

Supplementary Table S1.

Summary of linear mixed-effect regression for mean response times (RTs in ms) of the four reading-related decision tasks.

Predictor	<i>b</i>	<i>SE</i>	<i>t</i> -value
Intercept ¹	1037.34	19.57	52.70
Letter	-294.74	16.11	-18.30
Semcat	-169.17	14.01	-12.06
Ortho	-96.92	11.62	-8.34
Phono	-77.23	11.77	-6.56

Note. There was a significant main effect of *task*: $\chi^2(4) = 448.55, p < .001$; ¹Ctrl task served as intercept; *b* = beta estimate; *SE* = standard error.

Supplementary Table S2.

Summary of logistic mixed-effect regression for accuracy of the four reading-related decision tasks.

Predictor	<i>b</i>	<i>SE</i>	<i>z</i> -value	<i>p</i> -value
Intercept ¹	2.39	0.13	18.85	<.001
Letter	1.65	0.19	8.83	<.001
Semcat	1.27	0.13	9.62	<.001
Ortho	0.43	0.10	4.55	<.001
Phono	0.14	0.09	1.62	.105

Note. There was a significant main effect of *task*: $\chi^2(4) = 140.46, p < .001$; ¹Ctrl task served as intercept; *b* = beta estimate; *SE* = standard error.

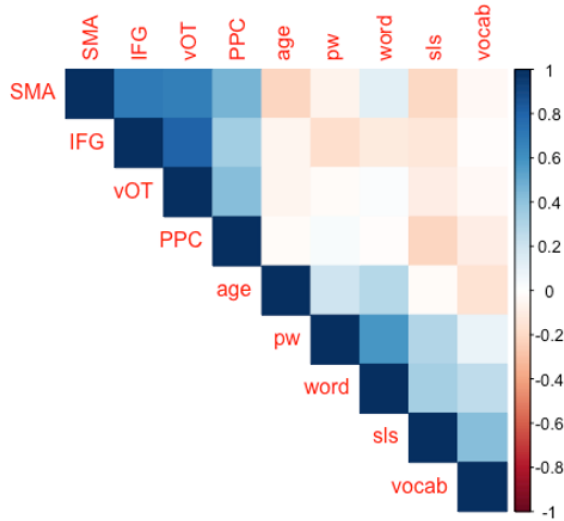
Supplementary Table S3.

Tukey corrected post-hoc t-tests to explore differences among regions of interest (ROI) and reading-related decision tasks.

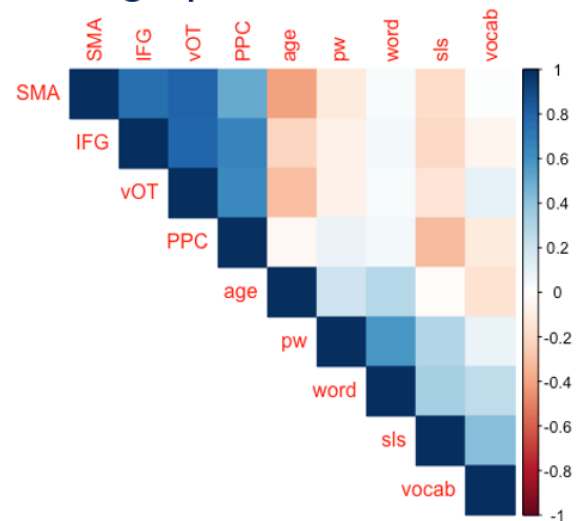
			<i>b</i>	<i>SE</i>	<i>t</i> -value	<i>p</i> -value
<i>Regions of interest (ROI)</i>						
PPC	vs.	IFG	-0.88	.10	-8.57	<.001
SMA	vs.	IFG	-0.81	.10	-7.95	<.001
vOT	vs.	IFG	-0.96	.10	-9.41	<.001
SMA	vs.	PPC	.06	.10	.62	.927
vOT	vs.	PPC	-0.09	.10	-0.84	.835
vOT	vs.	SMA	-0.15	.10	-1.46	.464
<i>Occipito-temporal gyrus (left hemisphere)</i>						
ORTHO	vs.	LETTER	-0.16	.15	-1.06	.715
PHONO	vs.	LETTER	-0.17	.15	-1.14	.667
SEMCAT	vs.	LETTER	-0.14	.15	-0.94	.782
PHONO	vs.	ORTHO	-0.01	.15	-0.08	1.00
SEMCAT	vs.	ORTHO	.02	.15	.12	.999
SEMCAT	vs.	PHONO	.03	.15	.20	.997
<i>Posterior parietal cortex (left hemisphere)</i>						
ORTHO	vs.	LETTER	-0.30	.22	-1.35	.535
PHONO	vs.	LETTER	-0.08	.22	-0.36	.984
SEMCAT	vs.	LETTER	-0.86	.22	-3.87	<.001
PHONO	vs.	ORTHO	.22	.22	.99	.775
SEMCAT	vs.	ORTHO	-0.56	.22	-2.53	.06
SEMCAT	vs.	PHONO	-0.78	.22	-3.52	<.01
<i>Inferior frontal gyrus (left hemisphere)</i>						
ORTHO	vs.	LETTER	.91	.21	4.40	<.001
PHONO	vs.	LETTER	1.23	.21	5.95	<.001
SEMCAT	vs.	LETTER	.83	.21	4.01	<.001
PHONO	vs.	ORTHO	.32	.21	1.55	.41
SEMCAT	vs.	ORTHO	-0.08	.21	-0.39	.98
SEMCAT	vs.	PHONO	-0.40	.21	-1.94	.22
<i>Supplementary motor area (bilateral)</i>						
ORTHO	vs.	LETTER	.37	.19	1.89	.234
PHONO	vs.	LETTER	.46	.19	2.36	.09
SEMCAT	vs.	LETTER	.14	.19	.70	.898
PHONO	vs.	ORTHO	.09	.19	.47	.967
SEMCAT	vs.	ORTHO	-0.23	.19	-1.20	.63
SEMCAT	vs.	PHONO	-0.32	.19	-1.66	.348

Note. Studentized residuals of beta values controlled for task performance were used to compute post-hoc comparisons. SMA = supplementary motor area; PPC = posterior parietal cortex; IFG = inferior frontal gyrus; vOT = ventral occipito-temporal cortex; *b* = beta estimate; *SE* = standard error.

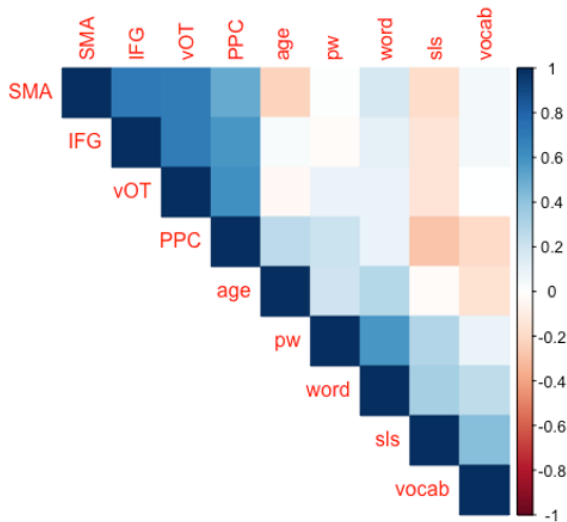
Letter Identification



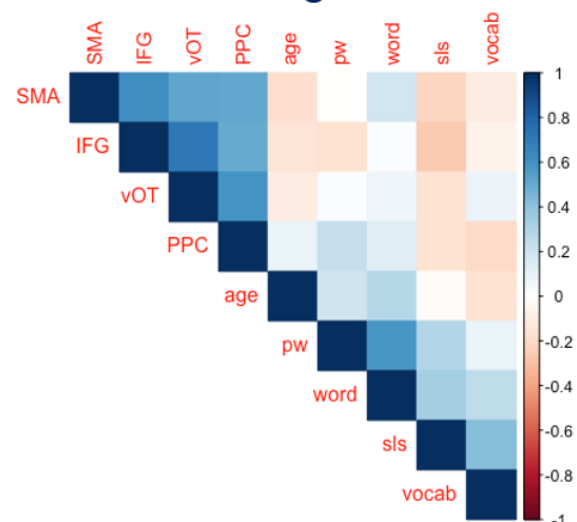
Orthographic Decision



Phonological Decision



Semantic Categorization



Supplementary Figure S1. Correlation of task-specific BOLD signal (controlled for in-scanner task performance), age (in year, month) and outside-scanner reading performance (studentized residuals). Holm-Bonferroni corrected significance testing of correlation coefficient did not yield significant effects between the four ROIs and age and outside-scanner reading performance, respectively (all p 's > .05). Note: SMA = supplementary motor area, IFG = inferior frontal gyrus, vOT = ventral occipito-temporal, PPC = posterior parietal cortex, pw = pseudoword reading (SLRT-II), word = single word reading (SLRT-II), sls = sentence reading (SLS), vocab = vocabulary (CFT).