

Figure legends

Figure 1. The inflated brains show the general pattern of activation of the task. In red and blue are depicted the areas activated and deactivated respectively when subjects memorized newly presented faces in comparison with repeated ones.

Figure 2. Independent components (IC, networks) that were highly correlated with the encoding period and performance (ATBRP=activation-task brain related pattern). Networks are separated for each condition (pre-post TMS) and group ($\epsilon 4$ carriers-noncarriers). Coordinates are given in MNI space. Intensity values are thresholded at $z=2.3$. Brain areas of each network are fully described in table 3.

Figure 3. Independent components (networks) that were significantly correlated with the deactivation period (DTBRP= deactivation-task brain related pattern). Networks are separated for each condition (pre-post TMS) and group ($\epsilon 4$ carriers-noncarriers). DTRP=Deactivation Task Related Patterns. Coordinates are given in MNI space. Intensity values are thresholded at $z=2.3$. Brain areas of each network are fully described in table 4.

Figure 4. Effects of rTMS in the DMN present in deactivation task-related networks. While both groups exhibited increased temporal correlations between the timecourse of this network and rest condition after rTMS, its activity (intensity of the expression) clearly diverged. In the bar graphs it is shown that DMN activity decreased for $\epsilon 4$ non-carriers whereas increased for the $\epsilon 4$ -carriers. Corr: Correlation values (r-Pearson) between the timecourse of each network and the 'resting condition'. Intensity values are thresholded at $z=2.3$. Coordinates are given in MNI ($x=-4, z=26$). A.U=arbitrary units.

Figure S1. A) Non-thresholded contrast between encoding new faces vs. viewing a repeated face. Regions that were active in the encoding phase depicted in yellow whereas areas deactivated during the encoding phase are shown in blue. B) Brain areas representing the contrast between encoding new faces in front of viewing a

repeated face (thresholded at $z=2.3$). The maps depicted in red were the ones used for cortical thickness analysis. rh=right hemisphere; lh=left hemisphere.