

Table DS1 Mean activation values (SD) in the four clusters of significant difference found between the four groups and p values with Tukey HSD test.

Cluster of activation	Controls (n=38)	Euthymia (n=38)	Mania (n=38)	Depression (n=38)	P value
Cluster 1 (left parietal)	17.45 (10.53)	17.87 (13.61)	4.65 (12.13)	8.55 (9.20)	C vs E; p= 0.99 C vs M; p= 0.00001 C vs D; p= 0.005 E vs M; p= 0.000008 E vs D; p=0.003 M vs D; p=0.45
Cluster 2 (right parietal)	13.10 (11.27)	9.54 (13.55)	-1.00 (13.32)	1.80 (12.53)	C vs E; p= 0.61 C vs M; p= 0.00002 C vs D; p= 0.0009 E vs M; p=0.002 E vs D; p=0.04 M vs D; p=0.77
Cluster 3 (left frontal-dorsal)	22.41 (9.45)	14.75 (8.28)	8.45 (9.34)	10.68 (10.44)	C vs E; p= 0.003 C vs M; p= 0.000 C vs D; p= 0.000001 E vs M; p= 0.02 E vs D; p=0.24 M vs D; p=0.73
Cluster 4 (medial orbito-frontal)	-25.06 (18.92)	-12.72 (15.11)	-9.58 (18.70)	-4.47 (16.68)	C vs E; p= 0.01 C vs M; p=0.0009 C vs D; p=0.000005 E vs M; p=0.86 E vs D; p=0.17 M vs D; p=0.58

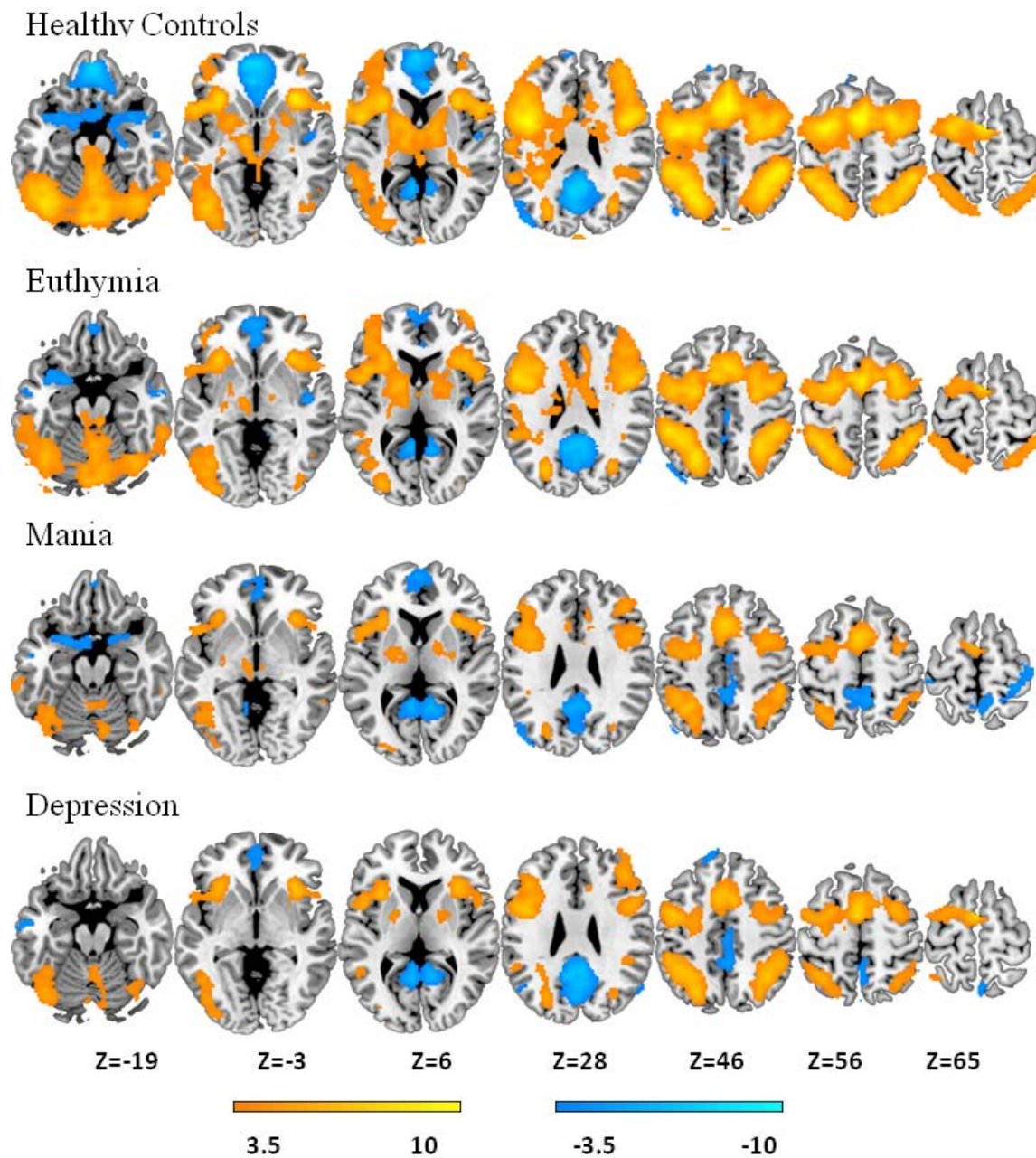
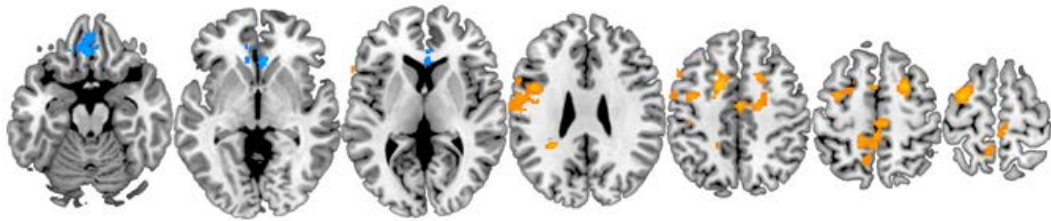
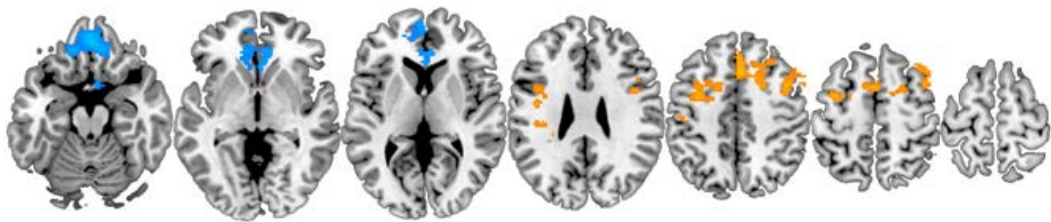


Fig. DS1 Areas of significant activations (red- yellow) and deactivations (blue) from the 2-back vs baseline contrast in the four groups of subjects. The right side of the image is right side of the brain. MNI coordinates for each one of the axial slices are shown in the last row. Colors depict scores from statistical z maps (negative values in the deactivations).

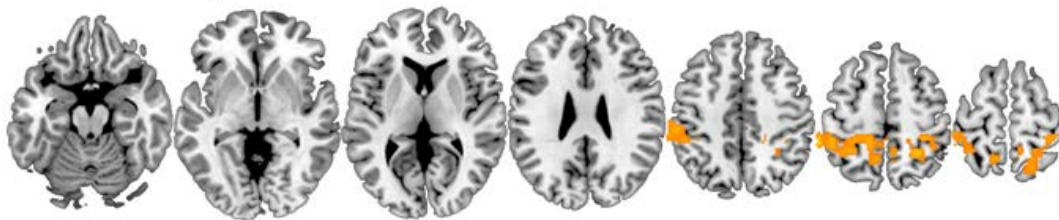
Mania vs Healthy Controls



Depression vs Healthy Controls



Mania vs Euthymia



Z=-19

Z=-3

Z=6

Z=28

Z=46

Z=56

Z=65



2.3

5

-2.3

-5

Fig. DS2 Brain clusters showing statistically significant differences in the 2-back vs baseline contrast (at $p < 0.05$ corrected) in the mania vs controls, depression vs controls and mania vs euthymic patients comparisons, adding task performance (d') as a covariate. The right side of the image is the right side of the brain