

Summary: Three tables.

Supplementary Table 1: *Lesion and clinical information for bilingual persons with aphasia.*

BPWA	Age	Sex	MPO	L1	Lesion information	L1 BNT	L1 WAB AQ	L1 WAB Repetition	L1 Aphasia subtype	L2 BNT	L2 WAB AQ	L2 WAB Repetition	L2 Aphasia subtype
P1	82	M	411	Spanish	Right posterior parieto-occipital infarct	13%	55.7	48	Anomic	2%	29.6	18	Broca
P2	54	F	52	Spanish	Left borderzone infarcts between the ACA and MCA	37%	74.1	84	Anomic	38%	68.5	77	Broca
P3	58	M	56	Spanish	Left MCA CVA	0%	4.7	0	Global	0%	5.5	0	Global
P4	28	F	59	Spanish	Multiple CVAs secondary to Moyamoya disease	40%	81.3	78	Broca	66%	93.4	90	Anomic
P5	44	M	20	Spanish	Left MCA CVA	47%	84.5	84	Anomic	78%	89.8	94	Anomic
P6	24	F	6	Spanish	Left CVA	2%	27.3	12	Broca	28%	37.3	24	Broca
P7	26	F	130	Spanish	Left tumor in posterior centrum semiovale	35%	77.5	80	Anomic	42%	67.6	72	Wernicke
P8	47	F	53	Spanish	Left MCA temporoparietal infarct	63%	79.1	52	n/a	13%	54.4	27	n/a
P9	53	M	38	Spanish	Left CVA	22%	51.3	25	Wernicke	7%	47.5	22	Wernicke
P10	77	M	27	Spanish	Left MCA CVA involving precentral gyrus	52%	67.4	57	Broca	50%	64.7	37	Broca
P11	78	F	31	Spanish	Left MCA hemorrhage	45%	78.9	77	Anomic	40%	76.8	52	Conduction

P12	70	M	6	Spanish	Left frontal lobe CVA	37%	57.3	61	Conduction	8%	39.8	56	Broca
P13	27	F	49	Spanish	Left CVA	23%	72.3	80	Anomic	15%	66.4	73	Broca
P14	53	F	44	English	Left MCA and PCA CVAs	90%	90	78	Anomic	40%	68.8	62	Conduction
P15	69	M	10	Spanish	Left CVA	10%	35.9	10	Wernicke	18%	46.5	15	Conduction
P16	55	F	41	English	Left CVA	90%	96.5	98	Anomic	13%	60.8	70	Broca
P17	62	M	24	Spanish	Left MCA CVA	0%	9.5	0	Broca	0%	10.8	3	Broca
P18	47	F	13	Spanish	Left anterior MCA infarct	53%	82.4	75	Anomic	38%	71.2	63	Conduction
P19	56	M	52	Spanish	Left CVA	32%	81.2	76	Anomic	80%	91	91	Anomic
P20	39	M	40	Spanish	Left CVA	7%	21	19	Broca	5%	39.5	27	Broca
P21	42	M	23	English	Left CVA	68%	94.6	88	Anomic	17%	57.8	77	Broca
P22	62	M	53	Spanish	Left CVA	38%	78.6	75	Anomic	83%	85.2	79	Anomic
P23	21	F	23	Spanish	Left CVA, right occipital and right cerebellar infarcts	7%	34.4	25	Wernicke	32%	53.3	46	Broca
P24	63	M	385	English	Left CVA	37%	47.7	35	Broca	2%	15.4	2	Broca
P25	66	F	11	Spanish	Left CVA, Hx of right CVA	72%	83.2	68	Conduction	33%	64.2	55	Conduction
P26	55	M	47	English	Left MCA CVA	85%	97.6	96	Anomic	55%	92.6	80	Anomic
P27	67	F	8	Spanish	Left MCA CVA	0%	21.7	12	Global	0%	23.9	35	Global
P28	50	F	32	Spanish	Left temporo-parietal CVA	53%	92.6	100		33%	69.8	52	n/a
P29	53	M	7	Spanish	Left CVA	5%	41.4	44	Broca	23%	40.1	32	Broca
P30	58	M	9	Spanish	Left fronto-parietal hemorrhage/Left basal ganglia ICH	0%	14.7	11	Broca	0%	7.8	2	Global
P31	38	F	7	Spanish	Left CVA	43%	68.3	90	Anomic	62%	82.6	98	Anomic

P32	59	M	30	Spanish	Left MCA hemorrhage	0%	21.7	6	Broca	25%	50.9	26	n/a
P33	32	M	10	Spanish	Left basal ganglia ICH	52%	76.1	80	Anomic	2%	20.5	34	Global
P34	57	F	70	Spanish	Left frontal lobe and basal ganglia hemorrhage	15%	60.5	70	Anomic	80%	89.6	95	Anomic
P35	62	M	10	Spanish	Left MCA CVA	70%	85.4	84	Anomic	37%	61.7	53	Wernicke
P36	59	M	9	Spanish	Left CVA	0%	15.8	0	Broca	0%	10.6	2	Broca
P37	18	M	14	Spanish	Left frontal lobe CVA	2%	27	16	Broca	35%	72.6	56	Conduction
P38	73	F	64	Spanish	Left CVA	60%	92.4	90	n/a	78%	93.8	84	n/a
P39	57	M	7	Spanish	Left CVA	0%	19.6	30	Broca	0%	14.7	8	Broca
P40	37	F	21	Spanish	Left MCA CVA	60%	90.2	96	n/a	47%	84	85	n/a
Mean (SD)	51.94 (16.28)		50.05 (84.59)			35% (28%)	59.78 (29.02)	55.25 (33.33)		30% (27%)	55.52 (27.05)	49.35 (30.66)	

Note: Aphasia subtypes are based on WAB-R diagnostic classification (Kertesz, 2007). Bilingual persons with aphasia showed comparable L1 and L2 WAB-R AQ scores ($p = .568$).

L1 = first-acquired language; L2 = second-acquired language; BPWA = bilingual persons with aphasia; MPO = months post-onset; ACA = anterior cerebral artery; MCA = middle cerebral artery; CVA = cerebrovascular accident; ICH = intracerebral hemorrhage; WAB = Western Aphasia Battery; AQ = Aphasia Quotient; SD = standard deviation; n/a = no data available.

Supplementary Table 2: Selected cognate and noncognate items from the Boston Naming Test.

Cognates			Noncognates		
<i>Item Number</i>	<i>English name</i>	<i>Spanish Translation</i>	<i>Item Number</i>	<i>English name</i>	<i>Spanish translation</i>
8	flower	flor	7	comb	peine
11	helicopter	helicóptero	12	broom	escoba
17	camel	camello	13	octopus	pulpo
18	mask	máscara	14	mushroom	hongo
21	racquet	raqueta	15	hanger	percha
23	volcano	volcán	16	wheelchair	silla de ruedas
25	dart	dardo	22	snail	caracol
26	canoe	canoa	24	seahorse	caballo de mar
30	harmonica	armónica	28	wreath	corona
31	rhinoceros	rinoceronte	29	beaver	castor
33	igloo	iglú	32	acorn	bellota
35	dominoes	dominó	34	stilts	zancos
38	harp	arpa	40	knocker	aldaba
39	hammock	hamaca	44	muzzle	bozal
43	pyramid	pirámide	46	funnel	embudo
45	unicorn	unicornio	48	noose	soga
47	accordion	acordeón	51	latch	pestillo
49	asparagus	espárrago	53	scroll	rollo de papel
50	compass	compás	54	tongs	tenacillas
52	tripod	trípode	56	yoke	yugo
55	sphinx	esfinge	57	trellis	espaldera
60	abacus	ábaco	59	protractor	transportador

Supplementary Table 3. *Predictors of L1 and L2 naming accuracy in healthy bilinguals in the Boston Naming Test.*

	Beta	SE	z-value	Pr (> z)
HB L1 Model				
Intercept	1.966	.417	4.713	< .001***
Phoneme/Grapheme Overlap	1.356	.272	4.987	< .001***
L2 Background/Confidence	-.750	.311	-2.411	.015*
L2 Ability/Use/Exposure	.422	.312	1.354	.175
Phoneme/Grapheme Overlap × L2 Ability/Use/Exposure	.397	.090	4.372	< .001***
L2 Background/Confidence × L2 Ability/Use/Exposure	-.782	.370	-2.112	.034*
HB L2 Model				
Intercept	1.390	.358	3.881	< .001***
Phoneme/Grapheme Overlap	.762	.225	3.380	< .001***
Lexical Frequency¹	1.047	.230	4.545	< .001***
L2 Background/Confidence	.825	.288	2.863	.004**

L2 Ability/Use/Exposure	.868	.286	3.037	.002**
--------------------------------	-------------	-------------	--------------	---------------

Parameter estimates, standard errors, z-values, and p-values of fixed-effect terms in the statistical models of L1 and L2 naming accuracy for healthy bilinguals. All statistically significant results are marked in bold. *p*-values were estimated using the ‘lmerTest’ package in R (Kuznetsova et al., 2017). **p* < .05; ***p* < .01; ****p* < .001.

L1 = first-acquired language; L2 = second-acquired language; HB = healthy bilingual; SE = standard error. ¹ Log-transformed.