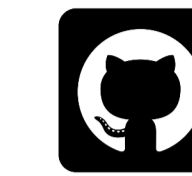


A comparison of the voicing effect in Northern English, Italian and Polish

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stefanocoretta/ve-comp

MATERIALS

Italian and Polish dataset

- C_1VC_2V structure, where $C_1 = /p/$, $V = /a, o, u/$, $C_2 = /t, d, k, g/$, and $V = V$

(e.g. /pata/, /pada/, /poto/, etc.)

English dataset

- $C_1VC_2(VC)$ words, where $C_1 = /t/$, $V = /i:, ɜ:, a:/$, $C_2 = /p, b, k, g/$, and $(VC) = /əs/$

(e.g. /ti:p/, /ti:pəs/, /ti:b/, /ti:bəs/, etc.)

PARTICIPANTS

- 11 Italian and 6 Polish: 1212 obs
- 15 Northern English (Greater Manchester): 1800 obs

ANALYSIS

- Bayesian multilevel model of z-scored logged V duration in Stan.
- **Constant effects:** by-language voicing, N syllables (English only), voicing:N syllables (English only), speech rate (logged and ctrd).
- **Varying effects:** by-participant intercept, voicing, N syllables (English only), voicing:N syllables (English only).

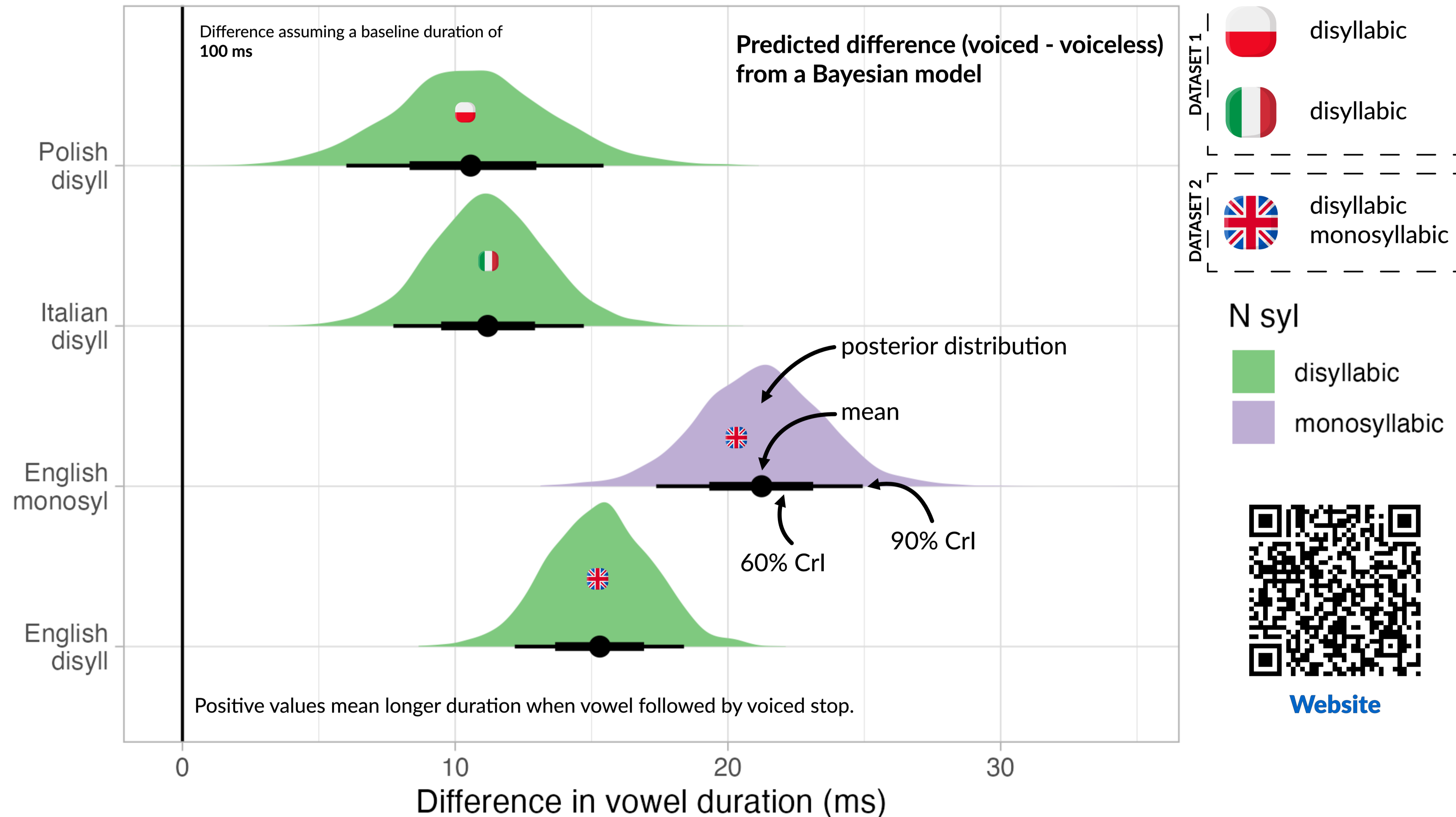
RESULTS

DURATION RATIO (VOICED TO VOICELESS)

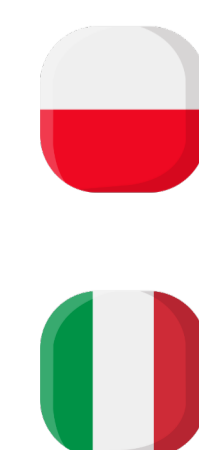
		95% CrI
Italian	(di)	[1.08, 1.15]
Polish	(di)	[1.06, 1.15]
English	(di)	[1.12, 1.18]
	(mono)	[1.17, 1.25]

BACKGROUND

Vowels tend to be longer when followed by voiced stops.
Reportedly greater effect in English, but not many cross-linguistic comparisons.



DISCUSSION



Similar smaller effect in Polish and Italian disyllabic words



Possible intermediate effect in English disyllabic words



Somewhat larger effect in English monosyllabic