

Supplementary material 1: Statistical model outputs

Full binomial generalised linear mixed-effects model output: Comprehension

	Estimate	Standard error	z-value	p-value
Intercept	3.74	0.41	9.03	<.001
Group	0.15	0.29	0.53	.60
Number	-1.25	0.36	-3.51	<.001
Allomorph	-0.35	0.13	-2.70	.007
Group x Number	0.25	0.19	1.29	.20
Group x Allomorph	-0.04	0.13	-0.33	.78
Number x Allomorph	-0.63	0.13	-4.83	<.001
Group x Number x Allomorph	-0.40	0.13	-3.05	.002

Full binomial generalised linear mixed-effects model output: Production

	Estimate	Standard error	z-value	p-value
Intercept	1.99	0.16	12.24	<.001
Group	0.09	0.16	0.55	.58
Number	-0.06	0.09	-0.71	.48
Allomorph (segmental vs. syllabic)	0.22	0.07	3.33	<.001
Allomorph (/s/ vs. /z/)	0.25	0.10	2.51	.01
Group x Number	0.09	0.09	0.98	.33
Group x Allomorph (segmental vs. syllabic)	0.08	0.07	1.20	.23
Group x Allomorph (/s/ vs. /z/)	-0.04	0.10	-0.39	.70
Number x Allomorph (segmental vs. syllabic)	0.26	0.07	3.93	<.001
Number x Allomorph (/s/ vs. /z/)	-0.38	0.10	-3.85	<.001
Group x Number x Allomorph (segmental vs. syllabic)	-0.01	0.07	-0.08	.93
Group x Number x Allomorph (/s/ vs. /z/)	-0.08	0.10	-0.85	.39

Supplementary material 2: Unilateral vs. bilateral comparison

To determine whether the performance of participants with unilateral ($n = 12$) and bilateral ($n = 18$) hearing loss differed, a second binomial generalised linear mixed-effects model was then used to compare comprehension in these two sub-groups of deaf and hard-of-hearing children. The model found a significant Number x Allomorph interaction ($B = -1.00$, $SE = 0.22$, $p < .001$) similar to the main analysis, but no group differences.

Full binomial generalised linear mixed-effects model output: Comprehension, DHH only

	Estimate	Standard error	z-value	p-value
Intercept	3.65	0.46	7.92	<.001
Laterality	0.16	0.37	0.44	.66
Number	-0.52	0.38	-1.38	.17
Allomorph	-0.41	0.22	-1.84	.07
Laterality x Number	0.41	0.24	1.72	.09
Laterality x Allomorph	0.22	0.22	0.99	.32
Number x Allomorph	-1.00	0.22	-4.51	<.001
Laterality x Number x Allomorph	-0.05	0.22	-0.23	.82

No comparable analysis for production data is provided as the smaller number of participants and greater number of model comparisons resulted in model convergence issues.