Results : Reaction Time

Repeated Measures ANOVA

Reaction Time (overall)

Within Subjects Effects

	Sum of Squares	df	Mean Square	F	p	η^2_p
Probe Type	55760	1	55760	7.1528	0.015	0.273
Probe Type ✻ YesKey	855	1	855	0.1097	0.744	0.006
Residual	148116	19	7796			
Presentation Time	149353	5	29871	3.7460	0.004	0.165
Presentation Time ✻ YesKey	12285	5	2457	0.3081	0.907	0.016
Residual	757540	95	7974			
Compatibility	26663	1	26663	10.1036	0.005	0.347
Compatibility ✻ YesKey	162	1	162	0.0612	0.807	0.003
Residual	50141	19	2639			
Probe Type ✻ Presentation Time	18477	5	3695	1.6556	0.153	0.080
Probe Type ✻ Presentation Time ✻ YesKey	5722	5	1144	0.5127	0.766	0.026
Residual	212039	95	2232			
Probe Type ✻ Compatibility	4440	1	4440	2.4257	0.136	0.113
Probe Type ✻ Compatibility ✻ YesKey	952	1	952	0.5201	0.480	0.027
Residual	34781	19	1831			
Presentation Time ✻ Compatibility	37712	5	7542	2.9976	0.015	0.136
Presentation Time ✻ Compatibility ✻ YesKey	25841	5	5168	2.0540	0.078	0.098
Residual	239040	95	2516			
Probe Type ✻ Presentation Time ✻ Compatibility	14329	5	2866	0.8534	0.516	0.043
Probe Type ✻ Presentation Time ✻ Compatibility ✻ YesKey	17239	5	3448	1.0267	0.406	0.051
Residual	319025	95	3358			

Note. Type 3 Sums of Squares

[3]

Between Subjects Effects

	Sum of Squares	df	Mean Square	F	p	η^2_p
YesKey	1.61e+6	1	1.61e+6	2.09	0.165	0.099
Residual	1.46e+7	19	768938			

Note. Type 3 Sums of Squares

Assumptions

Tests of Sphericity

	Mauchly's W	p	Greenhouse-Geisser ε	Huynh-Feldt ε
Probe Type	1.0000	NaN [a]	1.000	1.000
Presentation Time	0.0758	< .001	0.431	0.488
Compatibility	1.0000	NaN [a]	1.000	1.000
Probe Type ✻ Presentation Time	0.4773	0.559	0.781	1.000
Probe Type ✻ Compatibility	1.0000	NaN [a]	1.000	1.000
Presentation Time ✻ Compatibility	0.3597	0.236	0.703	0.882
Probe Type ✻ Presentation Time ✻ Compatibility	0.3559	0.227	0.764	0.980

[a] The repeated measures has only two levels. The assumption of sphericity is always met when the repeated measures has only two levels.

Post Hoc Tests

Post Hoc Comparisons - Probe Type

Comparison							
Probe Type		Probe Type	Mean Difference	SE	df	t	p_{tukey}
Action	-	Scene	21.1	7.87	19.0	2.67	0.015

Post Hoc Comparisons - Compatibility

Comparison							
Compatibility		Compatibility	Mean Difference	SE	df	t	p_{tukey}
Compatible	-	Incompatible	-14.6	4.58	19.0	-3.18	0.005

[4]

Repeated Measures ANOVA

Reaction Time : **Action** probes

Within Subjects Effects

	Sum of Squares	df	Mean Square	F	p	η^2_p
Presentation Time	133117	5	26623	4.733	< .001	0.199
Presentation Time ✻ YesKey	12684	5	2537	0.451	0.812	0.023
Residual	534427	95	5626			
Compatibility	4671	1	4671	2.478	0.132	0.115
Compatibility ✻ YesKey	949	1	949	0.504	0.487	0.026
Residual	35812	19	1885			
Presentation Time ✻ Compatibility	12460	5	2492	0.791	0.559	0.040
Presentation Time ✻ Compatibility ✻ YesKey	24467	5	4893	1.553	0.181	0.076
Residual	299331	95	3151			

Note. Type 3 Sums of Squares

[3]

Between Subjects Effects

	Sum of Squares	df	Mean Square	F	p	η^2_p
YesKey	840098	1	840098	2.01	0.172	0.096
Residual	7.93e+6	19	417168			

Note. Type 3 Sums of Squares

Repeated Measures ANOVA

Reaction Time : **Scene** probes

Within Subjects Effects

	Sum of Squares	df	Mean Square	F	p	η^2_p
Presentation Time	34713	5	6943	1.5157	0.192	0.074
Presentation Time ✻ YesKey	5323	5	1065	0.2324	0.947	0.012
Residual	435152	95	4581			
Compatibility	26433	1	26433	10.2264	0.005	0.350
Compatibility ✻ YesKey	165	1	165	0.0637	0.803	0.003
Residual	49110	19	2585			
Presentation Time ✻ Compatibility	39582	5	7916	2.9067	0.017	0.133
Presentation Time ✻ Compatibility ✻ YesKey	18613	5	3723	1.3668	0.244	0.067
Residual	258734	95	2724			

Note. Type 3 Sums of Squares

[3]

Between Subjects Effects

	Sum of Squares	df	Mean Square	F	p	η^2_p
YesKey	765998	1	765998	2.13	0.161	0.101
Residual	6.83e+6	19	359565			

Note. Type 3 Sums of Squares

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