LASA : Seed report

Date: 2016-12-05

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

# Available models

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

|  |  |  |
| --- | --- | --- |
| process\_a | process\_b | n\_models |
| gait | letter | 2 |
| gait | raven | 2 |
| gait | word\_im | 2 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| study\_name | subgroup | model\_type | process\_a | process\_b | n\_models |
| lasa | female | aehplus | gait | letter | 1 |
| lasa | female | aehplus | gait | raven | 1 |
| lasa | female | aehplus | gait | word\_im | 1 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| study\_name | subgroup | model\_type | process\_a | process\_b | n\_models |
| lasa | male | aehplus | gait | letter | 1 |
| lasa | male | aehplus | gait | raven | 1 |
| lasa | male | aehplus | gait | word\_im | 1 |

# female

Gender = *female*; Model type: *aehplus*; Process (a) = *gait*; Process (b): *letter*, *raven*, *word\_im*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | letter | raven | word\_im | mean(sd) |
| ab | Covar (Levels) | -2.62 (0.98) .01 | -0.95 (0.42) .02 | -1.74 (0.67) .01 | --- |
| ab | Covar (Slopes) | -0.02 (0.01) .09 | -0.02 (0.01) .02 | -0.01 (0.01) .21 | --- |
| ab | Covar (Residuals) | -0.47 (0.20) .02 | 0.25 (0.28) .37 | -0.37 (0.28) .19 | --- |
| er | Corr (Levels) | -0.32 (0.12) .01 | -0.25 (0.15) .10 | -0.31 (0.18) .08 | --- |
| er | Corr (Slopes) | -0.24 (0.11) .02 | -0.53 (0.18) <.01 | -0.28 (0.19) .13 | --- |
| er | Corr (Residuals) | -0.05 (0.02) .02 | 0.03 (0.04) .40 | -0.02 (0.02) .21 | --- |
| a | Level | 7.76 (0.17) <.01 | 7.78 (0.17) <.01 | 7.77 (0.17) <.01 | 7.77(0.01) |
| a | Slope | 0.42 (0.05) <.01 | 0.42 (0.05) <.01 | 0.42 (0.05) <.01 | 0.42(0.00) |
| a | Level \* age | 0.14 (0.02) <.01 | 0.14 (0.02) <.01 | 0.14 (0.02) <.01 | 0.14(0.00) |
| a | Level \* education | -0.05 (0.04) .17 | -0.05 (0.04) .16 | -0.05 (0.04) .17 | -0.05(0.00) |
| a | Level \* height | -0.02 (0.02) .25 | -0.02 (0.02) .24 | -0.02 (0.02) .23 | -0.02(0.00) |
| a | Level \* smoking | 0.29 (0.28) .30 | 0.29 (0.28) .29 | 0.29 (0.28) .30 | 0.29(0.00) |
| a | Level \* cardio | 1.16 (0.34) <.01 | 1.16 (0.34) <.01 | 1.16 (0.34) <.01 | 1.16(0.00) |
| a | Level \* diabetes | 1.82 (0.86) .04 | 1.85 (0.86) .03 | 1.82 (0.86) .03 | 1.83(0.02) |
| a | Slope \* age | 0.04 (0.01) <.01 | 0.04 (0.01) <.01 | 0.04 (0.01) <.01 | 0.04(0.00) |
| a | Slope \* education | -0.01 (0.01) .38 | -0.01 (0.01) .42 | -0.01 (0.01) .39 | -0.01(0.00) |
| a | Slope \* height | 0.01 (0.00) .01 | 0.01 (0.00) .01 | 0.01 (0.00) .01 | 0.01(0.00) |
| a | Slope \* smoking | 0.07 (0.05) .15 | 0.07 (0.05) .19 | 0.07 (0.05) .16 | 0.07(0.00) |
| a | Slope \* cardio | 0.01 (0.06) .81 | 0.01 (0.06) .86 | 0.01 (0.06) .87 | 0.01(0.00) |
| a | Slope \* diabetes | 0.15 (0.15) .33 | 0.13 (0.16) .40 | 0.15 (0.16) .35 | 0.14(0.01) |
| b | Level | 24.30 (0.35) <.01 | 17.80 (0.17) <.01 | 21.11 (0.27) <.01 | --- |
| b | Slope | -0.35 (0.02) <.01 | -0.16 (0.02) <.01 | -0.31 (0.03) <.01 | --- |
| b | Level \* age | -0.33 (0.03) <.01 | -0.15 (0.01) <.01 | -0.28 (0.02) <.01 | --- |
| b | Level \* education | 0.85 (0.07) <.01 | 0.40 (0.03) <.01 | 0.48 (0.05) <.01 | --- |
| b | Level \* height | 0.08 (0.03) .01 | 0.01 (0.02) .61 | 0.01 (0.03) .60 | --- |
| b | Level \* smoking | -0.64 (0.54) .24 | -0.68 (0.28) .02 | -0.50 (0.49) .30 | --- |
| b | Level \* cardio | -1.05 (0.55) .06 | -0.04 (0.29) .90 | -0.59 (0.47) .22 | --- |
| b | Level \* diabetes | -0.79 (1.00) .43 | -0.84 (0.57) .14 | -0.98 (0.76) .20 | --- |
| b | Slope \* age | -0.01 (0.00) <.01 | -0.00 (0.00) <.01 | -0.00 (0.00) .11 | --- |
| b | Slope \* education | -0.00 (0.00) .29 | 0.00 (0.00) .51 | -0.01 (0.00) .23 | --- |
| b | Slope \* height | -0.00 (0.00) .66 | -0.00 (0.00) .71 | 0.00 (0.00) .21 | --- |
| b | Slope \* smoking | 0.01 (0.03) .72 | 0.02 (0.02) .26 | -0.04 (0.04) .29 | --- |
| b | Slope \* cardio | 0.01 (0.04) .78 | -0.04 (0.02) .10 | -0.00 (0.04) .95 | --- |
| b | Slope \* diabetes | -0.10 (0.09) .28 | -0.08 (0.05) .12 | -0.04 (0.07) .56 | --- |
| a | Var (Level) | 2.30 (2.19) .29 | 2.52 (2.32) .28 | 2.26 (2.19) .30 | 2.36(0.14) |
| a | Var (Slope) | 0.18 (0.09) .06 | 0.18 (0.10) .06 | 0.18 (0.09) .06 | 0.18(0.00) |
| a | Var (Residual) | 14.76 (3.92) <.01 | 14.60 (3.90) <.01 | 14.75 (3.93) <.01 | 14.70(0.08) |
| b | Var (Level) | 29.14 (1.52) <.01 | 5.98 (0.44) <.01 | 13.63 (1.27) <.01 | --- |
| b | Var (Slope) | 0.04 (0.01) <.01 | 0.01 (0.00) .05 | 0.02 (0.01) .07 | --- |
| b | Var (Residual) | 5.93 (0.24) <.01 | 5.14 (0.21) <.01 | 16.21 (0.59) <.01 | --- |
| a | Covar (Level, Slope) | 0.58 (0.38) .13 | 0.55 (0.40) .17 | 0.58 (0.38) .13 | 0.57(0.02) |
| b | Covar (Level, Slope) | -0.14 (0.07) .06 | 0.00 (0.03) .93 | 0.14 (0.08) .08 | --- |
|  | Correlation of Levels | -0.32 | -0.246 | -0.313 | -0.29(0.04) |
|  | Correlation of Slopes | -0.24 | -0.521 | -0.281 | -0.35(0.15) |
|  | Correlation of Residuals | -0.05 | 0.029 | -0.024 | -0.01(0.04) |
|  | N | 782 | 782 | 782 | 782.00(0.00) |
|  | occasions | 6 | 6 | 6 | 6.00(0.00) |
|  | parameters | 41 | 41 | 41 | 41.00(0.00) |
|  | LL | -19,072 | -19,210 | -20,099 | -1.946008e+04( 557) |
|  | AIC | 38,225 | 38,502 | 40,280 | 3.900216e+04(1,115) |
|  | BIC | 38,416 | 38,693 | 40,471 | 3.919330e+04(1,115) |

## letter

Gender = *female*; Process (a) = *gait*; Process (b) = *letter*

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | -2.62 (0.98) .01 |
| ab | Covar (Slopes) | -0.02 (0.01) .09 |
| ab | Covar (Residuals) | -0.47 (0.20) .02 |
| er | Corr (Levels) | -0.32 (0.12) .01 |
| er | Corr (Slopes) | -0.24 (0.11) .02 |
| er | Corr (Residuals) | -0.05 (0.02) .02 |
| a | Level | 7.76 (0.17) <.01 |
| a | Slope | 0.42 (0.05) <.01 |
| a | Level \* age | 0.14 (0.02) <.01 |
| a | Level \* education | -0.05 (0.04) .17 |
| a | Level \* height | -0.02 (0.02) .25 |
| a | Level \* smoking | 0.29 (0.28) .30 |
| a | Level \* cardio | 1.16 (0.34) <.01 |
| a | Level \* diabetes | 1.82 (0.86) .04 |
| a | Slope \* age | 0.04 (0.01) <.01 |
| a | Slope \* education | -0.01 (0.01) .38 |
| a | Slope \* height | 0.01 (0.00) .01 |
| a | Slope \* smoking | 0.07 (0.05) .15 |
| a | Slope \* cardio | 0.01 (0.06) .81 |
| a | Slope \* diabetes | 0.15 (0.15) .33 |
| b | Level | 24.30 (0.35) <.01 |
| b | Slope | -0.35 (0.02) <.01 |
| b | Level \* age | -0.33 (0.03) <.01 |
| b | Level \* education | 0.85 (0.07) <.01 |
| b | Level \* height | 0.08 (0.03) .01 |
| b | Level \* smoking | -0.64 (0.54) .24 |
| b | Level \* cardio | -1.05 (0.55) .06 |
| b | Level \* diabetes | -0.79 (1.00) .43 |
| b | Slope \* age | -0.01 (0.00) <.01 |
| b | Slope \* education | -0.00 (0.00) .29 |
| b | Slope \* height | -0.00 (0.00) .66 |
| b | Slope \* smoking | 0.01 (0.03) .72 |
| b | Slope \* cardio | 0.01 (0.04) .78 |
| b | Slope \* diabetes | -0.10 (0.09) .28 |
| a | Var (Level) | 2.30 (2.19) .29 |
| a | Var (Slope) | 0.18 (0.09) .06 |
| a | Var (Residual) | 14.76 (3.92) <.01 |
| b | Var (Level) | 29.14 (1.52) <.01 |
| b | Var (Slope) | 0.04 (0.01) <.01 |
| b | Var (Residual) | 5.93 (0.24) <.01 |
| a | Covar (Level, Slope) | 0.58 (0.38) .13 |
| b | Covar (Level, Slope) | -0.14 (0.07) .06 |
|  | Correlation of Levels | -0.32 |
|  | Correlation of Slopes | -0.24 |
|  | Correlation of Residuals | -0.05 |
|  | N | 782 |
|  | occasions | 6 |
|  | parameters | 41 |
|  | LL | -19,072 |
|  | AIC | 38,225 |
|  | BIC | 38,416 |

## raven

Gender = *female*; Process (a) = *gait*; Process (b) = *raven*

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | -0.95 (0.42) .02 |
| ab | Covar (Slopes) | -0.02 (0.01) .02 |
| ab | Covar (Residuals) | 0.25 (0.28) .37 |
| er | Corr (Levels) | -0.25 (0.15) .10 |
| er | Corr (Slopes) | -0.53 (0.18) <.01 |
| er | Corr (Residuals) | 0.03 (0.04) .40 |
| a | Level | 7.78 (0.17) <.01 |
| a | Slope | 0.42 (0.05) <.01 |
| a | Level \* age | 0.14 (0.02) <.01 |
| a | Level \* education | -0.05 (0.04) .16 |
| a | Level \* height | -0.02 (0.02) .24 |
| a | Level \* smoking | 0.29 (0.28) .29 |
| a | Level \* cardio | 1.16 (0.34) <.01 |
| a | Level \* diabetes | 1.85 (0.86) .03 |
| a | Slope \* age | 0.04 (0.01) <.01 |
| a | Slope \* education | -0.01 (0.01) .42 |
| a | Slope \* height | 0.01 (0.00) .01 |
| a | Slope \* smoking | 0.07 (0.05) .19 |
| a | Slope \* cardio | 0.01 (0.06) .86 |
| a | Slope \* diabetes | 0.13 (0.16) .40 |
| b | Level | 17.80 (0.17) <.01 |
| b | Slope | -0.16 (0.02) <.01 |
| b | Level \* age | -0.15 (0.01) <.01 |
| b | Level \* education | 0.40 (0.03) <.01 |
| b | Level \* height | 0.01 (0.02) .61 |
| b | Level \* smoking | -0.68 (0.28) .02 |
| b | Level \* cardio | -0.04 (0.29) .90 |
| b | Level \* diabetes | -0.84 (0.57) .14 |
| b | Slope \* age | -0.00 (0.00) <.01 |
| b | Slope \* education | 0.00 (0.00) .51 |
| b | Slope \* height | -0.00 (0.00) .71 |
| b | Slope \* smoking | 0.02 (0.02) .26 |
| b | Slope \* cardio | -0.04 (0.02) .10 |
| b | Slope \* diabetes | -0.08 (0.05) .12 |
| a | Var (Level) | 2.52 (2.32) .28 |
| a | Var (Slope) | 0.18 (0.10) .06 |
| a | Var (Residual) | 14.60 (3.90) <.01 |
| b | Var (Level) | 5.98 (0.44) <.01 |
| b | Var (Slope) | 0.01 (0.00) .05 |
| b | Var (Residual) | 5.14 (0.21) <.01 |
| a | Covar (Level, Slope) | 0.55 (0.40) .17 |
| b | Covar (Level, Slope) | 0.00 (0.03) .93 |
|  | Correlation of Levels | -0.246 |
|  | Correlation of Slopes | -0.521 |
|  | Correlation of Residuals | 0.029 |
|  | N | 782 |
|  | occasions | 6 |
|  | parameters | 41 |
|  | LL | -19,210 |
|  | AIC | 38,502 |
|  | BIC | 38,693 |

## word\_im

Gender = *female*; Process (a) = *gait*; Process (b) = *word\_im*

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | -1.74 (0.67) .01 |
| ab | Covar (Slopes) | -0.01 (0.01) .21 |
| ab | Covar (Residuals) | -0.37 (0.28) .19 |
| er | Corr (Levels) | -0.31 (0.18) .08 |
| er | Corr (Slopes) | -0.28 (0.19) .13 |
| er | Corr (Residuals) | -0.02 (0.02) .21 |
| a | Level | 7.77 (0.17) <.01 |
| a | Slope | 0.42 (0.05) <.01 |
| a | Level \* age | 0.14 (0.02) <.01 |
| a | Level \* education | -0.05 (0.04) .17 |
| a | Level \* height | -0.02 (0.02) .23 |
| a | Level \* smoking | 0.29 (0.28) .30 |
| a | Level \* cardio | 1.16 (0.34) <.01 |
| a | Level \* diabetes | 1.82 (0.86) .03 |
| a | Slope \* age | 0.04 (0.01) <.01 |
| a | Slope \* education | -0.01 (0.01) .39 |
| a | Slope \* height | 0.01 (0.00) .01 |
| a | Slope \* smoking | 0.07 (0.05) .16 |
| a | Slope \* cardio | 0.01 (0.06) .87 |
| a | Slope \* diabetes | 0.15 (0.16) .35 |
| b | Level | 21.11 (0.27) <.01 |
| b | Slope | -0.31 (0.03) <.01 |
| b | Level \* age | -0.28 (0.02) <.01 |
| b | Level \* education | 0.48 (0.05) <.01 |
| b | Level \* height | 0.01 (0.03) .60 |
| b | Level \* smoking | -0.50 (0.49) .30 |
| b | Level \* cardio | -0.59 (0.47) .22 |
| b | Level \* diabetes | -0.98 (0.76) .20 |
| b | Slope \* age | -0.00 (0.00) .11 |
| b | Slope \* education | -0.01 (0.00) .23 |
| b | Slope \* height | 0.00 (0.00) .21 |
| b | Slope \* smoking | -0.04 (0.04) .29 |
| b | Slope \* cardio | -0.00 (0.04) .95 |
| b | Slope \* diabetes | -0.04 (0.07) .56 |
| a | Var (Level) | 2.26 (2.19) .30 |
| a | Var (Slope) | 0.18 (0.09) .06 |
| a | Var (Residual) | 14.75 (3.93) <.01 |
| b | Var (Level) | 13.63 (1.27) <.01 |
| b | Var (Slope) | 0.02 (0.01) .07 |
| b | Var (Residual) | 16.21 (0.59) <.01 |
| a | Covar (Level, Slope) | 0.58 (0.38) .13 |
| b | Covar (Level, Slope) | 0.14 (0.08) .08 |
|  | Correlation of Levels | -0.313 |
|  | Correlation of Slopes | -0.281 |
|  | Correlation of Residuals | -0.024 |
|  | N | 782 |
|  | occasions | 6 |
|  | parameters | 41 |
|  | LL | -20,099 |
|  | AIC | 40,280 |
|  | BIC | 40,471 |

## Summary

Study = *LASA*; Gender = *female*; Process (a) = *gait*

Computed correlations:

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Levels | letter | -0.32 |
| Correlation of Levels | raven | -0.25 |
| Correlation of Levels | word\_im | -0.31 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Slopes | letter | -0.24 |
| Correlation of Slopes | raven | -0.52 |
| Correlation of Slopes | word\_im | -0.28 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Residuals | letter | -0.05 |
| Correlation of Residuals | raven | 0.03 |
| Correlation of Residuals | word\_im | -0.02 |

P-values for corresponding covariances:

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Covariance of Levels | letter | 0.01 |
| Covariance of Levels | raven | 0.02 |
| Covariance of Levels | word\_im | 0.01 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Covariance of Slopes | letter | 0.09 |
| Covariance of Slopes | raven | 0.02 |
| Covariance of Slopes | word\_im | 0.21 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Covariance of Residuals | letter | 0.02 |
| Covariance of Residuals | raven | 0.37 |
| Covariance of Residuals | word\_im | 0.19 |

# male

Gender = *male*; Model type: *aehplus*; Process (a) = *gait*; Process (b): *letter*, *raven*, *word\_im*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | letter | raven | word\_im | mean(sd) |
| ab | Covar (Levels) | -1.88 (0.56) <.01 | -0.70 (0.37) .06 | -1.12 (0.58) .05 | --- |
| ab | Covar (Slopes) | -0.04 (0.01) .02 | -0.01 (0.01) .07 | 0.00 (0.02) .85 | --- |
| ab | Covar (Residuals) | -0.22 (0.28) .43 | 0.15 (0.16) .36 | -0.08 (0.29) .77 | --- |
| er | Corr (Levels) | -0.30 (0.21) .15 | -0.23 (0.19) .23 | -0.27 (0.20) .17 | --- |
| er | Corr (Slopes) | -0.32 (0.14) .02 | -0.23 (0.16) .15 | 0.10 (0.49) .85 | --- |
| er | Corr (Residuals) | -0.03 (0.04) .43 | 0.02 (0.03) .38 | -0.01 (0.03) .77 | --- |
| a | Level | 7.20 (0.14) <.01 | 7.20 (0.14) <.01 | 7.20 (0.14) <.01 | 7.20(0.00) |
| a | Slope | 0.42 (0.06) <.01 | 0.42 (0.06) <.01 | 0.42 (0.06) <.01 | 0.42(0.00) |
| a | Level \* age | 0.08 (0.01) <.01 | 0.08 (0.01) <.01 | 0.08 (0.01) <.01 | 0.08(0.00) |
| a | Level \* education | -0.07 (0.02) .01 | -0.07 (0.02) .01 | -0.07 (0.02) .01 | -0.07(0.00) |
| a | Level \* height | -0.02 (0.01) .12 | -0.02 (0.01) .10 | -0.02 (0.01) .12 | -0.02(0.00) |
| a | Level \* smoking | 0.07 (0.21) .72 | 0.08 (0.21) .69 | 0.08 (0.21) .71 | 0.08(0.00) |
| a | Level \* cardio | 0.29 (0.21) .17 | 0.30 (0.21) .16 | 0.29 (0.21) .16 | 0.29(0.00) |
| a | Level \* diabetes | 0.32 (0.40) .43 | 0.31 (0.40) .44 | 0.32 (0.40) .43 | 0.31(0.00) |
| a | Slope \* age | 0.03 (0.00) <.01 | 0.03 (0.00) <.01 | 0.03 (0.00) <.01 | 0.03(0.00) |
| a | Slope \* education | -0.01 (0.00) .01 | -0.01 (0.00) .01 | -0.01 (0.00) .01 | -0.01(0.00) |
| a | Slope \* height | 0.00 (0.00) .87 | 0.00 (0.00) .76 | 0.00 (0.00) .85 | 0.00(0.00) |
| a | Slope \* smoking | 0.04 (0.05) .47 | 0.03 (0.05) .57 | 0.03 (0.05) .52 | 0.03(0.00) |
| a | Slope \* cardio | -0.02 (0.05) .67 | -0.02 (0.05) .65 | -0.02 (0.05) .67 | -0.02(0.00) |
| a | Slope \* diabetes | 0.10 (0.13) .44 | 0.11 (0.13) .40 | 0.10 (0.13) .44 | 0.10(0.00) |
| b | Level | 22.83 (0.35) <.01 | 17.64 (0.19) <.01 | 17.65 (0.27) <.01 | --- |
| b | Slope | -0.38 (0.03) <.01 | -0.17 (0.02) <.01 | -0.22 (0.03) <.01 | --- |
| b | Level \* age | -0.31 (0.02) <.01 | -0.15 (0.01) <.01 | -0.25 (0.02) <.01 | --- |
| b | Level \* education | 0.76 (0.06) <.01 | 0.36 (0.03) <.01 | 0.41 (0.05) <.01 | --- |
| b | Level \* height | 0.10 (0.03) <.01 | 0.06 (0.02) <.01 | 0.03 (0.02) .26 | --- |
| b | Level \* smoking | -0.70 (0.43) .10 | -0.24 (0.24) .32 | -0.35 (0.36) .34 | --- |
| b | Level \* cardio | -0.31 (0.45) .49 | -0.42 (0.25) .09 | 0.10 (0.36) .78 | --- |
| b | Level \* diabetes | -2.03 (0.94) .03 | -0.93 (0.49) .06 | -0.95 (0.72) .18 | --- |
| b | Slope \* age | -0.01 (0.00) <.01 | -0.01 (0.00) <.01 | -0.00 (0.00) .02 | --- |
| b | Slope \* education | -0.01 (0.00) .14 | 0.00 (0.00) .94 | -0.01 (0.00) .05 | --- |
| b | Slope \* height | 0.00 (0.00) .74 | -0.00 (0.00) .45 | 0.00 (0.00) .28 | --- |
| b | Slope \* smoking | -0.06 (0.03) .06 | 0.00 (0.02) .82 | -0.04 (0.03) .24 | --- |
| b | Slope \* cardio | -0.02 (0.03) .59 | -0.01 (0.02) .76 | -0.00 (0.04) .91 | --- |
| b | Slope \* diabetes | -0.06 (0.06) .29 | -0.06 (0.05) .19 | -0.21 (0.06) <.01 | --- |
| a | Var (Level) | 1.43 (2.03) .48 | 1.40 (2.01) .49 | 1.41 (2.02) .49 | 1.41(0.01) |
| a | Var (Slope) | 0.24 (0.21) .27 | 0.24 (0.21) .26 | 0.24 (0.22) .27 | 0.24(0.00) |
| a | Var (Residual) | 8.78 (2.00) <.01 | 8.78 (2.01) <.01 | 8.78 (2.00) <.01 | 8.78(0.00) |
| b | Var (Level) | 26.67 (1.53) <.01 | 6.57 (0.52) <.01 | 12.47 (1.14) <.01 | --- |
| b | Var (Slope) | 0.05 (0.01) <.01 | 0.01 (0.00) <.01 | 0.01 (0.01) .47 | --- |
| b | Var (Residual) | 5.96 (0.30) <.01 | 4.15 (0.18) <.01 | 14.00 (0.55) <.01 | --- |
| a | Covar (Level, Slope) | 0.55 (0.25) .03 | 0.55 (0.26) .03 | 0.56 (0.25) .03 | 0.55(0.00) |
| b | Covar (Level, Slope) | -0.18 (0.08) .02 | -0.04 (0.04) .36 | 0.06 (0.08) .43 | --- |
|  | Correlation of Levels | -0.305 | -0.232 | -0.2675 | -0.27(0.04) |
|  | Correlation of Slopes | -0.317 | -0.242 | 0.1054 | -0.15(0.23) |
|  | Correlation of Residuals | -0.031 | 0.025 | -0.0077 | -0.00(0.03) |
|  | N | 800 | 800 | 800 | 800.00(0.00) |
|  | occasions | 6 | 6 | 6 | 6.00(0.00) |
|  | parameters | 41 | 41 | 41 | 41.00(0.00) |
|  | LL | -17,517 | -17,367 | -18,170 | -1.768481e+04(427) |
|  | AIC | 35,117 | 34,816 | 36,422 | 3.545162e+04(854) |
|  | BIC | 35,309 | 35,008 | 36,614 | 3.564369e+04(854) |

## letter

Gender = *male*; Process (a) = *gait*; Process (b) = *letter*

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | -1.88 (0.56) <.01 |
| ab | Covar (Slopes) | -0.04 (0.01) .02 |
| ab | Covar (Residuals) | -0.22 (0.28) .43 |
| er | Corr (Levels) | -0.30 (0.21) .15 |
| er | Corr (Slopes) | -0.32 (0.14) .02 |
| er | Corr (Residuals) | -0.03 (0.04) .43 |
| a | Level | 7.20 (0.14) <.01 |
| a | Slope | 0.42 (0.06) <.01 |
| a | Level \* age | 0.08 (0.01) <.01 |
| a | Level \* education | -0.07 (0.02) .01 |
| a | Level \* height | -0.02 (0.01) .12 |
| a | Level \* smoking | 0.07 (0.21) .72 |
| a | Level \* cardio | 0.29 (0.21) .17 |
| a | Level \* diabetes | 0.32 (0.40) .43 |
| a | Slope \* age | 0.03 (0.00) <.01 |
| a | Slope \* education | -0.01 (0.00) .01 |
| a | Slope \* height | 0.00 (0.00) .87 |
| a | Slope \* smoking | 0.04 (0.05) .47 |
| a | Slope \* cardio | -0.02 (0.05) .67 |
| a | Slope \* diabetes | 0.10 (0.13) .44 |
| b | Level | 22.83 (0.35) <.01 |
| b | Slope | -0.38 (0.03) <.01 |
| b | Level \* age | -0.31 (0.02) <.01 |
| b | Level \* education | 0.76 (0.06) <.01 |
| b | Level \* height | 0.10 (0.03) <.01 |
| b | Level \* smoking | -0.70 (0.43) .10 |
| b | Level \* cardio | -0.31 (0.45) .49 |
| b | Level \* diabetes | -2.03 (0.94) .03 |
| b | Slope \* age | -0.01 (0.00) <.01 |
| b | Slope \* education | -0.01 (0.00) .14 |
| b | Slope \* height | 0.00 (0.00) .74 |
| b | Slope \* smoking | -0.06 (0.03) .06 |
| b | Slope \* cardio | -0.02 (0.03) .59 |
| b | Slope \* diabetes | -0.06 (0.06) .29 |
| a | Var (Level) | 1.43 (2.03) .48 |
| a | Var (Slope) | 0.24 (0.21) .27 |
| a | Var (Residual) | 8.78 (2.00) <.01 |
| b | Var (Level) | 26.67 (1.53) <.01 |
| b | Var (Slope) | 0.05 (0.01) <.01 |
| b | Var (Residual) | 5.96 (0.30) <.01 |
| a | Covar (Level, Slope) | 0.55 (0.25) .03 |
| b | Covar (Level, Slope) | -0.18 (0.08) .02 |
|  | Correlation of Levels | -0.305 |
|  | Correlation of Slopes | -0.317 |
|  | Correlation of Residuals | -0.031 |
|  | N | 800 |
|  | occasions | 6 |
|  | parameters | 41 |
|  | LL | -17,517 |
|  | AIC | 35,117 |
|  | BIC | 35,309 |

## raven

Gender = *male*; Process (a) = *gait*; Process (b) = *raven*

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | -0.70 (0.37) .06 |
| ab | Covar (Slopes) | -0.01 (0.01) .07 |
| ab | Covar (Residuals) | 0.15 (0.16) .36 |
| er | Corr (Levels) | -0.23 (0.19) .23 |
| er | Corr (Slopes) | -0.23 (0.16) .15 |
| er | Corr (Residuals) | 0.02 (0.03) .38 |
| a | Level | 7.20 (0.14) <.01 |
| a | Slope | 0.42 (0.06) <.01 |
| a | Level \* age | 0.08 (0.01) <.01 |
| a | Level \* education | -0.07 (0.02) .01 |
| a | Level \* height | -0.02 (0.01) .10 |
| a | Level \* smoking | 0.08 (0.21) .69 |
| a | Level \* cardio | 0.30 (0.21) .16 |
| a | Level \* diabetes | 0.31 (0.40) .44 |
| a | Slope \* age | 0.03 (0.00) <.01 |
| a | Slope \* education | -0.01 (0.00) .01 |
| a | Slope \* height | 0.00 (0.00) .76 |
| a | Slope \* smoking | 0.03 (0.05) .57 |
| a | Slope \* cardio | -0.02 (0.05) .65 |
| a | Slope \* diabetes | 0.11 (0.13) .40 |
| b | Level | 17.64 (0.19) <.01 |
| b | Slope | -0.17 (0.02) <.01 |
| b | Level \* age | -0.15 (0.01) <.01 |
| b | Level \* education | 0.36 (0.03) <.01 |
| b | Level \* height | 0.06 (0.02) <.01 |
| b | Level \* smoking | -0.24 (0.24) .32 |
| b | Level \* cardio | -0.42 (0.25) .09 |
| b | Level \* diabetes | -0.93 (0.49) .06 |
| b | Slope \* age | -0.01 (0.00) <.01 |
| b | Slope \* education | 0.00 (0.00) .94 |
| b | Slope \* height | -0.00 (0.00) .45 |
| b | Slope \* smoking | 0.00 (0.02) .82 |
| b | Slope \* cardio | -0.01 (0.02) .76 |
| b | Slope \* diabetes | -0.06 (0.05) .19 |
| a | Var (Level) | 1.40 (2.01) .49 |
| a | Var (Slope) | 0.24 (0.21) .26 |
| a | Var (Residual) | 8.78 (2.01) <.01 |
| b | Var (Level) | 6.57 (0.52) <.01 |
| b | Var (Slope) | 0.01 (0.00) <.01 |
| b | Var (Residual) | 4.15 (0.18) <.01 |
| a | Covar (Level, Slope) | 0.55 (0.26) .03 |
| b | Covar (Level, Slope) | -0.04 (0.04) .36 |
|  | Correlation of Levels | -0.232 |
|  | Correlation of Slopes | -0.242 |
|  | Correlation of Residuals | 0.025 |
|  | N | 800 |
|  | occasions | 6 |
|  | parameters | 41 |
|  | LL | -17,367 |
|  | AIC | 34,816 |
|  | BIC | 35,008 |

## word\_im

Gender = *male*; Process (a) = *gait*; Process (b) = *word\_im*

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | -1.12 (0.58) .05 |
| ab | Covar (Slopes) | 0.00 (0.02) .85 |
| ab | Covar (Residuals) | -0.08 (0.29) .77 |
| er | Corr (Levels) | -0.27 (0.20) .17 |
| er | Corr (Slopes) | 0.10 (0.49) .85 |
| er | Corr (Residuals) | -0.01 (0.03) .77 |
| a | Level | 7.20 (0.14) <.01 |
| a | Slope | 0.42 (0.06) <.01 |
| a | Level \* age | 0.08 (0.01) <.01 |
| a | Level \* education | -0.07 (0.02) .01 |
| a | Level \* height | -0.02 (0.01) .12 |
| a | Level \* smoking | 0.08 (0.21) .71 |
| a | Level \* cardio | 0.29 (0.21) .16 |
| a | Level \* diabetes | 0.32 (0.40) .43 |
| a | Slope \* age | 0.03 (0.00) <.01 |
| a | Slope \* education | -0.01 (0.00) .01 |
| a | Slope \* height | 0.00 (0.00) .85 |
| a | Slope \* smoking | 0.03 (0.05) .52 |
| a | Slope \* cardio | -0.02 (0.05) .67 |
| a | Slope \* diabetes | 0.10 (0.13) .44 |
| b | Level | 17.65 (0.27) <.01 |
| b | Slope | -0.22 (0.03) <.01 |
| b | Level \* age | -0.25 (0.02) <.01 |
| b | Level \* education | 0.41 (0.05) <.01 |
| b | Level \* height | 0.03 (0.02) .26 |
| b | Level \* smoking | -0.35 (0.36) .34 |
| b | Level \* cardio | 0.10 (0.36) .78 |
| b | Level \* diabetes | -0.95 (0.72) .18 |
| b | Slope \* age | -0.00 (0.00) .02 |
| b | Slope \* education | -0.01 (0.00) .05 |
| b | Slope \* height | 0.00 (0.00) .28 |
| b | Slope \* smoking | -0.04 (0.03) .24 |
| b | Slope \* cardio | -0.00 (0.04) .91 |
| b | Slope \* diabetes | -0.21 (0.06) <.01 |
| a | Var (Level) | 1.41 (2.02) .49 |
| a | Var (Slope) | 0.24 (0.22) .27 |
| a | Var (Residual) | 8.78 (2.00) <.01 |
| b | Var (Level) | 12.47 (1.14) <.01 |
| b | Var (Slope) | 0.01 (0.01) .47 |
| b | Var (Residual) | 14.00 (0.55) <.01 |
| a | Covar (Level, Slope) | 0.56 (0.25) .03 |
| b | Covar (Level, Slope) | 0.06 (0.08) .43 |
|  | Correlation of Levels | -0.2675 |
|  | Correlation of Slopes | 0.1054 |
|  | Correlation of Residuals | -0.0077 |
|  | N | 800 |
|  | occasions | 6 |
|  | parameters | 41 |
|  | LL | -18,170 |
|  | AIC | 36,422 |
|  | BIC | 36,614 |

## Summary

Study = *LASA*; Gender = *male*; Process (a) = *gait*

Computed correlations:

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Levels | letter | -0.31 |
| Correlation of Levels | raven | -0.23 |
| Correlation of Levels | word\_im | -0.27 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Slopes | letter | -0.32 |
| Correlation of Slopes | raven | -0.24 |
| Correlation of Slopes | word\_im | 0.11 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Residuals | letter | -0.03 |
| Correlation of Residuals | raven | 0.02 |
| Correlation of Residuals | word\_im | -0.01 |

P-values for corresponding covariances:

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Covariance of Levels | letter | 0.00 |
| Covariance of Levels | raven | 0.06 |
| Covariance of Levels | word\_im | 0.05 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Covariance of Slopes | letter | 0.02 |
| Covariance of Slopes | raven | 0.07 |
| Covariance of Slopes | word\_im | 0.85 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Covariance of Residuals | letter | 0.43 |
| Covariance of Residuals | raven | 0.36 |
| Covariance of Residuals | word\_im | 0.77 |

#Session Info

R version 3.3.1 (2016-06-21)  
Platform: x86\_64-w64-mingw32/x64 (64-bit)  
Running under: Windows >= 8 x64 (build 9200)  
  
locale:  
[1] LC\_COLLATE=English\_United States.1252 LC\_CTYPE=English\_United States.1252 LC\_MONETARY=English\_United States.1252  
[4] LC\_NUMERIC=C LC\_TIME=English\_United States.1252   
  
attached base packages:  
[1] stats graphics grDevices utils datasets methods base   
  
other attached packages:  
[1] knitr\_1.14 ggplot2\_2.2.0 IalsaSynthesis\_0.1.8.9000 MplusAutomation\_0.6-4   
[5] magrittr\_1.5   
  
loaded via a namespace (and not attached):  
 [1] Rcpp\_0.12.7 formatR\_1.4 plyr\_1.8.4 highr\_0.6 tools\_3.3.1 boot\_1.3-18   
 [7] digest\_0.6.10 evaluate\_0.10 tibble\_1.2 gtable\_0.2.0 lattice\_0.20-34 texreg\_1.36.7   
[13] DBI\_0.5-1 yaml\_2.1.13 proto\_0.3-10 coda\_0.18-1 dplyr\_0.5.0 stringr\_1.1.0   
[19] htmlwidgets\_0.7 grid\_3.3.1 DT\_0.2 data.table\_1.9.6 R6\_2.2.0 rmarkdown\_1.1   
[25] gsubfn\_0.6-6 pander\_0.6.0 tidyr\_0.6.0 reshape2\_1.4.1 readr\_1.0.0 scales\_0.4.1   
[31] htmltools\_0.3.5 rsconnect\_0.5 assertthat\_0.1 testit\_0.5 colorspace\_1.2-7 xtable\_1.8-2   
[37] stringi\_1.1.2 lazyeval\_0.2.0 munsell\_0.4.3 chron\_2.3-47