



LME cluster results

methods

Univariate analysis of day 2 recognition memory test, coded by source memory response. We have 3 runs for each subject, with different numbers of conditions across runs. For this reason, I used a linear mixed effects approach, taking our conditions of interest as fixed effects and including random effects of session and subject

Full model:

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Neural activity ~ Encode Phase * CS Condition * Source Memory + (1+Run|Subject)
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AFNI returns F-tests for all main effects and interactions, so for our purposes we can think about this as a 3-way repeated measures ANOVA.

In this approach I did not include any follow up contrasts. My plan is to use any significant results from this model as ROIs for post-hoc comparisons.

results

All cluster results are cluster threshold at $p=0.05$ with a cluster forming threshold of $p=0.005$. Results are masked by a 50% probability grey matter map. Desikan-Killiany Atlas used for labels.

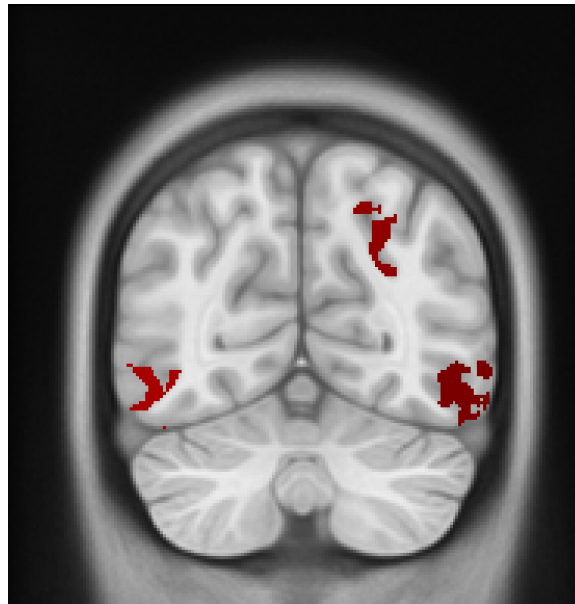
The colors on the brains are arbitrary

Encode Phase main effect

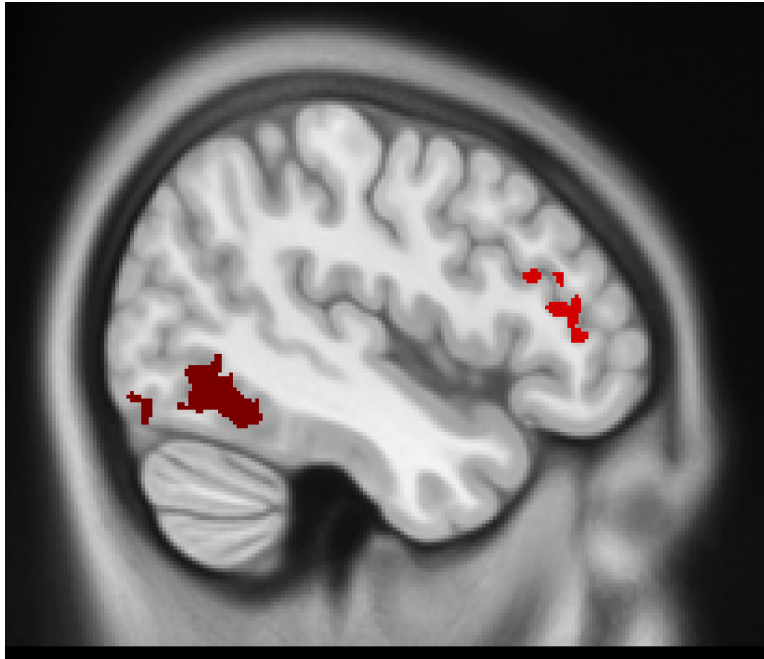
```
no significant clusters
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CS Condition main effect

1. left inferior temporal / lateral occipital
2. left inferior parietal
3. right lateral occipital
4. right cerebellum
5. left rostral middle frontal
6. left cerebellum



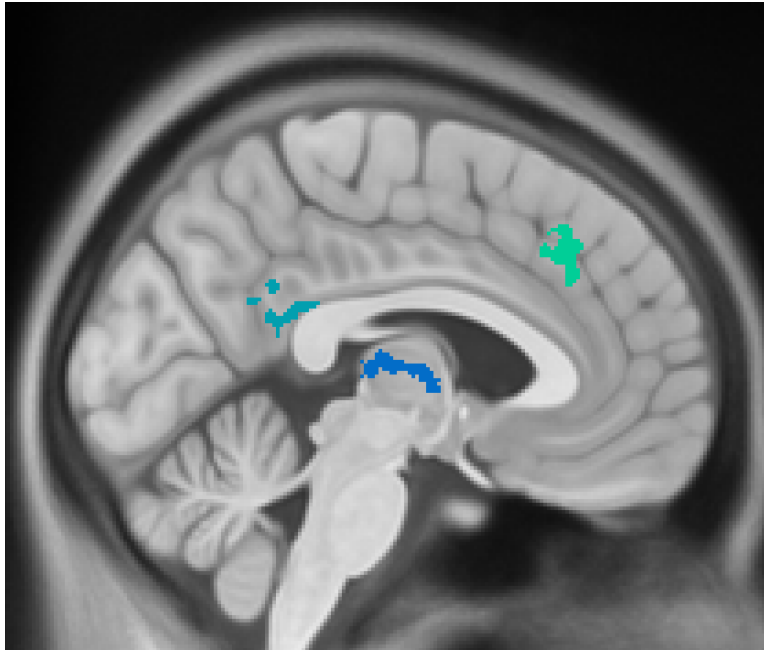
— Bilateral LOC and inferior parietal



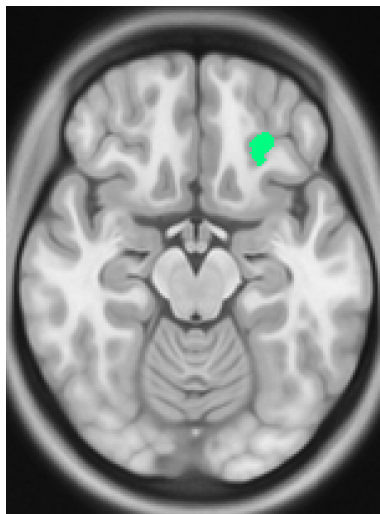
— Left LOC (again) and middle frontal

Source memory main effect

1. left thalamus
2. left precuneus
3. left superior frontal (dACC)
4. left lateral orbitofrontal



— Left thalamus, precuneus, dACC



— left OFC

Encode Phase * Condition interaction

no significant clusters

Condition * Source Memory interaction

1. right cuneus



— Right cuneus

Encode phase * Source Memory interaction

no significant clusters

Encode phase * CS Condition * Source Memory interaction

no significant clusters