**SUPPLEMENTARY RESULTS**

**Interactions in MTL univariate predicting mPFC reinstatement location.**

In our analysis using univariate activity at the time of memory retrieval to predict the location of reinstatement in the mPFC, we observed several interactions with hippocampal subfield. For the pHC, there was a significant *pHC* \* *CS* *type* interaction(X2(1) = 11.2, P = 8.3e-4), such that the slope of pHC activity was significantly more negative for CS+ compared to CS- (CS slope diff. = -1.53e-3, [-2.43e-3, -6.34e-4], P = 8.24e-4). In the body of the hippocampus, there was a significant *HC body* \* *CS type* \* *encoding context* interaction (X2(1) = 5.46, P = 0.019). Post-hoc contrasts revealed that for items encoded during conditioning, the slope for the CS+ was significantly more negative than the CS- (CS slope diff. = -2.68e-3, [-4.21e-3, -1.15e-3], PFDR = 1.17e-3), while there was no difference in the slopes for extinction (CS slope diff. = -8.68e-5, [-1.63e-3, 1.46e-3], PFDR = 0.91). There were no significant interactions in the aHC, BLA, or CeM. In sum, MTL univariate activity predicted more reinstatement in the dACC. This effect was stronger for all CS+ items in the pHC compared to CS-, and was selective for conditioning CS+ items in the body of the hippocampus.

**Recognition memory does not influence reinstatement in the mPFC.**

We additionally tested if reinstatement in our *a priori* ROIs differed as a function of memory strength. Recognition memory was included as a categorical predictor (e.g., “high-confidence hit” or “miss”)*.* In the mPFC, there was no main effect of *memory accuracy* (X2(1) = 0.024, P = 0.89), and all interactions with this term were not significant (all Ps ≥ 0.14). A similar pattern emerged in the amygdala, with only a trending main effect of *memory accuracy* (X2(1) = 3.08, P = 0.08) and no significant interactions (all Ps ≥ 0.07). In the hippocampus, we again observed a trending main effect of *memory accuracy* (X2(1) = 3.47, P = 0.06), as well as several significant higher order interactions (*memory accuracy \* CS type \* encoding context*:X2(2) = 6.26, P = 0.044; *memory accuracy \* CS type \* subfield*: X2(2) = 6.69, P = 0.035; *memory accuracy \* encoding context \* group*: X2(2) = 11.8, P = 0.003).Thus, recognition memory did not influence reinstatement in the mPFC and amygdala. Recognition memory influencing reinstatement in the hippocampus is consistent with this structure’s role in episodic retrieval.

**Searchlight Clusters**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Group | Encoding context | Label (hemisphere) | MNI coor.  peak | Size in voxels (3mm3) |
| Healthy | Acquisition | Inferior frontal gyrus (R) | 33, 9, 27 | 741 |
|  |  | Superior frontal gyrus (L) | -6. 18, 51 | 608 |
|  |  | Middle frontal gyrus (L) | -39, 33, 15 | 414 |
|  |  | Angular gyrus (L) | 33, -57, 36 | 308 |
|  |  | Insula (L) | -27, 24, -6 | 280 |
|  |  | Inferior frontal gyrus (L) | -45, 3, 21 | 178 |
|  |  | Precuneus (L) | -9, -66, 42 | 175 |
|  |  | Inferior parietal lobule (R) | 30, -54, 42 | 117 |
|  |  | Cerebellar tonsil (R) | 36, -63, -45 | 40 |
|  |  | Cerebellar tonsil (L) | -33, -60, -33 | 32 |
|  |  | Medial frontal gyrus (L) | -15, 48, -3 | 25 |
|  |  | Precuneus (R) | 12, -75, 42 | 25 |
|  |  | Middle temporal gyrus (L) | -57, -51, -6 | 22 |
|  |  |  |  |  |
|  | Extinction | Medial frontal gyrus (L) | -3, 51, 0 | 191 |
|  |  | Precuneus (L) | -6, -63, 27 | 113 |
|  |  | Angular gyrus (L) | -39, -75, 36 | 69 |
|  |  | Angular gyrus (R) | 42, -69, 30 | 44 |
|  |  | Middle temporal gyrus (R) | 63, 0, -24 | 26 |
|  |  |  |  |  |
| ptsd | Acquisition | Superior frontal gyrus (R) | -6, 18, 51 | 326 |
|  |  | Insula (L) | -33, 24, 9 | 214 |
|  |  | Insula (R) | 30, 24, -6 | 201 |
|  |  | Precuneus (L) | -18, -66, 48 | 119 |
|  |  | Supramarginal gyrus (L) | -54, -48, 27 | 62 |
|  |  | Culmen / Parahippocampal gyrus (L) | -30, -51, -24 | 61 |
|  |  | Inferior frontal gyrus (R) | 45, 6, 24 | 52 |
|  |  | Middle frontal gyrus (L) | -51, -3, 39 | 52 |
|  |  | Fusiform gyrus (L) | -57, -63, -12 | 29 |
|  |  | Precentral gyrus (L) | -42, -3, 51 | 23 |
|  |  | Middle frontal gyrus (L) | -42, 24, 24 | 22 |
|  |  | Superior temporal gyrus (L) | -51, -54, 15 | 20 |
|  |  |  |  |  |
|  | Extinction | Cuneus (L) | -6, -75, 30 | 42 |
|  |  | Insula (R) | 36, 30, 3 | 34 |
|  |  | Insula (L) | -39, 27, 0 | 25 |

**Supplementary Table 1.** Whole-brain searchlight results. Clusters correspond to significant CS+ ‒ CS- reinstatement. Coordinates refer to the peak voxel in each cluster. Anatomical labels were derived from the Talairach-Tournoux Atlas.