

Supplementary material to “*The extent and degree of utterance-final word lengthening in spontaneous speech from ten languages*”

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APPENDIX A: DATA PREPARATION

TABLE A1. Data selection and final data sets per language.

language	initial data set		utterances > 4 words only		last 4 words only		no disfluencies		no pauses before words		pause after final word	
	words	utterances	words	utterances	words	utterances	words	utterances	words	utterances	words	utterances
Baure	17 563	4 331	10 915	1 463	5 832	1 463	5 432	1 358	3 508	877	2 992	748
Bora	29 795	3 979	26 089	2 642	10 565	2 642	9 592	2 398	8 200	2 050	7 080	1 770
Chintang	37 731	9 026	23 825	3 420	13 677	3 420	12 504	3 126	7 280	1 820	5 096	1 274
Dutch	39 448	5 746	34 523	3 012	11 974	3 012	11 500	2 875	11 032	2 758	8 128	2 032
English	56 136	6 941	51 121	3 955	15 819	3 955	15 816	3 954	15 816	3 954	8 544	2 136
Even	37 394	4 839	33 345	3 282	13 082	3 282	12 948	3 237	12 948	3 237	12 116	3 029
Hoocak	23 176	2 936	20 717	2 024	8 093	2 024	8 088	2 022	8 088	2 022	7 440	1 860
Njng	25 850	7 775	11 121	1 874	7 327	1 874	6 828	1 707	6 828	1 707	5 112	1 278
Sakha	31 139	3 925	27 832	2 498	9 943	2 498	9 800	2 450	9 800	2 450	8 560	2 140
Texistepec	19 489	5 453	8 446	1 336	5 344	1 336	5 344	1 336	5 344	1 336	4 044	1 011
Texistepec (with final quotative)	21 315	5 461	10 577	1 672	6 687	1 672	6 684	1 671	6 684	1 671	4 980	1 245
total	319 547	54 959	247 934	25 506	101 656	25 506	97 852	24 463	88 844	22 211	69 112	17 278

Note that final quotatives in Texistepec are included in the **total** counts for the initial data set used to count word frequencies, but are excluded from the **total** counts for the final data set used to analyze word durations and final lengthening and the **total** counts for the intermediate steps. Pauses are defined as periods of silence of at least 0.2 seconds. Disfluencies include filled pauses, false starts, and disfluent or unintelligible words.

APPENDIX B: BIVARIATE CORRELATIONS BETWEEN WORD POSITION AND WORD DURATION

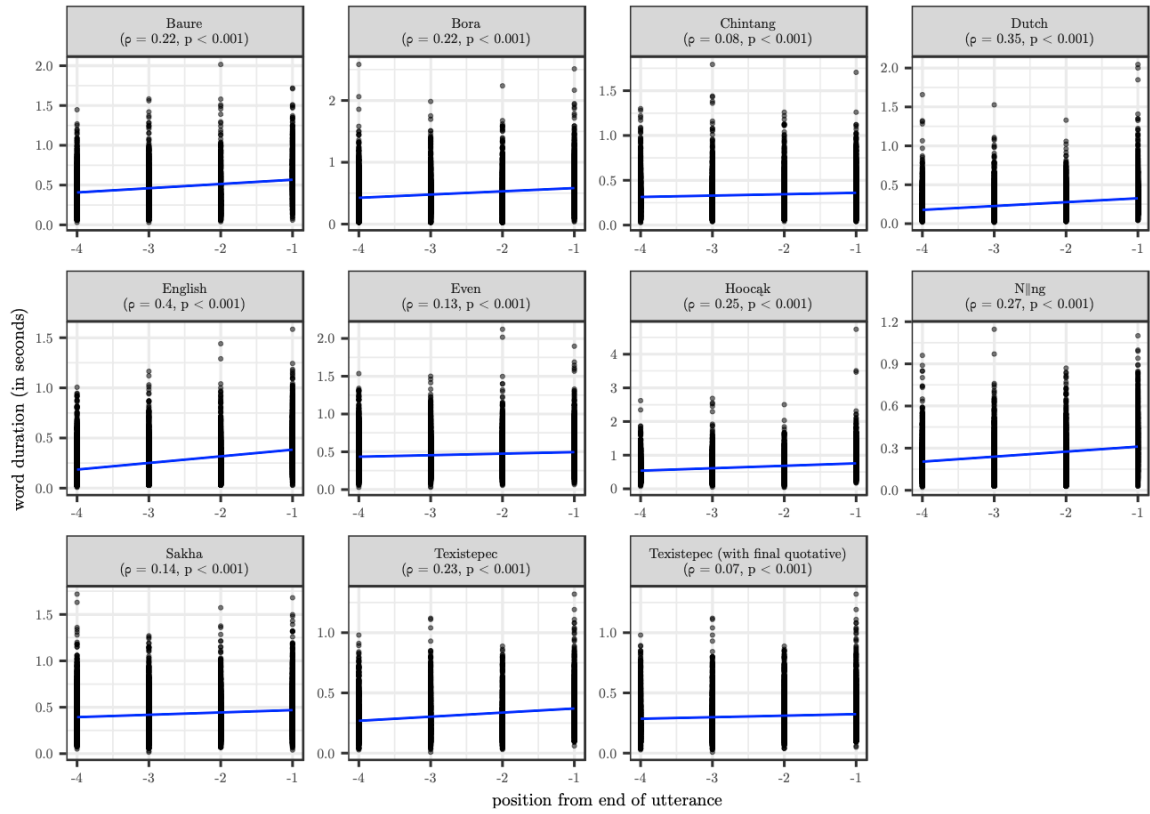


FIG B1. Simple bivariate linear regression of word position (counted from the end of the utterance) and word duration (strength of correlation is indicated using Spearman's rank-based correlation coefficient ρ)

APPENDIX C: DETAILS ON THE INDIVIDUAL MIXED-EFFECTS MODELS FOR THE TEN LANGUAGES

A. Baure

TABLE C1. Summary of fixed effects of the linear mixed-effects model of word duration in Baure

	Coefficient	Std. Error	<i>df</i>	<i>t</i>	<i>p</i>	β	$\Delta R^2_{(m)}\%$	$\Delta R^2_{(c)}\%$	χ^2	<i>df</i>	<i>p</i>		
(Intercept)	-1.2987	0.0794	1356.7511	-16.3607	0.0000	***							
position							1.0651	0.4184	41.7136	3	0.0000	***	
position = -3 vs. -4	-0.0102	0.0180	2942.0118	-0.5670	0.5708	n.s.	-0.0067						
position = -2 vs. -3 and -4	0.0155	0.0180	2927.7732	0.8607	0.3895	n.s.	0.0102						
position = -1 vs. -3 and -4	0.1038	0.0192	2966.8341	5.4101	0.0000	***	0.0685						
log word frequency	-0.0612	0.0064	610.2102	-9.5745	0.0000	***	-0.2253	9.9865	5.5095	82.2205	1	0.0000	***
word length	0.1056	0.0042	2010.9999	24.9730	0.0000	***	0.5142	15.9529	6.7354	539.5877	1	0.0000	***
number of morphemes	-0.0133	0.0113	2065.5773	-1.1774	0.2392	n.s.	-0.0249	0.1153	0.0620	1.3979	1	0.2371	n.s.
word class							2.6337	1.4208	39.4540	2	0.0000	***	
word class = verb	-0.0881	0.0242	2068.2612	-3.6485	0.0003	***	-0.0612						
word class = other	-0.1571	0.0254	1348.8918	-6.1945	0.0000	***	-0.1197						
log speech rate	-0.2106	0.0250	716.0425	-8.4278	0.0000	***	-0.0836	0.9716	0.5954	68.2531	1	0.0000	***

$n = 2\,992$, $R^2_{(m)} = 0.6538$, $R^2_{(c)} = 0.6959$

TABLE C2. Summary of random effects of the linear mixed-effects model of word duration in Baure

Random effect	Groups	Std. Dev.	$\Delta R^2_{(m)}\%$	$\Delta R^2_{(c)}\%$	χ^2	<i>df</i>	<i>p</i>	
speaker	9	0.0000	0.0000	0.0000	0.0000	1	1.0000	n.s.
text	34	0.0083	0.0087	0.0346	0.0169	1	0.8965	n.s.
word type	1230	0.1237	-2.8974	3.2201	438.3853	1	0.0000	***
Residual		0.3337						

B. Bora

TABLE C3. Summary of fixed effects of the linear mixed-effects model of word duration in Bora

	Coefficient	Std. Error	df	t	p	β	$\Delta R_{(m)}^2$ %	$\Delta R_{(c)}^2$ %	χ^2	df	p
(Intercept)	-1.5712	0.0569	456.4381	-27.6157	0.0000	***					
position							1.0877	0.4378	88.8427	3	0.0000 ***
position = -3 vs. -4	-0.0069	0.0111	6868.9477	-0.6194	0.5357	n.s.	-0.0044				
position = -2 vs. -3 and -4	-0.0032	0.0112	6910.3507	-0.2832	0.7771	n.s.	-0.0020				
position = -1 vs. -3 and -4	0.0918	0.0119	7019.4540	7.6939	0.0000	***	0.0587				
log word frequency	-0.0704	0.0044	1714.0631	-15.8578	0.0000	***	-0.2364	15.7619	7.2399	232.2437	1 0.0000 ***
word length	0.0846	0.0024	5151.5459	35.2056	0.0000	***	0.4439	12.5356	4.1872	1100.6136	1 0.0000 ***
number of morphemes	-0.0001	0.0071	4768.2554	-0.0166	0.9868	n.s.	-0.0002	-0.0044	0.0000	0.0002	1 0.9879 n.s.
word class							1.0606	0.4948	46.6263	2	0.0000 ***
word class = verb	-0.0273	0.0127	4840.6655	-2.1423	0.0322	*	-0.0191				
word class = other	-0.0945	0.0141	4125.5458	-6.7195	0.0000	***	-0.0691				
log speech rate	-0.1798	0.0124	6856.8953	-14.5492	0.0000	***	-0.0944	4.2148	0.0307	207.1489	1 0.0000 ***

n = 7 080, $R_{(m)}^2 = 0.6139$, $R_{(c)}^2 = 0.7254$

TABLE C4. Summary of random effects of the linear mixed-effects model of word duration in Bora

Random effect	Groups	Std. Dev.	$\Delta R_{(m)}^2$ %	$\Delta R_{(c)}^2$ %	χ^2	df	p
speaker	32	0.1207	-2.2845	1.1019	58.8369	1 0	***
text	37	0.0562	0.4315	0.3636	44.4736	1 0	***
word type	3583	0.1462	-2.8609	7.1122	2139.6121	1 0	***
Residual		0.3104					

C. Chintang

TABLE C5. Summary of fixed effects of the linear mixed-effects model of word duration in Chintang

	Coefficient	Std. Error	df	t	p	β	$\Delta R_{(m)}^2\%$	$\Delta R_{(c)}^2\%$	χ^2	df	p
(Intercept)	-1.2131	0.0670	2039.729	-18.1190	0.0000	***					
position							1.7783	1.3009	102.4517	3	0.0000 ***
position = -3 vs. -4	-0.0212	0.0156	5006.979	-1.3584	0.1744	n.s.	-0.0149				
position = -2 vs. -3 and -4	-0.0121	0.0158	5016.543	-0.7647	0.4445	n.s.	-0.0085				
position = -1 vs. -3 and -4	0.1255	0.0165	5004.965	7.5848	0.0000	***	0.0880				
log word frequency	-0.0302	0.0052	1256.842	-5.8293	0.0000	***	-0.1182	6.3431	3.8757	33.3026	1 0.0000 ***
word length	0.1212	0.0044	3221.173	27.6302	0.0000	***	0.5163	21.8055	9.3072	670.0373	1 0.0000 ***
number of morphemes	-0.0063	0.0093	3517.655	-0.6766	0.4987	n.s.	-0.0134	0.1768	0.1074	0.4609	1 0.4972 n.s.
word class							1.4909	0.6223	44.5539	2	0.0000 ***
word class = verb	-0.0963	0.0231	3548.586	-4.1740	0.0000	***	-0.0695				
word class = other	-0.1342	0.0203	3047.005	-6.6018	0.0000	***	-0.1078				
log speech rate	-0.2913	0.0174	3252.990	-16.7374	0.0000	***	-0.1747	11.5917	1.0810	254.6365	1 0.0000 ***

n = 5 096, $R_{(m)}^2 = 0.4961$, $R_{(c)}^2 = 0.5639$

TABLE C6. Summary of random effects of the linear mixed-effects model of word duration in Chintang

Random effect	Groups	Std. Dev.	$\Delta R_{(m)}^2\%$	$\Delta R_{(c)}^2\%$	χ^2	df	p
speaker	51	0.0788	-0.7284	0.0885	22.9817	1	0.0000 ***
text	40	0.0366	-0.0737	0.1307	1.6755	1	0.1955 n.s.
word type	2183	0.1225	-8.8972	0.5191	332.6740	1	0.0000 ***
Residual		0.3810					

D. Dutch

TABLE C7. Summary of fixed effects of the linear mixed-effects model of word duration in Dutch

	Coefficient	Std. Error	<i>df</i>	<i>t</i>	<i>p</i>	β	$\Delta R_{(m)}^2\%$	$\Delta R_{(c)}^2\%$	χ^2	<i>df</i>	<i>p</i>
(Intercept)	-1.8632	0.0595	1405.447	-31.3260	0.0000	***					
position							6.1786	3.0566	722.6177	3	0 ***
position = -3 vs. -4	0.0125	0.0113	7874.313	1.1045	0.2694	n.s.	0.0083				
position = -2 vs. -3 and -4	0.0649	0.0115	7990.281	5.6291	0.0000	***	0.0430				
position = -1 vs. -3 and -4	0.3078	0.0124	8056.223	24.8574	0.0000	***	0.2039				
log word frequency	-0.0792	0.0047	1446.498	-16.9208	0.0000	***	-0.2675	14.9216	7.4129	265.5039	1 0 ***
word length	0.1079	0.0027	3818.183	39.9498	0.0000	***	0.4305	14.6817	-2.3878	1244.6068	1 0 ***
word class							0.3969	-0.0109	45.8560	2	0 ***
word class = verb	-0.0987	0.0184	3119.451	-5.3699	0.0000	***	-0.0600				
word class = other	-0.1114	0.0174	3120.461	-6.4168	0.0000	***	-0.0808				
log speech rate	-0.2586	0.0140	8008.947	-18.4475	0.0000	***	-0.1231	3.7452	1.0639	329.9517	1 0 ***

n = 8 128, $R_{(m)}^2 = 0.6077$, $R_{(c)}^2 = 0.693$

TABLE C8. Summary of random effects of the linear mixed-effects model of word duration in Dutch

Random effect	Groups	Std. Dev.	$\Delta R_{(m)}^2\%$	$\Delta R_{(c)}^2\%$	χ^2	<i>df</i>	<i>p</i>
speaker	42	0.0800	-0.3629	0.9012	100.9930	1	0.0000 ***
text	17	0.0468	-0.0090	0.0069	1.9074	1	0.1673 n.s.
word type	2023	0.1576	-0.7515	8.8451	1295.3045	1	0.0000 ***
Residual		0.3467					

E. English

TABLE C9. Summary of fixed effects of the linear mixed-effects model of word duration in English

	Coefficient	Std. Error	<i>df</i>	<i>t</i>	<i>p</i>	β	$\Delta R_{(m)}^2\%$	$\Delta R_{(c)}^2\%$	χ^2	<i>df</i>	<i>p</i>
(Intercept)	-1.9348	0.0586	2978.479	-33.0163	0.0000	***					
position							16.6583	10.2847	1762.3388	3	0.0000 ***
position = -3 vs. -4	-0.0038	0.0109	8267.386	-0.3511	0.7255	n.s.	-0.0023				
position = -2 vs. -3 and -4	0.0496	0.0110	8301.226	4.5209	0.0000	***	0.0297				
position = -1 vs. -3 and -4	0.4603	0.0119	8451.635	38.5593	0.0000	***	0.2754				
log word frequency	-0.0797	0.0051	1671.062	-15.6178	0.0000	***	-0.2499	14.9972	6.2270	223.4119	1 0.0000 ***
word length	0.1056	0.0039	3026.562	27.4205	0.0000	***	0.3192	15.9647	2.9981	649.5153	1 0.0000 ***
number of morphemes	0.0079	0.0168	3398.906	0.4699	0.6385	n.s.	0.0039	-0.0918	-0.0450	0.2196	1 0.6393 n.s.
word class							0.6704	0.1583	20.7199	2	0.0000 ***
word class = verb	-0.0762	0.0200	2699.745	-3.7995	0.0001	***	-0.0412				
word class = other	-0.0715	0.0187	2268.382	-3.8179	0.0001	***	-0.0485				
log speech rate	-0.1961	0.0134	8119.820	-14.6318	0.0000	***	-0.0863	2.0055	0.4778	208.0474	1 0.0000 ***

n = 8 544, $R_{(m)}^2 = 0.5964$, $R_{(c)}^2 = 0.7028$

TABLE C10. Summary of random effects of the linear mixed-effects model of word duration in English

Random effect	Groups	Std. Dev.	$\Delta R_{(m)}^2\%$	$\Delta R_{(c)}^2\%$	χ^2	<i>df</i>	<i>p</i>
speaker	80	0.0829	0.0282	0.5557	102.4100	1	0.0000 ***
text	47	0.0321	0.0225	0.0155	1.8112	1	0.1784 n.s.
word type	1771	0.1838	-7.8735	6.3458	2671.3349	1	0.0000 ***
Residual		0.3412					

F. Even

TABLE C11. Summary of fixed effects of the linear mixed-effects model of word duration in Even

	Coefficient	Std. Error	<i>df</i>	<i>t</i>	<i>p</i>	β	$\Delta R^2_{(m)}\%$	$\Delta R^2_{(c)}\%$	χ^2	<i>df</i>	<i>p</i>	
(Intercept)	-1.3240	0.0335	321.0463	-39.5032	0.0000	***						
position							0.8754	0.9623	232.6190	3	0.0000 ***	
position = -3 vs. -4	-0.0302	0.0069	11953.1951	-4.3670	0.0000	***	-0.0292					
position = -2 vs. -3 and -4	-0.0506	0.0070	11998.0801	-7.2852	0.0000	***	-0.0490					
position = -1 vs. -3 and -4	0.0528	0.0073	12021.8267	7.2418	0.0000	***	0.0511					
log word frequency	-0.0346	0.0024	1385.0853	-14.4847	0.0000	***	-0.1797	7.1683	4.4474	198.4946	1	0.0000 ***
word length	0.1016	0.0015	6805.4718	69.4402	0.0000	***	0.6285	21.8624	2.8681	3569.8142	1	0.0000 ***
number of morphemes	-0.0097	0.0037	6357.9725	-2.5879	0.0097	**	-0.0237	0.0302	0.0877	6.6840	1	0.0097 **
word class							0.8307	0.2219		68.3997	2	0.0000 ***
word class = verb	-0.0284	0.0082	6295.0639	-3.4767	0.0005	***	-0.0306					
word class = other	-0.0711	0.0086	3823.5436	-8.2928	0.0000	***	-0.0774					
log speech rate	-0.1796	0.0085	11657.4109	-21.1621	0.0000	***	-0.1293	4.7939	-0.1719	433.5653	1	0.0000 ***

n = 12 116, $R^2_{(m)} = 0.6076$, $R^2_{(c)} = 0.6727$

TABLE C12. Summary of random effects of the linear mixed-effects model of word duration in Even

Random effect	Groups	Std. Dev.	$\Delta R^2_{(m)}\%$	$\Delta R^2_{(c)}\%$	χ^2	<i>df</i>	<i>p</i>
speaker	31	0.0818	-1.7780	0.9407	79.2517	1	0 ***
text	67	0.0414	-0.3054	0.1255	81.4343	1	0 ***
word type	5066	0.0725	4.5852	7.4761	601.4323	1	0 ***
Residual		0.2620					

G. Hoocak

TABLE C13. Summary of fixed effects of the linear mixed-effects model of word duration in Hoocak

	Coefficient	Std. Error	<i>df</i>	<i>t</i>	<i>p</i>	β	$\Delta R_{(m)}^2\%$	$\Delta R_{(c)}^2\%$	χ^2	<i>df</i>	<i>p</i>
(Intercept)	-1.0859	0.0459	484.9721	-23.6331	0.0000	***					
position							3.9859	2.8045	460.2348	3	0.0000 ***
position = -3 vs. -4	-0.0269	0.0094	7248.2745	-2.8544	0.0043	**	-0.0227				
position = -2 vs. -3 and -4	-0.0531	0.0096	7305.6901	-5.5587	0.0000	***	-0.0447				
position = -1 vs. -3 and -4	0.1540	0.0102	7336.8463	15.0337	0.0000	***	0.1295				
log word frequency	-0.0435	0.0036	1012.3973	-11.9555	0.0000	***	-0.2055	9.4706	5.3130	137.2298	1 0.0000 ***
word length	0.0882	0.0019	4430.6666	46.3132	0.0000	***	0.5790	14.9523	-0.6192	1661.4636	1 0.0000 ***
number of morphemes	0.0051	0.0055	5001.7438	0.9188	0.3582	n.s.	0.0111	-0.0475	-0.0172	0.8416	1 0.3589 n.s.
word class							0.3640	0.3067	6.8583	2	0.0324 *
word class = verb	-0.0234	0.0130	3758.7076	-1.7982	0.0722	n.s.	-0.0222				
word class = other	-0.0358	0.0137	3030.5009	-2.6236	0.0087	**	-0.0348				
log speech rate	-0.2117	0.0125	7023.7954	-16.9910	0.0000	***	-0.1371	4.6366	0.1997	279.6293	1 0.0000 ***

n = 7 440, $R_{(m)}^2 = 0.6349$, $R_{(c)}^2 = 0.7176$

TABLE C14. Summary of random effects of the linear mixed-effects model of word duration in Hoocak

Random effect	Groups	Std. Dev.	$\Delta R_{(m)}^2\%$	$\Delta R_{(c)}^2\%$	χ^2	<i>df</i>	<i>p</i>
speaker	26	0.0839	-1.3326	0.6466	48.7970	1 0	***
text	62	0.0661	0.1754	1.0367	119.2469	1 0	***
word type	3486	0.1045	1.1456	6.6489	363.7656	1 0	***
Residual		0.2762					

H. N||ng

TABLE C15. Summary of fixed effects of the linear mixed-effects model of word duration in N||ng

	Coefficient	Std. Error	<i>df</i>	<i>t</i>	<i>p</i>		β	$\Delta R^2_{(m)}\%$	$\Delta R^2_{(c)}\%$	χ^2	<i>df</i>	<i>p</i>
(Intercept)	-1.8929	0.0732	101.3854	-25.8733	0.0000	***						
position								2.0355	1.5080	125.0768	3	0.0000 ***
position = -3 vs. -4	0.0211	0.0150	5045.1842	1.4019	0.1610	n.s.	0.0153					
position = -2 vs. -3 and -4	0.0341	0.0156	5051.3787	2.1805	0.0293	*	0.0247					
position = -1 vs. -3 and -4	0.1773	0.0170	4839.2542	10.4481	0.0000	***	0.1285					
log word frequency	-0.0383	0.0054	811.2755	-7.0942	0.0000	***	-0.1237	6.4371	3.7960	49.0203	1	0.0000 ***
word length	0.1409	0.0057	1655.5013	24.6217	0.0000	***	0.4279	18.8282	3.5293	492.5764	1	0.0000 ***
number of morphemes	0.0751	0.0200	1971.8458	3.7533	0.0002	***	0.0450	-0.2153	-0.1613	14.0917	1	0.0002 ***
word class								5.1928	2.6496	56.7985	2	0.0000 ***
word class = verb	-0.0167	0.0198	1388.5880	-0.8431	0.3993	n.s.	-0.0124					
word class = other	-0.1592	0.0235	1131.9293	-6.7863	0.0000	***	-0.1331					
log speech rate	-0.1616	0.0177	4959.9434	-9.1395	0.0000	***	-0.0973	3.3120	-0.4580	81.8945	1	0.0000 ***
n = 5 112, $R^2_{(m)} = 0.5122$, $R^2_{(c)} = 0.589$												

TABLE C16. Summary of random effects of the linear mixed-effects model of word duration in N||ng

Random effect	Groups	Std. Dev.	$\Delta R^2_{(m)}\%$	$\Delta R^2_{(c)}\%$	χ^2	<i>df</i>	<i>p</i>
speaker	7	0.0878	-0.1573	0.1360	27.0101	1	0 ***
text	33	0.0712	-0.6310	1.8600	86.7646	1	0 ***
word type	1081	0.1117	-4.5161	2.5231	266.4808	1	0 ***
Residual		0.3676					

I. Sakha

TABLE C17. Summary of fixed effects of the linear mixed-effects model of word duration in Sakha

	Coefficient	Std. Error	df	t	p	β	$\Delta R_{(m)}^2\%$	$\Delta R_{(c)}^2\%$	χ^2	df	p		
(Intercept)	-1.4626	0.0406	899.9154	-36.0286	0.0000	***							
position							2.7634	2.4609	448.9038	3	0.0000	***	
position = -3 vs. -4	-0.0192	0.0084	8473.2931	-2.2827	0.0225	*	-0.0166						
position = -2 vs. -3 and -4	-0.0344	0.0085	8519.5093	-4.0217	0.0001	***	-0.0298						
position = -1 vs. -3 and -4	0.1361	0.0089	8530.1259	15.2605	0.0000	***	0.1178						
log word frequency	-0.0468	0.0031	1938.9360	-14.8575	0.0000	***	-0.1909	8.1241	4.6090	207.8726	1	0.0000	***
word length	0.1031	0.0018	6025.9208	56.9056	0.0000	***	0.5846	24.5786	6.0018	2502.6348	1	0.0000	***
number of morphemes	-0.0137	0.0061	5703.2966	-2.2572	0.0240	*	-0.0235	0.0820	0.0305	5.1050	1	0.0239	*
word class								0.3199	0.1653	27.5334	2	0.0000	***
word class = verb	-0.0285	0.0097	4857.8099	-2.9401	0.0033	**	-0.0273						
word class = other	-0.0544	0.0107	3625.7221	-5.1013	0.0000	***	-0.0520						
log speech rate	-0.1846	0.0110	7608.2413	-16.7640	0.0000	***	-0.1142	2.7689	0.7877	273.1690	1	0.0000	***

n = 8 560, $R_{(m)}^2 = 0.6342$, $R_{(c)}^2 = 0.6945$

TABLE C18. Summary of random effects of the linear mixed-effects model of word duration in Sakha

Random effect	Groups	Std. Dev.	$\Delta R_{(m)}^2\%$	$\Delta R_{(c)}^2\%$	χ^2	df	p	
speaker	22	0.0623	0.2813	0.0223	20.6866	1	0.000	***
text	16	0.0052	0.0034	-0.0017	0.0016	1	0.968	n.s.
word type	3566	0.0987	-0.8847	5.3986	957.0892	1	0.000	***
Residual		0.2630						

J. Texistepec

TABLE C19. Summary of fixed effects of the linear mixed-effects model of word duration in Texistepec

	Coefficient	Std. Error	<i>df</i>	<i>t</i>	<i>p</i>	β	$\Delta R_{(m)}^2$ %	$\Delta R_{(c)}^2$ %	χ^2	<i>df</i>	<i>p</i>		
(Intercept)	-1.7548	0.0663	1195.7490	-26.4577	0.0000	***							
position							1.0307	0.4173	28.9585	3	0.0000	***	
position = -3 vs. -4	0.0095	0.0154	3929.3704	0.6171	0.5372	n.s.	0.0073						
position = -2 vs. -3 and -4	0.0156	0.0157	3961.2739	0.9925	0.3210	n.s.	0.0119						
position = -1 vs. -3 and -4	0.0849	0.0170	4009.2099	4.9819	0.0000	***	0.0648						
log word frequency	-0.0465	0.0065	909.9833	-7.1103	0.0000	***	-0.1764	9.2104	5.0615	49.4378	1	0.0000	***
word length	0.1273	0.0046	1766.3941	27.9288	0.0000	***	0.5676	23.0361	0.2041	617.4210	1	0.0000	***
number of morphemes	-0.0378	0.0126	1887.7431	-3.0067	0.0027	**	-0.0652	1.0705	0.4969	9.0573	1	0.0026	**
word class							2.4490	0.7516	36.7617	2	0.0000	***	
word class = verb	-0.0960	0.0238	1739.9953	-4.0280	0.0001	***	-0.0780						
word class = other	-0.1415	0.0236	1279.9248	-5.9845	0.0000	***	-0.1246						
log speech rate	-0.1375	0.0149	4017.0746	-9.2588	0.0000	***	-0.0906	1.8398	0.7985	84.7741	1	0.0000	***

n = 4 044, $R_{(m)}^2 = 0.5493$, $R_{(c)}^2 = 0.6376$

TABLE C20. Summary of random effects of the linear mixed-effects model of word duration in Texistepec

Random effect	Groups	Std. Dev.	$\Delta R_{(m)}^2$ %	$\Delta R_{(c)}^2$ %	χ^2	<i>df</i>	<i>p</i>	
text	6	0.0229	0.0888	0.1260	7.4626	1	0.0063	**
word type	1306	0.1604	-4.4345	9.5268	425.1106	1	0.0000	***
Residual		0.3282						

K. Texistepec (with final quotative)

TABLE C21. Summary of fixed effects of the linear mixed-effects model of word duration in Texistepec (with final quotative)

	Coefficient	Std. Error	<i>df</i>	<i>t</i>	<i>p</i>	β	$\Delta R^2_{(m)}\%$	$\Delta R^2_{(c)}\%$	χ^2	<i>df</i>	<i>p</i>		
(Intercept)	-1.7377	0.0627	982.6341	-27.7085	0.0000	***							
position							-0.4770	-0.6344	8.8808	3	0.0309	*	
position = -3 vs. -4	-0.0068	0.0141	4911.2900	-0.4774	0.6331	n.s.	-0.0052						
position = -2 vs. -3 and -4	0.0102	0.0145	4961.6379	0.7008	0.4834	n.s.	0.0078						
position = -1 vs. -3 and -4	0.0392	0.0160	4967.7530	2.4520	0.0142	*	0.0303						
log word frequency	-0.0497	0.0062	959.1470	-7.9582	0.0000	***	-0.2194	14.0214	8.0810	61.3300	1	0.0000	***
word length	0.1245	0.0044	1916.7933	28.1846	0.0000	***	0.5390	20.9139	-0.4549	635.8758	1	0.0000	***
number of morphemes	-0.0391	0.0120	2054.5276	-3.2586	0.0011	**	-0.0653	1.7933	0.9573	10.6196	1	0.0011	**
word class							3.0190	1.0153	42.4380	2	0.0000	***	
word class = verb	-0.0886	0.0229	1854.6040	-3.8764	0.0001	***	-0.0715						
word class = other	-0.1477	0.0226	1349.9460	-6.5446	0.0000	***	-0.1308						
log speech rate	-0.1384	0.0135	4958.1588	-10.2400	0.0000	***	-0.0918	2.1903	0.9718	103.8894	1	0.0000	***

n = 4 980, $R^2_{(m)} = 0.5374$, $R^2_{(c)} = 0.623$

TABLE C22. Summary of random effects of the linear mixed-effects model of word duration in Texistepec (with final quotative)

Random effect	Groups	Std. Dev.	$\Delta R^2_{(m)}\%$	$\Delta R^2_{(c)}\%$	χ^2	<i>df</i>	<i>p</i>	
text	6	0.0274	0.0795	0.2471	12.3442	1	0.0004	***
word type	1423	0.1560	-6.2366	7.8441	410.3069	1	0.0000	***
Residual		0.3323						