

Appendix

Table 2. Statistics for Experiment 1 and 2, including results from generalized linear mixed-effect models estimating the effect of Predictors on Accuracy or RT, effect sizes (*ES*) and bayes factors (*BF*). The results from models include fixed effect coefficient estimates (β), standard errors (*SE*), *z* or *t* values for Accuracy or RT, respectively, degrees of freedom (*df*), *p* values, and 95% confidence intervals (*CI*). The *ES*s for Accuracy and RT are the odds ratio (*OR*) and Cohen's *d*, respectively. The prior probability of the null hypothesis versus alternative hypothesis for *BF*s is set as 1. The order of the statistics in this table follows the order in main texts.

Experiment	Result	Predictor	β	<i>SE</i>	<i>z/t</i>	<i>df</i>	<i>p</i> value	95% <i>CI</i>	<i>ES (OR/d)</i>	<i>BF</i>
		Number of Targets								
	Accuracy	Small	-0.75	0.24	-3.12	710	0.002	[-1.23, -0.28]	0.47	
		Large	-0.31	0.19	-1.57	683	0.12	[-0.69, 0.08]	0.73	0.62
		Number of Targets (correct)								
		Small	0.06	0.01	11.14	622	2.14E-26	[0.05, 0.07]	0.88	
		Large	0.06	0.004	14.30	533	1.72E-39	[0.05, 0.06]	0.69	
		Number of Targets (incorrect)								
1	RT	Small	-0.01	0.01	-0.62	86	0.53	[-0.04, 0.02]	0.14	0.26
		Large	0.00	0.01	-0.70	148	0.49	[-0.02, 0.009]	0.08	0.27
		Correctness (1T)								
		Small	-0.02	0.01	-2.33	359	0.02	[-0.05, -0.004]	-0.50	
		Large	-0.02	0.00	-3.86	346	0.0001	[-0.02, -0.008]	-0.40	

Experiment	Result	Predictor	β	SE	z/t	df	p value	95% CI	ES (OR/d)	BF
		Correctness (2T)								
		Small	0.04	0.01	4.22	349	3.14E-05	[0.02, 0.06]	0.53	
		Large	0.04	0.01	5.04	335	7.66E-07	[0.02, 0.05]	0.38	
		Number of Targets								
		Small	-2.12	0.37	-5.74	3523	9.99E-09	[-2.85, -1.40]	0.12	
		Large	-1.26	0.33	-3.81	3369	0.0001	[-1.91, -0.61]	0.28	
		Prevalence								
2		Small	-1.11	0.41	-2.72	3523	0.007	[-1.91, -0.31]	0.33	
		Large	-0.35	0.35	-1.01	3369	0.32	[-1.03, 0.33]	0.71	0.44
		Number of Targets × Prevalence								
	Accuracy	Small	1.22	0.25	4.91	3523	9.31E-07	[0.74, 1.71]	3.40	
		Large	0.68	0.22	3.15	3369	0.002	[0.26, 1.11]	1.98	
		Number of Targets (rare 2T)								
		Small	-0.89	0.16	-5.67	1758	1.63E-08	[-1.20, -0.58]	0.41	
		Large	-0.61	0.15	-4.11	1742	4.12E-05	[-0.89, -0.32]	0.55	

Experiment	Result	Predictor	β	SE	z/t	df	p value	95% CI	ES (OR/d)	BF	
2		Number of Targets (rare 1T)									
		Small	0.32	0.20	1.66	1765	0.10	[-0.06, 0.71]	1.38	0.69	
		Large	0.10	0.16	0.63	1627	0.53	[-0.21, 0.42]	1.11	0.26	
			Prevalence (1T)								
	Accuracy	Small	0.12	0.19	0.66	1757	0.5097	[-0.24, 0.49]	1.13	0.26	
		Large	0.32	0.16	2.06	1775	0.0400	[0.01, 0.63]	1.38		
		Number of Targets (correct in rare 2T)									
		Small	0.06	0.01	11.08	1483	1.79E-27	[0.05, 0.08]	0.65		
		Large	0.06	0.005	12.16	1262	2.95E-32	[0.05, 0.06]	0.52		
		Number of Targets (correct in rare 1T)									
		Small	0.12	0.01	20.61	1589	7.43E-84	[0.10, 0.13]	1.23		
		Large	0.09	0.004	21.48	1319	5.31E-88	[0.08, 0.10]	0.87		
		Number of Targets (incorrect in rare)									
		Small	-0.03	0.01	-2.47	273	0.01	[-0.06, -0.007]	-0.35		
		Large	0.0002	0.01	0.03	478	0.98	[-0.02, 0.02]	-0.02	0.21	

Experiment	Result	Predictor	β	SE	z/t	df	p value	95% CI	ES (OR/d)	BF	
2	RT	Number of Targets (incorrect in rare)									
		Small	-0.08	0.02	-4.01	174	8.86E-05	[-0.12, -0.04]	-0.63		
		Large	-0.06	0.01	-6.86	306	3.73E-11	[-0.07, -0.04]	-0.45		
		Prevalence (correct 1T)									
		Small	-0.06	0.004	-13.99	1523	6.56E-42	[-0.06, -0.05]	-0.85		
		Large	-0.04	0.003	-14.99	1333	4.42E-47	[-0.05, -0.04]	-0.54		
		Prevalence (incorrect 1T)									
		Small	0.001	0.03	0.04	232	0.97	[-0.05, 0.05]	0.08	0.21	
		Large	0.01	0.01	0.94	440	0.35	[-0.01, 0.03]	-0.002	0.32	
		Correctness (1T in rare 2T)									
		Small	-0.06	0.01	-8.11	1408	1.08E-15	[-0.07, -0.04]	-0.66		
		Large	-0.03	0.004	-6.97	1436	4.96E-12	[-0.03, -0.02]	-0.41		
		Correctness (1T in rare 1T)									
		Small	-0.11	0.02	-7.16	347	4.82E-12	[-0.14, -0.08]	-1.19		
Large	-0.07	0.01	-8.93	337	2.80E-17	[-0.08, -0.05]	-0.78				

Experiment	Result	Predictor	β	SE	z/t	df	p value	95% CI	ES (OR/d)	BF
2		Correctness (2T in rare 2T)								
		Small	0.03	0.01	2.28	348	0.02	[0.004, 0.05]	0.43	
		Large	0.02	0.01	1.88	304	0.06	[-0.0009, 0.04]	0.08	0.92
		Correctness (2T in rare 1T)								
		Small	0.05	0.01	5.71	1416	1.39E-08	[0.04, 0.07]	0.61	
		Large	0.07	0.005	13.97	1288	2.01E-41	[0.06, 0.08]	0.57	