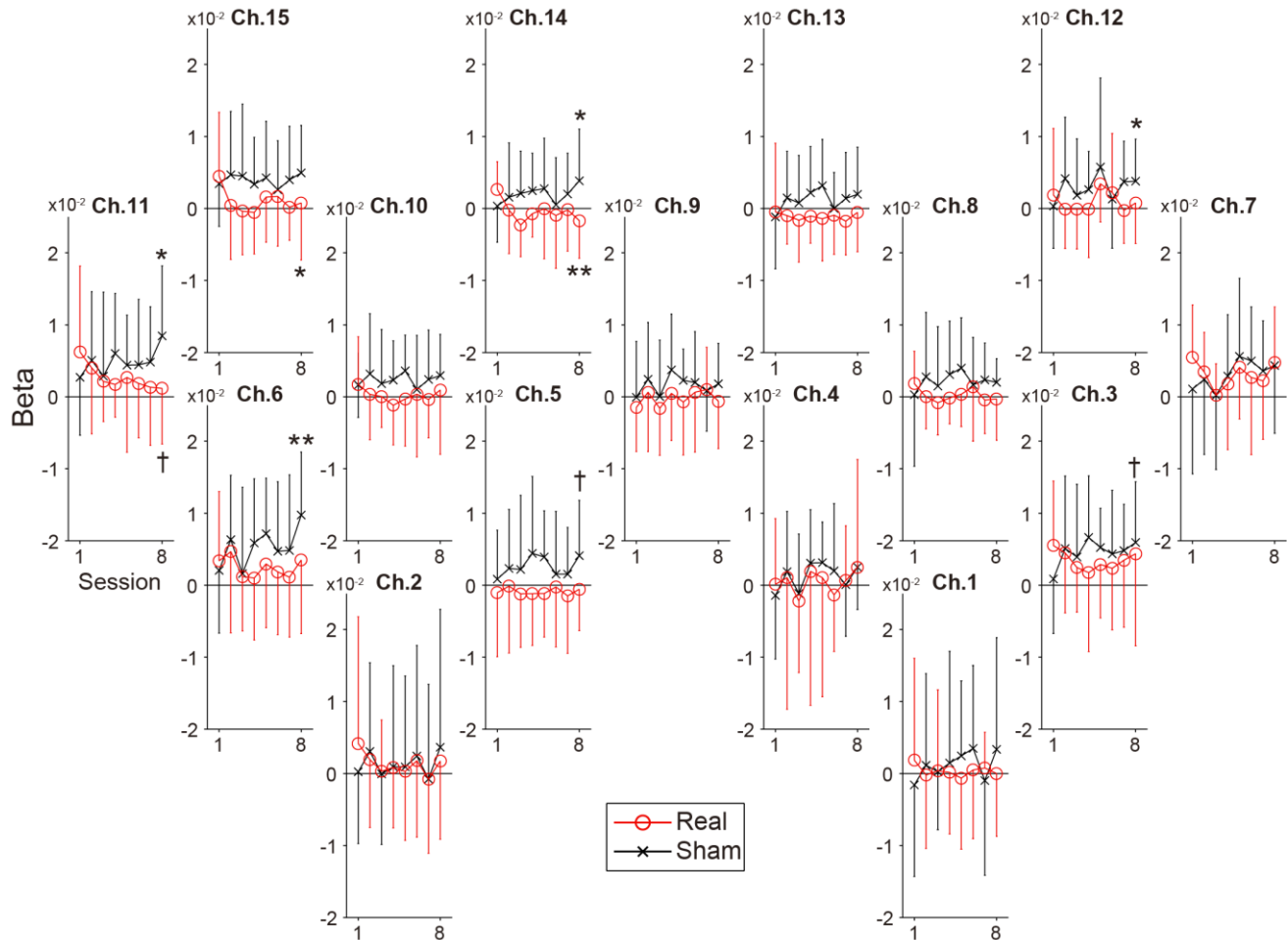


Supplementary Material

1 Supplementary Figure



Supplementary Figure 1. Oxy-Hb beta value transitions for all recording channels. The asterisk and dagger signs indicate the significance in the simple-simple main effect test when comparing beta values between the first and eighth sessions in the same group. The error bars denote the standard deviation. † $p < 0.1$, * $p < 0.05$, ** $p < 0.01$

2 Supplementary Tables

Supplementary Table 1. Statistical values obtained from the three-way ANOVA of the beta values of oxy-Hb in the first and eighth sessions.

	<i>F</i> -value [<i>F</i> (1,38)]	<i>P</i> -value	Effect size (Partial η^2)
Group	0.014	0.91	0.00038
Session	0.35	0.56	0.0092
*Group \times Session	7.40	0.0098	0.16
Channel	0.54	0.47	0.014
*Group \times Channel	4.82	0.034	0.11
Session \times Channel	0.23	0.64	0.0059
†Group \times Session \times Channel	3.13	0.085	0.76

Supplementary Table 2. Statistical values obtained from the three-way ANOVA of the beta values of deoxy-Hb in the first and eighth sessions.

	<i>F</i> -value [<i>F</i> (1,38)]	<i>P</i> -value	Effect size (Partial η^2)
Group	1.17	0.17	0.030
Session	0.14	0.71	0.0037
†Group \times Session	3.61	0.065	0.087
Channel	0.49	0.49	0.013
Group \times Channel	1.19	0.28	0.030
Session \times Channel	0.93	0.34	0.024
Group \times Session \times Channel	1.04	0.32	0.027

Supplementary Table 3. Statistical values obtained from the three-way ANOVA of the searching costs in the Pre-WM task.

	<i>F</i> -value [<i>F</i> (1,38)]	<i>P</i> -value	Effect size (Partial η^2)
Group	1.48	0.23	0.037
*Trial	101.93	2.62×10^{-12}	0.73
Group \times Trial	0.093	0.76	0.0024
Condition	2.16	0.15	0.054
Group \times Condition	0.016	0.90	0.00041
Trial \times Condition	1.38	0.25	0.035
Group \times Trial \times Condition	0.39	0.54	0.010

Supplementary Table 4. Statistical values obtained from the three-way ANOVA of the searching costs in the Post-WM task.

	<i>F</i> -value [<i>F</i> (1,38)]	<i>P</i> -value	Effect size (Partial η^2)
[†] Group	3.27	0.079	0.079
*Trial	50.34	1.82×10^{-8}	0.57
Group \times Trial	2.54×10^{-7}	0.99	6.67×10^{-9}
Condition	1.03	0.32	0.026
*Group \times Condition	13.43	0.00075	0.26
Trial \times Condition	1.94	0.17	0.048
Group \times Trial \times Condition	2.57	0.12	0.063