

Supplementary Tables

Supplementary Table 1 | Significant clusters of the activation contrast (difficult > easy), averaged across RP and N-back tasks, passing the voxel-level threshold of $P(\text{uncorrected}) < 0.01$ and the cluster-level threshold of $P(\text{cFWE-corrected}) < 0.05$.

Cluster-level $P(\text{cFWE-corr})$	Peak-level $P(\text{FWE-corr})$	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	3052	15.00	44, -46, 46	Inferior Parietal Lobule, Right	40
--	0.000	--	10.89	34, -46, 42	Precuneus, Right	7
--	0.000	--	9.85	40, -62, 46	Inferior Parietal Lobule, Right	39
0.000	0.000	8710	13.26	36, 24, -2	Insula, Right	13
--	0.000	--	12.65	34, 6, 60	Middle Frontal Gyrus, Right	6
--	0.000	--	11.14	44, 36, 30	Middle Frontal Gyrus, Right	9
0.000	0.000	8950	13.08	4, 26, 46	Superior Frontal Gyrus, Right	8
--	0.000	--	11.00	-46, 22, 36	Middle Frontal Gyrus, Left	9
--	0.000	--	10.01	-46, 8, 44	Middle Frontal Gyrus, Left	6
0.000	0.000	8598	11.60	-10, -90, -4	Lingual Gyrus, Left	18
0.000	0.000	1766	10.23	-40, -54, 42	Inferior Parietal Lobule, Left	40
0.000	0.000	1639	8.75	10, -68, 48	Precuneus, Right	7
--	0.000	--	8.41	-4, -66, 46	Precuneus, Left	7
0.000	0.001	330	6.28	58, -30, -16	Middle Temporal Gyrus, Right	21
--	0.918	--	4.09	58, -44, -10	Sub-Gyrus, Right	37
0.000	0.001	444	6.27	-10, 12, 10	Caudate, Left	Caudate Body
--	0.002	--	6.12	-16, 16, 2	Caudate, Left	Caudate Body
--	0.071	--	5.16	-8, 2, 6	Caudate, Left	Caudate Body

Note: "--" denotes belonging to the above cluster.

Supplementary Table 2 | Significant clusters of the activation contrast (easy > difficult), averaged across RP and N-back tasks, passing the threshold of $P(\text{FWE-corrected}) < 0.05$ at the voxel level.

Cluster-level $P(\text{cFWE-corr})$	Peak-level $P(\text{FWE-corr})$	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	2805	10.52	18, -28, 76	Postcentral Gyrus, Right	3
--	0.000	--	10.25	26, -34, 72	Postcentral Gyrus, Right	5
--	0.000	--	10.08	0, -22, 62	Paracentral Lobule, Left	6
0.000	0.000	1028	10.30	-12, -60, 12	Posterior Cingulate, Left	30
--	0.000	--	8.65	-6, -54, 20	Posterior Cingulate, Left	30
--	0.000	--	7.66	18, -52, 16	Posterior Cingulate, Right	30
0.000	0.000	1961	10.28	-2, 62, -2	Medial Frontal Gyrus, Left	10
--	0.000	--	10.11	0, 62, 14	Superior Frontal Gyrus, Left	9
0.000	0.000	645	10.04	-40, -82, 22	Middle Occipital Gyrus, Left	19
--	0.000	--	9.18	-34, -88, 26	Middle Occipital Gyrus, Left	19

Continued on next page...

Table 2 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
--	0.000	--	6.39	-22, -86, 44	Cuneus, Left	19
0.000	0.000	807	9.76	-20, -38, 76	Postcentral Gyrus, Left	5
--	0.000	--	9.72	-24, -42, 68	Superior Parietal Lobule, Left	7
--	0.000	--	9.37	-18, -28, 72	Postcentral Gyrus, Left	3
0.000	0.000	1179	9.73	-28, -44, -6	Parahippocampal Gyrus, Left	36
--	0.000	--	9.14	-26, -16, -16	Parahippocampal Gyrus, Left	Hippocampus
--	0.000	--	9.11	-30, -54, 6	Parahippocampal Gyrus, Left	30
0.000	0.000	184	8.78	-30, 38, -10	Inferior Frontal Gyrus, Left	47
0.000	0.000	954	8.75	-60, -24, 20	Postcentral Gyrus, Left	40
--	0.000	--	7.80	-36, -18, 20	Insula, Left	13
--	0.000	--	7.49	-60, -2, 8	Precentral Gyrus, Left	6
0.000	0.000	1162	8.63	40, -80, 22	Middle Occipital Gyrus, Right	19
--	0.000	--	8.53	46, -82, 14	Middle Occipital Gyrus, Right	19
--	0.000	--	7.91	54, -68, 4	Inferior Temporal Gyrus, Right	37
0.000	0.000	1434	8.55	58, -2, 10	Precentral Gyrus, Right	43
--	0.000	--	7.99	44, -8, 14	Insula, Right	13
--	0.000	--	7.85	66, -22, 26	Inferior Parietal Lobule, Right	40
0.000	0.000	718	8.39	-50, -68, -4	Middle Occipital Gyrus, Left	37
--	0.000	--	7.45	-54, -68, 14	Middle Temporal Gyrus, Left	37
--	0.000	--	6.91	-42, -70, 8	Middle Occipital Gyrus, Left	37
0.000	0.000	229	8.07	-60, -4, -12	Middle Temporal Gyrus, Left	21
--	0.001	--	6.20	-56, -14, -12	Middle Temporal Gyrus, Left	22
--	0.008	--	5.74	-54, -6, -24	Middle Temporal Gyrus, Left	21
0.000	0.000	64	7.50	-36, 4, 12	Insula, Left	13
0.000	0.000	91	7.38	-12, 46, 46	Superior Frontal Gyrus, Left	8
--	0.030	--	5.41	-8, 56, 44	Superior Frontal Gyrus, Left	8
0.000	0.000	40	7.27	32, -50, 4	Parahippocampal Gyrus, Right	30
--	0.001	--	6.23	28, -46, 10	Parahippocampal Gyrus, Right	30
0.000	0.000	45	6.74	28, -10, -18	Parahippocampal Gyrus, Right	Amygdala
0.000	0.000	44	6.71	-2, 14, -8	Caudate, Left	Caudate Head
0.000	0.000	27	6.68	-6, 6, 20	Cingulate Gyrus, Left	24
--	0.011	--	5.67	0, 0, 20	Cingulate Gyrus, Left	24
--	0.029	--	5.42	-8, -2, 22	Caudate, Left	Caudate Body
0.000	0.000	21	6.53	24, -78, 46	Precuneus, Right	19
0.000	0.001	31	6.24	-46, -50, -14	Inferior Temporal Gyrus, Left	37
0.000	0.001	20	6.19	-36, 18, -26	Inferior Frontal Gyrus, Left	47

Continued on next page...

Table 2 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.002	38	6.11	56, 2, -14	Superior Temporal Gyrus, Right	38
0.001	0.003	12	6.05	-22, -36, 16	Caudate, Left	Caudate Tail
0.001	0.005	11	5.86	34, -36, -14	Parahippocampal Gyrus, Right	36
0.004	0.006	7	5.84	30, -46, -8	Parahippocampal Gyrus, Right	37
0.005	0.006	6	5.72	-44, -12, 36	Precentral Gyrus, Left	6
0.001	0.009	14	5.71	44, 16, -32	Superior Temporal Gyrus, Right	38
0.006	0.010	5	5.69	42, -10, -30	Fusiform Gyrus, Right	20
0.002	0.013	9	5.64	-38, -18, 46	Postcentral Gyrus, Left	3
0.005	0.013	6	5.63	-52, -52, -4	Sub-Gyrus, Left	37
0.016	0.028	2	5.42	20, -32, 22	Caudate, Right	Caudate Tail
0.016	0.032	2	5.39	32, -26, -16	Sub-Gyrus, Right	Hippocampus
0.016	0.033	2	5.38	-14, -14, 48	Cingulate Gyrus, Left	24
0.011	0.045	3	5.29	4, -8, 42	Cingulate Gyrus, Right	24
0.025	0.050	1	5.27	-46, -10, 32	Precentral Gyrus, Left	6

Note: “-” denotes belonging to the above cluster.

Supplementary Table 3 | Significant clusters of the activation contrast (difficult > easy) in the RP task, passing the voxel-level threshold of $P(\text{uncorrected}) < 0.01$ and the cluster-level threshold of $P(\text{cFWE-corrected}) < 0.05$.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	4380	11.64	16, -92, 2	Lingual Gyrus, Right	17
--	0.000	--	9.84	-10, -92, -4	Inferior Occipital Gyrus, Left	17
0.000	0.000	2728	8.08	48, 24, 38	Precentral Gyrus, Right	9
--	0.000	--	6.74	48, 30, 28	Middle Frontal Gyrus, Right	9
--	0.000	--	6.63	40, 26, 50	Superior Frontal Gyrus, Right	8
0.000	0.000	1835	8.00	44, -48, 46	Inferior Parietal Lobule, Right	40
--	0.000	--	7.11	42, -56, 50	Inferior Parietal Lobule, Right	7
--	0.000	--	6.89	44, -62, 44	Inferior Parietal Lobule, Right	39
0.000	0.000	984	7.89	4, 30, 44	Medial Frontal Gyrus, Right	8
--	0.000	--	6.32	-4, 22, 52	Superior Frontal Gyrus, Left	6
--	0.000	--	3.84	-6, 8, 68	Superior Frontal Gyrus, Left	6
0.000	0.000	2611	7.09	-44, 50, -10	Middle Frontal Gyrus, Left	10
--	0.000	--	6.87	-48, 20, 38	Middle Frontal Gyrus, Left	8
--	0.000	--	6.34	-38, 18, 50	Middle Frontal Gyrus, Left	6
0.001	0.000	261	6.41	36, 22, -2	Insula, Right	13

Continued on next page...

Table 3 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
--	0.000	--	3.97	48, 22, -2	Inferior Frontal Gyrus, Right	45
0.000	0.001	781	6.30	-42, -60, 46	Angular Gyrus, Left	39
--	0.010	--	5.64	-46, -50, 44	Inferior Parietal Lobule, Left	40
--	0.986	--	3.85	-38, -56, 34	Superior Temporal Gyrus, Left	39
0.002	0.003	241	5.94	-4, -72, 38	Cuneus, Left	7
--	0.770	--	4.21	12, -68, 44	Precuneus, Right	7
--	0.011	--	4.79	42, 44, -14	Middle Frontal Gyrus, Right	47
0.003	0.248	230	4.72	58, -44, -10	Sub-Gyrus, Right	37
--	0.899	--	4.06	52, -28, -14	Superior Temporal Gyrus, Right	22
--	0.997	--	3.74	64, -34, -10	Middle Temporal Gyrus, Right	21
Note: "--" denotes belonging to the above cluster.						

Supplementary Table 4 | Significant clusters of the activation contrast (easy > difficult) in the RP task, passing the voxel-level threshold of $P(\text{uncorrected}) < 0.01$ and the cluster-level threshold of $P(\text{cFWE-corrected}) < 0.05$.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.001	572	6.39	24, -34, 76	Postcentral Gyrus, Right	5
--	0.001	--	4.63	34, -36, 60	Sub-Gyrus, Right	40
--	0.001	--	3.99	28, -26, 60	Postcentral Gyrus, Right	3
0.000	0.001	6525	6.37	-58, -22, 20	Postcentral Gyrus, Left	40
--	0.001	--	6.24	-40, -18, 52	Postcentral Gyrus, Left	3
--	0.001	--	6.14	-36, -42, 68	Postcentral Gyrus, Left	5
0.000	0.011	418	5.63	20, -8, 72	Precentral Gyrus, Right	6
--	0.656	--	4.32	32, -10, 64	Precentral Gyrus, Right	6
0.000	0.024	1648	5.41	-56, -64, 12	Middle Temporal Gyrus, Left	37
--	0.028	--	5.37	-50, -70, 10	Middle Temporal Gyrus, Left	37
--	0.044	--	5.25	-40, -70, 8	Middle Occipital Gyrus, Left	37
0.000	0.028	837	5.37	-12, -22, 40	Cingulate Gyrus, Left	31
--	0.066	--	5.13	-4, -28, 44	Cingulate Gyrus, Left	31
--	0.129	--	4.93	14, -30, 44	Cingulate Gyrus, Right	31
0.000	0.029	914	5.36	0, 64, 0	Medial Frontal Gyrus, Left	10
--	0.034	--	5.31	-6, 58, -2	Medial Frontal Gyrus, Left	10
--	0.201	--	4.79	-2, 50, -2	Anterior Cingulate, Left	32
0.048	0.044	133	5.22	-28, -54, 6	Parahippocampal Gyrus, Left	30
--	0.097	--	5.02	-28, -44, 0	Sub-Gyrus, Left	Hippocampus
0.005	0.073	213	5.10	8, 2, 58	Medial Frontal Gyrus, Right	6
--	1.000	--	3.40	-4, 0, 48	Cingulate Gyrus, Left	24
0.009	0.074	191	5.10	50, 0, 52	Precentral Gyrus, Right	6

Continued on next page...

Table 4 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
--	0.804	--	4.18	50, 0, 42	Precentral Gyrus, Right	6
--	0.897	--	4.07	50, -10, 54	Postcentral Gyrus, Right	3
0.000	0.115	1072	5.09	60, -18, 18	Insula, Right	40
--	0.541	--	4.95	48, -18, 20	Insula, Right	13
--	0.654	--	4.88	44, -6, 16	Insula, Right	13
0.005	0.115	214	4.97	62, -62, 10	Middle Temporal Gyrus, Right	39
--	0.541	--	4.41	50, -60, 10	Middle Temporal Gyrus, Right	39
--	0.654	--	4.32	58, -68, 14	Middle Temporal Gyrus, Right	39
0.005	0.277	216	4.68	-8, -60, 18	Posterior Cingulate, Left	23
--	0.908	--	4.05	0, -60, 20	Posterior Cingulate, Left	23
--	0.968	--	3.92	-14, -62, 10	Posterior Cingulate, Left	30

Note: "--" denotes belonging to the above cluster.

Supplementary Table 5 | Significant clusters of the activation contrast (difficult > easy) in the N-back task, passing the voxel-level threshold of $P(\text{uncorrected}) < 0.01$ and the cluster-level threshold of $P(\text{cFWE-corrected}) < 0.05$.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	2980	14.48	44, -44, 44	Inferior Parietal Lobule, Right	40
--	0.000	--	7.82	42, -64, 48	Precuneus, Right	19
0.000	0.000	20166	14.09	34, 6, 60	Middle Frontal Gyrus, Right	6
--	0.000	--	12.20	4, 20, 48	Superior Frontal Gyrus, Right	6
--	0.000	--	11.43	26, 2, 54	Sub-Gyral, Right	6
0.000	0.000	2175	11.28	8, -66, 52	Precuneus, Right	7
--	0.000	--	9.76	-8, -66, 46	Precuneus, Left	7
--	0.000	--	3.39	-26, -68, 64	Precuneus, Left	7
0.000	0.000	2023	9.71	-40, -48, 44	Inferior Parietal Lobule, Left	40
--	0.000	--	8.52	-32, -58, 40	Angular Gyrus, Left	39
0.002	0.021	234	5.48	58, -28, -16	Middle Temporal Gyrus, Right	21

Note: "--" denotes belonging to the above cluster.

Supplementary Table 6 | Significant clusters of the activation contrast (easy > difficult) in the N-back task, passing the voxel-level threshold of $P(\text{uncorrected}) < 0.01$ and the cluster-level threshold of $P(\text{cFWE-corrected}) < 0.05$.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	38171	12.37	40, -82, 22	Middle Occipital Gyrus, Right	19
--	0.000	--	11.31	-8, -60, 14	Posterior Cingulate, Left	30
--	0.000	--	11.27	-30, -46, -4	Parahippocampal Gyrus, Left	19
0.000	0.000	6252	11.13	-14, 44, 46	Superior Frontal Gyrus, Left	8
--	0.000	--	11.00	-2, 64, 16	Superior Frontal Gyrus, Left	9
--	0.000	--	10.45	-2, 62, -2	Medial Frontal Gyrus, Left	10
0.014	0.001	160	6.25	40, 32, -14	Inferior Frontal Gyrus, Right	47
0.000	0.002	289	6.14	50, 40, 4	Inferior Frontal Gyrus, Right	46
Note: "--" denotes belonging to the above cluster.						

Supplementary Table 7 | Significant clusters of the dPCu's structural connectivity, passing the voxel-level threshold of P(FWE-corrected) < 10⁻⁶.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	206607	32.66	1, -68, 39	Cuneus, Left	7
--	0.000	--	20.72	15, -31, 3	Thalamus, Right	Pulvinar
0.000	0.000	873	13.89	-14, -28, 59	Paracentral Lobule, Left	5
--	0.000	--	12.67	-28, -30, 57	Postcentral Gyrus, Left	3
--	0.000	--	11.35	-22, -28, 63	Postcentral Gyrus, Left	3
0.000	0.000	141	9.92	10, -35, 67	Paracentral Lobule, Right	5
--	0.000	--	9.75	18, -31, 63	Paracentral Lobule, Right	4
--	0.000	--	8.09	10, -28, 72	Paracentral Lobule, Right	6
0.000	0.000	2	9.67	-30, -28, 12	Insula, Left	13
0.000	0.000	99	9.38	51, -4, -26	Middle Temporal Gyrus, Right	21
0.000	0.000	182	9.15	-40, -17, 47	Postcentral Gyrus, Left	3
0.000	0.000	3	8.92	-35, -35, 12	Transverse Temporal Gyrus, Left	41
--	0.000	--	8.28	31, -66, 42	Precuneus, Right	7
0.000	0.000	254	8.88	-48, 29, 8	Inferior Frontal Gyrus, Left	45
--	0.000	--	7.57	-48, 34, 14	Middle Frontal Gyrus, Left	46
0.000	0.000	17	8.83	-20, -6, 52	Middle Frontal Gyrus, Left	6
0.000	0.000	2	8.49	-30, -28, 64	Postcentral Gyrus, Left	3
0.000	0.000	11	8.46	-21, -16, 60	Precentral Gyrus, Left	4
0.000	0.000	28	8.44	39, -78, -2	Inferior Occipital Gyrus, Right	19
0.000	0.000	46	8.43	-26, -90, -3	Middle Occipital Gyrus, Left	18
0.000	0.000	29	8.41	50, -41, 34	Supramarginal Gyrus, Right	40
0.000	0.000	12	8.41	-16, -1, 59	Sub-Gyral, Left	6
0.000	0.000	199	8.40	54, -56, 18	Superior Temporal Gyrus, Right	22
--	0.000	--	8.32	51, -48, 22	Superior Temporal Gyrus, Right	13
--	0.000	--	7.99	59, -57, 9	Middle Temporal Gyrus, Right	39

Continued on next page...

Table 7 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	33	8.36	44, 33, 10	Middle Frontal Gyrus, Right	46
0.000	0.000	61	8.33	-5, -26, 27	Posterior Cingulate, Left	23
0.000	0.000	36	8.29	0, 35, 4	Anterior Cingulate, Left	24
- -	0.000	- -	8.14	0, 30, 13	Anterior Cingulate, Left	24
0.000	0.000	3	8.25	41, -24, 44	Postcentral Gyrus, Right	2
0.000	0.000	64	8.22	-35, -80, 7	Middle Occipital Gyrus, Left	19
0.000	0.000	35	8.17	45, -65, -13	Fusiform Gyrus, Right	37
0.000	0.000	68	8.15	-44, -27, 46	Inferior Parietal Lobule, Left	40
0.000	0.000	1	8.13	-30, -30, 14	Insula, Left	13
0.000	0.000	45	8.12	48, -70, -1	Inferior Temporal Gyrus, Right	37
0.000	0.000	6	8.07	-24, -76, 23	Precuneus, Left	31
0.000	0.000	6	8.04	46, -44, 14	Insula, Right	13
0.000	0.000	6	8.03	-19, -18, 66	Precentral Gyrus, Left	4
0.000	0.000	18	7.92	52, -38, 10	Superior Temporal Gyrus, Right	41
0.000	0.000	9	7.87	31, -31, 52	Postcentral Gyrus, Right	3
0.000	0.000	30	7.85	50, -41, -14	Fusiform Gyrus, Right	37
0.000	0.000	12	7.82	-14, -94, 19	Middle Occipital Gyrus, Left	18
0.000	0.000	16	7.79	-1, -51, 13	Posterior Cingulate, Left	29
0.000	0.000	10	7.78	-8, -15, 44	Cingulate Gyrus, Left	24
0.000	0.000	15	7.78	62, -32, -13	Middle Temporal Gyrus, Right	21
0.000	0.000	1	7.75	-15, -75, 18	Cuneus, Left	23
0.000	0.000	2	7.75	25, 16, -12	Lentiform Nucleus, Right	Putamen
0.000	0.000	2	7.74	2, 34, 2	Anterior Cingulate, Left	24
0.000	0.000	4	7.73	-49, -12, -26	Sub-Gyral, Left	20
0.000	0.000	3	7.68	49, -17, -27	Sub-Gyral, Right	20
0.000	0.000	1	7.67	-39, -34, 8	Superior Temporal Gyrus, Left	41
0.000	0.000	5	7.66	-29, -7, 52	Precentral Gyrus, Left	6
0.000	0.000	1	7.66	-22, -78, 27	Cuneus, Left	18
0.000	0.000	5	7.65	-34, 18, 10	Insula, Left	13
0.000	0.000	4	7.64	36, 36, -20	Middle Frontal Gyrus, Right	11
0.000	0.000	8	7.64	38, 43, -18	Middle Frontal Gyrus, Right	47
0.000	0.000	6	7.63	44, -80, 27	Middle Temporal Gyrus, Right	19
0.000	0.000	1	7.59	34, -41, 52	Precuneus, Right	7
0.000	0.000	2	7.59	34, 39, 12	Middle Frontal Gyrus, Right	10
0.000	0.000	3	7.57	5, 25, -6	Anterior Cingulate, Right	24
0.000	0.000	1	7.57	-18, -71, 16	Cuneus, Left	30
0.000	0.000	2	7.56	44, -56, 6	Middle Temporal Gyrus, Right	39
0.000	0.000	1	7.56	-42, 12, 9	Insula, Left	13
0.000	0.000	1	7.53	22, -70, 26	Precuneus, Right	31
0.000	0.000	1	7.53	-52, 0, 10	Precentral Gyrus, Left	6
0.000	0.000	1	7.53	-10, 48, -14	Anterior Cingulate, Left	32

Note: “- -” denotes belonging to the above cluster.

Supplementary Table 8 | Significant clusters of the vPCu’s structural connectivity, passing the voxel-level threshold of $P(\text{FWE-corrected}) < 10^{-6}$.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	209057	47.90	5, -58, 18	Posterior Cingulate, Right	23
--	0.000	--	20.78	-30, -8, -7	Lentiform Nucleus, Left	Putamen
--	0.000	--	20.39	-31, -17, -7	Lentiform Nucleus, Left	Putamen
0.000	0.000	13208	14.27	28, -7, 56	Middle Frontal Gyrus, Right	6
--	0.000	--	12.27	41, -4, 44	Middle Frontal Gyrus, Right	6
--	0.000	--	12.02	46, 2, 37	Precentral Gyrus, Right	6
0.000	0.000	710	13.94	-10, -32, 63	Postcentral Gyrus, Left	4
--	0.000	--	10.24	-28, -22, 56	Precentral Gyrus, Left	4
--	0.000	--	10.19	-18, -30, 56	Paracentral Lobule, Left	5
0.000	0.000	755	10.43	54, -52, 12	Superior Temporal Gyrus, Right	39
--	0.000	--	9.43	60, -46, 4	Middle Temporal Gyrus, Right	22
0.000	0.000	11	10.37	20, -22, 19	Caudate, Right	Caudate Tail
0.000	0.000	4	10.18	-30, -28, 12	Insula, Left	13
0.000	0.000	405	9.92	32, -28, 62	Postcentral Gyrus, Right	3
--	0.000	--	9.59	18, -31, 62	Paracentral Lobule, Right	4
--	0.000	--	9.11	26, -24, 57	Postcentral Gyrus, Right	3
0.000	0.000	695	9.79	51, 3, -7	Insula, Right	13
--	0.000	--	8.80	55, -5, -7	Superior Temporal Gyrus, Right	22
--	0.000	--	7.99	55, 4, -14	Superior Temporal Gyrus, Right	38
0.000	0.000	64	9.44	59, -26, -6	Superior Temporal Gyrus, Right	21
0.000	0.000	28	9.36	-19, 22, 40	Superior Frontal Gyrus, Left	8
0.000	0.000	189	9.19	28, -72, 40	Precuneus, Right	19
0.000	0.000	159	9.10	55, -17, 10	Transverse Temporal Gyrus, Right	41
--	0.000	--	8.01	52, -18, 3	Superior Temporal Gyrus, Right	22
0.000	0.000	10	8.84	-48, -31, 34	Inferior Parietal Lobule, Left	40
0.000	0.000	95	8.59	-40, -27, 46	Inferior Parietal Lobule, Left	40
0.000	0.000	72	8.58	54, -22, 0	Superior Temporal Gyrus, Right	22
--	0.000	--	8.42	55, -30, 4	Superior Temporal Gyrus, Right	22
0.000	0.000	3	8.57	-35, -35, 12	Transverse Temporal Gyrus, Left	41
0.000	0.000	69	8.57	24, -62, 47	Precuneus, Right	7
0.000	0.000	3	8.41	25, 14, -27	Inferior Frontal Gyrus, Right	47
0.000	0.000	9	8.39	-18, -18, 64	Precentral Gyrus, Left	4
0.000	0.000	2	8.31	-16, 19, 50	Superior Frontal Gyrus, Left	6
0.000	0.000	50	8.28	11, 23, 33	Cingulate Gyrus, Right	32
0.000	0.000	5	8.27	-16, 25, 46	Superior Frontal Gyrus, Left	8
0.000	0.000	38	8.16	30, -56, 50	Superior Parietal Lobule, Right	7
0.000	0.000	22	8.14	46, -57, 8	Middle Temporal Gyrus, Right	39
0.000	0.000	30	8.06	60, -16, -10	Middle Temporal Gyrus, Right	21
0.000	0.000	2	8.05	-30, -28, 64	Postcentral Gyrus, Left	3

Continued on next page...

Table 8 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	10	8.03	34, 40, 12	Middle Frontal Gyrus, Right	10
0.000	0.000	17	8.02	51, -4, -26	Middle Temporal Gyrus, Right	21
0.000	0.000	3	8.01	-22, 43, 17	Medial Frontal Gyrus, Left	9
0.000	0.000	13	8.00	-28, -35, 56	Sub-Gyrus, Left	40
0.000	0.000	22	7.91	38, 40, 20	Middle Frontal Gyrus, Right	9
0.000	0.000	10	7.89	30, 43, 14	Medial Frontal Gyrus, Right	9
0.000	0.000	7	7.80	-24, -86, -8	Fusiform Gyrus, Left	19
0.000	0.000	8	7.77	-31, -86, -4	Middle Occipital Gyrus, Left	18
0.000	0.000	1	7.74	25, 12, -26	Inferior Frontal Gyrus, Right	47
0.000	0.000	19	7.72	46, -25, 19	Insula, Right	13
0.000	0.000	1	7.70	-19, 16, 44	Medial Frontal Gyrus, Left	32
0.000	0.000	9	7.69	-49, -47, 39	Supramarginal Gyrus, Left	40
0.000	0.000	3	7.67	-48, 25, 0	Inferior Frontal Gyrus, Left	45
0.000	0.000	1	7.65	-28, 22, -16	Extra-Nuclear, Left	13
0.000	0.000	2	7.64	-11, 32, 48	Superior Frontal Gyrus, Left	6
0.000	0.000	2	7.61	12, -16, 66	Medial Frontal Gyrus, Right	6
0.000	0.000	2	7.58	52, -26, 18	Insula, Right	13
0.000	0.000	1	7.54	-34, -34, 13	Superior Temporal Gyrus, Left	41
0.000	0.000	1	7.54	-11, 52, 30	Superior Frontal Gyrus, Left	8
0.000	0.000	1	7.53	-50, -7, 38	Precentral Gyrus, Left	4

Note: “-” denotes belonging to the above cluster.

Supplementary Table 9 | Significant clusters of the dPCu’s resting-state FC, passing the voxel-level threshold of P(FWE-corrected) < 10⁻⁶.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	13262	46.94	0, -72, 40	Cuneus, Left	7
--	0.000	--	24.14	-8, -70, 26	Precuneus, Left	31
--	0.000	--	21.76	2, -38, 24	Posterior Cingulate, Left	29
0.000	0.000	2996	15.73	42, -62, 46	Inferior Parietal Lobule, Right	39
--	0.000	--	15.69	44, -70, 38	Precuneus, Right	39
--	0.000	--	14.40	50, -62, 44	Inferior Parietal Lobule, Right	39
0.000	0.000	2922	15.65	-40, -58, 50	Inferior Parietal Lobule, Left	7
--	0.000	--	15.04	-52, -62, 30	Middle Temporal Gyrus, Left	39
--	0.000	--	14.64	-34, -58, 42	Angular Gyrus, Left	39
0.000	0.000	2287	14.81	26, 22, 52	Superior Frontal Gyrus, Right	6
--	0.000	--	12.68	50, 24, 38	Precentral Gyrus, Right	9
--	0.000	--	12.61	42, 12, 52	Middle Frontal Gyrus, Right	6
0.000	0.000	5417	14.17	-26, 62, 8	Superior Frontal Gyrus, Left	10

Continued on next page...

Table 9 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
--	0.000	--	14.14	30, 60, 8	Middle Frontal Gyrus, Right	10
--	0.000	--	13.46	2, 32, 40	Medial Frontal Gyrus, Left	8
0.000	0.000	569	12.19	62, -16, -10	Middle Temporal Gyrus, Right	21
--	0.000	--	10.13	60, -40, -4	Middle Temporal Gyrus, Right	21
0.000	0.000	517	11.06	-56, -18, -12	Middle Temporal Gyrus, Left	21
--	0.000	--	10.96	-62, -24, -8	Middle Temporal Gyrus, Left	21
--	0.000	--	10.65	-66, -36, -4	Middle Temporal Gyrus, Left	21
0.000	0.000	55	10.34	22, -20, -12	Parahippocampal Gyrus, Right	35
0.000	0.000	16	10.33	-10, 0, 14	Caudate, Left	Caudate Body
0.000	0.000	28	10.25	-40, 14, -10	Insula, Left	13
0.000	0.000	102	10.00	40, 18, -14	Inferior Frontal Gyrus, Right	47
--	0.000	--	9.65	48, 22, -8	Inferior Frontal Gyrus, Right	47
0.000	0.000	33	9.73	-44, -26, 12	Transverse Temporal Gyrus, Left	41
0.000	0.000	11	9.36	-52, -4, -22	Middle Temporal Gyrus, Left	21
0.000	0.000	12	9.31	-18, 2, -14	Lentiform Nucleus, Left	Lateral Globus Pallidus
0.000	0.000	2	9.00	-28, 32, -24	Inferior Frontal Gyrus, Left	47
0.000	0.000	19	8.95	-68, -20, -20	Inferior Temporal Gyrus, Left	20
--	0.000	--	8.67	-62, -14, -24	Inferior Temporal Gyrus, Left	20
0.000	0.000	12	8.91	-14, -24, 16	Thalamus, Left	Pulvinar
--	0.000	--	8.34	-18, -30, 12	Thalamus, Left	Pulvinar
0.000	0.000	10	8.84	-58, -24, -22	Inferior Temporal Gyrus, Left	20
0.000	0.000	2	8.83	-56, -8, -28	Middle Temporal Gyrus, Left	21
0.000	0.000	4	8.80	-30, 28, 30	Middle Frontal Gyrus, Left	9
0.000	0.000	10	8.66	28, -90, 2	Middle Occipital Gyrus, Right	18
0.000	0.000	17	8.66	54, -10, -28	Inferior Temporal Gyrus, Right	20
0.000	0.000	2	8.65	-20, -36, 4	Thalamus, Left	Pulvinar
0.000	0.000	9	8.65	60, -26, -16	Middle Temporal Gyrus, Right	21
0.000	0.000	5	8.59	-46, -14, 0	Insula, Left	13
0.000	0.000	9	8.56	8, 4, 6	Caudate, Right	Caudate Body
0.000	0.000	2	8.53	56, -2, -18	Superior Temporal Gyrus, Right	38
0.000	0.000	4	8.50	-48, -16, 10	Superior Temporal Gyrus, Left	13
0.000	0.000	7	8.48	60, -26, 14	Postcentral Gyrus, Right	40
0.000	0.000	1	8.46	28, -40, -2	Sub-Gyral, Right	Hippocampus
0.000	0.000	3	8.42	-34, -28, 14	Insula, Left	13
0.000	0.000	3	8.36	20, 0, -12	Lentiform Nucleus, Right	Lateral Globus Pallidus

Continued on next page...

Table 9 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	1	8.33	-24, 26, -20	Inferior Frontal Gyrus, Left	11
0.000	0.000	3	8.30	54, -22, 12	Insula, Right	40
0.000	0.000	3	8.29	-36, 20, -24	Inferior Frontal Gyrus, Left	47
0.000	0.000	2	8.26	4, -56, 68	Precuneus, Right	7
0.000	0.000	3	8.23	-40, 54, -6	Middle Frontal Gyrus, Left	10
0.000	0.000	2	8.19	-22, -56, 6	Lingual Gyrus, Left	18
0.000	0.000	1	8.19	10, 66, -2	Medial Frontal Gyrus, Right	10
0.000	0.000	3	8.16	48, 0, -32	Middle Temporal Gyrus, Right	21
0.000	0.000	1	8.11	-32, 0, 62	Middle Frontal Gyrus, Left	6
0.000	0.000	1	8.11	-46, -26, 4	Superior Temporal Gyrus, Left	41
0.000	0.000	2	8.10	-52, 24, 28	Middle Frontal Gyrus, Left	9
0.000	0.000	2	8.08	34, -24, 12	Insula, Right	13
0.000	0.000	1	8.07	-56, -16, -26	Middle Temporal Gyrus, Left	21
0.000	0.000	3	8.03	-68, -52, 2	Middle Temporal Gyrus, Left	21
0.000	0.000	1	8.00	-48, 26, 26	Middle Frontal Gyrus, Left	9
0.000	0.000	2	7.99	40, -88, -8	Middle Occipital Gyrus, Right	18
0.000	0.000	1	7.99	-62, -18, 10	Transverse Temporal Gyrus, Left	41
0.000	0.000	1	7.98	-48, -12, 4	Insula, Left	13
0.000	0.000	1	7.97	-20, -90, -10	Lingual Gyrus, Left	18
0.000	0.000	1	7.94	50, -18, 10	Insula, Right	13
0.000	0.000	1	7.93	-58, -52, 2	Middle Temporal Gyrus, Left	21
0.000	0.000	1	7.92	-30, -88, -8	Fusiform Gyrus, Left	19
Note: “-” denotes belonging to the above cluster.						

Supplementary Table 10 | Significant clusters of the vPCu’s resting-state FC, passing the voxel-level threshold of P(FWE-corrected) < 10⁻⁶.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	6931	54.51	-6, -60, 14	Posterior Cingulate, Left	30
--	0.000	--	22.72	16, -54, 18	Posterior Cingulate, Right	30
--	0.000	--	18.55	0, -62, 34	Precuneus, Left	31
0.000	0.000	2236	17.94	-40, -74, 38	Angular Gyrus, Left	39
--	0.000	--	15.74	-50, -62, 26	Superior Temporal Gyrus, Left	39
--	0.000	--	15.39	-50, -70, 30	Middle Temporal Gyrus, Left	39
0.000	0.000	1671	15.92	48, -70, 36	Middle Temporal Gyrus, Right	39

Continued on next page...

Table 10 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
--	0.000	--	14.98	54, -64, 32	Middle Temporal Gyrus, Right	39
--	0.000	--	14.94	48, -60, 28	Middle Temporal Gyrus, Right	39
0.000	0.000	910	15.80	28, 24, 50	Middle Frontal Gyrus, Right	6
--	0.000	--	13.65	24, 34, 50	Superior Frontal Gyrus, Right	6
--	0.000	--	12.77	22, 24, 42	Superior Frontal Gyrus, Right	8
0.000	0.000	1763	15.66	-22, 24, 44	Superior Frontal Gyrus, Left	8
--	0.000	--	15.53	-26, 18, 54	Middle Frontal Gyrus, Left	6
--	0.000	--	13.38	-22, 34, 48	Superior Frontal Gyrus, Left	8
0.000	0.000	3069	15.49	2, 60, 0	Medial Frontal Gyrus, Left	10
--	0.000	--	14.40	4, 52, -10	Anterior Cingulate, Right	32
--	0.000	--	13.92	0, 60, 14	Medial Frontal Gyrus, Left	9
0.000	0.000	394	14.04	56, -8, -16	Superior Temporal Gyrus, Right	21
--	0.000	--	10.50	62, -14, -8	Superior Temporal Gyrus, Right	21
--	0.000	--	9.10	48, -16, -12	Insula, Right	13
0.000	0.000	924	12.73	-64, -18, -8	Middle Temporal Gyrus, Left	21
--	0.000	--	12.37	-64, -6, -16	Middle Temporal Gyrus, Left	21
--	0.000	--	11.31	-56, -16, -12	Middle Temporal Gyrus, Left	21
0.000	0.000	54	12.08	0, 8, -10	Anterior Cingulate, Left	25
0.000	0.000	145	11.97	28, -14, -20	Parahippocampal Gyrus, Right	Hippocampus
--	0.000	--	11.84	22, -20, -16	Parahippocampal Gyrus, Right	35
--	0.000	--	11.48	18, -14, -22	Parahippocampal Gyrus, Right	34
0.000	0.000	180	11.78	30, -34, -16	Parahippocampal Gyrus, Right	36
--	0.000	--	11.47	24, -38, -12	Parahippocampal Gyrus, Right	35
--	0.000	--	9.65	28, -28, -24	Parahippocampal Gyrus, Right	35
0.000	0.000	56	11.38	36, 36, -12	Inferior Frontal Gyrus, Right	47
0.000	0.000	119	10.65	14, -96, -2	Inferior Occipital Gyrus, Right	17
--	0.000	--	9.39	22, -98, -12	Fusiform Gyrus, Right	18
--	0.000	--	8.61	16, -90, -10	Lingual Gyrus, Right	18
0.000	0.000	8	10.21	-14, -2, -14	Lentiform Nucleus, Left	Medial Globus Pallidus
0.000	0.000	29	9.75	-40, 14, -22	Inferior Frontal Gyrus, Left	47
0.000	0.000	50	9.73	6, 30, 14	Anterior Cingulate, Right	24
--	0.000	--	9.48	-2, 28, 14	Anterior Cingulate, Left	24
0.000	0.000	264	9.53	-8, -104, -4	Lingual Gyrus, Left	18
--	0.000	--	9.51	-6, -92, -14	Lingual Gyrus, Left	18
--	0.000	--	9.46	-6, -96, -2	Lingual Gyrus, Left	17
0.000	0.000	109	9.36	8, -80, 6	Lingual Gyrus, Right	18

Continued on next page...

Table 10 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
--	0.000	--	8.40	0, -78, 4	Lingual Gyrus, Left	18
--	0.000	--	8.24	10, -84, -6	Lingual Gyrus, Right	18
0.000	0.000	42	9.31	-22, -98, -10	Fusiform Gyrus, Left	18
0.000	0.000	34	9.15	-38, 30, -16	Inferior Frontal Gyrus, Left	47
0.000	0.000	29	8.96	-46, -26, 12	Transverse Temporal Gyrus, Left	41
--	0.000	--	8.92	-38, -28, 16	Superior Temporal Gyrus, Left	41
0.000	0.000	1	8.91	-2, 18, -8	Caudate, Left	Caudate Head
0.000	0.000	6	8.80	-54, -34, -12	Inferior Temporal Gyrus, Left	20
0.000	0.000	6	8.71	38, -22, 10	Insula, Right	13
0.000	0.000	3	8.70	32, 8, -26	Inferior Frontal Gyrus, Right	47
0.000	0.000	8	8.69	16, -104, 6	Cuneus, Right	18
0.000	0.000	4	8.66	-30, 0, 62	Middle Frontal Gyrus, Left	6
0.000	0.000	3	8.62	-42, -36, 14	Superior Temporal Gyrus, Left	41
0.000	0.000	6	8.62	30, 14, -20	Inferior Frontal Gyrus, Right	13
0.000	0.000	7	8.59	0, -12, 34	Cingulate Gyrus, Left	23
0.000	0.000	9	8.59	-50, -14, 8	Superior Temporal Gyrus, Left	22
0.000	0.000	4	8.58	-20, -38, 2	Parahippocampal Gyrus, Left	30
0.000	0.000	1	8.57	16, -2, -14	Lentiform Nucleus, Right	Medial Globus Pallidus
0.000	0.000	4	8.49	60, -26, 14	Postcentral Gyrus, Right	40
0.000	0.000	7	8.48	42, 18, -36	Superior Temporal Gyrus, Right	38
0.000	0.000	2	8.48	32, 8, -18	Subcallosal Gyrus, Right	34
0.000	0.000	6	8.41	44, 20, -30	Superior Temporal Gyrus, Right	38
0.000	0.000	2	8.38	-44, -52, 48	Inferior Parietal Lobule, Left	40
0.000	0.000	5	8.37	58, -6, -28	Middle Temporal Gyrus, Right	21
0.000	0.000	6	8.35	-14, 60, 30	Superior Frontal Gyrus, Left	9
0.000	0.000	1	8.35	22, 10, 50	Medial Frontal Gyrus, Right	6
0.000	0.000	5	8.35	-52, -38, 2	Middle Temporal Gyrus, Left	22
0.000	0.000	1	8.34	8, 56, 40	Superior Frontal Gyrus, Right	8
0.000	0.000	1	8.33	-10, -74, 4	Lingual Gyrus, Left	18
0.000	0.000	1	8.32	48, 14, -30	Superior Temporal Gyrus, Right	38
0.000	0.000	2	8.29	64, -42, -8	Middle Temporal Gyrus, Right	21
0.000	0.000	3	8.29	-26, -24, 64	Postcentral Gyrus, Left	3
0.000	0.000	2	8.27	-64, -30, -14	Middle Temporal Gyrus, Left	21
0.000	0.000	2	8.25	-68, -14, -4	Superior Temporal Gyrus, Left	21
0.000	0.000	1	8.25	40, -14, 66	Precentral Gyrus, Right	4
0.000	0.000	2	8.22	-64, -54, -6	Inferior Temporal Gyrus, Left	37

Continued on next page...

Table 10 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	1	8.20	16, -28, -10	Thalamus, Right	Medial Geniculum Body
0.000	0.000	3	8.19	52, 26, 28	Middle Frontal Gyrus, Right	9
0.000	0.000	2	8.19	-48, 6, 44	Precentral Gyrus, Left	6
0.000	0.000	2	8.17	50, 22, 34	Middle Frontal Gyrus, Right	9
0.000	0.000	3	8.11	-46, -16, 56	Postcentral Gyrus, Left	3
0.000	0.000	1	8.06	-62, -58, -12	Inferior Temporal Gyrus, Left	20
0.000	0.000	1	8.05	-18, -100, 4	Cuneus, Left	17
0.000	0.000	1	8.01	-60, -18, 8	Superior Temporal Gyrus, Left	41
0.000	0.000	1	8.01	-58, -54, -6	Middle Temporal Gyrus, Left	37
0.000	0.000	1	7.99	-38, -60, 56	Superior Parietal Lobule, Left	7
0.000	0.000	1	7.97	2, 30, 42	Medial Frontal Gyrus, Left	8
0.000	0.000	1	7.96	40, -54, 40	Inferior Parietal Lobule, Right	40
0.000	0.000	1	7.96	-28, -86, -10	Fusiform Gyrus, Left	19
0.000	0.000	1	7.95	40, 16, -18	Extra-Nuclear, Right	13
0.000	0.000	1	7.93	-28, 6, -18	Subcallosal Gyrus, Left	34
0.000	0.000	1	7.92	56, -10, 32	Precentral Gyrus, Right	6

Note: “-” denotes belonging to the above cluster.

Supplementary Table 11 | Significant clusters of the dPCu’s task-state FC in the RP task, passing the voxel-level threshold of P(FWE-corrected) < 10⁻⁶.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	81749	69.48	2, -72, 38	Cuneus, Left	7
--	0.000	--	19.16	44, -62, 38	Precuneus, Right	39
--	0.000	--	18.41	-44, -56, 46	Inferior Parietal Lobule, Left	40
0.000	0.000	29	10.13	-22, 48, -14	Anterior Cingulate, Left	10
0.000	0.000	86	9.80	10, 46, 0	Anterior Cingulate, Right	32
--	0.000	--	9.39	34, 26, 4	Insula, Right	13
--	0.000	--	8.68	32, 12, 0	Lentiform Nucleus, Right	Putamen
0.000	0.000	30	9.67	-22, 2, 8	Lentiform Nucleus, Left	Putamen
0.000	0.000	69	9.60	18, 20, 0	Caudate, Right	Caudate Body
--	0.000	--	9.11	22, 16, -6	Lentiform Nucleus, Right	Putamen
0.000	0.000	74	9.29	14, -4, 14	Caudate, Right	Caudate Body
--	0.000	--	9.09	10, 2, 8	Caudate, Right	Caudate Body
--	0.000	--	8.45	14, 16, 8	Caudate, Right	Caudate Body
0.000	0.000	22	9.26	-24, 8, -8	Lentiform Nucleus, Left	Putamen
--	0.000	--	8.70	-26, 0, -8	Lentiform Nucleus, Left	Putamen
0.000	0.000	38	9.13	-18, 18, 10	Caudate, Left	Caudate Body
--	0.000	--	8.60	-14, 12, 14	Caudate, Left	Caudate Body
0.000	0.000	8	8.95	14, -12, 2	Thalamus, Right	Ventral Lateral Nucleus

Continued on next page...

Table 11 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	30	8.84	-16, -16, 20	Caudate, Left	Caudate Body
0.000	0.000	26	8.75	6, -18, 10	Thalamus, Right	Medial Dorsal Nucleus
0.000	0.000	20	8.56	-18, 14, -6	Lentiform Nucleus, Left	Putamen
0.000	0.000	11	8.55	46, 16, -28	Superior Temporal Gyrus, Right	38
0.000	0.000	9	8.52	26, -10, 68	Precentral Gyrus, Right	6
0.000	0.000	18	8.51	22, -34, 4	Thalamus, Right	Pulvinar
0.000	0.000	8	8.50	50, -2, -34	Middle Temporal Gyrus, Right	21
0.000	0.000	26	8.39	-20, -20, -10	Parahippocampal Gyrus, Left	28
0.000	0.000	6	8.39	-42, 24, -20	Inferior Frontal Gyrus, Left	47
0.000	0.000	5	8.39	-26, 36, -20	Inferior Frontal Gyrus, Left	47
0.000	0.000	8	8.26	30, 2, 2	Lentiform Nucleus, Right	Putamen
0.000	0.000	4	8.25	-34, -30, 18	Insula, Left	13
0.000	0.000	4	8.23	6, -8, 76	Medial Frontal Gyrus, Right	6
0.000	0.000	6	8.20	22, -6, 26	Caudate, Right	Caudate Body
0.000	0.000	2	8.12	-60, -26, 12	Superior Temporal Gyrus, Left	41
0.000	0.000	3	8.06	-24, 28, -22	Middle Frontal Gyrus, Left	11
0.000	0.000	1	8.01	44, -30, -16	Parahippocampal Gyrus, Right	36
0.000	0.000	3	7.97	26, 2, -10	Lentiform Nucleus, Right	Putamen
0.000	0.000	7	7.95	8, -28, 78	Paracentral Lobule, Right	4
0.000	0.000	2	7.94	-38, -32, 14	Superior Temporal Gyrus, Left	41
0.000	0.000	1	7.92	-8, 64, 22	Superior Frontal Gyrus, Left	9
0.000	0.000	1	7.92	-30, 16, 34	Middle Frontal Gyrus, Left	8
0.000	0.000	3	7.86	58, 8, -4	Superior Temporal Gyrus, Right	22
0.000	0.000	1	7.84	14, 54, 32	Superior Frontal Gyrus, Right	8
0.000	0.000	1	7.84	36, 30, -8	Inferior Frontal Gyrus, Right	47
0.000	0.000	1	7.81	8, -14, 76	Medial Frontal Gyrus, Right	6
0.000	0.000	1	7.81	54, 22, 0	Precentral Gyrus, Right	44

Note: “-” denotes belonging to the above cluster.

Supplementary Table 12 | Significant clusters of the vPCu’s task-state FC in the RP task, passing the voxel-level threshold of P(FWE-corrected) < 10⁻⁶.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	7038	92.03	-6, -58, 16	Posterior Cingulate, Left	23
--	0.000	--	15.09	16, -56, 20	Posterior Cingulate, Right	30
--	0.000	--	13.78	-2, -68, 32	Precuneus, Left	31
0.000	0.000	4149	18.85	-44, -72, 34	Middle Temporal Gyrus, Left	39

Continued on next page...

Table 12 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
--	0.000	--	13.30	-52, -60, 24	Superior Temporal Gyrus, Left	39
--	0.000	--	12.76	-58, -10, -12	Middle Temporal Gyrus, Left	21
0.000	0.000	3930	14.40	50, -62, 30	Middle Temporal Gyrus, Right	39
--	0.000	--	13.78	48, -70, 36	Middle Temporal Gyrus, Right	39
--	0.000	--	13.10	48, -62, 22	Middle Temporal Gyrus, Right	39
0.000	0.000	4872	13.49	-2, 52, -4	Anterior Cingulate, Left	32
--	0.000	--	13.48	0, 60, 0	Medial Frontal Gyrus, Left	10
--	0.000	--	13.25	0, 52, 20	Medial Frontal Gyrus, Left	9
0.000	0.000	1192	12.85	-20, 34, 38	Sub-Gyral, Left	8
--	0.000	--	11.81	-20, 32, 46	Superior Frontal Gyrus, Left	8
--	0.000	--	11.78	-16, 50, 40	Superior Frontal Gyrus, Left	8
0.000	0.000	122	9.56	42, 24, -18	Inferior Frontal Gyrus, Right	47
--	0.000	--	8.85	36, 20, -14	Inferior Frontal Gyrus, Right	47
--	0.000	--	8.66	34, 34, -14	Inferior Frontal Gyrus, Right	47
0.000	0.000	283	9.50	52, -20, 48	Postcentral Gyrus, Right	2
--	0.000	--	9.49	60, -18, 42	Postcentral Gyrus, Right	3
--	0.000	--	9.06	44, -18, 60	Precentral Gyrus, Right	4
0.000	0.000	58	9.27	-44, 28, -12	Inferior Frontal Gyrus, Left	47
--	0.000	--	8.22	-38, 20, -14	Inferior Frontal Gyrus, Left	47
0.000	0.000	45	9.11	-30, 36, -12	Inferior Frontal Gyrus, Left	47
0.000	0.000	48	8.99	62, -4, 24	Precentral Gyrus, Right	4
0.000	0.000	16	8.72	46, 14, -32	Superior Temporal Gyrus, Right	38
0.000	0.000	15	8.66	52, 30, 0	Inferior Frontal Gyrus, Right	45
0.000	0.000	8	8.65	-48, 4, -36	Middle Temporal Gyrus, Left	21
0.000	0.000	17	8.59	-14, -32, 68	Postcentral Gyrus, Left	3
0.000	0.000	8	8.54	0, 0, 38	Cingulate Gyrus, Left	24
0.000	0.000	13	8.49	-22, -20, -16	Parahippocampal Gyrus, Left	35
0.000	0.000	11	8.41	52, 0, -34	Middle Temporal Gyrus, Right	21
0.000	0.000	18	8.38	-52, -8, 28	Precentral Gyrus, Left	6
0.000	0.000	3	8.29	24, -20, -14	Parahippocampal Gyrus, Right	35
0.000	0.000	5	8.20	50, 6, -38	Middle Temporal Gyrus, Right	21
0.000	0.000	2	8.18	-22, -38, 0	Parahippocampal Gyrus, Left	30
0.000	0.000	4	8.12	-40, -36, 6	Superior Temporal Gyrus, Left	41
0.000	0.000	8	8.03	62, -38, 38	Supramarginal Gyrus, Right	40
0.000	0.000	7	7.97	-20, -28, 60	Postcentral Gyrus, Left	3
0.000	0.000	3	7.97	-2, -20, 68	Medial Frontal Gyrus, Left	6
0.000	0.000	4	7.95	-22, -24, 70	Postcentral Gyrus, Left	3
0.000	0.000	2	7.94	-42, 10, -6	Insula, Left	13
0.000	0.000	4	7.86	-60, -8, 34	Precentral Gyrus, Left	4

Continued on next page...

Table 12 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	1	7.85	-54, -6, -34	Inferior Temporal Gyrus, Left	20
0.000	0.000	1	7.78	-36, 26, -18	Inferior Frontal Gyrus, Left	47
0.000	0.000	1	7.78	-64, -12, 26	Postcentral Gyrus, Left	3
Note: “-” denotes belonging to the above cluster.						

Supplementary Table 13 | Significant clusters of the dPCu’s task-state FC in the N-back task, passing the voxel-level threshold of $P(\text{cFWE-corrected}) < 10^{-6}$.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	129168	38.00	-4, -66, 46	Precuneus, Left	7
--	0.000	--	36.76	4, -64, 48	Precuneus, Right	7
--	0.000	--	29.79	10, -72, 46	Precuneus, Right	7
0.000	0.000	31	8.94	-38, -10, -28	Fusiform Gyrus, Left	20
0.000	0.000	28	8.78	-22, -2, 30	Caudate, Left	Caudate Body
0.000	0.000	7	8.56	40, -8, -32	Middle Temporal Gyrus, Right	21
0.000	0.000	4	8.49	-22, 14, -26	Inferior Frontal Gyrus, Left	47
0.000	0.000	11	8.42	36, -14, 18	Insula, Right	13
0.000	0.000	7	8.27	-22, 36, 8	Anterior Cingulate, Left	32
0.000	0.000	3	8.04	-40, -4, 14	Insula, Left	13
Note: “-” denotes belonging to the above cluster.						

Supplementary Table 14 | Significant clusters of the vPCu’s task-state FC in the N-back task, passing the voxel-level threshold of $P(\text{FWE-corrected}) < 10^{-6}$.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	61681	42.18	4, -58, 18	Posterior Cingulate, Right	23
--	0.000	--	36.27	-4, -52, 22	Posterior Cingulate, Left	30
--	0.000	--	20.53	-2, -74, 32	Precuneus, Left	31
0.000	0.000	59	12.01	28, -18, -16	Parahippocampal Gyrus, Right	Hippocampus
0.000	0.000	166	11.87	20, 12, -8	Lentiform Nucleus, Right	Putamen
--	0.000	--	11.11	12, 22, -4	Caudate, Right	Caudate Head
--	0.000	--	9.62	20, 4, -12	Lentiform Nucleus, Right	Lateral Globus Pallidus
0.000	0.000	51	9.98	2, 12, -8	Anterior Cingulate, Left	25
0.000	0.000	31	9.61	-22, 2, -12	Lentiform Nucleus, Left	Putamen
0.000	0.000	44	9.56	-2, -16, 72	Medial Frontal Gyrus, Left	6

Continued on next page...

Table 14 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	20	9.43	-36, 6, 8	Insula, Left	13
0.000	0.000	165	9.30	38, 18, 34	Precentral Gyrus, Right	9
--	0.000	--	8.99	36, 16, 26	Inferior Frontal Gyrus, Right	9
0.000	0.000	37	9.27	-8, -18, 10	Thalamus, Left	Medial Dorsal Nucleus
--	0.000	--	7.93	-16, -30, 10	Thalamus, Left	Pulvinar
0.000	0.000	19	9.10	36, 10, 10	Insula, Right	13
0.000	0.000	70	8.87	28, -8, 56	Middle Frontal Gyrus, Right	6
--	0.000	--	8.62	34, -12, 66	Precentral Gyrus, Right	6
0.000	0.000	26	8.85	-30, -14, 0	Lentiform Nucleus, Left	Putamen
0.000	0.000	16	8.76	40, 14, 54	Middle Frontal Gyrus, Right	6
0.000	0.000	16	8.75	-18, 16, -6	Lentiform Nucleus, Left	Putamen
0.000	0.000	18	8.61	10, -44, 76	Postcentral Gyrus, Right	7
0.000	0.000	23	8.60	-26, -60, -8	Fusiform Gyrus, Left	19
--	0.000	--	7.92	-24, -68, -8	Fusiform Gyrus, Left	19
0.000	0.000	3	8.48	-40, -10, -28	Fusiform Gyrus, Left	20
0.000	0.000	3	8.37	34, 50, 4	Middle Frontal Gyrus, Right	10
0.000	0.000	4	8.28	22, -2, 70	Superior Frontal Gyrus, Right	6
0.000	0.000	4	8.27	-4, 24, 18	Anterior Cingulate, Left	24
0.000	0.000	9	8.22	-20, -12, 70	Precentral Gyrus, Left	6
0.000	0.000	5	8.21	8, -6, 12	Thalamus, Right	Anterior Nucleus
0.000	0.000	2	8.16	-18, 6, 68	Superior Frontal Gyrus, Left	6
0.000	0.000	3	8.16	-6, 10, 64	Medial Frontal Gyrus, Left	6
0.000	0.000	7	8.10	58, -54, -10	Inferior Temporal Gyrus, Right	20
0.000	0.000	3	8.04	-20, -2, 70	Superior Frontal Gyrus, Left	6
0.000	0.000	3	7.96	52, -50, -20	Fusiform Gyrus, Right	37
0.000	0.000	2	7.88	18, -4, -24	Parahippocampal Gyrus, Right	34
0.000	0.000	1	7.87	-18, -32, 8	Thalamus, Left	Pulvinar
0.000	0.000	1	7.87	10, -14, 10	Thalamus, Right	Medial Dorsal Nucleus
0.000	0.000	1	7.87	44, 4, 8	Insula, Right	13
0.000	0.000	1	7.84	-26, 14, -26	Inferior Frontal Gyrus, Left	47
0.000	0.000	1	7.84	-30, -96, -8	Inferior Occipital Gyrus, Left	18
0.000	0.000	1	7.83	26, -32, -20	Parahippocampal Gyrus, Right	36
0.000	0.000	1	7.83	60, -34, -18	Inferior Temporal Gyrus, Right	20

Note: "--" denotes belonging to the above cluster.

Supplementary Table 15 | Significant clusters of the structural connectivity contrast (dPCu > vPCu), passing the voxel-level threshold of P(FWE-corrected) <0.001.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	25333	25.60	-6, -67, 39	Cuneus, Left	7

Continued on next page...

Table 15 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
--	0.000	--	16.96	-16, -65, 43	Precuneus, Left	7
--	0.000	--	13.27	10, -65, 40	Cuneus, Right	7
--	0.000	--	12.49	-28, -35, 4	Caudate, Left	Caudate Tail
0.000	0.000	7809	10.28	29, -5, 54	Precentral Gyrus, Right	6
--	0.000	--	10.06	38, -5, 47	Middle Frontal Gyrus, Right	6
--	0.000	--	9.55	51, 8, 18	Inferior Frontal Gyrus, Right	9
0.000	0.000	3253	9.80	-19, 64, -1	Middle Frontal Gyrus, Left	10
--	0.000	--	8.95	-19, 56, 10	Superior Frontal Gyrus, Left	10
--	0.000	--	7.75	-36, 59, -1	Middle Frontal Gyrus, Left	10
0.000	0.000	1131	9.28	30, -10, -8	Lentiform Nucleus, Right	Lateral Globus Pallidus
--	0.000	--	6.84	30, 14, -7	Lentiform Nucleus, Right	Putamen
--	0.000	--	6.75	18, 22, 2	Caudate, Right	Caudate Body
0.000	0.000	206	9.08	32, -35, 2	Sub-Gyral, Right	Hippocampus
0.000	0.000	766	8.83	-9, -32, 66	Postcentral Gyrus, Left	4
--	0.000	--	8.57	-26, -30, 57	Postcentral Gyrus, Left	3
--	0.000	--	7.93	-19, -28, 54	Paracentral Lobule, Left	5
0.000	0.000	194	8.02	-19, 20, 44	Medial Frontal Gyrus, Left	32
--	0.000	--	7.02	-19, 6, 48	Cingulate Gyrus, Left	24
0.000	0.000	69	7.41	10, -35, 67	Paracentral Lobule, Right	5
--	0.000	--	7.12	18, -31, 63	Paracentral Lobule, Right	4
0.000	0.000	226	7.38	16, -2, 24	Caudate, Right	Caudate Body
0.000	0.000	105	7.31	42, 2, 17	Insula, Right	13
--	0.000	--	6.57	38, 8, 14	Insula, Right	13
--	0.000	--	6.14	38, -6, 18	Insula, Right	13
0.000	0.000	502	7.28	18, -95, 2	Lingual Gyrus, Right	17
--	0.000	--	6.72	15, -91, 10	Lingual Gyrus, Right	17
--	0.000	--	6.17	22, -92, -6	Fusiform Gyrus, Right	18
0.000	0.000	47	7.26	-16, -1, 59	Sub-Gyral, Left	6
0.000	0.000	63	7.19	-20, -16, 60	Precentral Gyrus, Left	4
--	0.000	--	6.86	31, -66, 42	Precuneus, Right	7
0.000	0.000	123	7.02	41, 43, -7	Sub-Gyral, Right	46
0.000	0.000	16	6.96	-20, -6, 52	Middle Frontal Gyrus, Left	6
0.001	0.000	2	6.94	-30, -28, 12	Insula, Left	13
0.000	0.000	124	6.85	46, 8, -21	Superior Temporal Gyrus, Right	38
0.000	0.000	77	6.68	-42, -48, 48	Inferior Parietal Lobule, Left	40
0.000	0.000	65	6.64	34, 54, -17	Middle Frontal Gyrus, Right	10
0.001	0.000	1	6.55	-35, -27, 4	Insula, Left	13
0.000	0.000	37	6.51	-21, -48, 57	Precuneus, Left	7
0.000	0.000	68	6.45	35, -24, 23	Insula, Right	13
0.000	0.000	60	6.45	44, -8, -37	Middle Temporal Gyrus, Right	21
0.000	0.000	98	6.45	50, -41, -14	Fusiform Gyrus, Right	37
--	0.000	--	6.18	58, -37, -12	Middle Temporal Gyrus, Right	20
0.000	0.000	16	6.45	-51, -30, -21	Fusiform Gyrus, Left	20
0.001	0.000	2	6.45	-30, -28, 64	Postcentral Gyrus, Left	3
0.000	0.000	24	6.42	9, 16, 53	Superior Frontal Gyrus, Right	6
0.000	0.000	55	6.42	60, -21, -7	Middle Temporal Gyrus, Right	21
0.000	0.000	13	6.39	31, -31, 52	Postcentral Gyrus, Right	3

Continued on next page...

Table 15 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	21	6.29	-34, 40, 24	Middle Frontal Gyrus, Left	9
0.000	0.000	10	6.22	51, -4, -26	Middle Temporal Gyrus, Right	21
0.001	0.000	3	6.22	41, -24, 44	Postcentral Gyrus, Right	2
0.000	0.000	64	6.18	20, 65, -11	Medial Frontal Gyrus, Right	10
--	0.000	--	6.08	22, 58, -7	Superior Frontal Gyrus, Right	10
0.000	0.000	19	6.17	50, -17, -27	Sub-Gyral, Right	20
0.001	0.000	6	6.15	11, 5, 60	Medial Frontal Gyrus, Right	6
0.000	0.001	11	6.06	-41, 42, 8	Inferior Frontal Gyrus, Left	46
0.001	0.001	1	6.06	-31, -27, 8	Insula, Left	13
0.000	0.001	8	6.01	61, -27, 3	Superior Temporal Gyrus, Right	22
0.001	0.001	3	5.99	-29, -7, 50	Middle Frontal Gyrus, Left	6
0.001	0.001	2	5.99	-40, -54, 38	Superior Temporal Gyrus, Left	39
0.001	0.001	2	5.98	58, -12, -12	Superior Temporal Gyrus, Right	22
0.001	0.001	1	5.97	38, 32, -6	Inferior Frontal Gyrus, Right	47
0.001	0.001	1	5.96	-38, 52, 14	Middle Frontal Gyrus, Left	10
0.001	0.001	1	5.95	51, -30, -20	Fusiform Gyrus, Right	20
0.001	0.001	1	5.95	35, -25, -7	Lentiform Nucleus, Right	Putamen
0.001	0.001	1	5.95	-16, 6, 57	Sub-Gyral, Left	6
0.001	0.001	2	5.94	-22, -65, 20	Posterior Cingulate, Left	31
0.001	0.001	1	5.93	-50, -47, -16	Inferior Temporal Gyrus, Left	37
0.001	0.001	1	5.92	-42, 34, 19	Middle Frontal Gyrus, Left	46

Note: "--" denotes belonging to the above cluster.

Supplementary Table 16 | Significant clusters of the structural connectivity contrast (vPCu > dPCu), passing the voxel-level threshold of P(FWE-corrected) < 0.001.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	16696	45.13	5, -58, 18	Posterior Cingulate, Right	23
--	0.000	--	13.40	16, -45, 4	Parahippocampal Gyrus, Right	30
0.000	0.000	292	6.87	1, 45, 14	Anterior Cingulate, Left	32
--	0.000	--	6.26	1, 48, 6	Anterior Cingulate, Left	32
0.000	0.000	64	6.68	1, 42, -14	Anterior Cingulate, Left	32
0.000	0.000	10	6.24	2, 58, -3	Medial Frontal Gyrus, Right	10
0.001	0.001	1	5.95	8, 34, 4	Anterior Cingulate, Right	24
0.001	0.001	2	5.93	8, 54, -2	Anterior Cingulate, Right	10

Note: "--" denotes belonging to the above cluster.

Supplementary Table 17 | Significant clusters of the resting-state FC contrast (dPCu > vPCu), passing the voxel-level threshold of P(FWE-corrected) < 0.05.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	4761	34.38	0, -72, 40	Cuneus, Left	7
--	0.000	--	15.71	2, -38, 24	Posterior Cingulate, Left	29
--	0.000	--	14.87	0, -30, 28	Cingulate Gyrus, Left	23
0.000	0.000	1916	13.37	-40, -58, 50	Inferior Parietal Lobule, Left	7
--	0.000	--	10.98	-40, -52, 42	Inferior Parietal Lobule, Left	40
--	0.000	--	10.40	-56, -52, 36	Supramarginal Gyrus, Left	40
0.000	0.000	2402	13.05	44, -62, 46	Inferior Parietal Lobule, Right	39
--	0.000	--	11.41	50, -56, 50	Inferior Parietal Lobule, Right	40
--	0.000	--	11.12	58, -50, 44	Inferior Parietal Lobule, Right	40
0.000	0.000	2973	10.46	30, 60, 8	Middle Frontal Gyrus, Right	10
--	0.000	--	10.32	46, 14, 50	Middle Frontal Gyrus, Right	6
--	0.000	--	9.50	30, 54, 2	Superior Frontal Gyrus, Right	10
0.000	0.000	1047	9.79	2, 32, 40	Medial Frontal Gyrus, Left	8
--	0.000	--	9.47	2, 38, 26	Cingulate Gyrus, Left	32
--	0.000	--	8.92	8, 42, 18	Anterior Cingulate, Right	32
0.000	0.000	297	9.54	62, -28, -6	Middle Temporal Gyrus, Right	21
--	0.000	--	7.36	58, -38, -4	Middle Temporal Gyrus, Right	22
--	0.000	--	6.97	54, -22, -10	Superior Temporal Gyrus, Right	22
0.000	0.000	91	9.25	4, -44, 8	Posterior Cingulate, Right	29
0.000	0.000	672	8.66	-24, 54, 8	Superior Frontal Gyrus, Left	10
--	0.000	--	8.08	-32, 56, 4	Superior Frontal Gyrus, Left	10
--	0.000	--	7.66	-26, 60, 18	Superior Frontal Gyrus, Left	10
0.000	0.000	167	8.19	-44, 22, 40	Middle Frontal Gyrus, Left	8
--	0.000	--	7.46	-44, 14, 48	Middle Frontal Gyrus, Left	6
0.000	0.000	187	8.03	46, 20, -6	Insula, Right	13
--	0.000	--	7.79	52, 20, 8	Inferior Frontal Gyrus, Right	44
--	0.000	--	6.64	38, 18, -12	Insula, Right	13
--	0.000	--	7.53	6, -26, 10	Thalamus, Right	Pulvinar
--	0.000	--	7.06	-8, -12, 8	Thalamus, Left	Medial Dorsal Nucleus
0.000	0.000	22	7.37	-40, 16, -8	Insula, Left	13
0.000	0.000	53	7.14	-36, 32, 34	Middle Frontal Gyrus, Left	9
--	0.000	--	5.68	-38, 32, 42	Middle Frontal Gyrus, Left	8
0.000	0.001	7	7.08	14, -8, 22	Caudate, Right	Caudate Body
0.000	0.000	9	7.02	-24, 14, -6	Lentiform Nucleus, Left	Putamen
0.000	0.000	34	6.91	10, 2, 10	Caudate, Right	Caudate Body
--	0.000	--	6.19	16, 0, 20	Caudate, Right	Caudate Body
--	0.000	--	6.08	36, 26, -8	Insula, Right	13
0.001	0.017	4	6.80	-36, -22, -2	Lentiform Nucleus, Left	Putamen
0.000	0.000	46	6.66	-22, 50, 32	Superior Frontal Gyrus, Left	9
--	0.000	--	6.23	-26, 40, 30	Superior Frontal Gyrus, Left	9
--	0.000	--	5.65	-30, 48, 30	Middle Frontal Gyrus, Left	9
0.000	0.000	12	6.61	-30, 28, 30	Middle Frontal Gyrus, Left	9
0.000	0.001	15	6.55	18, -100, -10	Lingual Gyrus, Right	17

Continued on next page...

Table 17 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label			Brodmann area
0.000	0.001	23	6.46	-68, -32, -10	Middle Left	Temporal	Gyrus,	21
0.000	0.001	13	6.38	-62, -26, -8	Middle Left	Temporal	Gyrus,	21
--	0.011	--	5.85	-54, -28, -10	Middle Left	Temporal	Gyrus,	21
0.000	0.001	29	6.34	26, -94, -14	Fusiform Gyrus, Right			18
0.000	0.001	67	6.34	-16, -106, -8	Lingual Gyrus, Left			17
--	0.004	--	6.08	-22, -98, -4	Inferior Left	Occipital	Gyrus,	17
0.000	0.002	8	6.26	14, -24, 16	Thalamus, Right			Pulvinar
0.000	0.004	5	6.19	-6, -100, -12	Lingual Gyrus, Left			18
0.000	0.004	59	6.07	20, -102, 4	Cuneus, Right			17
0.000	0.005	7	6.04	-44, -18, -2	Insula, Left			13
0.014	0.005	1	6.01	-54, -14, -32	Inferior Left	Temporal	Gyrus,	20
0.005	0.007	2	5.95	32, 16, -16	Extra-Nuclear, Right			13
0.001	0.008	4	5.91	-8, 0, 12	Caudate, Left			Caudate Body
0.005	0.007	2	5.83	34, -96, -4	Inferior Right	Occipital	Gyrus,	18
0.002	0.012	3	5.83	-60, -30, -16	Middle Left	Temporal	Gyrus,	21
0.014	0.015	1	5.78	-24, 44, -14	Middle Frontal Gyrus, Left			11
0.005	0.015	2	5.77	-34, -94, -4	Inferior Left	Occipital	Gyrus,	18
0.014	0.015	1	5.77	26, -24, 12	Thalamus, Right			Pulvinar
0.014	0.015	1	5.77	4, 44, 56	Superior Right	Frontal	Gyrus,	6
0.014	0.016	1	5.76	-58, -24, -22	Inferior Left	Temporal	Gyrus,	20
0.014	0.017	1	5.75	16, 64, -10	Medial Frontal Gyrus, Right			10
0.014	0.018	1	5.73	-48, -6, -28	Fusiform Gyrus, Left			20
0.002	0.018	3	5.72	12, 24, 56	Superior Right	Frontal	Gyrus,	6
0.005	0.019	2	5.72	-40, 36, 28	Middle Frontal Gyrus, Left			9
0.014	0.021	1	5.70	60, -56, 20	Superior Right	Temporal	Gyrus,	22
0.014	0.023	1	5.67	-60, -52, 2	Middle Left	Temporal	Gyrus,	21
0.014	0.025	1	5.65	-44, 16, 2	Insula, Left			13
0.005	0.025	2	5.65	-16, 60, -6	Medial Frontal Gyrus, Left			10
0.014	0.027	1	5.65	10, 44, 52	Superior Right	Frontal	Gyrus,	6
0.014	0.037	1	5.55	26, -8, 4	Lentiform Nucleus, Right			Putamen
0.014	0.039	1	5.54	12, 30, 60	Superior Right	Frontal	Gyrus,	6
0.002	0.042	3	5.53	-42, 8, 40	Middle Frontal Gyrus, Left			6
0.014	0.043	1	5.52	16, -14, 22	Caudate, Right			Caudate Body
0.014	0.044	1	5.51	-6, 32, 50	Superior Frontal Gyrus, Left			6
0.014	0.047	1	5.50	-22, 48, 14	Medial Frontal Gyrus, Left			9
0.014	0.050	1	5.49	-36, 40, 30	Middle Frontal Gyrus, Left			9

Note: "--" denotes belonging to the above cluster.

Supplementary Table 18 | Significant clusters of the resting-state FC contrast (vPCu > dPCu), passing the voxel-level threshold of $P(\text{uncorrected}) < 0.01$ and the cluster-level threshold of $P(\text{cFWE-corrected}) < 0.05$.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	616	35.76	-6, -60, 14	Posterior Cingulate, Left	30
0.000	0.000	616	35.76	-6, -60, 14	Posterior Cingulate, Left	30
0.000	0.073	133	5.39	18, -14, -20	Parahippocampal Gyrus, Right	28
--	0.887	--	4.58	26, -8, -18	Parahippocampal Gyrus, Right	Amygdala
--	0.926	--	4.52	14, -8, -24	Parahippocampal Gyrus, Right	34
0.000	0.648	76	4.81	-14, -10, -24	Parahippocampal Gyrus, Left	34
--	0.754	--	4.72	-22, -12, -18	Parahippocampal Gyrus, Left	Amygdala
0.000	0.738	53	4.73	2, 18, -6	Caudate, Left	Caudate Head
--	0.795	--	4.68	-2, 14, -12	Anterior Cingulate, Left	25

Note: "--" denotes belonging to the above cluster.

Supplementary Table 19 | Significant clusters of the task-state FC contrast (dPCu > vPCu) for the N-back and RP tasks together, with the voxel-level threshold of $P(\text{FWE-corrected}) < 0.01$.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	98521	35.93	-2, -70, 42	Precuneus, Left	7
--	0.000	--	20.41	-38, -54, 48	Inferior Parietal Lobule, Left	40
--	0.000	--	19.79	-28, -70, 44	Precuneus, Left	19
0.000	0.000	251	10.25	0, -32, 26	Posterior Cingulate, Left	23
--	0.000	--	9.96	-4, -24, 28	Cingulate Gyrus, Left	23
--	0.000	--	5.91	10, -12, 36	Cingulate Gyrus, Right	24
0.000	0.000	37	7.17	-20, 32, 2	Caudate, Left	Caudate Head
0.000	0.000	33	7.09	-34, -16, -10	Lentiform Nucleus, Left	Putamen
0.000	0.000	21	6.56	46, -18, 32	Postcentral Gyrus, Right	2
--	0.000	--	5.60	46, -10, 30	Precentral Gyrus, Right	6
0.000	0.000	10	6.36	-12, -34, -2	Parahippocampal Gyrus, Left	27
0.001	0.002	4	5.85	-34, -2, -4	Lentiform Nucleus, Left	Putamen
0.001	0.002	6	5.81	28, -6, 14	Lentiform Nucleus, Right	Putamen
0.000	0.002	14	5.77	54, -18, 8	Transverse Temporal Gyrus, Right	41
0.004	0.004	1	5.69	-24, 26, -24	Middle Frontal Gyrus, Left	11
0.003	0.007	2	5.53	52, -24, -14	Superior Temporal Gyrus, Right	22

Note: "--" denotes belonging to the above cluster.

Supplementary Table 20 | Significant clusters of the task-state FC contrast (vPCu > dPCu) for the N-back and RP tasks together, with the voxel-level threshold of P(FWE-corrected) < 0.01.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	1281	30.14	-4, -58, 18	Posterior Cingulate, Left	23
--	0.000	--	8.04	-6, 58, 8	Medial Frontal Gyrus, Left	9
--	0.000	--	7.69	-8, 54, 0	Medial Frontal Gyrus, Left	10
0.000	0.000	113	7.71	0, 12, -8	Anterior Cingulate, Left	25
0.000	0.000	9	6.12	44, 0, -6	Insula, Right	13
0.000	0.001	9	6.01	-58, 2, -22	Middle Temporal Gyrus, Left	21
0.001	0.005	4	5.61	-34, 14, -28	Superior Temporal Gyrus, Left	38
0.004	0.008	1	5.51	12, -2, -18	Parahippocampal Gyrus, Right	34
Note: "--" denotes belonging to the above cluster.						

Supplementary Table 21 | Significant clusters of the PPI effect, eFC (difficult > easy) of the dPCu, averaged across two tasks, with the voxel-level threshold of P(uncorrected) < 0.001 and the cluster-level threshold of P(cFWE-corr) < 0.05.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	14951	8.57	40, -78, 0	Inferior Occipital Gyrus, Right	19
--	0.000	--	8.41	40, -86, 2	Inferior Occipital Gyrus, Right	18
0.000	0.000	4324	7.84	-36, -30, 54	Inferior Parietal Lobule, Left	40
--	0.000	--	7.49	-44, -20, 54	Postcentral Gyrus, Left	2
--	0.000	--	7.30	-34, -32, 70	Postcentral Gyrus, Left	2
0.000	0.001	946	6.42	-22, -2, 6	Lentiform Nucleus, Left	Putamen
--	0.046	--	5.28	-22, 12, -10	Lentiform Nucleus, Left	Putamen
--	0.116	--	5.01	-28, -18, 8	Lentiform Nucleus, Left	Putamen
0.000	0.004	468	5.95	24, 4, -12	Lentiform Nucleus, Right	Putamen
--	0.042	--	5.30	26, 8, 4	Lentiform Nucleus, Right	Putamen
--	0.874	--	4.15	26, -2, 8	Lentiform Nucleus, Right	Putamen
0.000	0.005	375	5.87	50, 0, 50	Precentral Gyrus, Right	6
--	0.579	--	4.43	34, 0, 58	Middle Frontal Gyrus, Right	6
--	0.724	--	4.30	58, 6, 42	Precentral Gyrus, Right	6
0.084	0.051	104	5.25	20, -12, 24	Caudate, Right	Caudate Body
--	0.995	--	3.81	14, -14, 34	Cingulate Gyrus, Right	24
0.003	0.271	213	4.74	48, 8, 28	Inferior Frontal Gyrus, Right	9
--	0.463	--	4.53	46, 6, 20	Precentral Gyrus, Right	6
0.001	0.468	274	4.53	46, -36, 42	Inferior Parietal Lobule, Right	40
--	0.762	--	4.27	48, -38, 58	Inferior Parietal Lobule, Right	40
--	0.767	--	4.26	54, -28, 52	Postcentral Gyrus, Right	40

Continued on next page...

Table 21 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.016	0.516	154	4.49	-40, 50, 2	Middle Frontal Gyrus, Left	10
--	0.954	--	4.01	-32, 54, -4	Middle Frontal Gyrus, Left	10
--	0.989	--	3.88	-40, 42, 0	Middle Frontal Gyrus, Left	10
0.003	0.531	215	4.47	-28, -4, 50	Middle Frontal Gyrus, Left	6
--	0.874	--	4.15	-26, 4, 54	Sub-Gyral, Left	6
0.040	0.611	126	4.36	-44, 2, 36	Precentral Gyrus, Left	6
--	0.923	--	4.08	-56, 4, 42	Precentral Gyrus, Left	6

Note: "--" denotes belonging to the above cluster.

Supplementary Table 22 | Significant clusters of the PPI effect, eFC (easy > difficult) of the dPCu, averaged across two tasks, with the voxel-level threshold of P(uncorrected) < 0.001 and the cluster-level threshold of P(cFWE-corr) < 0.05.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	1406	7.73	14, -62, 26	Precuneus, Right	31
--	0.000	--	7.72	12, -68, 34	Cuneus, Right	7
--	0.000	--	6.57	14, -54, 16	Posterior Cingulate, Right	23
0.000	0.141	332	4.95	0, -44, 38	Precuneus, Left	31
--	0.307	--	4.69	4, -38, 44	Cingulate Gyrus, Right	31
--	0.382	--	4.61	-8, -40, 36	Cingulate Gyrus, Left	31
0.128	0.703	92	4.32	4, -36, 28	Cingulate Gyrus, Right	31

Note: "--" denotes belonging to the above cluster.

Supplementary Table 23 | Significant clusters of the PPI effect, eFC (difficult > easy) of the vPCu, averaged across two tasks, with the voxel-level threshold of P(uncorrected) < 0.001 and the cluster-level threshold of P(cFWE-corr) < 0.05.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.003	1107	6.05	6, -20, 46	Paracentral Lobule, Right	31
--	0.024	--	5.48	-8, -18, 44	Cingulate Gyrus, Left	31
--	0.124	--	5.02	6, -38, 54	Paracentral Lobule, Right	5
0.000	0.003	680	5.99	54, -2, 8	Precentral Gyrus, Right	6
--	0.103	--	5.08	52, -16, 16	Insula, Right	13
--	0.387	--	4.64	66, -20, 18	Postcentral Gyrus, Right	40
0.000	0.043	1169	5.32	52, -18, 54	Postcentral Gyrus, Right	3
--	0.076	--	5.16	28, -36, 56	Sub-Gyral, Right	40
--	0.139	--	4.98	48, -24, 66	Postcentral Gyrus, Right	3
0.000	0.062	631	5.22	-56, -2, 6	Precentral Gyrus, Left	6

Continued on next page...

Table 23 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
--	0.533	--	4.50	-40, -4, -16	Sub-Gyral, Left	21
0.001	0.092	216	5.11	0, -46, 30	Cingulate Gyrus, Left	31
--	0.366	--	4.66	10, -50, 28	Posterior Cingulate, Right	23
0.000	0.147	460	4.97	-2, 62, 14	Superior Frontal Gyrus, Left	9
--	0.232	--	4.82	-10, 56, 4	Medial Frontal Gyrus, Left	10
--	0.312	--	4.72	-4, 60, 26	Superior Frontal Gyrus, Left	9
0.003	0.151	192	4.96	-12, 2, -18	Subcallosal Gyrus, Left	34
--	0.726	--	4.33	-20, 4, -22	Parahippocampal Gyrus, Left	34
--	0.811	--	4.25	-22, -4, -22	Parahippocampal Gyrus, Left	Amygdala
0.080	0.855	98	4.16	2, 52, -14	Anterior Cingulate, Right	32
--	1.000	--	3.61	-8, 50, -10	Anterior Cingulate, Left	32

Note: "--" denotes belonging to the above cluster.

Supplementary Table 24 | Significant clusters of the PPI effect, eFC (easy > difficult) of the vPCu, averaged across two tasks, with the voxel-level threshold of $P(\text{uncorrected}) < 0.001$ and the cluster-level threshold of $P(\text{cFWE-corr}) < 0.05$.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	9857	6.91	12, -86, 6	Lingual Gyrus, Right	18
--	0.001	--	6.37	-10, -88, 6	Lingual Gyrus, Left	17
0.000	0.003	2319	6.01	-40, -4, 38	Precentral Gyrus, Left	6
--	0.013	--	5.65	-38, 22, 26	Middle Frontal Gyrus, Left	9
--	0.045	--	5.31	-52, 26, 28	Middle Frontal Gyrus, Left	9
0.000	0.016	954	5.60	30, 20, 54	Middle Frontal Gyrus, Right	6
--	0.026	--	5.47	32, 12, 66	Middle Frontal Gyrus, Right	6
--	0.350	--	4.67	26, 0, 50	Middle Frontal Gyrus, Right	6
0.000	0.021	4651	5.52	-14, -76, 54	Precuneus, Left	7
--	0.032	--	5.41	8, -60, 54	Precuneus, Right	7
--	0.040	--	5.34	-14, -66, 62	Superior Parietal Lobule, Left	7
0.000	0.072	713	5.18	38, 32, 24	Middle Frontal Gyrus, Right	9
--	0.018	--	4.90	46, 36, 26	Middle Frontal Gyrus, Right	9
--	0.343	--	4.68	44, 0, 36	Precentral Gyrus, Right	6
0.101	0.192	92	4.88	34, 24, 0	Insula, Right	13
0.122	0.647	87	4.40	-20, -30, 10	Thalamus, Left	Pulvinar
--	0.699	--	4.36	-26, -36, 8	Caudate, Left	Caudate Tail
0.086	0.972	96	3.99	36, 56, -2	Middle Frontal Gyrus, Right	10
--	0.983	--	3.94	38, 54, 6	Middle Frontal Gyrus, Right	10

Note: "--" denotes belonging to the above cluster.

Supplementary Table 25 | Significant clusters of the PPI effect, eFC (difficult > easy) of the dPCu, in the RP task, with the voxel-level threshold of $P(\text{uncorrected}) < 0.001$ and the cluster-level threshold of $P(\text{cFWE-corr}) < 0.05$.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.067	0.927	94	4.79	-22, 8, 62	Middle Frontal Gyrus, Left	6
0.021	0.937	123	4.11	6, 16, 44	Medial Frontal Gyrus, Right	32
--	1.000	--	3.61	-12, 12, 38	Cingulate Gyrus, Left	32
Note: "--" denotes belonging to the above cluster.						

Supplementary Table 26 | Significant clusters of the PPI effect, eFC (easy > difficult) of the dPCu, in the RP task, with the voxel-level threshold of $P(\text{uncorrected}) < 0.05$ and the cluster-level threshold of $P(\text{cFWE-corr}) < 0.05$. The result is not significant enough to pass the conventional voxel-level threshold of $P(\text{uncorrected}) < 0.001$.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.036	0.978	1388	4.00	-58, -10, -8	Middle Temporal Gyrus, Left	22
--	1.000	--	3.51	-46, -48, -2	Sub-Gyrus, Left	37
--	1.000	--	3.40	-58, 2, -10	Superior Temporal Gyrus, Left	22
Note: "--" denotes belonging to the above cluster.						

Supplementary Table 27 | Significant clusters of the PPI effect, eFC (difficult > easy) of the vPCu, in the RP task, with the voxel-level threshold of $P(\text{uncorrected}) < 0.001$ and the cluster-level threshold of $P(\text{cFWE-corr}) < 0.05$.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.008	0.861	140	4.24	-2, 60, 14	Medial Frontal Gyrus, Left	9
--	0.871	--	4.23	-6, 58, 24	Superior Frontal Gyrus, Left	9
--	1.000	--	3.67	10, 54, 14	Medial Frontal Gyrus, Right	9
Note: "--" denotes belonging to the above cluster.						

Supplementary Table 28 | Significant clusters of the PPI effect, eFC (easy > difficult) of the vPCu, in the RP task, with the voxel-level threshold of $P(\text{uncorrected}) < 0.001$ and the cluster-level threshold of $P(\text{cFWE-corr}) < 0.05$.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.024	10793	5.51	-42, -90, 10	Middle Occipital Gyrus, Left	18
--	0.033	--	5.43	-26, -70, 32	Precuneus, Left	31
0.120	0.688	77	4.41	-22, -4, 50	Middle Frontal Gyrus, Left	6
0.056	0.840	94	4.26	28, -52, -4	Parahippocampal Gyrus, Right	19
--	1.000	--	3.71	26, -60, 4	Lingual Gyrus, Right	18
--	1.000	--	3.45	20, -64, 8	Posterior Cingulate, Right	30
0.024	0.886	114	4.21	44, -2, 34	Precentral Gyrus, Right	6
--	1.000	--	3.62	42, 8, 30	Precentral Gyrus, Right	6
--	1.000	--	3.46	44, 10, 38	Middle Frontal Gyrus, Right	6
0.000	0.887	259	4.21	-40, 26, 22	Middle Frontal Gyrus, Left	9
--	0.988	--	3.97	-54, 22, 30	Middle Frontal Gyrus, Left	9
--	1.000	--	3.74	-50, 26, 22	Middle Frontal Gyrus, Left	46
0.091	0.983	83	4.00	-40, -2, 40	Precentral Gyrus, Left	6
--	1.000	--	3.70	-38, 4, 50	Middle Frontal Gyrus, Left	6
--	1.000	--	3.41	-38, 0, 64	Precentral Gyrus, Left	6
0.019	0.989	119	3.96	48, 38, 24	Middle Frontal Gyrus, Right	9
--	1.000	--	3.47	50, 32, 32	Precentral Gyrus, Right	9
--	1.000	--	3.42	48, 32, 40	Middle Frontal Gyrus, Right	8
0.061	0.991	92	3.95	8, 10, 54	Medial Frontal Gyrus, Right	6
--	1.000	--	3.48	-8, 14, 50	Medial Frontal Gyrus, Left	6
--	1.000	--	3.48	0, 10, 50	Medial Frontal Gyrus, Left	6

Note: "--" denotes belonging to the above cluster.

Supplementary Table 29 | Significant clusters of the PPI effect, eFC (difficult > easy) of the dPCu, in the N-back task, with the voxel-level threshold of $P(\text{uncorrected}) < 0.001$ and the cluster-level threshold of $P(\text{cFWE-corr}) < 0.05$.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	12474	8.89	42, -84, -12	Fusiform Gyrus, Right	19
--	0.000	--	8.30	-42, -90, -6	Inferior Occipital Gyrus, Left	18
--	0.000	--	7.84	42, -86, 2	Inferior Occipital Gyrus, Right	18
0.000	0.000	4963	8.63	-40, -26, 50	Postcentral Gyrus, Left	40
--	0.000	--	8.06	-34, -24, 72	Postcentral Gyrus, Left	3
--	0.000	--	7.81	-42, -18, 64	Postcentral Gyrus, Left	3
0.000	0.005	722	5.88	-64, -16, -24	Inferior Temporal Gyrus, Left	20
--	0.063	--	5.20	-56, -18, -22	Middle Temporal Gyrus, Left	21
--	0.145	--	4.95	-62, -36, -12	Middle Temporal Gyrus, Left	21
0.000	0.006	1114	5.81	16, 38, -12	Medial Frontal Gyrus, Right	10
--	0.032	--	5.38	22, 4, -12	Lentiform Nucleus, Right	Lateral Globus Pallidus
--	0.179	--	4.88	28, -4, 4	Lentiform Nucleus, Right	Putamen

Continued on next page...

Table 29 – continued from previous page

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.010	670	5.69	-20, -4, 6	Lentiform Nucleus, Left	Lateral Globus Pallidus
--	0.052	--	5.25	-26, -18, 8	Lentiform Nucleus, Left	Putamen
--	0.139	--	4.96	-26, 8, 0	Lentiform Nucleus, Left	Putamen
0.001	0.017	257	5.55	22, -14, 28	Caudate, Right	Caudate Body
--	0.212	--	4.83	28, -20, 26	Caudate, Right	Caudate Body
--	0.875	--	4.15	38, -20, 24	Insula, Right	13
0.000	0.031	526	5.39	2, 40, -22	Medial Frontal Gyrus, Right	11
--	0.372	--	4.63	-10, 52, -14	Medial Frontal Gyrus, Left	10
--	0.721	--	4.31	-16, 46, -20	Anterior Cingulate, Left	32
0.055	0.062	113	5.20	-60, 6, 30	Precentral Gyrus, Left	6
--	0.873	--	4.16	-56, 4, 42	Precentral Gyrus, Left	6
0.000	0.063	284	5.20	-58, -62, 32	Superior Temporal Gyrus, Left	39
--	0.877	--	4.15	-44, -60, 34	Middle Temporal Gyrus, Left	39
--	0.886	--	4.14	-36, -56, 30	Superior Temporal Gyrus, Left	39
0.000	0.069	374	5.17	-14, 14, 18	Caudate, Left	Caudate Body
--	0.275	--	4.74	-10, 2, 20	Caudate, Left	Caudate Body
--	0.517	--	4.49	-12, -4, 14	Caudate, Left	Caudate Body
0.012	0.081	159	5.12	-50, -20, 18	Insula, Left	13
--	0.982	--	3.93	-68, -20, 18	Postcentral Gyrus, Left	40
--	1.000	--	3.59	-58, -14, 4	Superior Temporal Gyrus, Left	22
0.000	0.201	403	4.84	-46, 50, -12	Middle Frontal Gyrus, Left	10
--	0.750	--	4.29	-50, 40, -18	Middle Frontal Gyrus, Left	47
--	0.868	--	4.16	-40, 42, -2	Inferior Frontal Gyrus, Left	46
0.001	0.389	233	4.61	52, -30, 52	Inferior Parietal Lobule, Right	40
--	0.823	--	4.21	48, -38, 58	Inferior Parietal Lobule, Right	40
--	0.927	--	4.08	44, -34, 44	Inferior Parietal Lobule, Right	40
0.078	0.433	103	4.57	-10, -60, 44	Precuneus, Left	7
--	0.896	--	4.13	4, -64, 44	Precuneus, Right	7
0.113	0.872	93	4.16	-28, 22, -24	Inferior Frontal Gyrus, Left	47
--	0.957	--	4.01	-40, 10, -34	Superior Temporal Gyrus, Left	38
--	1.000	--	3.62	-32, 14, -32	Superior Temporal Gyrus, Left	38
0.126	0.893	90	4.13	36, 22, -42	Superior Temporal Gyrus, Right	38
--	0.926	--	4.08	40, 8, -48	Middle Temporal Gyrus, Right	38
0.094	0.981	98	3.93	-16, 38, 52	Superior Frontal Gyrus, Left	6

Note: "--" denotes belonging to the above cluster.

Supplementary Table 30 | Significant clusters of the PPI effect, eFC (easy > difficult) of the dPCu, in the N-back task, with the voxel-level threshold of P(uncorrected) < 0.001 and the cluster-level threshold of P(cFWE-corr) < 0.05.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	3446	9.33	12, -68, 34	Cuneus, Right	7
--	0.000	--	7.36	-6, -74, 38	Cuneus, Left	7
--	0.000	--	6.93	-14, -68, 26	Cuneus, Left	18
0.010	0.000	164	7.25	12, -82, 2	Lingual Gyrus, Right	18
0.051	0.004	115	5.94	-8, -86, 0	Lingual Gyrus, Left	18
0.002	0.159	211	4.92	10, 34, 22	Anterior Cingulate, Right	32
--	0.987	--	3.90	8, 30, 30	Cingulate Gyrus, Right	32
--	1.000	--	3.58	-2, 44, 12	Anterior Cingulate, Left	32
0.005	0.238	183	4.79	-42, -80, 30	Middle Temporal Gyrus, Left	19
--	0.253	--	4.77	-34, -84, 34	Superior Occipital Gyrus, Left	19
0.002	0.858	210	4.17	42, -82, 32	Middle Temporal Gyrus, Right	19
--	0.986	--	3.90	50, -76, 24	Middle Temporal Gyrus, Right	39
--	1.000	--	3.65	44, -70, 20	Middle Temporal Gyrus, Right	39

Note: "--" denotes belonging to the above cluster.

Supplementary Table 31 | Significant clusters of the PPI effect, eFC (difficult > easy) of the vPCu, in the N-back task, with the voxel-level threshold of P(uncorrected) < 0.001 and the cluster-level threshold of P(cFWE-corr) < 0.05.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	4966	6.52	20, -40, 70	Superior Parietal Lobule, Right	7
--	0.001	--	6.27	-2, -20, 48	Paracentral Lobule, Left	31
--	0.004	--	5.93	40, -22, 50	Precentral Gyrus, Right	4
0.000	0.001	1793	6.21	50, -16, 18	Insula, Right	13
--	0.014	--	5.62	66, -16, 18	Postcentral Gyrus, Right	40
--	0.034	--	5.39	60, 0, 8	Precentral Gyrus, Right	6
0.000	0.004	911	5.96	-52, -20, 14	Insula, Left	40
--	0.391	--	4.63	-44, -28, 20	Insula, Left	13
--	0.554	--	4.48	-64, -4, 8	Superior Temporal Gyrus, Left	22
0.002	0.052	210	5.27	-48, 22, -16	Inferior Frontal Gyrus, Left	47
--	0.913	--	4.12	-42, 18, -22	Inferior Frontal Gyrus, Left	47
--	0.987	--	3.93	-44, 26, -8	Inferior Frontal Gyrus, Left	47
0.000	0.109	386	5.06	-34, -20, 44	Postcentral Gyrus, Left	3
--	0.204	--	4.86	-42, -16, 50	Postcentral Gyrus, Left	3
--	0.670	--	4.38	-50, -14, 48	Postcentral Gyrus, Left	3
0.014	0.151	144	4.96	-2, -44, 30	Cingulate Gyrus, Left	31
--	0.993	--	3.88	10, -48, 30	Posterior Cingulate, Right	23

Note: "--" denotes belonging to the above cluster.

Supplementary Table 32 | Significant clusters of the PPI effect, eFC (easy > difficult) of the vPCu, in the N-back task, with the voxel-level threshold of $P(\text{uncorrected}) < 0.001$ and the cluster-level threshold of $P(\text{cFWE-corr}) < 0.05$.

Cluster-level $P(\text{cFWE-corr})$	Peak-level $P(\text{FWE-corr})$	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.000	0.000	1191	6.64	28, 20, 56	Superior Frontal Gyrus, Right	6
--	0.334	--	4.69	0, 30, 44	Medial Frontal Gyrus, Left	8
--	0.387	--	4.63	10, 24, 42	Medial Frontal Gyrus, Right	6
0.000	0.000	2351	6.59	-10, -86, 6	Lingual Gyrus, Left	18
--	0.000	--	6.54	10, -86, 6	Lingual Gyrus, Right	18
--	0.002	--	6.11	-12, -80, 12	Lingual Gyrus, Left	18
0.000	0.006	1376	5.85	-40, -4, 38	Precentral Gyrus, Left	6
--	0.012	--	5.67	-30, -2, 64	Middle Frontal Gyrus, Left	6
--	0.012	--	5.66	-30, 6, 62	Middle Frontal Gyrus, Left	6
0.000	0.030	361	5.42	8, -58, 52	Precuneus, Right	7
--	0.041	--	5.34	-2, -62, 50	Precuneus, Left	7
0.000	0.043	1148	5.32	48, -70, -6	Fusiform Gyrus, Right	19
0.000	0.191	254	4.88	-38, -70, 36	Middle Temporal Gyrus, Left	39
--	0.632	--	4.41	-30, -78, 40	Cuneus, Left	19
--	1.000	--	3.34	-24, -86, 38	Cuneus, Left	19
0.000	0.427	483	4.60	-42, -84, 2	Inferior Occipital Gyrus, Left	19
--	0.798	--	4.26	-44, -82, 10	Middle Occipital Gyrus, Left	19
--	0.958	--	4.04	-54, -70, 12	Middle Temporal Gyrus, Left	37
0.104	0.588	90	4.45	38, 54, 4	Middle Frontal Gyrus, Right	10
0.220	0.770	71	4.29	42, 34, 24	Middle Frontal Gyrus, Right	9
--	1.000	--	3.33	44, 34, 32	Precentral Gyrus, Right	9
0.004	0.788	184	4.27	-14, -74, 54	Precuneus, Left	7
--	0.993	--	3.88	-14, -70, 64	Precuneus, Left	7
--	1.000	--	3.68	-22, -72, 60	Precuneus, Left	7
0.228	0.852	70	4.21	38, -76, 40	Precuneus, Right	19
--	1.000	--	3.47	32, -76, 34	Cuneus, Right	19
0.195	0.913	74	4.12	18, -102, 10	Cuneus, Right	17
--	1.000	--	3.47	26, -102, 12	Middle Occipital Gyrus, Right	18
0.024	0.999	129	3.76	-28, -52, 50	Superior Parietal Lobule, Left	7

Note: "--" denotes belonging to the above cluster.

Supplementary Table 33 | Significant clusters of the eFC (difficult > easy) of the dPCu that can predict quicker RT, with the voxel-level threshold of $P(\text{uncorrected}) < 0.001$ and cluster-level threshold of $P(\text{cFWE-corr}) < 0.05$.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.027	0.789	119	4.18	-10, -74, 42	Precuneus, Left	7
--	0.907	--	4.05	-30, -80, 38	Cuneus, Left	19
--	0.992	--	3.82	-20, -76, 38	Precuneus, Left	31
0.058	0.988	100	3.85	-36, 10, 30	Precentral Gyrus, Left	6
0.036	0.992	112	3.83	42, -60, 42	Angular Gyrus, Right	39
--	1.000	--	3.47	52, -66, 36	Angular Gyrus, Right	39
--	1.000	--	3.35	40, -72, 32	Superior Occipital Gyrus, Right	39
Note: "--" denotes belonging to the above cluster.						

Supplementary Table 34 | Significant clusters of the eFC (difficult > easy) of the vPCu that can predict quicker RT , with the voxel-level threshold of P(uncorrected) < 0.001 and cluster-level threshold of P(cFWE-corr) < 0.05.

Cluster-level P(cFWE-corr)	Peak-level P(FWE-corr)	Cluster size	Peak T	MNI coordinate	Anatomical label	Brodmann area
0.023	0.000	138	6.46	-12, 20, -24	Medial Frontal Gyrus, Left	25
0.037	0.121	124	4.84	0, 48, 36	Medial Frontal Gyrus, Left	8
0.017	0.167	147	4.75	50, -46, 24	Superior Temporal Gyrus, Right	13
--	1.000	--	3.48	64, -38, 16	Superior Temporal Gyrus, Right	13
0.003	0.545	201	4.34	58, 18, 2	Precentral Gyrus, Right	44
--	0.644	--	4.27	56, 18, 16	Inferior Frontal Gyrus, Right	44
--	1.000	--	3.47	48, 10, 22	Inferior Frontal Gyrus, Right	9
0.049	0.584	116	4.31	-60, 20, 12	Inferior Frontal Gyrus, Left	44
--	0.943	--	3.95	-48, 20, 2	Precentral Gyrus, Left	44
--	0.992	--	3.78	-58, 26, 18	Inferior Frontal Gyrus, Left	9
Note: "--" denotes belonging to the above cluster.						