

SUPPLEMENTARY TABLE S1:

Secondary clinical outcome measures – baseline values^a

| Group | MRC-MPS | MAS (elbow flexors) | nMAS - UE | BI |
|------------------------------|-------------------|------------------------|-------------------|-------------------|
| Control | 49.7 (5.8) | 1.22 (0.62) | 2.67 (4.02) | 18.2 (1.8) |
| Test | 39.9 (14.9) | 1.28 (0.49) | 1.93 (2.96) | 16.8 (3.2) |
| p (between groups) | 0.14 ^b | 0.91 ^c | 0.62 ^c | 0.30 ^b |

^aGroup means (and standard deviations)

MRC-MPS: MRC Muscle Power scale (score range: 0-70); MAS: Modified Ashworth Scale (0-4); nMAS-UE: Upper extremity part of new Motor Assessment Scale (0-18), BI: Barthel index (0-20). For all scales—except MAS – higher score indicates lower severity.

^bIndependent samples T-test 2-tailed (Test group: df=6; control group: df= 8)

^cMann-Whitney U Test, 2-tailed, exact

SUPPLEMENTARY TABLE S2:

Secondary task-related outcome measures – baseline values^a

| Group | Mean ^b | | | Variation ^c | | |
|--|-------------------|-------------|-------------------|------------------------|-------------|-------------------|
| | Assist(N) | Guide(N) | end error (cm) | Assist(N) | Guide(N) | end error (cm) |
| Control | 2.02 (1.21) | 1.81 (1.14) | 0.82 (0.28) | 1.71 (1.17) | 1.23 (0.89) | 0.43 (0.20) |
| Test | 2.18 (1.65) | 2.02 (1.64) | 0.89 (0.39) | 1.49 (1.12) | 1.29 (1.09) | 0.44 (0.25) |
| p^d (between groups) | 0.82 | 0.77 | 0.72 | 0.69 | 0.90 | 0.93 |

^aGroup means (and standard deviations)

^bMean performance across the 8x8 movement testing conditions

^cThe standard deviation of performance computed across the 8x8 movement conditions.

^dIndependent samples T-test 2-tailed (Test group: df=6; control group: df= 8)

SUPPLEMENTARY TABLE S3:

Secondary clinical outcome measures: post-training change from baseline^a

| Group | MRC-MPS | MAS (elbow flexors) | UL nMAS | BI |
|---------|-----------------------------------|------------------------------------|----------------------------------|--|
| Control | -0.4 (6.7) p=0.71 ^b | -0.1 (0.5) p=0.56 ^c | 1.9 (3.8) p=0.41 ^b | 0.19 (0.5) ^d p=0.50 ^b |
| Test | 2.6 (4.3) p=0.17 ^c | 0.07 (0.19) p=0.25 ^b | 1.8 (2.7) p=1.0 ^c | -0.5 (1.1) p=0.28 ^c |

^a Group means (and standard deviations)

^b Related-samples Wilcoxon Signed Rank Test (exact sig., 2-tailed)

^c Paired T-test (Test group: df=6; control group: df= 8 --except for BI where df=7)

^d Missing data from one aphasic participant (due to unavailability of interpreter for his speech)

SUPPLEMENTARY TABLE S4

Task-related training effects on post-training mean performance^a: 2x2 repeated measure ANOVA^b

| | <i>Guide</i> | <i>Assist</i> | End-error |
|--|--|---|--|
| <u>Session effect</u> (within subject) | F(1,14)=3.89, p=0.069 partial $\eta^2=0.22$ | F(1,14)=0.67, p=0.43, partial $\eta^2=0.05$ | F(1,14)=15.4, p= 0.002 , partial $\eta^2=0.52$ |
| <u>Group effect</u> | F(1,14)=0.22, p=0.65, partial $\eta^2=0.02$ | F(1,14)=0.27, p=0.63, partial $\eta^2=0.02$ | F(1,14)=0.08, p=0.78, partial $\eta^2=0.01$ |
| <u>Session x group interaction</u> | F(1,14)=0.76, p=0.40, partial $\eta^2=0.05$ | F(1,14)=1.37, p=0.26, partial $\eta^2=0.089$ | F(1,14)=0.16, p=0.70, partial $\eta^2=0.01$ |

^aMean performance across the 8x8 movement testing conditions

^bRepeated measures ANOVA with session (baseline, post-training) as a within-subject factor and group (control, test) as a between-subject factor

SUPPLEMENTARY TABLE S5

Task-related training effects on post-training performance variation^a: 2x2 repeated measure ANOVAs^b

| | <i>Guide</i> | <i>Assist</i> | End-error |
|--|--|---|---|
| <u>Session effect</u> (within subject) | F(1,14)=0.39, p=0.54, partial $\eta^2=0.02$ | F(1,14)=0.41, p=0.53, partial $\eta^2=0.03$ | F(1,14)=4.66, p=0.049, partial $\eta^2=0.25$ |
| <u>Group effect</u> | F(1,14)=0.25, p=0.62, partial $\eta^2=0.02$ | F(1,14)=0.02, p=0.89, partial $\eta^2=0.001$ | F(1,14)=0.051, p=0.83, partial $\eta^2=0.01$ |
| <u>Session x group interaction</u> | F(1,14)=1.37, p=0.26, partial $\eta^2=0.09$ | F(1,14)=4.01, p=0.065, partial $\eta^2=0.22$ | F(1,14)=0.16, p=0.70, partial $\eta^2=0.004$ |

^aThe standard deviation of performance computed across the 8x8 movement conditions.

^bRepeated measures ANOVAs conducted for each measure with session (baseline, post-training) as a within-subject factor and group (control, test) as a between-subject factor

SUPPLEMENTARY TABLE S6

Task-related training effects in the follow-up session: 2x2 repeated measure ANOVAs^a

| Measure type | | <i>Guide</i> | <i>Assist</i> | End-error |
|------------------------------|---|--|---|--|
| Mean^b | Session effect (within subject) | F(1,14)=1.49 , p=0.24 , partial η^2 =0.096 | F(1,14)=0.038 , p=0.85 , partial η^2 =0.003 | F(1,14)=7.78 , p= 0.014 , partial η^2 =0.36 |
| | Group effect | F(1,14)=0.007 , p=0.97 , partial η^2 <0.001 | F(1,14)=0.003 , p=0.96 , partial η^2 <0.001 | F(1,14)=0.004 , p=0.95 , partial η^2 <0.001 |
| | Session x group interaction | F(1,14)=2.51 , p=0.36 , partial η^2 =0.152 | F(1,14)=0.93 , p=0.35 , partial η^2 =0.063 | F(1,14)=3.78 , p=0.072 , partial η^2 =0.21 |
| Variation^c | Session effect (within subject) | F(1,14)= 0.011 , p=0.92 , partial η^2 =0.001 | F(1,14)=0.016 , p=0.90 , partial η^2 =0.001 | F(1,14)=1.75 , p=0.208 , partial η^2 =0.11 |
| | Group effect | F(1,14)=0.003 , p=0.96 , partial η^2 <0.001 | F(1,14)=0.096 , p=0.76 , partial η^2 =0.007 | F(1,14)=0.02 , p=0.91 , partial η^2 =0.01 |
| | Session x group interaction | F(1,14)=0.99 , p=0.34 , partial η^2 =0.066 | F(1,14)=0.29 , p=0.60 , partial η^2 =0.02 | F(1,14)=0.96 , p=0.344 , partial η^2 =0.06 |

^a Repeated measures ANOVAs conducted for each performance measure with session (baseline, follow-up) as a within-subject factor and group (control, test) as a between-subject factor.

^b Mean performance across the 8x8 movement testing conditions

^c The standard deviation of performance computed across the 8x8 movement conditions.