Supplement to "Auditory attention switching with listening difficulty: Behavioral and pupillometric measures"

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SUMMARY OF RESPONSE ACCURACY MODEL

Table S1: Summary of response accuracy model. Horizontal rules separate terms modeling baseline response levels for the token types target/foil/neither ("intercepts"), main effects of predictors, and interactions among predictors. SE = standard error of coefficient estimates; list.diff. = listening difficulty group; Signif. = significance codes (* = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$).

Predictor	Estimate	SE	Wald z	p	Signif.
INTERCEPTS					
neither	−1.64	0.03	−50.42	<0.001	***
target	2.74	0.04	69.76	<0.001	***
foil	−0.22	0.05	−4.26	<0.001	***
MAIN EFFECTS					
neither : list.diff.	0.17	0.06	2.57	0.010	*
target : list.diff.	−0.03	0.07	−0.51	0.612	
foil : list.diff.	0.18	0.10	1.81	0.070	
neither : switch	0.08	0.05	1.50	0.133	
target : switch	−0.22	0.06	−3.92	<0.001	***
foil : switch	0.26	0.09	2.85	0.004	**
neither : spatial	0.11	0.04	2.85	0.004	**
target : spatial	−0.14	0.04	−3.50	<0.001	***
foil : spatial	0.29	0.06	4.92	<0.001	***
neither : non-spatial	0.13	0.04	3.42	0.001	***
target : non-spatial	−0.10	0.04	−2.62	0.009	**
foil : non-spatial	0.25	0.06	4.29	<0.001	***
INTERACTIONS					
neither : list.diff. : switch	−0.05	0.06	−0.82	0.411	

target : list.diff. : switch	−0.01	0.06	−0.23	0.821	
foil : list.diff. : switch	0.01	0.09	0.14	0.890	
neither : list.diff. : spatial	−0.04	0.07	−0.53	0.595	
target : list.diff. : spatial	−0.04	0.08	−0.57	0.567	
foil : list.diff. : spatial	0.33	0.12	2.81	0.005	**
neither : list.diff. : non-spatial	−0.05	0.07	−0.74	0.460	
target : list.diff. : non-spatial	−0.04	0.08	−0.47	0.637	
foil : list.diff. : non-spatial	−0.07	0.12	−0.56	0.575	
neither : switch : spatial	0.01	0.07	0.18	0.853	
target : switch : spatial	−0.09	0.08	−1.17	0.242	
foil : switch : spatial	−0.27	0.12	−2.33	0.020	*
neither : switch : non-spatial	0.01	0.07	0.20	0.840	
target : switch : non-spatial	−0.02	0.08	−0.29	0.771	
foil : switch : non-spatial	−0.06	0.12	−0.51	0.611	

SUMMARY OF REACTION TIME MODEL

Table S2: Summary of reaction time model. Horizontal rules separate terms modeling main effects and interactions among predictors. SE = standard error of coefficient estimates; DF = Kenward-Roger estimate of degrees of freedom; signif. = significance codes (* = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$).

Predictor	Estimate	SE	DF	t	p	Signif.
MAIN EFFECTS						
Intercept	0.565	0.015	28.4	36.68	<0.001	***
listening difficulty – control	0.032	0.031	28.4	1.06	0.300	
spatial – mixed	−0.008	0.008	7705.1	−0.96	0.337	
non-spatial – mixed	0.011	0.008	7705.1	1.35	0.179	
switch – maintain	0.010	0.011	7705.3	0.87	0.382	
slot 2 – slot 1	−0.143	0.008	7705.3	−18.89	<0.001	***
slot 3 – slot 1	−0.021	0.008	7705.2	−2.61	0.009	**
slot 4 – slot 1	−0.147	0.008	7705.5	−19.60	<0.001	***
TWO-WAY INTERACTIONS						
list.diff : spatial	−0.016	0.016	7705.1	−1.00	0.319	
list.diff : non-spatial	−0.003	0.016	7705.1	−0.17	0.861	
list.diff : switch	−0.002	0.022	7705.3	−0.10	0.921	
switch : spatial	−0.024	0.016	7705.0	−1.53	0.126	
switch : non-spatial	−0.013	0.016	7705.1	−0.84	0.398	
list.diff : slot 2	−0.017	0.015	7705.3	−1.11	0.267	
list.diff : slot 3	−0.015	0.016	7705.2	−0.95	0.344	
list.diff : slot 4	−0.008	0.015	7705.5	−0.53	0.599	
spatial : slot 2	0.018	0.011	7705.0	1.65	0.099	
spatial : slot 3	0.018	0.011	7705.1	1.61	0.107	
spatial : slot 4	0.009	0.011	7705.0	0.87	0.386	
non-spatial : slot 2	0.007	0.011	7705.0	0.61	0.543	
non-spatial : slot 3	0.024	0.011	7705.1	2.14	0.032	*

non-spatial : slot 4	0.035	0.011	7705.0	3.27	0.001	**
switch : slot 2	0.008	0.015	7705.0	0.52	0.605	
switch : slot 3	0.037	0.016	7705.1	2.35	0.019	*
switch : slot 4	0.026	0.015	7705.2	1.73	0.084	

THREE-WAY INTERACTIONS						
list.diff : switch : spatial	−0.026	0.032	7705.0	−0.81	0.417	
list.diff : switch : non-spatial	−0.002	0.032	7705.1	−0.06	0.955	
list.diff : spatial : slot 2	0.001	0.022	7705.0	0.03	0.979	
list.diff : spatial : slot 3	0.005	0.023	7705.1	0.20	0.842	
list.diff : spatial : slot 4	0.020	0.021	7705.0	0.92	0.360	
list.diff : non-spatial : slot 2	−0.011	0.022	7705.0	−0.50	0.616	
list.diff : non-spatial : slot 3	−0.006	0.023	7705.1	−0.26	0.795	
list.diff : non-spatial : slot 4	0.002	0.021	7705.0	0.12	0.907	
list.diff : switch : slot 2	−0.023	0.030	7705.0	−0.76	0.445	
list.diff : switch : slot 3	−0.010	0.032	7705.1	−0.33	0.745	
list.diff : switch : slot 4	0.014	0.030	7705.2	0.47	0.639	
switch : spatial : slot 2	0.003	0.022	7705.0	0.14	0.892	
switch : spatial : slot 3	0.007	0.023	7705.0	0.32	0.745	
switch : spatial : slot 4	0.012	0.021	7705.0	0.56	0.573	
switch : non-spatial : slot 2	−0.010	0.022	7705.0	−0.45	0.651	
switch : non-spatial : slot 3	0.013	0.023	7705.1	0.59	0.554	
switch : non-spatial : slot 4	0.021	0.021	7705.1	0.98	0.329	

FOUR-WAY INTERACTIONS						
list.diff : switch : spatial : slot 2	0.057	0.043	7705.0	1.31	0.190	
list.diff : switch : spatial : slot 3	0.050	0.045	7705.0	1.11	0.265	
list.diff : switch : spatial : slot 4	0.055	0.043	7705.0	1.29	0.197	
list.diff : switch : non-spatial : slot 2	0.011	0.043	7705.0	0.27	0.790	
list.diff : switch : non-spatial : slot 3	0.039	0.045	7705.1	0.87	0.385	
list.diff : switch : non-spatial : slot 4	0.084	0.043	7705.1	1.97	0.049	*