

Supplemental Material S2. The full dataset for Experiment 2 including the thresholds and scores for each subject in the YNH, ONH, and OHL groups for all auditory perceptual and cognitive measures. Here we include the MTGD data used in the data analysis shown in the main document, which reflects the same and common MTGD task parameters completed by subjects.

Subject	Group	ANL (dB)	NoNotch (dB)	Notch (dB)	FSI (dB)	STM (dB)	Diotic FM (Hz)	Dichotic FM (Hz)	Colocated SRM (TMR dB)	Separated SRM (TMR dB)	SRM (dB)	MTGD (ms)	UCMRT (#Hits)	CorsiFw (#Items)	CorsiBw (#Items)
S1	YNH	0.01	2	-8.33	10.33	2.92	13.34	1.67	1.35	-2.77	4.12	11.28	7	6	5
S2	YNH	-1.99	2	-13.66	15.66	1.47	3.75	0.56	3.42	-3.81	7.23	25.36	17	7	7
S3	YNH	-1.98	-2.33	-17	14.67	3.47	2.36	0.26	5.48	-7.94	13.42	12.06	15	7	6
S4	YNH	5.01	-3.33	-12.66	9.33	2.80	3.54	0.94	3.42	2.39	1.03	14	18	8	7
S5	YNH	1.01	-0.66	-8.33	7.67	2.52	2.36	0.44	1.36	-6.9	8.26	15.35	16	8	6
S6	YNH	1.02	-2.33	-7.66	5.33	2.12	1.76	0.33	3.42	-5.87	9.29		8	7	5
S7	YNH	5.01	-3.66	-11	7.34	2.8	11.89	0.44	2.39	-7.93	10.32	10.27	8	7	5
S8	YNH	0.01	-1.33	-21	19.67	2	2.97	0.28	3.42	-5.87	9.29		16	8	7
S9	YNH	6.01	-1.66	-13.33	11.67	3.2	2.97	0.35	1.36	-3.81	5.17	9.04	16	8	6
S10	YNH	-0.99	-6.33	-15	8.67	2	2.97	0.29	0.33	-6.9	7.23		13	7	8
S11	YNH	-3.99	2	-10	12	1.86	6.67	0.78	3.42	-7.93	11.35		12	8	7
S12	YNH	0.01	-1	-9.33	8.33	2.66	5.61	0.47	3.42	-6.9	10.32		11	5	4
S13	YNH	0.01	-4	-9	5	3.06	5	0.42	1.36	-4.84	6.2		9	7	8
S14	YNH	1.01	2.67	-7.33	10	3.72	9.44	0.44	3.42	-4.84	8.26		11	6	6
S15	YNH	10.01	2	-9	11	2.52	11.89	0.62	5.48	-5.87	11.35		11	6	6
S16	YNH	2.01	-6	-5.66	-0.34	3.86	4.45	0.94	5.49	-1.74	7.23		14	7	6
S17	YNH	5.01	-3	-21.33	18.33	2.4	2.8	0.21	3.42	-5.87	9.29		18	6	6
S18	YNH	3.01	-2	-17	15	3.2	3.15		1.36	-2.77	4.13		11	9	8
S19	YNH	5.01	-0.33	-11	10.67	2	3.34	0.59	4.45	-1.74	6.19		19	7	6
S20	YNH	14.01	0.34	-13.33	13.67	2.66	3.33	0.25	1.36	-3.81	5.17		19	6	5
S21	ONH	1.01	2.67	-10.33	13	5.72	11.22	0.52	5.48	4.45	1.03	15.43	7	6	6
S22	ONH	-0.99	0.67	-9	9.67	3.72	10.59	0.33	4.45	-2.77	7.22	21.03	12	5	6
S23	ONH		-0.33	-7.66	7.33	0.78	5.95	0.37	3.42	-0.71	4.13	9.88	6	5	5
S24	ONH	1.01	-1	-8.66	7.66	3.6	5	1.32	4.45	-1.74	6.19	24.46	11	5	4
S25	ONH	-2.99	1.34	-12.33	13.67	4.12	8.91	1.57	3.42	-2.77	6.19	13.29	6	4	5
S26	ONH	-2.99	1	-12.66	13.66	4.26	5.61	0.94	2.39	3.42	-1.03	10.56	11	6	5
S27	ONH	-7.99	-3	-13	10	3.06	10	0.44	3.42	-0.71	4.13	9.29	8	6	7
S28	ONH	-1.99	2.67	-6	8.67	1.2	8.41		3.42	1.36	2.06	16.66	8	7	5
S29	ONH	0.01	1.67	-6.66	8.33	6.52	15.87	0.59	3.42	5.48	-2.06	21.07	9	6	5

S30	ONH	2.01	2.67	-10.33	13	5.6	6.29	0.49	4.45	1.36	3.09	34.1	10	6	6
S31	ONH	7.01	-1.33	-12.33	11	3.866	3.53	0.42	4.45	-1.74	6.19	18.79	11	6	7
S32	ONH	2.01	0	-7.66	7.66	2.8	4.72	0.42	3.42	1.55	1.87		12	6	6
S33	ONH	14.01	-1.33	-11.33	10	2.66	14.98	0.19	2.39	-4.84	7.23	23.39	8	8	7
S34	ONH	-3.99	2	-7.33	9.33	3.06	1.32	0.37	3.42	-4.84	8.26	9.98	12	5	4
S35	ONH	-1.99	-0.33	-13.66	13.33	2.66	3.74	0.49	4.45	-0.71	5.16		10	5	6
S36	ONH	9.01	0	-6.66	6.66	3.06	5.29	0.42	5.48	-2.77	8.25		13	7	7
S37	ONH	15.01	2	-14.66	16.66	2.92	8.9	0.42	3.42	2.39	1.03		7	5	6
S38	ONH	9.01	1.67	-9.66	11.33	3.2	9.44	0.74	5.48	5.48	0	46.16	7	5	5
S39	ONH	6.01	0.67	-13.33	14	3.46	11.89	0.52	2.39	2.39	0	37.86	9	6	6
S40	ONH	6.01	3	-14	17	2.92	3.15	0.59	4.45	2.39	2.06		10	7	6
S41	OHL	4.01	6.00	3.00	3	7.20	7.07	3.97	6.52	4.45	2.07	18.82	7	6	4
S42	OHL	-4.98	0.34	-6	6.34	4	10.50	0.78	2.39	0.33	2.06	15.75	6	6	4
S43	OHL	10.01	0.67	-1.00	1.67	4.12	9.44	0.44	3.42	3.42	0	8.28	6	5	5
S44	OHL	8.01	-0.33	-9.33	9	3.20	6.67	2.81	2.39	5.48	-3.09	14.32	10	5	4
S45	OHL	2.01	-2.66	-14.00	11.34	4.00	5.00	3.15	3.42	3.42	0	15.68	9	6	6
S46	OHL	7.01	0.00	-6.00	6	4.26	5.00	2.97	5.48	-1.74	7.22	22.76	6	5	5
S47	OHL	4.01	3.00	-6.33	9.33	5.72	15.87	1.77	3.42	1.36	2.06	12.59	13	6	5
S48	OHL	10.01	-3.66	-8.00	4.34	1.06	7.94	0.37	5.48	0.33	5.15	20.62	4	6	5
S49	OHL	4.01	0.34	-9.33	9.67	3.46	7.07	2.10	4.45	-2.77	7.22	8.03	11	7	7
S50	OHL	14.01	-0.66	-10.66	10	2.92	10.59	0.28	3.42	-0.71	4.13	12.29	9	7	7
S51	OHL	3.02	-1.33	-9.33	8	2.66	1.65	1.57	4.45	2.39	2.06	12.74	4	5	5
S52	OHL	16.02	4	-2.33	6.33	5.06	8.84	1.77	4.45	3.42	1.03		3	6	4
S53	OHL	2.02	-3	-10.5	7.5	3.46	5.95	1.67	1.36	9.61	-8.25	15.68	6	6	5
S54	OHL	6.12	2.00	-6.33	8.33	4.80	4.45	0.39	4.45	2.39	2.06	15.21	5	5	6
S55	OHL	7.02	3.67	-5	8.67	3.06	11.14	0.74	2.39	3.42	-1.03	13.54	11	5	5
S56	OHL	-0.98	0	-2	2	6.4	9.92	10	2.39	6.52	-4.13	13.54	6	5	6
S57	OHL	2.02	2.34	-5.33	7.67	4	8.34	0.52	5.48	4.45	1.03	11.63	8	6	5
S58	OHL	8.02	0	-7	7	2.52	8.34	0.52	3.42	7.55	-4.13	14.82	4	5	6
S59	OHL	19.02	-1.6	-5	3.4	3.06	5.89	0.56	3.42	-1.74	5.16	16.74	11	7	7
S60	OHL	2.02	2	-6.4	8.4	3.46	6.25	0.44	4.45	3.42	1.03	15.28	7	6	5