

**Supplementary Figure 1.** On the left: outflow for each ROI in the alpha band, in OFF. On the right: same representation in ON. Regions showing a strong tendency (p<0.06) to change their outflow in ON vs. OFF are: posterior cingulate, left amygdala and hippocampus, right anterior cingulate, right lingual gyrus.



**Supplementary Figure 2.** On the left: outflow for each ROI in the beta band, in OFF. On the right: same representation in ON. Regions showing a strong tendency (p<0.06) to change their outflow in ON vs. OFF are: left amygdale, bilateral hippocampi, and right anterior cingulate.



**Supplementary Figure 3.** On the left: outflow for each ROI in the theta band, in OFF. On the right: same representation in ON. Regions showing a strong tendency (p<0.06) to change their outflow in ON vs. OFF are: posterior cingulate, left amygdale, bilateral hippocampi, and right anterior cingulate.