

FMRI and MEG connectivity analyses of face- and scene- selective brain areas



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Introduction -

Functional connectivity patterns within the face- and scene- networks and their relationship with behavioral performance remain poorly understood. We analyzed seed-based functional connectivity of Fusiform Face Area (FFA) and Parahippocampal Place Area (PPA) in resting-state fMRI and MEG data from the Human Connectome Project (HCP) [1]. We used regions of interest derived from the HCP-MMP1 atlas [2] and we assessed correlation matrices for fMRI and MEG connectivity metrics. Finally, we used seed-target correlation as predictors for behavioral performance for a face and scene recognition task [3].





— Discussion

FFA and PPA resting-state connectivity is generally aligned with face and scene-activated networks.

• Differences in functional connectivity of FFA and PPA resides in beta and gamma bands.

• FFA's connectivity in the right hemisphere and PPA's connectivity in the left hemisphere explained the variance observed in behavioral scores in a face and scene recognition task, respectively.

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