

**Supplemental Material S34.** Pairwise comparisons of pitch slope of trisyllabic tone sandhi compounds (Syllables 1 and 2) between groups (NH = 3, CI\_Imp 1-2, CI\_Imp 2-3, CI\_Imp 3-4, and CI\_Imp 4-5) for each sandhi context (double-T3 and triple-T3).

Context	Group difference	Syllable	Parameter	$\beta$	SE	df	$t$	$p$
Double-T3	NH = 3 – CI_Imp 1-2	Syllable 1	Slope	2.11	0.78	188	2.72	< .05*
		Syllable 2	Slope	–8.87	1.23	195	–7.18	< .001***
			Curvature	0.34	0.74	850	0.45	.991
	NH = 3 – CI_Imp 2-3	Syllable 1	Slope	4.39	0.49	175	9.01	< .001***
		Syllable 2	Slope	–8.48	0.77	179	–11.04	< .001***
			Curvature	0.19	0.45	738	0.43	.993
	NH = 3 – CI_Imp 3-4	Syllable 1	Slope	4.57	0.58	177	7.94	< .001***
		Syllable 2	Slope	–7.9	0.91	181	–8.69	< .001***
			Curvature	0.35	0.54	756	0.66	.965
	NH = 3 – CI_Imp 4-5	Syllable 1	Slope	3.7	0.68	172	5.48	< .001***
		Syllable 2	Slope	–9.35	1.06	175	–8.78	< .001***
			Curvature	–0.78	0.62	706	–1.26	.715
	CI_Imp 1-2 – CI_Imp 2-3	Syllable 1	Slope	2.27	0.88	185	2.59	< .05*
		Syllable 2	Slope	0.38	1.39	191	0.27	.999
			Curvature	–0.14	0.84	827	–0.17	1.000
	CI_Imp 1-2 – CI_Imp 3-4	Syllable 1	Slope	2.46	0.93	185	2.64	< .05*
		Syllable 2	Slope	0.97	1.47	191	0.66	.965
			Curvature	0.02	0.88	824	0.02	1.000
	CI_Imp 1-2 – CI_Imp 4-5	Syllable 1	Slope	1.59	1	182	1.6	.502
		Syllable 2	Slope	–0.48	1.58	187	–0.31	.998
			Curvature	–1.12	0.94	791	–1.19	.756
	CI_Imp 2-3 – CI_Imp 3-4	Syllable 1	Slope	0.19	0.71	176	0.26	.999
		Syllable 2	Slope	0.59	1.11	180	0.53	.985
			Curvature	0.16	0.66	752	0.25	.999
	CI_Imp 2-3 – CI_Imp 4-5	Syllable 1	Slope	–0.68	0.79	173	–0.87	.909
		Syllable 2	Slope	–0.86	1.24	176	–0.69	.958
			Curvature	–0.97	0.73	716	–1.34	.664
	CI_Imp 3-4 – CI_Imp 4-5	Syllable 1	Slope	–0.87	0.85	174	–1.03	.843
		Syllable 2	Slope	–1.45	1.34	178	–1.09	.814
			Curvature	–1.14	0.78	727	–1.45	.594
Triple-T3	NH = 3 – CI_Imp 1-2	Syllable 1	Slope	2.58	0.91	360	2.82	< .05*
		Syllable 2	Slope	1.94	1.52	447	1.28	.705
			Curvature	–2.75	1.16	3104	–2.36	< .05*
	NH = 3 – CI_Imp 2-3	Syllable 1	Slope	4.24	0.59	379	7.16	< .001***
		Syllable 2	Slope	–0.44	0.99	471	–0.45	.992

		Curvature	1.40	0.76	3183	1.84	.353
NH = 3 – CI_Imp 3-4	Syllable 1	Slope	<b>3.91</b>	<b>0.69</b>	<b>360</b>	<b>5.68</b>	<b>&lt; .001***</b>
	Syllable 2	Slope	0.6	1.14	447	0.53	.985
		Curvature	1.68	0.88	3106	1.91	.310
NH = 3 – CI_Imp 4-5	Syllable 1	Slope	<b>3.2</b>	<b>0.81</b>	<b>360</b>	<b>3.93</b>	<b>&lt; .001***</b>
	Syllable 2	Slope	0.4	1.35	447	0.3	.998
		Curvature	1.33	1.04	3105	1.28	.704
CI_Imp 1-2 – CI_Imp 2-3	Syllable 1	Slope	1.66	1.04	365	1.6	.5
	Syllable 2	Slope	–2.38	1.73	453	–1.38	.643
		Curvature	<b>4.15</b>	<b>1.33</b>	<b>3127</b>	<b>3.12</b>	<b>&lt; .05*</b>
CI_Imp 1-2 – CI_Imp 3-4	Syllable 1	Slope	1.33	1.1	360	1.21	.743
	Syllable 2	Slope	–1.34	1.82	446	–0.74	.948
		Curvature	<b>4.43</b>	<b>1.40</b>	<b>3102</b>	<b>3.17</b>	<b>&lt; .05*</b>
CI_Imp 1-2 – CI_Imp 4-5	Syllable 1	Slope	0.62	1.18	360	0.53	.985
	Syllable 2	Slope	–1.54	1.96	446	–0.79	.934
		Curvature	<b>4.07</b>	<b>1.50</b>	<b>3102</b>	<b>2.71</b>	<b>&lt; .05*</b>
CI_Imp 2-3 – CI_Imp 3-4	Syllable 1	Slope	–0.33	0.85	368	–0.39	.995
	Syllable 2	Slope	1.04	1.41	457	0.74	.948
		Curvature	0.28	1.09	3139	0.26	.999
CI_Imp 2-3 – CI_Imp 4-5	Syllable 1	Slope	–1.04	0.95	366	–1.09	.81
	Syllable 2	Slope	0.84	1.58	455	0.53	.984
		Curvature	–0.07	1.22	3131	–0.06	1.000
CI_Imp 3-4 – CI_Imp 4-5	Syllable 1	Slope	–0.71	1.02	360	–0.7	.956
	Syllable 2	Slope	–0.2	1.69	446	–0.12	1.000
		Curvature	–0.35	1.29	3102	–0.27	.999

*Note.* NH = normal hearing; CI = cochlear implant.