

Appendix B: Mixed models

Table 1: Tables of estimates for mixed model on VOT in unaspirated stops with a positive VOT.

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	13.333	1.339	4.906	9.956	< 0.001*
RegisterLow	-1.074	1.343	2.035	-0.799	0.507
Placevelar	8.906	1.303	1.782	6.833	0.028*
Vowelu	-1.377	1.376	1.814	-1.001	0.431
Vowela	0.255	1.370	1.725	0.186	0.872
Vowele	-4.436	1.500	1.668	-2.957	0.121
Voweli	0.085	1.499	1.665	0.057	0.961
RegisterLow:Placevelar	5.011	1.349	2.079	3.715	0.062
RegisterLow:Vowelu	3.810	1.653	2.090	2.306	0.142
RegisterLow:Vowela	0.179	1.646	2.034	0.109	0.923
RegisterLow:Voweli	3.227	2.160	2.174	1.494	0.264
Placevelar:Vowelu	2.158	1.642	1.992	1.315	0.320
Placevelar:Vowela	-2.547	1.637	1.947	-1.556	0.263
Placevelar:Voweli	-2.135	2.034	1.703	-1.049	0.420

Table 2: Table of estimates for mixed model on closure duration in unaspirated stops with a positive VOT. (Vowel not included as it causes overfitting in Voicers)

Voicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	74.426	9.245	15.514	8.050	< 0.001*
RegisterLow	-4.081	12.984	14.458	-0.314	0.758
Placevelar	18.330	10.351	10.004	1.771	0.107
RegisterLow:Placevelar	-38.196	17.938	15.790	-2.129	0.049*

Devoicers:

	Estimate	SE	Df	t value	Pr(> t)
(Intercept)	91.433	9.332	20.698	9.798	< 0.001*
RegisterLow	-5.790	12.485	12.519	-0.464	0.651
Placevelar	20.942	10.898	12.399	1.922	0.078
RegisterLow:Placevelar	-40.684	16.676	12.423	-2.440	0.031*

Table 3: Table of estimates for mixed model on vowel duration in unaspirated stops.

Voicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	253.634	23.590	3.933	10.752	< 0.001*
RegisterLow	75.364	24.641	1.953	3.059	0.095
Placevelar	-51.835	24.681	1.966	-2.100	0.173
Vowelu	-16.437	26.124	1.950	-0.629	0.595

Vowela	5.766	26.190	1.970	0.220	0.846
Vowele	49.727	29.137	2.020	1.707	0.229
Voweli	-3.286	28.956	1.970	-0.113	0.920
RegisterLow:Placevelar	3.213	24.734	1.983	0.130	0.909
RegisterLow:Vowelu	-42.786	30.250	1.972	-1.414	0.294
RegisterLow:Vowela	-7.929	30.278	1.979	-0.262	0.818
RegisterLow:Voweli	-34.691	39.183	1.999	-0.885	0.469
Placevelar:Vowelu	81.938	30.250	1.972	2.709	0.115
Placevelar:Vowela	59.898	30.276	1.979	1.978	0.188
Placevelar:Voweli	68.564	39.100	1.982	1.754	0.223

Devoicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	276.956	39.671	2.492	6.981	0.011*
RegisterLow	20.183	48.355	2.175	0.417	0.714
Placevelar	-71.880	48.351	2.175	-1.487	0.266
Vowelu	-31.277	48.169	2.428	-0.649	0.572
Vowela	-10.841	51.461	2.163	-0.211	0.851
Vowele	28.568	56.857	2.165	0.502	0.662
Voweli	-34.239	56.862	2.166	-0.602	0.604
RegisterLow:Placevelar	43.472	47.852	2.213	0.908	0.451
RegisterLow:Vowelu	-78.663	58.191	2.240	-1.352	0.297
RegisterLow:Vowela	-12.632	59.426	2.163	-0.213	0.850
RegisterLow:Voweli	-54.911	76.620	2.169	-0.717	0.543
Placevelar:Vowelu	107.973	58.190	2.240	1.856	0.191
Placevelar:Vowela	66.600	59.426	2.163	1.121	0.371
Placevelar:Voweli	85.109	76.617	2.168	1.111	0.375

Table 4: Table of estimates for mixed model on normalized f0 at first sampling point after unaspirated stops.

Voicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	128.514	6.450	8.278	19.924	< 0.001*
RegisterLow	2.329	8.703	6.960	0.268	0.797
Vowele	29.495	10.700	7.067	2.757	0.028*
Vowela	15.722	8.723	7.023	1.802	0.114
Voweli	38.262	8.730	7.047	4.383	0.003*
Vowelu	24.449	8.716	7.002	2.805	0.026*
RegisterLow:Vowela	-10.719	12.327	7.003	-0.870	0.413
RegisterLow:Voweli	-43.765	13.868	7.178	-3.156	0.016*
RegisterLow:Vowelu	-18.797	12.332	7.013	-1.524	0.171

Devoicers:

Estimate	SE	df	t value	Pr(> t)
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(Intercept)	211.440	11.375	14.682	18.588	<0.001*
Vowelex	43.823	23.745	11.334	1.846	0.091
Vowela	26.605	15.008	11.304	1.773	0.103
Voweli	48.484	16.215	11.318	2.990	0.012*
Vowelu	19.685	14.729	11.890	1.336	0.206

Table 5: Table of estimates for mixed model on normalized f0 at first sampling point after sonorants.

Voicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	144.611	6.267	21.151	23.076	<0.001*
RegisterLow	-42.964	10.309	17.804	-4.168	0.001*
RegisterNeutral	-12.813	7.689	17.858	-1.666	0.113
Vowelex	5.885	8.426	17.881	0.698	0.494
Vowela	-4.426	7.691	17.875	-0.575	0.572
Voweli	9.009	7.691	17.876	1.171	0.257
Vowelu	14.374	10.382	18.317	1.384	0.183
RegisterNeutral:Vowelex	4.282	10.877	17.877	0.394	0.698
RegisterLow:Vowela	39.229	12.393	17.825	3.165	0.005*
RegisterNeutral:Vowela	16.221	10.026	17.858	1.618	0.123
RegisterLow:Voweli	45.210	12.862	17.830	3.515	0.003*
RegisterNeutral:Voweli	11.929	12.394	17.832	0.962	0.349
RegisterNeutral:Vowelu	-0.836	12.461	18.219	-0.067	0.947

Devoicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	244.255	20.350	12.897	12.002	<0.001*
RegisterLow	-6.523	44.678	11.995	-0.146	0.886
RegisterNeutral	34.650	40.791	12.002	0.849	0.412
Vowelex	-2.388	28.280	12.034	-0.084	0.934
Vowela	-53.634	28.280	12.034	-1.897	0.082
Voweli	-76.718	50.301	12.012	-1.525	0.153
Vowelu	18.488	28.251	11.986	0.654	0.525
Placecoronal	-10.604	28.275	12.026	-0.375	0.714
RegisterLow:Vowelex	5.392	55.853	14.946	0.097	0.924
RegisterNeutral:Vowelex	1.643	32.626	11.991	0.050	0.961
RegisterLow:Vowela	49.314	34.604	11.991	1.425	0.180
RegisterNeutral:Vowela	15.378	29.410	11.994	0.523	0.611
RegisterLow:Voweli	81.429	36.483	12.000	2.232	0.045*
RegisterNeutral:Voweli	40.251	32.626	11.992	1.234	0.241
RegisterNeutral:Vowelu	-1.622	32.625	11.990	-0.050	0.961
RegisterLow:Placecor	-68.322	34.610	11.999	-1.974	0.072
RegisterNeutral:Placecor	-54.452	33.640	12.006	-1.619	0.131

Vowels:Placecoronal	9.780	39.975	12.012	0.245	0.811
Vowels:Placecoronal	58.860	37.396	12.016	1.574	0.141
Vowels:Placecoronal	89.569	52.880	12.010	1.694	0.116

Table 6: Table of estimates for mixed model on normalized H1*-H2* at first sampling point after unaspirated stops.

Voicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	1.842	0.912	7.435	2.020	0.081
RegisterLow	3.251	0.765	2.813	4.248	0.027*
Vowels	0.222	1.028	2.996	0.216	0.843
Vowels	-0.126	0.949	2.961	-0.133	0.903
Vowels	4.234	1.037	3.095	4.084	0.025*
Vowels	3.526	0.950	2.968	3.712	0.035*
Placecoronal	0.232	0.765	2.813	0.303	0.783
RegisterLow:Vowels	-0.148	1.089	2.887	-0.136	0.901
RegisterLow:Vowels	-0.480	1.373	3.242	-0.350	0.748
RegisterLow:Vowels	2.169	1.091	2.906	1.987	0.144
Vowels:Placecoronal	-0.266	1.089	2.887	-0.244	0.823
Vowels:Placecoronal	-3.248	1.346	2.995	-2.412	0.095
Vowels:Placecoronal	-4.728	1.091	2.906	-4.333	0.024*

Devoicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	3.439	1.526	8.375	2.254	0.053
RegisterLow	9.580	1.860	6.106	5.151	0.002*
Vowels	0.771	2.336	6.156	0.330	0.752
Vowels	0.374	1.858	6.080	0.202	0.847
Vowels	4.965	1.859	6.099	2.671	0.036*
Vowels	4.639	1.839	6.341	2.523	0.043*
Placecoronal	-2.514	0.992	6.195	-2.535	0.043*
RegisterLow:Vowels	-1.619	2.630	6.103	-0.616	0.560
RegisterLow:Vowels	-10.465	2.989	6.165	-3.501	0.012*
RegisterLow:Vowels	-6.982	2.619	6.260	-2.665	0.036*

Table 7: Table of estimates for mixed model on normalized H1*-H2* at first sampling point after sonorants.

Voicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	2.471	1.643	14.993	1.504	0.153
RegisterLow	-0.443	2.287	14.097	-0.194	0.849
RegisterNeutral	2.240	1.868	14.138	1.199	0.250
Vowels	-1.563	2.287	14.097	-0.683	0.505

Vowela	-2.617	2.000	14.550	-1.308	0.211
Voweli	1.500	2.951	14.088	0.508	0.619
Vowelu	2.905	2.298	14.375	1.264	0.226
Placecoronal	-2.856	2.287	14.097	-1.249	0.232
RegisterNeutral:Vowele	0.838	2.642	14.138	0.317	0.756
RegisterLow:Vowela	0.882	2.641	14.101	0.334	0.743
RegisterNeutral:Vowela	-1.548	2.241	14.130	-0.691	0.501
RegisterLow:Voweli	2.232	2.953	14.117	0.756	0.462
RegisterNeutral:Voweli	-1.940	2.641	14.106	-0.735	0.475
RegisterNeutral:Vowelu	-1.002	2.651	14.333	-0.378	0.711
Vowele:Placecoronal	1.175	3.235	14.122	0.363	0.722
Vowela:Placecoronal	4.188	2.520	14.732	1.661	0.118
Voweli:Placecoronal	1.532	3.234	14.097	0.474	0.643

Devoicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	13.113	2.149	16.763	6.101	<0.001*
RegisterLow	1.452	4.106	15.054	0.354	0.728
RegisterNeutral	3.672	3.950	15.103	0.929	0.367
Vowele	0.442	2.594	15.076	0.170	0.867
Vowela	-2.979	2.392	15.072	-1.246	0.232
Voweli	0.851	2.571	15.031	0.331	0.745
Vowelu	1.066	3.327	14.981	0.320	0.753
Placecoronal	-4.334	2.009	15.059	-2.157	0.048*
RegisterLow:Vowele	-12.315	6.777	46.990	-1.817	0.076
RegisterNeutral:Vowele	-1.021	3.348	15.049	-0.305	0.765
RegisterLow:Vowela	1.178	3.912	15.017	0.301	0.767
RegisterNeutral:Vowela	1.929	3.194	15.055	0.604	0.555
RegisterLow:Voweli	-6.278	4.257	15.027	-1.475	0.161
RegisterNeutral:Voweli	0.204	3.944	15.006	0.052	0.959
RegisterNeutral:Vowelu	3.114	3.944	15.000	0.790	0.442
RegisterLow:Placecoronal	-0.615	3.130	15.045	-0.197	0.847
RegisterNeutral:Placecor	-6.494	3.607	15.071	-1.800	0.092

Table 8: Table of estimates for mixed model on normalized CPP at first sampling point after unaspirated stops.

Voicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	20.154	0.880	11.623	22.895	<0.001*
RegisterLow	-3.945	0.476	6.116	-8.286	<0.001*
Placecoronal	0.555	0.885	5.950	0.627	0.554
Vowele	-0.210	1.124	6.276	-0.187	0.857
Vowela	0.345	0.894	6.203	0.386	0.712
Voweli	-2.446	0.892	6.140	-2.744	0.033*

Vowelu	-3.851	0.892	6.140	-4.319	0.005*
Placecoronal:Vowela	0.424	1.258	6.076	0.337	0.747
Placecoronal:Voweli	2.993	1.426	6.075	2.099	0.080
Placecoronal:Vowelu	2.080	1.256	6.043	1.657	0.148

Devoicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	20.184	1.377	2.923	14.656	0.001*
RegisterLow	-3.742	1.610	2.153	-2.324	0.137
Vowele	0.752	1.888	2.140	0.398	0.727
Vowela	1.180	1.708	2.141	0.691	0.557
Voweli	-0.865	1.889	2.145	-0.458	0.689
Vowelu	-3.532	1.705	2.149	-2.072	0.165
Placecoronal	-0.058	1.609	2.145	-0.036	0.974
RegisterLow:Vowela	-0.234	1.973	2.141	-0.118	0.916
RegisterLow:Voweli	-1.669	2.548	2.151	-0.655	0.576
RegisterLow:Vowelu	-1.675	1.966	2.194	-0.852	0.477
RegisterLow:Placecor	1.578	1.607	2.175	0.982	0.422
Vowela:Placecoronal	0.199	1.973	2.141	0.101	0.928
Voweli:Placecoronal	1.809	2.547	2.148	0.710	0.547
Vowelu:Placecoronal	3.460	1.966	2.193	1.760	0.209

Table 9: Table of estimates for mixed model on normalized CPP at first sampling point after sonorants.

Voicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	20.394	0.848	23.711	24.050	<0.001*
RegisterLow	-3.162	1.207	17.628	-2.620	0.018*
RegisterNeutral	-2.276	0.902	17.787	-2.524	0.021*
Vowele	1.521	0.989	17.859	1.539	0.141
Vowela	0.931	0.902	17.840	1.032	0.316
Voweli	-0.374	0.902	17.841	-0.415	0.683
Vowelu	-2.037	1.233	19.195	-1.652	0.115
RegisterNeutral:Vowele	-0.091	1.276	17.846	-0.071	0.944
RegisterLow:Vowela	1.824	1.452	17.689	1.257	0.225
RegisterNeutral:Vowela	2.283	1.176	17.788	1.942	0.068
RegisterLow:Voweli	2.695	1.506	17.662	1.790	0.091
RegisterNeutral:Voweli	1.624	1.452	17.710	1.118	0.278
RegisterNeutral:Vowelu	-0.156	1.474	18.788	-0.106	0.917

Devoicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	22.370	0.569	38.573	39.342	<0.001*
RegisterLow	-1.697	0.480	23.716	-3.538	0.002*

RegisterNeutral	-1.071	0.388	22.789	-2.760	0.011*
VoweLe	1.363	0.561	23.557	2.430	0.023*
Vowela	1.657	0.483	22.851	3.431	0.002*
Voweli	-0.736	0.550	22.843	-1.338	0.194
Vowelu	-1.868	0.607	22.832	-3.077	0.005*

Table 10: Table of estimates for mixed model on normalized F1 at first sampling point after unaspirated stops.

Voicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	612.324	13.833	7.927	44.266	<0.001*
RegisterLow	-166.353	17.073	4.861	-9.743	<0.001*
VoweLe	-84.619	18.928	4.641	-4.471	0.008*
Vowela	49.049	14.748	4.517	3.326	0.024*
Voweli	-276.576	14.812	4.596	-18.672	<0.001*
Vowelu	-203.889	14.812	4.596	-13.765	<0.001*
Placecoronal	52.997	10.486	4.617	5.054	0.005*
RegisterLow:Vowela	-54.879	21.338	4.920	-2.572	0.051
RegisterLow:Voweli	123.682	24.745	5.033	4.998	0.004*
RegisterLow:Vowelu	74.314	21.119	4.747	3.519	0.018*
RegisterLow:Placecor	-27.063	16.290	4.929	-1.661	0.158

Devoicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	717.631	21.625	2.924	33.186	<0.001*
RegisterLow	-240.391	26.073	2.433	-9.220	0.006*
VoweLe	-88.073	30.562	2.409	-2.882	0.082
Vowela	47.895	27.707	2.427	1.729	0.203
Voweli	-334.510	30.562	2.409	-10.945	0.004*
Vowelu	-281.508	27.570	2.429	-10.211	0.005
Placecoronal	52.897	26.047	2.424	2.031	0.157
RegisterLow:Vowela	-44.646	32.056	2.445	-1.393	0.277
RegisterLow:Voweli	153.552	41.241	2.422	3.723	0.048*
RegisterLow:Vowelu	130.605	31.682	2.485	4.122	0.037*
RegisterLow:Placecor	-23.809	26.001	2.483	-0.916	0.440
Vowela:Placecoronal	42.032	32.056	2.445	1.311	0.299
Voweli:Placecoronal	28.354	41.233	2.420	0.688	0.552
Vowelu:Placecoronal	26.552	31.682	2.485	0.838	0.475

Table 11: Table of estimates for mixed model on normalized F1 at first sampling point after sonorants.

Voicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	558.642	31.489	19.528	17.741	<0.001*

RegisterLow	-51.947	60.385	15.744	-0.860	0.403
RegisterNeutral	-111.139	58.392	16.178	-1.903	0.075
Vowelex	-83.599	38.483	15.623	-2.172	0.046*
Vowela	56.941	35.497	15.785	1.604	0.129
Voweli	-248.154	37.528	16.287	-6.612	<0.001*
Vowelu	-140.856	49.080	16.187	-2.870	0.011*
Placecoronal	75.587	27.029	25.194	2.797	0.010*
RegisterNeutral:Vowelex	9.430	49.554	15.466	0.190	0.852
RegisterLow:Vowela	-54.247	57.775	15.339	-0.939	0.362
RegisterNeutral:Vowela	22.123	47.252	15.513	0.468	0.646
RegisterLow:Voweli	53.310	62.473	15.507	0.853	0.406
RegisterNeutral:Voweli	-6.473	57.973	15.691	-0.112	0.913
RegisterNeutral:Vowelu	-75.095	58.163	15.898	-1.291	0.215
RegisterLow:Placecor	-7.017	44.569	18.129	-0.157	0.877
RegisterNeutral:Placecor	100.679	52.112	17.722	1.932	0.070

Devoicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	639.495	61.988	15.436	10.316	<0.001*
RegisterLow	-99.805	120.942	15.036	-0.825	0.422
RegisterNeutral	-251.220	116.567	15.196	-2.155	0.048*
Vowelex	-110.689	76.405	15.054	-1.449	0.168
Vowela	66.304	70.444	15.055	0.941	0.361
Voweli	-326.878	75.728	15.024	-4.316	0.001*
Vowelu	-143.482	98.041	14.991	-1.463	0.164
Placecoronal	142.227	59.179	15.049	2.403	0.030*
RegisterLow:Vowelex	196.264	158.689	18.827	1.237	0.231
RegisterNeutral:Vowelex	59.123	98.604	15.033	0.600	0.558
RegisterLow:Vowela	-50.187	115.228	14.999	-0.436	0.669
RegisterNeutral:Vowela	90.524	94.050	15.025	0.963	0.351
RegisterLow:Voweli	81.518	125.364	14.993	0.650	0.525
RegisterNeutral:Voweli	10.849	116.176	14.993	0.093	0.927
RegisterNeutral:Vowelu	-80.250	116.173	14.992	-0.691	0.500
RegisterLow:Placecor	-41.292	92.201	15.035	-0.448	0.661
RegisterNeutral:Placecor	156.210	106.486	15.196	1.467	0.163

Table 12: Table of estimates for mixed model on normalized F2 at first sampling point after unaspirated stops.

Voicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	1112.860	42.604	2.165	26.121	0.001*
RegisterLow	17.296	51.545	1.795	0.336	0.772
Vowelex	863.569	59.449	1.697	14.526	0.009*

Vowela	496.837	54.460	1.784	9.123	0.017*
Voweli	1273.708	59.435	1.696	21.430	0.005*
Vowelu	-272.440	54.470	1.777	-5.002	0.048*
Placecoronal	135.867	51.545	1.795	2.636	0.133
RegisterLow:Vowela	124.664	64.012	1.904	1.947	0.197
RegisterLow:Voweli	-3.735	81.151	1.778	-0.046	0.968
RegisterLow:Vowelu	161.365	65.014	1.995	2.482	0.131
RegisterLow:Placecor	99.961	52.557	1.957	1.902	0.200
Vowela:Placecoronal	-278.092	63.972	1.894	-4.347	0.054
Voweli:Placecoronal	-417.345	80.689	1.738	-5.172	0.047*
Vowelu:Placecoronal	106.902	65.016	1.991	1.644	0.242

Devoicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	1197.999	54.947	3.557	21.803	<0.001*
RegisterLow	20.341	63.068	3.474	0.323	0.766
Vowela	996.436	82.943	3.394	12.014	0.001*
Voweli	560.921	76.917	3.416	7.293	0.003*
Vowelu	1486.460	83.026	3.407	17.904	<0.001*
Placecoronal	-300.486	76.630	3.434	-3.921	0.023*
RegisterLow:Vowela	234.014	63.081	3.477	3.710	0.026*
RegisterLow:Voweli	160.385	88.955	3.437	1.803	0.157
RegisterLow:Vowelu	-39.289	108.974	3.441	-0.361	0.739
RegisterLow:Vowelu	109.660	88.399	3.565	1.241	0.290
Vowela:Placecoronal	-290.372	88.967	3.439	-3.264	0.039*
Voweli:Placecoronal	-611.774	108.907	3.433	-5.617	0.008*
Vowelu:Placecoronal	-611.774	108.907	3.433	-5.617	0.008*
Vowelu:Placecoronal	90.060	88.375	3.565	1.019	0.372

Table 13: Table of estimates for mixed model on normalized F2 at first sampling point after sonorants.

Voicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	1086.883	81.431	10.857	13.347	<0.001*
RegisterLow	68.655	170.351	12.368	0.403	0.694
RegisterNeutral	142.423	154.204	13.065	0.924	0.372
Vowela	1090.072	113.035	10.105	9.644	<0.001*
Voweli	475.246	107.206	12.588	4.433	0.001*
Vowelu	1107.271	193.520	11.725	5.722	<0.001*
Placecoronal	108.178	116.309	11.331	0.930	0.372
Placecoronal	161.015	113.980	10.448	1.413	0.187
RegisterNeutral:Vowela	-180.762	131.802	10.506	-1.371	0.199
RegisterLow:Vowela	46.853	137.974	10.697	0.340	0.741
RegisterNeutral:Vowela	-89.295	117.038	10.913	-0.763	0.462
RegisterLow:Voweli	122.325	147.307	10.483	0.830	0.425

RegisterNeutral:Voweli	135.802	132.038	10.570	1.029	0.327
RegisterNeutral:Vowelu	-101.169	133.576	11.086	-0.757	0.465
RegisterLow:Placecor	15.895	126.334	14.210	0.126	0.902
RegisterNeutral:Placecor	-113.970	122.446	14.790	-0.931	0.367
Vowels:Placecoronal	-428.243	160.632	10.303	-2.666	0.023*
Vowela:Placecoronal	-204.935	139.245	13.685	-1.472	0.164
Voweli:Placecoronal	-333.930	204.493	11.607	-1.633	0.129

Devoicers:

	Estimate	SE	df	t value	Pr(> t)
(Intercept)	1147.812	75.038	11.516	15.296	<0.001*
RegisterLow	-69.233	167.835	11.530	-0.413	0.688
RegisterNeutral	119.050	152.892	11.434	0.779	0.452
Vowels	1257.541	105.723	11.347	11.895	<0.001*
Vowela	601.906	105.979	11.457	5.679	<0.001*
Voweli	1470.714	188.617	11.461	7.797	<0.001*
Vowelu	-25.700	107.129	11.962	-0.240	0.814
Placecoronal	276.973	105.988	11.461	2.613	0.023*
RegisterLow:Vowels	-32.960	253.361	30.490	-0.130	0.897
RegisterNeutral:Vowels	-173.599	122.160	11.377	-1.421	0.182
RegisterLow:Vowela	143.338	130.190	11.596	1.101	0.293
RegisterNeutral:Vowela	-58.633	110.106	11.374	-0.533	0.605
RegisterLow:Voweli	261.918	137.681	11.745	1.902	0.082
RegisterNeutral:Voweli	222.397	122.415	11.468	1.817	0.095
RegisterNeutral:Vowelu	-87.068	123.307	11.810	-0.706	0.494
RegisterLow:Placecor	111.573	129.545	11.368	0.861	0.407
RegisterNeutral:Placecor	-56.869	126.053	11.425	-0.451	0.660
Vowels:Placecoronal	-589.256	149.580	11.366	-3.939	0.002*
Vowela:Placecoronal	-372.445	140.126	11.434	-2.658	0.022*
Voweli:Placecoronal	-632.930	198.182	11.437	-3.194	0.008*