

Table S1.

Frequency	Region	Comparison	(t)	Significance (p)
β	<i>r-M1*</i>	Flanker vs. control	-3.96	<.001
		Simon vs. control	-3.81	<.001
		MS vs. control	-4.46	<.001
		Flanker vs. Simon	-0.70	.490
		MS vs. Flanker	-0.64	.526
		MS vs. Simon	-1.27	.216
	<i>r-PPC*</i>	Flanker vs. control	-4.27	<.001
		Simon vs. control	-3.35	.003
		MS vs. control	-5.97	<.001
		Flanker vs. Simon	-0.73	.473
		MS vs. Flanker	-1.24	.228
		MS vs. Simon	-1.57	.130
	<i>l-M1</i>	Flanker vs. control	-4.19	<.001
		Simon vs. control	-1.68	.107
		MS vs. control	-3.52	.002
		Flanker vs. Simon	-1.13	.270
		MS vs. Flanker	-0.11	.914
		MS vs. Simon	-1.20	.242
	<i>l-PPC*</i>	Flanker vs. control	-5.85	<.001
		Simon vs. control	-2.49	.021
		MS vs. control	-4.46	<.001
		Flanker vs. Simon	-0.72	.481
		MS vs. Flanker	-0.20	.843
		MS vs. Simon	0.64	.528
	<i>r-DLPFC*</i>	Flanker vs. control	-3.53	.002
		Simon vs. control	-2.83	.010
		MS vs. control	-0.54	.594
		Flanker vs. Simon	1.21	.240
		MS vs. Flanker	2.96	.007
		MS vs. Simon	2.73	.012
	<i>r-Cer</i>	Flanker vs. control	-3.50	.002
		Simon vs. control	-1.52	.143
		MS vs. control	0.02	.988
Flanker vs. Simon		-2.72	.013	
MS vs. Flanker		3.69	.001	
MS vs. Simon		1.55	.136	
<i>l-SMG</i>	Flanker vs. control	-1.74	.096	
	Simon vs. control	-2.67	.014	
	MS vs. control	-4.16	<.001	
	Flanker vs. Simon	0.85	.407	
	MS vs. Flanker	-2.23	.036	
	MS vs. Simon	-1.03	.312	
γ	<i>r-PPC</i>	Flanker vs. control	-0.64	.528
		Simon vs. control	-1.27	.218
		MS vs. control	1.31	.204
		Flanker vs. Simon	0.66	.518
		MS vs. Flanker	1.92	.068
		MS vs. Simon	2.47	.022

M1: primary motor cortex, PPC: posterior parietal cortex, DLPFC: dorsolateral prefrontal cortex, Cer: cerebellum, SMG: supramarginal gyrus. *Significant after cluster-based permutation testing (initial $p = .01$, 10,000 permutations).

Table S2.

Frequency	Region	Comparison	BF₀₁	Error (%)
β	<i>l-M1</i>	RM-ANOVA	3.54	2.31
		Flanker vs. Simon	2.59	2.05 x 10 ⁻⁴
		MS vs. Flanker	4.55	3.30 x 10 ⁻²
		MS vs. Simon	2.41	2.03 x 10 ⁻⁴
	<i>l-PPC</i>	RM-ANOVA	6.24	5.86 x 10 ⁻¹
		Flanker vs. Simon	3.63	3.50 x 10 ⁻²
		MS vs. Flanker	4.49	3.30 x 10 ⁻²
		MS vs. Simon	3.80	3.50 x 10 ⁻²
	<i>r-M1</i>	RM-ANOVA	4.38	6.28 x 10 ⁻¹
		Flanker vs. Simon	3.66	3.50 x 10 ⁻²
		MS vs. Flanker	3.79	3.50 x 10 ⁻²
		MS vs. Simon	2.23	2.01 x 10 ⁻⁴
	<i>r-PPC</i>	RM-ANOVA	2.34	6.55 x 10 ⁻¹
		Flanker vs. Simon	3.60	3.50 x 10 ⁻²
		MS vs. Flanker	2.32	2.02 x 10 ⁻⁴
MS vs. Simon		1.56	1.90 x 10 ⁻⁴	

M1: primary motor cortex, PPC: posterior parietal cortex.