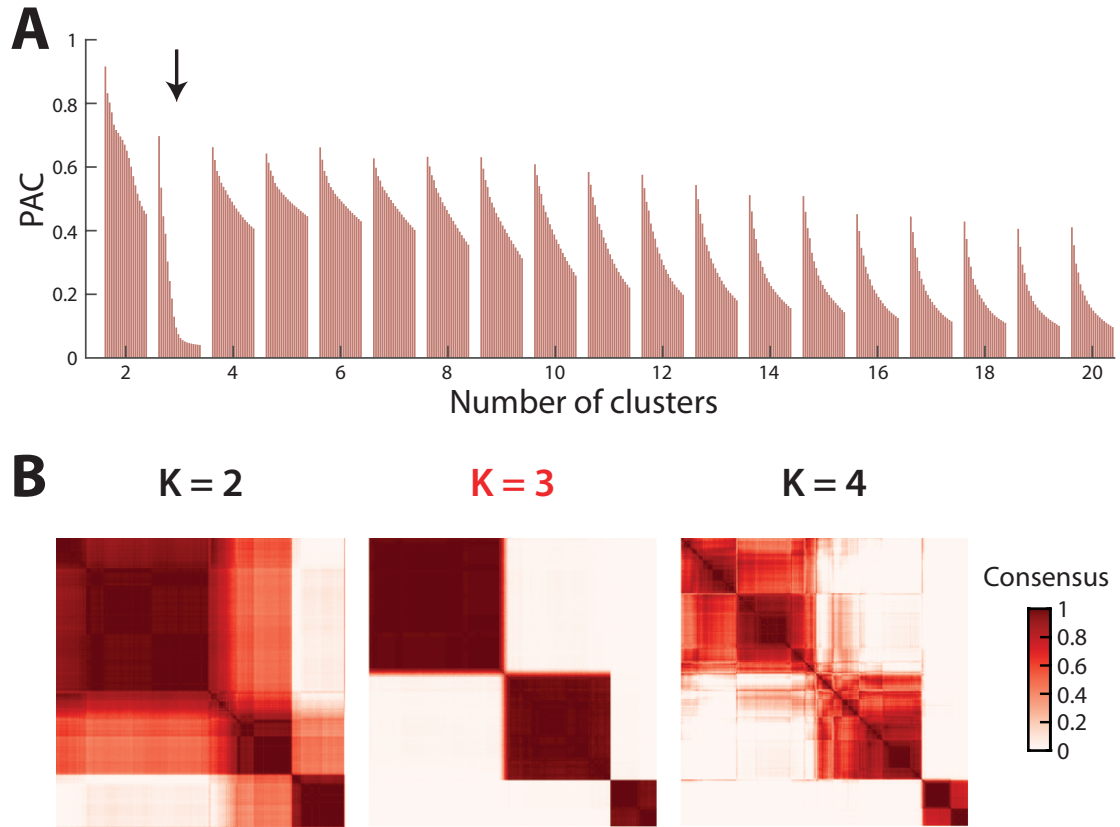


Supplementary figures for “Dynamic functional changes upon thalamotomy in essential tremor depend on baseline brain morphometry”



Supplementary Figure 1. Consensus clustering highlights $K=3$ states in healthy controls. (A) Percentage of ambiguously clustered pairs (PAC) as a function of the number of clusters. A vertical arrow indicates the optimum at $K=3$. **(B)** Consensus matrices for cluster numbers 2, 3 (the optimum) and 4.

State 1



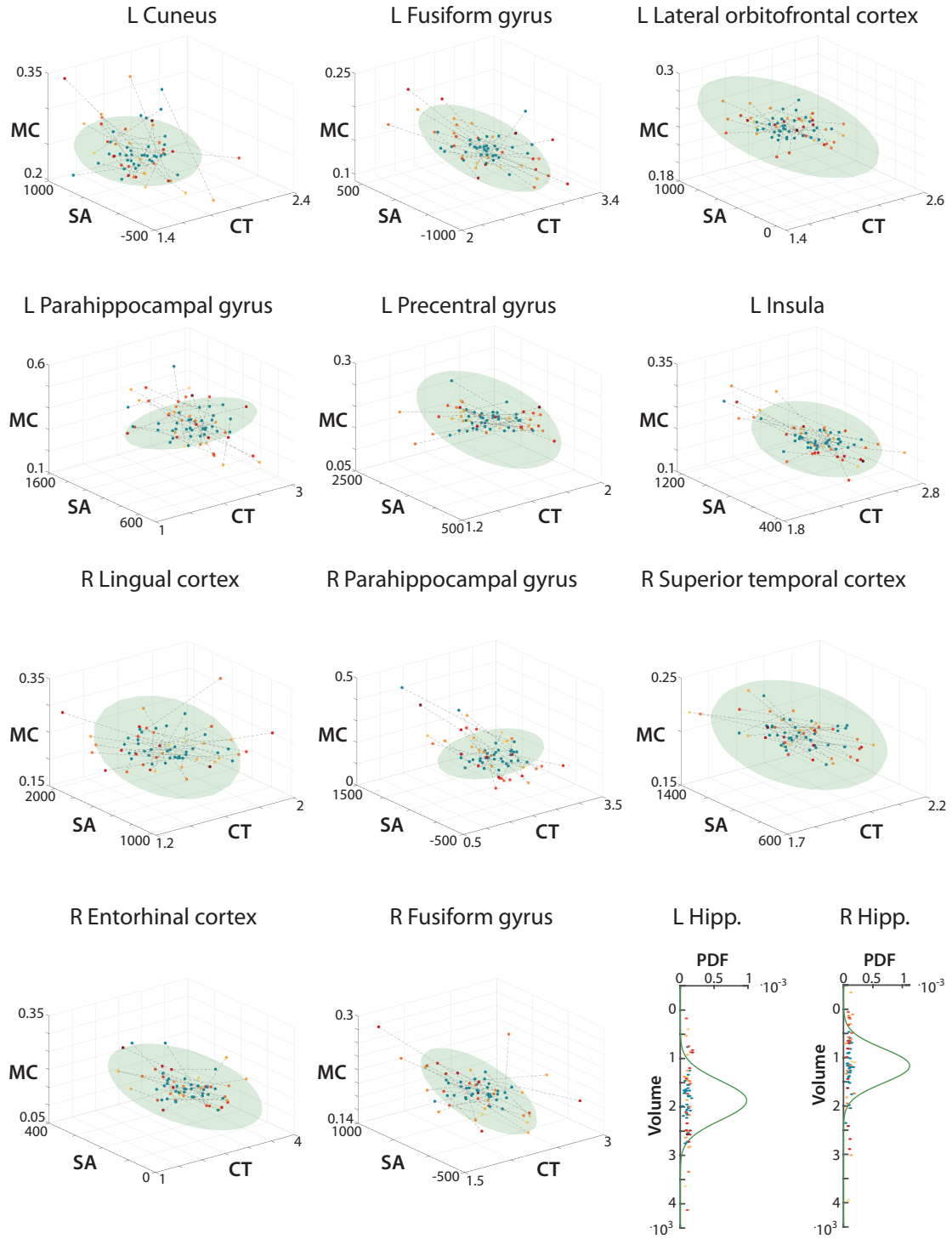
State 2



State 3

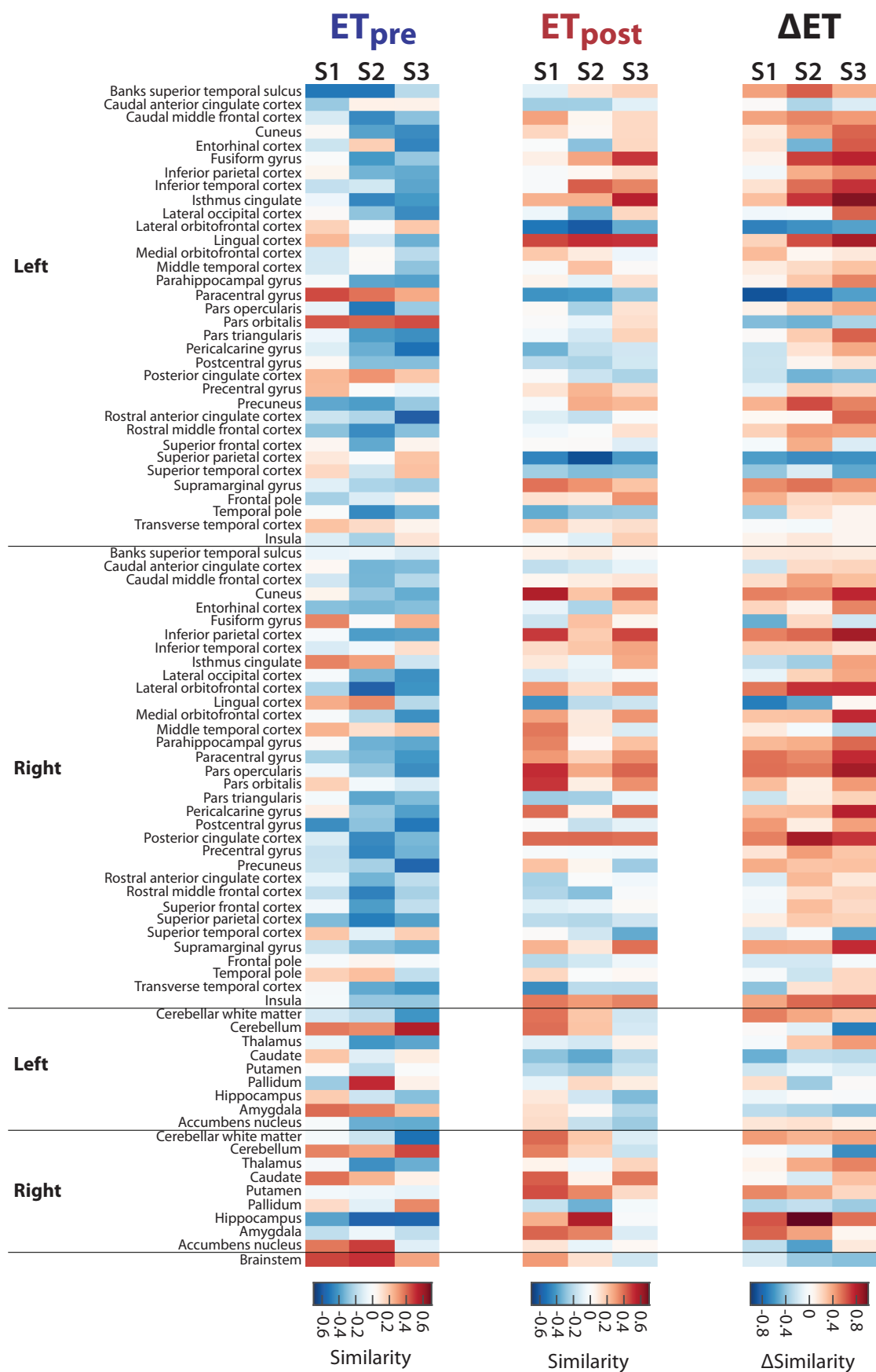


Supplementary Figure 2. Summary of the three dynamic functional connectivity states in words. For each state, word cloud representation of subcortical (top left), cerebellar (top right) and cortical (bottom) dFC values, where red/blue denotes positive/negative-valued dFC. Color intensity and size are proportional to dFC strength, but note that size cannot be compared across individual word clouds.



Supplementary Figure 3. Morphometric changes upon thalamotomy in regions with significant log-likelihood differences. For all the regions that reached significance in the ETpost – ETpre group difference in log-likelihood to the HC distribution, three-dimensional (CT, SA, MC) [or one-dimensional volume for

subcortical areas] visualization of the HC distribution (in green, 68.2% of enclosed probability volume for the three-dimensional case), ET_{pre} (in blue) and ET_{post} (in red, with intensity proportional to TSTH improvement) data points. Dashed lines connect the data belonging to the same patient. Hipp.: hippocampus.



Supplementary Figure 4. Regional similarity values between mean similarity in dynamic functional connectivity state expression and morphometric conformity to healthy controls. Before (left heatmap) or after (middle heatmap) thalamotomy, similarity (for a given state [column]/region [row] pair) between the log-likelihood to be issued from the morphometric HC distribution, and the average spatial similarity to the dFC state. The right heatmap denotes the $ET_{\text{post}} - ET_{\text{pre}}$ difference. S1: state 1, S2: state 2, S3: state 3.



Supplementary Figure 5. State 3 – state 1 dynamic functional connectivity differences in words. Word cloud depiction of dFC differences between states 1 and 3, where red/green denotes the connections to the left Vim that impede/benefit clinical recovery. Color shade and word size are proportional to dFC strength.

