

Supplementary Material

**Supplementary table 1.** Peak locations showing significant event-related hemodynamic increases and decreases during retrieval practice trials, with a statistical threshold of  $p < .001$ , uncorrected for multiple comparisons (extent threshold 10 voxels).

Anatomical Label	x,y,z	BA	T	size
<b>Increases</b>				
<i>Frontal Lobes:</i>				
L Precentral/Inferior Frontal G.	-46 -2 36	6	*9,28	2349
	-50 36 4	45	*8,34	
	-50 4 20	44	*7,95	
L Medial Frontal G.	-8 2 56	6	*8,55	755
	-4 10 52	6	*8,01	
	-14 20 64	6	5,21	
R Precentral G.	41 0 28	6	4,78	25
L Superior Frontal G.	-30 48 28	10	3,88	24
<i>Other:</i>				
R Inferior Occipital G.	28 -92 -16	18	*16,57	14088
	42 -78 20	18	*12,65	
	-18 -92 -12	18	*11,99	
R Hippocampus	24 -32 -4	-	6,22	87
L Hippocampus	-24 -30 -8	-	5,83	62
<b>Decreases</b>				
<i>Frontal Lobes:</i>				
L Anterior Cingulate	-2 44 0	32	*7,77	456
	-12 44 0	32	5,96	
R Middle Frontal G.	26 16 48	8	6,14	202
	30 28 40	8	5,64	
L Medial Frontal/Limbic Lobe	-8 -24 40	NA	6,06	345
	-6 -18 52	6	5,06	
	8 -26 40	31	4,56	
R Medial/Superior Frontal G.	8 46 36	9	5,24	132
	4 52 28	9	4,37	
	14 50 40	9	4,14	
R Inferior Frontal G.	58 16 12	44	4,86	77
L Anterior Cingulate	-4 14 -8	25	4,48	29
L Middle Frontal G.	-26 26 36	9	4,05	14
<i>Other:</i>				
Inferior Parietal Lobule/Supramarginal G.	64 -36 32	40	*7,18	979
	56 -48 36	40	*6,6	
	62 -52 24	40	6,13	
R Middle/ Temporal G.	60 -22 -16	21	*6,54	339
	54 -10 -24	20	4,97	
	52 0 -32	21	4,8	
L Superior Temporal G./Insula	-46 0 -8	13	5,94	542
	-42 -22 -4	13	5,76	
	-44 -10 -16	NA	5,5	
R Insula	40 -12 -4	13	4,78	73

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		42	2	-8	13	4,29	
R	Precuneus	10	-56	32	31	4,76	59
L	Precentral G.	-34	-30	56	4	4,48	98
R	Parahippocampal G.	28	-18	-24	-	4,37	19
L	Cingulate G.	-10	-2	40	24	4,25	11
R	Superior Temporal G.	50	-8	4	22	4,19	14
R	Precuneus	18	-54	56	7	4,03	23
L	Precuneus	-10	-52	44	7	3,81	20
R	Superior Parietal Lobule	28	-46	60	40	3,71	11

BA = approximate Brodmann Area; \* = survives a statistical threshold of .05 (FWE-corrected); L =

left hemisphere, R = right hemisphere; size = number of voxels in a cluster

**Supplementary table 2.** Peak locations showing significant hemodynamic increases ( $p < .001$ , uncorrected; extent threshold 10 voxels) for unpracticed P<sup>-</sup> compared with baseline C items, and for practiced P<sup>+</sup> compared with baseline C items during the final cued recall test.

Anatomical Label	x	y	z	BA	T	size	P- > C					
							x	y	z	BA	T	size
R Supramarginal G.	58	-54	32	40	*7,40	296	58	-54	32	40	*7,57	442
	60	-44	32	40	*6,74		54	-56	16	40	4,72	
	48	-56	28	40	5,05							
L Superior Temporal/ Inferior Parietal G.	-54	-58	20	39	5,01	38	-54	-56	28	39	5,26	70
							-50	-66	28	39	5,11	
B Medial Frontal G./ Anterior Cingulate	8	38	4	24	5,11	79	6	38	4	24	5,48	335
							14	42	-4	32	5,05	
							-10	40	0		4,43	
L Anterior Cingulate	-4	42	0	32	3,85	11				-		
R Superior Frontal G.	22	24	48	8	3,84	16	26	26	40	8/9	4,3	56
	30	28	44	8	3,83							
R Precuneus				-			12	-52	28	31	3,82	12

BA = approximate Brodmann Area; \* = survives a statistical threshold of .05 (FWE-corrected);

L = left hemisphere, R = right hemisphere, B = bilateral; size = number of voxels in a cluster

**Supplementary table 3.** Peak locations showing significant hemodynamic decreases ( $p < .001$ , uncorrected; extent threshold 10 voxels) for unpracticed P<sup>-</sup> compared with neutral C items, and for practiced P<sup>+</sup> compared with neutral C items, during the final recall test.

Anatomical Label	x	y	z	BA	T	size	x	y	z	BA	T	size
	P- < C						P+ < C					
<i>Frontal Lobes:</i>												
L Precentral/ Inferior Frontal G.	-48	-18	52	4	*7,85	1373	-42	12	28	9	*7,71	1868
	-44	10	28	9	*7,80		-46	2	24	9	*6,65	
	-52	-2	40	6	*7,28		-32	32	-20	47	*6,60	
L Medial Frontal/ Cingulate G.	-4	22	40	32	*7,11	958	-4	22	40	32	*7,45	1067
	0	4	64	6	*6,61		-2	10	48	6	*6,70	
	-2	8	48	6	*6,55		-6	22	68	6	6,36	
R Precentral G.	60	-6	32	6	6,31	390	46	-14	60	4/6	5,59	87
	64	-12	28	4	6,27		42	-20	64	6	4,18	
	44	-14	60	4	6,13		54	-12	52	4	3,78	
L Inferior Frontal G.	-32	32	-20	47	6,18	171					-	
	-32	34	-12	47	5,30							
	-38	22	-8	47	4,95							
R Inferior Frontal G.	36	24	-8	47	4,84	23	36	26	-8	47	5,58	140
							40	20	-28	38	4,45	
							34	30	-20	47	4,30	
R Precentral G.				-			66	-12	28	4/6	5,43	122
							60	-6	40	6	4,59	
							66	-6	12	6	3,75	
L Inferior Frontal G.	-54	12	-12	44	4,84	17	-52	16	-12	44	4,49	21
L Medial Frontal G.	-6	50	44	8	4,71	17						
L Paracentral Lobe				-			-6	-44	72	4	4,72	103
							-2	-36	72	4	3,73	
L Medial Frontal G. (orbital)	-4	58	-16	11	4,47	7	4	64	-8	10?	4,86	42
							-8	62	-12	11	4,07	
							18	62	-12	11	3,79	
<i>Occipital/Parietal/Temporal Lobes:</i>												
B Inferior Occipital/ Lingual G.	30	-86	-8	18	*13,72	17142	-2	-88	0	17	*10,47	15035
	-6	-90	32	19	*11,85		32	-84	-4	18	*10,36	
	20	-94	-12	18	*11,51		2	-88	8	18/19	*9,86	
R Superior Parietal Lobule						-	28	-64	44	7	5,73	226
R Superior Temporal G.	68	-14	0	22	4,99	36						
	64	-24	4	22	4,55							
Temporal Pole/ R Superior Temporal G.	40	20	-28	38	4,78	10						-
R Superior Parietal/ Postcentral G.	44	-36	60	40	4,52	34	44	-36	60	40	4,09	13
	42	-46	60	40	3,87							
R Insula	34	-30	20	13	4,32	10						
R Superior Temporal G.	62	6	-8	38	4,01	17						
<i>Subcortical:</i>												
R Basalganglia (Putamen)	26	6	0	NA	4,73	29						
R Basalganglia (Caudate)	20	26	4	NA	4,83	22	14	10	4	NA	3,85	17
							16	18	0		3,66	

BA = approximate Brodmann Area; \* = survives a statistical threshold of .05 (FWE-corrected); L = left hemisphere, R = right hemisphere, B = bilateral; size = number of voxels in a cluster