

Supplementary Materials

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The effect of autism on information sampling during decision-making: An eye-tracking study

As mentioned in the main text, we analysed 3 additional dependent variables: Inspection Time, Non-Inspection Time, and a Modified Search Index which addresses sources of bias in the original search index, and is given by:

$$\text{Modified Search Index} = \frac{\sqrt{N} \left(\left(\frac{AD}{N} \right) (r_a - r_d) - (D - A) \right)}{\sqrt{A^2(D - 1) + D^2(A - 1)}}$$

Where N = the total number of transitions, A = the number of options, D = the number of attributes, r_a = the number of option-wise transitions, and r_d = the number of attribute-wise transitions.

The results for these variables are plotted in Figure S1 and the corresponding ANOVAs are in Table S1. The results for Inspection Time and Non-inspection Time mimic those for total Decision Time (i.e., Trial Duration) reported in the main text; the results for the Modified Search Index mimic those of the original search index.

Figure S2 plots the two-way interactions between participant group (ASC vs NT) and number of options, separately for each dependent variable. None of the interactions are “significant”.

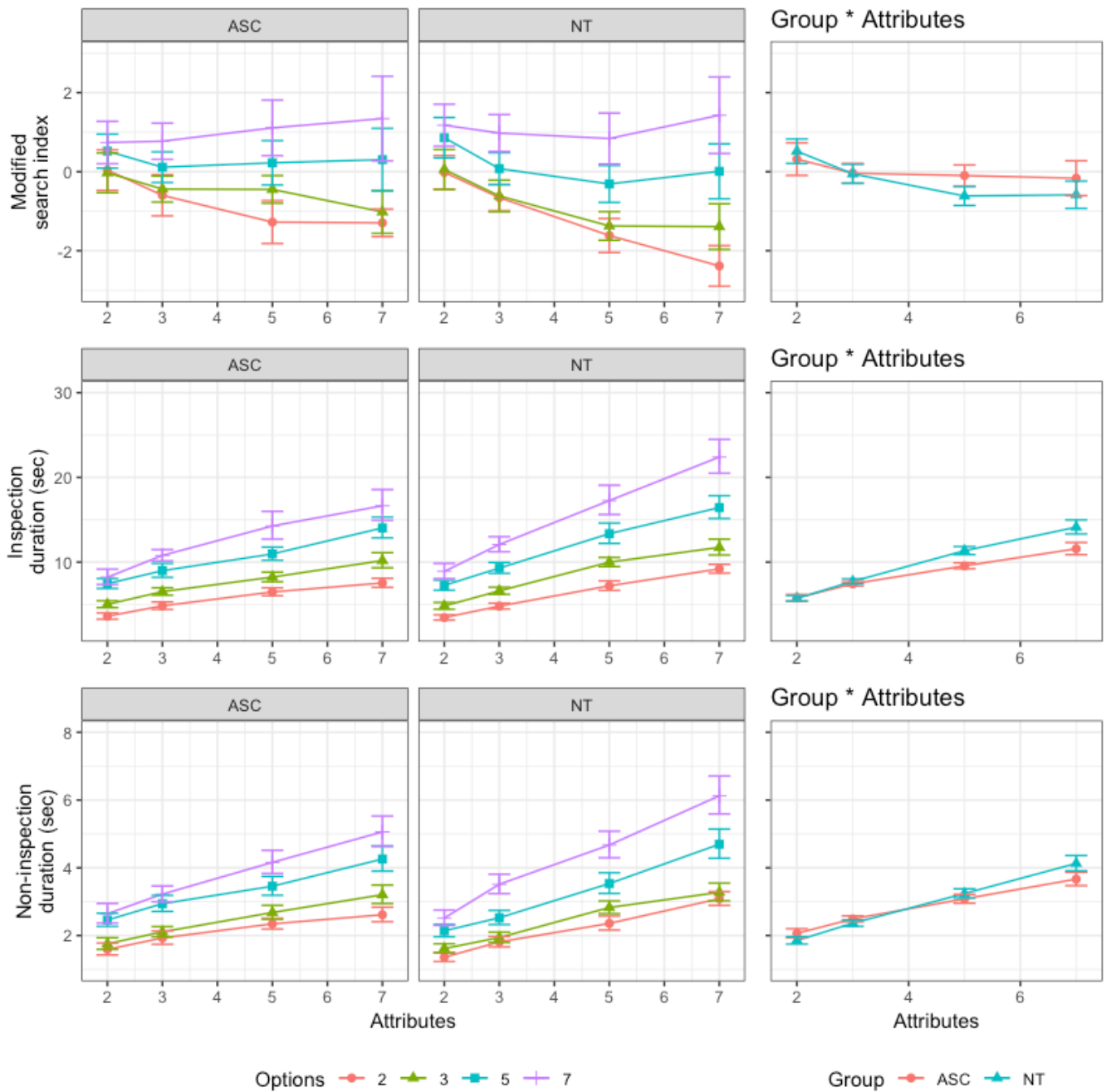


Figure S1. The modified search index (top row) did not reveal any significant effects of autism. Both inspection and non-inspection duration revealed a significant interaction between group (ASC, NT) and the number of attributes. The ASC group spent less time than the NT group for larger numbers of attributes. Error bars are 95% confidence intervals with a within-subjects correction (Morey, 2008).

Table S1. ANOVA results for Inspection time, non-inspection time, and modified search index

		Group	Natt	Nopt	Group* Natt	Group* Nopt	Natt* Nopt	Group* Natt* Nopt
Inspection Time	<i>F</i>	2.66	395.8	479.58	8.10	1.94	1.51	0.55
	<i>df</i>	1, 68	1.8, 120.8	1.8, 125	1.8, 120.8	1.8, 125	7.5, 512.8	7.5, 512.8
	<i>p</i>	.107	<.001	<.001	.001	.151	.155	.809
	η^2_p	.04	.85	.88	.11	.03	.02	.01
	<i>CI</i>	0, .13	.81, .88	.84, .9	.03, .19	0, .08	0, .03	0, .01
Non- inspection Time	<i>F</i>	0.00	302.68	273.67	8.62	2.92	1.38	0.91
	<i>df</i>	1, 68	1.9, 126.7	2.1, 143.9	1.9, 126.7	2.1, 143.9	7.9, 534.2	7.9, 534.2
	<i>p</i>	.972	<.001	<.001	<.001	.054*	.205	.504
	η^2_p	.00	.82	.80	.11	.04	.02	.01
	<i>CI</i>	0, 1	.77, .85	.75, .83	.03, .2	0, .1	0, .03	0, .02
SMI	<i>F</i>	0.20	10.97	45.64	2.28	0.73	9.34	0.79
	<i>df</i>	1, 68	1.6, 111.1	1.4, 94.6	1.6, 111.1	1.4, 94.6	6.4, 432.9	6.4, 432.9
	<i>p</i>	.653	<.001	<.001	.117	.439	<.001	.589
	η^2_p	.00	.14	.40	.03	.01	.12	.01
	<i>CI</i>	0, .06	.05, .23	.27, .50	0, .10	0, .06	.07, .16	0, .02

* $p = .035$ without Greenhouse-Geisser correction.

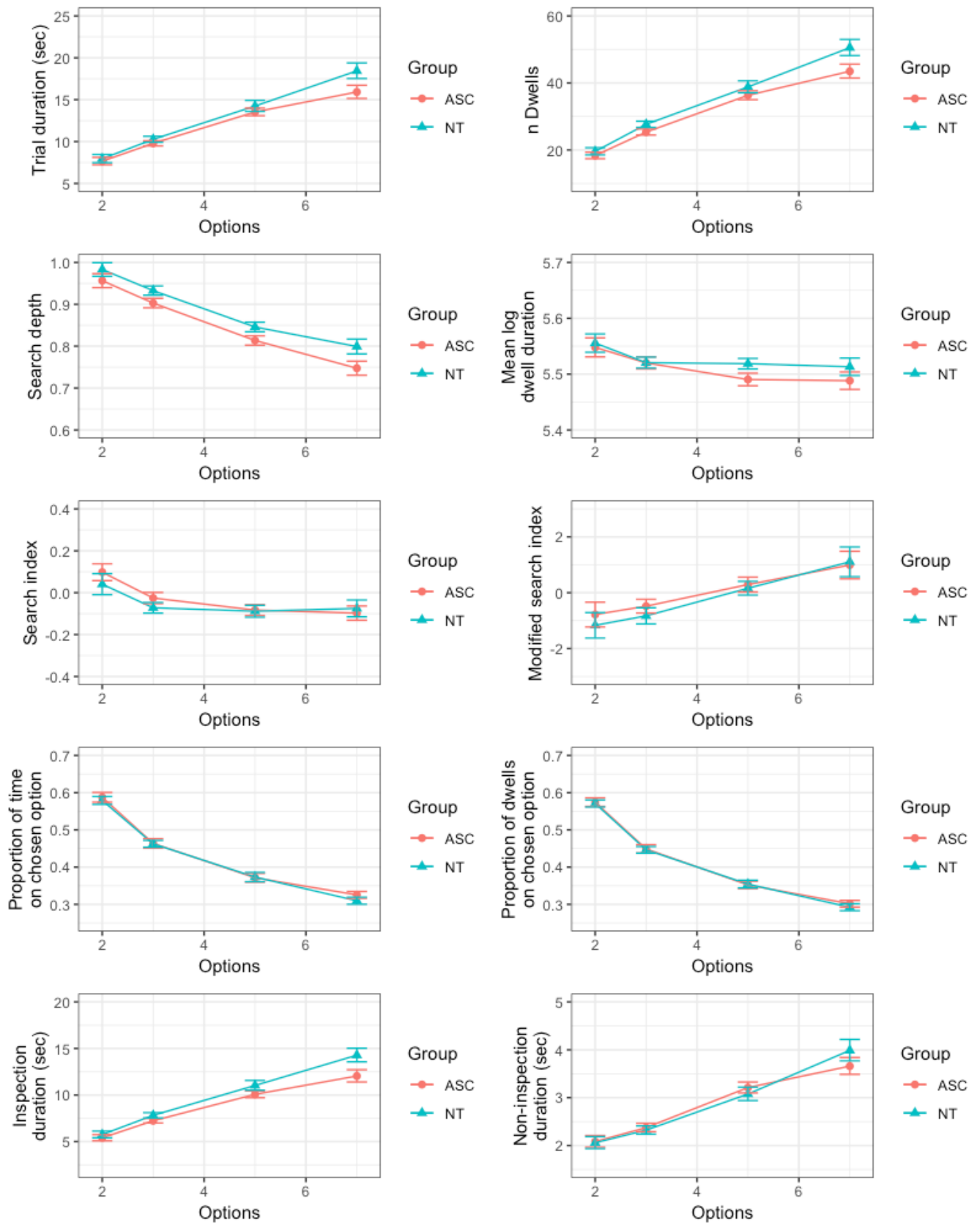


Figure S2. Plots show the interaction of group (ASC, NT) and number of options, for each of the dependent variables. None of these interactions were significant (see Table 4 in the main text). Error bars are 95% confidence intervals with within-subjects correction.