

Table S1. Bayesian correlation outcomes between EEG measures and cognitive measures.

Here we use the following terms to interpret the level of evidence: Antecdotal $BF_{10} > 3$ Moderate $BF_{10} > 3$; Strong - $BF_{10} > 10$; Very strong - $BF_{10} > 30$; Extreme - $BF_{10} > 100$

Bayesian Pearson Correlations 2-Choice response time task

	PLI			ERSP		
	40-Hz EFR	IGF	IGF-EFR	40-Hz EFR	IGF	IGF-EFR
Pearson's r	0.084	-0.180	0.015	0.089	-0.202	0.028
BF_{10}	0.230	0.354	0.205	0.233	0.409	0.207
Upper 95% CI	0.383	0.148	0.325	0.387	0.127	0.336
Lower 95% CI	-0.237	-0.461	-0.299	-0.233	-0.478	-0.287

Bayesian Pearson Correlations Simple reaction time task

	PLI			ERSP		
	40-Hz EFR	IGF	IGF-EFR	40-Hz EFR	IGF	IGF-EFR
Pearson's r	0.046	-0.030	0.036	0.031	0.013	0.031
BF_{10}	0.212	0.208	0.209	0.208	0.205	0.208
Upper 95% CI	0.351	0.286	0.343	0.339	0.324	0.339
Lower 95% CI	-0.272	-0.338	-0.280	-0.285	-0.300	-0.285

Bayesian Pearson Correlations Arithmetic decision task

	PLI			ERSP		
	40-Hz EFR	IGF	IGF-EFR	40-Hz EFR	IGF	IGF-EFR
Pearson's r	-0.125	-0.064	-0.155	-0.123	-0.117	-0.162
BF_{10}	0.266	0.219	0.306	0.264	0.257	0.319
Upper 95% CI	0.200	0.256	0.172	0.202	0.208	0.165
Lower 95% CI	-0.417	-0.366	-0.441	-0.415	-0.410	-0.447

Bayesian Pearson Correlations Lexical decision task

	PLI			ERSP		
	40-Hz EFR	IGF	IGF-EFR	40-Hz EFR	IGF	IGF-EFR
Pearson's r	-0.095	-0.021	-0.109	-0.027	-0.183	-0.066
BF_{10}	0.238	0.206	0.250	0.207	0.360	0.220
Upper 95% CI	0.228	0.294	0.215	0.288	0.145	0.254
Lower 95% CI	-0.392	-0.330	-0.404	-0.335	-0.463	-0.368

Bayesian Pearson Correlations Semantic categorisation

	PLI			ERSP		
	40-Hz EFR	IGF	IGF-EFR	40-Hz EFR	IGF	IGF-EFR
Pearson's r	-0.203	-0.042	-0.227	-0.145	-0.101	-0.183
BF_{10}	0.412	0.211	0.492	0.292	0.243	0.361
Upper 95% CI	0.126	0.275	0.102	0.181	0.222	0.145
Lower 95% CI	-0.479	-0.348	-0.497	-0.433	-0.397	-0.463

Bayesian Pearson Correlations Object judgement task

	PLI			ERSP		
	40-Hz EFR	IGF	IGF-EFR	40-Hz EFR	IGF	IGF-EFR
Pearson's r	-0.158	0.213	-0.163	-0.103	0.095	-0.122

Bayesian Pearson Correlations Object judgement task

	PLI			ERSP		
	40-Hz EFR	IGF	IGF-EFR	40-Hz EFR	IGF	IGF-ERF
BF ₁₀	0.311	0.442	0.320	0.244	0.238	0.263
Upper 95% CI	0.169	0.486	0.164	0.220	0.392	0.203
Lower 95% CI	-0.443	-0.116	-0.447	-0.399	-0.227	-0.414

Bayesian Pearson Correlations Tower of London

	PLI			ERSP		
	40-Hz EFR	IGF	IGF-EFR	40-Hz EFR	IGF	IGF-ERF
Pearson's r	-0.498 *	0.076	-0.550 **	-0.494 *	0.088	-0.510 **
BF ₁₀	23.192	0.226	81.778	21.100	0.233	30.395
Upper 95% CI	-0.194	0.377	-0.260	-0.189	0.386	-0.209
Lower 95% CI	-0.693	-0.245	-0.729	-0.691	-0.234	-0.702

* BF₁₀ > 10, ** BF₁₀ > 30, *** BF₁₀ > 100