

Table 1
t-Test Results by Channel for Comparisons between Ideophone Types Organized by Visual, Motion, Sound, and Word Processing Areas of the Brain

Areas of Interest	Visual to Sound t-value		Motion to Non-Motion t-value		Visual to Visual+Motion t-value		Sound to Sound+Motion t-value		Ideophone to Non-Ideophonic Word t-value		Channel Number	Coverage Areas	Source Location	Detector Location	Source Number	Detector Number		
	t-value	p-value	t-value	p-value	t-value	p-value	t-value	p-value	t-value	p-value								
Visual Areas																		
Bilateral Fusiform	-1.27	0.000	0.33	0.003	-0.49	0.342	-0.27	0.001	-1.38	0.000	CH 20	Fusiform gyrus (17.2%), Inferior Temporal gyrus (18.7%), Middle Temporal gyrus (8.5%)	P7	TP7	S5	D9		
	-1.21	0.000	-0.01	0.873	-0.74	0.157	0.13	0.073	-1.25	0.000	CH 21	Fusiform gyrus (68.6%), V3 (18.7%), Angular gyrus, part of Wernicke's area (9.9%)	P7	P5	S5	D19		
	1.12	0.000	1.98	0.000	0.07	0.937	-2.01	0.000	0.44	0.000	CH 22	Fusiform gyrus (58.0%), Brain_Outside (30.6%), V3 (6.5%)	P7	P9	S5	D26		
	0.86	0.000	2.04	0.000	-0.01	0.954	-1.94	0.000	0.11	0.081	CH 23	V3 (63.7%), Fusiform gyrus (31.5%)	P7	PO7	S5	D27		
	0.95	0.000	1.44	0.000	1.42	0.010	-1.52	0.000	0.58	0.000	CH 66	Fusiform gyrus (58.1%), Inferior Temporal gyrus (18.1%), Middle Temporal gyrus (12.1%)	P8	TP8	S18	D10		
	-1.01	0.000	0.27	0.018	-0.85	0.107	0.00	0.890	-0.65	0.000	CH 67	Fusiform gyrus (68.8%), V3 (15.1%), Angular gyrus, part of Wernicke's area (13.2%)	P8	P6	S18	D20		
	-0.43	0.000	0.79	0.000	-1.16	0.030	-0.52	0.000	-0.89	0.000	CH 68	Fusiform gyrus (50.8%), Brain_Outside (35.7%), V3 (7.5%), Inferior Temporal gyrus (5.7%)	P8	P10	S18	D25		
	1.57	0.000	1.53	0.000	-0.50	0.331	-1.32	0.000	0.98	0.000	CH 71	Middle Temporal gyrus (78.7%), Superior Temporal Gyrus (9.2%)	T7	FT7	S19	D15		
	Left Precentral	-0.03	0.694	1.02	0.000	-0.41	0.420	-0.86	0.000	0.33	0.000	CH 27	Primary Motor Cortex (15.0%), Pre-Motor and Supplementary Motor Cortex (34.6%), Primary Somatosensory Cortex (24.6%)	C3	C1	S6	D11	
		-0.11	0.264	2.06	0.000	-0.41	0.424	-1.69	0.000	0.06	0.188	CH 32	Pre-Motor and Supplementary Motor Cortex (56.5%), Primary Motor Cortex (39.8%)	Cz	C1	S8	D11	
-1.21		0.000	0.64	0.000	-0.77	0.145	-0.38	0.000	-0.50	0.002	CH 49	Pre-Motor and Supplementary Motor Cortex (37.5%), Dorsolateral prefrontal cortex (25.1%), Includes Frontal eye fields (23.5%)	FC1	FC3	S13	D7		
-1.19		0.000	0.00	0.961	-0.54	0.302	0.19	0.010	-1.65	0.000	CH 50	Pre-Motor and Supplementary Motor Cortex (81.8%), Includes Frontal eye fields (10.4%), Primary Motor Cortex (6.0%)	FC1	C1	S13	D11		
0.77		0.000	1.30	0.000	-0.67	0.200	-1.40	0.000	1.03	0.000	CH 53	part opercularis, part of Broca's area (47.8%), Pre-Motor and Supplementary Motor Cortex (36.0%), Dorsolateral prefrontal cortex (8.8%)	FC5	FC3	S14	D7		
1.34		0.000	1.80	0.000	-0.10	0.824	-1.90	0.000	1.56	0.000	CH 25	Supramarginal gyrus part of Wernicke's area (43.3%), Primary Somatosensory Cortex (22.5%), Primary Somatosensory Cortex (21.2%), Primary Somatosensory Cortex (7.0%)	C3	CP3	S6	D4		
-0.02		0.762	1.36	0.000	-2.25	0.000	-1.01	0.000	0.01	0.359	CH 28	Supramarginal gyrus part of Wernicke's area (65.5%), Angular gyrus, part of Wernicke's area (14.4%), Retrosulcal area (9.3%), Superior Temporal Gyrus (5.9%)	CP5	CP3	S7	D4		
0.99		0.000	1.62	0.000	-0.95	0.074	-1.41	0.000	0.95	0.000	CH 90	Angular gyrus, part of Wernicke's area (53.3%), Supramarginal gyrus part of Wernicke's area (29.8%), Somatosensory Association Cortex (12.3%)	P3	CP3	S26	D4		
0.97		0.000	1.68	0.000	-2.11	0.000	-1.27	0.000	1.33	0.000	CH 94	Supramarginal gyrus part of Wernicke's area (41.8%), Somatosensory Association Cortex (27.1%), Primary Somatosensory Cortex (16.4%), Primary Somatosensory Cortex (5.6%)	CP1	CP3	S28	D4		
Left Middle Occipital		-1.21	0.000	-0.01	0.873	-0.74	0.157	0.13	0.073	-1.25	0.000	CH 21	Fusiform gyrus (68.6%), V3 (18.7%), Angular gyrus, part of Wernicke's area (9.9%)	P7	P5	S5	D19	
	0.86	0.000	2.04	0.000	-0.01	0.954	-1.94	0.000	0.11	0.081	CH 23	V3 (63.7%), Fusiform gyrus (31.5%)	P7	PO7	S5	D27		
	0.08	0.599	0.86	0.000	-0.86	0.103	-0.53	0.000	0.88	0.000	CH 91	Angular gyrus, part of Wernicke's area (78.0%), V3 (17.1%)	P3	P5	S26	D19		
	Right Precentral	2.10	0.000	3.25	0.000	-0.47	0.366	-3.09	0.000	2.46	0.000	CH 17	Pre-Motor and Supplementary Motor Cortex (38.2%), Dorsolateral prefrontal cortex (35.8%), Includes Frontal eye fields (21.5%)	FC2	FC4	S4	D8	
		2.82	0.000	3.22	0.000	2.37	0.000	-2.76	0.000	3.05	0.000	CH 19	Pre-Motor and Supplementary Motor Cortex (82.5%), Includes Frontal eye fields (11.2%)	FC2	C2	S4	D21	
		1.17	0.000	2.56	0.000	-0.32	0.529	-2.56	0.000	1.35	0.000	CH 34	Pre-Motor and Supplementary Motor Cortex (55.4%), Primary Motor Cortex (39.9%)	Cz	C2	S8	D21	
		1.89	0.000	3.24	0.000	-1.68	0.002	-2.99	0.000	1.66	0.000	CH 57	part opercularis, part of Broca's area (41.5%), Pre-Motor and Supplementary Motor Cortex (40.1%), Dorsolateral prefrontal cortex (8.8%)	FC6	FC4	S15	D8	
		0.60	0.000	2.00	0.000	-0.07	0.866	-1.89	0.000	0.70	0.000	CH 83	Pre-Motor and Supplementary Motor Cortex (56.9%), Primary Motor Cortex (19.5%), Primary Somatosensory Cortex (11.4%), Dorsolateral prefrontal cortex (6.1%)	C4	FC4	S23	D8	
		Color imagination	0.36	0.002	1.34	0.000	-1.46	0.006	-1.19	0.000	0.65	0.000	CH 11	Supramarginal gyrus part of Wernicke's area (69.0%), Angular gyrus, part of Wernicke's area (12.8%), Retrosulcal area (7.5%), Superior Temporal Gyrus (6.9%)	CP6	CP4	S3	D5
				0.000	0.32	0.004	-1.17	0.028	-0.31	0.000	0.66	0.000	CH 84	Middle Temporal gyrus (69.1%), Temporopolar area (20.2%), Inferior Temporal gyrus (6.7%)	FT10	FT8	S24	D16
0.000				1.68	0.000	-2.11	0.000	-1.27	0.000	1.33	0.000	CH 94	Supramarginal gyrus part of Wernicke's area (41.8%), Somatosensory Association Cortex (27.1%), Primary Somatosensory Cortex (16.4%), Primary Somatosensory Cortex (5.6%)	CP1	CP3	S28	D4	
Pattern Imagery		0.48	0.000	1.54	0.000	-1.51	0.005	-1.19	0.000	1.13	0.000	CH 95	Supramarginal gyrus part of Wernicke's area (45.1%), Somatosensory Association Cortex (25.3%), Primary Somatosensory Cortex (13.5%), Primary Somatosensory Cortex (5.8%)	CP2	CP4	S29	D5	
			0.000	0.50	0.000	-1.62	0.002	0.09	0.186	-0.56	0.000	CH 38	part triangularis Broca's area (70.7%), Dorsolateral prefrontal cortex (23.5%)	F4	F6	S10	D2	
	0.000		1.05	0.000	1.16	0.038	-0.84	0.000	0.19	0.015	CH 51	Pre-Motor and Supplementary Motor Cortex (73.2%), Includes Frontal eye fields (25.9%)	FC1	FC2	S13	D14		
Left Dorsolateral Prefrontal	-0.53	0.000	1.05	0.000	1.16	0.038	-0.84	0.000	0.19	0.015	CH 51	part triangularis Broca's area (49.9%), Dorsolateral prefrontal cortex (43.2%), Inferior prefrontal gyrus (5.1%)	FC1	FC2	S13	D14		
	-0.87	0.000	-1.54	0.000	0.85	0.128	1.42	0.000	-0.83	0.000	CH 80	Pre-Motor and Supplementary Motor Cortex (55.4%), Primary Motor Cortex (39.9%)	AF8	F6	S22	D2		
Motion Areas																		
Premotor and SMA	-0.30	0.004	0.81	0.000	1.49	0.007	-0.62	0.000	0.06	0.185	CH 18	Pre-Motor and Supplementary Motor Cortex (63.0%), Includes Frontal eye fields (35.3%)	FC2	FCz	S4	D14		
	2.82	0.000	3.22	0.000	2.37	0.000	-2.76	0.000	3.05	0.000	CH 19	Pre-Motor and Supplementary Motor Cortex (82.5%), Includes Frontal eye fields (11.2%)	FC2	C2	S4	D21		
	0.25	0.038	2.20	0.000	0.33	0.575	-2.00	0.000	0.70	0.000	CH 26	Pre-Motor and Supplementary Motor Cortex (61.7%), Primary Motor Cortex (17.6%), Primary Somatosensory Cortex (9.2%), Dorsolateral prefrontal cortex (7.0%)	C3	FC3	S6	D7		
	-0.11	0.264	2.06	0.000	-0.41	0.424	-1.69	0.000	0.06	0.188	CH 32	Pre-Motor and Supplementary Motor Cortex (56.5%), Primary Motor Cortex (39.8%)	Cz	C1	S8	D11		
	-0.94	0.000	0.08	0.482	-0.27	0.587	0.07	0.304	-0.37	0.037	CH 33	Pre-Motor and Supplementary Motor Cortex (83.8%), Primary Motor Cortex (11.4%)	Cz	FCz	S8	D14		
	1.17	0.000	2.56	0.000	-0.32	0.529	-2.56	0.000	1.35	0.000	CH 34	Pre-Motor and Supplementary Motor Cortex (55.4%), Primary Motor Cortex (39.9%)	Cz	C2	S8	D21		

M1/Primary Motor		-1.19	0.000	0.00	0.961	-0.54	0.302	0.19	0.010	-1.65	0.000	CH 50	Pre-Motor and Supplementary Motor Cortex (81.8%), Includes Frontal eye fields (10.4%), Primary Motor Cortex (6.3%)	FC1	C1	S13	D11	
		-0.53	0.000	1.05	0.000	1.16	0.038	-0.84	0.000	0.19	0.015	CH 51	Pre-Motor and Supplementary Motor Cortex (73.2%), Includes Frontal eye fields (25.9%)	FC1	FCz	S13	D14	
		1.89	0.000	3.24	0.000	-1.68	0.002	-2.99	0.000	1.66	0.000	CH 57	parainferior, part of Broca's area (41.5%), Pre-Motor and Supplementary Motor Cortex (40.1%), Dorsolateral prefrontal cortex (8.8%)	FC6	FC4	S15	D8	
		0.60	0.000	2.00	0.000	-0.07	0.866	-1.89	0.000	0.70	0.000	CH 83	Pre-Motor and Supplementary Motor Cortex (56.9%), Primary Motor Cortex (19.5%), Primary Somatosensory Cortex (11.4%), Dorsolateral prefrontal cortex (6.1%)	C4	FC4	S23	D8	
		-0.03	0.694	1.02	0.000	-0.41	0.420	-0.86	0.000	0.33	0.000	CH 27	Primary Motor Cortex (15.0%), Pre-Motor and Supplementary Motor Cortex (14.8%), Primary Somatosensory Cortex (24.4%)	C3	C1	S6	D11	
		-0.11	0.264	2.06	0.000	-0.41	0.424	-1.69	0.000	0.06	0.188	CH 32	Pre-Motor and Supplementary Motor Cortex (56.5%), Primary Motor Cortex (39.8%)	Cz	C1	S8	D11	
		1.17	0.000	2.56	0.000	-0.32	0.529	-2.56	0.000	1.35	0.000	CH 34	Pre-Motor and Supplementary Motor Cortex (55.4%), Primary Motor Cortex (39.9%)	Cz	C2	S8	D21	
		0.25	0.038	2.20	0.000	0.33	0.575	-2.00	0.000	0.70	0.000	CH 26	Pre-Motor and Supplementary Motor Cortex (61.7%), Primary Motor Cortex (17.6%), Primary Somatosensory Cortex (9.2%), Dorsolateral prefrontal cortex (7.0%)	C3	FC3	S6	D7	
		0.60	0.000	2.00	0.000	-0.07	0.866	-1.89	0.000	0.70	0.000	CH 83	Pre-Motor and Supplementary Motor Cortex (56.9%), Primary Motor Cortex (19.5%), Primary Somatosensory Cortex (11.4%), Dorsolateral prefrontal cortex (6.1%)	C4	FC4	S23	D8	
	Configurational																	
Fusiform		-1.27	0.000	0.33	0.003	-0.49	0.342	-0.27	0.001	-1.38	0.000	CH 20	Fusiform gyrus (71.2%), Inferior Temporal gyrus (18.7%), Middle Temporal gyrus (8.5%)	P7	TP7	S5	D9	
		-1.21	0.000	-0.01	0.873	-0.74	0.157	0.13	0.073	-1.25	0.000	CH 21	Fusiform gyrus (68.6%), V3 (18.7%), Angular gyrus, part of Wernicke's area (9.9%)	P7	P5	S5	D19	
		1.12	0.000	1.98	0.000	0.07	0.937	-2.01	0.000	0.44	0.000	CH 22	Fusiform gyrus (58.0%), Brain_Outside (30.6%), V3 (6.5%)	P7	P9	S5	D26	
		0.86	0.000	2.04	0.000	-0.01	0.954	-1.94	0.000	0.11	0.081	CH 23	V3 (63.7%), Fusiform gyrus (11.5%)	P7	PO7	S5	D27	
		0.95	0.000	1.44	0.000	1.42	0.010	-1.52	0.000	0.58	0.000	CH 66	Fusiform gyrus (68.1%), Inferior Temporal gyrus (18.1%), Middle Temporal gyrus (12.1%)	P8	TP8	S18	D10	
		-1.01	0.000	0.27	0.018	-0.85	0.107	0.00	0.890	-0.65	0.000	CH 67	Fusiform gyrus (68.8%), V3 (15.1%), Angular gyrus, part of Wernicke's area (13.2%)	P8	P6	S18	D20	
		-0.43	0.000	0.79	0.000	-1.16	0.030	-0.52	0.000	-0.89	0.000	CH 68	Fusiform gyrus (50.8%), Brain_Outside (35.7%), V3 (7.5%), Inferior Temporal gyrus (5.7%)	P8	P10	S18	D25	
		1.57	0.000	1.53	0.000	-0.50	0.331	-1.32	0.000	0.98	0.000	CH 71	Middle Temporal gyrus (78.7%), Superior Temporal Gyrus (9.2%)	T7	FT7	S19	D15	
		1.34	0.000	1.80	0.000	-0.10	0.824	-1.90	0.000	1.56	0.000	CH 25	Supramarginal gyrus, part of Wernicke's area (43.3%), Primary Somatosensory Cortex (22.5%), Primary Somatosensory Cortex (21.2%), Primary Somatosensory Cortex (7.0%)	C3	CP3	S6	D4	
	Extrastriate Body Area (Lateral Occipitotemporal)																	
Haptic																		
Right SMG		0.36	0.002	1.34	0.000	-1.46	0.006	-1.19	0.000	0.65	0.000	CH 11	Supramarginal gyrus, part of Wernicke's area (69.0%), Angular gyrus, part of Wernicke's area (12.8%), Retrosulcular area (7.5%), Superior Temporal Gyrus (6.9%)	CP6	CP4	S3	D5	
		0.94	0.000	0.73	0.000	-1.72	0.001	-0.53	0.000	1.68	0.000	CH 82	Supramarginal gyrus, part of Wernicke's area (50.0%), Primary Somatosensory Cortex (18.9%), Primary Somatosensory Cortex (17.7%), Primary Somatosensory Cortex (8.4%)	C4	CP4	S23	D5	
		0.48	0.000	1.54	0.000	-1.51	0.005	-1.19	0.000	1.13	0.000	CH 95	Supramarginal gyrus, part of Wernicke's area (45.1%), Somatosensory Association Cortex (25.3%), Primary Somatosensory Cortex (13.5%), Primary Somatosensory Cortex (5.8%)	CP2	CP4	S29	D5	
Sound Areas																		
Wernicke's Area L		1.34	0.000	1.80	0.000	-0.10	0.824	-1.90	0.000	1.56	0.000	CH 25	Supramarginal gyrus, part of Wernicke's area (43.3%), Primary Somatosensory Cortex (22.5%), Primary Somatosensory Cortex (21.2%), Primary Somatosensory Cortex (7.0%)	C3	CP3	S6	D4	
		-0.02	0.762	1.36	0.000	-2.25	0.000	-1.01	0.000	0.01	0.359	CH 28	Supramarginal gyrus, part of Wernicke's area (65.5%), Angular gyrus, part of Wernicke's area (14.4%), Retrosulcular area (9.3%), Superior Temporal Gyrus (5.9%)	CP5	CP3	S7	D4	
		1.43	0.000	2.62	0.000	-0.53	0.306	-2.42	0.000	1.33	0.000	CH 30	Angular gyrus, part of Wernicke's area (12.7%), Superior Temporal Gyrus (24.1%), Fusiform gyrus (17.1%), Middle Temporal Gyrus (13.2%), Supramarginal gyrus, part of Wernicke's area (5.5%)	CP5	P5	S7	D19	
		0.99	0.000	1.62	0.000	-0.95	0.074	-1.41	0.000	0.95	0.000	CH 90	Angular gyrus, part of Wernicke's area (53.3%), Supramarginal gyrus, part of Wernicke's area (29.8%), Somatosensory Association Cortex (12.3%)	P3	CP3	S26	D4	
		0.08	0.599	0.86	0.000	-0.86	0.103	-0.53	0.000	0.88	0.000	CH 91	Angular gyrus, part of Wernicke's area (78.0%), V3 (17.1%)	P3	P5	S26	D19	
		0.97	0.000	1.68	0.000	-2.11	0.000	-1.27	0.000	1.33	0.000	CH 94	Supramarginal gyrus, part of Wernicke's area (41.2%), Somatosensory Association Cortex (27.1%), Primary Somatosensory Cortex (16.4%), Primary Somatosensory Cortex (5.6%)	CP1	CP3	S28	D4	
		-0.36	0.002	1.34	0.000	-1.46	0.006	-1.19	0.000	0.65	0.000	CH 11	Supramarginal gyrus, part of Wernicke's area (69.0%), Angular gyrus, part of Wernicke's area (12.8%), Retrosulcular area (7.5%), Superior Temporal Gyrus (6.9%)	CP6	CP4	S3	D5	
		-0.56	0.000	0.62	0.000	-1.01	0.057	-0.38	0.000	-0.82	0.000	CH 14	Angular gyrus, part of Wernicke's area (15.0%), Superior Temporal Gyrus (26.3%), Fusiform gyrus (16.4%), Middle Temporal Gyrus (11.1%), Supramarginal gyrus, part of Wernicke's area (5.7%)	CP6	P6	S3	D20	
		0.94	0.000	0.73	0.000	-1.72	0.001	-0.53	0.000	1.68	0.000	CH 82	Supramarginal gyrus, part of Wernicke's area (50.0%), Primary Somatosensory Cortex (18.9%), Primary Somatosensory Cortex (17.7%), Primary Somatosensory Cortex (8.4%)	C4	CP4	S23	D5	
		0.89	0.000	1.17	0.000	-0.16	0.731	-1.11	0.000	0.94	0.000	CH 92	Angular gyrus, part of Wernicke's area (57.9%), Supramarginal gyrus, part of Wernicke's area (25.0%), Somatosensory Association Cortex (12.5%)	P4	CP4	S27	D5	
Wernicke's Area R		-0.16	0.111	-0.09	0.397	-0.33	0.516	0.19	0.008	-0.18	0.588	CH 93	Angular gyrus, part of Wernicke's area (80.0%), V3 (15.1%)	P4	P6	S27	D20	
		0.48	0.000	1.54	0.000	-1.51	0.005	-1.19	0.000	1.13	0.000	CH 95	Supramarginal gyrus, part of Wernicke's area (45.1%), Somatosensory Association Cortex (25.3%), Primary Somatosensory Cortex (13.5%), Primary Somatosensory Cortex (5.8%)	CP2	CP4	S29	D5	
	Emotion																	
	Frontopolar and Orbitofrontal		0.30	0.013	0.13	0.255	1.73	0.002	-0.01	0.957	0.28	0.002	CH 02	Frontopolar area (75.8%), Dorsolateral prefrontal cortex (14.5%), Dorsolateral prefrontal cortex (8.5%)	AF3	AFz	S1	D3
			-1.18	0.000	-1.07	0.000	-1.59	0.003	1.26	0.000	-1.52	0.000	CH 04	28-10- Frontopolar area (69.6%), 11- Orbitofrontal area (20.1%), 46- Dorsolateral prefrontal cortex (8.8%)	AF3	Fp1	S1	D17
			0.62	0.000	0.56	0.000	1.83	0.001	-0.62	0.000	0.49	0.000	CH 07	Frontopolar area (72.5%), Dorsolateral prefrontal cortex (17.0%), Dorsolateral prefrontal cortex (8.0%)	AF4	AFz	S2	D3
			2.45	0.000	2.05	0.000	0.21	0.732	-2.06	0.000	2.20	0.000	CH 09	Frontopolar area (68.8%), Orbitofrontal area (21.6%), Dorsolateral prefrontal cortex (6.6%)	AF4	Fp2	S2	D18
			0.32	0.007	-0.52	0.000	0.67	0.234	0.68	0.000	0.52	0.000	CH 60	Frontopolar area (87.5%), Dorsolateral prefrontal cortex (5.1%)	Fpz	AFz	S16	D3
			2.24	0.000	1.00	0.000	-0.47	0.359	-1.27	0.000	1.61	0.000	CH 61	Frontopolar area (54.5%), Orbitofrontal area (44.9%)	Fpz	Fp1	S16	D17
			1.39	0.000	1.83	0.000	-1.22	0.022	-1.80	0.000	0.73	0.000	CH 62	Frontopolar area (54.5%), Orbitofrontal area (44.8%)	Fpz	Fp2	S16	D18

Left Inferior Prefrontal	1.07	0.000	0.11	0.319	0.05	0.960	-0.36	0.000	0.75	0.000	CH 79	Orbitofrontal area (32.7%), Dorsolateral prefrontal cortex (25.3%), Frontopolar area (25.1%), Inferior prefrontal gyrus (13.1%)	AF7	Fp1	S21	D17	
	1.18	0.000	0.66	0.000	0.52	0.364	-0.61	0.000	1.33	0.000	CH 81	Frontopolar area (21.1%), Orbitofrontal area (30.5%), Dorsolateral prefrontal cortex (20.4%), Inferior prefrontal gyrus (12.4%), Brain_Outside (5.1%)	AF8	Fp2	S22	D18	
	1.77	0.000	2.42	0.000	-0.30	0.546	-2.28	0.000	1.77	0.000	CH 41	pars triangularis Broca's area (79.8%), Brain_Outside (8.7%), Dorsolateral prefrontal cortex (5.8%)	F7	F5	S11	D1	
	1.01	0.000	1.65	0.000	-2.05	0.000	-1.31	0.000	1.12	0.000	CH 52	Retrosubicular area (5.1%)	FCS	F5	S14	D1	
	0.97	0.000	1.13	0.000	-0.50	0.338	-1.05	0.000	1.43	0.000	CH 78	pars triangularis Broca's area (48.8%), Dorsolateral prefrontal cortex (43.2%)	AF7	F5	S21	D1	
	1.07	0.000	0.11	0.319	0.05	0.960	-0.36	0.000	0.75	0.000	CH 79	Orbitofrontal area (32.7%), Dorsolateral prefrontal cortex (25.3%), Frontopolar area (25.1%), Inferior prefrontal gyrus (13.1%)	AF7	Fp1	S21	D17	
	-1.27	0.000	0.33	0.003	-0.49	0.342	-0.27	0.001	-1.38	0.000	CH 20	Fusiform gyrus (71.2%), Inferior Temporal gyrus (18.7%), Middle Temporal gyrus (8.5%)	P7	TP7	S5	D9	
	-1.21	0.000	-0.01	0.873	-0.74	0.157	0.13	0.073	-1.25	0.000	CH 21	Fusiform gyrus (88.6%), V3 (18.7%), Angular gyrus, part of Wernicke's area (9.9%)	P7	P5	S5	D19	
	1.12	0.000	1.98	0.000	0.07	0.937	-2.01	0.000	0.44	0.000	CH 22	Fusiform gyrus (58.0%), Brain_Outside (30.6%), V3 (6.3%)	P7	P9	S5	D26	
	0.86	0.000	2.04	0.000	-0.01	0.954	-1.94	0.000	0.11	0.081	CH 23	V3 (63.7%), Fusiform gyrus (31.5%)	P7	PO7	S5	D27	
Bilateral Fusiform	0.95	0.000	1.44	0.000	1.42	0.010	-1.52	0.000	0.58	0.000	CH 66	Fusiform gyrus (68.1%), Inferior Temporal gyrus (18.1%), Middle Temporal gyrus (12.1%)	P8	TP8	S18	D10	
	-1.01	0.000	0.27	0.018	-0.85	0.107	0.00	0.890	-0.65	0.000	CH 67	Fusiform gyrus (68.8%), V3 (15.1%), Angular gyrus, part of Wernicke's area (13.2%)	P8	P6	S18	D20	
	-0.43	0.000	0.79	0.000	-1.16	0.030	-0.52	0.000	-0.89	0.000	CH 68	Fusiform gyrus (50.8%), Brain_Outside (35.7%), V3 (7.5%), Inferior Temporal gyrus (5.7%)	P8	P10	S18	D25	
	1.57	0.000	1.53	0.000	-0.50	0.331	-1.32	0.000	0.98	0.000	CH 71	Middle Temporal gyrus (78.7%), Superior Temporal Gyrus (9.2%)	T7	FT7	S19	D15	
	Cognition and Emotion	-0.09	0.344	0.55	0.000	0.61	0.280	-0.73	0.000	-0.62	0.000	CH 01	Dorsolateral prefrontal cortex (49.3%), pars triangularis Broca's area (32.1%), Frontopolar area (16.0%)	AF3	F5	S1	D1
		0.30	0.013	0.13	0.255	1.73	0.002	-0.01	0.957	0.28	0.002	CH 02	Frontopolar area (75.8%), Dorsolateral prefrontal cortex (14.5%), Dorsolateral prefrontal cortex (8.1%)	AF3	AFz	S1	D3
		-0.38	0.000	-0.17	0.101	1.17	0.036	0.44	0.000	-0.42	0.012	CH 03	Dorsolateral prefrontal cortex (48.4%), Dorsolateral prefrontal cortex (32.0%), Frontopolar area (16.9%)	AF3	F1	S1	D13
		-1.18	0.000	-1.07	0.000	-1.59	0.003	1.26	0.000	-1.52	0.000	CH 04	Frontopolar area (69.6%), Orbitofrontal area (20.1%), Dorsolateral prefrontal cortex (8.8%)	AF3	Fp1	S1	D17
		0.00	0.852	-0.13	0.217	0.30	0.612	0.11	0.122	0.68	0.000	CH 05	0.0000	AF3	Short	S1	D28
		-1.03	0.000	-0.49	0.000	0.34	0.562	1.27	0.000	-0.82	0.000	CH 06	Dorsolateral prefrontal cortex (47.4%), pars triangularis Broca's area (30.6%), Frontopolar area (13.0%)	AF4	F6	S2	D2
0.62		0.000	0.56	0.000	1.83	0.001	-0.62	0.000	0.49	0.000	CH 07	Frontopolar area (72.5%), Dorsolateral prefrontal cortex (17.0%), Dorsolateral prefrontal cortex (8.0%)	AF4	AFz	S2	D3	
-0.29		0.005	0.27	0.014	1.43	0.010	-0.14	0.094	-1.05	0.000	CH 08	Dorsolateral prefrontal cortex (51.5%), Dorsolateral prefrontal cortex (26.4%), Frontopolar area (14.4%)	AF4	F2	S2	D6	
2.45		0.000	2.05	0.000	0.21	0.732	-2.06	0.000	2.20	0.000	CH 09	Frontopolar area (68.8%), Orbitofrontal area (21.6%), Dorsolateral prefrontal cortex (6.6%)	AF4	Fp2	S2	D18	
-0.17		0.102	1.38	0.000	0.28	0.642	-1.29	0.000	-0.31	0.115	CH 16	Includes Frontal eye fields (58.1%), Dorsolateral prefrontal cortex (33.1%), Pre-Motor and Supplementary Motor Cortex (7.1%)	FC2	F2	S4	D6	
2.10	0.000	3.25	0.000	-0.47	0.366	-3.09	0.000	2.45	0.000	CH 17	Pre-Motor and Supplementary Motor Cortex (38.2%), Dorsolateral prefrontal cortex (35.8%), Includes Frontal eye fields (25.5%)	FC2	FCz	S4	D8		
-0.30	0.004	0.81	0.000	1.49	0.007	-0.62	0.000	0.06	0.185	CH 18	Pre-Motor and Supplementary Motor Cortex (63.0%), Includes Frontal eye fields (35.3%)	FC2	FCz	S4	D14		
0.10	0.470	1.34	0.000	-0.08	0.852	-1.07	0.000	1.05	0.000	CH 35	pars triangularis Broca's area (72.6%), Dorsolateral prefrontal cortex (21.8%)	F3	F5	S9	D1		
1.19	0.000	2.43	0.000	0.12	0.861	-2.58	0.000	1.71	0.000	CH 36	Dorsolateral prefrontal cortex (36.9%), pars opercularis, part of Broca's area (26.5%), pars triangularis Broca's area (14.7%), Dorsolateral prefrontal cortex (12.2%), Pre-Motor and Supplementary Motor Cortex (6.8%)	F3	FC3	S9	D7		
0.22	0.075	2.52	0.000	-0.57	0.270	-2.06	0.000	0.40	0.000	CH 37	Dorsolateral prefrontal cortex (66.6%), Dorsolateral prefrontal cortex (24.8%)	F3	F1	S9	D13		
-1.02	0.000	0.50	0.000	-1.62	0.002	0.09	0.186	-0.56	0.000	CH 38	pars triangularis Broca's area (70.7%), Dorsolateral prefrontal cortex (23.5%)	F4	F6	S10	D2		
-0.04	0.613	1.32	0.000	-0.67	0.198	-1.01	0.000	0.60	0.000	CH 39	Dorsolateral prefrontal cortex (68.4%), Dorsolateral prefrontal cortex (22.4%), Includes Frontal eye fields (5.6%)	F4	F2	S10	D6		
-0.45	0.000	1.46	0.000	-0.07	0.866	-0.77	0.000	-0.57	0.000	CH 40	Dorsolateral prefrontal cortex (30.7%), pars opercularis, part of Broca's area (27.5%), Dorsolateral prefrontal cortex (16.4%), pars triangularis Broca's area (14.6%), Pre-Motor and Supplementary Motor Cortex (7.6%)	F4	FC4	S10	D8		
1.77	0.000	2.42	0.000	-0.30	0.546	-2.28	0.000	1.77	0.000	CH 41	pars triangularis Broca's area (79.8%), Brain_Outside (8.7%), Dorsolateral prefrontal cortex (5.8%)	F7	F5	S11	D1		
1.09	0.000	1.50	0.000	0.07	0.931	-1.43	0.000	0.38	0.000	CH 42	Temporopolar area (31.8%), pars triangularis Broca's area (24.1%), Retrosubicular area (15.8%), Inferior prefrontal gyrus (10.8%)	F7	FT7	S11	D15		
-0.54	0.000	0.31	0.005	-0.75	0.156	-0.23	0.004	-1.07	0.000	CH 43	Brain_Outside (10.1%), Inferior prefrontal gyrus (12.0%), Temporopolar area (12.1%), Inferior prefrontal gyrus (11.1%)	F7	F9	S11	D24		
0.72	0.000	1.43	0.000	-0.82	0.121	-1.28	0.000	1.08	0.000	CH 45	pars triangularis Broca's area (65.8%), Brain_Outside (24.8%), Dorsolateral prefrontal cortex (5.2%)	F8	F6	S12	D2		
1.17	0.000	1.50	0.000	-0.93	0.078	-1.40	0.000	0.53	0.000	CH 46	Temporopolar area (32.0%), Brain_Outside (29.3%), Retrosubicular area (13.6%), pars triangularis Broca's area (12.0%), Middle Temporal gyrus (7.4%)	F8	FT8	S12	D16		
0.50	0.000	1.71	0.000	-0.80	0.129	-1.54	0.000	0.02	0.317	CH 47	Brain_Outside (37.4%), Temporopolar area (36.3%), Inferior prefrontal gyrus (14.0%), pars triangularis Broca's area (5.7%)	F8	F10	S12	D23		
-1.21	0.000	0.64	0.000	-0.77	0.145	-0.38	0.000	-0.50	0.002	CH 49	Pre-Motor and Supplementary Motor Cortex (37.5%), Dorsolateral prefrontal cortex (35.1%), Includes Frontal eye fields (25.5%)	FC1	FC3	S13	D7		
-0.53	0.000	1.05	0.000	1.16	0.038	-0.84	0.000	0.19	0.015	CH 51	Pre-Motor and Supplementary Motor Cortex (73.2%), Includes Frontal eye fields (25.9%)	FC1	FCz	S13	D14		
1.01	0.000	1.65	0.000	-2.05	0.000	-1.31	0.000	1.12	0.000	CH 52	pars triangularis Broca's area (53.1%), pars opercularis, part of Broca's area (33.6%), Pre-Motor and Supplementary Motor Cortex (6.3%), Retrosubicular area (5.1%)	FCS	F5	S14	D1		
0.77	0.000	1.30	0.000	-0.67	0.200	-1.40	0.000	1.03	0.000	CH 53	pars opercularis, part of Broca's area (47.8%), Pre-Motor and Supplementary Motor Cortex (36.0%), Dorsolateral prefrontal cortex (8.6%)	FCS	FC3	S14	D7		
0.17	0.189	-0.09	0.366	-2.05	0.000	-0.02	0.945	0.58	0.000	CH 56	pars triangularis Broca's area (52.4%), pars opercularis, part of Broca's area (28.6%), Pre-Motor and Supplementary Motor Cortex (10.2%), pars opercularis, part of Broca's area (41.5%), Pre-Motor and Supplementary Motor Cortex (40.1%), Dorsolateral prefrontal cortex (8.8%)	FC6	F6	S15	D2		
1.89	0.000	3.24	0.000	-1.68	0.002	-2.99	0.000	1.66	0.000	CH 57	Frontopolar area (87.5%), Dorsolateral prefrontal cortex (5.1%)	FC6	FC4	S15	D8		
0.32	0.007	-0.52	0.000	0.67	0.234	0.68	0.000	0.52	0.000	CH 60	Frontopolar area (87.5%), Dorsolateral prefrontal cortex (5.1%)	Fpz	AFz	S16	D3		
2.21	0.000	1.00	0.000	-0.47	0.359	-1.27	0.000	1.61	0.000	CH 61	Frontopolar area (54.5%), Orbitofrontal area (44.9%)	Fpz	Fp1	S16	D17		
1.39	0.000	1.83	0.000	-1.22	0.022	-1.80	0.000	0.73	0.000	CH 62	Frontopolar area (54.5%), Orbitofrontal area (44.8%)	Fpz	Fp2	S16	D18		

-1.95	0.000	-0.35	0.001	1.31	0.018	1.31	0.000	-1.18	0.000	CH 63	Dorsolateral prefrontal cortex (61.8%), Frontopolar area (20.3%), Includes Frontal eye fields (12.1%), Dorsal anterior cingulate cortex (5.1%)	Fz	AFz	S17	D3
-0.76	0.000	1.78	0.000	-0.12	0.785	-1.30	0.000	0.10	0.094	CH 64	Dorsolateral prefrontal cortex (68.9%), Includes Frontal eye fields (28.9%)	Fz	F2	S17	D6
-1.36	0.000	1.01	0.000	-0.29	0.567	-0.79	0.000	-1.28	0.000	CH 65	Dorsolateral prefrontal cortex (63.2%), Includes Frontal eye fields (34.7%)	Fz	F1	S17	D13
0.97	0.000	1.13	0.000	-0.50	0.338	-1.05	0.000	1.43	0.000	CH 78	pars triangularis Broca's area (48.8%), Dorsolateral prefrontal cortex (43.2%)	AF7	F5	S21	D1
1.07	0.000	0.11	0.319	0.05	0.960	-0.36	0.000	0.75	0.000	CH 79	Orbitofrontal area (32.7%), Dorsolateral prefrontal cortex (25.3%), Frontopolar area (25.1%), Inferior prefrontal gyrus (13.1%)	AF7	Fp1	S21	D17
-0.87	0.000	-1.54	0.000	0.85	0.128	1.42	0.000	-0.83	0.000	CH 80	pars triangularis Broca's area (63.9%), Dorsolateral prefrontal cortex (43.2%), Inferior prefrontal gyrus (5.1%)	AF8	F6	S22	D2
1.18	0.000	0.66	0.000	0.52	0.364	-0.61	0.000	1.33	0.000	CH 81	Frontopolar area (11.1%), Orbitofrontal area (30.5%), Dorsolateral prefrontal cortex (20.4%), Inferior prefrontal gyrus (12.4%), Brain_Outside (5.1%)	AF8	Fp2	S22	D18

Word Processing Areas

Broca's Area L	0.10	0.470	1.34	0.000	-0.08	0.852	-1.07	0.000	1.05	0.000	CH 35	45 - pars triangularis Broca's area (72.6%), 46 - Dorsolateral prefrontal cortex (21.8%)	F3	F5	S9	D1
	1.19	0.000	2.43	0.000	0.12	0.861	-2.58	0.000	1.71	0.000	CH 36	9 - Dorsolateral prefrontal cortex (36.9%), 44 - pars opercularis, part of Broca's area (26.5%), 45 - pars triangularis Broca's area (14.7%), 46 - Dorsolateral prefrontal cortex (12.2%), 6 - Pre-Motor and Supplementary Motor Cortex (6.8%)	F3	FC3	S9	D7
	1.77	0.000	2.42	0.000	-0.30	0.546	-2.28	0.000	1.77	0.000	CH 41	45 - pars triangularis Broca's area (70.7%), 46 - Dorsolateral prefrontal cortex (23.5%)	F7	F5	S11	D1
	1.01	0.000	1.65	0.000	-2.05	0.000	-1.31	0.000	1.12	0.000	CH 52	45 - pars triangularis Broca's area (65.8%), Brain_Outside (24.8%), 46 - Dorsolateral prefrontal cortex (5.2%)	FC5	F5	S14	D1
	0.77	0.000	1.30	0.000	-0.67	0.200	-1.40	0.000	1.03	0.000	CH 53	45 - pars triangularis Broca's area (65.8%), Brain_Outside (24.8%), 46 - Dorsolateral prefrontal cortex (5.2%)	FC5	FC3	S14	D7
	0.97	0.000	1.13	0.000	-0.50	0.338	-1.05	0.000	1.43	0.000	CH 78	39 - Angular gyrus, part of Wernicke's area (32.7%), 22 - Superior Temporal Gyrus (24.1%), 37 - Fusiform gyrus (17.1%), 21 - Middle Temporal Gyrus (13.2%), 40 - Supramarginal gyrus, part of Wernicke's area (5.5%)	AF7	F5	S21	D1
Broca's Area R	-0.45	0.000	1.46	0.000	-0.07	0.866	-0.77	0.000	-0.57	0.000	CH 40	9 - Dorsolateral prefrontal cortex (30.7%), 44 - pars opercularis, part of Broca's area (27.5%), 46 - Dorsolateral prefrontal cortex (16.4%), 45 - pars triangularis Broca's area (14.8%), 6 - Pre-Motor and Supplementary Motor Cortex (7.6%)	F4	FC4	S10	D8
	-1.02	0.000	0.50	0.000	-1.62	0.002	0.09	0.186	-0.56	0.000	CH 38	Dorsolateral prefrontal cortex (12.2%), 6 - Pre-Motor and Supplementary Motor Cortex (6.8%)	F4	F6	S10	D2
	0.72	0.000	1.43	0.000	-0.82	0.121	-1.28	0.000	1.08	0.000	CH 45	45 - pars triangularis Broca's area (65.8%), Brain_Outside (24.8%), 46 - Dorsolateral prefrontal cortex (5.2%)	F8	F6	S12	D2
	0.17	0.189	-0.09	0.366	-2.05	0.000	-0.02	0.945	0.58	0.000	CH 56	45 - pars triangularis Broca's area (52.6%), 44 - pars opercularis, part of Broca's area (28.6%), 6 - Pre-Motor and Supplementary Motor Cortex (10.2%)	FC6	F6	S15	D2
	1.89	0.000	2.24	0.000	-1.68	0.002	-2.99	0.000	1.66	0.000	CH 57	44 - pars opercularis, part of Broca's area (41.5%), 6 - Pre-Motor and Supplementary Motor Cortex (40.1%), 9 - Dorsolateral prefrontal cortex (8.8%)	FC6	FC4	S15	D8
Wernicke's Area L	-0.87	0.000	-1.54	0.000	0.85	0.128	1.42	0.000	-0.83	0.000	CH 80	39 - Angular gyrus, part of Wernicke's area (32.7%), 22 - Superior Temporal Gyrus (24.1%), 37 - Fusiform gyrus (17.1%), 21 - Middle Temporal Gyrus (13.2%), 40 - Supramarginal gyrus, part of Wernicke's area (5.5%)	AF8	F6	S22	D2
	1.34	0.000	1.80	0.000	-0.10	0.824	-1.90	0.000	1.56	0.000	CH 25	Supramarginal gyrus, part of Wernicke's area (43.3%), Primary Somatosensory Cortex (22.5%), Primary Somatosensory Cortex (21.2%), Primary Somatosensory Cortex (7.6%)	C3	CP3	S6	D4
	-0.02	0.762	1.36	0.000	-2.25	0.000	-1.01	0.000	0.01	0.359	CH 28	Supramarginal gyrus, part of Wernicke's area (65.5%), Angular gyrus, part of Wernicke's area (14.4%), Retrosplenial area (9.3%), Superior Temporal Gyrus (5.9%)	CP5	CP3	S7	D4
	1.43	0.000	2.62	0.000	-0.53	0.306	-2.42	0.000	1.33	0.000	CH 30	Angular gyrus, part of Wernicke's area (32.7%), Superior Temporal Gyrus (24.1%), Fusiform gyrus (17.1%), Middle Temporal Gyrus (13.2%), Supramarginal gyrus, part of Wernicke's area (5.5%)	CP5	P5	S7	D19
	0.99	0.000	1.62	0.000	-0.95	0.074	-1.41	0.000	0.95	0.000	CH 90	Angular gyrus, part of Wernicke's area (53.3%), Supramarginal gyrus, part of Wernicke's area (29.8%), Somatosensory Association Cortex (12.3%)	P3	CP3	S26	D4
	0.08	0.599	0.86	0.000	-0.86	0.103	-0.53	0.000	0.88	0.000	CH 91	Angular gyrus, part of Wernicke's area (78.0%), V3 (17.1%)	P3	P5	S26	D19
Wernicke's Area R	0.97	0.000	1.68	0.000	-2.11	0.000	-1.27	0.000	1.33	0.000	CH 94	Supramarginal gyrus, part of Wernicke's area (41.8%), Somatosensory Association Cortex (27.1%), Primary Somatosensory Cortex (16.4%), Primary Somatosensory Cortex (5.6%)	CP1	CP3	S28	D4
	0.36	0.002	1.34	0.000	-1.46	0.006	-1.19	0.000	0.65	0.000	CH 11	Supramarginal gyrus, part of Wernicke's area (69.0%), Angular gyrus, part of Wernicke's area (12.8%), Retrosplenial area (7.5%), Superior Temporal Gyrus (6.9%)	CP6	CP4	S3	D5
	-0.56	0.000	0.62	0.000	-1.01	0.057	-0.38	0.000	-0.82	0.000	CH 14	Angular gyrus, part of Wernicke's area (35.0%), Superior Temporal Gyrus (24.3%), Fusiform gyrus (14.4%), Middle Temporal Gyrus (11.1%), Supramarginal gyrus, part of Wernicke's area (5.7%)	CP6	P6	S3	D20
	0.94	0.000	0.73	0.000	-1.72	0.001	-0.53	0.000	1.68	0.000	CH 82	Supramarginal gyrus, part of Wernicke's area (50.0%), Primary Somatosensory Cortex (18.9%), Primary Somatosensory Cortex (17.7%), Primary Somatosensory Cortex (8.4%)	C4	CP4	S23	D5
	0.89	0.000	1.17	0.000	-0.16	0.731	-1.11	0.000	0.94	0.000	CH 92	Angular gyrus, part of Wernicke's area (25.0%), Somatosensory Association Cortex (12.5%)	P4	CP4	S27	D5
	-0.16	0.111	-0.09	0.397	-0.33	0.516	0.19	0.008	-0.18	0.588	CH 93	Angular gyrus, part of Wernicke's area (80.0%), V3 (15.1%)	P4	P6	S27	D20
Other-Middle Temporal L	0.48	0.000	1.54	0.000	-1.51	0.005	-1.19	0.000	1.13	0.000	CH 95	Supramarginal gyrus, part of Wernicke's area (45.1%), Somatosensory Association Cortex (25.3%), Primary Somatosensory Cortex (13.5%), Primary Somatosensory Cortex (5.8%)	CP2	CP4	S29	D5
	0.88	0.000	-0.65	0.000	-0.49	0.343	0.70	0.000	-0.75	0.000	CH 29	Superior Temporal Gyrus (35.3%), Middle Temporal Gyrus (34.9%), Fusiform gyrus (11.9%), Inferior Temporal Gyrus (10.2%)	CP5	TP7	S7	D9
	-0.78	0.000	1.69	0.000	-1.34	0.012	-1.45	0.000	0.96	0.000	CH 70	Middle Temporal Gyrus (49.3%), Inferior Temporal Gyrus (47.3%), Superior Temporal Gyrus (40.4%), Middle Temporal Gyrus (35.4%), Fusiform gyrus (9.8%), Inferior Temporal Gyrus (8.3%)	T7	TP7	S19	D9
Other-Middle Temporal R	-0.83	0.000	0.86	0.000	-0.86	0.102	-0.71	0.000	0.31	0.001	CH 12	Superior Temporal Gyrus (40.4%), Middle Temporal Gyrus (35.4%), Fusiform gyrus (9.8%), Inferior Temporal Gyrus (8.3%)	CP6	TP8	S3	D10
	0.05	0.758	0.53	0.000	-1.26	0.018	-0.34	0.000	-0.69	0.000	CH 74	Middle Temporal Gyrus (55.0%), Inferior Temporal Gyrus (41.5%)	T8	TP8	S20	D10

Notes: 1) Red indicates significantly positive t-values (greater activity for the first item being compared); blue indicates significantly negative t-values (greater activity for the item on the right of the comparison); 2) Average FDR-corrected p-value=.0175426, q = 0.05; DF=72187; 3) all t-values are standardized; 4) Source and detector locations are based on the international 10-20 EEG system