

# Quantitative Analysis w. Audio Order - 48 Subjects

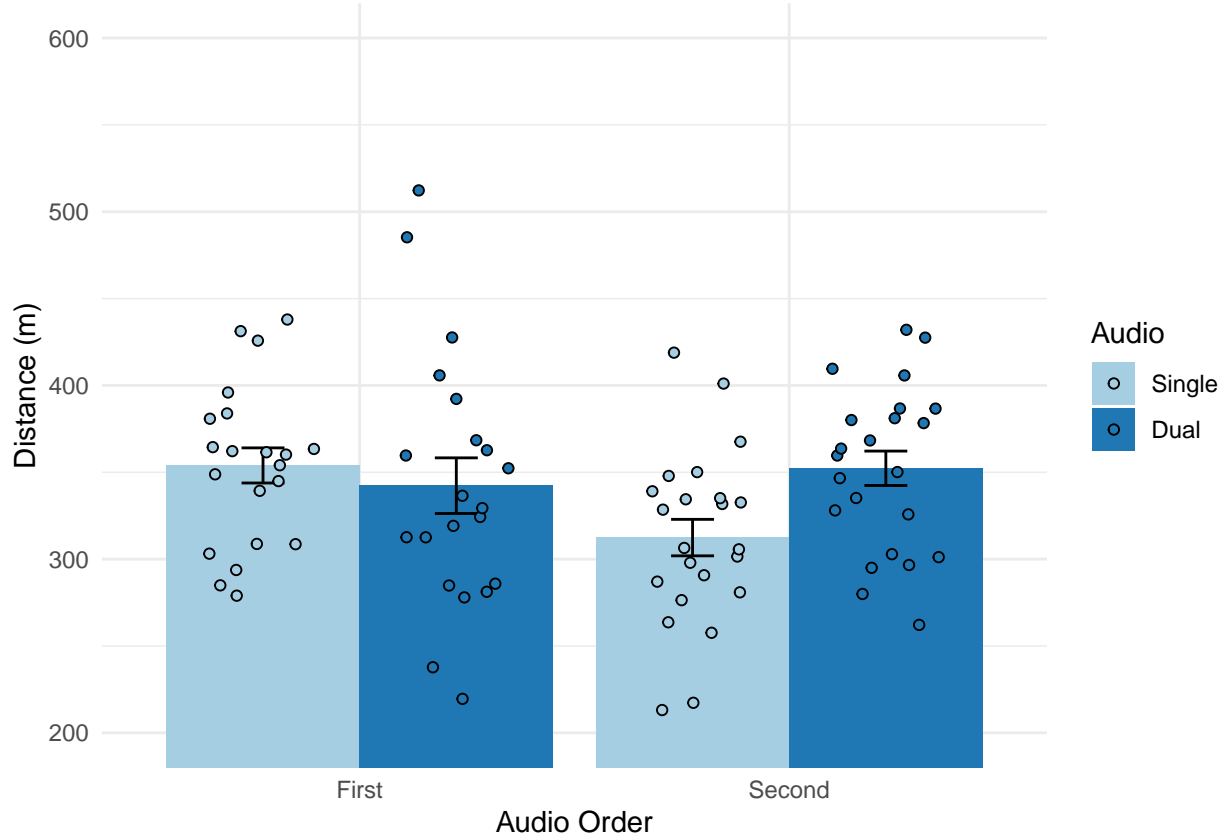
## Distance Traveled 2x2x2 ANOVA (audio,light,audio\_order)

Table 1: ANOVA Table

Effect	DFn	DFd	F	p	p<.05	ges
light	1	40	0.019	0.891000		0.000408
audio_order	1	40	0.995	0.324000		0.021000
audio	1	40	4.927	0.032000	*	0.017000
light:audio_order	1	40	0.750	0.392000		0.016000
light:audio	1	40	0.490	0.488000		0.002000
audio_order:audio	1	40	17.109	0.000176	*	0.056000
light:audio_order:audio	1	40	0.338	0.564000		0.001000

Table 2: Pairwise comparisons - audio\_order\*audio

audio_order	.y.	group1	group2	n1	n2	statistic	df	p	p.adj	p.adj.signif
First	distanceTraveled	Dual	Single	21	21	1.110139	20	2.8e-01	2.8e-01	ns
Second	distanceTraveled	Dual	Single	23	23	-5.764975	22	8.5e-06	8.5e-06	****



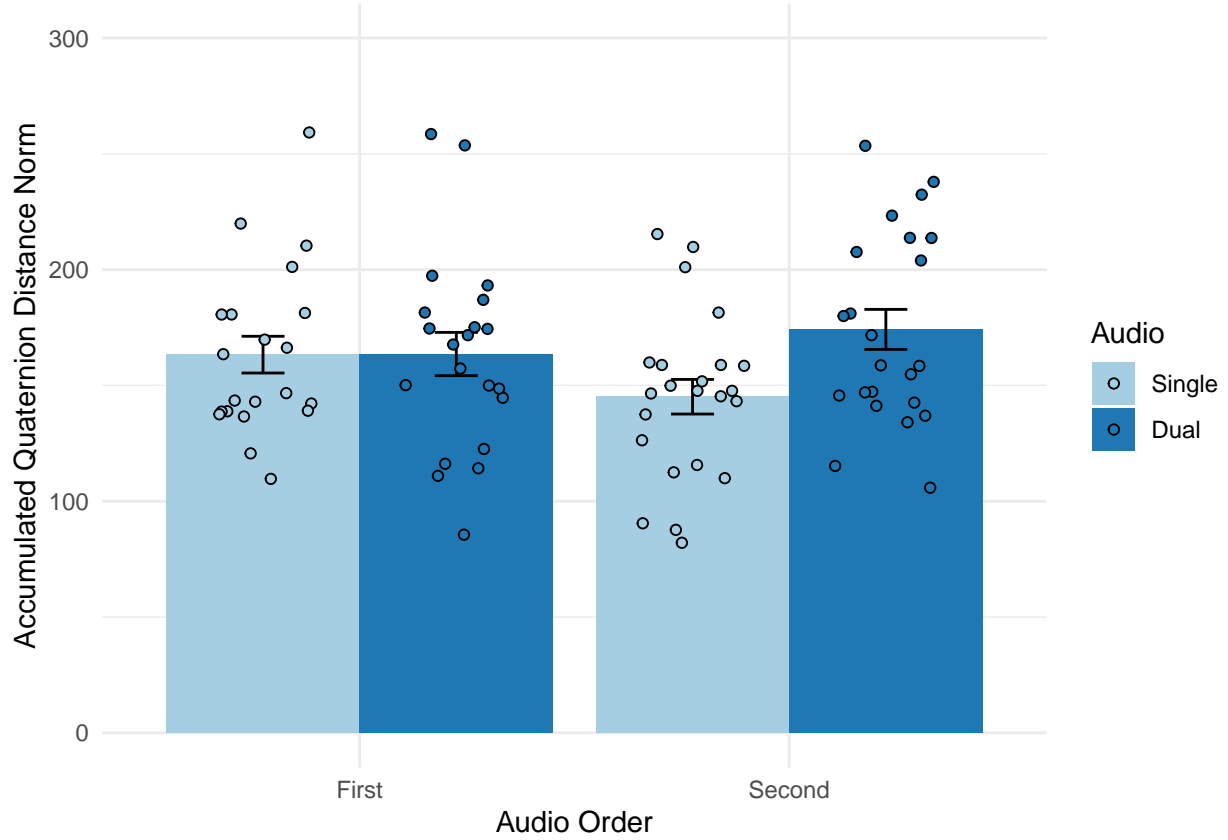
### Head Rotation 2x2x2 ANOVA (audio,light,audio\_order)

Table 3: ANOVA Table

Effect	DFn	DFd	F	p	p<.05	ges
light	1	40	0.259	0.613		6.00e-03
audio_order	1	40	0.097	0.757		2.00e-03
audio	1	40	11.218	0.002	*	3.50e-02
light:audio_order	1	40	0.002	0.962		5.14e-05
light:audio	1	40	1.413	0.242		5.00e-03
audio_order:audio	1	40	11.522	0.002	*	3.60e-02
light:audio_order:audio	1	40	1.151	0.290		4.00e-03

Table 4: Pairwise comparisons - audio\_order\*audio

audio_order	.y.	group1	group2	n1	n2	statistic	df	p	p.adj	p.adj.signif
First	totalRotation	Dual	Single	21	21	-0.0392612	20	9.69e-01	9.69e-01	ns
Second	totalRotation	Dual	Single	23	23	-5.3934358	22	2.04e-05	2.04e-05	****



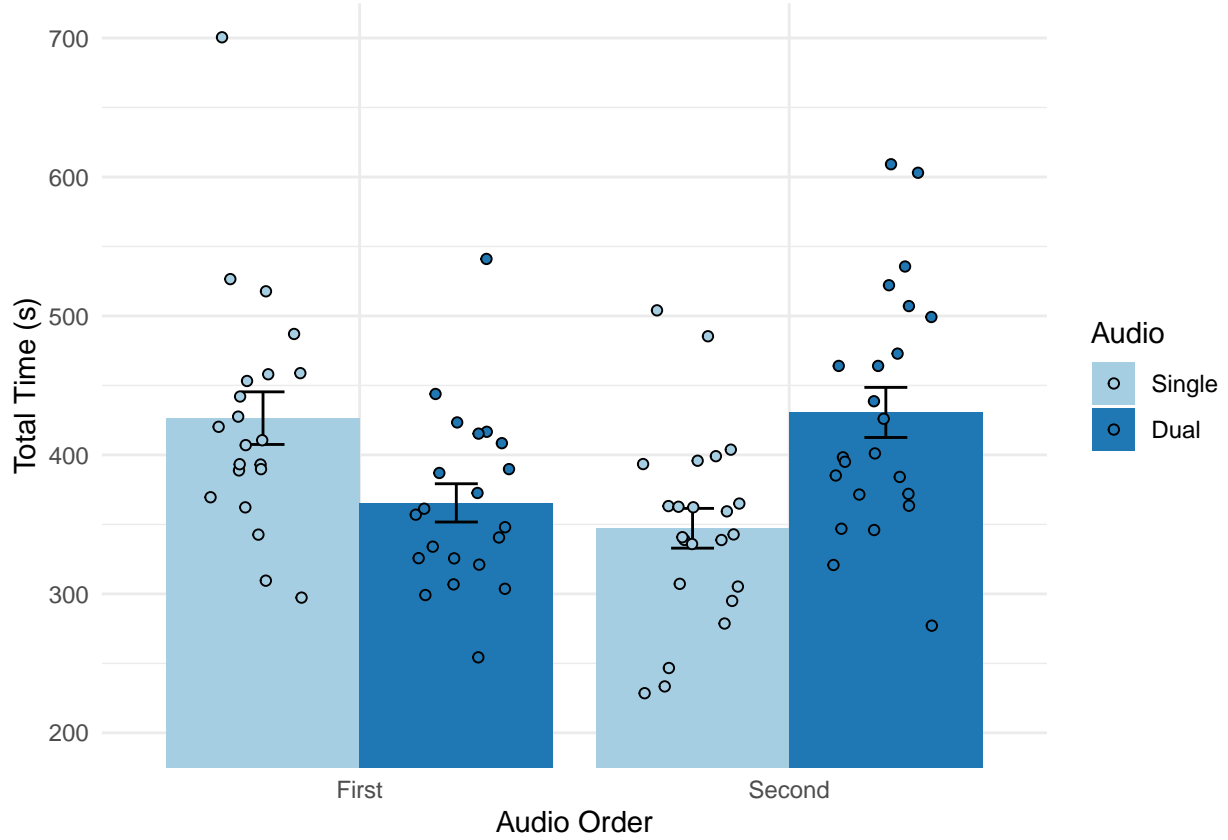
### Total Session Time 2x2x2 ANOVA (audio,light,audio\_order)

Table 5: ANOVA Table

Effect	DFn	DFd	F	p	p<.05	ges
light	1	40	0.057	0.813		0.001000
audio_order	1	40	0.121	0.730		0.002000
audio	1	40	1.087	0.303		0.006000
light:audio_order	1	40	0.441	0.510		0.009000
light:audio	1	40	0.140	0.710		0.000727
audio_order:audio	1	40	44.833	0.000	*	0.189000
light:audio_order:audio	1	40	0.025	0.875		0.000131

Table 6: Pairwise comparisons - audio\_order\*task

audio_order	.y.	group1	group2	n1	n2	statistic	df	p	p.adj	p.adj.signif
First	totalSessionTime	Dual	Single	21	21	3.305880	20	4e-03	4e-03	**
Second	totalSessionTime	Dual	Single	23	23	-7.492953	22	2e-07	2e-07	****



## Gem type analysis

Accuracy 2x2x3x2 ANOVA (light, audio, gemtype, audio\_order)

Table 7: ANOVA Table

Effect	DFn	DFd	F	p	p<.05	ges
light	1	40	3.479	0.070		0.045000
audio_order	1	40	0.013	0.910		0.000174
audio	1	40	2.165	0.149		0.006000
gemType	2	80	50.376	0.000	*	0.208000
light:audio_order	1	40	0.655	0.423		0.009000
light:audio	1	40	1.187	0.282		0.003000
audio_order:audio	1	40	11.868	0.001	*	0.030000
light:gemType	2	80	3.058	0.053		0.016000
audio_order:gemType	2	80	5.279	0.007	*	0.027000
audio:gemType	2	80	0.107	0.898		0.000405
light:audio_order:audio	1	40	1.175	0.285		0.003000
light:audio_order:gemType	2	80	0.201	0.819		0.001000
light:audio:gemType	2	80	0.178	0.838		0.000670
audio_order:audio:gemType	2	80	0.045	0.956		0.000169
light:audio_order:audio:gemType	2	80	0.604	0.549		0.002000

Table 8: Pairwise Comparisons - audio\_order\*audio

audio_order	.y.	group1	group2	n1	n2	statistic	df	p	p.adj	p.adj.signif
First	accuracy	Dual	Single	63	63	-4.480312	62	3.27e-05	3.27e-05	****
Second	accuracy	Dual	Single	69	69	1.379434	68	1.72e-01	1.72e-01	ns

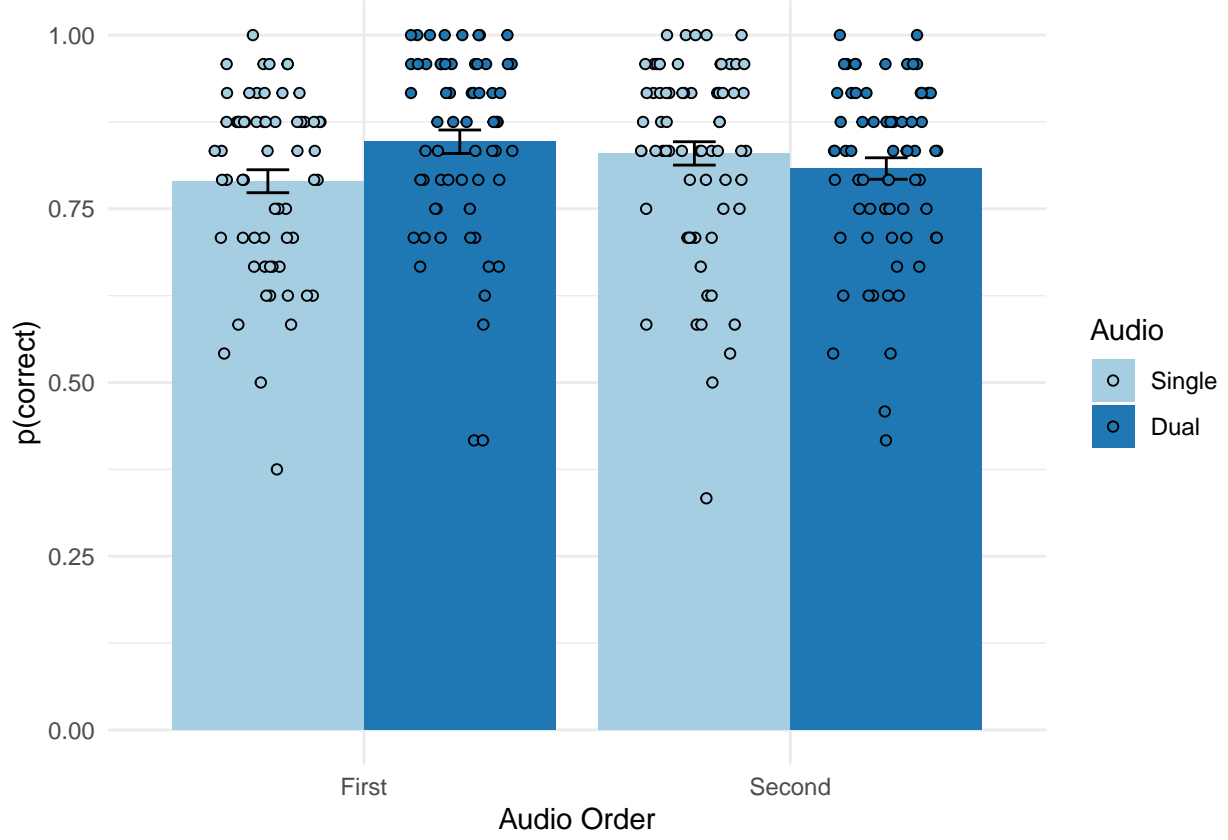
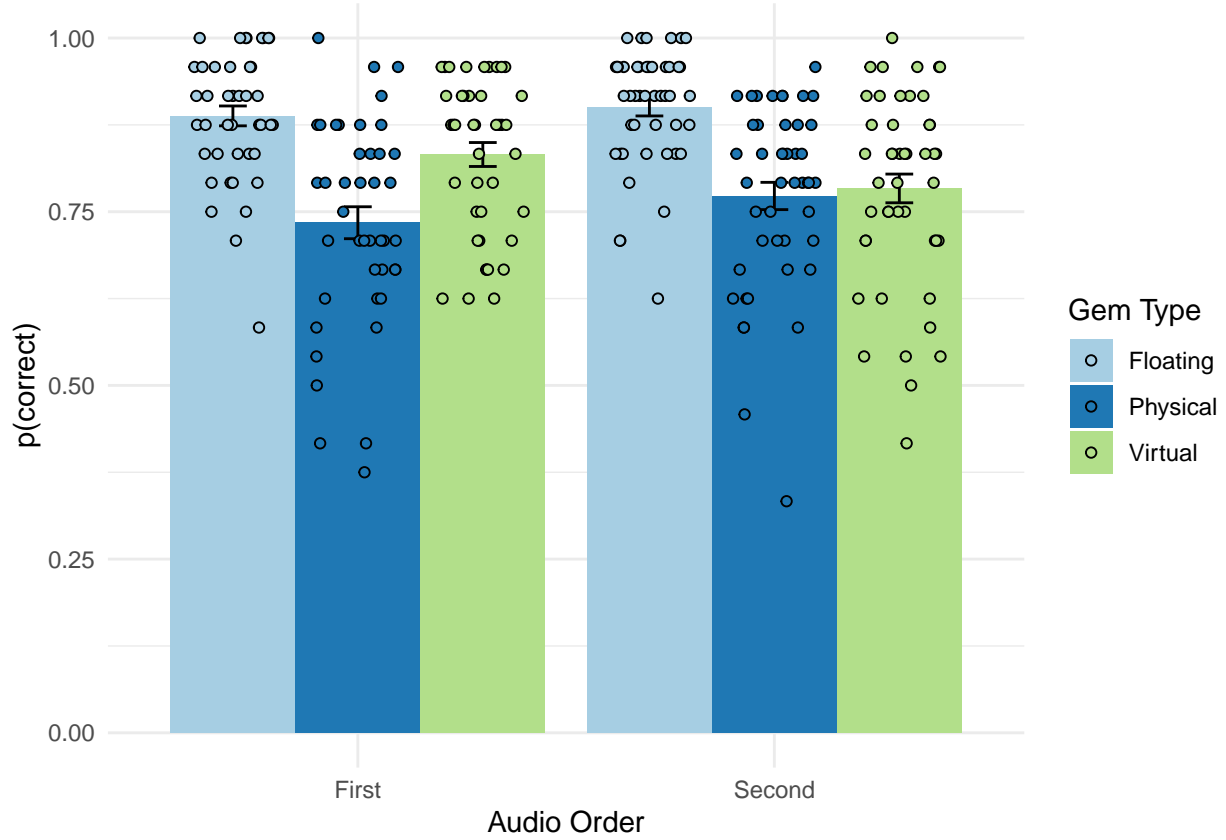


Table 9: Pairwise Comparisons - audio\_order\*gemType

audio_order	.y.	group1	group2	n1	n2	statistic	df	p	p.adj	p.adj.signif
First	accuracy	Floating	Physical	42	42	8.3925201	41	0.00e+00	0.0e+00	****
First	accuracy	Floating	Virtual	42	42	3.6858919	41	6.61e-04	2.0e-03	**
First	accuracy	Physical	Virtual	42	42	-5.5231238	41	2.10e-06	6.2e-06	****
Second	accuracy	Floating	Physical	46	46	6.7504393	45	0.00e+00	1.0e-07	****
Second	accuracy	Floating	Virtual	46	46	6.3225504	45	1.00e-07	3.0e-07	****
Second	accuracy	Physical	Virtual	46	46	-0.5230702	45	6.03e-01	1.0e+00	ns



## Detections 2x2x3x2 ANOVA (light, audio, gemtype, audio\_order)

Table 10: ANOVA Table

Effect	DFn	DFd	F	p	p<.05	ges
light	1	40	3.466	0.070000		3.90e-02
audio_order	1	40	0.018	0.894000		2.12e-04
audio	1	40	2.317	0.136000		6.00e-03
gemType	2	80	35.848	0.000000	*	2.01e-01
light:audio_order	1	40	0.621	0.435000		7.00e-03
light:audio	1	40	2.137	0.152000		6.00e-03
audio_order:audio	1	40	12.849	0.000908	*	3.20e-02
light:gemType	2	80	2.195	0.118000		1.50e-02
audio_order:gemType	2	80	4.303	0.017000	*	2.90e-02
audio:gemType	2	80	0.018	0.982000		6.58e-05
light:audio_order:audio	1	40	0.506	0.481000		1.00e-03
light:audio_order:gemType	2	80	0.058	0.944000		4.07e-04
light:audio:gemType	2	80	0.803	0.452000		3.00e-03
audio_order:audio:gemType	2	80	0.077	0.926000		2.79e-04
light:audio_order:audio:gemType	2	80	0.264	0.768000		9.55e-04

Table 11: Pairwise Comparisons - audio\_order\*audio

audio_order	.y.	group1	group2	n1	n2	statistic	df	p	p.adj	p.adj.signif
First	detectionAccuracy	Dual	Single	63	63	-4.180378	62	0.000093	0.000093	****
Second	detectionAccuracy	Dual	Single	69	69	1.564831	68	0.122000	0.122000	ns

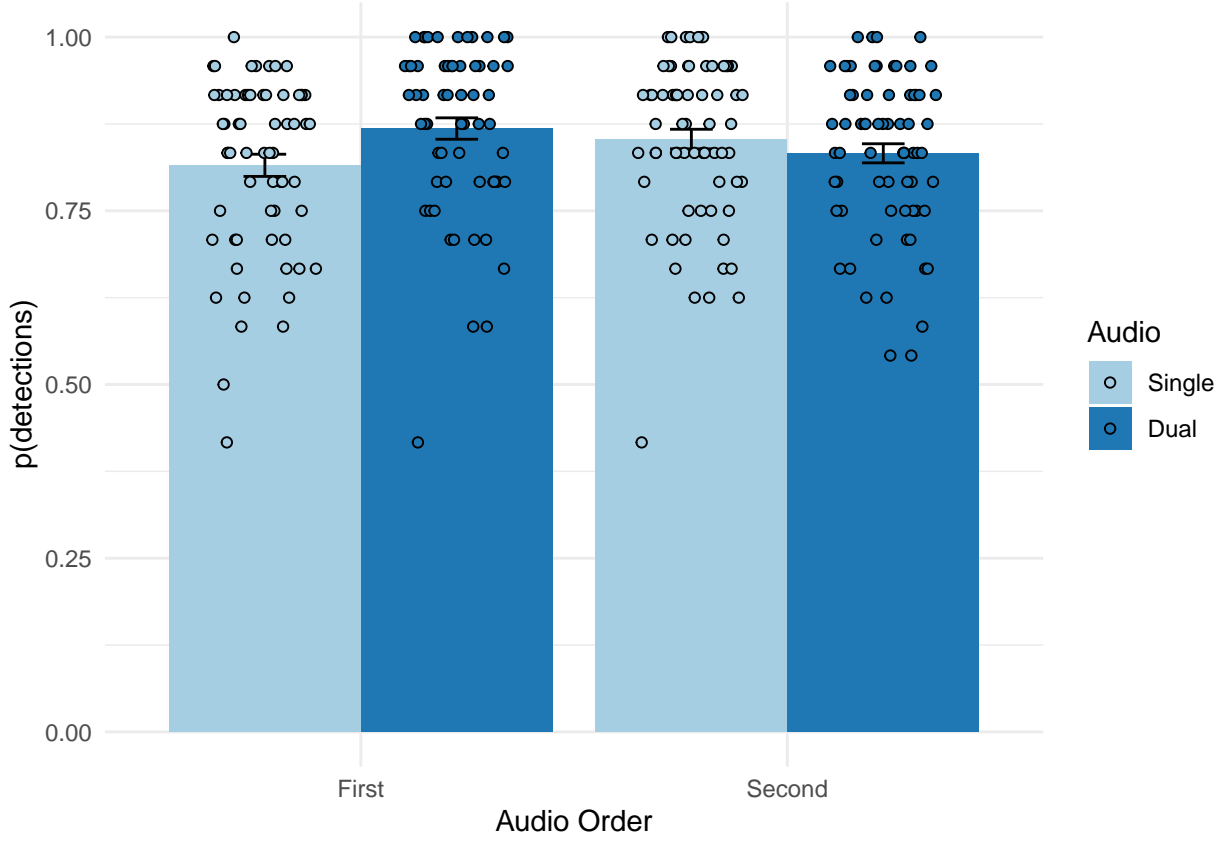
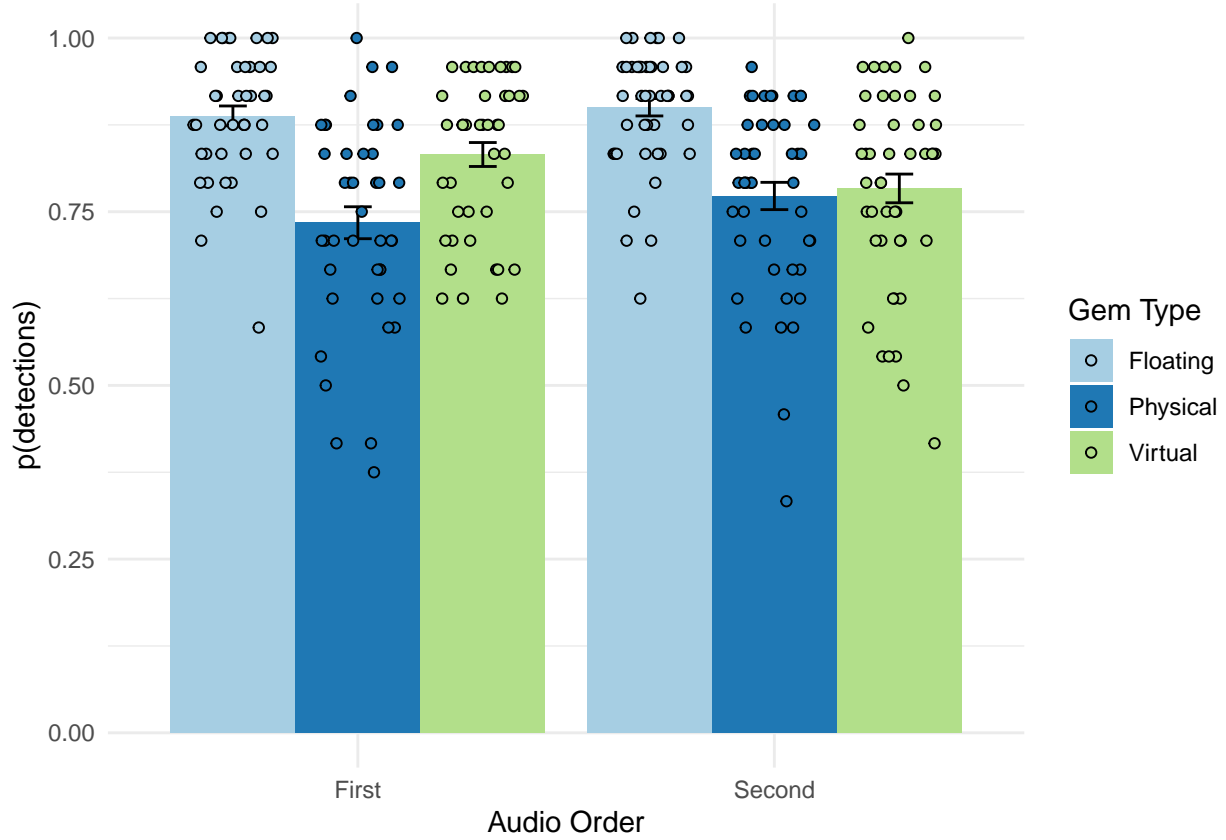


Table 12: Pairwise Comparisons - audio\_order\*gemType

audio_order	.y.	group1	group2	n1	n2	statistic	df	p	p.adj	p.adj.signif
First	detectionAccuracy	Floating	Physical	42	42	7.6152465	41	0.00e+00	0.00e+00	****
First	detectionAccuracy	Floating	Virtual	42	42	2.7992180	41	8.00e-03	2.30e-02	*
First	detectionAccuracy	Physical	Virtual	42	42	-4.8833563	41	1.63e-05	4.89e-05	****
Second	detectionAccuracy	Floating	Physical	46	46	6.3479135	45	1.00e-07	3.00e-07	****
Second	detectionAccuracy	Floating	Virtual	46	46	6.3989619	45	1.00e-07	2.00e-07	****
Second	detectionAccuracy	Physical	Virtual	46	46	-0.4000022	45	6.91e-01	1.00e+00	ns



### Discriminations 2x2x3x2 ANOVA (light, audio, gemtype, audio\_order)

Table 13: ANOVA Table

Effect	DFn	DFd	F	p	p<.05	ges
light	1	40	1.051	0.311000		1.20e-02
audio_order	1	40	0.011	0.918000		1.20e-04
audio	1	40	0.072	0.790000		2.87e-04
gemType	2	80	7.546	0.000995	*	3.80e-02
light:audio_order	1	40	0.582	0.450000		6.00e-03
light:audio	1	40	0.023	0.880000		9.29e-05
audio_order:audio	1	40	0.226	0.637000		9.01e-04
light:gemType	2	80	3.225	0.045000	*	1.70e-02
audio_order:gemType	2	80	1.160	0.319000		6.00e-03
audio:gemType	2	80	0.565	0.571000		3.00e-03
light:audio_order:audio	1	40	2.251	0.141000		9.00e-03
light:audio_order:gemType	2	80	1.743	0.181000		9.00e-03
light:audio:gemType	2	80	0.470	0.627000		2.00e-03
audio_order:audio:gemType	2	80	0.497	0.610000		2.00e-03
light:audio_order:audio:gemType	2	80	0.975	0.382000		4.00e-03

No significant interactions with audio order in discrimination data