

Exploring the Onset of Phonetic Drift in Voice Onset Time Perception

Additional model outputs and graphs

Dataset in Open Science Framework (OSF) [[url-redacted-for-review](#)]

This document provides supplementary model outputs and graphs showing by-participant results that were not included in the article.

I. Model outputs

Table A2. Fixed-effect coefficients in Model 2 of voiceless identifications (HeardVoiceless). Model formula: HeardVoiceless ~ Exposure * Condition * Recency + (1 | Participant). Exposure is coded as continuous and centered, including exposures 1–9 only. Condition is coded as categorical, with four alternate reference levels (a–d). Recency is coded as categorical (reference level = pre-test). Significant effects ($p < 0.05$) are bolded.

a) Condition 1 (crosslinguistic mapping) as reference level:

	β	SE	z -value	p -value
(Intercept)	0.473	0.052	9.012	< 0.001
Exposure	-0.008	0.008	-0.970	0.332
Condition: 2	-0.141	0.081	-1.746	0.081
Condition: 3	-0.092	0.086	-1.077	0.281
Condition: 4	-0.049	0.072	-0.684	0.494
Recency: post-test	-0.030	0.030	-1.007	0.314
Exposure × Condition: 2	-0.017	0.012	-1.355	0.175
Exposure × Condition: 3	-0.019	0.013	-1.473	0.141
Exposure × Condition: 4	-0.013	0.011	-1.158	0.247
Exposure × Recency: post-test	-0.010	0.011	-0.902	0.367
Condition: 2 × Recency: post-test	0.007	0.045	0.161	0.872
Condition: 3 × Recency: post-test	0.039	0.048	0.803	0.422
Condition: 4 × Recency: post-test	-0.096	0.040	-2.384	0.017
Exposure × Condition: 2 × Recency: post-test	0.010	0.017	0.560	0.576
Exposure × Condition: 3 × Recency: post-test	0.014	0.019	0.750	0.454
Exposure × Condition: 4 × Recency: post-test	0.010	0.016	0.670	0.503

b) Condition 2 (emotion identification) as reference level:

	β	SE	z -value	p -value
(Intercept)	0.332	0.061	5.430	< 0.001
Exposure	-0.025	0.009	-2.633	0.008
Condition: 1	0.141	0.080	1.747	0.081
Condition: 3	0.048	0.091	0.531	0.595
Condition: 4	0.091	0.079	1.164	0.244

Recency: post-test	-0.022	0.034	-0.659	0.510
Exposure × Condition: 1	0.017	0.012	1.356	0.175
Exposure × Condition: 3	-0.003	0.014	-0.187	0.852
Exposure × Condition: 4	0.004	0.012	0.325	0.745
Exposure × Recency: post-test	-0.001	0.013	-0.040	0.968
Condition: 1 × Recency: post-test	-0.007	0.045	-0.161	0.872
Condition: 3 × Recency: post-test	0.031	0.051	0.614	0.539
Condition: 4 × Recency: post-test	-0.104	0.044	-2.363	0.018
Exposure × Condition: 1 × Recency: post-test	-0.010	0.017	-0.560	0.575
Exposure × Condition: 3 × Recency: post-test	0.004	0.020	0.211	0.833
Exposure × Condition: 4 × Recency: post-test	0.001	0.017	0.041	0.967

c) Condition 3 (unrelated task) as reference level:

	β	<i>SE</i>	<i>z-value</i>	<i>p-value</i>
(Intercept)	0.380	0.068	5.616	< 0.001
Exposure	-0.027	0.010	-2.624	0.009
Condition: 1	0.092	0.086	1.075	0.282
Condition: 2	-0.048	0.091	-0.532	0.595
Condition: 4	0.043	0.084	0.513	0.608
Recency: post-test	0.009	0.038	0.233	0.816
Exposure × Condition: 1	0.019	0.013	1.472	0.141
Exposure × Condition: 2	0.003	0.014	0.187	0.852
Exposure × Condition: 4	0.007	0.013	0.507	0.612
Exposure × Recency: post-test	0.004	0.015	0.247	0.805
Condition: 1 × Recency: post-test	-0.039	0.048	-0.802	0.422
Condition: 2 × Recency: post-test	-0.031	0.051	-0.614	0.539
Condition: 4 × Recency: post-test	-0.135	0.047	-2.877	0.004
Exposure × Condition: 1 × Recency: post-test	-0.014	0.019	-0.749	0.454
Exposure × Condition: 2 × Recency: post-test	-0.004	0.020	-0.210	0.834
Exposure × Condition: 4 × Recency: post-test	-0.003	0.018	-0.190	0.849

d) Condition 4 (active control) as reference level:

	β	<i>SE</i>	<i>z-value</i>	<i>p-value</i>
(Intercept)	0.423	0.049	8.599	< 0.001
Exposure	-0.021	0.008	-2.728	0.006
Condition: 1	0.049	0.072	0.684	0.494
Condition: 2	-0.091	0.078	-1.165	0.244
Condition: 3	-0.043	0.084	-0.514	0.607
Recency: post-test	-0.126	0.028	-4.573	< 0.001
Exposure × Condition: 1	0.013	0.011	1.158	0.247
Exposure × Condition: 2	-0.004	0.012	-0.325	0.745
Exposure × Condition: 3	-0.007	0.013	-0.508	0.612
Exposure × Recency: post-test	1e-04	0.011	0.016	0.987
Condition: 1 × Recency: post-test	0.096	0.040	2.385	0.017
Condition: 2 × Recency: post-test	0.104	0.044	2.362	0.018
Condition: 3 × Recency: post-test	0.135	0.047	2.879	0.004
Exposure × Condition: 1 × Recency: post-test	-0.010	0.016	-0.670	0.503
Exposure × Condition: 2 × Recency: post-test	-0.001	0.017	-0.041	0.967
Exposure × Condition: 3 × Recency: post-test	0.003	0.018	0.191	0.849

Table A3. Fixed-effect coefficients in Model 2' of voiceless identifications (HeardVoiceless). Model formula: HeardVoiceless ~ Exposure * Condition * Recency + (1 | Participant). Exposure is coded as continuous and centered, including exposures 1–9 only. Condition is coded as categorical, with two levels (1–3, i.e. all FL exposure task conditions; 4, i.e. active control = reference level). Recency is coded as categorical (reference level = pre-test). Significant effects ($p < 0.05$) are bolded.

	β	SE	z-value	p-value
(Intercept)	0.405	0.035	11.468	< 0.001
Exposure	-0.018	0.005	-3.450	< 0.001
Condition: 4	0.019	0.062	0.305	0.760
Recency: post-test	-0.017	0.019	-0.908	0.364
Exposure × Condition: 4	-0.003	0.009	-0.273	0.785
Exposure × Recency: post-test	-0.004	0.007	-0.483	0.629
Condition: 4 × Recency: post-test	-0.109	0.034	-3.231	0.001
Exposure × Condition: 4 × Recency: post-test	0.004	0.013	0.290	0.772

Table A4. Fixed-effect coefficients in Model 3 of voiceless identifications (HeardVoiceless). Model formula: HeardVoiceless ~ Exposure * Condition + (1 | Participant). **Exposure is coded as categorical** (reference level = 0/baseline) to allow for comparisons of every exposure to the baseline, and Condition as categorical (reference level = 4/active control). Significant effects ($p < 0.05$) are bolded.

	β	SE	z-value	p-value
(Intercept)	0.630	0.074	8.536	< 0.001
Exposure: 1	-0.120	0.072	-1.661	0.097
Exposure: 2	-0.227	0.072	-3.154	0.002
Exposure: 3	-0.284	0.072	-3.938	< 0.001
Exposure: 4	-0.252	0.072	-3.489	< 0.001
Exposure: 5	-0.294	0.072	-4.075	< 0.001
Exposure: 6	-0.272	0.072	-3.768	< 0.001
Exposure: 7	-0.326	0.072	-4.535	< 0.001
Exposure: 8	-0.333	0.072	-4.630	< 0.001
Exposure: 9	-0.325	0.072	-4.513	< 0.001
Exposure: 10	-0.382	0.082	-4.631	< 0.001
Condition: 1	0.076	0.109	0.697	0.486
Condition: 2	-0.011	0.119	-0.092	0.927
Condition: 3	-0.042	0.126	-0.333	0.739
Exposure: 1 × Condition: 1	-0.019	0.107	-0.182	0.856
Exposure: 2 × Condition: 1	0.014	0.106	0.131	0.896
Exposure: 3 × Condition: 1	0.063	0.106	0.588	0.557
Exposure: 4 × Condition: 1	-0.029	0.106	-0.274	0.784
Exposure: 5 × Condition: 1	0.027	0.106	0.249	0.803
Exposure: 6 × Condition: 1	-0.041	0.106	-0.386	0.700
Exposure: 7 × Condition: 1	0.049	0.106	0.460	0.645
Exposure: 8 × Condition: 1	0.081	0.106	0.764	0.445
Exposure: 9 × Condition: 1	0.054	0.106	0.505	0.614

Exposure: 10 × Condition: 1	0.014	0.121	0.113	0.910
Exposure: 1 × Condition: 2	-0.030	0.117	-0.260	0.795
Exposure: 2 × Condition: 2	-0.008	0.116	-0.073	0.942
Exposure: 3 × Condition: 2	0.035	0.116	0.299	0.765
Exposure: 4 × Condition: 2	-0.052	0.116	-0.448	0.654
Exposure: 5 × Condition: 2	-0.032	0.116	-0.278	0.781
Exposure: 6 × Condition: 2	-0.074	0.116	-0.637	0.524
Exposure: 7 × Condition: 2	-0.014	0.116	-0.119	0.905
Exposure: 8 × Condition: 2	-0.036	0.116	-0.310	0.757
Exposure: 9 × Condition: 2	-0.044	0.116	-0.379	0.704
Exposure: 10 × Condition: 2	-0.049	0.133	-0.371	0.710
Exposure: 1 × Condition: 3	0.037	0.124	0.296	0.768
Exposure: 2 × Condition: 3	0.065	0.124	0.527	0.598
Exposure: 3 × Condition: 3	0.130	0.124	1.053	0.292
Exposure: 4 × Condition: 3	0.080	0.124	0.647	0.518
Exposure: 5 × Condition: 3	0.099	0.124	0.802	0.423
Exposure: 6 × Condition: 3	0.049	0.124	0.398	0.690
Exposure: 7 × Condition: 3	0.079	0.123	0.639	0.523
Exposure: 8 × Condition: 3	0.055	0.123	0.448	0.654
Exposure: 9 × Condition: 3	0.007	0.123	0.055	0.956
Exposure: 10 × Condition: 3	0.088	0.141	0.623	0.533

II. Graphs

Figure A1. Percentages of voiceless identifications (HeardVoiceless) in Condition 1 (crosslinguistic mapping), by number of exposures and participant. Points represent an individual participant's percentage of voiceless identifications at the given number of exposures.

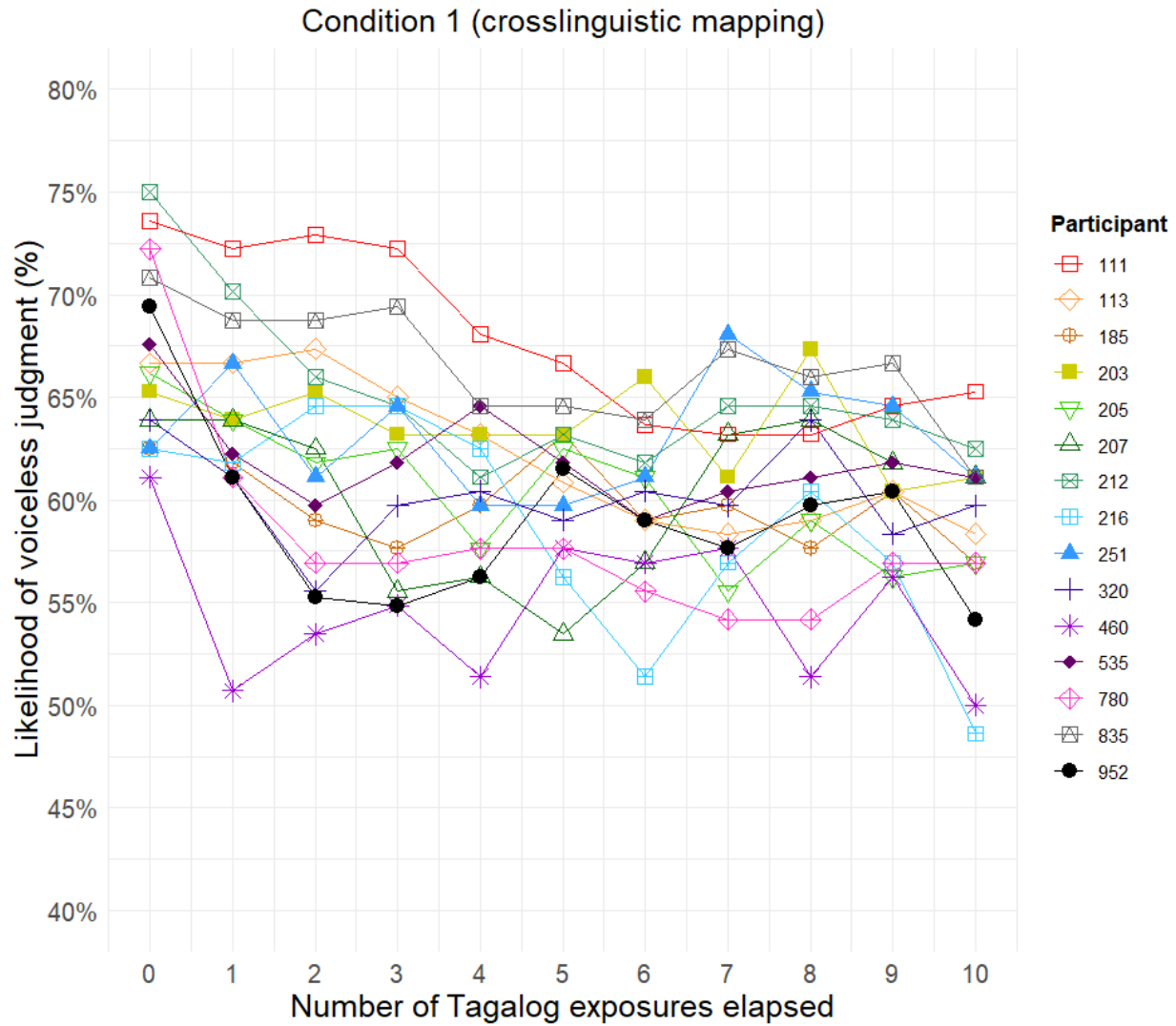


Figure A2. Percentages of voiceless identifications (HeardVoiceless) in Condition 2 (emotion identification), by number of exposures and participant. Points represent an individual participant's percentage of voiceless identifications at the given number of exposures.

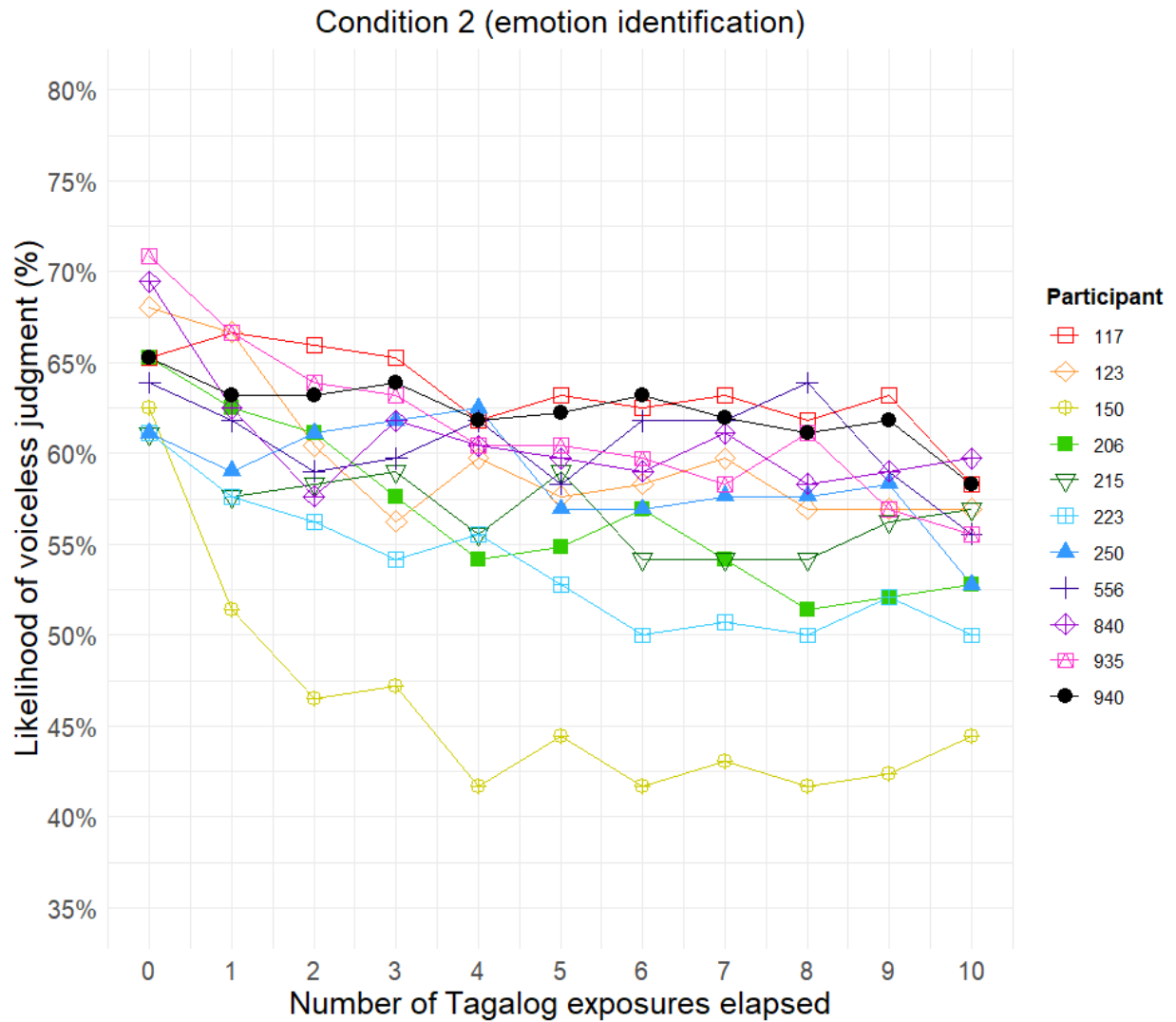


Figure A3. Percentages of voiceless identifications (HeardVoiceless) in Condition 3 (unrelated task), by number of exposures and participant. Points represent an individual participant's percentage of voiceless identifications at the given number of exposures.

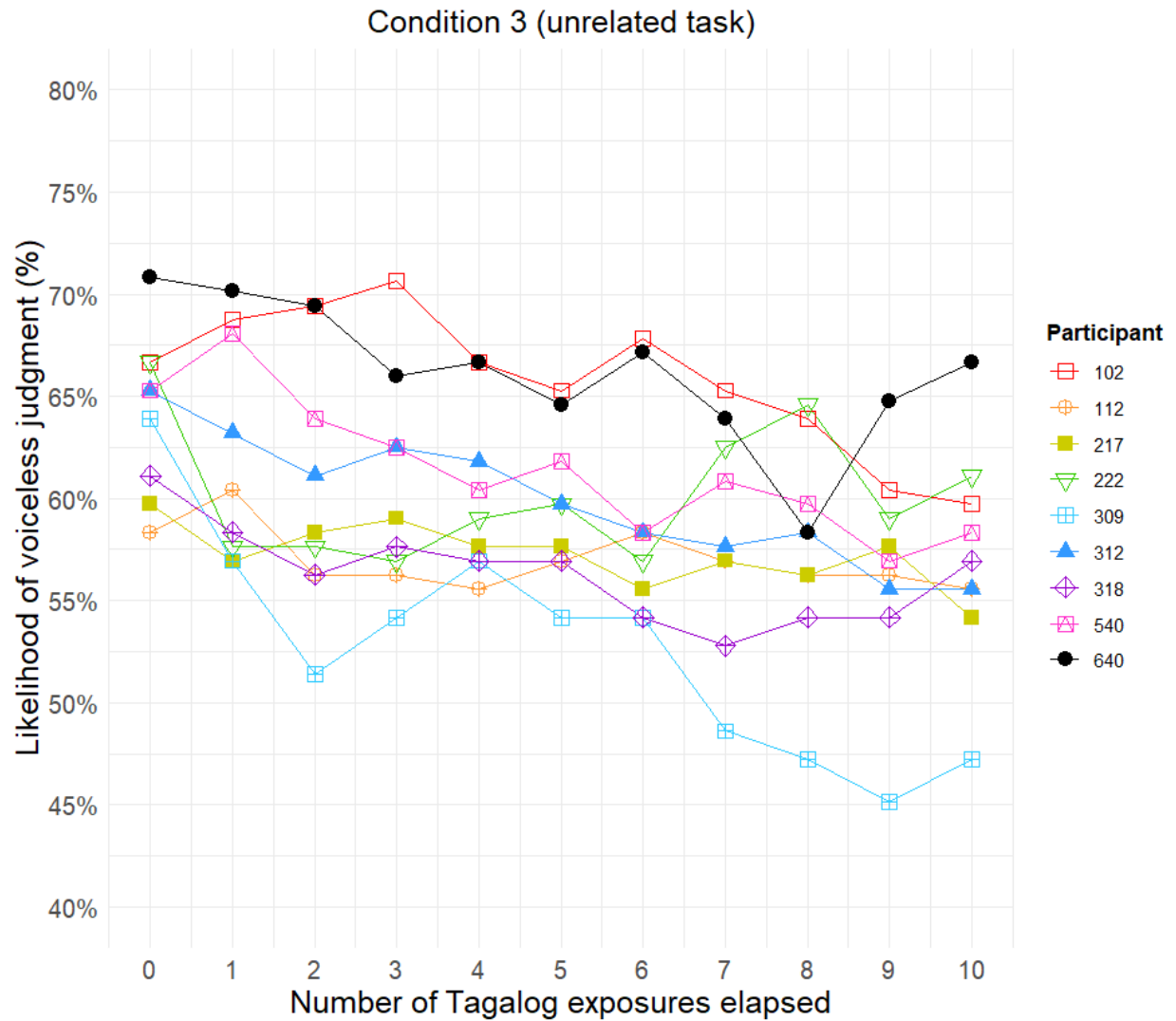


Figure A4. Percentages of voiceless identifications (HeardVoiceless) in Condition 4 (active control), by number of exposures and participant. Points represent an individual participant's percentage of voiceless identifications at the given number of exposures.

