Results

Repeated Measures ANOVA

Within Subjects Effects

	Sum of Squares	df	Mean Square	F	p	η^2_p	ω^2
ROI	0.225	8	0.028	31.693	< .001	0.522	0.277
Residual	0.206	232	8.869e -4				
Condition	3.245	1	3.245	300.576	< .001	0.912	0.826
Residual	0.313	29	0.011				
ROI ✴ Condition	0.146	8	0.018	23.476	< .001	0.447	0.205
Residual	0.181	232	7.782e -4				

Note. Type III Sum of Squares

Between Subjects Effects

	Sum of Squares	df	Mean Square	F	p	η^2_p	ω^2
Residual	0.345	29	0.012				

Note. Type III Sum of Squares

Assumption Checks

Test of Sphericity

	Mauchly's W	Approx. X²	df	p	Greenhouse-Geisser ε	Huynh-Feldt ε	Lower Bound ε
ROI	0.167	46.718	35	0.094	0.736	0.945	0.125
Condition	1.000 [a]	NaN [a]	NaN [a]	NaN [a]	1.000 [a]	1.000 [a]	1.000 [a]
ROI ✴ Condition	0.198	42.344	35	0.191	0.754	0.973	0.125

[a] Singular error SSP matrix: The repeated measure has only two levels, or more levels than observations. When the repeated measure has two levels, the assumption of sphericity is always met.

Post Hoc Tests

Post Hoc Comparisons - ROI ✴ Condition

		Mean Difference	95% CI of Mean Difference Lower	Upper	SE	t	Cohen's d	p bonf
ACC,Chance	ACC,Estimate	-0.185	-0.227	-0.142	0.011	-16.470	-3.007	< .001
	ATL,Chance	0.012	-0.015	0.039	0.007	1.599	0.292	1.000
	ATL,Estimate	-0.099	-0.142	-0.056	0.011	-8.705	-1.589	< .001
	IFG,Chance	2.991e -4	-0.027	0.027	0.007	0.040	0.007	1.000
	IFG,Estimate	-0.163	-0.206	-0.120	0.011	-14.338	-2.618	< .001
	Ins,Chance	-0.005	-0.032	0.022	0.007	-0.681	-0.124	1.000
	Ins,Estimate	-0.179	-0.222	-0.136	0.011	-15.728	-2.872	< .001
	LTL,Chance	-0.007	-0.034	0.020	0.007	-0.879	-0.161	1.000
	LTL,Estimate	-0.191	-0.234	-0.149	0.011	-16.810	-3.069	< .001
	PCC,Chance	-2.312e -4	-0.027	0.027	0.007	-0.031	-0.006	1.000
	PCC,Estimate	-0.144	-0.187	-0.101	0.011	-12.670	-2.313	< .001
	Prec,Chance	6.995e -6	-0.027	0.027	0.007	9.389e -4	1.714e -4	1.000

Post Hoc Comparisons - ROI ∗ Condition

		Mean Difference	95% CI of Mean Difference		SE	t	Cohen's d	p bonf
			Lower	Upper				
	Prec,Estimate	-0.195	-0.238	-0.153	0.011	-17.165	-3.134	< .001
	V1,Chance	0.003	-0.024	0.030	0.007	0.419	0.077	1.000
	V1,Estimate	-0.091	-0.134	-0.048	0.011	-8.010	-1.462	< .001
	aPFC,Chance	0.006	-0.021	0.033	0.007	0.760	0.139	1.000
	aPFC,Estimate	-0.137	-0.180	-0.094	0.011	-12.052	-2.200	< .001
ACC,Estimate	ATL,Chance	0.197	0.154	0.240	0.011	17.284	3.156	< .001
	ATL,Estimate	0.086	0.059	0.113	0.007	11.516	2.103	< .001
	IFG,Chance	0.185	0.142	0.228	0.011	16.265	2.969	< .001
	IFG,Estimate	0.022	-0.005	0.049	0.007	2.905	0.530	0.588
	Ins,Chance	0.180	0.137	0.223	0.011	15.793	2.883	< .001
	Ins,Estimate	0.006	-0.021	0.033	0.007	0.780	0.142	1.000
	LTL,Chance	0.178	0.135	0.221	0.011	15.663	2.860	< .001
	LTL,Estimate	-0.007	-0.033	0.020	0.007	-0.874	-0.160	1.000
	PCC,Chance	0.185	0.142	0.228	0.011	16.218	2.961	< .001
	PCC,Estimate	0.041	0.014	0.068	0.007	5.455	0.996	< .001
	Prec,Chance	0.185	0.142	0.228	0.011	16.239	2.965	< .001
	Prec,Estimate	-0.011	-0.038	0.016	0.007	-1.417	-0.259	1.000
	V1,Chance	0.188	0.145	0.231	0.011	16.512	3.015	< .001
	V1,Estimate	0.094	0.067	0.121	0.007	12.579	2.297	< .001
	aPFC,Chance	0.191	0.148	0.234	0.011	16.735	3.055	< .001
	aPFC,Estimate	0.048	0.021	0.075	0.007	6.400	1.168	< .001
ATL,Chance	ATL,Estimate	-0.111	-0.154	-0.069	0.011	-9.890	-1.806	< .001
	IFG,Chance	-0.012	-0.039	0.015	0.007	-1.559	-0.285	1.000
	IFG,Estimate	-0.175	-0.218	-0.132	0.011	-15.384	-2.809	< .001
	Ins,Chance	-0.017	-0.044	0.010	0.007	-2.280	-0.416	1.000
	Ins,Estimate	-0.191	-0.234	-0.148	0.011	-16.774	-3.063	< .001
	LTL,Chance	-0.018	-0.045	0.009	0.007	-2.478	-0.453	1.000
	LTL,Estimate	-0.203	-0.246	-0.160	0.011	-17.856	-3.260	< .001
	PCC,Chance	-0.012	-0.039	0.015	0.007	-1.630	-0.298	1.000
	PCC,Estimate	-0.156	-0.199	-0.113	0.011	-13.716	-2.504	< .001
	Prec,Chance	-0.012	-0.039	0.015	0.007	-1.598	-0.292	1.000
	Prec,Estimate	-0.207	-0.250	-0.164	0.011	-18.211	-3.325	< .001
	V1,Chance	-0.009	-0.036	0.018	0.007	-1.180	-0.215	1.000
	V1,Estimate	-0.103	-0.146	-0.060	0.011	-9.056	-1.653	< .001
	aPFC,Chance	-0.006	-0.033	0.021	0.007	-0.839	-0.153	1.000
	aPFC,Estimate	-0.149	-0.192	-0.106	0.011	-13.098	-2.391	< .001
ATL,Estimate	IFG,Chance	0.099	0.057	0.142	0.011	8.731	1.594	< .001
	IFG,Estimate	-0.064	-0.091	-0.037	0.007	-8.611	-1.572	< .001
	Ins,Chance	0.094	0.051	0.137	0.011	8.260	1.508	< .001
	Ins,Estimate	-0.080	-0.107	-0.053	0.007	-10.737	-1.960	< .001
	LTL,Chance	0.093	0.050	0.136	0.011	8.130	1.484	< .001
	LTL,Estimate	-0.092	-0.119	-0.065	0.007	-12.390	-2.262	< .001
	PCC,Chance	0.099	0.056	0.142	0.011	8.685	1.586	< .001
	PCC,Estimate	-0.045	-0.072	-0.018	0.007	-6.061	-1.107	< .001
	Prec,Chance	0.099	0.056	0.142	0.011	8.706	1.589	< .001
	Prec,Estimate	-0.096	-0.123	-0.069	0.007	-12.933	-2.361	< .001
	V1,Chance	0.102	0.059	0.145	0.011	8.979	1.639	< .001
	V1,Estimate	0.008	-0.019	0.035	0.007	1.063	0.194	1.000

Post Hoc Comparisons - ROI ✳ Condition

		Mean Difference	95% CI of Mean Difference		SE	t	Cohen's d	p bonf
			Lower	Upper				
IFG,Chance	aPFC,Chance	0.105	0.062	0.148	0.011	9.202	1.680	< .001
	aPFC,Estimate	-0.038	-0.065	-0.011	0.007	-5.116	-0.934	< .001
	IFG,Estimate	-0.164	-0.206	-0.121	0.011	-14.569	-2.660	< .001
	Ins,Chance	-0.005	-0.032	0.022	0.007	-0.721	-0.132	1.000
	Ins,Estimate	-0.179	-0.222	-0.137	0.011	-15.754	-2.876	< .001
	LTL,Chance	-0.007	-0.034	0.020	0.007	-0.919	-0.168	1.000
	LTL,Estimate	-0.192	-0.235	-0.149	0.011	-16.836	-3.074	< .001
	PCC,Chance	-5.303e -4	-0.028	0.026	0.007	-0.071	-0.013	1.000
	PCC,Estimate	-0.145	-0.188	-0.102	0.011	-12.696	-2.318	< .001
	Prec,Chance	-2.921e -4	-0.027	0.027	0.007	-0.039	-0.007	1.000
	Prec,Estimate	-0.196	-0.239	-0.153	0.011	-17.191	-3.139	< .001
	V1,Chance	0.003	-0.024	0.030	0.007	0.379	0.069	1.000
	V1,Estimate	-0.092	-0.134	-0.049	0.011	-8.036	-1.467	< .001
IFG,Estimate	aPFC,Chance	0.005	-0.022	0.032	0.007	0.720	0.131	1.000
	aPFC,Estimate	-0.138	-0.180	-0.095	0.011	-12.078	-2.205	< .001
	Ins,Chance	0.158	0.115	0.201	0.011	13.893	2.536	< .001
	Ins,Estimate	-0.016	-0.043	0.011	0.007	-2.126	-0.388	1.000
	LTL,Chance	0.157	0.114	0.200	0.011	13.763	2.513	< .001
	LTL,Estimate	-0.028	-0.055	-0.001	0.007	-3.779	-0.690	0.027
	PCC,Chance	0.163	0.120	0.206	0.011	14.317	2.614	< .001
	PCC,Estimate	0.019	-0.008	0.046	0.007	2.550	0.466	1.000
	Prec,Chance	0.163	0.120	0.206	0.011	14.338	2.618	< .001
	Prec,Estimate	-0.032	-0.059	-0.005	0.007	-4.322	-0.789	0.003
	V1,Chance	0.166	0.124	0.209	0.011	14.612	2.668	< .001
	V1,Estimate	0.072	0.045	0.099	0.007	9.674	1.766	< .001
Ins,Chance	aPFC,Chance	0.169	0.126	0.212	0.011	14.835	2.708	< .001
	aPFC,Estimate	0.026	-9.371e -4	0.053	0.007	3.495	0.638	0.080
	Ins,Estimate	-0.174	-0.217	-0.132	0.011	-15.501	-2.830	< .001
	LTL,Chance	-0.001	-0.028	0.025	0.007	-0.199	-0.036	1.000
	LTL,Estimate	-0.186	-0.229	-0.143	0.011	-16.365	-2.988	< .001
	PCC,Chance	0.005	-0.022	0.032	0.007	0.650	0.119	1.000
	PCC,Estimate	-0.139	-0.182	-0.096	0.011	-12.224	-2.232	< .001
	Prec,Chance	0.005	-0.022	0.032	0.007	0.682	0.124	1.000
	Prec,Estimate	-0.190	-0.233	-0.148	0.011	-16.720	-3.053	< .001
	V1,Chance	0.008	-0.019	0.035	0.007	1.100	0.201	1.000
	V1,Estimate	-0.086	-0.129	-0.043	0.011	-7.564	-1.381	< .001
Ins,Estimate	aPFC,Chance	0.011	-0.016	0.038	0.007	1.441	0.263	1.000
	aPFC,Estimate	-0.132	-0.175	-0.089	0.011	-11.607	-2.119	< .001
	LTL,Chance	0.173	0.130	0.215	0.011	15.153	2.767	< .001
	LTL,Estimate	-0.012	-0.039	0.015	0.007	-1.653	-0.302	1.000
	PCC,Chance	0.179	0.136	0.222	0.011	15.708	2.868	< .001
	PCC,Estimate	0.035	0.008	0.062	0.007	4.676	0.854	< .001
	Prec,Chance	0.179	0.136	0.222	0.011	15.729	2.872	< .001
	Prec,Estimate	-0.016	-0.043	0.011	0.007	-2.197	-0.401	1.000
	V1,Chance	0.182	0.139	0.225	0.011	16.002	2.922	< .001
	V1,Estimate	0.088	0.061	0.115	0.007	11.800	2.154	< .001
	aPFC,Chance	0.185	0.142	0.228	0.011	16.225	2.962	< .001
	aPFC,Estimate	0.042	0.015	0.069	0.007	5.620	1.026	< .001

Post Hoc Comparisons - ROI ✱ Condition

		Mean Difference	95% CI of Mean Difference		SE	t	Cohen's d	p bonf
			Lower	Upper				
LTL,Chance	LTL,Estimate	-0.185	-0.227	-0.142	0.011	-16.466	-3.006	< .001
	PCC,Chance	0.006	-0.021	0.033	0.007	0.848	0.155	1.000
	PCC,Estimate	-0.138	-0.181	-0.095	0.011	-12.094	-2.208	< .001
	Prec,Chance	0.007	-0.020	0.034	0.007	0.880	0.161	1.000
	Prec,Estimate	-0.189	-0.232	-0.146	0.011	-16.590	-3.029	< .001
	V1,Chance	0.010	-0.017	0.037	0.007	1.298	0.237	1.000
	V1,Estimate	-0.085	-0.128	-0.042	0.011	-7.434	-1.357	< .001
	aPFC,Chance	0.012	-0.015	0.039	0.007	1.639	0.299	1.000
	aPFC,Estimate	-0.131	-0.174	-0.088	0.011	-11.477	-2.095	< .001
LTL,Estimate	PCC,Chance	0.191	0.148	0.234	0.011	16.789	3.065	< .001
	PCC,Estimate	0.047	0.020	0.074	0.007	6.329	1.156	< .001
	Prec,Chance	0.191	0.149	0.234	0.011	16.810	3.069	< .001
	Prec,Estimate	-0.004	-0.031	0.023	0.007	-0.543	-0.099	1.000
	V1,Chance	0.195	0.152	0.237	0.011	17.084	3.119	< .001
	V1,Estimate	0.100	0.073	0.127	0.007	13.453	2.456	< .001
	aPFC,Chance	0.197	0.154	0.240	0.011	17.307	3.160	< .001
	aPFC,Estimate	0.054	0.027	0.081	0.007	7.274	1.328	< .001
PCC,Chance	PCC,Estimate	-0.144	-0.187	-0.102	0.011	-12.830	-2.342	< .001
	Prec,Chance	2.382e -4	-0.027	0.027	0.007	0.032	0.006	1.000
	Prec,Estimate	-0.195	-0.238	-0.152	0.011	-17.145	-3.130	< .001
	V1,Chance	0.003	-0.024	0.030	0.007	0.450	0.082	1.000
	V1,Estimate	-0.091	-0.134	-0.048	0.011	-7.989	-1.459	< .001
	aPFC,Chance	0.006	-0.021	0.033	0.007	0.791	0.144	1.000
	aPFC,Estimate	-0.137	-0.180	-0.094	0.011	-12.032	-2.197	< .001
PCC,Estimate	Prec,Chance	0.144	0.101	0.187	0.011	12.670	2.313	< .001
	Prec,Estimate	-0.051	-0.078	-0.024	0.007	-6.872	-1.255	< .001
	V1,Chance	0.147	0.105	0.190	0.011	12.944	2.363	< .001
	V1,Estimate	0.053	0.026	0.080	0.007	7.124	1.301	< .001
	aPFC,Chance	0.150	0.107	0.193	0.011	13.167	2.404	< .001
	aPFC,Estimate	0.007	-0.020	0.034	0.007	0.944	0.172	1.000
Prec,Chance	Prec,Estimate	-0.196	-0.238	-0.153	0.011	-17.411	-3.179	< .001
	V1,Chance	0.003	-0.024	0.030	0.007	0.418	0.076	1.000
	V1,Estimate	-0.091	-0.134	-0.048	0.011	-8.010	-1.462	< .001
	aPFC,Chance	0.006	-0.021	0.033	0.007	0.759	0.139	1.000
	aPFC,Estimate	-0.137	-0.180	-0.094	0.011	-12.053	-2.200	< .001
Prec,Estimate	V1,Chance	0.199	0.156	0.242	0.011	17.439	3.184	< .001
	V1,Estimate	0.104	0.077	0.131	0.007	13.996	2.555	< .001
	aPFC,Chance	0.201	0.158	0.244	0.011	17.662	3.225	< .001
	aPFC,Estimate	0.058	0.031	0.085	0.007	7.817	1.427	< .001
V1,Chance	V1,Estimate	-0.094	-0.137	-0.052	0.011	-8.402	-1.534	< .001
	aPFC,Chance	0.003	-0.024	0.030	0.007	0.341	0.062	1.000
	aPFC,Estimate	-0.140	-0.183	-0.097	0.011	-12.326	-2.250	< .001
V1,Estimate	aPFC,Chance	0.097	0.054	0.140	0.011	8.507	1.553	< .001
	aPFC,Estimate	-0.046	-0.073	-0.019	0.007	-6.179	-1.128	< .001
aPFC,Chance	aPFC,Estimate	-0.143	-0.185	-0.100	0.011	-12.728	-2.324	< .001

Note. Cohen's d does not correct for multiple comparisons.
Note. Bonferroni adjusted confidence intervals.

Descriptives

ROI	Condition	Mean	SD	N
LTL	Estimate	0.729	0.070	30
	Chance	0.544	0.034	30
IFG	Estimate	0.701	0.051	30
	Chance	0.537	0.029	30
Prec	Estimate	0.733	0.051	30
	Chance	0.538	0.032	30
ATL	Estimate	0.637	0.053	30
	Chance	0.526	0.030	30
aPFC	Estimate	0.675	0.073	30
	Chance	0.532	0.032	30
Ins	Estimate	0.717	0.043	30
	Chance	0.543	0.029	30
ACC	Estimate	0.722	0.059	30
	Chance	0.538	0.023	30
PCC	Estimate	0.682	0.046	30
	Chance	0.538	0.032	30
V1	Estimate	0.629	0.043	30
	Chance	0.534	0.033	30

Descriptives Plot