4.79 (3.12) .12 | --- | --- | -3.81 (2.79) .17 | -3.24 (2.88) .26 | --- |
| b | Slope | -0.30 (0.19) .12 | --- | -0.11 (0.09) .19 | -0.14 (0.05) .01 | -0.02 (0.19) .90 | -0.59 (0.33) .08 | -0.10 (0.11) .37 | -0.28 (0.10) <.01 | -0.65 (0.24) .01 | --- | --- | -0.71 (0.35) .04 | -0.42 (0.18) .02 | --- |
| b | Level \* age | -0.35 (0.23) .13 | --- | -0.06 (0.04) .18 | -0.00 (0.03) .86 | -0.23 (0.13) .07 | -0.30 (0.34) .38 | -0.16 (0.08) .03 | -0.09 (0.06) .11 | -0.14 (0.10) .16 | --- | --- | -0.64 (0.41) .12 | 0.14 (0.23) .53 | --- |
| b | Level \* education | 0.58 (0.21) .01 | --- | 0.13 (0.03) <.01 | 0.08 (0.02) <.01 | 0.35 (0.10) <.01 | 1.12 (0.19) <.01 | 0.10 (0.05) .05 | 0.08 (0.04) .02 | 0.16 (0.07) .01 | --- | --- | 1.83 (0.25) <.01 | 1.23 (0.13) <.01 | --- |
| b | Level \* height | 16.38 (9.41) .08 | --- | 0.78 (1.29) .54 | 1.16 (1.36) .39 | 2.41 (5.75) .67 | 18.57 (11.35) .10 | 2.32 (2.80) .41 | 3.29 (2.00) .10 | 4.88 (3.42) .15 | --- | --- | 18.57 (12.27) .13 | 7.18 (6.76) .29 | --- |
| b | Level \* smoking | -3.03 (1.31) .02 | --- | -0.23 (0.26) .37 | -0.64 (0.21) <.01 | -1.50 (0.76) .05 | -2.34 (1.66) .16 | -0.41 (0.42) .34 | -0.24 (0.27) .37 | -0.73 (0.46) .11 | --- | --- | -5.28 (1.97) .01 | -3.98 (1.13) <.01 | --- |
| b | Level \* cardio | -0.91 (1.07) .40 | --- | -0.31 (0.22) .16 | 0.09 (0.16) .58 | 0.50 (0.66) .45 | 1.16 (1.31) .38 | -0.20 (0.36) .58 | 0.07 (0.24) .78 | 0.31 (0.51) .54 | --- | --- | -1.28 (1.69) .45 | -0.25 (0.95) .79 | --- |
| b | Level \* diabetes | -0.06 (1.68) .97 | --- | 0.07 (0.34) .84 | 0.07 (0.23) .78 | 0.95 (1.14) .40 | -0.12 (1.89) .95 | 0.44 (0.51) .39 | 0.76 (0.23) <.01 | -0.24 (0.79) .76 | --- | --- | 2.36 (2.90) .42 | -1.33 (1.37) .33 | --- |
| b | Slope \* age | 0.01 (0.03) .66 | --- | 0.01 (0.01) .38 | -0.01 (0.01) .11 | 0.04 (0.04) .21 | 0.04 (0.07) .59 | -0.01 (0.02) .79 | 0.03 (0.02) .18 | -0.05 (0.05) .35 | --- | --- | 0.10 (0.07) .15 | 0.01 (0.04) .86 | --- |
| b | Slope \* education | 0.05 (0.04) .19 | --- | 0.00 (0.01) .75 | 0.01 (0.01) .14 | -0.01 (0.03) .75 | 0.08 (0.03) .01 | 0.01 (0.02) .56 | 0.00 (0.02) .88 | 0.04 (0.03) .16 | --- | --- | 0.02 (0.05) .72 | 0.01 (0.02) .61 | --- |
| b | Slope \* height | -1.71 (1.85) .35 | --- | 0.39 (0.44) .38 | -0.52 (0.29) .07 | 1.73 (1.13) .13 | -1.51 (2.58) .56 | -0.21 (0.72) .77 | -0.07 (0.80) .93 | -0.90 (1.85) .62 | --- | --- | -0.98 (1.98) .62 | 0.10 (1.01) .92 | --- |
| b | Slope \* smoking | -0.25 (0.16) .11 | --- | -0.07 (0.07) .30 | 0.08 (0.05) .12 | -0.26 (0.14) .07 | -0.50 (0.27) .07 | -0.14 (0.10) .16 | -0.05 (0.10) .64 | -0.13 (0.23) .58 | --- | --- | -0.05 (0.37) .90 | 0.22 (0.14) .12 | --- |
| b | Slope \* cardio | -0.16 (0.18) .38 | --- | 0.06 (0.06) .32 | -0.06 (0.04) .11 | 0.15 (0.14) .26 | -0.14 (0.28) .62 | -0.08 (0.10) .46 | 0.01 (0.10) .95 | -0.09 (0.21) .66 | --- | --- | -0.30 (0.30) .32 | -0.01 (0.12) .93 | --- |
| b | Slope \* diabetes | -0.35 (0.47) .46 | --- | -0.04 (0.11) .68 | -0.02 (0.05) .65 | -0.19 (0.37) .61 | -0.89 (0.68) .20 | -0.22 (0.18) .24 | -0.23 (0.20) .23 | -0.35 (0.37) .34 | --- | --- | -1.15 (0.90) .20 | -0.17 (0.23) .46 | --- |
| a | Var (Level) | 8935.40 (1130.75) <.01 | --- | 8883.45 (1148.98) <.01 | 8929.67 (1154.17) <.01 | 8921.21 (1147.01) <.01 | 8883.06 (1151.25) <.01 | 9060.27 (1133.68) <.01 | 9031.81 (1172.96) <.01 | 9118.89 (1208.63) <.01 | --- | --- | 8867.54 (1137.04) <.01 | 8918.28 (1168.13) <.01 | 8954.96(85.18) |
| a | Var (Slope) | 45.44 (20.28) .02 | --- | 40.00 (23.14) .08 | 38.23 (23.30) .10 | 38.18 (13.71) <.01 | 47.34 (27.93) .09 | 50.36 (18.77) .01 | 41.37 (23.39) .08 | 37.80 (23.28) .10 | --- | --- | 40.39 (17.97) .02 | 39.25 (24.10) .10 | 41.84(4.36) |
| a | Var (Residual) | 3263.69 (410.77) <.01 | --- | 3260.34 (434.59) <.01 | 3268.03 (436.86) <.01 | 3276.99 (391.83) <.01 | 3234.41 (441.05) <.01 | 3186.12 (396.54) <.01 | 3267.41 (430.26) <.01 | 3338.57 (393.78) <.01 | --- | --- | 3257.06 (401.90) <.01 | 3255.59 (441.03) <.01 | 3260.82(37.61) |
| b | Var (Level) | 38.10 (5.10) <.01 | --- | 0.83 (0.23) <.01 | 0.69 (0.14) <.01 | 8.25 (1.95) <.01 | 65.03 (9.72) <.01 | 3.54 (0.62) <.01 | 0.69 (0.33) .04 | 3.06 (1.11) .01 | --- | --- | 85.55 (12.17) <.01 | 23.83 (2.53) <.01 | --- |
| b | Var (Slope) | 0.29 (0.23) .20 | --- | 0.02 (0.01) .09 | 0.02 (0.01) <.01 | 0.08 (0.03) .01 | 1.41 (0.40) <.01 | 0.12 (0.03) <.01 | 0.13 (0.05) .01 | 0.95 (0.28) <.01 | --- | --- | 1.18 (0.56) .04 | 0.04 (0.02) .01 | --- |
| b | Var (Residual) | 10.85 (1.31) <.01 | --- | 1.22 (0.14) <.01 | 0.59 (0.09) <.01 | 8.26 (0.92) <.01 | 13.29 (1.58) <.01 | 2.23 (0.22) <.01 | 2.46 (0.46) <.01 | 8.73 (1.14) <.01 | --- | --- | 20.48 (2.71) <.01 | 6.16 (0.66) <.01 | --- |
| a | Covar (Level, Slope) | -298.70 (118.42) .01 | --- | -290.82 (135.43) .03 | -293.48 (138.56) .03 | -293.54 (103.54) <.01 | -275.12 (138.81) .05 | -324.50 (128.17) .01 | -310.87 (143.79) .03 | -260.80 (155.34) .09 | --- | --- | -252.04 (123.82) .04 | -283.76 (146.61) .05 | -288.36(21.74) |
| b | Covar (Level, Slope) | -0.89 (0.76) .24 | --- | -0.03 (0.04) .43 | -0.06 (0.02) .01 | -0.29 (0.23) .21 | 0.25 (1.01) .80 | 0.09 (0.09) .29 | 0.25 (0.07) <.01 | 1.45 (0.48) <.01 | --- | --- | -3.67 (1.91) .06 | -0.14 (0.19) .47 | --- |
|  | Correlation of Levels | 0.36 | NaN | 0.321 | -0.112 | 0.319 | 0.080 | 0.433 | 0.216 | 0.55 | NaN | NaN | 0.348 | 0.15 | 0.27(0.19) |
|  | Correlation of Slopes | 0.72 | NaN | -0.099 | 0.054 | 0.890 | 0.304 | 0.363 | -0.418 | 0.16 | NaN | NaN | 0.676 | 0.23 | 0.29(0.40) |
|  | Correlation of Residuals | 0.14 | NaN | -0.056 | -0.037 | -0.059 | 0.066 | -0.047 | 0.084 | 0.17 | NaN | NaN | -0.023 | 0.05 | 0.03(0.09) |
|  | N | 179 | NA | 181 | 181 | 176 | 181 | 180 | 180 | 183 | NA | NA | 176 | 175 | 179.20(2.66) |
|  | occasions | 5 | NA | 5 | 5 | 5 | 5 | 5 | 5 | 5 | NA | NA | 5 | 5 | 5.00(0.00) |
|  | parameters | 41 | NA | 41 | 41 | 41 | 41 | 41 | 41 | 41 | NA | NA | 41 | 41 | 41.00(0.00) |
|  | LL | -4,165 | NA | -3,586 | -3,422 | -3,854 | -4,389 | -3,792 | -3,754 | -4,301 | NA | NA | -4,181 | -3,786 | -3,923(320) |
|  | AIC | 8,412 | NA | 7,253 | 6,926 | 7,791 | 8,860 | 7,666 | 7,589 | 8,684 | NA | NA | 8,443 | 7,654 | 7,928(639) |
|  | BIC | 8,543 | NA | 7,384 | 7,057 | 7,921 | 8,991 | 7,796 | 7,720 | 8,816 | NA | NA | 8,573 | 7,784 | 8,059(639) |

## block

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 301.49 (62.99) <.01 | 275.11 (60.41) <.01 | 233.54 (57.12) <.01 | 207.98 (52.64) <.01 |
| ab | Covar (Slopes) | 3.24 (1.79) .07 | 3.03 (1.72) .08 | 3.18 (1.73) .07 | 2.65 (1.58) .10 |
| ab | Covar (Residuals) | 22.62 (11.64) .05 | 23.51 (11.68) .04 | 25.41 (12.18) .04 | 26.62 (12.09) .03 |
| er | Corr (Levels) | 0.44 (0.08) <.01 | 0.42 (0.08) <.01 | 0.38 (0.08) <.01 | 0.36 (0.09) <.01 |
| er | Corr (Slopes) | 0.71 (0.17) <.01 | 0.69 (0.18) <.01 | 0.74 (0.14) <.01 | 0.72 (0.14) <.01 |
| er | Corr (Residuals) | 0.12 (0.06) .05 | 0.13 (0.06) .04 | 0.14 (0.06) .04 | 0.14 (0.06) .03 |
| a | Level | 424.17 (14.20) <.01 | 420.08 (14.41) <.01 | 427.22 (14.62) <.01 | 455.98 (21.25) <.01 |
| a | Slope | 12.37 (0.98) <.01 | 11.99 (0.96) <.01 | 12.69 (0.92) <.01 | 15.37 (1.45) <.01 |
| a | Level \* age | -12.38 (3.60) <.01 | -11.94 (3.57) <.01 | -12.02 (3.60) <.01 | -11.96 (3.67) <.01 |
| a | Level \* education | --- | 5.97 (2.05) <.01 | 6.60 (1.87) <.01 | 7.30 (1.97) <.01 |
| a | Level \* height | --- | --- | 114.27 (139.35) .41 | 130.36 (138.31) .35 |
| a | Level \* smoking | --- | --- | --- | -35.97 (19.05) .06 |
| a | Level \* cardio | --- | --- | --- | -14.29 (18.06) .43 |
| a | Level \* diabetes | --- | --- | --- | 49.67 (22.60) .03 |
| a | Slope \* age | 0.38 (0.77) .62 | 0.41 (0.78) .60 | 0.44 (0.79) .57 | -0.06 (0.83) .94 |
| a | Slope \* education | --- | -0.01 (0.62) .98 | -0.21 (0.59) .72 | -0.20 (0.60) .73 |
| a | Slope \* height | --- | --- | 19.78 (24.97) .43 | 23.28 (26.67) .38 |
| a | Slope \* smoking | --- | --- | --- | -5.23 (2.79) .06 |
| a | Slope \* cardio | --- | --- | --- | -2.68 (2.77) .33 |
| a | Slope \* diabetes | --- | --- | --- | -8.04 (3.15) .01 |
| b | Level | -10.57 (2.24) <.01 | -10.55 (2.30) <.01 | -10.44 (2.28) <.01 | -3.33 (2.62) .20 |
| b | Slope | -0.60 (0.13) <.01 | -0.63 (0.14) <.01 | -0.65 (0.15) <.01 | -0.30 (0.19) .12 |
| b | Level \* age | -0.41 (0.23) .08 | -0.38 (0.23) .10 | -0.35 (0.23) .14 | -0.35 (0.23) .13 |
| b | Level \* education | --- | 0.50 (0.22) .02 | 0.55 (0.21) .01 | 0.58 (0.21) .01 |
| b | Level \* height | --- | --- | 15.76 (9.14) .08 | 16.38 (9.41) .08 |
| b | Level \* smoking | --- | --- | --- | -3.03 (1.31) .02 |
| b | Level \* cardio | --- | --- | --- | -0.91 (1.07) .40 |
| b | Level \* diabetes | --- | --- | --- | -0.06 (1.68) .97 |
| b | Slope \* age | 0.03 (0.03) .37 | 0.04 (0.03) .24 | 0.04 (0.04) .29 | 0.01 (0.03) .66 |
| b | Slope \* education | --- | 0.05 (0.04) .18 | 0.06 (0.04) .19 | 0.05 (0.04) .19 |
| b | Slope \* height | --- | --- | -1.78 (1.83) .33 | -1.71 (1.85) .35 |
| b | Slope \* smoking | --- | --- | --- | -0.25 (0.16) .11 |
| b | Slope \* cardio | --- | --- | --- | -0.16 (0.18) .38 |
| b | Slope \* diabetes | --- | --- | --- | -0.35 (0.47) .46 |
| a | Var (Level) | 10082.45 (1240.93) <.01 | 9769.99 (1205.29) <.01 | 9417.54 (1230.14) <.01 | 8935.40 (1130.75) <.01 |
| a | Var (Slope) | 58.00 (26.76) .03 | 56.45 (26.51) .03 | 55.58 (25.61) .03 | 45.44 (20.28) .02 |
| a | Var (Residual) | 3282.67 (433.31) <.01 | 3284.69 (434.06) <.01 | 3279.06 (428.46) <.01 | 3263.69 (410.77) <.01 |
| b | Var (Level) | 46.45 (5.41) <.01 | 44.24 (5.27) <.01 | 40.03 (5.49) <.01 | 38.10 (5.10) <.01 |
| b | Var (Slope) | 0.36 (0.25) .14 | 0.34 (0.24) .16 | 0.33 (0.25) .18 | 0.29 (0.23) .20 |
| b | Var (Residual) | 10.28 (1.23) <.01 | 10.31 (1.24) <.01 | 10.77 (1.31) <.01 | 10.85 (1.31) <.01 |
| a | Covar (Level, Slope) | -300.16 (152.16) .05 | -293.14 (148.07) .05 | -285.55 (138.12) .04 | -298.70 (118.42) .01 |
| b | Covar (Level, Slope) | -0.60 (0.76) .42 | -0.83 (0.80) .29 | -0.64 (0.74) .39 | -0.89 (0.76) .24 |
|  | Correlation of Levels | 0.44 | 0.42 | 0.38 | 0.36 |
|  | Correlation of Slopes | 0.71 | 0.69 | 0.74 | 0.72 |
|  | Correlation of Residuals | 0.12 | 0.13 | 0.14 | 0.14 |
|  | N | 198 | 198 | 179 | 179 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,366 | -4,359 | -4,179 | -4,165 |
|  | AIC | 8,775 | 8,768 | 8,415 | 8,412 |
|  | BIC | 8,844 | 8,850 | 8,507 | 8,543 |

## clock

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 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 |

## digit\_b

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 41.26 (13.13) <.01 | 34.40 (12.59) .01 | 30.66 (11.45) .01 | 27.61 (11.05) .01 |
| ab | Covar (Slopes) | -0.03 (0.53) .95 | -0.05 (0.53) .93 | -0.11 (0.50) .83 | -0.10 (0.45) .83 |
| ab | Covar (Residuals) | -3.91 (5.10) .44 | -3.93 (5.13) .44 | -3.54 (5.01) .48 | -3.56 (4.92) .47 |
| er | Corr (Levels) | 0.39 (0.12) <.01 | 0.36 (0.13) <.01 | 0.34 (0.13) .01 | 0.32 (0.13) .01 |
| er | Corr (Slopes) | -0.03 (0.47) .95 | -0.04 (0.47) .93 | -0.10 (0.47) .83 | -0.10 (0.44) .82 |
| er | Corr (Residuals) | -0.06 (0.08) .44 | -0.06 (0.08) .44 | -0.06 (0.08) .47 | -0.06 (0.08) .46 |
| a | Level | 426.52 (14.14) <.01 | 422.28 (14.33) <.01 | 428.00 (14.64) <.01 | 458.10 (21.48) <.01 |
| a | Slope | 3.44 (0.16) <.01 | 3.34 (0.16) <.01 | 3.43 (0.15) <.01 | 3.75 (0.25) <.01 |
| a | Level \* age | -12.02 (3.60) <.01 | -11.55 (3.56) <.01 | -11.61 (3.61) <.01 | -11.49 (3.67) <.01 |
| a | Level \* education | --- | 5.89 (2.05) <.01 | 6.44 (1.88) <.01 | 7.17 (1.98) <.01 |
| a | Level \* height | --- | --- | 115.67 (139.55) .41 | 129.01 (139.53) .35 |
| a | Level \* smoking | --- | --- | --- | -37.76 (19.48) .05 |
| a | Level \* cardio | --- | --- | --- | -14.50 (18.00) .42 |
| a | Level \* diabetes | --- | --- | --- | 50.04 (22.68) .03 |
| a | Slope \* age | 0.27 (0.76) .72 | 0.24 (0.76) .75 | 0.32 (0.77) .68 | -0.18 (0.81) .82 |
| a | Slope \* education | --- | -0.23 (0.64) .72 | -0.41 (0.62) .51 | -0.43 (0.61) .48 |
| a | Slope \* height | --- | --- | 24.73 (22.35) .27 | 30.02 (24.65) .22 |
| a | Slope \* smoking | --- | --- | --- | -4.80 (2.80) .09 |
| a | Slope \* cardio | --- | --- | --- | -2.59 (2.79) .35 |
| a | Slope \* diabetes | --- | --- | --- | -5.46 (2.96) .06 |
| b | Level | -10.07 (2.20) <.01 | -9.91 (2.23) <.01 | -9.57 (2.16) <.01 | -3.17 (2.75) .25 |
| b | Slope | -0.14 (0.05) <.01 | -0.14 (0.05) <.01 | -0.14 (0.05) <.01 | -0.11 (0.09) .19 |
| b | Level \* age | -0.06 (0.04) .15 | -0.06 (0.04) .16 | -0.06 (0.04) .22 | -0.06 (0.04) .18 |
| b | Level \* education | --- | 0.14 (0.03) <.01 | 0.13 (0.03) <.01 | 0.13 (0.03) <.01 |
| b | Level \* height | --- | --- | 0.88 (1.29) .49 | 0.78 (1.29) .54 |
| b | Level \* smoking | --- | --- | --- | -0.23 (0.26) .37 |
| b | Level \* cardio | --- | --- | --- | -0.31 (0.22) .16 |
| b | Level \* diabetes | --- | --- | --- | 0.07 (0.34) .84 |
| b | Slope \* age | 0.01 (0.01) .43 | 0.01 (0.01) .37 | 0.01 (0.01) .38 | 0.01 (0.01) .38 |
| b | Slope \* education | --- | -0.00 (0.01) .83 | 0.00 (0.01) .93 | 0.00 (0.01) .75 |
| b | Slope \* height | --- | --- | 0.23 (0.38) .54 | 0.39 (0.44) .38 |
| b | Slope \* smoking | --- | --- | --- | -0.07 (0.07) .30 |
| b | Slope \* cardio | --- | --- | --- | 0.06 (0.06) .32 |
| b | Slope \* diabetes | --- | --- | --- | -0.04 (0.11) .68 |
| a | Var (Level) | 9966.77 (1257.64) <.01 | 9662.13 (1220.46) <.01 | 9361.10 (1249.10) <.01 | 8883.45 (1148.98) <.01 |
| a | Var (Slope) | 45.27 (24.05) .06 | 44.90 (24.19) .06 | 44.63 (25.20) .08 | 40.00 (23.14) .08 |
| a | Var (Residual) | 3299.80 (445.51) <.01 | 3299.02 (445.62) <.01 | 3290.16 (447.07) <.01 | 3260.34 (434.59) <.01 |
| b | Var (Level) | 1.12 (0.27) <.01 | 0.95 (0.23) <.01 | 0.85 (0.24) <.01 | 0.83 (0.23) <.01 |
| b | Var (Slope) | 0.03 (0.01) .05 | 0.03 (0.01) .06 | 0.02 (0.01) .07 | 0.02 (0.01) .09 |
| b | Var (Residual) | 1.26 (0.14) <.01 | 1.26 (0.14) <.01 | 1.23 (0.14) <.01 | 1.22 (0.14) <.01 |
| a | Covar (Level, Slope) | -261.30 (151.60) .08 | -249.98 (146.53) .09 | -258.87 (142.06) .07 | -290.82 (135.43) .03 |
| b | Covar (Level, Slope) | -0.04 (0.05) .39 | -0.04 (0.05) .42 | -0.03 (0.04) .46 | -0.03 (0.04) .43 |
|  | Correlation of Levels | 0.391 | 0.359 | 0.343 | 0.321 |
|  | Correlation of Slopes | -0.029 | -0.043 | -0.100 | -0.099 |
|  | Correlation of Residuals | -0.061 | -0.061 | -0.056 | -0.056 |
|  | N | 205 | 205 | 181 | 181 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,769 | -3,758 | -3,596 | -3,586 |
|  | AIC | 7,580 | 7,566 | 7,251 | 7,253 |
|  | BIC | 7,649 | 7,649 | 7,343 | 7,384 |

## digit\_f

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 0.52 (10.97) .96 | -3.54 (10.73) .74 | -3.97 (10.29) .70 | -8.77 (10.07) .38 |
| ab | Covar (Slopes) | -0.03 (0.38) .93 | -0.05 (0.37) .90 | 0.01 (0.36) .98 | 0.05 (0.33) .89 |
| ab | Covar (Residuals) | -1.92 (2.91) .51 | -1.65 (2.88) .57 | -1.69 (2.66) .52 | -1.64 (2.63) .53 |
| er | Corr (Levels) | 0.01 (0.12) .96 | -0.04 (0.12) .74 | -0.05 (0.12) .70 | -0.11 (0.12) .37 |
| er | Corr (Slopes) | -0.03 (0.33) .93 | -0.04 (0.33) .90 | 0.01 (0.34) .98 | 0.05 (0.39) .89 |
| er | Corr (Residuals) | -0.04 (0.06) .50 | -0.04 (0.06) .56 | -0.04 (0.06) .52 | -0.04 (0.06) .53 |
| a | Level | 427.55 (14.17) <.01 | 422.85 (14.28) <.01 | 428.35 (14.63) <.01 | 460.02 (21.72) <.01 |
| a | Slope | 5.66 (0.12) <.01 | 5.61 (0.12) <.01 | 5.60 (0.12) <.01 | 6.03 (0.23) <.01 |
| a | Level \* age | -12.13 (3.66) <.01 | -11.35 (3.58) <.01 | -11.57 (3.62) <.01 | -11.43 (3.65) <.01 |
| a | Level \* education | --- | 6.20 (1.98) <.01 | 6.47 (1.85) <.01 | 7.38 (1.99) <.01 |
| a | Level \* height | --- | --- | 132.54 (140.34) .34 | 144.59 (141.34) .31 |
| a | Level \* smoking | --- | --- | --- | -40.14 (19.46) .04 |
| a | Level \* cardio | --- | --- | --- | -14.82 (17.95) .41 |
| a | Level \* diabetes | --- | --- | --- | 55.13 (22.62) .01 |
| a | Slope \* age | 0.05 (0.84) .95 | 0.03 (0.85) .97 | 0.27 (0.85) .75 | -0.06 (0.86) .94 |
| a | Slope \* education | --- | -0.21 (0.60) .72 | -0.35 (0.59) .56 | -0.39 (0.59) .51 |
| a | Slope \* height | --- | --- | 21.91 (23.04) .34 | 29.26 (26.30) .27 |
| a | Slope \* smoking | --- | --- | --- | -4.71 (2.78) .09 |
| a | Slope \* cardio | --- | --- | --- | -2.18 (2.71) .42 |
| a | Slope \* diabetes | --- | --- | --- | -5.83 (2.94) .05 |
| b | Level | -9.72 (2.37) <.01 | -9.57 (2.42) <.01 | -9.65 (2.35) <.01 | -4.06 (2.89) .16 |
| b | Slope | -0.10 (0.03) <.01 | -0.11 (0.03) <.01 | -0.11 (0.02) <.01 | -0.14 (0.05) .01 |
| b | Level \* age | -0.03 (0.03) .32 | -0.03 (0.03) .34 | -0.00 (0.03) .96 | -0.00 (0.03) .86 |
| b | Level \* education | --- | 0.07 (0.02) <.01 | 0.07 (0.02) .01 | 0.08 (0.02) <.01 |
| b | Level \* height | --- | --- | 0.93 (1.36) .49 | 1.16 (1.36) .39 |
| b | Level \* smoking | --- | --- | --- | -0.64 (0.21) <.01 |
| b | Level \* cardio | --- | --- | --- | 0.09 (0.16) .58 |
| b | Level \* diabetes | --- | --- | --- | 0.07 (0.23) .78 |
| b | Slope \* age | -0.01 (0.01) .12 | -0.01 (0.01) .18 | -0.01 (0.01) .15 | -0.01 (0.01) .11 |
| b | Slope \* education | --- | 0.01 (0.01) .08 | 0.01 (0.01) .10 | 0.01 (0.01) .14 |
| b | Slope \* height | --- | --- | -0.39 (0.29) .18 | -0.52 (0.29) .07 |
| b | Slope \* smoking | --- | --- | --- | 0.08 (0.05) .12 |
| b | Slope \* cardio | --- | --- | --- | -0.06 (0.04) .11 |
| b | Slope \* diabetes | --- | --- | --- | -0.02 (0.05) .65 |
| a | Var (Level) | 10089.03 (1266.41) <.01 | 9761.76 (1221.20) <.01 | 9447.30 (1251.07) <.01 | 8929.67 (1154.17) <.01 |
| a | Var (Slope) | 49.05 (24.67) .05 | 48.72 (24.75) .05 | 47.51 (25.96) .07 | 38.23 (23.30) .10 |
| a | Var (Residual) | 3274.16 (443.48) <.01 | 3272.55 (444.31) <.01 | 3272.86 (446.12) <.01 | 3268.03 (436.86) <.01 |
| b | Var (Level) | 0.84 (0.13) <.01 | 0.80 (0.13) <.01 | 0.78 (0.14) <.01 | 0.69 (0.14) <.01 |
| b | Var (Slope) | 0.03 (0.01) <.01 | 0.03 (0.01) <.01 | 0.02 (0.01) <.01 | 0.02 (0.01) <.01 |
| b | Var (Residual) | 0.63 (0.09) <.01 | 0.63 (0.08) <.01 | 0.59 (0.09) <.01 | 0.59 (0.09) <.01 |
| a | Covar (Level, Slope) | -276.34 (155.05) .07 | -266.18 (149.57) .07 | -275.66 (145.70) .06 | -293.48 (138.56) .03 |
| b | Covar (Level, Slope) | -0.08 (0.03) <.01 | -0.08 (0.03) <.01 | -0.08 (0.03) <.01 | -0.06 (0.02) .01 |
|  | Correlation of Levels | 0.0057 | -0.040 | -0.0464 | -0.112 |
|  | Correlation of Slopes | -0.0275 | -0.042 | 0.0077 | 0.054 |
|  | Correlation of Residuals | -0.0422 | -0.036 | -0.0384 | -0.037 |
|  | N | 205 | 205 | 181 | 181 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,600 | -3,590 | -3,438 | -3,422 |
|  | AIC | 7,243 | 7,231 | 6,933 | 6,926 |
|  | BIC | 7,313 | 7,314 | 7,026 | 7,057 |

## fig\_logic

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 142.19 (38.28) <.01 | 128.35 (37.45) <.01 | 101.61 (27.81) <.01 | 86.48 (26.57) <.01 |
| ab | Covar (Slopes) | 1.87 (0.78) .02 | 1.85 (0.76) .01 | 1.88 (0.73) .01 | 1.57 (0.66) .02 |
| ab | Covar (Residuals) | -10.88 (11.92) .36 | -11.07 (11.93) .35 | -11.93 (11.88) .32 | -9.71 (11.92) .41 |
| er | Corr (Levels) | 0.41 (0.10) <.01 | 0.39 (0.10) <.01 | 0.36 (0.09) <.01 | 0.32 (0.09) <.01 |
| er | Corr (Slopes) | 0.84 (0.08) <.01 | 0.84 (0.08) <.01 | 0.97 (0.01) <.01 | 0.89 (0.04) <.01 |
| er | Corr (Residuals) | -0.07 (0.07) .37 | -0.07 (0.07) .36 | -0.07 (0.07) .32 | -0.06 (0.07) .42 |
| a | Level | 424.88 (14.40) <.01 | 420.73 (14.55) <.01 | 428.59 (14.56) <.01 | 457.55 (21.65) <.01 |
| a | Slope | 15.81 (0.54) <.01 | 15.65 (0.54) <.01 | 16.09 (0.49) <.01 | 16.86 (0.82) <.01 |
| a | Level \* age | -11.64 (3.66) <.01 | -11.16 (3.61) <.01 | -11.62 (3.63) <.01 | -11.51 (3.65) <.01 |
| a | Level \* education | --- | 6.22 (2.04) <.01 | 6.66 (1.89) <.01 | 7.46 (1.98) <.01 |
| a | Level \* height | --- | --- | 115.82 (139.38) .41 | 129.79 (138.65) .35 |
| a | Level \* smoking | --- | --- | --- | -37.96 (19.37) .05 |
| a | Level \* cardio | --- | --- | --- | -12.78 (18.03) .48 |
| a | Level \* diabetes | --- | --- | --- | 50.98 (22.94) .03 |
| a | Slope \* age | 0.14 (0.78) .86 | 0.15 (0.78) .85 | 0.24 (0.79) .76 | -0.16 (0.82) .84 |
| a | Slope \* education | --- | -0.22 (0.64) .73 | -0.41 (0.56) .46 | -0.40 (0.61) .51 |
| a | Slope \* height | --- | --- | 25.40 (20.13) .21 | 31.19 (23.03) .18 |
| a | Slope \* smoking | --- | --- | --- | -5.48 (2.62) .04 |
| a | Slope \* cardio | --- | --- | --- | -2.12 (2.59) .41 |
| a | Slope \* diabetes | --- | --- | --- | -5.23 (2.97) .08 |
| b | Level | -9.89 (2.23) <.01 | -9.74 (2.27) <.01 | -9.79 (2.17) <.01 | -3.21 (2.75) .24 |
| b | Slope | -0.19 (0.11) .09 | -0.18 (0.11) .10 | -0.18 (0.11) .11 | -0.02 (0.19) .90 |
| b | Level \* age | -0.23 (0.14) .10 | -0.22 (0.14) .12 | -0.23 (0.14) .09 | -0.23 (0.13) .07 |
| b | Level \* education | --- | 0.28 (0.11) .01 | 0.32 (0.10) <.01 | 0.35 (0.10) <.01 |
| b | Level \* height | --- | --- | 2.23 (5.36) .68 | 2.41 (5.75) .67 |
| b | Level \* smoking | --- | --- | --- | -1.50 (0.76) .05 |
| b | Level \* cardio | --- | --- | --- | 0.50 (0.66) .45 |
| b | Level \* diabetes | --- | --- | --- | 0.95 (1.14) .40 |
| b | Slope \* age | 0.04 (0.03) .29 | 0.04 (0.03) .28 | 0.04 (0.04) .23 | 0.04 (0.04) .21 |
| b | Slope \* education | --- | -0.02 (0.02) .51 | -0.02 (0.02) .35 | -0.01 (0.03) .75 |
| b | Slope \* height | --- | --- | 1.20 (0.92) .19 | 1.73 (1.13) .13 |
| b | Slope \* smoking | --- | --- | --- | -0.26 (0.14) .07 |
| b | Slope \* cardio | --- | --- | --- | 0.15 (0.14) .26 |
| b | Slope \* diabetes | --- | --- | --- | -0.19 (0.37) .61 |
| a | Var (Level) | 10161.57 (1261.92) <.01 | 9826.23 (1220.84) <.01 | 9419.74 (1219.35) <.01 | 8921.21 (1147.01) <.01 |
| a | Var (Slope) | 51.10 (20.12) .01 | 50.55 (19.97) .01 | 46.68 (17.38) .01 | 38.18 (13.71) <.01 |
| a | Var (Residual) | 3287.96 (417.85) <.01 | 3286.72 (416.92) <.01 | 3290.69 (403.38) <.01 | 3276.99 (391.83) <.01 |
| b | Var (Level) | 11.65 (2.28) <.01 | 11.10 (2.18) <.01 | 8.64 (1.89) <.01 | 8.25 (1.95) <.01 |
| b | Var (Slope) | 0.10 (0.05) .04 | 0.10 (0.04) .03 | 0.08 (0.03) .01 | 0.08 (0.03) .01 |
| b | Var (Residual) | 8.21 (0.93) <.01 | 8.21 (0.93) <.01 | 8.28 (0.94) <.01 | 8.26 (0.92) <.01 |
| a | Covar (Level, Slope) | -295.68 (145.50) .04 | -281.65 (138.69) .04 | -266.79 (117.58) .02 | -293.54 (103.54) <.01 |
| b | Covar (Level, Slope) | -0.28 (0.30) .35 | -0.25 (0.29) .38 | -0.13 (0.21) .54 | -0.29 (0.23) .21 |
|  | Correlation of Levels | 0.413 | 0.389 | 0.356 | 0.319 |
|  | Correlation of Slopes | 0.843 | 0.842 | 0.968 | 0.890 |
|  | Correlation of Residuals | -0.066 | -0.067 | -0.072 | -0.059 |
|  | N | 192 | 192 | 176 | 176 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,000 | -3,996 | -3,869 | -3,854 |
|  | AIC | 8,042 | 8,042 | 7,797 | 7,791 |
|  | BIC | 8,110 | 8,123 | 7,889 | 7,921 |

## information

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 144.10 (81.90) .08 | 90.22 (76.23) .24 | 77.16 (74.35) .30 | 60.85 (72.91) .40 |
| ab | Covar (Slopes) | 3.00 (4.06) .46 | 3.22 (4.01) .42 | 3.01 (3.45) .38 | 2.48 (2.91) .39 |
| ab | Covar (Residuals) | 15.44 (14.72) .29 | 15.39 (14.74) .30 | 14.14 (15.27) .35 | 13.60 (14.90) .36 |
| er | Corr (Levels) | 0.16 (0.09) .07 | 0.11 (0.09) .23 | 0.10 (0.09) .30 | 0.08 (0.10) .40 |
| er | Corr (Slopes) | 0.28 (0.32) .39 | 0.30 (0.31) .34 | 0.32 (0.30) .30 | 0.30 (0.30) .31 |
| er | Corr (Residuals) | 0.07 (0.07) .29 | 0.07 (0.07) .29 | 0.07 (0.07) .35 | 0.07 (0.07) .35 |
| a | Level | 428.19 (14.17) <.01 | 423.60 (14.44) <.01 | 429.30 (14.66) <.01 | 460.01 (21.45) <.01 |
| a | Slope | 32.87 (1.25) <.01 | 32.15 (1.18) <.01 | 32.42 (1.33) <.01 | 33.61 (2.02) <.01 |
| a | Level \* age | -12.55 (3.58) <.01 | -11.95 (3.54) <.01 | -12.16 (3.55) <.01 | -11.98 (3.61) <.01 |
| a | Level \* education | --- | 6.04 (2.02) <.01 | 6.55 (1.87) <.01 | 7.24 (1.98) <.01 |
| a | Level \* height | --- | --- | 117.03 (139.26) .40 | 132.94 (139.24) .34 |
| a | Level \* smoking | --- | --- | --- | -37.97 (19.32) .05 |
| a | Level \* cardio | --- | --- | --- | -15.30 (17.96) .39 |
| a | Level \* diabetes | --- | --- | --- | 50.77 (22.55) .02 |
| a | Slope \* age | 0.41 (0.80) .61 | 0.40 (0.81) .62 | 0.51 (0.81) .53 | 0.08 (0.85) .93 |
| a | Slope \* education | --- | -0.26 (0.63) .68 | -0.37 (0.60) .54 | -0.31 (0.59) .60 |
| a | Slope \* height | --- | --- | 28.08 (24.06) .24 | 32.03 (25.89) .22 |
| a | Slope \* smoking | --- | --- | --- | -6.16 (2.93) .04 |
| a | Slope \* cardio | --- | --- | --- | -1.91 (2.85) .50 |
| a | Slope \* diabetes | --- | --- | --- | -8.26 (3.54) .02 |
| b | Level | -11.00 (2.45) <.01 | -10.88 (2.50) <.01 | -10.68 (2.40) <.01 | -3.67 (2.89) .20 |
| b | Slope | -1.20 (0.25) <.01 | -1.26 (0.26) <.01 | -1.14 (0.25) <.01 | -0.59 (0.33) .08 |
| b | Level \* age | -0.44 (0.32) .17 | -0.43 (0.30) .15 | -0.30 (0.34) .37 | -0.30 (0.34) .38 |
| b | Level \* education | --- | 1.26 (0.17) <.01 | 1.08 (0.19) <.01 | 1.12 (0.19) <.01 |
| b | Level \* height | --- | --- | 17.72 (11.57) .13 | 18.57 (11.35) .10 |
| b | Level \* smoking | --- | --- | --- | -2.34 (1.66) .16 |
| b | Level \* cardio | --- | --- | --- | 1.16 (1.31) .38 |
| b | Level \* diabetes | --- | --- | --- | -0.12 (1.89) .95 |
| b | Slope \* age | 0.07 (0.07) .35 | 0.08 (0.08) .27 | 0.05 (0.07) .50 | 0.04 (0.07) .59 |
| b | Slope \* education | --- | 0.06 (0.03) .08 | 0.08 (0.03) .01 | 0.08 (0.03) .01 |
| b | Slope \* height | --- | --- | -1.34 (2.58) .60 | -1.51 (2.58) .56 |
| b | Slope \* smoking | --- | --- | --- | -0.50 (0.27) .07 |
| b | Slope \* cardio | --- | --- | --- | -0.14 (0.28) .62 |
| b | Slope \* diabetes | --- | --- | --- | -0.89 (0.68) .20 |
| a | Var (Level) | 10086.24 (1269.85) <.01 | 9764.44 (1226.00) <.01 | 9413.50 (1250.49) <.01 | 8883.06 (1151.25) <.01 |
| a | Var (Slope) | 63.55 (33.85) .06 | 63.29 (34.16) .06 | 60.59 (33.73) .07 | 47.34 (27.93) .09 |
| a | Var (Residual) | 3238.11 (452.99) <.01 | 3236.79 (453.43) <.01 | 3238.49 (453.25) <.01 | 3234.41 (441.05) <.01 |
| b | Var (Level) | 81.54 (10.38) <.01 | 68.75 (9.22) <.01 | 66.42 (9.96) <.01 | 65.03 (9.72) <.01 |
| b | Var (Slope) | 1.86 (0.56) <.01 | 1.83 (0.57) <.01 | 1.48 (0.46) <.01 | 1.41 (0.40) <.01 |
| b | Var (Residual) | 13.13 (1.51) <.01 | 13.14 (1.53) <.01 | 13.43 (1.68) <.01 | 13.29 (1.58) <.01 |
| a | Covar (Level, Slope) | -271.31 (162.69) .10 | -258.39 (157.90) .10 | -270.36 (154.49) .08 | -275.12 (138.81) .05 |
| b | Covar (Level, Slope) | 1.40 (1.09) .20 | 0.82 (1.14) .47 | 0.59 (1.02) .56 | 0.25 (1.01) .80 |
|  | Correlation of Levels | 0.159 | 0.110 | 0.098 | 0.080 |
|  | Correlation of Slopes | 0.276 | 0.299 | 0.318 | 0.304 |
|  | Correlation of Residuals | 0.075 | 0.075 | 0.068 | 0.066 |
|  | N | 203 | 203 | 181 | 181 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,643 | -4,626 | -4,402 | -4,389 |
|  | AIC | 9,328 | 9,302 | 8,863 | 8,860 |
|  | BIC | 9,397 | 9,385 | 8,956 | 8,991 |

## mir

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 92.81 (24.86) <.01 | 88.18 (24.50) <.01 | 83.44 (22.27) <.01 | 77.50 (21.67) <.01 |
| ab | Covar (Slopes) | 1.06 (0.66) .11 | 1.06 (0.64) .10 | 1.32 (0.58) .02 | 0.91 (0.53) .09 |
| ab | Covar (Residuals) | -4.10 (6.82) .55 | -4.12 (6.77) .54 | -4.57 (6.64) .49 | -3.99 (6.54) .54 |
| er | Corr (Levels) | 0.46 (0.12) <.01 | 0.45 (0.12) <.01 | 0.45 (0.12) <.01 | 0.43 (0.12) <.01 |
| er | Corr (Slopes) | 0.38 (0.20) .06 | 0.39 (0.20) .06 | 0.50 (0.16) <.01 | 0.36 (0.18) .05 |
| er | Corr (Residuals) | -0.05 (0.08) .55 | -0.05 (0.08) .54 | -0.05 (0.08) .50 | -0.05 (0.08) .54 |
| a | Level | 425.44 (14.25) <.01 | 420.06 (14.44) <.01 | 426.65 (14.57) <.01 | 456.25 (21.36) <.01 |
| a | Slope | 6.36 (0.30) <.01 | 6.27 (0.31) <.01 | 6.37 (0.29) <.01 | 6.73 (0.46) <.01 |
| a | Level \* age | -12.40 (3.63) <.01 | -11.69 (3.57) <.01 | -11.78 (3.62) <.01 | -11.56 (3.68) <.01 |
| a | Level \* education | --- | 7.22 (2.02) <.01 | 7.18 (1.87) <.01 | 7.87 (1.97) <.01 |
| a | Level \* height | --- | --- | 132.57 (138.85) .34 | 143.89 (139.26) .30 |
| a | Level \* smoking | --- | --- | --- | -38.03 (19.19) .05 |
| a | Level \* cardio | --- | --- | --- | -15.07 (18.01) .40 |
| a | Level \* diabetes | --- | --- | --- | 56.62 (22.99) .01 |
| a | Slope \* age | 0.34 (0.75) .66 | 0.33 (0.76) .66 | 0.34 (0.74) .65 | -0.22 (0.79) .78 |
| a | Slope \* education | --- | -0.30 (0.61) .62 | -0.51 (0.56) .36 | -0.47 (0.54) .38 |
| a | Slope \* height | --- | --- | 24.39 (22.63) .28 | 31.02 (24.75) .21 |
| a | Slope \* smoking | --- | --- | --- | -5.60 (2.77) .04 |
| a | Slope \* cardio | --- | --- | --- | -2.52 (2.77) .36 |
| a | Slope \* diabetes | --- | --- | --- | -5.99 (2.89) .04 |
| b | Level | -9.73 (2.17) <.01 | -9.49 (2.22) <.01 | -9.32 (2.13) <.01 | -2.10 (2.75) .44 |
| b | Slope | -0.28 (0.07) <.01 | -0.29 (0.07) <.01 | -0.27 (0.07) <.01 | -0.10 (0.11) .37 |
| b | Level \* age | -0.20 (0.07) .01 | -0.18 (0.07) .01 | -0.16 (0.08) .04 | -0.16 (0.08) .03 |
| b | Level \* education | --- | 0.12 (0.05) .01 | 0.09 (0.05) .05 | 0.10 (0.05) .05 |
| b | Level \* height | --- | --- | 2.19 (2.79) .43 | 2.32 (2.80) .41 |
| b | Level \* smoking | --- | --- | --- | -0.41 (0.42) .34 |
| b | Level \* cardio | --- | --- | --- | -0.20 (0.36) .58 |
| b | Level \* diabetes | --- | --- | --- | 0.44 (0.51) .39 |
| b | Slope \* age | 0.00 (0.02) .86 | 0.00 (0.02) .80 | -0.00 (0.02) .93 | -0.01 (0.02) .79 |
| b | Slope \* education | --- | 0.01 (0.02) .57 | 0.01 (0.02) .57 | 0.01 (0.02) .56 |
| b | Slope \* height | --- | --- | -0.17 (0.69) .80 | -0.21 (0.72) .77 |
| b | Slope \* smoking | --- | --- | --- | -0.14 (0.10) .16 |
| b | Slope \* cardio | --- | --- | --- | -0.08 (0.10) .46 |
| b | Slope \* diabetes | --- | --- | --- | -0.22 (0.18) .24 |
| a | Var (Level) | 10205.21 (1259.83) <.01 | 9852.58 (1214.96) <.01 | 9463.42 (1213.34) <.01 | 9060.27 (1133.68) <.01 |
| a | Var (Slope) | 54.66 (23.23) .02 | 53.88 (23.09) .02 | 50.68 (18.82) .01 | 50.36 (18.77) .01 |
| a | Var (Residual) | 3245.00 (429.92) <.01 | 3245.54 (429.69) <.01 | 3238.93 (405.25) <.01 | 3186.12 (396.54) <.01 |
| b | Var (Level) | 4.03 (0.69) <.01 | 3.92 (0.67) <.01 | 3.57 (0.62) <.01 | 3.54 (0.62) <.01 |
| b | Var (Slope) | 0.14 (0.03) <.01 | 0.14 (0.03) <.01 | 0.14 (0.03) <.01 | 0.12 (0.03) <.01 |
| b | Var (Residual) | 2.27 (0.21) <.01 | 2.27 (0.21) <.01 | 2.23 (0.22) <.01 | 2.23 (0.22) <.01 |
| a | Covar (Level, Slope) | -298.08 (150.45) .05 | -282.60 (145.09) .05 | -262.57 (128.33) .04 | -324.50 (128.17) .01 |
| b | Covar (Level, Slope) | 0.11 (0.09) .22 | 0.10 (0.09) .24 | 0.11 (0.09) .20 | 0.09 (0.09) .29 |
|  | Correlation of Levels | 0.458 | 0.449 | 0.454 | 0.433 |
|  | Correlation of Slopes | 0.385 | 0.389 | 0.502 | 0.363 |
|  | Correlation of Residuals | -0.048 | -0.048 | -0.054 | -0.047 |
|  | N | 199 | 199 | 180 | 180 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,954 | -3,950 | -3,803 | -3,792 |
|  | AIC | 7,950 | 7,950 | 7,664 | 7,666 |
|  | BIC | 8,019 | 8,032 | 7,757 | 7,796 |

## mir\_recog

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 37.78 (19.72) .06 | 33.24 (18.97) .08 | 21.41 (15.17) .16 | 17.09 (13.75) .21 |
| ab | Covar (Slopes) | -1.10 (0.86) .20 | -1.05 (0.86) .22 | -1.00 (0.78) .20 | -0.98 (0.69) .15 |
| ab | Covar (Residuals) | 7.40 (7.36) .32 | 7.12 (7.36) .33 | 7.06 (6.74) .29 | 7.51 (6.62) .26 |
| er | Corr (Levels) | 0.34 (0.17) .04 | 0.32 (0.17) .06 | 0.27 (0.18) .15 | 0.22 (0.17) .20 |
| er | Corr (Slopes) | -0.39 (0.30) .18 | -0.38 (0.30) .21 | -0.39 (0.29) .18 | -0.42 (0.28) .14 |
| er | Corr (Residuals) | 0.08 (0.08) .32 | 0.08 (0.08) .34 | 0.08 (0.07) .30 | 0.08 (0.07) .26 |
| a | Level | 425.30 (14.38) <.01 | 420.29 (14.62) <.01 | 427.29 (14.66) <.01 | 459.79 (21.71) <.01 |
| a | Slope | 9.76 (0.21) <.01 | 9.69 (0.21) <.01 | 9.77 (0.17) <.01 | 9.84 (0.23) <.01 |
| a | Level \* age | -12.81 (3.69) <.01 | -12.05 (3.63) <.01 | -12.09 (3.62) <.01 | -11.92 (3.67) <.01 |
| a | Level \* education | --- | 6.77 (1.99) <.01 | 6.84 (1.86) <.01 | 7.53 (1.97) <.01 |
| a | Level \* height | --- | --- | 130.25 (138.68) .35 | 144.11 (139.53) .30 |
| a | Level \* smoking | --- | --- | --- | -40.24 (19.65) .04 |
| a | Level \* cardio | --- | --- | --- | -16.21 (18.07) .37 |
| a | Level \* diabetes | --- | --- | --- | 56.05 (22.81) .01 |
| a | Slope \* age | 0.29 (0.78) .71 | 0.28 (0.78) .72 | 0.32 (0.77) .68 | -0.13 (0.81) .87 |
| a | Slope \* education | --- | -0.31 (0.63) .62 | -0.48 (0.59) .42 | -0.44 (0.57) .44 |
| a | Slope \* height | --- | --- | 24.70 (21.85) .26 | 30.79 (24.57) .21 |
| a | Slope \* smoking | --- | --- | --- | -4.96 (2.82) .08 |
| a | Slope \* cardio | --- | --- | --- | -2.20 (2.73) .42 |
| a | Slope \* diabetes | --- | --- | --- | -5.81 (2.91) .05 |
| b | Level | -9.38 (2.27) <.01 | -9.16 (2.32) <.01 | -8.96 (2.22) <.01 | -3.05 (2.79) .28 |
| b | Slope | -0.37 (0.08) <.01 | -0.37 (0.08) <.01 | -0.33 (0.07) <.01 | -0.28 (0.10) <.01 |
| b | Level \* age | -0.12 (0.08) .10 | -0.12 (0.07) .11 | -0.09 (0.06) .12 | -0.09 (0.06) .11 |
| b | Level \* education | --- | 0.09 (0.04) .01 | 0.07 (0.04) .04 | 0.08 (0.04) .02 |
| b | Level \* height | --- | --- | 3.04 (1.99) .13 | 3.29 (2.00) .10 |
| b | Level \* smoking | --- | --- | --- | -0.24 (0.27) .37 |
| b | Level \* cardio | --- | --- | --- | 0.07 (0.24) .78 |
| b | Level \* diabetes | --- | --- | --- | 0.76 (0.23) <.01 |
| b | Slope \* age | 0.03 (0.02) .10 | 0.04 (0.02) .10 | 0.03 (0.02) .18 | 0.03 (0.02) .18 |
| b | Slope \* education | --- | 0.00 (0.01) .71 | 0.00 (0.01) .87 | 0.00 (0.02) .88 |
| b | Slope \* height | --- | --- | 0.06 (0.73) .93 | -0.07 (0.80) .93 |
| b | Slope \* smoking | --- | --- | --- | -0.05 (0.10) .64 |
| b | Slope \* cardio | --- | --- | --- | 0.01 (0.10) .95 |
| b | Slope \* diabetes | --- | --- | --- | -0.23 (0.20) .23 |
| a | Var (Level) | 10411.44 (1349.42) <.01 | 10034.55 (1301.17) <.01 | 9551.12 (1275.57) <.01 | 9031.81 (1172.96) <.01 |
| a | Var (Slope) | 52.15 (25.83) .04 | 51.11 (25.67) .05 | 48.62 (25.81) .06 | 41.37 (23.39) .08 |
| a | Var (Residual) | 3295.37 (448.69) <.01 | 3293.39 (448.24) <.01 | 3288.31 (445.35) <.01 | 3267.41 (430.26) <.01 |
| b | Var (Level) | 1.15 (0.50) .02 | 1.10 (0.47) .02 | 0.68 (0.37) .06 | 0.69 (0.33) .04 |
| b | Var (Slope) | 0.15 (0.06) .01 | 0.15 (0.06) .01 | 0.14 (0.06) .01 | 0.13 (0.05) .01 |
| b | Var (Residual) | 2.63 (0.49) <.01 | 2.63 (0.49) <.01 | 2.50 (0.47) <.01 | 2.46 (0.46) <.01 |
| a | Covar (Level, Slope) | -325.73 (175.46) .06 | -305.42 (168.81) .07 | -295.47 (155.26) .06 | -310.87 (143.79) .03 |
| b | Covar (Level, Slope) | 0.35 (0.09) <.01 | 0.35 (0.09) <.01 | 0.25 (0.07) <.01 | 0.25 (0.07) <.01 |
|  | Correlation of Levels | 0.345 | 0.317 | 0.266 | 0.216 |
|  | Correlation of Slopes | -0.394 | -0.377 | -0.390 | -0.418 |
|  | Correlation of Residuals | 0.079 | 0.076 | 0.078 | 0.084 |
|  | N | 199 | 199 | 180 | 180 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,934 | -3,930 | -3,765 | -3,754 |
|  | AIC | 7,909 | 7,910 | 7,589 | 7,589 |
|  | BIC | 7,978 | 7,992 | 7,681 | 7,720 |

## mmse

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 181.47 (59.96) <.01 | 168.22 (58.80) <.01 | 96.78 (29.22) <.01 | 91.95 (27.36) <.01 |
| ab | Covar (Slopes) | 1.98 (3.06) .52 | 2.00 (2.97) .50 | 2.17 (2.64) .41 | 0.96 (2.56) .71 |
| ab | Covar (Residuals) | 33.70 (23.50) .15 | 33.65 (23.63) .15 | 33.63 (21.74) .12 | 29.32 (21.26) .17 |
| er | Corr (Levels) | 0.64 (0.14) <.01 | 0.62 (0.15) <.01 | 0.56 (0.16) <.01 | 0.55 (0.16) <.01 |
| er | Corr (Slopes) | 0.26 (0.37) .48 | 0.27 (0.36) .46 | 0.31 (0.33) .34 | 0.16 (0.41) .70 |
| er | Corr (Residuals) | 0.19 (0.14) .17 | 0.19 (0.14) .17 | 0.20 (0.13) .14 | 0.17 (0.13) .19 |
| a | Level | 426.06 (14.46) <.01 | 421.59 (14.59) <.01 | 427.52 (14.76) <.01 | 458.66 (21.55) <.01 |
| a | Slope | 27.79 (0.39) <.01 | 27.65 (0.39) <.01 | 27.81 (0.36) <.01 | 28.23 (0.52) <.01 |
| a | Level \* age | -15.70 (3.46) <.01 | -15.02 (3.40) <.01 | -12.88 (3.58) <.01 | -12.71 (3.64) <.01 |
| a | Level \* education | --- | 6.10 (2.08) <.01 | 6.32 (1.97) <.01 | 6.95 (2.06) <.01 |
| a | Level \* height | --- | --- | 115.83 (140.29) .41 | 129.16 (142.06) .36 |
| a | Level \* smoking | --- | --- | --- | -38.16 (19.35) .05 |
| a | Level \* cardio | --- | --- | --- | -14.44 (18.06) .42 |
| a | Level \* diabetes | --- | --- | --- | 43.03 (23.97) .07 |
| a | Slope \* age | 0.37 (0.76) .63 | 0.36 (0.76) .64 | 0.32 (0.79) .68 | -0.12 (0.82) .89 |
| a | Slope \* education | --- | -0.16 (0.61) .80 | -0.33 (0.59) .57 | -0.33 (0.58) .57 |
| a | Slope \* height | --- | --- | 24.40 (23.83) .31 | 28.79 (25.99) .27 |
| a | Slope \* smoking | --- | --- | --- | -4.79 (2.88) .10 |
| a | Slope \* cardio | --- | --- | --- | -2.29 (2.80) .41 |
| a | Slope \* diabetes | --- | --- | --- | -5.72 (3.27) .08 |
| b | Level | -11.51 (2.66) <.01 | -11.35 (2.74) <.01 | -11.04 (2.66) <.01 | -4.79 (3.12) .12 |
| b | Slope | -0.89 (0.17) <.01 | -0.92 (0.18) <.01 | -0.84 (0.19) <.01 | -0.65 (0.24) .01 |
| b | Level \* age | -0.32 (0.13) .01 | -0.31 (0.13) .01 | -0.14 (0.10) .15 | -0.14 (0.10) .16 |
| b | Level \* education | --- | 0.17 (0.06) <.01 | 0.15 (0.06) .02 | 0.16 (0.07) .01 |
| b | Level \* height | --- | --- | 4.57 (3.47) .19 | 4.88 (3.42) .15 |
| b | Level \* smoking | --- | --- | --- | -0.73 (0.46) .11 |
| b | Level \* cardio | --- | --- | --- | 0.31 (0.51) .54 |
| b | Level \* diabetes | --- | --- | --- | -0.24 (0.79) .76 |
| b | Slope \* age | -0.04 (0.05) .44 | -0.04 (0.05) .50 | -0.04 (0.05) .41 | -0.05 (0.05) .35 |
| b | Slope \* education | --- | 0.05 (0.03) .07 | 0.05 (0.03) .13 | 0.04 (0.03) .16 |
| b | Slope \* height | --- | --- | -0.71 (1.78) .69 | -0.90 (1.85) .62 |
| b | Slope \* smoking | --- | --- | --- | -0.13 (0.23) .58 |
| b | Slope \* cardio | --- | --- | --- | -0.09 (0.21) .66 |
| b | Slope \* diabetes | --- | --- | --- | -0.35 (0.37) .34 |
| a | Var (Level) | 11325.69 (1770.32) <.01 | 10881.42 (1693.65) <.01 | 9602.87 (1312.97) <.01 | 9118.89 (1208.63) <.01 |
| a | Var (Slope) | 53.12 (27.73) .06 | 52.83 (27.76) .06 | 49.91 (28.61) .08 | 37.80 (23.28) .10 |
| a | Var (Residual) | 3377.87 (387.94) <.01 | 3375.95 (388.06) <.01 | 3377.75 (393.04) <.01 | 3338.57 (393.78) <.01 |
| b | Var (Level) | 7.15 (2.72) .01 | 6.84 (2.68) .01 | 3.14 (1.20) .01 | 3.06 (1.11) .01 |
| b | Var (Slope) | 1.07 (0.27) <.01 | 1.04 (0.27) <.01 | 0.98 (0.29) <.01 | 0.95 (0.28) <.01 |
| b | Var (Residual) | 9.45 (1.24) <.01 | 9.48 (1.25) <.01 | 8.73 (1.15) <.01 | 8.73 (1.14) <.01 |
| a | Covar (Level, Slope) | -261.26 (209.63) .21 | -252.59 (198.36) .20 | -235.28 (164.91) .15 | -260.80 (155.34) .09 |
| b | Covar (Level, Slope) | 2.25 (0.68) <.01 | 2.15 (0.67) <.01 | 1.45 (0.50) <.01 | 1.45 (0.48) <.01 |
|  | Correlation of Levels | 0.64 | 0.62 | 0.56 | 0.55 |
|  | Correlation of Slopes | 0.26 | 0.27 | 0.31 | 0.16 |
|  | Correlation of Residuals | 0.19 | 0.19 | 0.20 | 0.17 |
|  | N | 211 | 211 | 183 | 183 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,605 | -4,602 | -4,310 | -4,301 |
|  | AIC | 9,252 | 9,253 | 8,678 | 8,684 |
|  | BIC | 9,322 | 9,337 | 8,771 | 8,816 |

## prose\_im

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 111.75 (38.45) <.01 | 86.99 (37.32) .02 | 73.83 (34.30) .03 | --- |
| ab | Covar (Slopes) | -0.41 (1.09) .71 | -0.37 (1.05) .73 | -0.23 (1.46) .88 | --- |
| ab | Covar (Residuals) | 23.01 (16.64) .17 | 23.32 (16.92) .17 | 23.36 (17.62) .18 | --- |
| er | Corr (Levels) | 0.32 (0.10) <.01 | 0.27 (0.11) .01 | 0.25 (0.11) .02 | --- |
| er | Corr (Slopes) | -0.21 (0.56) .70 | -0.19 (0.55) .72 | -0.12 (0.81) .88 | --- |
| er | Corr (Residuals) | 0.17 (0.12) .15 | 0.17 (0.12) .15 | 0.17 (0.12) .16 | --- |
| a | Level | 425.99 (14.21) <.01 | 421.51 (14.38) <.01 | 427.19 (14.62) <.01 | --- |
| a | Slope | 9.68 (0.52) <.01 | 9.38 (0.51) <.01 | 9.60 (0.52) <.01 | --- |
| a | Level \* age | -12.80 (3.63) <.01 | -12.30 (3.59) <.01 | -12.01 (3.59) <.01 | --- |
| a | Level \* education | --- | 6.31 (2.08) <.01 | 6.88 (1.86) <.01 | --- |
| a | Level \* height | --- | --- | 112.08 (135.54) .41 | --- |
| a | Level \* smoking | --- | --- | --- | --- |
| a | Level \* cardio | --- | --- | --- | --- |
| a | Level \* diabetes | --- | --- | --- | --- |
| a | Slope \* age | 0.24 (0.81) .77 | 0.22 (0.82) .79 | 0.31 (0.83) .71 | --- |
| a | Slope \* education | --- | -0.30 (0.64) .64 | -0.48 (0.60) .43 | --- |
| a | Slope \* height | --- | --- | 29.31 (22.26) .19 | --- |
| a | Slope \* smoking | --- | --- | --- | --- |
| a | Slope \* cardio | --- | --- | --- | --- |
| a | Slope \* diabetes | --- | --- | --- | --- |
| b | Level | -9.86 (2.31) <.01 | -9.66 (2.35) <.01 | -9.54 (2.32) <.01 | --- |
| b | Slope | -0.30 (0.09) <.01 | -0.31 (0.09) <.01 | -0.29 (0.10) <.01 | --- |
| b | Level \* age | -0.24 (0.12) .05 | -0.22 (0.12) .06 | -0.16 (0.12) .20 | --- |
| b | Level \* education | --- | 0.41 (0.09) <.01 | 0.41 (0.08) <.01 | --- |
| b | Level \* height | --- | --- | 3.14 (5.02) .53 | --- |
| b | Level \* smoking | --- | --- | --- | --- |
| b | Level \* cardio | --- | --- | --- | --- |
| b | Level \* diabetes | --- | --- | --- | --- |
| b | Slope \* age | -0.03 (0.04) .47 | -0.03 (0.04) .49 | -0.03 (0.05) .56 | --- |
| b | Slope \* education | --- | 0.01 (0.01) .47 | 0.01 (0.01) .37 | --- |
| b | Slope \* height | --- | --- | 0.49 (1.07) .64 | --- |
| b | Slope \* smoking | --- | --- | --- | --- |
| b | Slope \* cardio | --- | --- | --- | --- |
| b | Slope \* diabetes | --- | --- | --- | --- |
| a | Var (Level) | 10073.71 (1266.18) <.01 | 9727.84 (1225.24) <.01 | 9364.61 (1250.84) <.01 | --- |
| a | Var (Slope) | 53.27 (25.84) .04 | 52.48 (25.69) .04 | 49.88 (27.60) .07 | --- |
| a | Var (Residual) | 3283.80 (449.94) <.01 | 3283.64 (449.64) <.01 | 3285.33 (456.93) <.01 | --- |
| b | Var (Level) | 12.52 (1.51) <.01 | 10.88 (1.45) <.01 | 9.55 (1.53) <.01 | --- |
| b | Var (Slope) | 0.07 (0.04) .06 | 0.07 (0.04) .05 | 0.07 (0.10) .47 | --- |
| b | Var (Residual) | 5.70 (0.70) <.01 | 5.73 (0.71) <.01 | 5.67 (0.83) <.01 | --- |
| a | Covar (Level, Slope) | -292.91 (154.89) .06 | -276.84 (149.41) .06 | -273.82 (146.75) .06 | --- |
| b | Covar (Level, Slope) | 0.58 (0.20) <.01 | 0.54 (0.19) .01 | 0.49 (0.29) .09 | --- |
|  | Correlation of Levels | 0.31 | 0.27 | 0.25 | NaN |
|  | Correlation of Slopes | -0.21 | -0.19 | -0.12 | NaN |
|  | Correlation of Residuals | 0.17 | 0.17 | 0.17 | NaN |
|  | N | 199 | 199 | 178 | NA |
|  | occasions | 5 | 5 | 5 | NA |
|  | parameters | 21 | 25 | 29 | NA |
|  | LL | -3,968 | -3,958 | -3,786 | NA |
|  | AIC | 7,978 | 7,966 | 7,629 | NA |
|  | BIC | 8,048 | 8,049 | 7,721 | NA |

## 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) | 427.58 (96.27) <.01 | 358.84 (89.87) <.01 | 349.61 (91.03) <.01 | 303.36 (79.08) <.01 |
| ab | Covar (Slopes) | 3.42 (2.58) .18 | 3.23 (2.50) .20 | 4.67 (2.34) .05 | 4.68 (1.81) .01 |
| ab | Covar (Residuals) | -1.81 (18.61) .92 | -1.97 (18.62) .92 | -7.62 (17.43) .66 | -5.86 (16.86) .73 |
| er | Corr (Levels) | 0.41 (0.08) <.01 | 0.38 (0.08) <.01 | 0.38 (0.08) <.01 | 0.35 (0.08) <.01 |
| er | Corr (Slopes) | 0.42 (0.29) .15 | 0.41 (0.30) .17 | 0.60 (0.22) .01 | 0.68 (0.14) <.01 |
| er | Corr (Residuals) | -0.01 (0.07) .92 | -0.01 (0.07) .92 | -0.03 (0.07) .66 | -0.02 (0.06) .73 |
| a | Level | 426.35 (14.19) <.01 | 421.95 (14.34) <.01 | 428.08 (14.61) <.01 | 456.33 (21.33) <.01 |
| a | Slope | 25.40 (1.53) <.01 | 24.30 (1.39) <.01 | 24.82 (1.45) <.01 | 29.15 (2.25) <.01 |
| a | Level \* age | -12.05 (3.63) <.01 | -11.51 (3.57) <.01 | -11.90 (3.63) <.01 | -11.82 (3.69) <.01 |
| a | Level \* education | --- | 6.21 (2.01) <.01 | 6.75 (1.87) <.01 | 7.45 (1.96) <.01 |
| a | Level \* height | --- | --- | 120.04 (138.14) .38 | 132.43 (137.99) .34 |
| a | Level \* smoking | --- | --- | --- | -35.92 (18.96) .06 |
| a | Level \* cardio | --- | --- | --- | -14.65 (17.92) .41 |
| a | Level \* diabetes | --- | --- | --- | 53.43 (22.63) .02 |
| a | Slope \* age | 0.49 (0.80) .54 | 0.46 (0.81) .57 | 0.67 (0.82) .41 | 0.15 (0.83) .86 |
| a | Slope \* education | --- | -0.25 (0.62) .69 | -0.44 (0.58) .45 | -0.40 (0.57) .49 |
| a | Slope \* height | --- | --- | 28.73 (23.58) .22 | 32.68 (25.09) .19 |
| a | Slope \* smoking | --- | --- | --- | -5.51 (2.73) .04 |
| a | Slope \* cardio | --- | --- | --- | -2.82 (2.70) .30 |
| a | Slope \* diabetes | --- | --- | --- | -7.90 (3.07) .01 |
| b | Level | -11.00 (2.38) <.01 | -10.93 (2.44) <.01 | -11.22 (2.38) <.01 | -3.81 (2.79) .17 |
| b | Slope | -1.01 (0.24) <.01 | -1.01 (0.25) <.01 | -1.05 (0.26) <.01 | -0.71 (0.35) .04 |
| b | Level \* age | -0.71 (0.41) .08 | -0.55 (0.38) .15 | -0.60 (0.42) .16 | -0.64 (0.41) .12 |
| b | Level \* education | --- | 1.69 (0.25) <.01 | 1.74 (0.25) <.01 | 1.83 (0.25) <.01 |
| b | Level \* height | --- | --- | 17.34 (11.89) .14 | 18.57 (12.27) .13 |
| b | Level \* smoking | --- | --- | --- | -5.28 (1.97) .01 |
| b | Level \* cardio | --- | --- | --- | -1.28 (1.69) .45 |
| b | Level \* diabetes | --- | --- | --- | 2.36 (2.90) .42 |
| b | Slope \* age | 0.08 (0.07) .26 | 0.09 (0.07) .21 | 0.12 (0.07) .08 | 0.10 (0.07) .15 |
| b | Slope \* education | --- | 0.02 (0.05) .71 | 0.03 (0.05) .53 | 0.02 (0.05) .72 |
| b | Slope \* height | --- | --- | -0.32 (1.85) .86 | -0.98 (1.98) .62 |
| b | Slope \* smoking | --- | --- | --- | -0.05 (0.37) .90 |
| b | Slope \* cardio | --- | --- | --- | -0.30 (0.30) .32 |
| b | Slope \* diabetes | --- | --- | --- | -1.15 (0.90) .20 |
| a | Var (Level) | 9954.13 (1241.03) <.01 | 9673.82 (1212.53) <.01 | 9356.61 (1235.06) <.01 | 8867.54 (1137.04) <.01 |
| a | Var (Slope) | 51.35 (25.54) .04 | 51.12 (25.75) .05 | 49.47 (24.36) .04 | 40.39 (17.97) .02 |
| a | Var (Residual) | 3271.83 (438.65) <.01 | 3268.39 (439.60) <.01 | 3267.94 (425.72) <.01 | 3257.06 (401.90) <.01 |
| b | Var (Level) | 110.54 (14.40) <.01 | 90.73 (13.46) <.01 | 91.05 (13.91) <.01 | 85.55 (12.17) <.01 |
| b | Var (Slope) | 1.27 (0.74) .09 | 1.24 (0.73) .09 | 1.23 (0.74) .10 | 1.18 (0.56) .04 |
| b | Var (Residual) | 20.77 (2.66) <.01 | 20.86 (2.67) <.01 | 20.71 (2.75) <.01 | 20.48 (2.71) <.01 |
| a | Covar (Level, Slope) | -249.75 (155.84) .11 | -243.19 (152.91) .11 | -227.07 (140.77) .11 | -252.04 (123.82) .04 |
| b | Covar (Level, Slope) | -2.67 (1.80) .14 | -2.93 (1.92) .13 | -3.30 (1.95) .09 | -3.67 (1.91) .06 |
|  | Correlation of Levels | 0.4076 | 0.3830 | 0.379 | 0.348 |
|  | Correlation of Slopes | 0.4231 | 0.4060 | 0.599 | 0.676 |
|  | Correlation of Residuals | -0.0069 | -0.0075 | -0.029 | -0.023 |
|  | N | 187 | 187 | 176 | 176 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -4,337 | -4,320 | -4,195 | -4,181 |
|  | AIC | 8,716 | 8,689 | 8,448 | 8,443 |
|  | BIC | 8,784 | 8,770 | 8,540 | 8,573 |

## synonyms

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 132.11 (63.82) .04 | 79.60 (55.36) .15 | 92.66 (54.58) .09 | 69.95 (48.17) .15 |
| ab | Covar (Slopes) | -0.08 (0.80) .92 | -0.18 (0.78) .81 | -0.00 (0.81) .99 | 0.29 (0.47) .53 |
| ab | Covar (Residuals) | 3.08 (14.48) .83 | 2.66 (14.49) .85 | 4.33 (15.23) .78 | 7.02 (13.37) .60 |
| er | Corr (Levels) | 0.21 (0.10) .03 | 0.15 (0.10) .14 | 0.18 (0.10) .07 | 0.15 (0.10) .14 |
| er | Corr (Slopes) | -0.05 (0.50) .92 | -0.11 (0.48) .82 | -0.00 (0.52) .99 | 0.22 (0.28) .42 |
| er | Corr (Residuals) | 0.02 (0.10) .83 | 0.02 (0.10) .85 | 0.03 (0.11) .78 | 0.05 (0.09) .59 |
| a | Level | 426.81 (14.18) <.01 | 422.59 (14.34) <.01 | 427.85 (14.67) <.01 | 457.31 (21.43) <.01 |
| a | Slope | 15.50 (0.87) <.01 | 14.85 (0.78) <.01 | 14.99 (0.83) <.01 | 18.20 (1.24) <.01 |
| a | Level \* age | -11.73 (3.64) <.01 | -11.34 (3.57) <.01 | -11.55 (3.62) <.01 | -11.40 (3.67) <.01 |
| a | Level \* education | --- | 6.27 (2.01) <.01 | 6.64 (1.87) <.01 | 7.39 (1.97) <.01 |
| a | Level \* height | --- | --- | 119.97 (139.07) .39 | 132.62 (139.51) .34 |
| a | Level \* smoking | --- | --- | --- | -37.97 (19.18) .05 |
| a | Level \* cardio | --- | --- | --- | -12.99 (18.00) .47 |
| a | Level \* diabetes | --- | --- | --- | 49.31 (22.88) .03 |
| a | Slope \* age | 0.26 (0.79) .74 | 0.21 (0.79) .79 | 0.32 (0.79) .69 | -0.18 (0.82) .83 |
| a | Slope \* education | --- | -0.34 (0.61) .58 | -0.51 (0.58) .38 | -0.47 (0.58) .41 |
| a | Slope \* height | --- | --- | 27.37 (22.84) .23 | 31.95 (24.93) .20 |
| a | Slope \* smoking | --- | --- | --- | -5.25 (2.85) .06 |
| a | Slope \* cardio | --- | --- | --- | -2.35 (2.84) .41 |
| a | Slope \* diabetes | --- | --- | --- | -5.06 (3.02) .09 |
| b | Level | -9.97 (2.24) <.01 | -9.80 (2.29) <.01 | -9.62 (2.24) <.01 | -3.24 (2.88) .26 |
| b | Slope | -0.25 (0.11) .02 | -0.27 (0.11) .01 | -0.26 (0.12) .02 | -0.42 (0.18) .02 |
| b | Level \* age | 0.16 (0.24) .51 | 0.17 (0.21) .40 | 0.18 (0.23) .45 | 0.14 (0.23) .53 |
| b | Level \* education | --- | 1.19 (0.13) <.01 | 1.16 (0.13) <.01 | 1.23 (0.13) <.01 |
| b | Level \* height | --- | --- | 6.70 (6.51) .30 | 7.18 (6.76) .29 |
| b | Level \* smoking | --- | --- | --- | -3.98 (1.13) <.01 |
| b | Level \* cardio | --- | --- | --- | -0.25 (0.95) .79 |
| b | Level \* diabetes | --- | --- | --- | -1.33 (1.37) .33 |
| b | Slope \* age | -0.01 (0.04) .72 | -0.00 (0.04) .94 | 0.00 (0.04) .95 | 0.01 (0.04) .86 |
| b | Slope \* education | --- | 0.01 (0.02) .46 | 0.02 (0.02) .35 | 0.01 (0.02) .61 |
| b | Slope \* height | --- | --- | 0.39 (1.08) .72 | 0.10 (1.01) .92 |
| b | Slope \* smoking | --- | --- | --- | 0.22 (0.14) .12 |
| b | Slope \* cardio | --- | --- | --- | -0.01 (0.12) .93 |
| b | Slope \* diabetes | --- | --- | --- | -0.17 (0.23) .46 |
| a | Var (Level) | 10005.53 (1259.02) <.01 | 9686.82 (1217.82) <.01 | 9414.91 (1252.78) <.01 | 8918.28 (1168.13) <.01 |
| a | Var (Slope) | 48.27 (25.20) .06 | 47.49 (25.32) .06 | 45.66 (25.87) .08 | 39.25 (24.10) .10 |
| a | Var (Residual) | 3280.54 (447.89) <.01 | 3279.38 (448.54) <.01 | 3275.46 (449.03) <.01 | 3255.59 (441.03) <.01 |
| b | Var (Level) | 38.42 (3.73) <.01 | 27.32 (2.95) <.01 | 27.27 (3.20) <.01 | 23.83 (2.53) <.01 |
| b | Var (Slope) | 0.05 (0.04) .13 | 0.06 (0.03) .09 | 0.05 (0.05) .25 | 0.04 (0.02) .01 |
| b | Var (Residual) | 6.55 (0.80) <.01 | 6.56 (0.78) <.01 | 6.19 (0.71) <.01 | 6.16 (0.66) <.01 |
| a | Covar (Level, Slope) | -276.35 (153.50) .07 | -260.81 (148.96) .08 | -261.83 (145.84) .07 | -283.76 (146.61) .05 |
| b | Covar (Level, Slope) | -0.25 (0.35) .49 | -0.40 (0.29) .17 | -0.32 (0.31) .30 | -0.14 (0.19) .47 |
|  | Correlation of Levels | 0.213 | 0.155 | 0.1829 | 0.15 |
|  | Correlation of Slopes | -0.053 | -0.111 | -0.0032 | 0.23 |
|  | Correlation of Residuals | 0.021 | 0.018 | 0.0304 | 0.05 |
|  | N | 188 | 188 | 175 | 175 |
|  | occasions | 5 | 5 | 5 | 5 |
|  | parameters | 21 | 25 | 29 | 41 |
|  | LL | -3,954 | -3,925 | -3,803 | -3,786 |
|  | AIC | 7,950 | 7,900 | 7,665 | 7,654 |
|  | BIC | 8,018 | 7,981 | 7,756 | 7,784 |

## Summary

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

Computed correlations:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Levels | block | 0.44 | 0.42 | 0.38 | 0.36 |
| Correlation of Levels | clock | . | . | . | . |
| Correlation of Levels | digit\_b | 0.39 | 0.36 | 0.34 | 0.32 |
| Correlation of Levels | digit\_f | 0.01 | -0.04 | -0.05 | -0.11 |
| Correlation of Levels | fig\_logic | 0.41 | 0.39 | 0.36 | 0.32 |
| Correlation of Levels | information | 0.16 | 0.11 | 0.10 | 0.08 |
| Correlation of Levels | mir | 0.46 | 0.45 | 0.45 | 0.43 |
| Correlation of Levels | mir\_recog | 0.35 | 0.32 | 0.27 | 0.22 |
| Correlation of Levels | mmse | 0.64 | 0.62 | 0.56 | 0.55 |
| Correlation of Levels | prose\_im | 0.31 | 0.27 | 0.25 | . |
| Correlation of Levels | psif | . | . | . | . |
| Correlation of Levels | symbol | 0.41 | 0.38 | 0.38 | 0.35 |
| Correlation of Levels | synonyms | 0.21 | 0.15 | 0.18 | 0.15 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Slopes | block | 0.71 | 0.69 | 0.74 | 0.72 |
| Correlation of Slopes | clock | . | . | . | . |
| Correlation of Slopes | digit\_b | -0.03 | -0.04 | -0.10 | -0.10 |
| Correlation of Slopes | digit\_f | -0.03 | -0.04 | 0.01 | 0.05 |
| Correlation of Slopes | fig\_logic | 0.84 | 0.84 | 0.97 | 0.89 |
| Correlation of Slopes | information | 0.28 | 0.30 | 0.32 | 0.30 |
| Correlation of Slopes | mir | 0.39 | 0.39 | 0.50 | 0.36 |
| Correlation of Slopes | mir\_recog | -0.39 | -0.38 | -0.39 | -0.42 |
| Correlation of Slopes | mmse | 0.26 | 0.27 | 0.31 | 0.16 |
| Correlation of Slopes | prose\_im | -0.21 | -0.19 | -0.12 | . |
| Correlation of Slopes | psif | . | . | . | . |
| Correlation of Slopes | symbol | 0.42 | 0.41 | 0.60 | 0.68 |
| Correlation of Slopes | synonyms | -0.05 | -0.11 | -0.00 | 0.23 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Correlation of Residuals | block | 0.12 | 0.13 | 0.14 | 0.14 |
| Correlation of Residuals | clock | . | . | . | . |
| Correlation of Residuals | digit\_b | -0.06 | -0.06 | -0.06 | -0.06 |
| Correlation of Residuals | digit\_f | -0.04 | -0.04 | -0.04 | -0.04 |
| Correlation of Residuals | fig\_logic | -0.07 | -0.07 | -0.07 | -0.06 |
| Correlation of Residuals | information | 0.07 | 0.07 | 0.07 | 0.07 |
| Correlation of Residuals | mir | -0.05 | -0.05 | -0.05 | -0.05 |
| Correlation of Residuals | mir\_recog | 0.08 | 0.08 | 0.08 | 0.08 |
| Correlation of Residuals | mmse | 0.19 | 0.19 | 0.20 | 0.17 |
| Correlation of Residuals | prose\_im | 0.17 | 0.17 | 0.17 | . |
| Correlation of Residuals | psif | . | . | . | . |
| Correlation of Residuals | symbol | -0.01 | -0.01 | -0.03 | -0.02 |
| Correlation of Residuals | synonyms | 0.02 | 0.02 | 0.03 | 0.05 |

P-values for corresponding covariances:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Levels | block | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | clock | . | . | . | . |
| Covariance of Levels | digit\_b | 0.00 | 0.01 | 0.01 | 0.01 |
| Covariance of Levels | digit\_f | 0.96 | 0.74 | 0.70 | 0.38 |
| Covariance of Levels | fig\_logic | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | information | 0.08 | 0.24 | 0.30 | 0.40 |
| Covariance of Levels | mir | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | mir\_recog | 0.06 | 0.08 | 0.16 | 0.21 |
| Covariance of Levels | mmse | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | prose\_im | 0.00 | 0.02 | 0.03 | . |
| Covariance of Levels | psif | . | . | . | . |
| Covariance of Levels | symbol | 0.00 | 0.00 | 0.00 | 0.00 |
| Covariance of Levels | synonyms | 0.04 | 0.15 | 0.09 | 0.15 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Slopes | block | 0.07 | 0.08 | 0.07 | 0.10 |
| Covariance of Slopes | clock | . | . | . | . |
| Covariance of Slopes | digit\_b | 0.95 | 0.93 | 0.83 | 0.83 |
| Covariance of Slopes | digit\_f | 0.93 | 0.90 | 0.98 | 0.89 |
| Covariance of Slopes | fig\_logic | 0.02 | 0.01 | 0.01 | 0.02 |
| Covariance of Slopes | information | 0.46 | 0.42 | 0.38 | 0.39 |
| Covariance of Slopes | mir | 0.11 | 0.10 | 0.02 | 0.09 |
| Covariance of Slopes | mir\_recog | 0.20 | 0.22 | 0.20 | 0.15 |
| Covariance of Slopes | mmse | 0.52 | 0.50 | 0.41 | 0.71 |
| Covariance of Slopes | prose\_im | 0.71 | 0.73 | 0.88 | . |
| Covariance of Slopes | psif | . | . | . | . |
| Covariance of Slopes | symbol | 0.18 | 0.20 | 0.05 | 0.01 |
| Covariance of Slopes | synonyms | 0.92 | 0.81 | 0.99 | 0.53 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| label | process\_b | a | ae | aeh | aehplus |
| Covariance of Residuals | block | 0.05 | 0.04 | 0.04 | 0.03 |
| Covariance of Residuals | clock | . | . | . | . |
| Covariance of Residuals | digit\_b | 0.44 | 0.44 | 0.48 | 0.47 |
| Covariance of Residuals | digit\_f | 0.51 | 0.57 | 0.52 | 0.53 |
| Covariance of Residuals | fig\_logic | 0.36 | 0.35 | 0.32 | 0.41 |
| Covariance of Residuals | information | 0.29 | 0.30 | 0.35 | 0.36 |
| Covariance of Residuals | mir | 0.55 | 0.54 | 0.49 | 0.54 |
| Covariance of Residuals | mir\_recog | 0.32 | 0.33 | 0.29 | 0.26 |
| Covariance of Residuals | mmse | 0.15 | 0.15 | 0.12 | 0.17 |
| Covariance of Residuals | prose\_im | 0.17 | 0.17 | 0.18 | . |
| Covariance of Residuals | psif | . | . | . | . |
| Covariance of Residuals | symbol | 0.92 | 0.92 | 0.66 | 0.73 |
| Covariance of Residuals | synonyms | 0.83 | 0.85 | 0.78 | 0.60 |

#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