**SUPPLEMENTARY MATERIAL: RESULTS FROM INDEPENDENT INTERVENTION ANALYSES**

Table . Independent Intervention Fixed effect Model Estimates

|  |  |  |  |  |  |  |  |  |
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| Variable | Null 3s | MVIC 3s | TT 3s | TT/MVIC 3s | Null 6s | MVIC 6s | TT 6s | TT/MVIC 6s |
| Fixed effects |  |  |  |  |  |  |  |  |
| (Intercept) | 83.013\*\*\* se: 5.652 pval: <0.001 (73.58:91.98) | 83.02\*\*\* se: 5.609 pval: <0.001 (73.49:93.45) | 83.138\*\*\* se: 4.99 pval: <0.001 (73.52:91.12) | 83.013\*\*\* se: 4.71 pval: <0.001 (74.7:90.87) | 78.556\*\*\* se: 5.851 pval: <0.001 (69.04:88.18) | 78.556\*\*\* se: 5.801 pval: <0.001 (68.45:90.12) | 78.556\*\*\* se: 4.487 pval: <0.001 (69.81:86.42) | 78.556\*\*\* se: 3.624 pval: <0.001 (72.12:85.13) |
| *Baseline effects* |  |  |  |  |  |  |  |  |
| baseline | - | 0.058 se: 0.131 pval: 0.668 (-0.16:0.32) | -2.55 se: 1.206 pval: 0.053 (-5.53:1.26) | -6.937\* se: 2.631 pval: 0.020 (-11.05:-1.26) | - | -0.077 se: 0.124 pval: 0.541 (-0.47:0.18) | -2.927\*\* se: 0.883 pval: 0.005 (-4.46:-1.1) | -11.745\*\*\* se: 2.331 pval: <0.001 (-16.57:-7.72) |
| baseline:I(Rep\_c^2) | - | - | 0.106\*c se: 0.04 pval: 0.010 (-0.02:0.2) | 0.213\*c se: 0.093 pval: 0.025 (-0.02:0.46) | - | - | 0.106\*\*\* se: 0.026 pval: <0.001 (0.01:0.17) | 0.395\*\*\* se: 0.08 pval: <0.001 (0.13:0.58) |
| baseline:Rep\_c | - | - | 0.101 se: 0.109 pval: 0.372 (-0.06:0.31) | 0.208 se: 0.255 pval: 0.428 (-0.17:0.65) | - | - | 0.217 se: 0.172 pval: 0.228 (-0.33:0.46) | 0.654 se: 0.568 pval: 0.268 (-0.45:1.87) |
| baseline:Rep\_c:Set\_c | - | - | 0.002 se: 0.071 pval: 0.973 (-0.28:0.08) | 0.081 se: 0.163 pval: 0.621 (-0.23:0.29) | - | - | -0.105 se: 0.07 pval: 0.140 (-0.26:0) | -0.379 se: 0.227 pval: 0.102 (-0.83:0.09) |
| baseline:Set\_c | - | - | 0.774\*\*c se: 0.231 pval: 0.004 (-0.07:1.1) | 1.672\*\* se: 0.549 pval: 0.008 (0.07:2.64) | - | - | 0.223 se: 0.24 pval: 0.366 (-0.48:0.61) | 1.121 se: 0.767 pval: 0.163 (-0.07:2.37) |
| baseline:Set\_c:I(Rep\_c^2) | - | - | -0.062 se: 0.036 pval: 0.086 (-0.11:-0.01) | -0.103 se: 0.083 pval: 0.220 (-0.21:0.03) | - | - | -0.02 se: 0.023 pval: 0.390 (-0.07:0.04) | -0.082 se: 0.072 pval: 0.257 (-0.23:0.12) |
| *Intervention Fixed effect Parameters* |  |  |  |  |  |  |  |  |
| I(Rep\_c^2) | -1.253\*\*\* se: 0.175 pval: <0.001 (-1.64:-0.86) | -1.253\*\*\* se: 0.175 pval: <0.001 (-1.63:-0.86) | -1.253\*\*\* se: 0.162 pval: <0.001 (-1.62:-0.88) | -1.253\*\*\* se: 0.164 pval: <0.001 (-1.64:-0.86) | -1.001\*\*\* se: 0.147 pval: <0.001 (-1.35:-0.68) | -1.001\*\*\* se: 0.147 pval: <0.001 (-1.36:-0.68) | -1.001\*\*\* se: 0.13 pval: <0.001 (-1.32:-0.7) | -1.001\*\*\* se: 0.125 pval: <0.001 (-1.28:-0.75) |
| I(Rep\_c^3) | 0.365\*\*\* se: 0.098 pval: <0.001 (0.26:0.48) | 0.365\*\*\* se: 0.098 pval: <0.001 (0.25:0.48) | 0.365\*\*\* se: 0.099 pval: <0.001 (0.25:0.48) | 0.365\*\*\* se: 0.099 pval: <0.001 (0.25:0.48) | 0.378\*\*\* se: 0.091 pval: <0.001 (0.24:0.51) | 0.378\*\*\* se: 0.091 pval: <0.001 (0.24:0.51) | 0.378\*\*\* se: 0.091 pval: <0.001 (0.25:0.51) | 0.378\*\*\* se: 0.09 pval: <0.001 (0.24:0.51) |
| I(Set\_c^2) | -2.489\*\* se: 0.726 pval: 0.002 (-3.6:-1.11) | -2.495\*\* se: 0.726 pval: 0.002 (-3.6:-1.12) | -2.589\*\* se: 0.709 pval: 0.001 (-3.6:-1.14) | -2.489\*\* se: 0.707 pval: 0.002 (-3.6:-1.13) | - | - | - | - |
| Rep\_c | 1.411\* se: 0.676 pval: 0.041 (0.47:2.42) | 1.411\* se: 0.676 pval: 0.041 (0.44:2.43) | 1.411\* se: 0.667 pval: 0.038 (0.46:2.42) | 1.411\* se: 0.672 pval: 0.040 (0.45:2.46) | -3.268\*\* se: 1.03 pval: 0.004 (-5.05:-1.46) | -3.268\*\* se: 1.03 pval: 0.004 (-5.08:-1.46) | -3.268\*\* se: 0.988 pval: 0.003 (-4.97:-1.45) | -3.268\*\* se: 0.993 pval: 0.003 (-5.01:-1.48) |
| Rep\_c:Set\_c | -0.775\* se: 0.288 pval: 0.010 (-1.2:-0.34) | -0.775\* se: 0.288 pval: 0.010 (-1.19:-0.34) | -0.775\* se: 0.288 pval: 0.010 (-1.4:-0.35) | -0.775\* se: 0.287 pval: 0.010 (-1.23:-0.29) | -1.576\*\* se: 0.548 pval: 0.005 (-3:-0.33) | -1.576\*\* se: 0.548 pval: 0.005 (-3:-0.33) | -1.576\*\* se: 0.541 pval: 0.004 (-3.04:-0.38) | -1.576\*\* se: 0.539 pval: 0.004 (-3.07:-0.4) |
| Set\_c | -0.396 se: 1.201 pval: 0.746 (-2.44:1.53) | -0.396 se: 1.201 pval: 0.746 (-2.41:1.53) | -0.396 se: 0.943 pval: 0.680 (-2.38:1.16) | -0.396 se: 0.966 pval: 0.687 (-2.35:1.39) | -8.088\*\*\* se: 1.23 pval: <0.001 (-9.97:-6.12) | -8.088\*\*\* se: 1.229 pval: <0.001 (-9.99:-6.12) | -8.088\*\*\* se: 1.218 pval: <0.001 (-10.04:-6.06) | -8.088\*\*\* se: 1.192 pval: <0.001 (-10.03:-6.13) |
| Set\_c:I(Rep\_c^2) | 0.28 se: 0.156 pval: 0.078 (0.06:0.51) | 0.28 se: 0.156 pval: 0.078 (0.06:0.51) | 0.28 se: 0.145 pval: 0.058 (0.06:0.5) | 0.28 se: 0.147 pval: 0.061 (0.04:0.51) | 0.22 se: 0.132 pval: 0.100 (0.07:0.38) | 0.22 se: 0.132 pval: 0.101 (0.07:0.38) | 0.22 se: 0.117 pval: 0.064 (0.06:0.4) | 0.22 se: 0.112 pval: 0.054 (0.07:0.39) |
| Set\_c:I(Rep\_c^3) | - | - | - | - | 0.152 se: 0.081 pval: 0.063 (-0.05:0.4) | 0.152 se: 0.081 pval: 0.063 (-0.05:0.4) | 0.152 se: 0.081 pval: 0.062 (-0.04:0.4) | 0.152 se: 0.081 pval: 0.062 (-0.04:0.4) |

*\* = p < 0.05, \*\* = p < 0.01, \*\*\* = p < 0.001; c = significance corrected by confidence intervals including zero.   
Model parameter estimates, standard errors (se), p values (pval) are reported along with their bootstrapped 95% confidence intervals (Lower 95%CI: Upper 95%CI). Abbreviations: MVIC = Baseline maximum voluntary contraction torque model; TT = Baseline twitch torque model; TT/MVIC = Baseline TT/MVIC ratio model; Rep\_c = Repetition intervention parameter, mean centered; Set\_c = Set intervention parameter, mean centered; ^2 = a specified quadratic effect; ^3 = a specified cubic effect; Interactions are specified with “:”.*

Table . Independent Intervention Model Variance (Random effect) Estimates

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variance Components (random effects) | Null 3s | MVIC 3s | TT 3s | TT/MVIC 3s | Null 6s | MVIC 6s | TT 6s | TT/MVIC 6s |
| Total Variance | 539.038 (218.39:869.39) | 569.311 (194.79:960.12) | 457.197 (209.56:709.43) | 413.455 (193.91:667.22) | 591.674 (347.48:894.58) | 614.984 (327.43:979.18) | 405.767 (203.53:619.63) | 289.538 (193.65:403.63) |
| VPC Part-lvl Intercept | 0.856 (0.65:0.91) | 0.863 (0.65:0.92) | 0.847 (0.64:0.91) | 0.829 (0.64:0.9) | 0.863 (0.8:0.92) | 0.868 (0.77:0.92) | 0.798 (0.57:0.91) | 0.72 (0.61:0.84) |
| VPC Part-lvl Slope Set | 0.027 (0:0.08) | 0.026 (0:0.07) | 0.016 (0:0.04) | 0.02 (0:0.06) | 0.029 (0.01:0.06) | 0.028 (0:0.06) | 0.046 (0.01:0.12) | 0.06 (0.01:0.1) |
| VPC Part-lvl Slope Rep | 0.003 (0:0.01) | 0.003 (0:0.01) | 0.004 (0:0.01) | 0.004 (0:0.01) | 0.018 (0:0.03) | 0.017 (0:0.04) | 0.025 (0:0.07) | 0.036 (0.01:0.06) |
| VPC Residual | 0.065 (0.02:0.1) | 0.062 (0.02:0.11) | 0.077 (0.03:0.12) | 0.086 (0.03:0.12) | 0.051 (0.02:0.06) | 0.049 (0.02:0.06) | 0.074 (0.02:0.11) | 0.104 (0.04:0.11) |
| VPC Part-Set Lvl Intercept | 0.04 (0.03:0.16) | 0.038 (0.03:0.17) | 0.046 (0.03:0.18) | 0.05 (0.04:0.18) | 0.025 (0.02:0.06) | 0.024 (0.02:0.06) | 0.038 (0.02:0.12) | 0.054 (0.03:0.13) |
| VPC Part-Set Lvl Slope Rep | 0.007 (0:0.02) | 0.007 (0:0.03) | 0.009 (0.01:0.03) | 0.01 (0.01:0.03) | 0.013 (0.01:0.03) | 0.013 (0.01:0.03) | 0.018 (0.01:0.05) | 0.026 (0.01:0.05) |
| VPC Part-Set Lvl Slope Quad.Rep | 0.002 (0:0.01) | 0.001 (0:0.01) | 0.001 (0:0.01) | 0.002 (0:0.01) | 0.001 (0:0) | 0.001 (0:0) | 0.001 (0:0) | 0 (0:0) |

The table presents estimates of total variance by model and VPCs of each random effect along with estimated bootstrapped 95% confidence intervals (Lower 95%CI: Upper 95%CI) of these variance components. Abbreviations: MVIC = Baseline maximum voluntary contraction torque model; TT = Baseline twitch torque model; TT/MVIC = Baseline TT/MVIC ratio model; VPC = Variance partition coefficients; Part-lvl = Random effect at the inter-participant level; Part-Set lvl = Random effect at the intra-participant-inter-set level; Random Intercepts = refer to mean responses across sets and repetitions.

Table . Independent Intervention Model Estimates of Correlations Between Variance Components

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Correlations between Variance Components | Null 3s | MVIC 3s | TT 3s | TT/MVIC 3s | Null 6s | MVIC 6s | TT 6s | TT/MVIC 6s |
| Part-lvl Corr.Betw. Intercept&Set slope | -0.212 | -0.197 | 0.246 | 0.34 | -0.555 | -0.547 | -0.539 | -0.472 |
| Part-Set lvl Corr.Betw. Intercept&Rep slope | 0.028 | 0.027 | 0.067 | 0.006 | -0.154 | -0.156 | -0.22 | -0.244 |

The table presents estimates of the correlations between inter-individual mean response differences (Part-lvl) and inter-individual differences in effects of sets. As well as estimates of the correlations between intra-individual inter-set mean response differences and intra-individual inter-set differences in effects of repetitions.