



Suppl. Fig. 1 | Taste Detection and Evaluation Task (TDE). **a**, Taste detection accuracy (proportion correct), **b**, intensity ratings (1=not intense, 10=very intense), and **c**, pleasantness ratings (1=not pleasant, 10=very pleasant) for each of the ten stimuli. Data points are means, error bars are SEM. N=21 for Experiment 1 (blue) and N=20 for Experiment 2 (red).

Supplementary Table 1 (Fig. 2a) | Pairwise comparisons of accuracy for different numbers of disturbances (0-4) in Experiment 1.

Pairs (number of disturbances)		95% CI for Mean Difference					
		Lower	Upper	SE	t	Cohen's d	p _{bonf}
0	1	-0.0898	-0.0013	0.0140	-3.2476	-0.7087	0.0403 *
	2	-0.0699	0.0160	0.0136	-1.9780	-0.4316	0.6187
	3	-0.0396	0.0522	0.0145	0.4336	0.0946	1.0000
	4	-0.0395	0.0769	0.0185	1.0125	0.2209	1.0000
1	2	-0.0191	0.0564	0.0120	1.5585	0.3401	1.0000
	3	0.0125	0.0913	0.0125	4.1526	0.9062	0.0049 **
	4	0.0082	0.1204	0.0178	3.6139	0.7886	0.0173 *
2	3	-0.0064	0.0729	0.0126	2.6437	0.5769	0.1558
	4	-0.0064	0.0976	0.0165	2.7660	0.6036	0.1192
3	4	-0.0337	0.0584	0.0146	0.8482	0.1851	1.0000

* p < .05, ** p < .01

Note. Cohen's d does not correct for multiple comparisons.

Note. P-values and confidence intervals are adjusted for comparing a family of 10 estimates (confidence intervals are corrected using the Bonferroni method).

Supplementary Table 2 (Fig. 2d) | a, Pairwise comparisons of accuracy for different numbers of disturbances (0-4) for match and **b**, for lure trials in Experiment 1.

2a: Pairwise Comparisons (match trials)		95% CI for Mean Difference					
Pairs (number of disturbances)		Lower	Upper	SE	t	Cohen's d	p_{bonf}
1	2	0.0023	0.0873	0.0145	3.0853	0.6733	0.0350 *
	3	0.0374	0.1434	0.0181	4.9888	1.0887	< .001 ***
	4	0.0607	0.2064	0.0249	5.3676	1.1713	< .001 ***
2	3	-0.0041	0.0952	0.0170	2.6871	0.5864	0.0850
	4	0.0187	0.1588	0.0239	3.7074	0.8090	0.0084 **
3	4	-0.0011	0.0875	0.0151	2.8528	0.6225	0.0590
2b: Pairwise Comparisons (lure trials)							
1	2	-0.0567	0.0425	0.0170	-0.4181	-0.0912	1.0000
	3	-0.0545	0.0812	0.0232	0.5750	0.1255	1.0000
	4	-0.0761	0.0670	0.0244	-0.1856	-0.0405	1.0000
2	3	-0.0558	0.0967	0.0261	0.7840	0.1711	1.0000
	4	-0.0622	0.0673	0.0221	0.1154	0.0252	1.0000
3	4	-0.0919	0.0562	0.0253	-0.7066	-0.1542	1.0000

* $p < .05$, ** $p < .01$, *** $p < .001$

Note. Cohen's d does not correct for multiple comparisons.

Note. P-values and confidence intervals are adjusted for comparing a family of 6 estimates (confidence intervals are corrected using the Bonferroni method).

Supplementary Table 3 (Fig. 3a) | Pairwise comparisons of accuracy of accuracy for different set sizes (1-5) in Experiment 2.

Pairwise Comparisons - set size		95% CI for Mean Difference					
Pairs (set size)		Lower	Upper	SE	t	Cohen's d	p_{bonf}
1	2	0.0233	0.1075	0.0133	4.9289	1.1021	< .001 ***
	3	0.0656	0.1705	0.0165	7.1483	1.5984	< .001 ***
	4	0.0854	0.1888	0.0163	8.4204	1.8828	< .001 ***
	5	0.1012	0.2372	0.0214	7.8950	1.7654	< .001 ***
2	3	0.0076	0.0977	0.0142	3.7092	0.8294	0.0149 *
	4	0.0326	0.1109	0.0123	5.8171	1.3008	< .001 ***
	5	0.0511	0.1565	0.0166	6.2537	1.3984	< .001 ***
3	4	-0.0238	0.0619	0.0135	1.4134	0.3161	1.0000
	5	0.0133	0.0890	0.0119	4.2872	0.9587	0.0040 **
4	5	-0.0158	0.0799	0.0151	2.1250	0.4752	0.4693

* p < .05, ** p < .01, *** p < .001

Note. Cohen's d does not correct for multiple comparisons.

Note. P-values and confidence intervals are adjusted for comparing a family of 10 estimates (confidence intervals are corrected using the Bonferroni method).

Supplementary Table 4 (Fig. 3c) | One sample t-tests comparing the accuracy for each position in a set to chance level.

One Sample T-Test						
set size	position from probe	t	df	p	p_{bonf}	Cohen's d
5	-5	2.602	19	0.0088	0.044	0.5818
	-4	1.4405	19	0.083	0.415	0.3221
	-3	2.0945	19	0.0249	0.1245	0.4684
	-2	8.0264	19	< .001	< 0.005	1.7948
	-1	7.9167	19	< .001	< 0.005	1.7702
4	-4	4.1436	19	< .001	< 0.004	0.9265
	-3	1.8827	19	0.0376	0.1504	0.421
	-2	3.5652	19	0.001	0.004	0.7972
	-1	8.9532	19	< .001	< 0.004	2.002
3	-3	4.0228	19	< .001	< 0.003	0.8995
	-2	4.568	19	< .001	< 0.003	1.0214
	-1	11.0101	19	< .001	< 0.003	2.4619

Supplementary Table 5 (Fig. 4b) | a, Pairwise comparisons of accuracy of accuracy for different set sizes (1-5) for match and **b**, for lure trials in Experiment 2.

5a: Pairwise Comparisons (match trials)

Pairs (set size)		95% CI for Mean Difference		SE	t	Cohen's d	p _{bonf}
		Lower	Upper				
1	2	0.0305	0.3499	0.0503	3.7788	0.8450	0.0127 *
	3	-0.0529	0.3614	0.0653	2.3638	0.5286	0.2889
	4	-0.0056	0.3843	0.0614	3.0819	0.6891	0.0614
	5	-0.0161	0.4227	0.0691	2.9412	0.6577	0.0838
2	3	-0.1901	0.1183	0.0486	-0.7391	-0.1653	1.0000
	4	-0.1183	0.1166	0.0370	-0.0237	-0.0053	1.0000
	5	-0.1393	0.1655	0.0480	0.2730	0.0611	1.0000
3	4	-0.0637	0.1337	0.0311	1.1261	0.2518	1.0000
	5	-0.1423	0.2403	0.0603	0.8130	0.1818	1.0000
4	5	-0.1324	0.1604	0.0461	0.3032	0.0678	1.0000

5b: Pairwise Comparisons (lure trials)

1	2	0.0963	0.4590	0.0571	4.8586	1.0864	0.0011 **
	3	0.2119	0.6365	0.0669	6.3421	1.4181	< .001 ***
	4	0.2288	0.7495	0.0820	5.9623	1.3332	< .001 ***
	5	0.4094	0.9725	0.0887	7.7887	1.7416	< .001 ***
2	3	-0.0087	0.3019	0.0489	2.9954	0.6698	0.0744
	4	0.0526	0.3703	0.0501	4.2249	0.9447	0.0046 **
	5	0.1854	0.6411	0.0718	5.7565	1.2872	< .001 ***
3	4	-0.1263	0.2560	0.0602	1.0769	0.2408	1.0000
	5	0.0549	0.4784	0.0667	3.9968	0.8937	0.0077 **
4	5	-0.0131	0.4168	0.0677	2.9797	0.6663	0.0770

* $p < .05$, ** $p < .01$, *** $p < .001$

Note. Cohen's d does not correct for multiple comparisons.

Note. P-values and confidence intervals are adjusted for comparing a family of 10 estimates (confidence intervals are corrected using the Bonferroni method).