

**Supplementary Table 1: Estimated values of the model coefficients for the model of synchronization accuracy (relative error).**

<b>Effect</b>	<b>Estimate</b>	<b>Lower CI</b>	<b>Upper CI</b>
Intercept (250 ms, OHC)	1.01281	0.99076	1.03486
ns(Tap Time, df = 4) 1	-0.01435	-0.03255	0.00385
ns(Tap Time, df = 4) 2	-0.00843	-0.02303	0.00616
ns(Tap Time, df = 4) 3	-0.03665	-0.08371	0.01041
ns(Tap Time, df = 4) 4	0.00115	-0.01529	0.01759
Group (PD-C)	-0.06126	-0.09164	-0.03088
Group (PD-FOG)	-0.06098	-0.09535	-0.02660
ISI (500 ms)	-0.01828	-0.02760	-0.00896
ISI (750 ms)	0.00522	-0.00411	0.01454
ns(Tap Time, df = 4) 1 x Group (PD-C)	0.03971	0.01531	0.06412
ns(Tap Time, df = 4) 2 x Group (PD-C)	0.02596	0.00671	0.04521
ns(Tap Time, df = 4) 3 x Group (PD-C)	0.09429	0.03020	0.15838
ns(Tap Time, df = 4) 4 x Group (PD-C)	0.02294	0.00011	0.04576
ns(Tap Time, df = 4) 1 x Group (PD-FOG)	0.04762	0.01994	0.07531
ns(Tap Time, df = 4) 2 x Group (PD-FOG)	0.03980	0.01765	0.06194
ns(Tap Time, df = 4) 3 x Group (PD-FOG)	0.12729	0.05468	0.19991
ns(Tap Time, df = 4) 4 x Group (PD-FOG)	0.02210	-0.00598	0.05019
ns(Tap Time, df = 4) 1 x ISI (500 ms)	0.01249	0.00218	0.02281
ns(Tap Time, df = 4) 2 x ISI (500 ms)	0.00912	-0.00196	0.02019
ns(Tap Time, df = 4) 3 x ISI (500 ms)	0.04830	0.02552	0.07108
ns(Tap Time, df = 4) 4 x ISI (500 ms)	-0.00560	-0.02266	0.01146
ns(Tap Time, df = 4) 1 x ISI (750 ms)	-0.00252	-0.01294	0.00791
ns(Tap Time, df = 4) 2 x ISI (750 ms)	-0.00601	-0.01748	0.00545
ns(Tap Time, df = 4) 3 x ISI (750 ms)	-0.01148	-0.03442	0.01147
ns(Tap Time, df = 4) 4 x ISI (750 ms)	-0.00517	-0.02418	0.01385
Group (PD-C) x ISI (500 ms)	0.01675	0.01209	0.02142
Group (PD-FOG) x ISI (500 ms)	-0.00288	-0.00852	0.00275
Group (PD-C) x ISI (750 ms)	0.01484	0.01014	0.01955
Group (PD-FOG) x ISI (750 ms)	-0.00285	-0.00870	0.00299

CI, confidence interval; ns, natural spline, with degrees of freedom and degree indicated.