

Results

Bayesian Repeated Measures ANOVA

Model Comparison

Models	P(M)	P(M data)	BF _M	BF ₁₀	error %
Null model (incl. subject and random slopes)	0.053	2.952×10 ⁻⁸	5.313×10 ⁻⁷	1.000	
Task + Load + Laterality + Task * Load + Load * Laterality	0.053	0.302	7.770	1.021×10 ⁷	18.042
Task + Load + Laterality + Load * Laterality	0.053	0.231	5.393	7.810×10 ⁶	6.738
Task + Load + Laterality + Task * Laterality + Load * Laterality	0.053	0.124	2.552	4.207×10 ⁶	8.160
Task + Load + Laterality + Task * Load + Task * Laterality + Load * Laterality	0.053	0.121	2.467	4.083×10 ⁶	7.285
Task + Load + Laterality + Task * Load + Task * Laterality + Load * Laterality + Task * Load * Laterality	0.053	0.070	1.355	2.371×10 ⁶	10.503
Task + Load + Laterality + Task * Load	0.053	0.063	1.215	2.143×10 ⁶	58.391
Task + Load + Laterality	0.053	0.038	0.711	1.287×10 ⁶	33.249
Task + Load + Laterality + Task * Load + Task * Laterality	0.053	0.014	0.260	483131.734	6.545
Task + Laterality	0.053	0.014	0.256	474880.680	4.657
Task + Load + Laterality + Task * Laterality	0.053	0.013	0.229	425818.604	5.492
Task + Laterality + Task * Laterality	0.053	0.009	0.166	309137.989	18.283
Load + Laterality + Load * Laterality	0.053	0.002	0.031	58389.181	8.341
Load + Laterality	0.053	1.750×10 ⁻⁴	0.003	5927.754	5.051
Laterality	0.053	1.047×10 ⁻⁴	0.002	3547.904	7.166
Task + Load	0.053	9.187×10 ⁻⁶	1.654×10 ⁻⁴	311.234	8.495
Task + Load + Task * Load	0.053	8.751×10 ⁻⁶	1.575×10 ⁻⁴	296.465	9.373
Task	0.053	5.213×10 ⁻⁶	9.383×10 ⁻⁵	176.585	8.018
Load	0.053	5.294×10 ⁻⁸	9.529×10 ⁻⁷	1.793	4.944

Note. All models include subject, and random slopes for all repeated measures factors.

Analysis of Effects

Effects	P(incl)	P(excl)	P(incl data)	P(excl data)	BF _{incl}
Task	0.737	0.263	0.998	0.002	177.917
Load	0.737	0.263	0.977	0.023	15.002
Task * Load	0.316	0.684	0.570	0.430	2.867
Laterality	0.737	0.263	1.000	2.323×10 ⁻⁵	15371.736
Task * Laterality	0.316	0.684	0.351	0.649	1.170
Load * Laterality	0.316	0.684	0.848	0.152	12.133
Task * Load * Laterality	0.053	0.947	0.070	0.930	1.355

Post Hoc Tests

Post Hoc Comparisons - Load

		Prior Odds	Posterior Odds	BF _{10, U}	error %
OneCue	TwoCues	1.000	38.249	38.249	3.296×10^{-8}

Note. The posterior odds have been corrected for multiple testing by fixing to 0.5 the prior probability that the null hypothesis holds across all comparisons (Westfall, Johnson, & Utts, 1997). Individual comparisons are based on the default t-test with a Cauchy (0, $r = 1/\sqrt{2}$) prior. The "U" in the Bayes factor denotes that it is uncorrected.

Post Hoc Comparisons - Laterality

		Prior Odds	Posterior Odds	BF _{10, U}	error %
PO7	PO8	1.000	$3.880 \times 10^{+11}$	$3.880 \times 10^{+11}$	1.737×10^{-16}

Note. The posterior odds have been corrected for multiple testing by fixing to 0.5 the prior probability that the null hypothesis holds across all comparisons (Westfall, Johnson, & Utts, 1997). Individual comparisons are based on the default t-test with a Cauchy (0, $r = 1/\sqrt{2}$) prior. The "U" in the Bayes factor denotes that it is uncorrected.

Descriptives

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Task	Load	Laterality	N	Mean	SD	SE	Coefficient of Variation	95% Credible Interval	
								Lower	Upper
Colour	OneCue	PO7	14	1.728	4.349	1.162	2.517	-0.783	4.239
		PO8	14	3.183	4.371	1.168	1.373	0.659	5.707
	TwoCues	PO7	14	1.738	4.429	1.184	2.549	-0.819	4.295
		PO8	14	2.558	4.362	1.166	1.705	0.040	5.076
Locationn	OneCue	PO7	14	-0.627	3.793	1.014	-6.052	-2.816	1.563
		PO8	14	0.527	3.965	1.060	7.529	-1.763	2.816
	TwoCues	PO7	14	-1.123	3.886	1.038	-3.461	-3.366	1.121
		PO8	14	-0.362	3.899	1.042	-10.780	-2.613	1.890

