

Phonetic evidence of an iterative stress system: the issue of consonantal rhythm

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Supplementary materials

Appendix A: Word-list

amputowany	[amputɔvani]	‘amputate’	(NOM SG PAST PART)
amputowanego	[amputɔvanɛgɔ]		(GEN SG PAST PART)
ananasowy	[ananasɔvi]	‘pineapple’	(NOM SG ADJ)
ananasowego	[ananasɔvɛgɔ]		(GEN SG ADJ)
antagonizmy	[antagɔnizmi]	‘antagonism’	(NOM PL)
antagonizować	[antagɔnizɔvatɛ]	‘antagonise’	(INF)
atakowany	[atakɔvani]	‘attack’	(NOM SG PAST PART)
atakowanego	[atakɔvanɛgɔ]		(GEN SG PAST PART)
automatyczny	[autɔmatit͡ʂni]	‘automatic’	(NOM SG)
automatycznego	[autɔmatit͡ʂnɛgɔ]		(GEN SG)
encefalograf	[ɛntʂɛfalɔgraf]	‘encephalograph’	(NOM SG)
encefalografia	[ɛntʂɛfalɔgrafja]	‘encephalography’	(NOM SG)
faszerowany	[faʂɛrɔvani]	‘stuff’	(NOM SG PAST PART)
faszerowanego	[faʂɛrɔvanɛgɔ]		(GEN SG PAST PART)
fortyfikacja	[fortifikatsja]	‘fortification’	(NOM SG)
fortyfikowane	[fortifikɔvanɛ]	‘fortify’	(NOM PL PAST PART)
kapalista	[kapalista]	‘capitalist’	(NOM SG)
kapitalizować	[kapitalizɔvatɛ]	‘capitalise’	(INF)
konusowaty	[kɔnusɔvati]	‘dwarfish’	(NOM SG)
konusowatego	[kɔnusɔvatɛgɔ]		(GEN SG)
korepetytor	[kɔrɛpɛtitɔr]	‘(private) tutor’	(NOM SG)
korepetytora	[kɔrɛpɛtitɔra]		(GEN SG)
korporacyjny	[kɔrpɔratsijnɪ]	‘corporative’	(NOM SG)
korporacyjnego	[kɔrpɔratsijnɛgɔ]		(GEN SG)
logopedyczny	[[lɔgɔpɛdit͡ʂni]	‘speech therapy’	(NOM SG ADJ)
logopedycznego	[lɔgɔpɛdit͡ʂnɛgɔ]		(GEN SG ADJ)

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makaronowy	[makarɔnɔvi]	‘pasta’	(NOM SG ADJ)
makaronowego	[makarɔnɔvɛgɔ]		(GEN SG ADJ)
marmoladowy	[marmɔladɔvi]	‘(fruit) preserve’	(NOM SG ADJ)
marmoladowego	[marmɔladɔvɛgɔ]		(GEN SG ADJ)
matematyczny	[matematitʂni]	‘mathematical’	(NOM SG)
matematycznego	[matematitʂnɛgɔ]		(GEN SG)
metafizyczny	[metafizitʂni]	‘metaphysical’	(NOM SG)
metafizycznego	[metafizitʂnɛgɔ]		(GEN SG)
mystyfikacja	[mistifikatsja]	‘misrepresentation’	(NOM SG)
mystyfikowany	[mistifikɔvani]	‘misrepresent’	(NOM SG PAST PART)
ontologiczny	[ɔntɔɔɔjɪtʂni]	‘ontological’	(NOM SG)
ontologicznego	[ɔntɔɔɔjɪtʂnɛgɔ]		(GEN SG)
opatulony	[ɔpatulɔni]	‘bundle up’	(NOM SG PAST PART)
opatulonego	[ɔpatulɔnɛgɔ]		(GEN SG PAST PART)
paraboliczny	[parabolitʂni]	‘parabolic’	(NOM SG)
parabolicznego	[parabolitʂnɛgɔ]		(GEN SG)
patologiczny	[patɔɔɔjɪtʂni]	‘pathological’	(NOM SG)
patologicznego	[patɔɔɔjɪtʂnɛgɔ]		(GEN SG)
politykować	[pɔlitikɔvatɕ]	‘talk politics’	(INF)
politykowanie	[pɔlitikɔvɔnɛ]	‘talking politics’	(NOM SG N)
pomidorowy	[pɔmidɔrɔvi]	‘tomato’	(NOM SG ADJ)
pomidorowego	[pɔmidɔrɔvɛgɔ]		(GEN SG ADJ)
potasowany	[pɔtasɔvani]	‘shuffle’	(NOM SG PAST PART)
potasowanego	[pɔtasɔvanɛgɔ]		(GEN SG PAST PART)
powinowactwo	[pɔvinɔvatʂfɔ]	‘kinship’	(NOM SG)
spowinowacony	[spɔvinɔvatʂɔni]	‘(distantly) related’	(NOM SG ADJ)
poziomowany	[pɔzɔmɔvani]	‘level’	(NOM SG PAST PART)
poziomowanego	[pɔzɔmɔvanɛgɔ]		(GEN SG PAST PART)
prenumerata	[prenumerata]	‘subscription’	(NOM SG)
prenumerowany	[prenumerɔvani]	‘subscribe’	(NOM SG PAST PART)
produkowany	[prɔdukɔvani]	‘produce’	(NOM SG PAST PART)
produkowanego	[prɔdukɔvanɛgɔ]		(GEN SG PAST PART)
proponowany	[prɔpɔɔɔvani]	‘propose’	(NOM SG PAST PART)
proponowanego	[prɔpɔɔɔvanɛgɔ]		(GEN SG PAST PART)
protegowany	[prɔtegɔvani]	‘protégé’	(NOM SG)
protegowanego	[prɔtegɔvanɛgɔ]		(GEN SG)
recytatorski	[retsitatɔrsɕi]	‘declamation’	(NOM SG ADJ)
recytatorskiego	[retsitatɔrsɕɛgɔ]		(GEN SG ADJ)
stowarzyszony	[stɔvazɪʂɔni]	‘affiliated’	(NOM SG ADJ)
stowarzyszonego	[stɔvazɪʂɔnɛgɔ]		(GEN SG ADJ)
unikatowy	[ujikatɔvi]	‘unique’	(NOM SG)
unikatowego	[ujikatɔvɛgɔ]		(GEN SG)

**Appendix B:
Oscillograms and spectrograms for selected pairs of tokens**

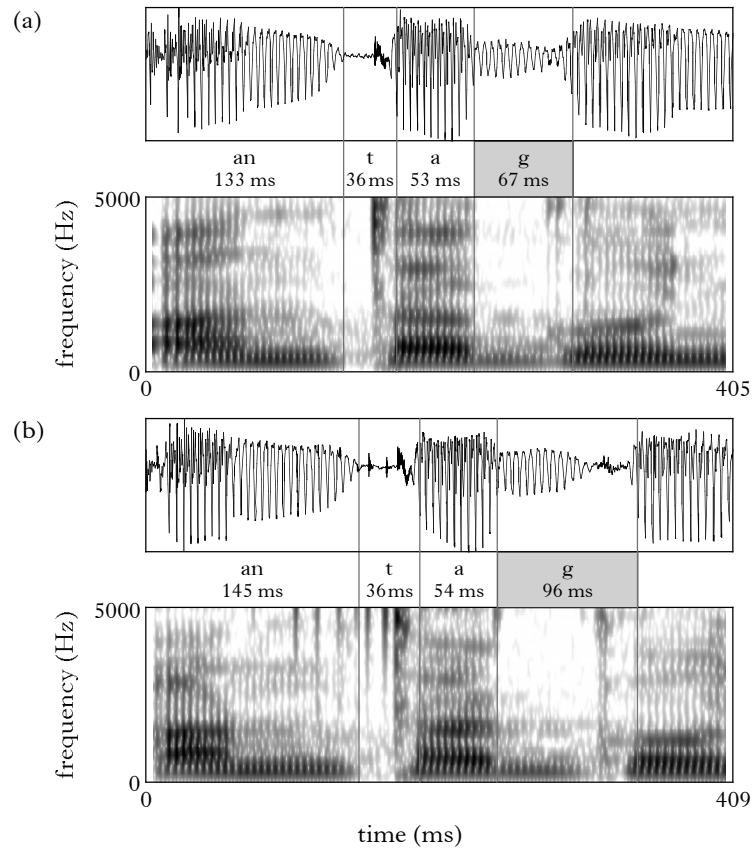


Figure 10

Duration measurements of a female speaker (F3) producing (a) *antagonizmy* [antagɔɲizmi] ‘antagonism (NOM PL)’ and (b) *antagonizować* [antaɔɲi'zɔvatɕ] ‘antagonise (INF)’. The consonant [g] in the third syllable of the five-syllable word in (a) is shorter than in the third syllable of the six-syllable word in (b).

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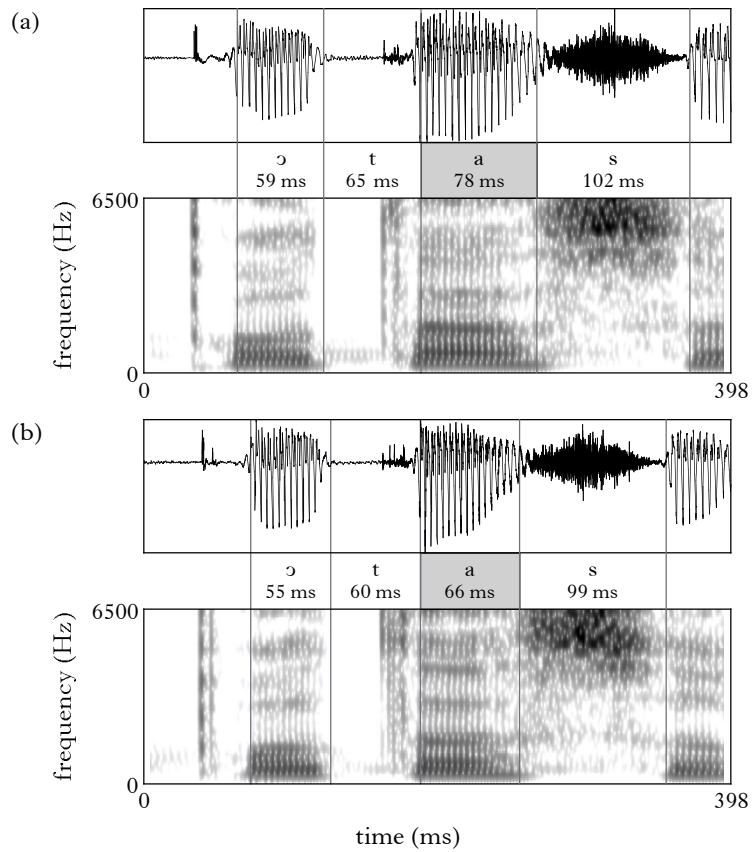


Figure 11

Duration measurements of a female speaker (F5) producing (a) *potasowany* [ˈpɔtasɔˈvani] ‘shuffle (NOM SG PAST PART)’ and (b) *potasowanego* [ˈpɔtaˌsɔvaˈnɛɡɔ] ‘shuffle (GEN SG PAST PART)’. The vowel [a] in the second syllable of the five-syllable word in (a) is longer than in the second syllable of the six-syllable word in (b).

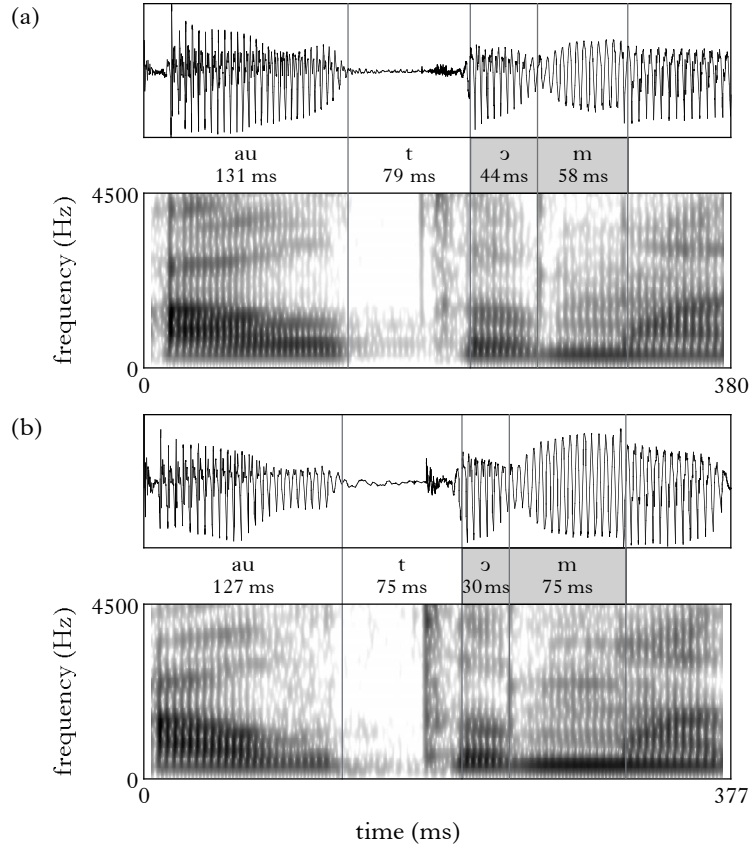


Figure 12

Duration measurements of a female speaker (F5) producing (a) *automatyczny* [ˌautɔmaˈtɨʦɲɨ] ‘automatic (NOM SG)’ and (b) *automatycznego* [ˌautɔmatɨˈʦɲɛgɔ] ‘automatic (GEN SG)’. In the five-syllable word in (a), the consonant [m] in the third syllable is shorter and the preceding vowel is longer than in the six-syllable word in (b).

Appendix C: Statistical tables

	estimate	SE	df	CI	
				lower	upper
5 syllables (unstressed)	-33.26	6.601	40.880	-46.59	-19.93
6 syllables (tertiary)	-51.65	6.600	40.867	-64.98	-38.31

Table VI

Estimated marginal means for the dependent variable $PVI_{dur}(V_2.C_3)$.

	estimate	SE	df	CI	
				lower	upper
5 syllables (unstressed)	-20.95	8.151	40.025	-37.43	-4.48
6 syllables (unstressed)	-13.56	8.151	40.025	-30.03	2.92

Table VII

Estimated marginal means for the dependent variable $PVI_{dur}(V_1, C_2)$.

	estimate	SE	df	CI	
				lower	upper
5 syllables (unstressed)	5.40	7.197	34.467	-9.22	20.02
6 syllables (tertiary)	-2.67	7.196	34.495	-17.29	11.95

Table VIII

Estimated marginal means for the dependent variable $PVI_{dur}(C_2, C_3)$.

	estimate	SE	df	CI	
				lower	upper
5 syllables (unstressed)	-15.28	4.897	35.015	-25.22	-5.34
6 syllables (tertiary)	-15.85	4.896	35.000	-25.79	-5.91

Table IX

Estimated marginal means for the dependent variable $PVI_{dur}(V_2, V_3)$.

	estimate	SE	df	CI	
				lower	upper
stress (unstressed)	3.73	6.947	42.021	-10.29	17.75
stress (secondary)	-20.06	8.330	50.832	-36.79	-3.34
stress (tertiary)	-4.27	6.947	42.006	-18.29	9.75

Table X

Estimated marginal means for the dependent variable $PVI_{dur}(C)$.

condition a	condition b	mean diff (a - b)	SE	df	p	CI	
						lower	upper
unstressed	secondary	23.796 *	7.242	24.079	0.009	5.22	42.38
	tertiary	8.007 *	1.139	503.477	0.000	5.28	10.74
secondary	unstressed	-23.796 *	7.242	24.079	0.009	-42.38	-5.22
	tertiary	-15.789	7.241	24.071	0.113	-34.37	2.79
tertiary	unstressed	-8.007 *	1.139	503.477	0.000	-10.74	-5.28
	secondary	15.789	7.241	24.071	0.113	-2.79	34.37

Table XI

Pairwise comparisons based on estimated marginal means for the dependent variable $PVI_{dur}(C)$. Comparisons are given using the Šidák adjustment. * = significant at the 0.05 level.

	numerator df	denominator df	F	p
Intercept	1	35.303	13.529	0.001
stress	2	71.503	0.225	0.799

Table XII

Type III tests of fixed effects for the dependent variable $PVI_{dur}(V)$.

	estimate	SE	df	t	p	CI	
						lower	upper
Intercept	-15.97	4.982	50.935	-3.206	0.002	-25.97	-5.97
unstressed	0.59	1.688	628.717	0.349	0.728	-2.73	3.90
secondary	-2.21	4.450	37.698	-0.497	0.622	-11.22	6.80
tertiary	0	0					

Table XIII

Estimates of fixed effects for the dependent variable $PVI_{dur}(V)$. The tertiary parameter is set to zero because it is redundant.