

## **Summary**

The role of temporal and parietal cortices in episodic memory retrieval has become a focus in recent studies. Previous functional neuroimaging studies of recency judgments, judgments of relative temporal order of two studied items, have revealed involvement of the lateral prefrontal and temporal regions. However, the contribution of the parietal cortex has received little attention. Recency judgments are achieved by at least two mechanisms – relational and item-based. The present study re-analyzed three data sets from our previous fMRI recency judgment study to determine parietal involvement and its relation to the temporal cortex within these two mechanisms of recency judgments. In the left ventral parietal and left parahippocampal regions, significant brain activity related to relational recency judgments was observed. In contrast, significant brain activity related to item-based recency judgments was observed in the left dorsal parietal and the right anterior temporal regions. Furthermore, correlation analyses of resting-state BOLD signals revealed significant correlations between ventral parietal and parahippocampal regions, as well as between dorsal parietal and anterior temporal regions. These results suggested that the two temporo-parietal networks differentially contributed to relational and item-based recency judgments.