



Corrigendum

Corrigendum to “Dissociable roles of default-mode regions during episodic encoding” [NeuroImage, 89 (2014) 244–255]

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While reviewing the data, the first author found two errors in his data analysis.

First, a minor error was found in calculation of reaction time (RT) data: specifically, RT data for responses given during inter-trial intervals were not being calculated correctly. We provide the corrected RT data in [Table 1](#). This error did not impact the significance of any statistical test; thus we do not consider it further.

Second, an error was found in the coding of the onset vectors for the “Incorrect pleasantness encoding” condition. Specifically, the onset vectors for two of the runs for this condition were not coded correctly (approximately 45% of trials in this condition only). We recalculated all fMRI contrasts after having fixed this error and provide updated fMRI results in [Tables 2–6](#). Overall this error does not impact the Discussion and conclusions made in this manuscript in a major way. However, in light of this oversight we present updated interpretation of the results for each section in our original Discussion, with appropriate headings, in the sections below.

Left anterior medial PFC and angular gyrus are activated to a greater extent in correct vs. incorrect encoding across tasks

All of the key regions discussed in the original manuscript in this section, including the left ventrolateral PFC, the anterior medial PFC and the left angular gyrus were found in the reanalysis ([Table 3](#)). No new region of interest was found in the reanalysis. Thus, we maintain our initial interpretation of this data.

Left ACC and bilateral LTC are activated to a greater extent in correct vs. incorrect encoding using a pleasantness task

In this section, we primarily discussed three brain regions: the left anterior cingulate cortex, and bilateral lateral cortex. A similar region of anterior cingulate/anterior medial PFC was found in the reanalysis (peak coordinate: [−2 56 8]; $T = 3.58$, 34 voxels) ([Table 4](#)). The left lateral temporal cortex was also found, but at a reduced $p < 0.005$

threshold (peak coordinate: [−62 −16 −18]; $T = 3.14$; 14 voxels). The right lateral temporal cortex was not found; thus we retract our original comments regarding the right lateral temporal cortex. No new region of interest was found in the reanalysis.

PCC is involved both in encoding failure and exhibiting TUT

In this section, we primarily discussed the posterior cingulate cortex (PCC), bilateral dorsolateral PFC and right anterior cingulate.

- The PCC was involved both in encoding failure (peak coordinate: [−18 −66 20]) ([Table 3](#)) and in TUT (peak coordinate: [−10 −68 22]) ([Table 5](#)) in the revised results, as in the original report. However, the overlap in PCC between these effects in the reanalysis was more limited than originally reported (peak coordinate: [−14 −68 24], Cluster extent at $p < 0.001$: 1 voxel. Cluster extent at $p < 0.005$: 127 voxels).
- The bilateral DLPFC was still observed in the off-task vs. on-task contrast in the reanalysis ([Table 5](#)), as in the original report. We also note a new region identified in the off-task vs. on-task contrast in the revised results: the dorsal anterior cingulate. This fits well with our original comments regarding the DLPFC and dorsal anterior cingulate in the Discussion section.
- The right ventral anterior cingulate was still involved in encoding failure, but only at a reduced $p < 0.005$ threshold (peak coordinate: [8 42 −4]; $T = 3.01$; 33 voxels). Caution should be taken while interpreting the results from this region given the reduced significance.

We sincerely apologise to *Neuroimage*, the editor, the reviewers, and readers of this article for these errors.

Below, we list the updated results for behavioural analysis of RT data. The updated results did not alter the significance of any statistical test presented in the manuscript.

1. Encoding RT

1.1. Encoding task-type × subsequent memory ANOVA

Main effect of encoding task: ($F(1,20) = 0.82$, $p = 0.777$, $\eta^2p = 0.004$)

Main effect of subsequent memory: ($F(1,20) = 0.127$, $p = 0.725$, $\eta^2p = 0.006$)

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Table 1
Reaction time with standard error.

	Pleasant correct	Pleasant incorrect	Man-made correct	Man-made incorrect	On-task	Off-task
Encoding						
Reaction time (ms)	1621 (55)	1686 (55)	1673 (67)	1621 (61)	1486 (52)	1668 (97)
Retrieval reaction time (ms)	2096 (85)	2278 (90)	2272 (84)	2186 (94)	2129 (74)	2110 (94)

Note: This table presents the mean encoding reaction times for each condition, with standard error in parentheses. "On-task" refers to encoding events preceding thought probes in which subjects reported being concentrated on the task. "Off-task" refers to encoding events preceding thought probes in which subjects reported exhibiting task-unrelated thoughts.

Table 2
ANOVA main effect of subsequent source memory.

Hemisphere	Brain region	Brodmann area	MNI coordinates	Cluster size	Peak T value
<i>Pleasantness vs. Man-made encoding task</i>					
Left	Anterior medial superior PFC	8/9	−6 54 44 −6 58 16 −6 58 30	4655	9.51 8.56 8.26
Left	Middle/inferior temporal gyrus	21/20	−60 −14 −24 −30 14 −22 −38 18 −20	1482	6.66 6.18 5.45
Right	Cerebellum		30 −84 −36	427	6.44
Left	Posterior cingulate	23/30	−4 −50 28 −10 −52 6	729	5.31 4.07
Right	Temporal pole	38/21	48 12 −36 54 4 −34 58 2 −26	125	5.06 4.67 4.13
Left	Angular gyrus/middle temporal gyrus	39	−56 −66 28 −60 −62 16 −64 −48 26	699	5.01 3.94 3.31
Right	Middle temporal gyrus	22/21	50 −38 0	261	4.54
Left	Inferior frontal gyrus	44/45	−52 22 12	51	3.95
Right	Middle temporal gyrus/lateral occipital cortex	39/19	58 −64 20 50 −78 10	148	3.9 3.88
Right	Cerebellum		46 −60 −44	12	3.66
Right	Cerebellum		6 −54 −50	13	3.62
Left	Cerebellum		−28 −84 −36	24	3.59
<i>Man-made vs. Pleasantness encoding task</i>					
Right	Intraparietal sulcus	40/7	44 −44 48	919	5.29
Left	Intraparietal sulcus	40/7	−36 −44 44 −44 −40 48 −42 −46 54	634	4.38 4.14 3.94
Right	Middle frontal gyrus	6	32 8 56	205	4.05
Right	Middle frontal gyrus	6/9	46 14 32 40 8 32	188	4.03 3.62
Right	Insula		28 22 2	14	3.74
Right	Insula		28 26 −4	18	3.72
Right	Frontal pole	10	36 54 10	93	3.69

Note: This table presents the random effects within-group SPM8 results. The t-values represent the value for the local maxima which had a $p < .001$ and spatial extent threshold of $k = 10$. The cluster size refers to the total number of voxels included in the voxel cluster. The stereotaxic coordinates are measured in mm.

Table 3
ANOVA main effect of subsequent source memory.

Hemisphere	Brain region	Brodmann area	MNI Coordinates	Cluster size	Peak T value
<i>Correct vs. incorrect source encoding</i>					
Left	Inferior frontal gyrus	47/45	−34 30 −10 −42 26 −2 −48 24 12	1554	6.33 5.96 5.7
Left	Caudate		−12 10 10 14 10 6 16 12 14	1259	6.24 4.28 4.22
Left	Medial superior frontal gyrus	8/9	−12 34 56 −6 30 50 −8 56 26	809	4.64 4.16 3.96
Left	Middle frontal gyrus	6	−42 12 54	80	4.43
Right	Cerebellum		40 −68 −42 32 −72 −42	340	4.33 4.19
Left	Parahippocampal gyrus/cerebellum	36	−24 −34 −26	187	4.32
Left	Angular gyrus	39	−46 −66 28	92	3.95
Right	Inferior frontal gyrus	47	36 34 −14	25	3.67
<i>Incorrect vs. correct source encoding</i>					
Right	Temporoparietal junction	39/40/22	56 −52 12 58 −44 34 58 −40 22	607	4.88 4.08 3.65

Table 3 (continued)

Hemisphere	Brain region	Brodmann area	MNI Coordinates	Cluster size	Peak T value
Right	Precuneus/posterior cingulate	7	6 – 68 60 6 – 78 50 8 – 68 50	1800	4.73 4.6 4.53
Right	Superior frontal gyrus	6	22 2 58 32 – 2 58	92	3.92 3.45
Right	Insula	13	48 12 – 4	46	3.56
Right	Inferior parietal Lobule	40	58 – 32 44	16	3.55
Left	Posterior cingulate	31	– 18 – 66 20	11	3.4

Note: This table presents the random effects within-group SPM8 results. The t-values represent the value for the local maxima which had a $p < .001$ and spatial extent threshold of $k = 10$. The cluster size refers to the total number of voxels included in the voxel cluster. The stereotaxic coordinates are measured in mm.

Table 4
ANOVA interaction.

Hemisphere	Brain region	Brodmann area	MNI coordinates	Cluster size	Peak T value
<i>Correct vs. incorrect source only in the pleasantness task</i>					
Left	Medial frontal pole/anterior cingulate	10/32	– 2 56 8	34	3.58
<i>Correct vs. incorrect source only in the man-made task</i>					
Left	Precentral gyrus	6/44	– 40 6 30	146	4.23
Left	Middle frontal gyrus	9/46	– 52 28 24	66	4.21

Note: This table presents the random effects within-group SPM8 results. The t-values represent the value for the local maxima which had a $p < .001$ and spatial extent threshold of $k = 10$. The cluster size refers to the total number of voxels included in the voxel cluster. The stereotaxic coordinates are measured in mm.

Table 5
Brain regions involved in task-unrelated thoughts.

Hemisphere	Brain region	Brodmann area	MNI coordinates	Cluster size	Peak T value
Left	Middle frontal gyrus	8	– 34 38 38	58	5.14
Left	Posterior cingulate	31/19	– 10 – 68 22 – 22 – 58 0 – 14 – 62 12	191	4.76 4.7 4.37
Bilateral	Cuneus/lingual gyrus	17/19	0 – 72 14 6 – 70 0	117	4.76 4.04
Right	Thalamus		20 – 26 0	11	4.52
Right	Insula		38 0 – 20	12	4.46
Right	Middle/superior frontal gyrus	8	32 46 34	76	4.44
Right	Dorsal anterior cingulate	32	4 16 40	21	4.16

Note: This table presents the random effects within-group SPM8 results. The t-values represent the value for the local maxima which had a $p < .001$ and spatial extent threshold of $k = 10$. The cluster size refers to the total number of voxels included in the voxel cluster. The stereotaxic coordinates are measured in mm.

Table 6
Correlations between activation in regions of interest and behavioural measures.

	Retrieval performance		Reaction time		Off-task thought	
	Pleas	Man	Pleas	Man	Pleas	Man
Left VLPFC	0.18	– 0.18	– 0.06	0.26	– 0.02	– 0.07
Left ventral mPFC	0.05	– 0.22	– 0.02	– 0.02	– 0.25	– 0.06
Precuneus	– 0.08	– 0.38	0.13	0.37	0.13	0.12
Left dorsal mPFC	0.12	0.05	0.03	– 0.1	– 0.27	– 0.10

Note: This table presents correlations between parameter estimates in left ventrolateral prefrontal cortex (VLPFC; peak coordinate: [– 34 30 – 10]), left ventral medial PFC (peak coordinate: [– 2 56 8]), left dorsal medial PFC (peak coordinate: [– 8 56 26]) and precuneus (peak coordinate: [6 – 68 60]) during successful encoding and three behavioural measures: retrieval performance, retrieval reaction time and frequency of off-task thoughts. Pleas = pleasantness task. Man = man-made/natural task. Parameter estimates for each region were extracted from 3 mm spheres around each peak coordinate.

Interaction: ($F(1,20) = 10.982, p = 0.003, \eta^2 p = 0.354$)

Post-hoc F-test: Pleasant correct vs. pleasant incorrect:
($F(1,20) = 15.879, p = 0.001, \eta^2 p = 0.443$)

Post-hoc F-test: Man-made correct vs. man-made incorrect:
($F(1,20) = 2.476, p = 0.131, \eta^2 p = 0.110$)

1.2. On-task vs. Off-task 1-way ANOVA: ($F(1,20) = 10.821, p = 0.004, \eta^2 p = 0.351$)

2. Retrieval RT

2.1. Encoding task-type \times subsequent memory ANOVA

Main effect of retrieval task: ($F(1,20) = 2.516, p = 0.128, \eta^2 p = 0.112$)

Main effect of subsequent memory: ($F(1,20) = 0.296, p = 0.592, \eta^2 p = 0.015$)

Interaction: ($F(1,20) = 23.939, p < 0.001, \eta^2 p = 0.545$)

Post-hoc F-test: Pleasant correct vs. Man-made correct:
($F(1,20) = 14.789, p = 0.001, \eta^2 p = 0.425$)

Post-hoc F-test: Pleasant incorrect vs. Man-made incorrect:
($F(1,20) = 10.193, p = 0.005, \eta^2 p = 0.338$)