

Appendix 3. Results of mixed-effects modeling, standard deviations of F1 (normalized)

The dependent variable in this model was the standard deviation of normalized F1 values; fixed factors were vowel type and label (SpeakerQ vs. PrescriptiveQ). Random intercepts were fit for each speaker. Because speakers judged different numbers of words to have high- vs. low-mid vowels, the total *N* for which standard deviations were calculated varied across each vowel type, label, and speaker combination.

Table A3.1 *Model of normalized standard deviations of F1. The default level of Vowel is [e], and the default level of Type is [SpeakerQ].*

Fixed factor	β Estimate	Std. Error	<i>t</i>	<i>p</i>
Intercept	0.32734	0.03075	10.645	< 0.001
Vowel[ε]	0.09561	0.02951	3.240	< 0.005
Vowel[o]	0.06408	0.02951	2.171	< 0.05
Vowel[ɔ]	0.07619	0.02951	2.582	< 0.05
Type[PrescriptiveQ]	0.07679	0.02087	3.680	< 0.001