

Supplemental data

Table 1. ROI and Corresponding MNI Coordinates

ROIs	Abbreviation	MNI Coordinates (mm)		
Ventromedial prefrontal cortex	vMPFC	0	48	4
Posterior cingulate cortex	PCC	-6	-48	38
Left Inferior parietal lobule/precuneus	IPL_L	56	-30	42
Right Inferior parietal lobule/precuneus	IPL_R	-56	-30	42
Left Hippocampus	Hippocam_L	-24	-16	-18
Dorsolateral PFC	dIPFC	-26	42	34
Posterior parietal cortex	pPC	-46	-40	46
Caudate	Caudate	-14	0	12
Left Thalamus	Thalamus_L	-10	-18	6
Ventrolateral prefrontal cortex	vlPFC	-37	36	18
Left insula	Insula_L	-43	12	0
Right anterior cingulate cortex	ACC	6	44	20
Left amygdala	Amygdala_L	-20	-4	-22
Left premotor area	PMA_L	-46	24	22
Left inferior Front gyrus pars opercularis	IFG_parsOpercularis_L	-46	16	6
Left Inferior frontal gyrus pars triangularis	IFG_parsTria_L	-40	32	6

Table 2. Infarct location by case

Study ID	Infarct Location
103	Hemorrhage involving L frontal, temporal, and parietal lobes
104	Ischemic right superior lateral parietal infarct
105	Ischemic anterior-inferior left pontine infarct
106	Ischemic infarct of right insular cortex and perisylvian cortex of frontal and temporal lobes
107	Ischemic infarct affecting right periventricular white matter
111	Ischemic Infarct right MCA distribution with involvement basal ganglia
112	Ischemic infarction of both cerebellar hemispheres, left half of the medulla, bilateral medial occipital lobes, and right posterior parietal lobe
113	Hemorrhage involving right posterior frontal and parietal lobes
115	Ischemic left frontal lobe infarct

116	Ischemic infarct of right basal ganglia and lateral right parietal gyrus
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Table 3. General Cognitive Measures, Social Participation and Social Adjustment

	Stroke Patients N=10 Median (Range)	Controls N=10 Median (Range)	P
WASI Full 2 IQ	89 (55)	114 (23)	0.02
WISC PSI	97 (58)	100 (23)	0.43
ToLC	82 (70)	108 (43)	0.04
CASP	94 (31)	100 (3)	0.02
ABAS Social Composite	111 (36)	110 (45)	0.914
CBC-L Social Problems	51 (4)	51 (4)	0.34

Legend: Values (rounded to closest integer) presented as Mean (Standard Deviation). WASI=Wechsler Abbreviated Scale of Intelligence (Normal range: 100 +/- 15). WISC = Wechsler Intelligence Scale (100 +/-15); ToLC = Test of Language Competence (Normal range: 100 +/- 15).

CASP=Child Adolescent Scale of Participation (Total 100). ABAS = Adaptive Behavior Assessment System (Normal range: 100 +/- 15);. CBC-L = Child Behavior Checklist (Normal range: 50 +/- 10). * = p<0.05.

Resting state connectivity pair-wise comparisons between regions of interest

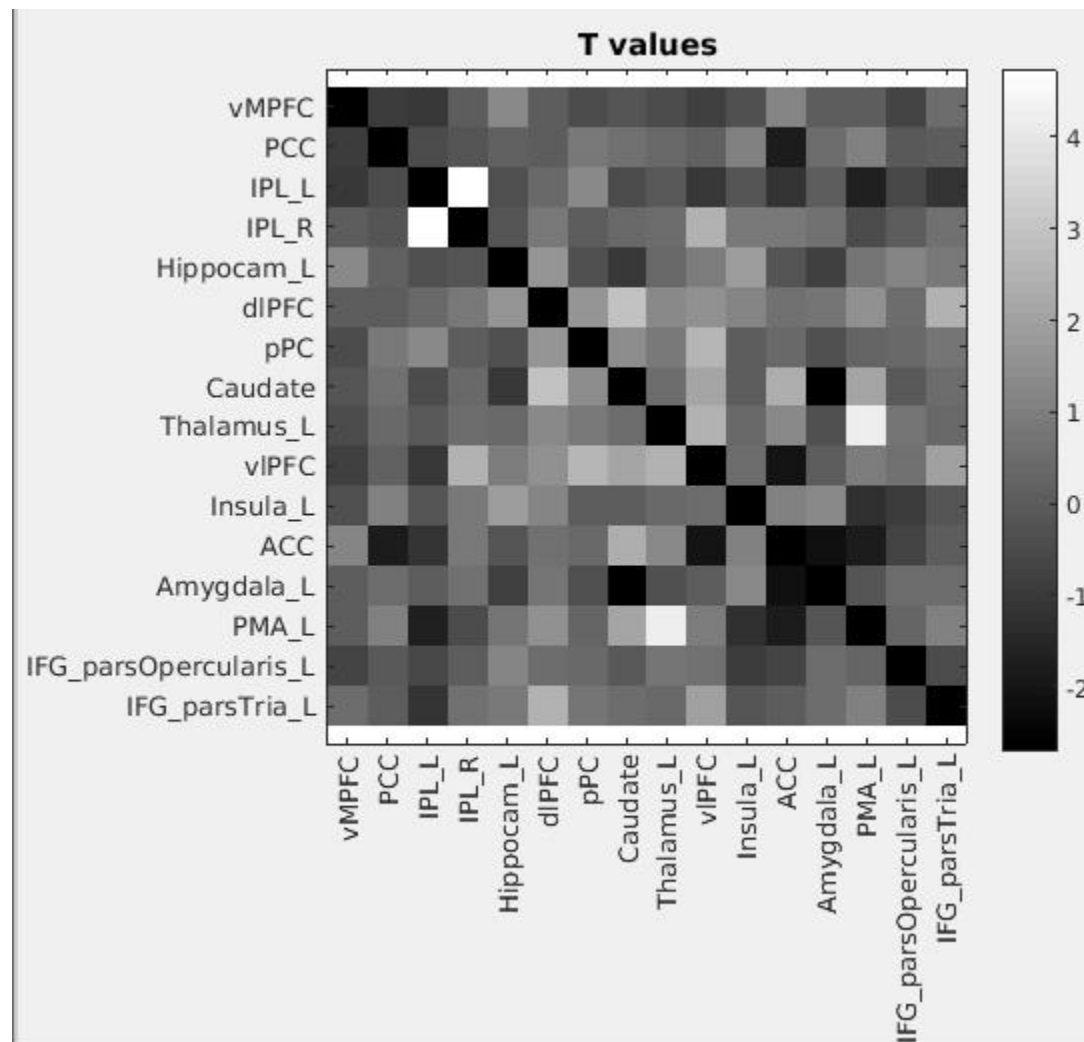


Figure Legend. Pairwise comparison between all regions. Scale on right indicates the T-score for the comparisons. Significance adjusted for multiple comparisons by the false discovery rate method.(1) The two regions that manifested significant differences were a) between the right and left inferior parietal lobules; connectivity was lower in patients when compared with controls; b) between the left premotor area and the left thalamus; connectivity was lower in patients when compared with controls.

Table 4. Comparison of Performance on ToM Tasks by Group, with Age at Assessment and Regional Resting State Connectivity as Covariates.

	Stroke	Controls		Group	Age	FzTDMN	FzTCEN	FzTMNEN	FzTSN
Conative ToM									
Group			Multivariate	0.01					
Group, Age			Multivariate	0.01	0.06				
Group, Age, FzTDMN			Multivariate	0.01	0.07	0.48			
Group, Age, FzTDMN, FzTCEN			Multivariate	0.03	0.08	0.87	0.71		
Group, Age, FzTDMN, FzTCEN, FzTMNEN			Multivariate	0.12	0.08	0.78	0.97	0.76	
IE Mastery Total	52 (24)	90 (15)	BSE	0.01	0.10	0.97	0.87	0.49	
IE Truth	82 (27)	97 (11)	BSE	0.36	0.02	0.92	0.85	0.62	
IE Ironic	40 (39)	87 (25)	BSE	0.04	0.09	0.49	0.64	0.33	
IE Empathic	33 (38)	87 (28)	BSE	0.04	0.93	0.56	0.97	0.96	
Affective ToM									
Group			Multivariate	0.22					
Group, Age			Multivariate	0.17	0.11				
Group, Age, FzTDMN			Multivariate	0.12	0.11	0.40			
Group, Age, FzTDMN, FzTCEN			Multivariate	0.15	0.11	0.29	0.74		
Group, Age, FzTDMN, FzTCEN, FzTSN			Multivariate	0.19	0.14	0.22	0.61		0.28
EEFT Total	69 (15)	81 (8)	BSE	0.04	0.02	0.50	0.85		0.28
EEFT Concealment Information	80 (26)	94 (5)	BSE	0.31	0.11	0.86	0.78		0.63
EEFT Feel Inside	80 (14)	86 (9)	BSE	0.09	0.11	0.03	0.19		0.21
EEFT Look on Face	57 (19)	73 (13)	BSE	0.09	0.07	0.97	0.96		0.11

Legend. Values in Stroke and Controls columns are mean percent correct responses and standard deviation. Values in columns Group, Age, FzTDMN, FzTCEN, FzTMNEN, and FzTSN are p values for multivariate tests, or tests of between subjects effects (BSE) of the model including all regions. IE = Irony & Empathy Tasks. Collective Mastery Tasks = Truth, Ironic, Empathic tasks analyzed as a group. EEFT= Emotional and Emotive Faces Task. Collective EEFT Tasks=Concealment Information, Feel Inside, Look on Face tasks analyzed as a group. FzT = mean Fisher Z Transformed correlation coefficients for connectivity. DMN = Default Mode Network. CEN = Central Executive Network. MNEN = Mirror Neuron Empathy Network

1. Benjamini Y, Hochberg Y. Controlling the False Discovery Rate: A Practical and Powerful Approach to Multiple Testing. Journal of the Royal Statistical Society Series B (Methodological). 1995;57(1):289-300.