Supplementary Material

Participants	Western Aphasia Battery-Revised						
	AQ (/100)	SS (/20)	AVC (/10)	Rep (/10)	N &WF (/10)	RIW (/10)	RNW (/10)
1	64.8	14	8	6.8	3.6	5	3
2	64.4	13	8	5.4	5.8	7	6
3	88.2	19	9.6	8.4	9.1	9	8
4	74.4	14	9.5	7.6	6.1	1	0
5	81.6	17	6.9	8.6	8.3	10	4
6	83	15	10	9	7.5	7	4
7	33.5	6	6.4	2.1	2.3	1	0
8	98.8	20	10	9.4	10	10	10
9	90.2	19	8.9	7.4	9.8	10	10
10	88.4	19	8.8	6.8	9.6	10	10
11	94.4	19	10	9.2	9	8	3
12	83	16	9.6	7	8.9	8	9
13	45	10	6.2	4.1	2.2	3	0
14	86.7	17	9.4	8.4	8.6	10	9
15	73.8	13	8.9	9	6	8	6
16	55	10	6.5	5.4	5.6	8	2
17	89.2	19	9.2	7.8	8.6	10	9
18	76.1	16	9.1	5	8	9	5
19	69.9	14	8.5	8.4	4.1	3	1
20	76.1	17	9.2	7.4	6.5	10	9
M (SD)	75.8 (16.7)	15.4 (3.7)	8.6 (1.2)	7.2 (1.9)	7.0 (2.5)	7.4 (3.1)	5.4 (3.7)
Mdn	78.9	16.0	9.0	7.5	7.8	8.0	5.5
Range	33.5-98.8	6-20	6.2-10	2.1-9.4	2.2-10	1-10	0-10

Note. AQ = aphasia quotient. SS = spontaneous speech. AVC = auditory verbal comprehension. Rep = Repetition. N & WF = naming and word finding. RIW = reading irregular words. RNW = reading nonwords.

Table S1. Summary of Western Aphasia Battery-Revised performance

Participants	Language measures			
	Boston Naming Test (/15)	Action fluency (time-limited open-ended/no maximum)	Letter fluency (time-limited open-ended/no maximum)	Repetition of multisyllabic words (/39)
1	1	9	7	28
2	7	6	11	14
3	13	9	19	27
4	2	9	8	19
5	10	5	13	37
6	8	15	28	29
7	0	3	7	0
8	14	18	39	39
9	14	12	32	32
10	12	12	39	34
11	10	16	31	34
12	13	8	18	27
13	0	1	2	4
14	7	8	24	32
15	2	4	10	39
16	5	5	2	22
17	1	10	43	30
18	12	5	11	39
19	1	6	4	22
20	8	12	14	24
M (*SD*)	7.0 (5.1)	8.7 (4.5)	18.1 (13.1)	26.6 (10.9)
Mdn	7.5	8.5	13.5	28.5
Range	0-14	1-18	2-43	0-39

Table S2. Summary of performance on other language measures

Types of phonologic errors	Examples of errors
Substitutions – use of one phoneme in place of another	e.g., /gaɪt/ for kite /kaɪt/
Omission – exclusion of a necessary phoneme	e.g., /bɝ/ for bird /bɝd/
Additions – inclusion of an unnecessary phoneme	e.g., /fænt/ for fan /fæn/
Transpositions – switching two phonemes	e.g., /trɛsʌl/ for trellis /trɛlʌs/

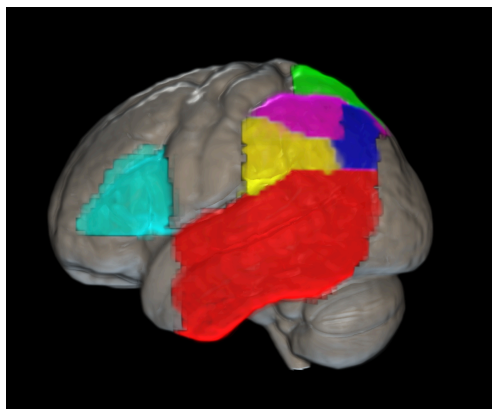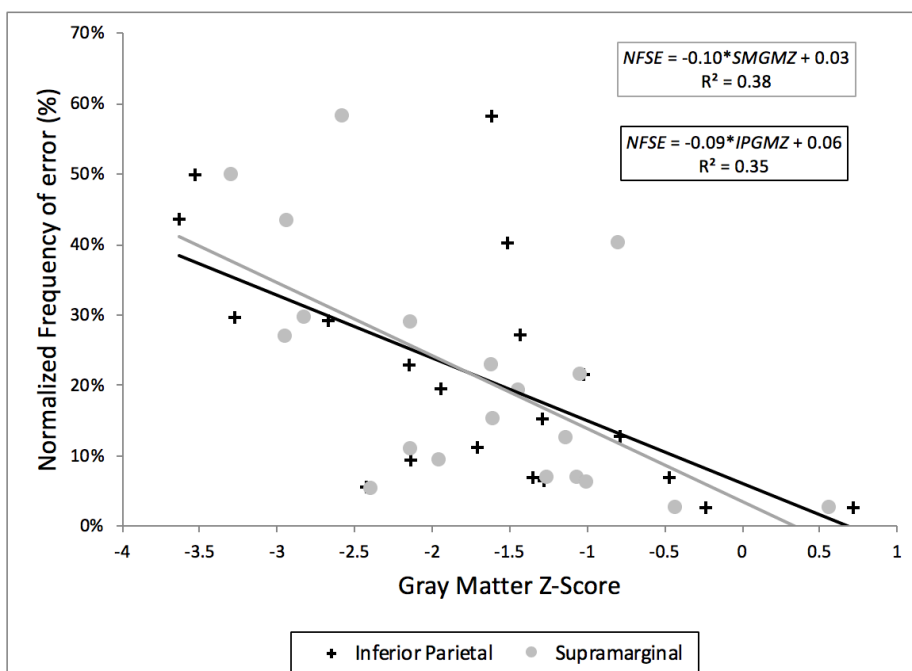Table S3. Types and examples of phonologic errors

Figure S1. Three dimensional brain rendering of the left hemisphere showing the regions-of-interest (ROIs) used in the study. The lateral temporal ROI is shown in red, superior parietal in green, inferior parietal in violet, supramarginal gyrus in yellow, angular gyrus in blue, and inferior frontal in cyan

Note. NFSE = Normalized frequency of substitution errors. IPGMZ = inferior parietal gray matter z-score. SMGMZ = supramarginal gray matter z-score.

Figure S2. Relationship between normalized frequencies of substitution errors and inferior parietal and supramarginal gyrus gray matter volumes