

Appendix: Acoustic analyses of the partwords

Below are the syllable duration, speech rate, vowel space area, and spectral distance results of the partwords.

Table A.1 Mean syllable durations (in milliseconds) subdivided by syllabic position and averaged across the positions, speech rates (syllables per second), vowel space areas (VSA, Hz²), and mean spectral distances for the partwords produced clearly and conversationally, along with the clear-to-conversational ratio (CL/CO) of each measure.

	Clear	Conversational	CL/CO	
Duration	1 st syllable	166	120	1.38
	2 nd syllable	187	129	1.45
	3 rd syllable	295	266	1.11
	Average	216	172	1.26
Speech rate	4.63	5.82	0.80	
VSA	339,773	201,731	1.68	
Spectral distance	7.25	6.00	1.21	

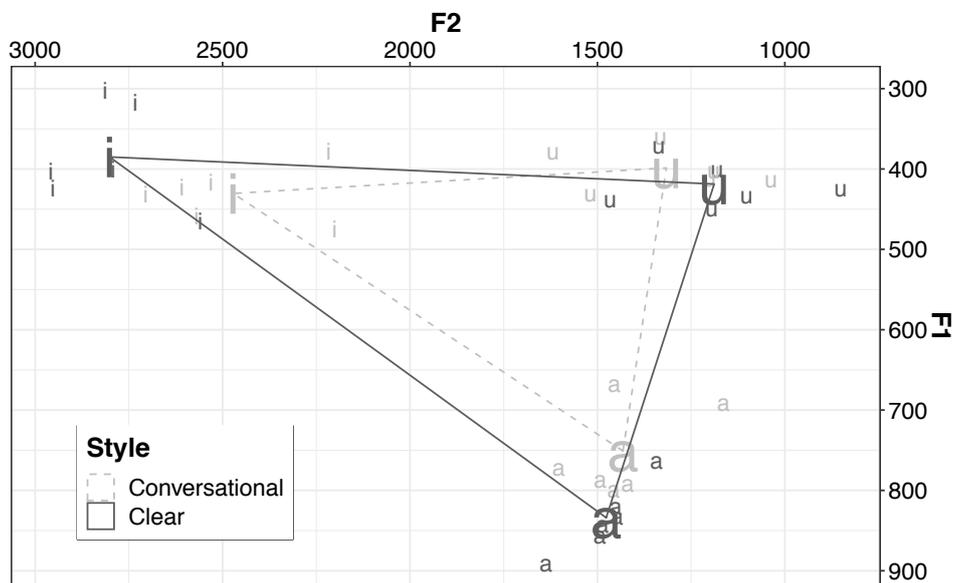


Figure A.1. Vowel space areas formed by the mean mid-point F1 and F2 values (larger labels) of /a, i, u/ in the partwords for clear (dark gray) and conversational (light gray) speaking styles, along with F1 and F2 values of individual vowels (smaller labels).