Supplementary Results

Results of the behavioral experiment. Significant perceptual priming was found in all three test conditions (OLD/NEW: 16.6 ± 2.6 % [SEM]; R/K/G: 14.4 ± 2.4%; and CONF: 14.3 ± 2.7%), with a higher percentage of studied than nonstudied items being correctly identified (OLD/NEW: $t_8 = 6.37$, $p < .05$; R/K/G: $t_8 = 6.01$, $p < .05$; CONF: $t_8 = 3.86$, $p < .05$). In the OLD/NEW condition, 37.7 ± 6.8 % of the studied items fell into the remembered (R) category, 33.7 ± 4.9 % into the primed (P) category, and 26.7 ± 4.3 % into the nonidentified (nonID) category. These percentages were very similar to those in the fMRI experiment (see Main Table 1), suggesting that participants in the behavioral experiment were representative of the fMRI sample. The distributions of response percentages in the R/K/G and CONF test conditions are shown in Supplementary Tables 3 and 4, respectively.

Planned t-tests showed that, for studied items, the percentage of primed (P) items in the R/K/G condition (see also Main Table 1) was not significantly different from the percentage of P items in the OLD/NEW condition ($t_8 < 0.01$, $p = .99$). When Know responses (representing items recognized on the basis of familiarity) were included in the P category (P + K), the resulting percentage was, by contrast, significantly higher than the percentage of P items in the OLD/NEW condition ($t_8 = 2.38$, $p < .05$), suggesting that the P category in the OLD/NEW condition (and by implication, the fMRI experiment) did not contain items recognizable on the basis of familiarity. Guess responses were ignored in this analysis, because they were given as frequently in response to nonstudied as in response to studied items ($t_8 < 0.83$, $p = .43$), and thus provided no evidence of memory for the study episode, as is typically found with these responses (for review, see Gardiner and Richardson-Klavehn, 2000).

In the CONF condition, for studied items, the estimated percentage of primed (P) items derived from cumulating responses C4-C6 (32.7 %; see also Main Table 1) was not significantly different from the actual percentage of P items (33.7 %) in the OLD/NEW condition ($t_8 = 0.32$, $p = .76$), suggesting that the percentage of P items in the OLD/NEW condition (and by implication, the fMRI experiment) is well estimated from judgments on the lower half of the confidence scale (i.e., the items believed nonstudied

according to the confidence ratings). The estimated percentage of P items derived from cumulating ratings C3-C6 (42.8 %) was, by contrast, significantly higher than the actual percentage of P items in the standard OLD/NEW condition (33.7 %; $t_8 = 2.39$, $p < .05$), suggesting that P items in the standard OLD/NEW condition (and by implication, the fMRI experiment) did not contain the C3 items, which were rated as tendentially studied.

Supplementary Tables

Supplementary Table 1. Reaction times for remembered (R), primed (P), and nonidentified (nonID) items during the combined perceptual identification/recognition test in the fMRI experiment. Numbers refer to mean (with SEM) reaction times in ms relative to stimulus onset (note that participants had to withhold their responses for 1000 ms). For studied words, the R and P categories correspond to recognition memory hits and misses, respectively. For nonstudied words, they correspond to recognition memory false alarms and correct rejections.

	R	P	NonID
Studied Words	1185 (49)	1273 (66)	1466 (54)
Nonstudied Words	1259 (56)	1233 (58)	1450 (57)

Supplementary Table 2. Regions of interest in the posterior parietal lobe, derived from the analysis of half of the encoding trials per subject ($p < .001$ uncorrected, cluster size ≥ 5 voxels).

	Anatomical Label	x y z	BA	T	Size
	R1 > P1				
L	**Inferior Parietal Lobe**	**-45 -48 45**	**40**	**4.00**	**109**
	Superior Parietal Lobe	-30 -57 51	7	3.74	
	Inferior Parietal Lobe	-39 -51 54	40	3.65	
R	**Superior Parietal Lobe**	**36 -66 51**	**7**	**3.91**	**100**
	Superior Parietal Lobe	30 -48 48	7	3.77	
	P1 > nonID1				
L	**Supramarginal Gyrus**	**-60 -54 36**	**40**	**6.15**	**570**
	Superior Temporal Gyrus	-45 -57 18	22	5.44	
	Middle Temporal Gyrus	-45 -75 33	39	5.34	
R	**Middle Temporal Gyrus**	**45 -66 33**	**39**	**5.34**	**404**
	Middle Temporal Gyrus	51 -60 30	39	5.18	
	Supramarginal Gyrus	63 -51 30	40	4.84	

L = left hemisphere

R = right hemisphere

B = bilateral

BA: approximate Brodmann area labeled according to the Talairach Demon

Size: cluster size in voxels (3 x 3 x 3 mm)

Supplementary Table 3. Data from the R/K/G condition in the behavioral experiment. Mean percentage (with SEM) of studied and nonstudied words that were correctly identified, judged old, and received a Recollect (R), Know (K) or Guess (G) response, correctly identified and judged nonstudied, and that were not correctly identified (nonID). For studied words, R, K, and G responses correspond to recognition memory hits, and P items correspond to recognition memory misses. For nonstudied words, R, K, and G responses correspond to recognition memory false alarms, and P items correspond to recognition memory correct rejections.

	R	K	G	Judged Nonstudied (P)	NonID
Studied Words	7.4 (2.0)	18.9 (5.2)	5.1 (1.8)	33.7 (3.7)	26.7 (4.3)
Nonstudied Words	0.4 (0.2)	5.7 (1.5)	4.1 (1.5)	40.6 (5.4)	46.1 (3.8)

Supplementary Table 4. Data from the CONF test condition in the behavioral experiment. Mean percentages (with SEM) of studied and nonstudied words that were correctly identified and received a confidence judgment of C1 (very sure studied) to C6 (very sure nonstudied), and that were not correctly identified (nonID).

	C1	C2	C3	C4	C5	C6	NonID
Studied Words	13.3 (4.4)	16.6 (3.7)	10.1 (2.1)	10.3 (1.9)	18.7 (2.5)	3.7 (1.3)	24.3 (4.6)
Nonstudied Words	0.4 (1.2)	5.2 (0.8)	4.6 (1.8)	10.9 (2.0)	28.3 (4.6)	9.4 (2.4)	37.2 (3.7)