EAS : Seed report

Date: 2017-06-27

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Observations: 1,621  
Variables: 230  
$ software <chr> "Mplus VERSION 7.3", "Mplus VERSION 7.3", "Mplus VERSION 7.3", "Mplus VERSION 7.3", "Mplu...  
$ version <dbl> 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1,...  
$ date <chr> "11/30/2016", "11/30/2016", "11/30/2016", "11/30/2016", "12/05/2016", "11/30/2016", "11/3...  
$ time <chr> " 1:04 PM", " 1:10 PM", " 1:29 PM", " 2:00 PM", " 8:54 AM", " 1:41 PM", " 1:33 PM", "12:5...  
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$ study\_name <chr> "eas", "eas", "eas", "eas", "eas", "eas", "eas", "eas", "eas", "eas", "eas", "eas", "eas"...  
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$ parameter\_count <int> 43, 43, 43, 43, 43, 43, 43, 43, 43, 43, 43, 43, 43, 43, 43, 43, 43, 43, 43, 43, 43, 43, 2...  
$ ll <dbl> -5629.857, -7127.299, -7323.221, -9769.100, -5099.137, -7619.850, -5943.564, -6837.136, -...  
$ aic <dbl> 11345.714, 14340.597, 14732.442, 19624.200, 10284.275, 15325.700, 11973.128, 13760.272, 1...  
$ bic <dbl> 11513.174, 14508.057, 14899.663, 19791.541, 10451.734, 15493.160, 12140.588, 13927.731, 1...  
$ adj\_bic <dbl> 11376.753, 14371.637, 14763.245, 19655.122, 10315.314, 15356.740, 12004.168, 13791.311, 1...  
$ aaic <dbl> 11357.576, 14352.459, 14744.379, 19636.099, 10296.137, 15337.562, 11984.990, 13772.134, 1...  
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$ ab\_tau\_00\_est <dbl> -0.879, 11.432, 67.831, -4.863, 2.686, 51.981, 12.353, 11.874, 3.856, 16.749, 46.977, 6.1...  
$ ab\_tau\_00\_se <dbl> 4.926, 13.718, 23.064, 107.756, 2.326, 22.895, 6.175, 11.820, 11.155, 14.113, 24.645, 6.1...  
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$ ab\_tau\_00\_pval <dbl> 0.858, 0.405, 0.003, 0.964, 0.248, 0.023, 0.045, 0.315, 0.730, 0.235, 0.057, 0.317, 0.083...  
$ ab\_tau\_11\_est <dbl> 0.007, 0.674, 2.084, 3.359, 0.016, 1.527, 0.619, 0.286, 0.737, 0.190, 2.528, -0.005, 1.74...  
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$ ab\_tau\_11\_pval <dbl> 0.982, 0.464, 0.059, 0.610, 0.923, 0.224, 0.076, 0.726, 0.402, 0.822, 0.010, 0.991, 0.144...  
$ ab\_tau\_01\_est <dbl> 1.036, 6.892, -3.643, -47.703, 0.665, -1.343, -0.411, 5.700, 3.550, 0.407, 0.666, -0.228,...  
$ ab\_tau\_01\_se <dbl> 1.304, 3.884, 4.501, 30.254, 0.666, 5.061, 1.531, 3.100, 3.351, 2.923, 4.239, 1.694, 5.39...  
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$ ab\_tau\_01\_pval <dbl> 0.427, 0.076, 0.418, 0.115, 0.318, 0.791, 0.788, 0.066, 0.289, 0.889, 0.875, 0.893, 0.230...  
$ ab\_tau\_10\_est <dbl> 0.719, -0.921, -8.915, -26.013, -0.162, -7.519, -2.544, 0.486, -1.056, 1.220, -6.960, 0.3...  
$ ab\_tau\_10\_se <dbl> 1.328, 3.060, 4.888, 32.873, 0.613, 6.227, 1.650, 3.347, 2.818, 3.805, 5.620, 1.618, 7.15...  
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$ ab\_sigma\_00\_est <dbl> 0.492, 0.429, -0.793, -4.350, -0.370, -0.852, -0.237, 1.282, 0.347, 1.103, 0.165, 0.289, ...  
$ ab\_sigma\_00\_se <dbl> 0.917, 2.704, 3.333, 25.362, 0.511, 3.631, 0.881, 2.263, 2.306, 2.256, 2.915, 0.947, 3.20...  
$ ab\_sigma\_00\_wald <dbl> 0.536, 0.159, -0.238, -0.172, -0.725, -0.235, -0.269, 0.567, 0.150, 0.489, 0.057, 0.306, ...  
$ ab\_sigma\_00\_pval <dbl> 0.592, 0.874, 0.812, 0.864, 0.468, 0.815, 0.788, 0.571, 0.881, 0.625, 0.955, 0.760, 0.984...  
$ aa\_tau\_00\_est <dbl> 359.459, 352.089, 363.387, 359.614, 359.772, 361.276, 356.869, 354.922, 357.495, 356.798,...  
$ aa\_tau\_00\_se <dbl> 59.481, 56.294, 56.239, 57.406, 57.737, 58.521, 56.349, 58.408, 57.406, 57.556, 56.811, 7...  
$ aa\_tau\_00\_wald <dbl> 6.043, 6.254, 6.461, 6.264, 6.231, 6.173, 6.333, 6.077, 6.227, 6.199, 6.200, 4.210, 4.162...  
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$ aa\_tau\_11\_wald <dbl> 2.406, 2.539, 2.664, 2.417, 2.573, 2.636, 2.636, 2.572, 2.526, 2.502, 2.624, 0.642, 0.868...  
$ aa\_tau\_11\_pval <dbl> 0.016, 0.011, 0.008, 0.016, 0.010, 0.008, 0.008, 0.010, 0.012, 0.012, 0.009, 0.521, 0.386...  
$ aa\_tau\_01\_est <dbl> -6.262, -4.077, -7.738, -6.107, -5.931, -6.531, -5.293, -3.920, -5.622, -5.615, -3.750, 1...  
$ aa\_tau\_01\_se <dbl> 11.018, 9.447, 9.635, 9.117, 9.321, 9.847, 9.194, 9.429, 9.659, 9.333, 8.798, 14.524, 18....  
$ aa\_tau\_01\_wald <dbl> -0.568, -0.432, -0.803, -0.670, -0.636, -0.663, -0.576, -0.416, -0.582, -0.602, -0.426, 0...  
$ aa\_tau\_01\_pval <dbl> 0.570, 0.666, 0.422, 0.503, 0.525, 0.507, 0.565, 0.678, 0.561, 0.547, 0.670, 0.898, 0.893...  
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$ a\_sigma\_00\_se <dbl> 5.974, 5.818, 6.013, 6.144, 5.822, 5.866, 5.722, 5.868, 5.719, 5.978, 5.877, 8.715, 9.092...  
$ a\_sigma\_00\_wald <dbl> 10.556, 10.867, 10.491, 10.324, 10.853, 10.699, 11.119, 10.790, 11.007, 10.585, 10.834, 8...  
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$ bb\_tau\_00\_wald <dbl> 6.156, 7.715, 7.715, 4.381, 5.475, 6.716, 8.185, 5.719, 5.463, 7.457, 8.984, 4.254, 5.818...  
$ bb\_tau\_00\_pval <dbl> 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000...  
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$ bb\_tau\_11\_se <dbl> 0.031, 0.320, 0.638, 35.706, 0.012, 0.661, 0.061, 0.304, 0.364, 0.461, 0.748, 0.046, 0.66...  
$ bb\_tau\_11\_wald <dbl> 0.429, 1.992, 1.542, 1.490, 0.540, 0.524, 1.849, 0.601, 0.784, 1.844, 3.172, 0.141, 1.946...  
$ bb\_tau\_11\_pval <dbl> 0.668, 0.046, 0.123, 0.136, 0.590, 0.600, 0.064, 0.548, 0.433, 0.065, 0.002, 0.888, 0.052...  
$ bb\_tau\_10\_est <dbl> 0.071, 1.493, 0.965, -16.147, 0.046, -1.830, -0.083, 0.610, -0.133, -1.645, -6.320, 0.075...  
$ bb\_tau\_10\_se <dbl> 0.125, 1.131, 2.508, 117.131, 0.040, 2.650, 0.191, 0.903, 1.003, 1.472, 2.913, 0.144, 2.2...  
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$ bb\_tau\_10\_pval <dbl> 0.568, 0.187, 0.700, 0.890, 0.243, 0.490, 0.664, 0.499, 0.895, 0.264, 0.030, 0.600, 0.045...  
$ b\_sigma\_00\_est <dbl> 1.893, 17.326, 27.806, 1746.799, 0.819, 40.920, 2.656, 12.843, 15.431, 19.990, 28.133, 1....  
$ b\_sigma\_00\_se <dbl> 0.101, 0.999, 1.570, 81.310, 0.038, 1.843, 0.154, 0.626, 0.847, 1.015, 1.509, 0.133, 1.22...  
$ b\_sigma\_00\_wald <dbl> 18.769, 17.349, 17.710, 21.483, 21.377, 22.199, 17.228, 20.517, 18.218, 19.700, 18.645, 1...  
$ b\_sigma\_00\_pval <dbl> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...  
$ a\_gamma\_00\_est <dbl> 106.385, 106.769, 106.219, 106.842, 105.879, 105.744, 105.688, 106.287, 106.163, 106.158,...  
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$ a\_gamma\_10\_pval <dbl> 0.029, 0.024, 0.027, 0.026, 0.038, 0.043, 0.036, 0.032, 0.043, 0.024, 0.019, 0.259, 0.186...  
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$ b\_gamma\_00\_wald <dbl> 24.347, 27.525, 13.190, 13.031, 92.526, 19.159, 20.425, 35.145, 15.591, 9.996, 13.853, 17...  
$ b\_gamma\_00\_pval <dbl> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...  
$ b\_gamma\_10\_est <dbl> 0.056, -0.523, 0.419, 1.031, 0.052, -0.743, 0.300, 0.176, -0.074, 1.079, 1.233, 0.107, 0....  
$ b\_gamma\_10\_se <dbl> 0.121, 0.397, 0.542, 3.990, 0.080, 0.551, 0.151, 0.323, 0.373, 0.454, 0.668, 0.174, 0.746...  
$ b\_gamma\_10\_wald <dbl> 0.458, -1.317, 0.774, 0.258, 0.647, -1.349, 1.991, 0.546, -0.197, 2.377, 1.845, 0.613, 0....  
$ b\_gamma\_10\_pval <dbl> 0.647, 0.188, 0.439, 0.796, 0.517, 0.177, 0.046, 0.585, 0.844, 0.017, 0.065, 0.540, 0.355...  
$ er\_tau\_00\_est <dbl> -0.024, 0.095, 0.355, -0.006, 0.142, 0.287, 0.243, 0.154, 0.043, 0.128, 0.209, 0.188, 0.3...  
$ er\_tau\_00\_se <dbl> 0.135, 0.112, 0.105, 0.125, 0.123, 0.116, 0.113, 0.156, 0.123, 0.105, 0.104, 0.178, 0.161...  
$ er\_tau\_00\_wald <dbl> -0.178, 0.844, 3.377, -0.045, 1.153, 2.477, 2.144, 0.993, 0.347, 1.223, 2.013, 1.061, 1.9...  
$ er\_tau\_00\_pval <dbl> 0.858, 0.399, 0.001, 0.964, 0.249, 0.013, 0.032, 0.321, 0.728, 0.221, 0.044, 0.289, 0.052...  
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$ er\_tau\_11\_se <dbl> 1.076, 0.448, 0.475, 0.364, 0.793, 1.156, 0.400, 0.760, 0.751, 0.364, 0.242, 3.452, 0.722...  
$ er\_tau\_11\_wald <dbl> 0.022, 0.737, 1.699, 0.503, 0.098, 0.864, 1.845, 0.346, 0.717, 0.226, 2.729, -0.011, 1.07...  
$ er\_tau\_11\_pval <dbl> 0.982, 0.461, 0.089, 0.615, 0.922, 0.388, 0.065, 0.729, 0.473, 0.821, 0.006, 0.991, 0.282...  
$ er\_sigma\_00\_est <dbl> 0.045, 0.013, -0.019, -0.013, -0.051, -0.017, -0.018, 0.045, 0.011, 0.031, 0.004, 0.025, ...  
$ er\_sigma\_00\_se <dbl> 0.084, 0.082, 0.079, 0.076, 0.071, 0.072, 0.068, 0.079, 0.074, 0.063, 0.069, 0.081, 0.086...  
$ er\_sigma\_00\_wald <dbl> 0.534, 0.159, -0.239, -0.171, -0.721, -0.235, -0.268, 0.566, 0.150, 0.489, 0.057, 0.307, ...  
$ er\_sigma\_00\_pval <dbl> 0.593, 0.874, 0.811, 0.864, 0.471, 0.814, 0.789, 0.571, 0.880, 0.625, 0.955, 0.759, 0.984...  
$ a\_gamma\_01\_est <dbl> -1.560, -1.619, -1.526, -1.572, -1.564, -1.457, -1.497, -1.546, -1.555, -1.559, -1.577, -...  
$ a\_gamma\_01\_se <dbl> 0.366, 0.410, 0.363, 0.376, 0.368, 0.374, 0.368, 0.379, 0.376, 0.381, 0.367, 0.422, 0.422...  
$ a\_gamma\_01\_wald <dbl> -4.262, -3.947, -4.207, -4.183, -4.247, -3.898, -4.069, -4.084, -4.137, -4.091, -4.298, -...  
$ a\_gamma\_01\_pval <dbl> 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.010, 0.006...  
$ a\_gamma\_11\_est <dbl> -0.075, -0.084, -0.066, -0.079, -0.081, -0.104, -0.104, -0.100, -0.088, -0.074, -0.091, -...  
$ a\_gamma\_11\_se <dbl> 0.103, 0.117, 0.099, 0.107, 0.099, 0.110, 0.099, 0.105, 0.101, 0.103, 0.102, 0.131, 0.142...  
$ a\_gamma\_11\_wald <dbl> -0.729, -0.719, -0.669, -0.737, -0.817, -0.949, -1.057, -0.954, -0.868, -0.725, -0.893, -...  
$ a\_gamma\_11\_pval <dbl> 0.466, 0.472, 0.503, 0.461, 0.414, 0.343, 0.290, 0.340, 0.385, 0.468, 0.372, 0.364, 0.479...  
$ b\_gamma\_01\_est <dbl> -0.053, -0.276, -0.220, 2.646, -0.003, 0.042, -0.031, -0.157, -0.247, -0.144, -0.385, -0....  
$ b\_gamma\_01\_se <dbl> 0.027, 0.098, 0.137, 0.806, 0.017, 0.138, 0.040, 0.071, 0.076, 0.107, 0.154, 0.037, 0.139...  
$ b\_gamma\_01\_wald <dbl> -1.958, -2.807, -1.609, 3.283, -0.196, 0.302, -0.771, -2.229, -3.230, -1.348, -2.507, -0....  
$ b\_gamma\_01\_pval <dbl> 0.050, 0.005, 0.108, 0.001, 0.845, 0.763, 0.440, 0.026, 0.001, 0.178, 0.012, 0.339, 0.177...  
$ b\_gamma\_11\_est <dbl> -0.011, -0.045, -0.030, 0.184, -0.005, -0.028, -0.013, -0.074, -0.006, -0.031, -0.096, -0...  
$ b\_gamma\_11\_se <dbl> 0.007, 0.024, 0.033, 0.262, 0.005, 0.036, 0.011, 0.021, 0.024, 0.030, 0.036, 0.010, 0.036...  
$ b\_gamma\_11\_wald <dbl> -1.566, -1.919, -0.893, 0.703, -1.082, -0.787, -1.182, -3.527, -0.258, -1.019, -2.707, -0...  
$ b\_gamma\_11\_pval <dbl> 0.117, 0.055, 0.372, 0.482, 0.279, 0.431, 0.237, 0.000, 0.797, 0.308, 0.007, 0.374, 0.201...  
$ a\_gamma\_02\_est <dbl> 0.593, 0.559, 0.544, 0.521, 0.626, 0.581, 0.613, 0.596, 0.597, 0.601, 0.512, 0.745, 0.616...  
$ a\_gamma\_02\_se <dbl> 0.592, 0.555, 0.541, 0.571, 0.592, 0.573, 0.560, 0.565, 0.574, 0.591, 0.546, 0.682, 0.712...  
$ a\_gamma\_02\_wald <dbl> 1.002, 1.007, 1.004, 0.912, 1.057, 1.014, 1.096, 1.056, 1.039, 1.017, 0.937, 1.092, 0.865...  
$ a\_gamma\_02\_pval <dbl> 0.316, 0.314, 0.315, 0.362, 0.290, 0.311, 0.273, 0.291, 0.299, 0.309, 0.349, 0.275, 0.387...  
$ a\_gamma\_12\_est <dbl> 0.117, 0.142, 0.122, 0.133, 0.108, 0.120, 0.104, 0.122, 0.104, 0.117, 0.138, -0.102, -0.0...  
$ a\_gamma\_12\_se <dbl> 0.167, 0.159, 0.153, 0.160, 0.176, 0.170, 0.163, 0.164, 0.179, 0.163, 0.151, 0.188, 0.191...  
$ a\_gamma\_12\_wald <dbl> 0.700, 0.897, 0.796, 0.829, 0.617, 0.708, 0.636, 0.743, 0.584, 0.717, 0.915, -0.540, -0.3...  
$ a\_gamma\_12\_pval <dbl> 0.484, 0.370, 0.426, 0.407, 0.537, 0.479, 0.524, 0.457, 0.559, 0.473, 0.360, 0.589, 0.725...  
$ b\_gamma\_02\_est <dbl> 0.282, 0.683, 1.293, -6.580, 0.129, 1.652, 0.292, 0.081, 0.683, 0.949, 1.563, 0.187, 0.90...  
$ b\_gamma\_02\_se <dbl> 0.043, 0.135, 0.211, 1.168, 0.025, 0.195, 0.060, 0.099, 0.113, 0.155, 0.231, 0.054, 0.224...  
$ b\_gamma\_02\_wald <dbl> 6.535, 5.048, 6.127, -5.634, 5.175, 8.487, 4.900, 0.815, 6.033, 6.122, 6.773, 3.489, 4.03...  
$ b\_gamma\_02\_pval <dbl> 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.415, 0.000, 0.000, 0.000, 0.000, 0.000...  
$ b\_gamma\_12\_est <dbl> -0.001, 0.059, 0.052, 0.049, -0.001, 0.061, -0.014, 0.034, 0.040, -0.077, -0.007, -0.007,...  
$ b\_gamma\_12\_se <dbl> 0.014, 0.042, 0.061, 0.364, 0.008, 0.062, 0.015, 0.034, 0.035, 0.045, 0.060, 0.015, 0.058...  
$ b\_gamma\_12\_wald <dbl> -0.064, 1.428, 0.840, 0.133, -0.139, 0.987, -0.939, 1.019, 1.149, -1.720, -0.122, -0.482,...  
$ b\_gamma\_12\_pval <dbl> 0.949, 0.153, 0.401, 0.894, 0.890, 0.324, 0.348, 0.308, 0.250, 0.086, 0.903, 0.630, 0.380...  
$ a\_gamma\_03\_est <dbl> 0.099, 0.107, 0.132, 0.083, 0.103, 0.138, 0.164, 0.161, 0.110, 0.106, 0.099, 0.083, 0.163...  
$ a\_gamma\_03\_se <dbl> 0.285, 0.278, 0.279, 0.287, 0.280, 0.281, 0.278, 0.277, 0.287, 0.276, 0.293, 0.450, 0.417...  
$ a\_gamma\_03\_wald <dbl> 0.349, 0.384, 0.475, 0.288, 0.367, 0.493, 0.589, 0.581, 0.382, 0.385, 0.337, 0.185, 0.391...  
$ a\_gamma\_03\_pval <dbl> 0.727, 0.701, 0.635, 0.773, 0.713, 0.622, 0.556, 0.561, 0.702, 0.700, 0.736, 0.853, 0.695...  
$ a\_gamma\_13\_est <dbl> 0.039, 0.034, 0.040, 0.041, 0.031, 0.030, 0.014, 0.028, 0.027, 0.034, 0.024, 0.022, -0.01...  
$ a\_gamma\_13\_se <dbl> 0.066, 0.079, 0.068, 0.075, 0.066, 0.065, 0.062, 0.076, 0.073, 0.066, 0.067, 0.144, 0.130...  
$ a\_gamma\_13\_wald <dbl> 0.586, 0.432, 0.591, 0.549, 0.477, 0.456, 0.218, 0.367, 0.376, 0.510, 0.359, 0.151, -0.11...  
$ a\_gamma\_13\_pval <dbl> 0.558, 0.666, 0.555, 0.583, 0.634, 0.648, 0.827, 0.713, 0.707, 0.610, 0.719, 0.880, 0.910...  
$ b\_gamma\_03\_est <dbl> -0.005, -0.105, -0.169, 0.402, 0.010, -0.001, 0.075, 0.070, 0.051, -0.013, 0.132, -0.001,...  
$ b\_gamma\_03\_se <dbl> 0.033, 0.099, 0.156, 0.996, 0.021, 0.151, 0.046, 0.083, 0.090, 0.118, 0.191, 0.067, 0.155...  
$ b\_gamma\_03\_wald <dbl> -0.137, -1.067, -1.085, 0.404, 0.472, -0.006, 1.631, 0.843, 0.567, -0.111, 0.695, -0.020,...  
$ b\_gamma\_03\_pval <dbl> 0.891, 0.286, 0.278, 0.686, 0.637, 0.995, 0.103, 0.399, 0.570, 0.912, 0.487, 0.984, 0.910...  
$ b\_gamma\_13\_est <dbl> 0.003, 0.017, 0.055, -0.100, -0.002, 0.001, -0.026, -0.038, -0.006, -0.011, -0.036, 0.008...  
$ b\_gamma\_13\_se <dbl> 0.011, 0.027, 0.038, 0.406, 0.007, 0.040, 0.011, 0.023, 0.022, 0.035, 0.042, 0.014, 0.045...  
$ b\_gamma\_13\_wald <dbl> 0.266, 0.624, 1.439, -0.247, -0.339, 0.027, -2.322, -1.632, -0.262, -0.320, -0.849, 0.588...  
$ b\_gamma\_13\_pval <dbl> 0.790, 0.533, 0.150, 0.805, 0.735, 0.978, 0.020, 0.103, 0.793, 0.749, 0.396, 0.556, 0.256...  
$ a\_gamma\_04\_est <dbl> 3.229, 3.448, 3.130, 3.058, 3.298, 3.621, 3.340, 2.720, 3.240, 3.171, 3.267, -6.226, -5.5...  
$ a\_gamma\_04\_se <dbl> 2.548, 2.695, 2.551, 2.757, 2.667, 2.793, 2.671, 2.553, 2.499, 2.804, 2.471, 4.538, 4.712...  
$ a\_gamma\_04\_wald <dbl> 1.267, 1.279, 1.227, 1.109, 1.237, 1.297, 1.251, 1.066, 1.296, 1.131, 1.322, -1.372, -1.1...  
$ a\_gamma\_04\_pval <dbl> 0.205, 0.201, 0.220, 0.267, 0.216, 0.195, 0.211, 0.287, 0.195, 0.258, 0.186, 0.170, 0.242...  
$ a\_gamma\_14\_est <dbl> -0.296, -0.286, -0.286, -0.258, -0.293, -0.336, -0.344, -0.331, -0.310, -0.297, -0.305, 1...  
$ a\_gamma\_14\_se <dbl> 0.844, 0.861, 0.838, 0.855, 0.840, 0.846, 0.864, 0.854, 0.881, 0.861, 0.845, 1.431, 1.514...  
$ a\_gamma\_14\_wald <dbl> -0.351, -0.332, -0.342, -0.302, -0.348, -0.397, -0.399, -0.387, -0.352, -0.346, -0.362, 1...  
$ a\_gamma\_14\_pval <dbl> 0.725, 0.740, 0.733, 0.763, 0.728, 0.691, 0.690, 0.698, 0.725, 0.730, 0.718, 0.193, 0.297...  
$ b\_gamma\_04\_est <dbl> 0.046, 0.424, 1.068, -5.129, 0.157, 0.474, 0.238, -1.122, 0.625, 0.531, 1.070, 0.631, 2.9...  
$ b\_gamma\_04\_se <dbl> 0.169, 0.607, 0.980, 5.395, 0.171, 1.019, 0.332, 0.434, 0.478, 0.523, 1.060, 0.393, 1.695...  
$ b\_gamma\_04\_wald <dbl> 0.269, 0.698, 1.089, -0.951, 0.918, 0.465, 0.718, -2.587, 1.307, 1.017, 1.009, 1.605, 1.7...  
$ b\_gamma\_04\_pval <dbl> 0.788, 0.485, 0.276, 0.342, 0.358, 0.642, 0.473, 0.010, 0.191, 0.309, 0.313, 0.109, 0.086...  
$ b\_gamma\_14\_est <dbl> 0.014, -0.054, 0.012, -0.257, -0.006, 0.122, -0.006, 0.042, -0.162, -0.114, 0.164, -0.157...  
$ b\_gamma\_14\_se <dbl> 0.083, 0.238, 0.316, 2.204, 0.046, 0.338, 0.090, 0.205, 0.237, 0.217, 0.350, 0.111, 0.413...  
$ b\_gamma\_14\_wald <dbl> 0.174, -0.225, 0.038, -0.117, -0.132, 0.361, -0.065, 0.204, -0.685, -0.524, 0.469, -1.407...  
$ b\_gamma\_14\_pval <dbl> 0.862, 0.822, 0.970, 0.907, 0.895, 0.718, 0.948, 0.838, 0.494, 0.600, 0.639, 0.159, 0.237...  
$ a\_gamma\_05\_est <dbl> -7.408, -7.502, -6.707, -7.242, -7.348, -7.841, -7.427, -6.916, -7.302, -7.269, -6.843, -...  
$ a\_gamma\_05\_se <dbl> 3.489, 3.331, 3.153, 3.632, 3.274, 3.206, 3.287, 3.223, 3.177, 3.427, 3.375, 4.631, 4.785...  
$ a\_gamma\_05\_wald <dbl> -2.124, -2.252, -2.127, -1.994, -2.244, -2.445, -2.260, -2.146, -2.299, -2.121, -2.027, -...  
$ a\_gamma\_05\_pval <dbl> 0.034, 0.024, 0.033, 0.046, 0.025, 0.014, 0.024, 0.032, 0.022, 0.034, 0.043, 0.662, 0.565...  
$ a\_gamma\_15\_est <dbl> 0.592, 0.577, 0.487, 0.629, 0.544, 0.639, 0.554, 0.589, 0.538, 0.544, 0.371, 0.622, 0.763...  
$ a\_gamma\_15\_se <dbl> 1.251, 1.234, 1.193, 1.258, 1.354, 1.276, 1.252, 1.333, 1.265, 1.275, 1.180, 1.259, 1.260...  
$ a\_gamma\_15\_wald <dbl> 0.473, 0.468, 0.408, 0.500, 0.402, 0.501, 0.443, 0.442, 0.425, 0.427, 0.314, 0.494, 0.605...  
$ a\_gamma\_15\_pval <dbl> 0.636, 0.640, 0.683, 0.617, 0.688, 0.617, 0.658, 0.659, 0.671, 0.670, 0.753, 0.621, 0.545...  
$ b\_gamma\_05\_est <dbl> 0.032, 0.180, 0.373, 10.502, -0.088, -0.502, -0.458, 0.677, -1.074, -0.349, -2.538, 0.103...  
$ b\_gamma\_05\_se <dbl> 0.246, 1.245, 1.481, 7.628, 0.160, 1.327, 0.499, 1.188, 0.982, 1.105, 2.065, 0.364, 1.249...  
$ b\_gamma\_05\_wald <dbl> 0.130, 0.145, 0.252, 1.377, -0.553, -0.378, -0.917, 0.569, -1.094, -0.316, -1.229, 0.283,...  
$ b\_gamma\_05\_pval <dbl> 0.897, 0.885, 0.801, 0.169, 0.580, 0.705, 0.359, 0.569, 0.274, 0.752, 0.219, 0.778, 0.238...  
$ b\_gamma\_15\_est <dbl> -0.005, 0.061, -0.307, 1.438, -0.074, -0.150, 0.003, -0.040, 0.429, -0.207, 0.034, 0.023,...  
$ b\_gamma\_15\_se <dbl> 0.098, 0.286, 0.274, 2.146, 0.044, 0.459, 0.114, 0.255, 0.277, 0.299, 0.489, 0.123, 0.363...  
$ b\_gamma\_15\_wald <dbl> -0.054, 0.213, -1.121, 0.670, -1.670, -0.327, 0.028, -0.156, 1.551, -0.694, 0.069, 0.185,...  
$ b\_gamma\_15\_pval <dbl> 0.957, 0.832, 0.262, 0.503, 0.095, 0.744, 0.978, 0.876, 0.121, 0.488, 0.945, 0.853, 0.703...  
$ a\_gamma\_06\_est <dbl> -15.337, -15.443, -14.884, -15.466, -15.279, -14.366, -15.462, -15.587, -15.511, -15.515,...  
$ a\_gamma\_06\_se <dbl> 4.733, 4.569, 4.342, 4.533, 4.391, 4.481, 4.293, 4.343, 4.528, 4.457, 4.403, 5.302, 5.488...  
$ a\_gamma\_06\_wald <dbl> -3.240, -3.380, -3.428, -3.412, -3.480, -3.206, -3.602, -3.589, -3.426, -3.481, -3.642, -...  
$ a\_gamma\_06\_pval <dbl> 0.001, 0.001, 0.001, 0.001, 0.001, 0.001, 0.000, 0.000, 0.001, 0.000, 0.000, 0.015, 0.019...  
$ a\_gamma\_16\_est <dbl> 0.763, 0.926, 0.788, 0.717, 0.838, 0.733, 0.792, 0.742, 0.956, 0.901, 0.964, 0.047, 0.183...  
$ a\_gamma\_16\_se <dbl> 1.465, 1.392, 1.277, 1.367, 1.340, 1.361, 1.259, 1.347, 1.418, 1.378, 1.326, 1.414, 1.476...  
$ a\_gamma\_16\_wald <dbl> 0.521, 0.665, 0.617, 0.525, 0.625, 0.539, 0.629, 0.551, 0.675, 0.654, 0.727, 0.033, 0.124...  
$ a\_gamma\_16\_pval <dbl> 0.602, 0.506, 0.537, 0.600, 0.532, 0.590, 0.529, 0.582, 0.500, 0.513, 0.467, 0.973, 0.901...  
$ b\_gamma\_06\_est <dbl> -0.816, -3.795, -4.495, 28.854, -0.338, -2.910, -1.367, -1.202, 0.161, -4.179, -4.654, -0...  
$ b\_gamma\_06\_se <dbl> 0.393, 1.261, 1.848, 11.310, 0.213, 1.746, 0.540, 1.006, 1.124, 1.405, 2.010, 0.494, 1.70...  
$ b\_gamma\_06\_wald <dbl> -2.078, -3.009, -2.431, 2.551, -1.587, -1.667, -2.529, -1.195, 0.143, -2.975, -2.315, -1....  
$ b\_gamma\_06\_pval <dbl> 0.038, 0.003, 0.015, 0.011, 0.112, 0.095, 0.011, 0.232, 0.886, 0.003, 0.021, 0.166, 0.149...  
$ b\_gamma\_16\_est <dbl> -0.013, -0.005, -0.198, 0.133, 0.014, 0.243, 0.164, -0.257, -0.271, 0.643, -0.750, 0.155,...  
$ b\_gamma\_16\_se <dbl> 0.101, 0.339, 0.400, 3.870, 0.070, 0.468, 0.141, 0.270, 0.319, 0.367, 0.506, 0.140, 0.496...  
$ b\_gamma\_16\_wald <dbl> -0.128, -0.014, -0.495, 0.034, 0.195, 0.519, 1.163, -0.954, -0.850, 1.750, -1.484, 1.113,...  
$ b\_gamma\_16\_pval <dbl> 0.898, 0.989, 0.621, 0.973, 0.845, 0.604, 0.245, 0.340, 0.395, 0.080, 0.138, 0.266, 0.984...  
$ process\_a <chr> "gait", "gait", "gait", "gait", "gait", "gait", "gait", "gait", "gait", "gait", "gait", "...  
$ process\_b <chr> "bnt", "categories", "fas", "trailsb", "mmse", "waisvocab", "digit\_tot", "word\_im", "logi...  
$ process\_b\_cell <chr> "bnt", "cat", "fas", "trailsb", "mmse", "waisvoc", "digit\_tot", "freerecall", "logic\_tot"...  
$ process\_b\_row <chr> "boston naming test", "categories", "f-a-s phonemic words", "switching", "mini mental sta...  
$ process\_b\_domain <chr> "semantic memory", "fluency", "fluency", "executive function", "mental status", "semantic...  
$ outcome\_count <int> 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,...  
$ cr\_levels\_est <dbl> -0.024086300, 0.094892406, 0.355315956, -0.005662834, 0.141538728, 0.286858037, 0.2425718...  
$ cr\_levels\_z <dbl> -0.024090959, 0.095178776, 0.371514771, -0.005662895, 0.142495413, 0.295139195, 0.2475049...  
$ cr\_levels\_ztest <dbl> -0.4570938, 1.8058903, 7.0293893, -0.1072965, 2.7036604, 5.5998725, 4.6960768, 2.9544600,...  
$ cr\_levels\_zpval <dbl> 0.9807801, 0.9241728, 0.7102542, 0.9954817, 0.8866887, 0.7678875, 0.8045174, 0.8762587, 0...  
$ cr\_levels\_zeta\_lo <dbl> -0.127390131, -0.008120396, 0.267927456, -0.109105837, 0.039196241, 0.191840023, 0.144205...  
$ cr\_levels\_zeta\_hi <dbl> 0.07920821, 0.19847795, 0.47510209, 0.09778005, 0.24579458, 0.39843837, 0.35080415, 0.259...  
$ cr\_levels\_ci95\_lo <dbl> -0.126705469, -0.008120217, 0.261695277, -0.108674954, 0.039176180, 0.189520755, 0.143214...  
$ cr\_levels\_ci95\_hi <dbl> 0.07904298, 0.19591212, 0.44231247, 0.09746961, 0.24096146, 0.37861198, 0.33708851, 0.253...  
$ cr\_slopes\_est <dbl> 0.02314786, 0.32989072, 0.80678349, 0.18301032, 0.08130736, 0.99767766, 0.73754894, 0.262...  
$ cr\_slopes\_z <dbl> 0.02315200, 0.34270562, 1.11774605, 0.18509556, 0.08148725, 3.37858170, 0.94508305, 0.269...  
$ cr\_slopes\_ztest <dbl> 0.4392783, 6.5023820, 21.1487478, 3.5070602, 1.5461118, 64.1040806, 17.9316901, 5.1093374...  
$ cr\_slopes\_zpval <dbl> 6.604599e-01, 7.905803e-11, 2.833641e-99, 4.530866e-04, 1.220776e-01, 0.000000e+00, 6.672...  
$ cr\_slopes\_zeta\_lo <dbl> -0.080147172, 0.239406450, 1.014158736, 0.081652615, -0.021811924, 3.275282527, 0.8417838...  
$ cr\_slopes\_zeta\_hi <dbl> 0.12645117, 0.44600479, 1.22133337, 0.28853850, 0.18478642, 3.48188087, 1.04838222, 0.372...  
$ cr\_slopes\_ci95\_lo <dbl> -0.079976001, 0.234935039, 0.767476637, 0.081471635, -0.021808465, 0.997145465, 0.6867527...  
$ cr\_slopes\_ci95\_hi <dbl> 0.12578147, 0.41860941, 0.84004705, 0.28078910, 0.18271152, 0.99811072, 0.78117660, 0.356...  
$ cr\_resid\_est <dbl> 0.045031127, 0.012962367, -0.018933785, -0.013068031, -0.051435107, -0.016811754, -0.0182...  
$ cr\_resid\_z <dbl> 0.045061602, 0.012963093, -0.018936048, -0.013068775, -0.051480538, -0.016813338, -0.0182...  
$ cr\_resid\_ztest <dbl> 0.85498378, 0.24595740, -0.35828683, -0.24761794, -0.97677453, -0.31901065, -0.34596330, ...  
$ cr\_resid\_zpval <dbl> 0.39256013, 0.80571521, 0.72012867, 0.80443003, 0.32868079, 0.74971843, 0.72937030, 0.393...  
$ cr\_resid\_zeta\_lo <dbl> -0.05823757, -0.09033608, -0.12252336, -0.11651172, -0.15477971, -0.12011251, -0.12153304...  
$ cr\_resid\_zeta\_hi <dbl> 0.14836077, 0.11626227, 0.08465127, 0.09037417, 0.05181863, 0.08648583, 0.08506531, 0.148...  
$ cr\_resid\_ci95\_lo <dbl> -0.05817182, -0.09009115, -0.12191392, -0.11598735, -0.15355543, -0.11953820, -0.12093819...  
$ cr\_resid\_ci95\_hi <dbl> 0.14728175, 0.11574125, 0.08444965, 0.09012893, 0.05177230, 0.08627085, 0.08486072, 0.147...

Observations: 63,345  
Variables: 22  
$ study\_name <chr> "eas", "eas", "eas", "eas", "eas", "eas", "eas", "eas", "eas", "eas", "eas", "eas", "eas",...  
$ model\_number <chr> "b1", "b1", "b1", "b1", "b1", "b1", "b1", "b1", "b1", "b1", "b1", "b1", "b1", "b1", "b1", ...  
$ subgroup <chr> "female", "female", "female", "female", "female", "female", "female", "female", "female", ...  
$ model\_type <chr> "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", ...  
$ process\_a <chr> "gait", "gait", "gait", "gait", "gait", "gait", "gait", "gait", "gait", "gait", "gait", "g...  
$ process\_b <chr> "block", "block", "block", "block", "block", "block", "block", "block", "block", "block", ...  
$ process\_b\_cell <chr> "block", "block", "block", "block", "block", "block", "block", "block", "block", "block", ...  
$ process\_b\_row <chr> "block design", "block design", "block design", "block design", "block design", "block des...  
$ process\_b\_domain <chr> "fluid reasoning", "fluid reasoning", "fluid reasoning", "fluid reasoning", "fluid reasoni...  
$ subject\_count <int> 563, 563, 563, 563, 563, 563, 563, 563, 563, 563, 563, 563, 563, 563, 563, 563, 563, 563, ...  
$ parameter\_count <int> 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21...  
$ wave\_count <int> 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, ...  
$ ll <dbl> -8545.247, -8545.247, -8545.247, -8545.247, -8545.247, -8545.247, -8545.247, -8545.247, -8...  
$ aic <dbl> 17132.49, 17132.49, 17132.49, 17132.49, 17132.49, 17132.49, 17132.49, 17132.49, 17132.49, ...  
$ bic <dbl> 17223.49, 17223.49, 17223.49, 17223.49, 17223.49, 17223.49, 17223.49, 17223.49, 17223.49, ...  
$ process <chr> "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", "aa", "aa", "aa", "a...  
$ coefficient <chr> "gamma", "gamma", "gamma", "gamma", "gamma", "gamma", "gamma", "gamma", "gamma", "gamma", ...  
$ subindex <chr> "00", "01", "02", "03", "04", "05", "06", "10", "11", "12", "13", "14", "15", "16", "00", ...  
$ est <dbl> 106.265, -1.552, NaN, NaN, NaN, NaN, NaN, -2.691, -0.048, NaN, NaN, NaN, NaN, NaN, 401.241...  
$ pval <dbl> 0.000, 0.000, NaN, NaN, NaN, NaN, NaN, 0.000, 0.429, NaN, NaN, NaN, NaN, NaN, 0.000, 0.761...  
$ se <dbl> 2.845, 0.285, NaN, NaN, NaN, NaN, NaN, 0.516, 0.061, NaN, NaN, NaN, NaN, NaN, 54.968, 7.17...  
$ wald <dbl> 37.353, -5.447, NaN, NaN, NaN, NaN, NaN, -5.211, -0.792, NaN, NaN, NaN, NaN, NaN, 7.300, -...

Observations: 42  
Variables: 4  
$ type <chr> "Covariance", "Covariance", "Covariance", "Correlation", "Correlation", "Correlation", "Fixed Eff...  
$ process <chr> "ab", "ab", "ab", "er", "er", "er", "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", "a", "...  
$ full\_name <chr> "ab\_tau\_00", "ab\_tau\_11", "ab\_sigma\_00", "er\_tau\_00", "er\_tau\_11", "er\_sigma\_00", "a\_gamma\_00", "...  
$ label <chr> "Covar (Levels)", "Covar (Slopes)", "Covar (Residuals)", "Corr (Levels)", "Corr (Slopes)", "Corr ...

Observations: 80  
Variables: 7  
$ study\_name <chr> "map", "map", "nas", "octo", "satsa", "nas", "eas", "eas", "map", "octo", "satsa", "...  
$ process\_b <chr> "digit\_o", "digit\_b", "digit\_b", "digit\_b", "digit\_b", "digit\_b\_tot", "digit\_tot", "...  
$ process\_b\_domain <chr> "working memory", "working memory", "working memory", "working memory", "working mem...  
$ process\_b\_domain\_new <chr> "attention and working memory", "attention and working memory", "attention and worki...  
$ response <chr> NA, NA, NA, NA, NA, NA, "working", NA, NA, NA, NA, NA, "delayed", "delayed", NA, "de...  
$ process\_b\_label <chr> "Digit Ordering", "Digit Span Backward", "Digit Span Backward", "Digit Span Backward...  
$ process\_b\_domain\_label <chr> "Attention & Working Memory", "Attention & Working Memory", "Attention & Working Mem...

# Available models

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

|  |  |  |
| --- | --- | --- |
| process\_a | process\_b | n\_models |
| pef | block | 6.522727 |
| pef | bnt | 1.863636 |
| pef | categories | 1.863636 |
| pef | digit\_tot | 8.386364 |
| pef | fas | 1.863636 |
| pef | logic\_tot | 1.863636 |
| pef | mmse | 1.863636 |
| pef | symbol | 9.318182 |
| pef | trailsb | 8.386364 |
| pef | waisvocab | 1.863636 |
| pef | word\_im | 1.863636 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| study\_name | subgroup | model\_type | process\_a | process\_b | n\_models |
| eas | female | a | pef | digit\_tot | 0.9318182 |
| eas | female | a | pef | symbol | 0.9318182 |
| eas | female | a | pef | trailsb | 0.9318182 |
| eas | female | ae | pef | block | 0.9318182 |
| eas | female | ae | pef | digit\_tot | 0.9318182 |
| eas | female | ae | pef | symbol | 0.9318182 |
| eas | female | ae | pef | trailsb | 0.9318182 |
| eas | female | aeh | pef | block | 0.9318182 |
| eas | female | aeh | pef | digit\_tot | 0.9318182 |
| eas | female | aeh | pef | symbol | 0.9318182 |
| eas | female | aeh | pef | trailsb | 0.9318182 |
| eas | female | aehplus | pef | block | 0.9318182 |
| eas | female | aehplus | pef | bnt | 0.9318182 |
| eas | female | aehplus | pef | categories | 0.9318182 |
| eas | female | aehplus | pef | digit\_tot | 0.9318182 |
| eas | female | aehplus | pef | fas | 0.9318182 |
| eas | female | aehplus | pef | logic\_tot | 0.9318182 |
| eas | female | aehplus | pef | mmse | 0.9318182 |
| eas | female | aehplus | pef | symbol | 0.9318182 |
| eas | female | aehplus | pef | trailsb | 0.9318182 |
| eas | female | aehplus | pef | waisvocab | 0.9318182 |
| eas | female | aehplus | pef | word\_im | 0.9318182 |
| eas | female | full | pef | block | 0.9318182 |
| eas | female | full | pef | symbol | 0.9318182 |
| eas | female | full | pef | trailsb | 0.9318182 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| study\_name | subgroup | model\_type | process\_a | process\_b | n\_models |
| eas | male | a | pef | digit\_tot | 0.9318182 |
| eas | male | a | pef | symbol | 0.9318182 |
| eas | male | ae | pef | block | 0.9318182 |
| eas | male | ae | pef | digit\_tot | 0.9318182 |
| eas | male | ae | pef | symbol | 0.9318182 |
| eas | male | ae | pef | trailsb | 0.9318182 |
| eas | male | aeh | pef | block | 0.9318182 |
| eas | male | aeh | pef | digit\_tot | 0.9318182 |
| eas | male | aeh | pef | symbol | 0.9318182 |
| eas | male | aeh | pef | trailsb | 0.9318182 |
| eas | male | aehplus | pef | block | 0.9318182 |
| eas | male | aehplus | pef | bnt | 0.9318182 |
| eas | male | aehplus | pef | categories | 0.9318182 |
| eas | male | aehplus | pef | digit\_tot | 0.9318182 |
| eas | male | aehplus | pef | fas | 0.9318182 |
| eas | male | aehplus | pef | logic\_tot | 0.9318182 |
| eas | male | aehplus | pef | mmse | 0.9318182 |
| eas | male | aehplus | pef | symbol | 0.9318182 |
| eas | male | aehplus | pef | trailsb | 0.9318182 |
| eas | male | aehplus | pef | waisvocab | 0.9318182 |
| eas | male | aehplus | pef | word\_im | 0.9318182 |
| eas | male | full | pef | digit\_tot | 0.9318182 |
| eas | male | full | pef | symbol | 0.9318182 |
| eas | male | full | pef | trailsb | 0.9318182 |

# female

Gender = *female*; Model type: *aehplus*; Process (a) = *pef*; Process (b): *block*, *bnt*, *categories*, *digit\_tot*, *fas*, *logic\_tot*, *mmse*, *symbol*, *trailsb*, *waisvocab*, *word\_im*

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| process | label | block | bnt | categories | digit\_tot | fas | logic\_tot | mmse | symbol | trailsb | waisvocab | word\_im | mean(sd) |
| ab | Covar (Levels) | 111.36 (44.87) .01 | 18.42 (10.03) .07 | 113.06 (39.02) <.01 | 23.08 (16.20) .15 | 130.95 (58.97) .03 | 35.38 (61.57) .57 | 11.91 (7.20) .10 | 199.81 (64.21) <.01 | -402.35 (273.61) .14 | 14.27 (50.35) .78 | 78.74 (26.90) <.01 | --- |
| ab | Covar (Slopes) | 2.73 (3.26) .40 | 0.17 (0.80) .83 | 2.35 (2.45) .34 | 1.63 (1.21) .18 | 0.96 (3.50) .78 | 2.85 (4.29) .51 | 0.06 (0.54) .92 | 7.93 (4.46) .08 | 9.47 (19.46) .63 | -7.35 (3.77) .05 | 3.12 (2.14) .14 | --- |
|  | Covar (Residuals) | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| er | Corr (Levels) | 0.25 (0.10) .01 | 0.17 (0.09) .06 | 0.26 (0.09) <.01 | 0.13 (0.09) .15 | 0.19 (0.08) .02 | 0.07 (0.12) .57 | 0.18 (0.10) .09 | 0.26 (0.08) <.01 | -0.13 (0.09) .12 | 0.03 (0.09) .78 | 0.29 (0.10) <.01 | --- |
| er | Corr (Slopes) | 0.31 (0.36) .40 | 0.16 (0.81) .84 | 0.53 (0.74) .47 | 0.44 (0.31) .15 | 0.10 (0.38) .79 | 0.30 (0.46) .51 | 0.07 (0.73) .92 | 0.46 (0.25) .07 | 0.28 (0.66) .66 | -0.70 (0.40) .08 | 0.64 (0.53) .23 | --- |
| er | Corr (Residuals) | -0.01 (0.05) .81 | -0.06 (0.05) .24 | -0.09 (0.06) .10 | -0.03 (0.05) .57 | 0.02 (0.05) .64 | -0.03 (0.07) .63 | -0.01 (0.05) .82 | 0.02 (0.05) .66 | -0.02 (0.05) .73 | -0.04 (0.05) .41 | -0.04 (0.05) .41 | --- |
| a | Level | 278.83 (13.23) <.01 | 278.88 (13.33) <.01 | 280.47 (13.22) <.01 | 276.92 (13.31) <.01 | 279.58 (13.36) <.01 | 393.52 (31.82) <.01 | 278.78 (13.18) <.01 | 276.33 (13.35) <.01 | 278.83 (13.33) <.01 | 278.94 (13.23) <.01 | 279.27 (13.19) <.01 | 289.12(34.64) |
| a | Slope | -7.51 (4.26) .08 | -7.63 (4.30) .08 | -8.30 (4.33) .06 | -6.65 (4.36) .13 | -7.86 (4.25) .06 | -7.07 (9.95) .48 | -7.38 (4.15) .07 | -6.79 (4.31) .12 | -7.37 (4.25) .08 | -7.78 (4.20) .06 | -7.51 (4.20) .07 | -7.44(0.48) |
| a | Level \* age | -2.57 (0.88) <.01 | -2.50 (0.89) <.01 | -2.56 (0.89) <.01 | -2.47 (0.88) <.01 | -2.57 (0.88) <.01 | -2.53 (1.81) .16 | -2.52 (0.87) <.01 | -2.45 (0.88) <.01 | -2.59 (0.89) <.01 | -2.55 (0.87) <.01 | -2.46 (0.87) <.01 | -2.52(0.05) |
| a | Level \* education | 2.15 (1.28) .09 | 2.19 (1.29) .09 | 2.09 (1.27) .10 | 2.31 (1.28) .07 | 2.19 (1.29) .09 | 3.10 (2.72) .25 | 2.24 (1.29) .08 | 2.12 (1.29) .10 | 2.22 (1.27) .08 | 2.25 (1.27) .08 | 2.21 (1.30) .09 | 2.28(0.28) |
| a | Level \* height | 1.34 (0.63) .03 | 1.36 (0.64) .04 | 1.40 (0.64) .03 | 1.37 (0.62) .03 | 1.37 (0.64) .03 | 0.61 (1.30) .64 | 1.37 (0.63) .03 | 1.40 (0.64) .03 | 1.35 (0.64) .04 | 1.36 (0.63) .03 | 1.38 (0.63) .03 | 1.30(0.23) |
| a | Level \* smoking | -3.53 (8.33) .67 | -3.51 (8.44) .68 | -3.49 (8.34) .68 | -2.71 (8.24) .74 | -3.39 (8.20) .68 | -21.68 (19.08) .26 | -3.48 (8.09) .67 | -2.60 (8.25) .75 | -3.00 (8.44) .72 | -3.83 (8.18) .64 | -3.70 (8.34) .66 | -4.99(5.55) |
| a | Level \* cardio | -4.15 (12.28) .73 | -2.81 (12.38) .82 | -2.30 (12.35) .85 | -3.48 (12.31) .78 | -1.93 (12.48) .88 | -21.95 (24.80) .38 | -3.09 (12.41) .80 | -3.11 (12.48) .80 | -3.71 (12.22) .76 | -2.10 (12.29) .86 | -3.60 (12.36) .77 | -4.75(5.75) |
| a | Level \* diabetes | -28.47 (10.39) .01 | -27.00 (10.47) .01 | -28.00 (10.61) .01 | -27.47 (10.35) .01 | -28.19 (10.36) .01 | -10.76 (21.27) .61 | -28.66 (10.46) .01 | -28.02 (10.56) .01 | -28.05 (10.56) .01 | -27.69 (10.49) .01 | -28.41 (10.43) .01 | -26.43(5.22) |
| a | Slope \* age | -0.30 (0.28) .28 | -0.32 (0.29) .26 | -0.30 (0.28) .29 | -0.35 (0.28) .22 | -0.29 (0.28) .30 | -0.58 (0.55) .29 | -0.32 (0.28) .25 | -0.35 (0.29) .22 | -0.30 (0.29) .30 | -0.28 (0.28) .32 | -0.35 (0.28) .22 | -0.34(0.08) |
| a | Slope \* education | -0.40 (0.40) .32 | -0.41 (0.41) .32 | -0.38 (0.41) .36 | -0.48 (0.42) .25 | -0.43 (0.41) .30 | -0.40 (0.78) .61 | -0.44 (0.41) .28 | -0.38 (0.42) .36 | -0.44 (0.40) .28 | -0.44 (0.40) .28 | -0.45 (0.41) .27 | -0.42(0.03) |
| a | Slope \* height | 0.13 (0.21) .53 | 0.12 (0.22) .58 | 0.09 (0.21) .65 | 0.10 (0.21) .64 | 0.11 (0.21) .61 | 0.90 (0.46) .05 | 0.12 (0.21) .55 | 0.08 (0.22) .72 | 0.11 (0.22) .61 | 0.12 (0.21) .56 | 0.11 (0.21) .59 | 0.18(0.24) |
| a | Slope \* smoking | -0.11 (2.60) .97 | -0.04 (2.71) .99 | 0.01 (2.64) .99 | -0.49 (2.69) .86 | -0.06 (2.62) .98 | 2.12 (5.73) .71 | -0.14 (2.50) .95 | -0.40 (2.65) .88 | -0.24 (2.68) .93 | 0.08 (2.68) .98 | -0.02 (2.54) .99 | 0.06(0.70) |
| a | Slope \* cardio | -1.19 (4.34) .78 | -1.44 (4.24) .73 | -1.61 (4.32) .71 | -1.61 (4.30) .71 | -1.81 (4.60) .69 | 7.82 (9.24) .40 | -1.54 (4.39) .73 | -1.47 (4.51) .74 | -1.34 (4.37) .76 | -1.62 (4.30) .71 | -1.18 (4.33) .78 | -0.64(2.81) |
| a | Slope \* diabetes | 4.34 (3.30) .19 | 3.73 (3.31) .26 | 3.89 (3.38) .25 | 3.96 (3.23) .22 | 4.19 (3.35) .21 | -2.44 (6.93) .72 | 4.35 (3.40) .20 | 4.36 (3.35) .19 | 4.20 (3.42) .22 | 3.96 (3.26) .22 | 4.15 (3.36) .22 | 3.52(1.99) |
| b | Level | 16.43 (1.35) <.01 | 10.25 (0.34) <.01 | 35.83 (1.30) <.01 | 12.29 (0.50) <.01 | 23.56 (1.81) <.01 | 16.26 (1.50) <.01 | 25.62 (0.21) <.01 | 37.12 (2.08) <.01 | 173.97 (9.30) <.01 | 32.88 (1.67) <.01 | 32.62 (0.90) <.01 | --- |
| b | Slope | 1.02 (0.37) <.01 | 0.00 (0.10) .99 | -0.08 (0.34) .82 | 0.23 (0.14) .09 | 1.19 (0.41) <.01 | 1.26 (0.39) <.01 | 0.15 (0.06) .01 | 1.38 (0.50) .01 | 0.26 (2.40) .91 | 0.04 (0.47) .94 | 0.38 (0.26) .15 | --- |
| b | Level \* age | -0.12 (0.08) .17 | -0.02 (0.02) .37 | -0.26 (0.08) <.01 | -0.03 (0.03) .40 | 0.02 (0.12) .87 | -0.04 (0.08) .58 | -0.00 (0.01) .86 | -0.37 (0.13) <.01 | 2.11 (0.61) <.01 | 0.01 (0.11) .96 | -0.20 (0.05) <.01 | --- |
| b | Level \* education | 0.85 (0.12) <.01 | 0.24 (0.04) <.01 | 0.76 (0.12) <.01 | 0.28 (0.05) <.01 | 1.46 (0.17) <.01 | 0.56 (0.12) <.01 | 0.11 (0.02) <.01 | 1.57 (0.20) <.01 | -7.32 (0.95) <.01 | 1.75 (0.17) <.01 | 0.22 (0.09) .01 | --- |
| b | Level \* height | 0.03 (0.06) .63 | 0.00 (0.02) .78 | -0.05 (0.06) .44 | 0.05 (0.03) .05 | -0.12 (0.09) .20 | 0.05 (0.07) .45 | 0.01 (0.01) .54 | 0.07 (0.11) .53 | 0.24 (0.43) .58 | 0.06 (0.07) .41 | 0.02 (0.04) .63 | --- |
| b | Level \* smoking | 1.72 (0.80) .03 | 0.55 (0.20) .01 | 1.82 (0.71) .01 | 0.94 (0.20) <.01 | 3.56 (0.98) <.01 | 1.52 (0.90) .09 | 0.27 (0.13) .04 | 3.32 (1.08) <.01 | -15.93 (5.43) <.01 | 1.80 (0.82) .03 | -0.38 (0.51) .46 | --- |
| b | Level \* cardio | 0.46 (1.45) .75 | 0.33 (0.41) .43 | 1.77 (1.46) .22 | -0.97 (0.51) .06 | 0.24 (1.98) .90 | 1.47 (1.03) .15 | -0.02 (0.22) .92 | -4.43 (2.76) .11 | 4.70 (9.87) .63 | 2.79 (1.67) .10 | 1.12 (0.98) .25 | --- |
| b | Level \* diabetes | -3.41 (1.12) <.01 | -0.99 (0.26) <.01 | -4.41 (0.99) <.01 | -0.66 (0.43) .12 | -3.49 (1.46) .02 | -0.73 (0.99) .46 | -0.29 (0.17) .08 | -4.38 (1.60) .01 | 23.75 (7.74) <.01 | -3.81 (1.25) <.01 | -1.58 (0.71) .03 | --- |
| b | Slope \* age | -0.03 (0.02) .17 | -0.01 (0.01) .06 | -0.04 (0.02) .02 | -0.00 (0.01) .85 | -0.07 (0.03) .01 | -0.10 (0.03) <.01 | -0.00 (0.00) .60 | -0.10 (0.03) <.01 | 0.01 (0.19) .94 | -0.03 (0.03) .30 | -0.02 (0.02) .16 | --- |
| b | Slope \* education | -0.03 (0.04) .35 | 0.01 (0.01) .52 | 0.04 (0.03) .20 | -0.01 (0.01) .61 | -0.00 (0.04) .99 | -0.07 (0.03) .05 | -0.01 (0.01) .10 | -0.04 (0.04) .36 | 0.14 (0.24) .54 | 0.01 (0.04) .79 | -0.02 (0.03) .37 | --- |
| b | Slope \* height | -0.00 (0.02) .96 | 0.00 (0.01) .64 | 0.02 (0.02) .31 | -0.01 (0.01) .10 | 0.02 (0.02) .39 | -0.01 (0.02) .71 | -0.00 (0.00) .59 | -0.04 (0.03) .18 | -0.16 (0.14) .25 | -0.01 (0.02) .70 | -0.00 (0.01) .76 | --- |
| b | Slope \* smoking | -0.17 (0.17) .33 | -0.00 (0.06) .99 | -0.17 (0.19) .37 | -0.07 (0.07) .33 | -0.14 (0.24) .57 | -0.22 (0.25) .38 | -0.02 (0.04) .61 | 0.06 (0.27) .83 | -0.27 (1.82) .88 | -0.00 (0.27) .99 | 0.08 (0.14) .57 | --- |
| b | Slope \* cardio | 0.01 (0.37) .97 | 0.07 (0.12) .54 | -0.03 (0.36) .94 | 0.22 (0.15) .13 | -0.58 (0.37) .12 | 0.10 (0.29) .73 | -0.08 (0.06) .19 | 0.58 (0.49) .24 | -1.13 (2.60) .66 | -0.38 (0.50) .44 | -0.10 (0.29) .73 | --- |
| b | Slope \* diabetes | 0.16 (0.29) .57 | -0.01 (0.08) .86 | 0.21 (0.24) .38 | 0.04 (0.11) .74 | -0.12 (0.31) .69 | 0.54 (0.31) .08 | 0.02 (0.05) .73 | -0.76 (0.37) .04 | -0.34 (2.47) .89 | -0.29 (0.36) .41 | -0.06 (0.19) .76 | --- |
| a | Var (Level) | 3842.12 (483.39) <.01 | 3876.99 (497.36) <.01 | 3886.63 (490.50) <.01 | 3857.85 (494.25) <.01 | 3891.61 (500.48) <.01 | 11038.95 (2173.96) <.01 | 3867.01 (499.29) <.01 | 3985.97 (501.94) <.01 | 3908.94 (515.18) <.01 | 3937.79 (499.15) <.01 | 3930.10 (488.24) <.01 | 4547.63(2153.32) |
| a | Var (Slope) | 144.63 (49.31) <.01 | 142.12 (51.71) .01 | 144.51 (50.28) <.01 | 145.68 (49.32) <.01 | 142.91 (49.88) <.01 | 307.58 (119.55) .01 | 140.99 (50.63) <.01 | 167.08 (52.77) <.01 | 150.14 (50.26) <.01 | 148.59 (49.17) <.01 | 148.55 (48.94) <.01 | 162.07(48.78) |
|  | Var (Residual) | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| b | Var (Level) | 52.12 (4.91) <.01 | 3.08 (0.40) <.01 | 49.26 (4.95) <.01 | 7.64 (0.72) <.01 | 122.89 (10.84) <.01 | 25.64 (4.22) <.01 | 1.18 (0.14) <.01 | 146.25 (12.94) <.01 | 2341.27 (327.25) <.01 | 75.57 (8.39) <.01 | 18.82 (2.16) <.01 | --- |
| b | Var (Slope) | 0.54 (0.30) .07 | 0.01 (0.02) .74 | 0.14 (0.25) .59 | 0.10 (0.04) .02 | 0.62 (0.39) .11 | 0.30 (0.27) .27 | 0.00 (0.01) .62 | 1.79 (0.44) <.01 | 7.36 (14.63) .61 | 0.75 (0.38) .05 | 0.16 (0.16) .33 | --- |
|  | Var (Residual) | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| a | Covar (Level, Slope) | -312.29 (147.38) .03 | -310.15 (152.45) .04 | -318.28 (148.70) .03 | -308.66 (150.02) .04 | -313.81 (150.31) .04 | -981.30 (507.34) .05 | -306.85 (150.44) .04 | -375.02 (155.60) .02 | -330.71 (152.30) .03 | -330.85 (148.04) .02 | -323.34 (148.40) .03 | -382.84(199.41) |
| b | Covar (Level, Slope) | -1.57 (1.09) .15 | 0.05 (0.09) .56 | 1.36 (1.01) .18 | -0.28 (0.14) .05 | -1.99 (1.81) .27 | -0.50 (1.04) .63 | -0.02 (0.03) .37 | -7.16 (2.16) <.01 | 25.01 (66.26) .71 | -2.72 (1.62) .09 | 0.28 (0.61) .64 | --- |
|  | Correlation of Levels | 0.25 | 0.17 | 0.26 | 0.13 | 0.19 | 0.067 | 0.176 | 0.26 | -0.13 | 0.026 | 0.29 | 0.15(0.13) |
|  | Correlation of Slopes | 0.31 | 0.16 | 0.53 | 0.44 | 0.10 | 0.297 | 0.073 | 0.46 | 0.29 | -0.698 | 0.64 | 0.24(0.36) |
|  | Correlation of Residuals | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | --- |
|  | N | 545 | 545 | 545 | 545 | 545 | 324 | 545 | 545 | 545 | 545 | 545 | 524.91(66.63) |
|  | occasions | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5.00(0.00) |
|  | parameters | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43.00(0.00) |
|  | LL | -13,996 | -11,893 | -13,936 | -12,349 | -14,301 | -8,634 | -11,080 | -14,480 | -17,497 | -14,388 | -13,461 | -1.327406e+04(2,273) |
|  | AIC | 28,077 | 23,871 | 27,959 | 24,783 | 28,687 | 17,355 | 22,247 | 29,046 | 35,081 | 28,862 | 27,008 | 2.663411e+04(4,547) |
|  | BIC | 28,262 | 24,056 | 28,144 | 24,968 | 28,872 | 17,517 | 22,432 | 29,231 | 35,265 | 29,046 | 27,193 | 2.681702e+04(4,551) |

## block

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

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Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

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Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | ae | aeh | aehplus | full |
| ab | Covar (Levels) | 98.99 (49.69) .05 | 104.78 (52.19) .04 | 111.36 (44.87) .01 | 88.17 (79.03) .26 |
| ab | Covar (Slopes) | 3.73 (1.23) <.01 | 0.21 (1.09) .85 | 2.73 (3.26) .40 | 0.44 (2.21) .84 |
|  | Covar (Residuals) | --- | --- | --- | --- |
| er | Corr (Levels) | --- | --- | 0.25 (0.10) .01 | --- |
| er | Corr (Slopes) | --- | --- | 0.31 (0.36) .40 | --- |
| er | Corr (Residuals) | --- | --- | -0.01 (0.05) .81 | --- |
| a | Level | 310.35 (17.37) <.01 | 333.07 (17.93) <.01 | 278.83 (13.23) <.01 | 339.07 (26.69) <.01 |
| a | Slope | -10.71 (4.20) .01 | -26.73 (4.00) <.01 | -7.51 (4.26) .08 | -26.99 (7.29) <.01 |
| a | Level \* age | -4.09 (1.22) <.01 | -4.25 (1.29) <.01 | -2.57 (0.88) <.01 | -4.40 (1.80) .01 |
| a | Level \* education | 0.89 (1.78) .62 | -1.60 (1.88) .39 | 2.15 (1.28) .09 | -2.11 (2.71) .44 |
| a | Level \* height | --- | 0.55 (0.85) .52 | 1.34 (0.63) .03 | 0.32 (1.30) .81 |
| a | Level \* smoking | --- | --- | -3.53 (8.33) .67 | -0.33 (13.19) .98 |
| a | Level \* cardio | --- | --- | -4.15 (12.28) .73 | -22.61 (36.18) .53 |
| a | Level \* diabetes | --- | --- | -28.47 (10.39) .01 | -27.79 (25.94) .28 |
| a | Slope \* age | -0.24 (0.26) .35 | 0.19 (0.26) .46 | -0.30 (0.28) .28 | 0.19 (0.42) .64 |
| a | Slope \* education | -0.40 (0.41) .33 | 0.60 (0.45) .19 | -0.40 (0.40) .32 | 0.74 (0.76) .33 |
| a | Slope \* height | --- | 0.55 (0.20) .01 | 0.13 (0.21) .53 | 0.64 (0.29) .02 |
| a | Slope \* smoking | --- | --- | -0.11 (2.60) .97 | 1.88 (3.05) .54 |
| a | Slope \* cardio | --- | --- | -1.19 (4.34) .78 | 2.31 (10.17) .82 |
| a | Slope \* diabetes | --- | --- | 4.34 (3.30) .19 | -0.18 (9.68) .98 |
| b | Level | 13.93 (0.95) <.01 | 18.43 (1.90) <.01 | 16.43 (1.35) <.01 | 19.33 (2.75) <.01 |
| b | Slope | 1.12 (0.20) <.01 | 0.73 (0.37) .05 | 1.02 (0.37) <.01 | 0.73 (0.49) .14 |
| b | Level \* age | -0.16 (0.07) .02 | -0.12 (0.15) .41 | -0.12 (0.08) .17 | -0.14 (0.16) .39 |
| b | Level \* education | 1.06 (0.11) <.01 | 0.92 (0.21) <.01 | 0.85 (0.12) <.01 | 0.88 (0.26) <.01 |
| b | Level \* height | --- | -0.01 (0.09) .89 | 0.03 (0.06) .63 | -0.01 (0.11) .96 |
| b | Level \* smoking | --- | --- | 1.72 (0.80) .03 | 1.51 (1.45) .30 |
| b | Level \* cardio | --- | --- | 0.46 (1.45) .75 | -0.29 (2.93) .92 |
| b | Level \* diabetes | --- | --- | -3.41 (1.12) <.01 | -4.30 (2.58) .10 |
| b | Slope \* age | -0.03 (0.01) .04 | -0.04 (0.02) .10 | -0.03 (0.02) .17 | -0.04 (0.03) .17 |
| b | Slope \* education | -0.08 (0.02) <.01 | -0.07 (0.04) .09 | -0.03 (0.04) .35 | -0.07 (0.05) .18 |
| b | Slope \* height | --- | -0.01 (0.01) .48 | -0.00 (0.02) .96 | -0.01 (0.02) .63 |
| b | Slope \* smoking | --- | --- | -0.17 (0.17) .33 | -0.10 (0.28) .73 |
| b | Slope \* cardio | --- | --- | 0.01 (0.37) .97 | -0.07 (0.87) .94 |
| b | Slope \* diabetes | --- | --- | 0.16 (0.29) .57 | 0.16 (0.47) .73 |
| a | Var (Level) | 5212.32 (755.47) <.01 | 4780.41 (801.53) <.01 | 3842.12 (483.39) <.01 | 4629.68 (1058.37) <.01 |
| a | Var (Slope) | 119.91 (37.08) <.01 | 44.62 (31.72) .16 | 144.63 (49.31) <.01 | 38.91 (32.62) .23 |
|  | Var (Residual) | --- | --- | --- | --- |
| b | Var (Level) | 54.09 (4.90) <.01 | 51.46 (8.54) <.01 | 52.12 (4.91) <.01 | 46.15 (9.21) <.01 |
| b | Var (Slope) | 0.26 (0.11) .01 | 0.16 (0.14) .26 | 0.54 (0.30) .07 | 0.14 (0.24) .57 |
|  | Var (Residual) | --- | --- | --- | --- |
| a | Covar (Level, Slope) | -454.24 (161.68) <.01 | -312.88 (173.77) .07 | -312.29 (147.38) .03 | -307.89 (149.73) .04 |
| b | Covar (Level, Slope) | -2.10 (0.56) <.01 | -1.21 (0.93) .19 | -1.57 (1.09) .15 | -0.91 (1.46) .53 |
|  | Correlation of Levels | 0.19 | 0.211 | 0.25 | 0.19 |
|  | Correlation of Slopes | 0.67 | 0.078 | 0.31 | 0.19 |
|  | Correlation of Residuals | NA | NA | NA | NA |
|  | N | 563 | 150 | 545 | 150 |
|  | occasions | 9 | 8 | 5 | 8 |
|  | parameters | 25 | 29 | 43 | 45 |
|  | LL | -9,195 | -4,535 | -13,996 | -4,524 |
|  | AIC | 18,439 | 9,128 | 28,077 | 9,138 |
|  | BIC | 18,548 | 9,216 | 28,262 | 9,273 |

## bnt

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | 18.42 (10.03) .07 |
| ab | Covar (Slopes) | 0.17 (0.80) .83 |
|  | Covar (Residuals) | --- |
| er | Corr (Levels) | 0.17 (0.09) .06 |
| er | Corr (Slopes) | 0.16 (0.81) .84 |
| er | Corr (Residuals) | -0.06 (0.05) .24 |
| a | Level | 278.88 (13.33) <.01 |
| a | Slope | -7.63 (4.30) .08 |
| a | Level \* age | -2.50 (0.89) <.01 |
| a | Level \* education | 2.19 (1.29) .09 |
| a | Level \* height | 1.36 (0.64) .04 |
| a | Level \* smoking | -3.51 (8.44) .68 |
| a | Level \* cardio | -2.81 (12.38) .82 |
| a | Level \* diabetes | -27.00 (10.47) .01 |
| a | Slope \* age | -0.32 (0.29) .26 |
| a | Slope \* education | -0.41 (0.41) .32 |
| a | Slope \* height | 0.12 (0.22) .58 |
| a | Slope \* smoking | -0.04 (2.71) .99 |
| a | Slope \* cardio | -1.44 (4.24) .73 |
| a | Slope \* diabetes | 3.73 (3.31) .26 |
| b | Level | 10.25 (0.34) <.01 |
| b | Slope | 0.00 (0.10) .99 |
| b | Level \* age | -0.02 (0.02) .37 |
| b | Level \* education | 0.24 (0.04) <.01 |
| b | Level \* height | 0.00 (0.02) .78 |
| b | Level \* smoking | 0.55 (0.20) .01 |
| b | Level \* cardio | 0.33 (0.41) .43 |
| b | Level \* diabetes | -0.99 (0.26) <.01 |
| b | Slope \* age | -0.01 (0.01) .06 |
| b | Slope \* education | 0.01 (0.01) .52 |
| b | Slope \* height | 0.00 (0.01) .64 |
| b | Slope \* smoking | -0.00 (0.06) .99 |
| b | Slope \* cardio | 0.07 (0.12) .54 |
| b | Slope \* diabetes | -0.01 (0.08) .86 |
| a | Var (Level) | 3876.99 (497.36) <.01 |
| a | Var (Slope) | 142.12 (51.71) .01 |
|  | Var (Residual) | --- |
| b | Var (Level) | 3.08 (0.40) <.01 |
| b | Var (Slope) | 0.01 (0.02) .74 |
|  | Var (Residual) | --- |
| a | Covar (Level, Slope) | -310.15 (152.45) .04 |
| b | Covar (Level, Slope) | 0.05 (0.09) .56 |
|  | Correlation of Levels | 0.17 |
|  | Correlation of Slopes | 0.16 |
|  | Correlation of Residuals | NA |
|  | N | 545 |
|  | occasions | 5 |
|  | parameters | 43 |
|  | LL | -11,893 |
|  | AIC | 23,871 |
|  | BIC | 24,056 |

## categories

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | 113.06 (39.02) <.01 |
| ab | Covar (Slopes) | 2.35 (2.45) .34 |
|  | Covar (Residuals) | --- |
| er | Corr (Levels) | 0.26 (0.09) <.01 |
| er | Corr (Slopes) | 0.53 (0.74) .47 |
| er | Corr (Residuals) | -0.09 (0.06) .10 |
| a | Level | 280.47 (13.22) <.01 |
| a | Slope | -8.30 (4.33) .06 |
| a | Level \* age | -2.56 (0.89) <.01 |
| a | Level \* education | 2.09 (1.27) .10 |
| a | Level \* height | 1.40 (0.64) .03 |
| a | Level \* smoking | -3.49 (8.34) .68 |
| a | Level \* cardio | -2.30 (12.35) .85 |
| a | Level \* diabetes | -28.00 (10.61) .01 |
| a | Slope \* age | -0.30 (0.28) .29 |
| a | Slope \* education | -0.38 (0.41) .36 |
| a | Slope \* height | 0.09 (0.21) .65 |
| a | Slope \* smoking | 0.01 (2.64) .99 |
| a | Slope \* cardio | -1.61 (4.32) .71 |
| a | Slope \* diabetes | 3.89 (3.38) .25 |
| b | Level | 35.83 (1.30) <.01 |
| b | Slope | -0.08 (0.34) .82 |
| b | Level \* age | -0.26 (0.08) <.01 |
| b | Level \* education | 0.76 (0.12) <.01 |
| b | Level \* height | -0.05 (0.06) .44 |
| b | Level \* smoking | 1.82 (0.71) .01 |
| b | Level \* cardio | 1.77 (1.46) .22 |
| b | Level \* diabetes | -4.41 (0.99) <.01 |
| b | Slope \* age | -0.04 (0.02) .02 |
| b | Slope \* education | 0.04 (0.03) .20 |
| b | Slope \* height | 0.02 (0.02) .31 |
| b | Slope \* smoking | -0.17 (0.19) .37 |
| b | Slope \* cardio | -0.03 (0.36) .94 |
| b | Slope \* diabetes | 0.21 (0.24) .38 |
| a | Var (Level) | 3886.63 (490.50) <.01 |
| a | Var (Slope) | 144.51 (50.28) <.01 |
|  | Var (Residual) | --- |
| b | Var (Level) | 49.26 (4.95) <.01 |
| b | Var (Slope) | 0.14 (0.25) .59 |
|  | Var (Residual) | --- |
| a | Covar (Level, Slope) | -318.28 (148.70) .03 |
| b | Covar (Level, Slope) | 1.36 (1.01) .18 |
|  | Correlation of Levels | 0.26 |
|  | Correlation of Slopes | 0.53 |
|  | Correlation of Residuals | NA |
|  | N | 545 |
|  | occasions | 5 |
|  | parameters | 43 |
|  | LL | -13,936 |
|  | AIC | 27,959 |
|  | BIC | 28,144 |

## digit\_tot

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

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Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus |
| ab | Covar (Levels) | 3.51 (31.06) .91 | -1.14 (29.85) .97 | -17.42 (25.92) .50 | 23.08 (16.20) .15 |
| ab | Covar (Slopes) | 1.22 (1.07) .25 | 1.09 (1.06) .30 | -0.75 (0.90) .40 | 1.63 (1.21) .18 |
|  | Covar (Residuals) | --- | --- | --- | --- |
| er | Corr (Levels) | --- | --- | --- | 0.13 (0.09) .15 |
| er | Corr (Slopes) | --- | --- | --- | 0.44 (0.31) .15 |
| er | Corr (Residuals) | --- | --- | --- | -0.03 (0.05) .57 |
| a | Level | 317.52 (14.43) <.01 | 312.29 (21.04) <.01 | 335.31 (24.64) <.01 | 276.92 (13.31) <.01 |
| a | Slope | -12.73 (3.31) <.01 | -9.96 (5.25) .06 | -27.66 (5.42) <.01 | -6.65 (4.36) .13 |
| a | Level \* age | -3.97 (1.40) <.01 | -4.01 (1.42) <.01 | -4.40 (1.76) .01 | -2.47 (0.88) <.01 |
| a | Level \* education | --- | 0.90 (2.26) .69 | -1.64 (2.81) .56 | 2.31 (1.28) .07 |
| a | Level \* height | --- | --- | 0.54 (1.19) .65 | 1.37 (0.62) .03 |
| a | Level \* smoking | --- | --- | --- | -2.71 (8.24) .74 |
| a | Level \* cardio | --- | --- | --- | -3.48 (12.31) .78 |
| a | Level \* diabetes | --- | --- | --- | -27.47 (10.35) .01 |
| a | Slope \* age | -0.30 (0.36) .41 | -0.29 (0.36) .42 | 0.28 (0.42) .50 | -0.35 (0.28) .22 |
| a | Slope \* education | --- | -0.46 (0.62) .46 | 0.58 (0.70) .41 | -0.48 (0.42) .25 |
| a | Slope \* height | --- | --- | 0.56 (0.30) .06 | 0.10 (0.21) .64 |
| a | Slope \* smoking | --- | --- | --- | -0.49 (2.69) .86 |
| a | Slope \* cardio | --- | --- | --- | -1.61 (4.30) .71 |
| a | Slope \* diabetes | --- | --- | --- | 3.96 (3.23) .22 |
| b | Level | 13.52 (0.30) <.01 | 11.20 (0.41) <.01 | 13.40 (0.88) <.01 | 12.29 (0.50) <.01 |
| b | Slope | 0.25 (0.07) <.01 | 0.36 (0.11) <.01 | 0.20 (0.18) .27 | 0.23 (0.14) .09 |
| b | Level \* age | -0.04 (0.03) .21 | -0.03 (0.03) .28 | -0.07 (0.06) .29 | -0.03 (0.03) .40 |
| b | Level \* education | --- | 0.37 (0.04) <.01 | 0.29 (0.09) <.01 | 0.28 (0.05) <.01 |
| b | Level \* height | --- | --- | 0.03 (0.04) .56 | 0.05 (0.03) .05 |
| b | Level \* smoking | --- | --- | --- | 0.94 (0.20) <.01 |
| b | Level \* cardio | --- | --- | --- | -0.97 (0.51) .06 |
| b | Level \* diabetes | --- | --- | --- | -0.66 (0.43) .12 |
| b | Slope \* age | -0.01 (0.01) .27 | -0.01 (0.01) .26 | -0.01 (0.01) .32 | -0.00 (0.01) .85 |
| b | Slope \* education | --- | -0.02 (0.01) .12 | -0.02 (0.02) .41 | -0.01 (0.01) .61 |
| b | Slope \* height | --- | --- | -0.01 (0.01) .19 | -0.01 (0.01) .10 |
| b | Slope \* smoking | --- | --- | --- | -0.07 (0.07) .33 |
| b | Slope \* cardio | --- | --- | --- | 0.22 (0.15) .13 |
| b | Slope \* diabetes | --- | --- | --- | 0.04 (0.11) .74 |
| a | Var (Level) | 5464.40 (916.46) <.01 | 5443.31 (927.60) <.01 | 4799.93 (1076.88) <.01 | 3857.85 (494.25) <.01 |
| a | Var (Slope) | 160.62 (41.39) <.01 | 156.69 (41.65) <.01 | 41.29 (28.58) .15 | 145.68 (49.32) <.01 |
|  | Var (Residual) | --- | --- | --- | --- |
| b | Var (Level) | 10.64 (0.82) <.01 | 9.06 (0.73) <.01 | 6.39 (1.23) <.01 | 7.64 (0.72) <.01 |
| b | Var (Slope) | 0.10 (0.03) <.01 | 0.10 (0.03) <.01 | 0.05 (0.04) .16 | 0.10 (0.04) .02 |
|  | Var (Residual) | --- | --- | --- | --- |
| a | Covar (Level, Slope) | -565.27 (163.30) <.01 | -552.12 (169.75) <.01 | -302.37 (132.32) .02 | -308.66 (150.02) .04 |
| b | Covar (Level, Slope) | -0.37 (0.16) .02 | -0.30 (0.14) .04 | 0.02 (0.15) .89 | -0.28 (0.14) .05 |
|  | Correlation of Levels | 0.015 | -0.0051 | -0.099 | 0.13 |
|  | Correlation of Slopes | 0.305 | 0.2791 | -0.513 | 0.44 |
|  | Correlation of Residuals | NA | NA | NA | NA |
|  | N | 595 | 595 | 150 | 545 |
|  | occasions | 8 | 8 | 8 | 5 |
|  | parameters | 21 | 25 | 29 | 43 |
|  | LL | -7,635 | -7,596 | -3,870 | -12,349 |
|  | AIC | 15,312 | 15,241 | 7,797 | 24,783 |
|  | BIC | 15,404 | 15,351 | 7,884 | 24,968 |

## fas

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | 130.95 (58.97) .03 |
| ab | Covar (Slopes) | 0.96 (3.50) .78 |
|  | Covar (Residuals) | --- |
| er | Corr (Levels) | 0.19 (0.08) .02 |
| er | Corr (Slopes) | 0.10 (0.38) .79 |
| er | Corr (Residuals) | 0.02 (0.05) .64 |
| a | Level | 279.58 (13.36) <.01 |
| a | Slope | -7.86 (4.25) .06 |
| a | Level \* age | -2.57 (0.88) <.01 |
| a | Level \* education | 2.19 (1.29) .09 |
| a | Level \* height | 1.37 (0.64) .03 |
| a | Level \* smoking | -3.39 (8.20) .68 |
| a | Level \* cardio | -1.93 (12.48) .88 |
| a | Level \* diabetes | -28.19 (10.36) .01 |
| a | Slope \* age | -0.29 (0.28) .30 |
| a | Slope \* education | -0.43 (0.41) .30 |
| a | Slope \* height | 0.11 (0.21) .61 |
| a | Slope \* smoking | -0.06 (2.62) .98 |
| a | Slope \* cardio | -1.81 (4.60) .69 |
| a | Slope \* diabetes | 4.19 (3.35) .21 |
| b | Level | 23.56 (1.81) <.01 |
| b | Slope | 1.19 (0.41) <.01 |
| b | Level \* age | 0.02 (0.12) .87 |
| b | Level \* education | 1.46 (0.17) <.01 |
| b | Level \* height | -0.12 (0.09) .20 |
| b | Level \* smoking | 3.56 (0.98) <.01 |
| b | Level \* cardio | 0.24 (1.98) .90 |
| b | Level \* diabetes | -3.49 (1.46) .02 |
| b | Slope \* age | -0.07 (0.03) .01 |
| b | Slope \* education | -0.00 (0.04) .99 |
| b | Slope \* height | 0.02 (0.02) .39 |
| b | Slope \* smoking | -0.14 (0.24) .57 |
| b | Slope \* cardio | -0.58 (0.37) .12 |
| b | Slope \* diabetes | -0.12 (0.31) .69 |
| a | Var (Level) | 3891.61 (500.48) <.01 |
| a | Var (Slope) | 142.91 (49.88) <.01 |
|  | Var (Residual) | --- |
| b | Var (Level) | 122.89 (10.84) <.01 |
| b | Var (Slope) | 0.62 (0.39) .11 |
|  | Var (Residual) | --- |
| a | Covar (Level, Slope) | -313.81 (150.31) .04 |
| b | Covar (Level, Slope) | -1.99 (1.81) .27 |
|  | Correlation of Levels | 0.19 |
|  | Correlation of Slopes | 0.10 |
|  | Correlation of Residuals | NA |
|  | N | 545 |
|  | occasions | 5 |
|  | parameters | 43 |
|  | LL | -14,301 |
|  | AIC | 28,687 |
|  | BIC | 28,872 |

## logic\_tot

Gender = *female*; Process (a) = *pef*; Process (b) = *logic\_tot*

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

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Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | 35.38 (61.57) .57 |
| ab | Covar (Slopes) | 2.85 (4.29) .51 |
|  | Covar (Residuals) | --- |
| er | Corr (Levels) | 0.07 (0.12) .57 |
| er | Corr (Slopes) | 0.30 (0.46) .51 |
| er | Corr (Residuals) | -0.03 (0.07) .63 |
| a | Level | 393.52 (31.82) <.01 |
| a | Slope | -7.07 (9.95) .48 |
| a | Level \* age | -2.53 (1.81) .16 |
| a | Level \* education | 3.10 (2.72) .25 |
| a | Level \* height | 0.61 (1.30) .64 |
| a | Level \* smoking | -21.68 (19.08) .26 |
| a | Level \* cardio | -21.95 (24.80) .38 |
| a | Level \* diabetes | -10.76 (21.27) .61 |
| a | Slope \* age | -0.58 (0.55) .29 |
| a | Slope \* education | -0.40 (0.78) .61 |
| a | Slope \* height | 0.90 (0.46) .05 |
| a | Slope \* smoking | 2.12 (5.73) .71 |
| a | Slope \* cardio | 7.82 (9.24) .40 |
| a | Slope \* diabetes | -2.44 (6.93) .72 |
| b | Level | 16.26 (1.50) <.01 |
| b | Slope | 1.26 (0.39) <.01 |
| b | Level \* age | -0.04 (0.08) .58 |
| b | Level \* education | 0.56 (0.12) <.01 |
| b | Level \* height | 0.05 (0.07) .45 |
| b | Level \* smoking | 1.52 (0.90) .09 |
| b | Level \* cardio | 1.47 (1.03) .15 |
| b | Level \* diabetes | -0.73 (0.99) .46 |
| b | Slope \* age | -0.10 (0.03) <.01 |
| b | Slope \* education | -0.07 (0.03) .05 |
| b | Slope \* height | -0.01 (0.02) .71 |
| b | Slope \* smoking | -0.22 (0.25) .38 |
| b | Slope \* cardio | 0.10 (0.29) .73 |
| b | Slope \* diabetes | 0.54 (0.31) .08 |
| a | Var (Level) | 11038.95 (2173.96) <.01 |
| a | Var (Slope) | 307.58 (119.55) .01 |
|  | Var (Residual) | --- |
| b | Var (Level) | 25.64 (4.22) <.01 |
| b | Var (Slope) | 0.30 (0.27) .27 |
|  | Var (Residual) | --- |
| a | Covar (Level, Slope) | -981.30 (507.34) .05 |
| b | Covar (Level, Slope) | -0.50 (1.04) .63 |
|  | Correlation of Levels | 0.067 |
|  | Correlation of Slopes | 0.297 |
|  | Correlation of Residuals | NA |
|  | N | 324 |
|  | occasions | 5 |
|  | parameters | 43 |
|  | LL | -8,634 |
|  | AIC | 17,355 |
|  | BIC | 17,517 |

## mmse

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | 11.91 (7.20) .10 |
| ab | Covar (Slopes) | 0.06 (0.54) .92 |
|  | Covar (Residuals) | --- |
| er | Corr (Levels) | 0.18 (0.10) .09 |
| er | Corr (Slopes) | 0.07 (0.73) .92 |
| er | Corr (Residuals) | -0.01 (0.05) .82 |
| a | Level | 278.78 (13.18) <.01 |
| a | Slope | -7.38 (4.15) .07 |
| a | Level \* age | -2.52 (0.87) <.01 |
| a | Level \* education | 2.24 (1.29) .08 |
| a | Level \* height | 1.37 (0.63) .03 |
| a | Level \* smoking | -3.48 (8.09) .67 |
| a | Level \* cardio | -3.09 (12.41) .80 |
| a | Level \* diabetes | -28.66 (10.46) .01 |
| a | Slope \* age | -0.32 (0.28) .25 |
| a | Slope \* education | -0.44 (0.41) .28 |
| a | Slope \* height | 0.12 (0.21) .55 |
| a | Slope \* smoking | -0.14 (2.50) .95 |
| a | Slope \* cardio | -1.54 (4.39) .73 |
| a | Slope \* diabetes | 4.35 (3.40) .20 |
| b | Level | 25.62 (0.21) <.01 |
| b | Slope | 0.15 (0.06) .01 |
| b | Level \* age | -0.00 (0.01) .86 |
| b | Level \* education | 0.11 (0.02) <.01 |
| b | Level \* height | 0.01 (0.01) .54 |
| b | Level \* smoking | 0.27 (0.13) .04 |
| b | Level \* cardio | -0.02 (0.22) .92 |
| b | Level \* diabetes | -0.29 (0.17) .08 |
| b | Slope \* age | -0.00 (0.00) .60 |
| b | Slope \* education | -0.01 (0.01) .10 |
| b | Slope \* height | -0.00 (0.00) .59 |
| b | Slope \* smoking | -0.02 (0.04) .61 |
| b | Slope \* cardio | -0.08 (0.06) .19 |
| b | Slope \* diabetes | 0.02 (0.05) .73 |
| a | Var (Level) | 3867.01 (499.29) <.01 |
| a | Var (Slope) | 140.99 (50.63) <.01 |
|  | Var (Residual) | --- |
| b | Var (Level) | 1.18 (0.14) <.01 |
| b | Var (Slope) | 0.00 (0.01) .62 |
|  | Var (Residual) | --- |
| a | Covar (Level, Slope) | -306.85 (150.44) .04 |
| b | Covar (Level, Slope) | -0.02 (0.03) .37 |
|  | Correlation of Levels | 0.176 |
|  | Correlation of Slopes | 0.073 |
|  | Correlation of Residuals | NA |
|  | N | 545 |
|  | occasions | 5 |
|  | parameters | 43 |
|  | LL | -11,080 |
|  | AIC | 22,247 |
|  | BIC | 22,432 |

## symbol

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

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| --- | --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus | full |
| ab | Covar (Levels) | 331.92 (108.27) <.01 | 342.04 (106.57) <.01 | 262.59 (126.47) .04 | 199.81 (64.21) <.01 | 213.34 (123.52) .08 |
| ab | Covar (Slopes) | 10.97 (3.34) <.01 | 12.46 (4.36) <.01 | 3.53 (4.39) .42 | 7.93 (4.46) .08 | 2.56 (4.92) .60 |
|  | Covar (Residuals) | --- | --- | --- | --- | --- |
| er | Corr (Levels) | --- | --- | --- | 0.26 (0.08) <.01 | --- |
| er | Corr (Slopes) | --- | --- | --- | 0.46 (0.25) .07 | --- |
| er | Corr (Residuals) | --- | --- | --- | 0.02 (0.05) .66 | --- |
| a | Level | 311.44 (13.06) <.01 | 293.53 (20.69) <.01 | 327.85 (24.34) <.01 | 276.33 (13.35) <.01 | 333.18 (26.59) <.01 |
| a | Slope | -11.58 (2.77) <.01 | -5.54 (5.62) .32 | -23.55 (7.43) <.01 | -6.79 (4.31) .12 | -23.53 (9.30) .01 |
| a | Level \* age | -4.29 (1.33) <.01 | -3.86 (1.41) .01 | -4.09 (1.78) .02 | -2.45 (0.88) <.01 | -4.27 (1.83) .02 |
| a | Level \* education | --- | 1.19 (2.35) .61 | -1.15 (2.70) .67 | 2.12 (1.29) .10 | -1.61 (2.76) .56 |
| a | Level \* height | --- | --- | 0.37 (1.15) .75 | 1.40 (0.64) .03 | 0.13 (1.22) .91 |
| a | Level \* smoking | --- | --- | --- | -2.60 (8.25) .75 | 0.00 (15.99) .99 |
| a | Level \* cardio | --- | --- | --- | -3.11 (12.48) .80 | -24.20 (31.60) .44 |
| a | Level \* diabetes | --- | --- | --- | -28.02 (10.56) .01 | -24.36 (26.24) .35 |
| a | Slope \* age | -0.23 (0.34) .51 | -0.40 (0.41) .34 | 0.11 (0.56) .84 | -0.35 (0.29) .22 | 0.14 (0.62) .83 |
| a | Slope \* education | --- | -0.42 (0.73) .56 | 0.29 (0.91) .75 | -0.38 (0.42) .36 | 0.41 (0.98) .68 |
| a | Slope \* height | --- | --- | 0.64 (0.40) .11 | 0.08 (0.22) .72 | 0.73 (0.41) .08 |
| a | Slope \* smoking | --- | --- | --- | -0.40 (2.65) .88 | 1.75 (5.38) .74 |
| a | Slope \* cardio | --- | --- | --- | -1.47 (4.51) .74 | 3.07 (11.47) .79 |
| a | Slope \* diabetes | --- | --- | --- | 4.36 (3.35) .19 | -2.07 (9.40) .83 |
| b | Level | 45.33 (1.24) <.01 | 32.42 (1.63) <.01 | 39.06 (3.07) <.01 | 37.12 (2.08) <.01 | 40.57 (3.68) <.01 |
| b | Slope | 0.54 (0.21) .01 | 1.16 (0.44) .01 | 0.56 (0.59) .34 | 1.38 (0.50) .01 | 0.62 (0.78) .42 |
| b | Level \* age | -0.59 (0.13) <.01 | -0.57 (0.11) <.01 | -0.35 (0.27) .20 | -0.37 (0.13) <.01 | -0.38 (0.28) .17 |
| b | Level \* education | --- | 2.02 (0.17) <.01 | 1.89 (0.35) <.01 | 1.57 (0.20) <.01 | 1.79 (0.38) <.01 |
| b | Level \* height | --- | --- | 0.08 (0.18) .66 | 0.07 (0.11) .53 | 0.05 (0.19) .78 |
| b | Level \* smoking | --- | --- | --- | 3.32 (1.08) <.01 | 2.19 (2.01) .27 |
| b | Level \* cardio | --- | --- | --- | -4.43 (2.76) .11 | -4.96 (8.15) .54 |
| b | Level \* diabetes | --- | --- | --- | -4.38 (1.60) .01 | -6.75 (2.82) .02 |
| b | Slope \* age | -0.06 (0.02) .02 | -0.04 (0.03) .09 | -0.06 (0.04) .08 | -0.10 (0.03) <.01 | -0.06 (0.04) .12 |
| b | Slope \* education | --- | -0.09 (0.05) .06 | -0.06 (0.07) .40 | -0.04 (0.04) .36 | -0.06 (0.09) .48 |
| b | Slope \* height | --- | --- | 0.00 (0.03) .90 | -0.04 (0.03) .18 | 0.00 (0.04) .91 |
| b | Slope \* smoking | --- | --- | --- | 0.06 (0.27) .83 | 0.09 (0.48) .85 |
| b | Slope \* cardio | --- | --- | --- | 0.58 (0.49) .24 | 0.00 (1.37) .99 |
| b | Slope \* diabetes | --- | --- | --- | -0.76 (0.37) .04 | -0.24 (0.56) .66 |
| a | Var (Level) | 5314.26 (886.62) <.01 | 5924.42 (1072.31) <.01 | 4906.13 (1072.06) <.01 | 3985.97 (501.94) <.01 | 4692.97 (1099.11) <.01 |
| a | Var (Slope) | 152.53 (39.36) <.01 | 257.04 (66.08) <.01 | 117.67 (64.73) .07 | 167.08 (52.77) <.01 | 102.83 (69.68) .14 |
|  | Var (Residual) | --- | --- | --- | --- | --- |
| b | Var (Level) | 189.81 (14.19) <.01 | 143.96 (11.26) <.01 | 127.61 (23.26) <.01 | 146.25 (12.94) <.01 | 114.18 (21.13) <.01 |
| b | Var (Slope) | 1.31 (0.28) <.01 | 1.77 (0.39) <.01 | 0.36 (0.50) .47 | 1.79 (0.44) <.01 | 0.45 (0.63) .47 |
|  | Var (Residual) | --- | --- | --- | --- | --- |
| a | Covar (Level, Slope) | -520.59 (153.38) <.01 | -811.76 (241.28) <.01 | -416.41 (219.35) .06 | -375.02 (155.60) .02 | -385.95 (225.58) .09 |
| b | Covar (Level, Slope) | -6.08 (2.24) .01 | -5.11 (2.05) .01 | -1.49 (3.01) .62 | -7.16 (2.16) <.01 | -2.31 (3.06) .45 |
|  | Correlation of Levels | 0.33 | 0.37 | 0.33 | 0.26 | 0.29 |
|  | Correlation of Slopes | 0.78 | 0.58 | 0.54 | 0.46 | 0.37 |
|  | Correlation of Residuals | NA | NA | NA | NA | NA |
|  | N | 592 | 592 | 150 | 545 | 150 |
|  | occasions | 9 | 7 | 6 | 5 | 6 |
|  | parameters | 21 | 25 | 29 | 43 | 45 |
|  | LL | -10,104 | -9,446 | -4,340 | -14,480 | -4,326 |
|  | AIC | 20,249 | 18,943 | 8,738 | 29,046 | 8,742 |
|  | BIC | 20,341 | 19,052 | 8,826 | 29,231 | 8,878 |

## trailsb

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus | full |
| ab | Covar (Levels) | -1437.76 (540.87) .01 | -1308.71 (509.10) .01 | -1005.15 (664.43) .13 | -402.35 (273.61) .14 | -731.95 (659.29) .27 |
| ab | Covar (Slopes) | -11.72 (15.69) .46 | -11.07 (16.06) .49 | -4.41 (27.72) .87 | 9.47 (19.46) .63 | -0.25 (28.09) .99 |
|  | Covar (Residuals) | --- | --- | --- | --- | --- |
| er | Corr (Levels) | --- | --- | --- | -0.13 (0.09) .12 | --- |
| er | Corr (Slopes) | --- | --- | --- | 0.28 (0.66) .66 | --- |
| er | Corr (Residuals) | --- | --- | --- | -0.02 (0.05) .73 | --- |
| a | Level | 319.62 (13.00) <.01 | 313.50 (20.64) <.01 | 332.19 (25.63) <.01 | 278.83 (13.33) <.01 | 338.48 (26.86) <.01 |
| a | Slope | -14.42 (2.89) <.01 | -11.07 (4.82) .02 | -25.89 (6.46) <.01 | -7.37 (4.25) .08 | -26.65 (7.66) <.01 |
| a | Level \* age | -4.57 (1.31) <.01 | -4.50 (1.31) <.01 | -4.17 (1.83) .02 | -2.59 (0.89) <.01 | -4.35 (1.93) .02 |
| a | Level \* education | --- | 1.07 (2.21) .63 | -1.56 (2.65) .56 | 2.22 (1.27) .08 | -2.06 (2.57) .42 |
| a | Level \* height | --- | --- | 0.60 (1.18) .61 | 1.35 (0.64) .04 | 0.35 (1.24) .78 |
| a | Level \* smoking | --- | --- | --- | -3.00 (8.44) .72 | -0.14 (16.04) .99 |
| a | Level \* cardio | --- | --- | --- | -3.71 (12.22) .76 | -22.83 (30.59) .46 |
| a | Level \* diabetes | --- | --- | --- | -28.05 (10.56) .01 | -28.03 (25.56) .27 |
| a | Slope \* age | -0.13 (0.33) .69 | -0.15 (0.33) .64 | 0.14 (0.44) .76 | -0.30 (0.29) .30 | 0.15 (0.53) .77 |
| a | Slope \* education | --- | -0.54 (0.58) .35 | 0.54 (0.70) .44 | -0.44 (0.40) .28 | 0.70 (0.75) .35 |
| a | Slope \* height | --- | --- | 0.51 (0.27) .05 | 0.11 (0.22) .61 | 0.61 (0.28) .03 |
| a | Slope \* smoking | --- | --- | --- | -0.24 (2.68) .93 | 1.88 (4.02) .64 |
| a | Slope \* cardio | --- | --- | --- | -1.34 (4.37) .76 | 2.44 (9.21) .79 |
| a | Slope \* diabetes | --- | --- | --- | 4.20 (3.42) .22 | -0.06 (9.22) .99 |
| b | Level | 125.49 (7.24) <.01 | 175.12 (7.45) <.01 | 171.28 (18.58) <.01 | 173.97 (9.30) <.01 | 172.13 (21.87) <.01 |
| b | Slope | 0.80 (1.30) .54 | -0.55 (2.05) .79 | 2.42 (5.06) .63 | 0.26 (2.40) .91 | 2.73 (6.22) .66 |
| b | Level \* age | 2.50 (0.64) <.01 | 2.31 (0.58) <.01 | 1.63 (1.38) .24 | 2.11 (0.61) <.01 | 2.06 (1.48) .16 |
| b | Level \* education | --- | -7.73 (0.90) <.01 | -7.82 (2.03) <.01 | -7.32 (0.95) <.01 | -7.32 (2.27) <.01 |
| b | Level \* height | --- | --- | -0.04 (0.78) .96 | 0.24 (0.43) .58 | 0.27 (0.92) .76 |
| b | Level \* smoking | --- | --- | --- | -15.93 (5.43) <.01 | -11.97 (9.91) .23 |
| b | Level \* cardio | --- | --- | --- | 4.70 (9.87) .63 | 29.70 (21.00) .16 |
| b | Level \* diabetes | --- | --- | --- | 23.75 (7.74) <.01 | 33.33 (17.81) .06 |
| b | Slope \* age | 0.29 (0.14) .04 | 0.30 (0.14) .04 | 0.21 (0.27) .43 | 0.01 (0.19) .94 | 0.19 (0.34) .58 |
| b | Slope \* education | --- | 0.20 (0.21) .33 | -0.05 (0.57) .93 | 0.14 (0.24) .54 | -0.11 (0.61) .86 |
| b | Slope \* height | --- | --- | 0.02 (0.18) .89 | -0.16 (0.14) .25 | -0.01 (0.22) .97 |
| b | Slope \* smoking | --- | --- | --- | -0.27 (1.82) .88 | -0.31 (2.98) .92 |
| b | Slope \* cardio | --- | --- | --- | -1.13 (2.60) .66 | -2.00 (6.44) .76 |
| b | Slope \* diabetes | --- | --- | --- | -0.34 (2.47) .89 | 2.66 (5.06) .60 |
| a | Var (Level) | 5503.46 (922.85) <.01 | 5447.84 (926.92) <.01 | 4821.22 (1077.52) <.01 | 3908.94 (515.18) <.01 | 4624.91 (1121.08) <.01 |
| a | Var (Slope) | 130.76 (35.96) <.01 | 124.33 (35.54) <.01 | 48.62 (27.63) .08 | 150.14 (50.26) <.01 | 39.51 (33.94) .24 |
|  | Var (Residual) | --- | --- | --- | --- | --- |
| b | Var (Level) | 3389.97 (471.25) <.01 | 2698.95 (377.73) <.01 | 2724.82 (689.38) <.01 | 2341.27 (327.25) <.01 | 2258.31 (713.54) <.01 |
| b | Var (Slope) | 6.98 (9.28) .45 | 7.33 (9.45) .44 | 7.46 (16.87) .66 | 7.36 (14.63) .61 | 5.73 (18.88) .76 |
|  | Var (Residual) | --- | --- | --- | --- | --- |
| a | Covar (Level, Slope) | -518.71 (152.31) <.01 | -491.83 (158.00) <.01 | -324.32 (139.94) .02 | -330.71 (152.30) .03 | -305.61 (167.55) .07 |
| b | Covar (Level, Slope) | 32.29 (68.53) .64 | 45.66 (66.49) .49 | 49.10 (103.59) .64 | 25.01 (66.26) .71 | 46.60 (133.62) .73 |
|  | Correlation of Levels | -0.33 | -0.34 | -0.28 | -0.13 | -0.226 |
|  | Correlation of Slopes | -0.39 | -0.37 | -0.23 | 0.29 | -0.016 |
|  | Correlation of Residuals | NA | NA | NA | NA | NA |
|  | N | 580 | 580 | 150 | 545 | 150 |
|  | occasions | 9 | 9 | 8 | 5 | 8 |
|  | parameters | 21 | 25 | 29 | 43 | 45 |
|  | LL | -13,187 | -13,142 | -5,891 | -17,497 | -5,875 |
|  | AIC | 26,416 | 26,333 | 11,840 | 35,081 | 11,840 |
|  | BIC | 26,507 | 26,442 | 11,928 | 35,265 | 11,975 |

## waisvocab

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | 14.27 (50.35) .78 |
| ab | Covar (Slopes) | -7.35 (3.77) .05 |
|  | Covar (Residuals) | --- |
| er | Corr (Levels) | 0.03 (0.09) .78 |
| er | Corr (Slopes) | -0.70 (0.40) .08 |
| er | Corr (Residuals) | -0.04 (0.05) .41 |
| a | Level | 278.94 (13.23) <.01 |
| a | Slope | -7.78 (4.20) .06 |
| a | Level \* age | -2.55 (0.87) <.01 |
| a | Level \* education | 2.25 (1.27) .08 |
| a | Level \* height | 1.36 (0.63) .03 |
| a | Level \* smoking | -3.83 (8.18) .64 |
| a | Level \* cardio | -2.10 (12.29) .86 |
| a | Level \* diabetes | -27.69 (10.49) .01 |
| a | Slope \* age | -0.28 (0.28) .32 |
| a | Slope \* education | -0.44 (0.40) .28 |
| a | Slope \* height | 0.12 (0.21) .56 |
| a | Slope \* smoking | 0.08 (2.68) .98 |
| a | Slope \* cardio | -1.62 (4.30) .71 |
| a | Slope \* diabetes | 3.96 (3.26) .22 |
| b | Level | 32.88 (1.67) <.01 |
| b | Slope | 0.04 (0.47) .94 |
| b | Level \* age | 0.01 (0.11) .96 |
| b | Level \* education | 1.75 (0.17) <.01 |
| b | Level \* height | 0.06 (0.07) .41 |
| b | Level \* smoking | 1.80 (0.82) .03 |
| b | Level \* cardio | 2.79 (1.67) .10 |
| b | Level \* diabetes | -3.81 (1.25) <.01 |
| b | Slope \* age | -0.03 (0.03) .30 |
| b | Slope \* education | 0.01 (0.04) .79 |
| b | Slope \* height | -0.01 (0.02) .70 |
| b | Slope \* smoking | -0.00 (0.27) .99 |
| b | Slope \* cardio | -0.38 (0.50) .44 |
| b | Slope \* diabetes | -0.29 (0.36) .41 |
| a | Var (Level) | 3937.79 (499.15) <.01 |
| a | Var (Slope) | 148.59 (49.17) <.01 |
|  | Var (Residual) | --- |
| b | Var (Level) | 75.57 (8.39) <.01 |
| b | Var (Slope) | 0.75 (0.38) .05 |
|  | Var (Residual) | --- |
| a | Covar (Level, Slope) | -330.85 (148.04) .02 |
| b | Covar (Level, Slope) | -2.72 (1.62) .09 |
|  | Correlation of Levels | 0.026 |
|  | Correlation of Slopes | -0.698 |
|  | Correlation of Residuals | NA |
|  | N | 545 |
|  | occasions | 5 |
|  | parameters | 43 |
|  | LL | -14,388 |
|  | AIC | 28,862 |
|  | BIC | 29,046 |

## word\_im

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | 78.74 (26.90) <.01 |
| ab | Covar (Slopes) | 3.12 (2.14) .14 |
|  | Covar (Residuals) | --- |
| er | Corr (Levels) | 0.29 (0.10) <.01 |
| er | Corr (Slopes) | 0.64 (0.53) .23 |
| er | Corr (Residuals) | -0.04 (0.05) .41 |
| a | Level | 279.27 (13.19) <.01 |
| a | Slope | -7.51 (4.20) .07 |
| a | Level \* age | -2.46 (0.87) <.01 |
| a | Level \* education | 2.21 (1.30) .09 |
| a | Level \* height | 1.38 (0.63) .03 |
| a | Level \* smoking | -3.70 (8.34) .66 |
| a | Level \* cardio | -3.60 (12.36) .77 |
| a | Level \* diabetes | -28.41 (10.43) .01 |
| a | Slope \* age | -0.35 (0.28) .22 |
| a | Slope \* education | -0.45 (0.41) .27 |
| a | Slope \* height | 0.11 (0.21) .59 |
| a | Slope \* smoking | -0.02 (2.54) .99 |
| a | Slope \* cardio | -1.18 (4.33) .78 |
| a | Slope \* diabetes | 4.15 (3.36) .22 |
| b | Level | 32.62 (0.90) <.01 |
| b | Slope | 0.38 (0.26) .15 |
| b | Level \* age | -0.20 (0.05) <.01 |
| b | Level \* education | 0.22 (0.09) .01 |
| b | Level \* height | 0.02 (0.04) .63 |
| b | Level \* smoking | -0.38 (0.51) .46 |
| b | Level \* cardio | 1.12 (0.98) .25 |
| b | Level \* diabetes | -1.58 (0.71) .03 |
| b | Slope \* age | -0.02 (0.02) .16 |
| b | Slope \* education | -0.02 (0.03) .37 |
| b | Slope \* height | -0.00 (0.01) .76 |
| b | Slope \* smoking | 0.08 (0.14) .57 |
| b | Slope \* cardio | -0.10 (0.29) .73 |
| b | Slope \* diabetes | -0.06 (0.19) .76 |
| a | Var (Level) | 3930.10 (488.24) <.01 |
| a | Var (Slope) | 148.55 (48.94) <.01 |
|  | Var (Residual) | --- |
| b | Var (Level) | 18.82 (2.16) <.01 |
| b | Var (Slope) | 0.16 (0.16) .33 |
|  | Var (Residual) | --- |
| a | Covar (Level, Slope) | -323.34 (148.40) .03 |
| b | Covar (Level, Slope) | 0.28 (0.61) .64 |
|  | Correlation of Levels | 0.29 |
|  | Correlation of Slopes | 0.64 |
|  | Correlation of Residuals | NA |
|  | N | 545 |
|  | occasions | 5 |
|  | parameters | 43 |
|  | LL | -13,461 |
|  | AIC | 27,008 |
|  | BIC | 27,193 |

## Summary

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

Computed correlations:

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Levels | block | 0.25 |
| Correlation of Levels | bnt | 0.17 |
| Correlation of Levels | categories | 0.26 |
| Correlation of Levels | digit\_tot | 0.13 |
| Correlation of Levels | fas | 0.19 |
| Correlation of Levels | logic\_tot | 0.07 |
| Correlation of Levels | mmse | 0.18 |
| Correlation of Levels | symbol | 0.26 |
| Correlation of Levels | trailsb | -0.13 |
| Correlation of Levels | waisvocab | 0.03 |
| Correlation of Levels | word\_im | 0.29 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Slopes | block | 0.31 |
| Correlation of Slopes | bnt | 0.16 |
| Correlation of Slopes | categories | 0.53 |
| Correlation of Slopes | digit\_tot | 0.44 |
| Correlation of Slopes | fas | 0.10 |
| Correlation of Slopes | logic\_tot | 0.30 |
| Correlation of Slopes | mmse | 0.07 |
| Correlation of Slopes | symbol | 0.46 |
| Correlation of Slopes | trailsb | 0.29 |
| Correlation of Slopes | waisvocab | -0.70 |
| Correlation of Slopes | word\_im | 0.64 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Residuals | block | -0.01 |
| Correlation of Residuals | bnt | -0.06 |
| Correlation of Residuals | categories | -0.09 |
| Correlation of Residuals | digit\_tot | -0.03 |
| Correlation of Residuals | fas | 0.03 |
| Correlation of Residuals | logic\_tot | -0.03 |
| Correlation of Residuals | mmse | -0.01 |
| Correlation of Residuals | symbol | 0.02 |
| Correlation of Residuals | trailsb | -0.02 |
| Correlation of Residuals | waisvocab | -0.04 |
| Correlation of Residuals | word\_im | -0.04 |

P-values for corresponding covariances:

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Covariance of Levels | block | 0.01 |
| Covariance of Levels | bnt | 0.07 |
| Covariance of Levels | categories | 0.00 |
| Covariance of Levels | digit\_tot | 0.15 |
| Covariance of Levels | fas | 0.03 |
| Covariance of Levels | logic\_tot | 0.57 |
| Covariance of Levels | mmse | 0.10 |
| Covariance of Levels | symbol | 0.00 |
| Covariance of Levels | trailsb | 0.14 |
| Covariance of Levels | waisvocab | 0.78 |
| Covariance of Levels | word\_im | 0.00 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Covariance of Slopes | block | 0.40 |
| Covariance of Slopes | bnt | 0.83 |
| Covariance of Slopes | categories | 0.34 |
| Covariance of Slopes | digit\_tot | 0.18 |
| Covariance of Slopes | fas | 0.78 |
| Covariance of Slopes | logic\_tot | 0.51 |
| Covariance of Slopes | mmse | 0.92 |
| Covariance of Slopes | symbol | 0.08 |
| Covariance of Slopes | trailsb | 0.63 |
| Covariance of Slopes | waisvocab | 0.05 |
| Covariance of Slopes | word\_im | 0.14 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Covariance of Residuals | block | 0.81 |
| Covariance of Residuals | bnt | 0.24 |
| Covariance of Residuals | categories | 0.11 |
| Covariance of Residuals | digit\_tot | 0.57 |
| Covariance of Residuals | fas | 0.64 |
| Covariance of Residuals | logic\_tot | 0.63 |
| Covariance of Residuals | mmse | 0.82 |
| Covariance of Residuals | symbol | 0.66 |
| Covariance of Residuals | trailsb | 0.73 |
| Covariance of Residuals | waisvocab | 0.41 |
| Covariance of Residuals | word\_im | 0.41 |

# male

Gender = *male*; Model type: *aehplus*; Process (a) = *pef*; Process (b): *block*, *bnt*, *categories*, *digit\_tot*, *fas*, *logic\_tot*, *mmse*, *symbol*, *trailsb*, *waisvocab*, *word\_im*

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

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Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| process | label | block | bnt | categories | digit\_tot | fas | logic\_tot | mmse | symbol | trailsb | waisvocab | word\_im | mean(sd) |
| ab | Covar (Levels) | 233.41 (84.93) .01 | 6.98 (25.80) .79 | 54.30 (88.35) .54 | 3.86 (36.29) .92 | 145.88 (108.60) .18 | 35.38 (61.57) .57 | 25.56 (13.13) .05 | 444.24 (125.41) <.01 | -2188.20 (674.13) <.01 | -12.89 (116.46) .91 | 31.41 (55.06) .57 | --- |
| ab | Covar (Slopes) | 5.16 (5.36) .34 | 0.25 (2.17) .91 | 5.08 (4.99) .31 | 1.11 (2.25) .62 | -2.03 (6.53) .76 | 2.85 (4.29) .51 | 0.96 (0.97) .32 | 17.97 (9.06) .05 | -81.33 (52.55) .12 | -7.50 (9.32) .42 | 3.54 (3.81) .35 | --- |
|  | Covar (Residuals) | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| er | Corr (Levels) | 0.31 (0.11) <.01 | 0.04 (0.14) .79 | 0.07 (0.11) .54 | 0.01 (0.12) .92 | 0.14 (0.11) .17 | 0.07 (0.12) .57 | 0.31 (0.16) .05 | 0.40 (0.10) <.01 | -0.42 (0.11) <.01 | -0.01 (0.13) .91 | 0.07 (0.12) .57 | --- |
| er | Corr (Slopes) | 0.58 (0.72) .42 | 0.16 (1.40) .91 | 0.30 (0.28) .29 | 0.26 (0.55) .63 | -0.42 (1.79) .81 | 0.30 (0.46) .51 | 0.76 (1.10) .49 | 0.67 (0.32) .04 | -0.96 (0.55) .08 | -0.58 (0.72) .42 | 0.38 (0.42) .37 | --- |
| er | Corr (Residuals) | -0.11 (0.07) .11 | 0.05 (0.06) .40 | 0.02 (0.06) .70 | 0.07 (0.06) .28 | 0.02 (0.07) .79 | -0.03 (0.07) .63 | -0.05 (0.06) .42 | -0.13 (0.07) .04 | 0.00 (0.07) .98 | -0.02 (0.07) .81 | 0.03 (0.08) .68 | --- |
| a | Level | 390.53 (32.30) <.01 | 395.28 (31.96) <.01 | 395.94 (32.15) <.01 | 391.53 (31.82) <.01 | 393.67 (32.12) <.01 | 393.52 (31.82) <.01 | 389.62 (32.14) <.01 | 387.77 (31.61) <.01 | 401.74 (33.10) <.01 | 389.70 (31.95) <.01 | 396.47 (32.16) <.01 | 393.25(4.00) |
| a | Slope | -6.48 (9.95) .52 | -7.75 (10.14) .44 | -8.25 (9.60) .39 | -6.52 (9.74) .50 | -7.11 (9.59) .46 | -7.07 (9.95) .48 | -6.27 (9.72) .52 | -5.19 (9.81) .60 | -9.31 (9.91) .35 | -6.01 (9.87) .54 | -8.54 (9.59) .37 | -7.14(1.22) |
| a | Level \* age | -2.42 (1.75) .16 | -2.54 (1.76) .15 | -2.54 (1.80) .16 | -2.52 (1.77) .15 | -2.56 (1.84) .16 | -2.53 (1.81) .16 | -2.45 (1.73) .16 | -2.10 (1.76) .23 | -2.67 (1.76) .13 | -2.46 (1.74) .16 | -2.55 (1.75) .14 | -2.48(0.14) |
| a | Level \* education | 3.15 (2.70) .24 | 3.01 (2.66) .26 | 2.92 (2.65) .27 | 3.26 (2.70) .23 | 3.33 (2.63) .20 | 3.10 (2.72) .25 | 3.38 (2.71) .21 | 3.02 (2.66) .26 | 2.46 (2.77) .37 | 3.37 (2.70) .21 | 2.98 (2.64) .26 | 3.09(0.26) |
| a | Level \* height | 0.60 (1.27) .64 | 0.46 (1.28) .72 | 0.62 (1.30) .63 | 0.50 (1.28) .70 | 0.53 (1.27) .68 | 0.61 (1.30) .64 | 0.57 (1.30) .66 | 0.77 (1.26) .54 | 0.60 (1.25) .63 | 0.49 (1.29) .70 | 0.70 (1.28) .58 | 0.59(0.09) |
| a | Level \* smoking | -19.41 (19.34) .32 | -20.81 (19.21) .28 | -22.47 (19.17) .24 | -21.99 (19.09) .25 | -21.61 (19.15) .26 | -21.68 (19.08) .26 | -19.32 (19.65) .32 | -21.73 (18.93) .25 | -21.68 (19.17) .26 | -22.03 (19.23) .25 | -21.74 (18.91) .25 | -21.32(1.04) |
| a | Level \* cardio | -25.75 (24.61) .29 | -23.73 (23.96) .32 | -21.80 (24.67) .38 | -22.99 (24.59) .35 | -24.19 (24.86) .33 | -21.95 (24.80) .38 | -22.47 (25.21) .37 | -25.84 (24.76) .30 | -22.02 (25.07) .38 | -22.14 (24.05) .36 | -22.67 (24.18) .35 | -23.23(1.47) |
| a | Level \* diabetes | -10.73 (21.01) .61 | -10.98 (21.38) .61 | -11.04 (20.95) .60 | -9.18 (20.97) .66 | -10.89 (21.00) .60 | -10.76 (21.27) .61 | -11.46 (21.04) .59 | -11.75 (20.66) .57 | -10.85 (20.65) .60 | -9.30 (22.08) .67 | -12.30 (20.91) .56 | -10.84(0.92) |
| a | Slope \* age | -0.60 (0.55) .28 | -0.59 (0.57) .30 | -0.60 (0.56) .28 | -0.56 (0.55) .31 | -0.56 (0.55) .31 | -0.58 (0.55) .29 | -0.59 (0.54) .27 | -0.73 (0.55) .18 | -0.52 (0.56) .36 | -0.57 (0.55) .29 | -0.57 (0.53) .29 | -0.59(0.05) |
| a | Slope \* education | -0.40 (0.77) .61 | -0.38 (0.75) .61 | -0.28 (0.76) .71 | -0.48 (0.76) .53 | -0.49 (0.74) .51 | -0.40 (0.78) .61 | -0.46 (0.79) .56 | -0.37 (0.77) .63 | -0.23 (0.78) .76 | -0.48 (0.77) .53 | -0.35 (0.74) .63 | -0.39(0.08) |
| a | Slope \* height | 0.86 (0.43) .04 | 0.98 (0.43) .02 | 0.81 (0.46) .08 | 0.95 (0.45) .03 | 0.94 (0.45) .04 | 0.90 (0.46) .05 | 0.92 (0.45) .04 | 0.80 (0.44) .07 | 0.90 (0.42) .03 | 0.97 (0.44) .03 | 0.88 (0.44) .04 | 0.90(0.06) |
| a | Slope \* smoking | 1.55 (5.78) .79 | 1.65 (5.70) .77 | 2.78 (5.76) .63 | 2.08 (5.70) .71 | 2.08 (5.65) .71 | 2.12 (5.73) .71 | 1.63 (5.66) .77 | 1.95 (5.71) .73 | 2.00 (5.61) .72 | 2.16 (5.65) .70 | 2.27 (5.75) .69 | 2.02(0.35) |
| a | Slope \* cardio | 8.58 (9.41) .36 | 8.73 (9.03) .33 | 7.55 (9.12) .41 | 8.48 (8.98) .34 | 8.56 (9.24) .35 | 7.82 (9.24) .40 | 7.67 (9.36) .41 | 9.41 (9.51) .32 | 7.56 (9.75) .44 | 7.83 (8.84) .38 | 8.38 (8.74) .34 | 8.23(0.59) |
| a | Slope \* diabetes | -2.40 (6.99) .73 | -2.36 (6.74) .73 | -2.67 (6.89) .70 | -2.84 (7.19) .69 | -2.75 (7.00) .69 | -2.44 (6.93) .72 | -2.27 (6.86) .74 | -1.82 (6.91) .79 | -2.59 (6.73) .70 | -3.43 (7.10) .63 | -1.75 (6.73) .79 | -2.48(0.47) |
| b | Level | 19.69 (2.09) <.01 | 10.88 (0.48) <.01 | 34.32 (1.88) <.01 | 12.17 (0.87) <.01 | 24.22 (2.76) <.01 | 16.26 (1.50) <.01 | 26.17 (0.25) <.01 | 33.71 (2.67) <.01 | 151.72 (13.30) <.01 | 34.41 (2.48) <.01 | 33.19 (1.33) <.01 | --- |
| b | Slope | 1.39 (0.45) <.01 | 0.21 (0.12) .08 | -0.11 (0.51) .83 | 0.34 (0.20) .09 | 1.17 (0.54) .03 | 1.26 (0.39) <.01 | 0.12 (0.08) .14 | 2.39 (0.65) <.01 | 1.51 (3.34) .65 | 0.64 (0.57) .26 | 0.05 (0.37) .88 | --- |
| b | Level \* age | 0.06 (0.12) .60 | 0.02 (0.03) .51 | -0.22 (0.12) .06 | 0.02 (0.04) .55 | 0.29 (0.14) .05 | -0.04 (0.08) .58 | -0.01 (0.01) .34 | -0.09 (0.16) .57 | 1.09 (0.76) .15 | 0.18 (0.14) .19 | -0.32 (0.07) <.01 | --- |
| b | Level \* education | 0.66 (0.18) <.01 | 0.14 (0.04) <.01 | 0.46 (0.16) <.01 | 0.27 (0.07) <.01 | 1.28 (0.21) <.01 | 0.56 (0.12) <.01 | 0.11 (0.02) <.01 | 1.44 (0.20) <.01 | -4.56 (1.15) <.01 | 1.66 (0.21) <.01 | 0.05 (0.11) .63 | --- |
| b | Level \* height | 0.06 (0.09) .51 | 0.01 (0.03) .60 | 0.19 (0.10) .06 | -0.03 (0.03) .38 | 0.18 (0.12) .15 | 0.05 (0.07) .45 | -0.01 (0.01) .52 | 0.16 (0.14) .24 | -1.27 (0.68) .06 | 0.10 (0.12) .41 | -0.01 (0.06) .82 | --- |
| b | Level \* smoking | -0.06 (1.28) .96 | 0.88 (0.32) <.01 | 2.13 (1.20) .07 | 1.00 (0.48) .04 | 1.50 (1.48) .31 | 1.52 (0.90) .09 | -0.06 (0.17) .73 | 1.98 (1.67) .24 | -0.15 (8.86) .99 | 1.53 (1.53) .32 | -0.87 (0.77) .26 | --- |
| b | Level \* cardio | -0.39 (1.26) .76 | -0.03 (0.36) .94 | 3.13 (1.57) .05 | -0.09 (0.49) .85 | 1.81 (1.88) .34 | 1.47 (1.03) .15 | 0.16 (0.20) .43 | 0.40 (1.88) .83 | -2.76 (10.05) .78 | 0.95 (1.68) .57 | 2.46 (0.96) .01 | --- |
| b | Level \* diabetes | -1.86 (1.22) .13 | -0.59 (0.34) .08 | -1.77 (1.32) .18 | -0.64 (0.51) .21 | -3.27 (1.53) .03 | -0.73 (0.99) .46 | -0.32 (0.16) .04 | -7.01 (1.69) <.01 | 21.96 (8.58) .01 | -2.00 (1.54) .20 | -1.45 (0.81) .07 | --- |
| b | Slope \* age | -0.07 (0.03) .01 | -0.02 (0.01) .01 | -0.05 (0.03) .10 | -0.01 (0.01) .31 | -0.08 (0.04) .02 | -0.10 (0.03) <.01 | -0.00 (0.00) .60 | -0.13 (0.04) <.01 | 0.52 (0.21) .02 | -0.07 (0.04) .06 | -0.02 (0.02) .39 | --- |
| b | Slope \* education | -0.02 (0.04) .64 | -0.00 (0.01) .72 | 0.03 (0.04) .54 | -0.01 (0.02) .71 | -0.03 (0.04) .50 | -0.07 (0.03) .05 | -0.02 (0.01) .03 | -0.14 (0.06) .02 | -0.17 (0.32) .59 | -0.01 (0.05) .80 | -0.01 (0.03) .74 | --- |
| b | Slope \* height | -0.02 (0.02) .52 | 0.00 (0.01) .81 | -0.08 (0.03) <.01 | 0.01 (0.01) .35 | -0.03 (0.02) .25 | -0.01 (0.02) .71 | 0.00 (0.00) .61 | -0.04 (0.04) .25 | 0.39 (0.23) .08 | -0.03 (0.04) .43 | -0.03 (0.02) .07 | --- |
| b | Slope \* smoking | 0.07 (0.29) .82 | -0.12 (0.08) .14 | -0.24 (0.30) .44 | -0.16 (0.11) .15 | 0.01 (0.32) .98 | -0.22 (0.25) .38 | 0.05 (0.05) .36 | -0.21 (0.42) .62 | -4.40 (2.36) .06 | -0.36 (0.40) .36 | 0.29 (0.22) .18 | --- |
| b | Slope \* cardio | 0.41 (0.34) .24 | 0.02 (0.11) .86 | 0.42 (0.39) .28 | 0.18 (0.12) .14 | 0.58 (0.36) .10 | 0.10 (0.29) .73 | -0.02 (0.07) .72 | 0.42 (0.51) .41 | -1.39 (2.40) .56 | -0.53 (0.43) .22 | -0.07 (0.26) .78 | --- |
| b | Slope \* diabetes | -0.24 (0.31) .43 | 0.18 (0.10) .08 | -0.03 (0.37) .94 | 0.01 (0.12) .91 | -0.04 (0.32) .89 | 0.54 (0.31) .08 | 0.06 (0.05) .23 | 0.20 (0.42) .64 | -0.18 (2.47) .94 | 0.00 (0.39) .99 | 0.40 (0.25) .12 | --- |
| a | Var (Level) | 11092.62 (2134.05) <.01 | 11035.97 (2146.10) <.01 | 11062.08 (2095.12) <.01 | 11186.26 (2140.02) <.01 | 11027.50 (2148.20) <.01 | 11038.95 (2173.96) <.01 | 11064.40 (2163.48) <.01 | 11101.78 (2077.44) <.01 | 11020.67 (2100.83) <.01 | 11012.35 (2219.37) <.01 | 10970.46 (2158.14) <.01 | 11055.73(57.00) |
| a | Var (Slope) | 323.15 (116.29) <.01 | 296.88 (109.39) .01 | 321.19 (119.49) .01 | 310.31 (118.53) .01 | 302.36 (117.95) .01 | 307.58 (119.55) .01 | 318.93 (122.49) .01 | 339.22 (121.49) <.01 | 295.58 (112.59) .01 | 303.80 (119.14) .01 | 297.08 (114.47) .01 | 310.55(13.70) |
|  | Var (Residual) | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| b | Var (Level) | 51.62 (7.78) <.01 | 3.28 (0.57) <.01 | 58.22 (7.57) <.01 | 8.84 (1.21) <.01 | 91.38 (11.79) <.01 | 25.64 (4.22) <.01 | 0.63 (0.14) <.01 | 112.95 (13.27) <.01 | 2453.46 (368.38) <.01 | 70.02 (12.69) <.01 | 18.33 (3.35) <.01 | --- |
| b | Var (Slope) | 0.24 (0.36) .50 | 0.01 (0.02) .75 | 0.90 (0.46) .05 | 0.06 (0.06) .29 | 0.08 (0.40) .85 | 0.30 (0.27) .27 | 0.00 (0.01) .65 | 2.10 (0.64) <.01 | 24.11 (21.10) .25 | 0.54 (0.75) .47 | 0.30 (0.23) .20 | --- |
|  | Var (Residual) | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| a | Covar (Level, Slope) | -1017.51 (497.69) .04 | -957.47 (489.88) .05 | -991.33 (496.53) .05 | -1014.17 (518.90) .05 | -966.35 (510.96) .06 | -981.30 (507.34) .05 | -1007.55 (520.23) .05 | -1051.22 (497.56) .04 | -953.13 (489.56) .05 | -971.59 (516.76) .06 | -955.32 (496.09) .05 | -987.90(31.53) |
| b | Covar (Level, Slope) | -0.53 (1.50) .72 | 0.03 (0.10) .77 | -2.40 (1.73) .16 | -0.32 (0.24) .19 | 1.94 (1.76) .27 | -0.50 (1.04) .63 | -0.00 (0.04) .99 | -4.79 (2.34) .04 | -91.76 (77.75) .24 | -2.93 (2.71) .28 | -0.57 (0.75) .44 | --- |
|  | Correlation of Levels | 0.31 | 0.037 | 0.068 | 0.012 | 0.15 | 0.067 | 0.31 | 0.40 | -0.42 | -0.015 | 0.07 | 0.09(0.22) |
|  | Correlation of Slopes | 0.58 | 0.164 | 0.299 | 0.262 | -0.42 | 0.297 | 0.76 | 0.67 | -0.96 | -0.583 | 0.38 | 0.13(0.55) |
|  | Correlation of Residuals | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | --- |
|  | N | 324 | 324 | 324 | 324 | 324 | 324 | 324 | 324 | 324 | 324 | 324 | 324.00(0.00) |
|  | occasions | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5.00(0.00) |
|  | parameters | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43.00(0.00) |
|  | LL | -8,940 | -7,498 | -8,917 | -7,880 | -9,052 | -8,634 | -6,920 | -9,189 | -11,079 | -9,249 | -8,549 | -8,719(1,083) |
|  | AIC | 17,966 | 15,082 | 17,919 | 15,847 | 18,191 | 17,355 | 13,926 | 18,465 | 22,245 | 18,584 | 17,183 | 17,524(2,167) |
|  | BIC | 18,129 | 15,245 | 18,082 | 16,009 | 18,353 | 17,517 | 14,088 | 18,627 | 22,407 | 18,746 | 17,346 | 17,686(2,167) |

## block

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

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Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| process | label | ae | aeh | aehplus |
| ab | Covar (Levels) | -122.43 (137.12) .37 | -89.80 (125.58) .47 | 233.41 (84.93) .01 |
| ab | Covar (Slopes) | -0.17 (3.37) .96 | -0.13 (18.94) .99 | 5.16 (5.36) .34 |
|  | Covar (Residuals) | --- | --- | --- |
| er | Corr (Levels) | --- | --- | 0.31 (0.11) <.01 |
| er | Corr (Slopes) | --- | --- | 0.58 (0.72) .42 |
| er | Corr (Residuals) | --- | --- | -0.11 (0.07) .11 |
| a | Level | 468.26 (40.46) <.01 | 412.91 (49.38) <.01 | 390.53 (32.30) <.01 |
| a | Slope | -18.94 (8.62) .03 | -29.25 (10.46) <.01 | -6.48 (9.95) .52 |
| a | Level \* age | -4.66 (2.91) .11 | -5.16 (3.10) .10 | -2.42 (1.75) .16 |
| a | Level \* education | 0.38 (4.09) .93 | 5.99 (4.49) .18 | 3.15 (2.70) .24 |
| a | Level \* height | --- | 3.87 (2.76) .16 | 0.60 (1.27) .64 |
| a | Level \* smoking | --- | --- | -19.41 (19.34) .32 |
| a | Level \* cardio | --- | --- | -25.75 (24.61) .29 |
| a | Level \* diabetes | --- | --- | -10.73 (21.01) .61 |
| a | Slope \* age | -0.19 (0.61) .76 | 0.61 (0.79) .44 | -0.60 (0.55) .28 |
| a | Slope \* education | -0.02 (1.00) .98 | 0.36 (1.10) .74 | -0.40 (0.77) .61 |
| a | Slope \* height | --- | -0.64 (1.35) .63 | 0.86 (0.43) .04 |
| a | Slope \* smoking | --- | --- | 1.55 (5.78) .79 |
| a | Slope \* cardio | --- | --- | 8.58 (9.41) .36 |
| a | Slope \* diabetes | --- | --- | -2.40 (6.99) .73 |
| b | Level | 20.52 (1.03) <.01 | 19.31 (3.81) <.01 | 19.69 (2.09) <.01 |
| b | Slope | 0.90 (0.26) <.01 | 1.57 (1.53) .31 | 1.39 (0.45) <.01 |
| b | Level \* age | -0.02 (0.11) .88 | 0.31 (0.35) .38 | 0.06 (0.12) .60 |
| b | Level \* education | 0.01 (0.03) .86 | 0.73 (0.30) .02 | 0.66 (0.18) <.01 |
| b | Level \* height | --- | 0.01 (0.28) .97 | 0.06 (0.09) .51 |
| b | Level \* smoking | --- | --- | -0.06 (1.28) .96 |
| b | Level \* cardio | --- | --- | -0.39 (1.26) .76 |
| b | Level \* diabetes | --- | --- | -1.86 (1.22) .13 |
| b | Slope \* age | -0.05 (0.02) <.01 | -0.08 (0.17) .62 | -0.07 (0.03) .01 |
| b | Slope \* education | -0.00 (0.03) .97 | -0.10 (0.12) .42 | -0.02 (0.04) .64 |
| b | Slope \* height | --- | -0.04 (0.14) .81 | -0.02 (0.02) .52 |
| b | Slope \* smoking | --- | --- | 0.07 (0.29) .82 |
| b | Slope \* cardio | --- | --- | 0.41 (0.34) .24 |
| b | Slope \* diabetes | --- | --- | -0.24 (0.31) .43 |
| a | Var (Level) | 12369.76 (3034.59) <.01 | 12541.22 (3161.93) <.01 | 11092.62 (2134.05) <.01 |
| a | Var (Slope) | 207.90 (118.40) .08 | 204.82 (213.03) .34 | 323.15 (116.29) <.01 |
|  | Var (Residual) | --- | --- | --- |
| b | Var (Level) | 76.62 (7.95) <.01 | 46.25 (13.11) <.01 | 51.62 (7.78) <.01 |
| b | Var (Slope) | 0.15 (0.15) .31 | 0.03 (7.94) .99 | 0.24 (0.36) .50 |
|  | Var (Residual) | --- | --- | --- |
| a | Covar (Level, Slope) | -767.90 (619.22) .21 | -776.24 (651.36) .23 | -1017.51 (497.69) .04 |
| b | Covar (Level, Slope) | -2.12 (1.19) .07 | 0.01 (12.80) .99 | -0.53 (1.50) .72 |
|  | Correlation of Levels | -0.126 | -0.118 | 0.31 |
|  | Correlation of Slopes | -0.031 | -0.052 | 0.58 |
|  | Correlation of Residuals | NA | NA | NA |
|  | N | 350 | 72 | 324 |
|  | occasions | 9 | 8 | 5 |
|  | parameters | 25 | 29 | 43 |
|  | LL | -5,823 | -2,542 | -8,940 |
|  | AIC | 11,697 | 5,143 | 17,966 |
|  | BIC | 11,793 | 5,209 | 18,129 |

## bnt

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | 6.98 (25.80) .79 |
| ab | Covar (Slopes) | 0.25 (2.17) .91 |
|  | Covar (Residuals) | --- |
| er | Corr (Levels) | 0.04 (0.14) .79 |
| er | Corr (Slopes) | 0.16 (1.40) .91 |
| er | Corr (Residuals) | 0.05 (0.06) .40 |
| a | Level | 395.28 (31.96) <.01 |
| a | Slope | -7.75 (10.14) .44 |
| a | Level \* age | -2.54 (1.76) .15 |
| a | Level \* education | 3.01 (2.66) .26 |
| a | Level \* height | 0.46 (1.28) .72 |
| a | Level \* smoking | -20.81 (19.21) .28 |
| a | Level \* cardio | -23.73 (23.96) .32 |
| a | Level \* diabetes | -10.98 (21.38) .61 |
| a | Slope \* age | -0.59 (0.57) .30 |
| a | Slope \* education | -0.38 (0.75) .61 |
| a | Slope \* height | 0.98 (0.43) .02 |
| a | Slope \* smoking | 1.65 (5.70) .77 |
| a | Slope \* cardio | 8.73 (9.03) .33 |
| a | Slope \* diabetes | -2.36 (6.74) .73 |
| b | Level | 10.88 (0.48) <.01 |
| b | Slope | 0.21 (0.12) .08 |
| b | Level \* age | 0.02 (0.03) .51 |
| b | Level \* education | 0.14 (0.04) <.01 |
| b | Level \* height | 0.01 (0.03) .60 |
| b | Level \* smoking | 0.88 (0.32) <.01 |
| b | Level \* cardio | -0.03 (0.36) .94 |
| b | Level \* diabetes | -0.59 (0.34) .08 |
| b | Slope \* age | -0.02 (0.01) .01 |
| b | Slope \* education | -0.00 (0.01) .72 |
| b | Slope \* height | 0.00 (0.01) .81 |
| b | Slope \* smoking | -0.12 (0.08) .14 |
| b | Slope \* cardio | 0.02 (0.11) .86 |
| b | Slope \* diabetes | 0.18 (0.10) .08 |
| a | Var (Level) | 11035.97 (2146.10) <.01 |
| a | Var (Slope) | 296.88 (109.39) .01 |
|  | Var (Residual) | --- |
| b | Var (Level) | 3.28 (0.57) <.01 |
| b | Var (Slope) | 0.01 (0.02) .75 |
|  | Var (Residual) | --- |
| a | Covar (Level, Slope) | -957.47 (489.88) .05 |
| b | Covar (Level, Slope) | 0.03 (0.10) .77 |
|  | Correlation of Levels | 0.037 |
|  | Correlation of Slopes | 0.164 |
|  | Correlation of Residuals | NA |
|  | N | 324 |
|  | occasions | 5 |
|  | parameters | 43 |
|  | LL | -7,498 |
|  | AIC | 15,082 |
|  | BIC | 15,245 |

## categories

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | 54.30 (88.35) .54 |
| ab | Covar (Slopes) | 5.08 (4.99) .31 |
|  | Covar (Residuals) | --- |
| er | Corr (Levels) | 0.07 (0.11) .54 |
| er | Corr (Slopes) | 0.30 (0.28) .29 |
| er | Corr (Residuals) | 0.02 (0.06) .70 |
| a | Level | 395.94 (32.15) <.01 |
| a | Slope | -8.25 (9.60) .39 |
| a | Level \* age | -2.54 (1.80) .16 |
| a | Level \* education | 2.92 (2.65) .27 |
| a | Level \* height | 0.62 (1.30) .63 |
| a | Level \* smoking | -22.47 (19.17) .24 |
| a | Level \* cardio | -21.80 (24.67) .38 |
| a | Level \* diabetes | -11.04 (20.95) .60 |
| a | Slope \* age | -0.60 (0.56) .28 |
| a | Slope \* education | -0.28 (0.76) .71 |
| a | Slope \* height | 0.81 (0.46) .08 |
| a | Slope \* smoking | 2.78 (5.76) .63 |
| a | Slope \* cardio | 7.55 (9.12) .41 |
| a | Slope \* diabetes | -2.67 (6.89) .70 |
| b | Level | 34.32 (1.88) <.01 |
| b | Slope | -0.11 (0.51) .83 |
| b | Level \* age | -0.22 (0.12) .06 |
| b | Level \* education | 0.46 (0.16) <.01 |
| b | Level \* height | 0.19 (0.10) .06 |
| b | Level \* smoking | 2.13 (1.20) .07 |
| b | Level \* cardio | 3.13 (1.57) .05 |
| b | Level \* diabetes | -1.77 (1.32) .18 |
| b | Slope \* age | -0.05 (0.03) .10 |
| b | Slope \* education | 0.03 (0.04) .54 |
| b | Slope \* height | -0.08 (0.03) <.01 |
| b | Slope \* smoking | -0.24 (0.30) .44 |
| b | Slope \* cardio | 0.42 (0.39) .28 |
| b | Slope \* diabetes | -0.03 (0.37) .94 |
| a | Var (Level) | 11062.08 (2095.12) <.01 |
| a | Var (Slope) | 321.19 (119.49) .01 |
|  | Var (Residual) | --- |
| b | Var (Level) | 58.22 (7.57) <.01 |
| b | Var (Slope) | 0.90 (0.46) .05 |
|  | Var (Residual) | --- |
| a | Covar (Level, Slope) | -991.33 (496.53) .05 |
| b | Covar (Level, Slope) | -2.40 (1.73) .16 |
|  | Correlation of Levels | 0.068 |
|  | Correlation of Slopes | 0.299 |
|  | Correlation of Residuals | NA |
|  | N | 324 |
|  | occasions | 5 |
|  | parameters | 43 |
|  | LL | -8,917 |
|  | AIC | 17,919 |
|  | BIC | 18,082 |

## digit\_tot

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus | full |
| ab | Covar (Levels) | -70.53 (80.52) .38 | -79.11 (82.09) .34 | -103.44 (109.85) .35 | 3.86 (36.29) .92 | -81.43 (142.00) .57 |
| ab | Covar (Slopes) | -1.66 (2.07) .42 | -1.73 (2.25) .44 | -5.04 (4.14) .22 | 1.11 (2.25) .62 | -4.07 (5.22) .43 |
|  | Covar (Residuals) | --- | --- | --- | --- | --- |
| er | Corr (Levels) | --- | --- | --- | 0.01 (0.12) .92 | --- |
| er | Corr (Slopes) | --- | --- | --- | 0.26 (0.55) .63 | --- |
| er | Corr (Residuals) | --- | --- | --- | 0.07 (0.06) .28 | --- |
| a | Level | 454.79 (29.61) <.01 | 436.64 (46.16) <.01 | 412.12 (66.58) <.01 | 391.53 (31.82) <.01 | 477.18 (153.24) <.01 |
| a | Slope | -15.22 (9.10) .10 | -12.33 (13.96) .38 | -31.06 (27.15) .25 | -6.52 (9.74) .50 | -37.62 (40.31) .35 |
| a | Level \* age | -3.64 (3.32) .27 | -3.64 (3.30) .27 | -4.29 (5.78) .46 | -2.52 (1.77) .15 | -5.20 (7.38) .48 |
| a | Level \* education | --- | 2.45 (5.00) .62 | 4.90 (7.21) .50 | 3.26 (2.70) .23 | 3.62 (9.86) .71 |
| a | Level \* height | --- | --- | 3.31 (3.02) .27 | 0.50 (1.28) .70 | 3.48 (4.64) .45 |
| a | Level \* smoking | --- | --- | --- | -21.99 (19.09) .25 | -42.30 (110.78) .70 |
| a | Level \* cardio | --- | --- | --- | -22.99 (24.59) .35 | -30.08 (93.01) .75 |
| a | Level \* diabetes | --- | --- | --- | -9.18 (20.97) .66 | -1.12 (61.35) .98 |
| a | Slope \* age | -0.56 (0.94) .55 | -0.56 (1.01) .58 | 0.34 (2.25) .88 | -0.56 (0.55) .31 | 0.45 (2.93) .88 |
| a | Slope \* education | --- | -0.39 (1.08) .72 | 0.98 (1.57) .53 | -0.48 (0.76) .53 | 1.15 (2.42) .64 |
| a | Slope \* height | --- | --- | -0.19 (0.98) .85 | 0.95 (0.45) .03 | -0.20 (2.08) .92 |
| a | Slope \* smoking | --- | --- | --- | 2.08 (5.70) .71 | 5.88 (23.22) .80 |
| a | Slope \* cardio | --- | --- | --- | 8.48 (8.98) .34 | 9.02 (23.38) .70 |
| a | Slope \* diabetes | --- | --- | --- | -2.84 (7.19) .69 | -3.37 (20.12) .87 |
| b | Level | 13.76 (0.39) <.01 | 13.75 (0.40) <.01 | 14.09 (2.16) <.01 | 12.17 (0.87) <.01 | 13.69 (3.84) <.01 |
| b | Slope | 0.19 (0.08) .02 | 0.16 (0.11) .14 | -0.34 (0.42) .42 | 0.34 (0.20) .09 | -0.31 (0.80) .70 |
| b | Level \* age | -0.03 (0.04) .50 | -0.03 (0.04) .50 | -0.06 (0.14) .69 | 0.02 (0.04) .55 | -0.04 (0.19) .83 |
| b | Level \* education | --- | 0.00 (0.01) .98 | 0.29 (0.19) .13 | 0.27 (0.07) <.01 | 0.33 (0.26) .20 |
| b | Level \* height | --- | --- | -0.15 (0.07) .03 | -0.03 (0.03) .38 | -0.12 (0.09) .15 |
| b | Level \* smoking | --- | --- | --- | 1.00 (0.48) .04 | 0.91 (1.95) .64 |
| b | Level \* cardio | --- | --- | --- | -0.09 (0.49) .85 | 0.66 (1.78) .71 |
| b | Level \* diabetes | --- | --- | --- | -0.64 (0.51) .21 | -0.82 (1.92) .67 |
| b | Slope \* age | -0.00 (0.01) .62 | -0.00 (0.01) .63 | 0.02 (0.03) .49 | -0.01 (0.01) .31 | 0.02 (0.04) .67 |
| b | Slope \* education | --- | 0.00 (0.01) .70 | 0.01 (0.03) .84 | -0.01 (0.02) .71 | 0.00 (0.05) .98 |
| b | Slope \* height | --- | --- | 0.01 (0.01) .40 | 0.01 (0.01) .35 | 0.00 (0.02) .91 |
| b | Slope \* smoking | --- | --- | --- | -0.16 (0.11) .15 | -0.09 (0.38) .81 |
| b | Slope \* cardio | --- | --- | --- | 0.18 (0.12) .14 | 0.03 (0.64) .96 |
| b | Slope \* diabetes | --- | --- | --- | 0.01 (0.12) .91 | -0.10 (0.58) .86 |
| a | Var (Level) | 12724.37 (3116.69) <.01 | 12613.78 (3355.28) <.01 | 12625.82 (5395.72) .02 | 11186.26 (2140.02) <.01 | 12472.82 (8409.86) .14 |
| a | Var (Slope) | 282.59 (137.18) .04 | 288.30 (153.70) .06 | 375.76 (442.97) .40 | 310.31 (118.53) .01 | 366.50 (775.59) .64 |
|  | Var (Residual) | --- | --- | --- | --- | --- |
| b | Var (Level) | 12.48 (1.25) <.01 | 12.48 (1.25) <.01 | 11.10 (3.37) <.01 | 8.84 (1.21) <.01 | 10.46 (4.10) .01 |
| b | Var (Slope) | 0.02 (0.03) .40 | 0.02 (0.03) .37 | 0.10 (0.08) .21 | 0.06 (0.06) .29 | 0.05 (0.12) .66 |
|  | Var (Residual) | --- | --- | --- | --- | --- |
| a | Covar (Level, Slope) | -980.03 (477.68) .04 | -985.11 (503.33) .05 | -931.01 (1187.26) .43 | -1014.17 (518.90) .05 | -1003.17 (1990.62) .61 |
| b | Covar (Level, Slope) | -0.34 (0.19) .07 | -0.36 (0.19) .06 | -0.62 (0.55) .26 | -0.32 (0.24) .19 | -0.51 (0.77) .50 |
|  | Correlation of Levels | -0.18 | -0.20 | -0.28 | 0.012 | -0.23 |
|  | Correlation of Slopes | -0.67 | -0.66 | -0.81 | 0.262 | -0.94 |
|  | Correlation of Residuals | NA | NA | NA | NA | NA |
|  | N | 379 | 379 | 72 | 324 | 72 |
|  | occasions | 8 | 8 | 7 | 5 | 8 |
|  | parameters | 21 | 25 | 29 | 43 | 45 |
|  | LL | -4,878 | -4,877 | -2,147 | -7,880 | -2,175 |
|  | AIC | 9,798 | 9,805 | 4,352 | 15,847 | 4,439 |
|  | BIC | 9,881 | 9,903 | 4,418 | 16,009 | 4,542 |

## fas

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | 145.88 (108.60) .18 |
| ab | Covar (Slopes) | -2.03 (6.53) .76 |
|  | Covar (Residuals) | --- |
| er | Corr (Levels) | 0.14 (0.11) .17 |
| er | Corr (Slopes) | -0.42 (1.79) .81 |
| er | Corr (Residuals) | 0.02 (0.07) .79 |
| a | Level | 393.67 (32.12) <.01 |
| a | Slope | -7.11 (9.59) .46 |
| a | Level \* age | -2.56 (1.84) .16 |
| a | Level \* education | 3.33 (2.63) .20 |
| a | Level \* height | 0.53 (1.27) .68 |
| a | Level \* smoking | -21.61 (19.15) .26 |
| a | Level \* cardio | -24.19 (24.86) .33 |
| a | Level \* diabetes | -10.89 (21.00) .60 |
| a | Slope \* age | -0.56 (0.55) .31 |
| a | Slope \* education | -0.49 (0.74) .51 |
| a | Slope \* height | 0.94 (0.45) .04 |
| a | Slope \* smoking | 2.08 (5.65) .71 |
| a | Slope \* cardio | 8.56 (9.24) .35 |
| a | Slope \* diabetes | -2.75 (7.00) .69 |
| b | Level | 24.22 (2.76) <.01 |
| b | Slope | 1.17 (0.54) .03 |
| b | Level \* age | 0.29 (0.14) .05 |
| b | Level \* education | 1.28 (0.21) <.01 |
| b | Level \* height | 0.18 (0.12) .15 |
| b | Level \* smoking | 1.50 (1.48) .31 |
| b | Level \* cardio | 1.81 (1.88) .34 |
| b | Level \* diabetes | -3.27 (1.53) .03 |
| b | Slope \* age | -0.08 (0.04) .02 |
| b | Slope \* education | -0.03 (0.04) .50 |
| b | Slope \* height | -0.03 (0.02) .25 |
| b | Slope \* smoking | 0.01 (0.32) .98 |
| b | Slope \* cardio | 0.58 (0.36) .10 |
| b | Slope \* diabetes | -0.04 (0.32) .89 |
| a | Var (Level) | 11027.50 (2148.20) <.01 |
| a | Var (Slope) | 302.36 (117.95) .01 |
|  | Var (Residual) | --- |
| b | Var (Level) | 91.38 (11.79) <.01 |
| b | Var (Slope) | 0.08 (0.40) .85 |
|  | Var (Residual) | --- |
| a | Covar (Level, Slope) | -966.35 (510.96) .06 |
| b | Covar (Level, Slope) | 1.94 (1.76) .27 |
|  | Correlation of Levels | 0.15 |
|  | Correlation of Slopes | -0.42 |
|  | Correlation of Residuals | NA |
|  | N | 324 |
|  | occasions | 5 |
|  | parameters | 43 |
|  | LL | -9,052 |
|  | AIC | 18,191 |
|  | BIC | 18,353 |

## logic\_tot

Gender = *male*; Process (a) = *pef*; Process (b) = *logic\_tot*

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | 35.38 (61.57) .57 |
| ab | Covar (Slopes) | 2.85 (4.29) .51 |
|  | Covar (Residuals) | --- |
| er | Corr (Levels) | 0.07 (0.12) .57 |
| er | Corr (Slopes) | 0.30 (0.46) .51 |
| er | Corr (Residuals) | -0.03 (0.07) .63 |
| a | Level | 393.52 (31.82) <.01 |
| a | Slope | -7.07 (9.95) .48 |
| a | Level \* age | -2.53 (1.81) .16 |
| a | Level \* education | 3.10 (2.72) .25 |
| a | Level \* height | 0.61 (1.30) .64 |
| a | Level \* smoking | -21.68 (19.08) .26 |
| a | Level \* cardio | -21.95 (24.80) .38 |
| a | Level \* diabetes | -10.76 (21.27) .61 |
| a | Slope \* age | -0.58 (0.55) .29 |
| a | Slope \* education | -0.40 (0.78) .61 |
| a | Slope \* height | 0.90 (0.46) .05 |
| a | Slope \* smoking | 2.12 (5.73) .71 |
| a | Slope \* cardio | 7.82 (9.24) .40 |
| a | Slope \* diabetes | -2.44 (6.93) .72 |
| b | Level | 16.26 (1.50) <.01 |
| b | Slope | 1.26 (0.39) <.01 |
| b | Level \* age | -0.04 (0.08) .58 |
| b | Level \* education | 0.56 (0.12) <.01 |
| b | Level \* height | 0.05 (0.07) .45 |
| b | Level \* smoking | 1.52 (0.90) .09 |
| b | Level \* cardio | 1.47 (1.03) .15 |
| b | Level \* diabetes | -0.73 (0.99) .46 |
| b | Slope \* age | -0.10 (0.03) <.01 |
| b | Slope \* education | -0.07 (0.03) .05 |
| b | Slope \* height | -0.01 (0.02) .71 |
| b | Slope \* smoking | -0.22 (0.25) .38 |
| b | Slope \* cardio | 0.10 (0.29) .73 |
| b | Slope \* diabetes | 0.54 (0.31) .08 |
| a | Var (Level) | 11038.95 (2173.96) <.01 |
| a | Var (Slope) | 307.58 (119.55) .01 |
|  | Var (Residual) | --- |
| b | Var (Level) | 25.64 (4.22) <.01 |
| b | Var (Slope) | 0.30 (0.27) .27 |
|  | Var (Residual) | --- |
| a | Covar (Level, Slope) | -981.30 (507.34) .05 |
| b | Covar (Level, Slope) | -0.50 (1.04) .63 |
|  | Correlation of Levels | 0.067 |
|  | Correlation of Slopes | 0.297 |
|  | Correlation of Residuals | NA |
|  | N | 324 |
|  | occasions | 5 |
|  | parameters | 43 |
|  | LL | -8,634 |
|  | AIC | 17,355 |
|  | BIC | 17,517 |

## mmse

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
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Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | 25.56 (13.13) .05 |
| ab | Covar (Slopes) | 0.96 (0.97) .32 |
|  | Covar (Residuals) | --- |
| er | Corr (Levels) | 0.31 (0.16) .05 |
| er | Corr (Slopes) | 0.76 (1.10) .49 |
| er | Corr (Residuals) | -0.05 (0.06) .42 |
| a | Level | 389.62 (32.14) <.01 |
| a | Slope | -6.27 (9.72) .52 |
| a | Level \* age | -2.45 (1.73) .16 |
| a | Level \* education | 3.38 (2.71) .21 |
| a | Level \* height | 0.57 (1.30) .66 |
| a | Level \* smoking | -19.32 (19.65) .32 |
| a | Level \* cardio | -22.47 (25.21) .37 |
| a | Level \* diabetes | -11.46 (21.04) .59 |
| a | Slope \* age | -0.59 (0.54) .27 |
| a | Slope \* education | -0.46 (0.79) .56 |
| a | Slope \* height | 0.92 (0.45) .04 |
| a | Slope \* smoking | 1.63 (5.66) .77 |
| a | Slope \* cardio | 7.67 (9.36) .41 |
| a | Slope \* diabetes | -2.27 (6.86) .74 |
| b | Level | 26.17 (0.25) <.01 |
| b | Slope | 0.12 (0.08) .14 |
| b | Level \* age | -0.01 (0.01) .34 |
| b | Level \* education | 0.11 (0.02) <.01 |
| b | Level \* height | -0.01 (0.01) .52 |
| b | Level \* smoking | -0.06 (0.17) .73 |
| b | Level \* cardio | 0.16 (0.20) .43 |
| b | Level \* diabetes | -0.32 (0.16) .04 |
| b | Slope \* age | -0.00 (0.00) .60 |
| b | Slope \* education | -0.02 (0.01) .03 |
| b | Slope \* height | 0.00 (0.00) .61 |
| b | Slope \* smoking | 0.05 (0.05) .36 |
| b | Slope \* cardio | -0.02 (0.07) .72 |
| b | Slope \* diabetes | 0.06 (0.05) .23 |
| a | Var (Level) | 11064.40 (2163.48) <.01 |
| a | Var (Slope) | 318.93 (122.49) .01 |
|  | Var (Residual) | --- |
| b | Var (Level) | 0.63 (0.14) <.01 |
| b | Var (Slope) | 0.00 (0.01) .65 |
|  | Var (Residual) | --- |
| a | Covar (Level, Slope) | -1007.55 (520.23) .05 |
| b | Covar (Level, Slope) | -0.00 (0.04) .99 |
|  | Correlation of Levels | 0.31 |
|  | Correlation of Slopes | 0.76 |
|  | Correlation of Residuals | NA |
|  | N | 324 |
|  | occasions | 5 |
|  | parameters | 43 |
|  | LL | -6,920 |
|  | AIC | 13,926 |
|  | BIC | 14,088 |

## symbol

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

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Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| process | label | a | ae | aeh | aehplus | full |
| ab | Covar (Levels) | 202.38 (275.03) .46 | 254.31 (324.72) .43 | 22.35 (219.05) .92 | 444.24 (125.41) <.01 | -11.37 (340.76) .97 |
| ab | Covar (Slopes) | 2.17 (6.18) .72 | 11.27 (11.71) .34 | -5.65 (15.36) .71 | 17.97 (9.06) .05 | -4.70 (22.26) .83 |
|  | Covar (Residuals) | --- | --- | --- | --- | --- |
| er | Corr (Levels) | --- | --- | --- | 0.40 (0.10) <.01 | --- |
| er | Corr (Slopes) | --- | --- | --- | 0.67 (0.32) .04 | --- |
| er | Corr (Residuals) | --- | --- | --- | -0.13 (0.07) .04 | --- |
| a | Level | 449.90 (33.34) <.01 | 439.83 (55.76) <.01 | 407.42 (64.29) <.01 | 387.77 (31.61) <.01 | 464.53 (143.13) <.01 |
| a | Slope | -14.85 (9.59) .12 | -12.82 (18.01) .48 | -26.04 (33.48) .44 | -5.19 (9.81) .60 | -26.95 (47.63) .57 |
| a | Level \* age | -4.76 (3.32) .15 | -4.45 (3.68) .23 | -4.66 (4.87) .34 | -2.10 (1.76) .23 | -5.39 (5.87) .36 |
| a | Level \* education | --- | 0.40 (5.41) .94 | 6.08 (6.40) .34 | 3.02 (2.66) .26 | 5.15 (10.03) .61 |
| a | Level \* height | --- | --- | 3.20 (2.81) .25 | 0.77 (1.26) .54 | 3.20 (3.90) .41 |
| a | Level \* smoking | --- | --- | --- | -21.73 (18.93) .25 | -35.26 (87.59) .69 |
| a | Level \* cardio | --- | --- | --- | -25.84 (24.76) .30 | -14.15 (84.51) .87 |
| a | Level \* diabetes | --- | --- | --- | -11.75 (20.66) .57 | -12.34 (59.41) .83 |
| a | Slope \* age | -0.24 (0.95) .80 | -0.40 (1.19) .74 | 0.35 (2.02) .86 | -0.73 (0.55) .18 | 0.39 (2.67) .88 |
| a | Slope \* education | --- | 0.05 (1.41) .97 | 0.22 (2.00) .91 | -0.37 (0.77) .63 | 0.17 (2.46) .94 |
| a | Slope \* height | --- | --- | -0.20 (1.07) .85 | 0.80 (0.44) .07 | -0.11 (1.59) .95 |
| a | Slope \* smoking | --- | --- | --- | 1.95 (5.71) .73 | 2.26 (22.21) .92 |
| a | Slope \* cardio | --- | --- | --- | 9.41 (9.51) .32 | -4.20 (47.52) .93 |
| a | Slope \* diabetes | --- | --- | --- | -1.82 (6.91) .79 | 1.49 (26.15) .95 |
| b | Level | 39.50 (1.32) <.01 | 38.47 (1.48) <.01 | 39.17 (4.82) <.01 | 33.71 (2.67) <.01 | 40.53 (9.49) <.01 |
| b | Slope | 0.47 (0.34) .16 | 1.05 (0.67) .12 | 0.68 (1.62) .68 | 2.39 (0.65) <.01 | 0.49 (2.27) .83 |
| b | Level \* age | -0.29 (0.14) .04 | -0.26 (0.14) .06 | -0.20 (0.32) .53 | -0.09 (0.16) .57 | -0.18 (0.39) .64 |
| b | Level \* education | --- | -0.02 (0.08) .83 | 1.27 (0.58) .03 | 1.44 (0.20) <.01 | 1.25 (0.74) .09 |
| b | Level \* height | --- | --- | 0.09 (0.25) .73 | 0.16 (0.14) .24 | 0.09 (0.26) .73 |
| b | Level \* smoking | --- | --- | --- | 1.98 (1.67) .24 | 0.13 (5.51) .98 |
| b | Level \* cardio | --- | --- | --- | 0.40 (1.88) .83 | -4.51 (6.34) .48 |
| b | Level \* diabetes | --- | --- | --- | -7.01 (1.69) <.01 | -4.21 (4.69) .37 |
| b | Slope \* age | -0.06 (0.04) .11 | -0.07 (0.04) .09 | -0.02 (0.08) .83 | -0.13 (0.04) <.01 | -0.02 (0.10) .87 |
| b | Slope \* education | --- | 0.01 (0.08) .91 | -0.14 (0.16) .39 | -0.14 (0.06) .02 | -0.14 (0.20) .50 |
| b | Slope \* height | --- | --- | 0.01 (0.06) .84 | -0.04 (0.04) .25 | 0.01 (0.08) .86 |
| b | Slope \* smoking | --- | --- | --- | -0.21 (0.42) .62 | 0.09 (1.10) .94 |
| b | Slope \* cardio | --- | --- | --- | 0.42 (0.51) .41 | 0.42 (1.71) .81 |
| b | Slope \* diabetes | --- | --- | --- | 0.20 (0.42) .64 | 0.14 (1.32) .91 |
| a | Var (Level) | 12660.93 (3253.44) <.01 | 11511.62 (3715.95) <.01 | 11004.88 (4343.89) .01 | 11101.78 (2077.44) <.01 | 10422.16 (6299.55) .10 |
| a | Var (Slope) | 238.03 (126.63) .06 | 216.25 (303.90) .48 | 154.46 (356.16) .66 | 339.22 (121.49) <.01 | 143.87 (587.66) .81 |
|  | Var (Residual) | --- | --- | --- | --- | --- |
| b | Var (Level) | 156.18 (16.60) <.01 | 147.53 (16.95) <.01 | 75.96 (27.20) <.01 | 112.95 (13.27) <.01 | 69.55 (34.24) .04 |
| b | Var (Slope) | 1.44 (0.38) <.01 | 2.02 (0.88) .02 | 1.94 (1.40) .17 | 2.10 (0.64) <.01 | 1.85 (1.81) .31 |
|  | Var (Residual) | --- | --- | --- | --- | --- |
| a | Covar (Level, Slope) | -883.37 (461.78) .06 | -693.83 (897.24) .44 | -394.50 (907.27) .66 | -1051.22 (497.56) .04 | -365.61 (1543.45) .81 |
| b | Covar (Level, Slope) | -3.58 (2.42) .14 | -2.40 (3.71) .52 | -0.59 (4.64) .90 | -4.79 (2.34) .04 | -0.09 (5.94) .99 |
|  | Correlation of Levels | 0.14 | 0.20 | 0.024 | 0.40 | -0.013 |
|  | Correlation of Slopes | 0.12 | 0.54 | -0.327 | 0.67 | -0.288 |
|  | Correlation of Residuals | NA | NA | NA | NA | NA |
|  | N | 377 | 377 | 72 | 324 | 72 |
|  | occasions | 9 | 5 | 6 | 5 | 6 |
|  | parameters | 21 | 25 | 29 | 43 | 45 |
|  | LL | -6,302 | -5,301 | -2,420 | -9,189 | -2,416 |
|  | AIC | 12,646 | 10,651 | 4,898 | 18,465 | 4,922 |
|  | BIC | 12,728 | 10,750 | 4,964 | 18,627 | 5,024 |

## trailsb

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| process | label | ae | aeh | aehplus | full |
| ab | Covar (Levels) | -9.52 (1556.25) .99 | 956.14 (1283.00) .46 | -2188.20 (674.13) <.01 | 1129.70 (2255.92) .62 |
| ab | Covar (Slopes) | 20.77 (31.42) .51 | 11.70 (68.11) .86 | -81.33 (52.55) .12 | 20.02 (163.04) .90 |
|  | Covar (Residuals) | --- | --- | --- | --- |
| er | Corr (Levels) | --- | --- | -0.42 (0.11) <.01 | --- |
| er | Corr (Slopes) | --- | --- | -0.96 (0.55) .08 | --- |
| er | Corr (Residuals) | --- | --- | 0.00 (0.07) .98 | --- |
| a | Level | 449.46 (48.72) <.01 | 413.57 (61.67) <.01 | 401.74 (33.10) <.01 | 467.80 (151.55) <.01 |
| a | Slope | -16.65 (13.61) .22 | -29.16 (30.96) .35 | -9.31 (9.91) .35 | -29.38 (50.40) .56 |
| a | Level \* age | -4.54 (3.23) .16 | -4.87 (5.25) .35 | -2.67 (1.76) .13 | -5.54 (8.93) .54 |
| a | Level \* education | 1.16 (5.44) .83 | 5.80 (6.35) .36 | 2.46 (2.77) .37 | 4.81 (8.00) .55 |
| a | Level \* height | --- | 3.09 (3.19) .33 | 0.60 (1.25) .63 | 3.10 (4.75) .52 |
| a | Level \* smoking | --- | --- | -21.68 (19.17) .26 | -35.41 (103.71) .73 |
| a | Level \* cardio | --- | --- | -22.02 (25.07) .38 | -18.28 (77.44) .81 |
| a | Level \* diabetes | --- | --- | -10.85 (20.65) .60 | 0.61 (77.01) .99 |
| a | Slope \* age | -0.19 (0.88) .83 | 0.43 (2.02) .83 | -0.52 (0.56) .36 | 0.44 (3.12) .89 |
| a | Slope \* education | -0.01 (1.19) .99 | 0.40 (1.97) .84 | -0.23 (0.78) .76 | 0.38 (2.20) .86 |
| a | Slope \* height | --- | -0.12 (1.03) .91 | 0.90 (0.42) .03 | -0.07 (1.61) .97 |
| a | Slope \* smoking | --- | --- | 2.00 (5.61) .72 | 3.21 (24.96) .90 |
| a | Slope \* cardio | --- | --- | 7.56 (9.75) .44 | -1.17 (24.21) .96 |
| a | Slope \* diabetes | --- | --- | -2.59 (6.73) .70 | -5.08 (33.70) .88 |
| b | Level | 131.50 (9.85) <.01 | 159.64 (30.56) <.01 | 151.72 (13.30) <.01 | 160.29 (70.48) .02 |
| b | Slope | 2.26 (3.10) .47 | -0.02 (9.19) .99 | 1.51 (3.34) .65 | 2.94 (17.25) .86 |
| b | Level \* age | 1.90 (0.82) .02 | 1.11 (2.27) .62 | 1.09 (0.76) .15 | 1.09 (3.22) .74 |
| b | Level \* education | 0.29 (0.37) .43 | -6.50 (3.32) .05 | -4.56 (1.15) <.01 | -6.31 (5.10) .22 |
| b | Level \* height | --- | -0.66 (1.39) .64 | -1.27 (0.68) .06 | -0.57 (2.04) .78 |
| b | Level \* smoking | --- | --- | -0.15 (8.86) .99 | -3.09 (45.38) .95 |
| b | Level \* cardio | --- | --- | -2.76 (10.05) .78 | 24.23 (34.58) .48 |
| b | Level \* diabetes | --- | --- | 21.96 (8.58) .01 | 3.59 (25.26) .89 |
| b | Slope \* age | 0.14 (0.20) .49 | 0.19 (0.57) .74 | 0.52 (0.21) .02 | 0.10 (0.74) .89 |
| b | Slope \* education | -0.18 (0.34) .60 | 0.30 (0.82) .71 | -0.17 (0.32) .59 | 0.17 (1.08) .88 |
| b | Slope \* height | --- | 0.42 (0.32) .19 | 0.39 (0.23) .08 | 0.38 (0.48) .43 |
| b | Slope \* smoking | --- | --- | -4.40 (2.36) .06 | -1.94 (11.21) .86 |
| b | Slope \* cardio | --- | --- | -1.39 (2.40) .56 | -9.06 (11.69) .44 |
| b | Slope \* diabetes | --- | --- | -0.18 (2.47) .94 | 4.74 (7.00) .50 |
| a | Var (Level) | 12270.35 (3595.63) <.01 | 12393.75 (4933.39) .01 | 11020.67 (2100.83) <.01 | 11597.20 (5921.83) .05 |
| a | Var (Slope) | 203.13 (111.33) .07 | 244.43 (352.12) .49 | 295.58 (112.59) .01 | 226.60 (632.86) .72 |
|  | Var (Residual) | --- | --- | --- | --- |
| b | Var (Level) | 3968.80 (636.03) <.01 | 1632.33 (733.60) .03 | 2453.46 (368.38) <.01 | 1526.70 (862.93) .08 |
| b | Var (Slope) | 35.32 (14.12) .01 | 34.69 (29.95) .25 | 24.11 (21.10) .25 | 13.39 (37.07) .72 |
|  | Var (Residual) | --- | --- | --- | --- |
| a | Covar (Level, Slope) | -760.94 (503.61) .13 | -812.64 (1069.79) .45 | -953.13 (489.56) .05 | -695.74 (1812.17) .70 |
| b | Covar (Level, Slope) | -147.56 (91.75) .11 | -106.16 (171.63) .54 | -91.76 (77.75) .24 | -67.38 (195.07) .73 |
|  | Correlation of Levels | -0.0014 | 0.21 | -0.42 | 0.27 |
|  | Correlation of Slopes | 0.2452 | 0.13 | -0.96 | 0.36 |
|  | Correlation of Residuals | NA | NA | NA | NA |
|  | N | 368 | 72 | 324 | 72 |
|  | occasions | 9 | 8 | 5 | 8 |
|  | parameters | 25 | 29 | 43 | 45 |
|  | LL | -8,270 | -3,279 | -11,079 | -3,271 |
|  | AIC | 16,590 | 6,616 | 22,245 | 6,631 |
|  | BIC | 16,688 | 6,682 | 22,407 | 6,734 |

## waisvocab

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | -12.89 (116.46) .91 |
| ab | Covar (Slopes) | -7.50 (9.32) .42 |
|  | Covar (Residuals) | --- |
| er | Corr (Levels) | -0.01 (0.13) .91 |
| er | Corr (Slopes) | -0.58 (0.72) .42 |
| er | Corr (Residuals) | -0.02 (0.07) .81 |
| a | Level | 389.70 (31.95) <.01 |
| a | Slope | -6.01 (9.87) .54 |
| a | Level \* age | -2.46 (1.74) .16 |
| a | Level \* education | 3.37 (2.70) .21 |
| a | Level \* height | 0.49 (1.29) .70 |
| a | Level \* smoking | -22.03 (19.23) .25 |
| a | Level \* cardio | -22.14 (24.05) .36 |
| a | Level \* diabetes | -9.30 (22.08) .67 |
| a | Slope \* age | -0.57 (0.55) .29 |
| a | Slope \* education | -0.48 (0.77) .53 |
| a | Slope \* height | 0.97 (0.44) .03 |
| a | Slope \* smoking | 2.16 (5.65) .70 |
| a | Slope \* cardio | 7.83 (8.84) .38 |
| a | Slope \* diabetes | -3.43 (7.10) .63 |
| b | Level | 34.41 (2.48) <.01 |
| b | Slope | 0.64 (0.57) .26 |
| b | Level \* age | 0.18 (0.14) .19 |
| b | Level \* education | 1.66 (0.21) <.01 |
| b | Level \* height | 0.10 (0.12) .41 |
| b | Level \* smoking | 1.53 (1.53) .32 |
| b | Level \* cardio | 0.95 (1.68) .57 |
| b | Level \* diabetes | -2.00 (1.54) .20 |
| b | Slope \* age | -0.07 (0.04) .06 |
| b | Slope \* education | -0.01 (0.05) .80 |
| b | Slope \* height | -0.03 (0.04) .43 |
| b | Slope \* smoking | -0.36 (0.40) .36 |
| b | Slope \* cardio | -0.53 (0.43) .22 |
| b | Slope \* diabetes | 0.00 (0.39) .99 |
| a | Var (Level) | 11012.35 (2219.37) <.01 |
| a | Var (Slope) | 303.80 (119.14) .01 |
|  | Var (Residual) | --- |
| b | Var (Level) | 70.02 (12.69) <.01 |
| b | Var (Slope) | 0.54 (0.75) .47 |
|  | Var (Residual) | --- |
| a | Covar (Level, Slope) | -971.59 (516.76) .06 |
| b | Covar (Level, Slope) | -2.93 (2.71) .28 |
|  | Correlation of Levels | -0.015 |
|  | Correlation of Slopes | -0.583 |
|  | Correlation of Residuals | NA |
|  | N | 324 |
|  | occasions | 5 |
|  | parameters | 43 |
|  | LL | -9,249 |
|  | AIC | 18,584 |
|  | BIC | 18,746 |

## word\_im

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

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf  
  
Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to min; returning Inf

Warning in FUN(newX[, i], ...): no non-missing arguments to max; returning -Inf

|  |  |  |
| --- | --- | --- |
| process | label | aehplus |
| ab | Covar (Levels) | 31.41 (55.06) .57 |
| ab | Covar (Slopes) | 3.54 (3.81) .35 |
|  | Covar (Residuals) | --- |
| er | Corr (Levels) | 0.07 (0.12) .57 |
| er | Corr (Slopes) | 0.38 (0.42) .37 |
| er | Corr (Residuals) | 0.03 (0.08) .68 |
| a | Level | 396.47 (32.16) <.01 |
| a | Slope | -8.54 (9.59) .37 |
| a | Level \* age | -2.55 (1.75) .14 |
| a | Level \* education | 2.98 (2.64) .26 |
| a | Level \* height | 0.70 (1.28) .58 |
| a | Level \* smoking | -21.74 (18.91) .25 |
| a | Level \* cardio | -22.67 (24.18) .35 |
| a | Level \* diabetes | -12.30 (20.91) .56 |
| a | Slope \* age | -0.57 (0.53) .29 |
| a | Slope \* education | -0.35 (0.74) .63 |
| a | Slope \* height | 0.88 (0.44) .04 |
| a | Slope \* smoking | 2.27 (5.75) .69 |
| a | Slope \* cardio | 8.38 (8.74) .34 |
| a | Slope \* diabetes | -1.75 (6.73) .79 |
| b | Level | 33.19 (1.33) <.01 |
| b | Slope | 0.05 (0.37) .88 |
| b | Level \* age | -0.32 (0.07) <.01 |
| b | Level \* education | 0.05 (0.11) .63 |
| b | Level \* height | -0.01 (0.06) .82 |
| b | Level \* smoking | -0.87 (0.77) .26 |
| b | Level \* cardio | 2.46 (0.96) .01 |
| b | Level \* diabetes | -1.45 (0.81) .07 |
| b | Slope \* age | -0.02 (0.02) .39 |
| b | Slope \* education | -0.01 (0.03) .74 |
| b | Slope \* height | -0.03 (0.02) .07 |
| b | Slope \* smoking | 0.29 (0.22) .18 |
| b | Slope \* cardio | -0.07 (0.26) .78 |
| b | Slope \* diabetes | 0.40 (0.25) .12 |
| a | Var (Level) | 10970.46 (2158.14) <.01 |
| a | Var (Slope) | 297.08 (114.47) .01 |
|  | Var (Residual) | --- |
| b | Var (Level) | 18.33 (3.35) <.01 |
| b | Var (Slope) | 0.30 (0.23) .20 |
|  | Var (Residual) | --- |
| a | Covar (Level, Slope) | -955.32 (496.09) .05 |
| b | Covar (Level, Slope) | -0.57 (0.75) .44 |
|  | Correlation of Levels | 0.07 |
|  | Correlation of Slopes | 0.38 |
|  | Correlation of Residuals | NA |
|  | N | 324 |
|  | occasions | 5 |
|  | parameters | 43 |
|  | LL | -8,549 |
|  | AIC | 17,183 |
|  | BIC | 17,346 |

## Summary

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

Computed correlations:

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Levels | block | 0.31 |
| Correlation of Levels | bnt | 0.04 |
| Correlation of Levels | categories | 0.07 |
| Correlation of Levels | digit\_tot | 0.01 |
| Correlation of Levels | fas | 0.15 |
| Correlation of Levels | logic\_tot | 0.07 |
| Correlation of Levels | mmse | 0.31 |
| Correlation of Levels | symbol | 0.40 |
| Correlation of Levels | trailsb | -0.42 |
| Correlation of Levels | waisvocab | -0.01 |
| Correlation of Levels | word\_im | 0.07 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Slopes | block | 0.58 |
| Correlation of Slopes | bnt | 0.16 |
| Correlation of Slopes | categories | 0.30 |
| Correlation of Slopes | digit\_tot | 0.26 |
| Correlation of Slopes | fas | -0.42 |
| Correlation of Slopes | logic\_tot | 0.30 |
| Correlation of Slopes | mmse | 0.76 |
| Correlation of Slopes | symbol | 0.67 |
| Correlation of Slopes | trailsb | -0.96 |
| Correlation of Slopes | waisvocab | -0.58 |
| Correlation of Slopes | word\_im | 0.38 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Correlation of Residuals | block | -0.11 |
| Correlation of Residuals | bnt | 0.05 |
| Correlation of Residuals | categories | 0.02 |
| Correlation of Residuals | digit\_tot | 0.07 |
| Correlation of Residuals | fas | 0.02 |
| Correlation of Residuals | logic\_tot | -0.03 |
| Correlation of Residuals | mmse | -0.05 |
| Correlation of Residuals | symbol | -0.13 |
| Correlation of Residuals | trailsb | 0.00 |
| Correlation of Residuals | waisvocab | -0.02 |
| Correlation of Residuals | word\_im | 0.03 |

P-values for corresponding covariances:

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Covariance of Levels | block | 0.01 |
| Covariance of Levels | bnt | 0.79 |
| Covariance of Levels | categories | 0.54 |
| Covariance of Levels | digit\_tot | 0.92 |
| Covariance of Levels | fas | 0.18 |
| Covariance of Levels | logic\_tot | 0.57 |
| Covariance of Levels | mmse | 0.05 |
| Covariance of Levels | symbol | 0.00 |
| Covariance of Levels | trailsb | 0.00 |
| Covariance of Levels | waisvocab | 0.91 |
| Covariance of Levels | word\_im | 0.57 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Covariance of Slopes | block | 0.34 |
| Covariance of Slopes | bnt | 0.91 |
| Covariance of Slopes | categories | 0.31 |
| Covariance of Slopes | digit\_tot | 0.62 |
| Covariance of Slopes | fas | 0.76 |
| Covariance of Slopes | logic\_tot | 0.51 |
| Covariance of Slopes | mmse | 0.32 |
| Covariance of Slopes | symbol | 0.05 |
| Covariance of Slopes | trailsb | 0.12 |
| Covariance of Slopes | waisvocab | 0.42 |
| Covariance of Slopes | word\_im | 0.35 |

|  |  |  |
| --- | --- | --- |
| label | process\_b | aehplus |
| Covariance of Residuals | block | 0.11 |
| Covariance of Residuals | bnt | 0.40 |
| Covariance of Residuals | categories | 0.70 |
| Covariance of Residuals | digit\_tot | 0.28 |
| Covariance of Residuals | fas | 0.79 |
| Covariance of Residuals | logic\_tot | 0.63 |
| Covariance of Residuals | mmse | 0.42 |
| Covariance of Residuals | symbol | 0.05 |
| Covariance of Residuals | trailsb | 0.98 |
| Covariance of Residuals | waisvocab | 0.81 |
| Covariance of Residuals | word\_im | 0.68 |

#Session Info

R version 3.3.2 (2016-10-31)  
Platform: x86\_64-w64-mingw32/x64 (64-bit)  
Running under: Windows >= 8 x64 (build 9200)  
  
locale:  
[1] LC\_COLLATE=English\_United States.1252 LC\_CTYPE=English\_United States.1252 LC\_MONETARY=English\_United States.1252  
[4] LC\_NUMERIC=C LC\_TIME=English\_United States.1252   
  
attached base packages:  
[1] grid stats graphics grDevices utils datasets methods base   
  
other attached packages:  
[1] knitr\_1.15.1 dplyr\_0.5.0 forestplot\_1.7 checkmate\_1.8.2 ggplot2\_2.2.1 magrittr\_1.5   
  
loaded via a namespace (and not attached):  
 [1] Rcpp\_0.12.9 devtools\_1.13.1 munsell\_0.4.3 testit\_0.6 colorspace\_1.3-2 R6\_2.2.0   
 [7] httr\_1.2.1 highr\_0.6 stringr\_1.1.0 plyr\_1.8.4 tools\_3.3.2 DT\_0.2   
[13] gtable\_0.2.0 plotrix\_3.6-4 DBI\_0.5-1 git2r\_0.18.0 withr\_1.0.2 htmltools\_0.3.5   
[19] yaml\_2.1.14 lazyeval\_0.2.0 assertthat\_0.1 digest\_0.6.12 rprojroot\_1.2 tibble\_1.2   
[25] readr\_1.0.0 tidyr\_0.6.1 htmlwidgets\_0.8 curl\_2.3 rsconnect\_0.7 memoise\_1.0.0   
[31] evaluate\_0.10 rmarkdown\_1.3 stringi\_1.1.2 scales\_0.4.1 backports\_1.0.5 jsonlite\_1.2