Figure 2—source data 1

This mat file contains proportion of HH values of all windows, proportion of HH values of high encoding windows, and proportion of HH values of low encoding windows pooled across 25 participants. These data were used to generate the histogram shown in figure 2.

Figure 3—source data 1

This mat file contains beta estimates extracted from 8 representative ROIs from the SME/SFE regions. These data were used to generate the bar graph shown in figure 3C.

Figure 3—source data 2

This mat file contains mean correlation coefficient values across the 21 SME and SFE regions, averaged across high encoding windows. These data were used to generate connectivity matrix of the high encoding state shown in figure 3D.

Figure 3—source data 3

This mat file contains mean correlation coefficient values across the 21 SME and SFE regions, averaged across low encoding windows. These data were used to generate connectivity matrix of the low encoding state shown in figure 3E.

Figure 3—source data 4

This mat file contains z values derived from Wilcoxon signed-rank test across participants. These data were used to generate the matrix comparing correlation coefficient between high and low encoding states shown in figure 3F.

Figure 3—source data 5

This mat file contains mean Fisher’s Z value of connections within the SME and SFE regions for each participant, separately for high and low encoding states. These data were used to generate the scatter plots shown in figure 3G.

Figure 4—source data 1

This mat file contains mean correlation coefficient values across the 224 ROIs, averaged across high encoding windows. These data were used to generate connectivity matrix of the high encoding state shown in figure 4A.

Figure 4—source data 2

This mat file contains mean correlation coefficient values across the 224 ROIs, averaged across low encoding windows. These data were used to generate connectivity matrix of the low encoding state shown in figure 4B.

Figure 4—source data 3

This mat file contains z values derived from Wilcoxon signed-rank test across participants. These data were used to generate the matrix comparing correlation coefficient between high and low encoding states shown in figure 4C.

Figure 4—source data 4

This zip file contains .edge file which was used as an input of BrainNet Viewer toolbox to create the 3D visualizations of significantly greater functional connectivity during the high encoding state shown in figure 4D.

Figure 4—source data 5

This zip file contains .edge file which was used as an input of BrainNet Viewer toolbox to create the 3D visualizations of significantly greater functional connectivity during the low encoding state shown in figure 4E.

Figure 5—source data 1

This mat file contains global efficiency in high and low encoding states for each participant. These data were used to generate the scatter plot shown in figure 5A.

Figure 5—source data 2

This mat file contains participation coefficient (averaged across nodes within each subnetwork) in high and low encoding states for each participant. These data were used to generate the scatter plot shown in figure 5B.

Figure 5—source data 3

This mat file contains local efficiency (averaged across all nodes) in high and low encoding states for each participant. These data were used to generate the scatter plot shown in figure 5C.

Figure 5—source data 4

This mat file contains local efficiency (averaged across nodes within each subnetwork) in high and low encoding states for each participant. These data were used to generate the scatter plot shown in figure 5D.

Figure 6—source data 1

This mat file contains z values derived from Wilcoxon signed-rank test across participants. These data were used to generate the matrix comparing inter subnetwork efficiency between high and low encoding states shown in figure 6.

Figure 7—source data 1

This mat file contains the matrix showing how frequently each node was assigned to be the same submodule. These data were used to generate the consistency matrix indicating the five DMN submodules shown in figure 7A.

Figure 7—source data 2

This zip file contains .node file which was used as an input of BrainNet Viewer toolbox to create the 3D visualizations of the 56 DMN nodes classified into five submodules as shown in figure 7B.

Figure 8—source data 1

This spreadsheet contains the prediction accuracy, significance threshold determined by permutation null distributions, statistical significance (*P* < 0.05, permutation test), the output from the SVM classifier using subnetwork-wise PCs, subnetwork-wise local efficiency, and inter-subnetwork efficiency as the input. These numbers were used to generate the bar plots shown in Figures 8A, B and C.