



Towards a history of the tenseness contrast in Brythonic vowels

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Tenseness in Modern Welsh

- See Iosad (2017) for details
- Familiar connection between vowel length and tenseness/laxness for [i: u: ɪ ʊ], [e: o: ε ɔ]
- Length contrast in final stressed syllables

- (1) a. ['l̪e:n] 'literature' ≠ ['l̪ɛn] 'veil'
b. ['t̪o:n] 'tune' ≠ ['t̪ɔn] 'wave'

- North Welsh: only short in stressed penults, variable quality (G. E. Jones 1984): [l̪ɛn̪i] 'veils'
- South Welsh: contrast in stressed penults, same patterning

- (2) ['t̪o:nɛ] 'tunes' ≠ ['t̪ɔnɛ] 'waves'

- Final unstressed syllables
 - No length contrast: phonologically short
 - ☞ But phonetically often quite long
 - High: [i u] in open syllables, [ɪ ʊ] in closed

- (3) ['kən:ɪg] 'offer' ≠ ['tən:i] 'pull'

- Mid: unclear from sources
- Pre-stress syllables
 - Unclear from sources
 - The vowel is often deleted anyway
 - Always tense in hiatus

- (4) [r̪̥e'o:ɛ] 'rules', *[r̪̥e'o:ɛ]

Origins of length

- 'New Quantity System' (Jackson 1953, McCone 1996)
- Long vowels basically in open stressed penults

| | *senos | *pennos | *abonā | *kēlijos |
|------------|------------------|-------------------|-----------------------|-------------------------|
| Stress | sénos | pénnos | abónā | kēljjos |
| NQS | sénos | pénnos | abóna | kilfjos |
| Apocope | hēn | pēn | aβón | kilið |
| Retraction | hēn | pēn | ávon | kilið |
| ModW | ['he:n] 'old' | ['pɛn̪] 'head' | ['a(·)vɔn] 'river' | ['ki(·)lið] 'friend' |

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Origins of tenseness

If the length contrast was (mostly) neutralized in penults (old antepenults) by the NQS, where do the tense/lax qualities in modern stressed penults come from?

North No length **or** tenseness distinctions: pre-retraction situation preserved?

South Lengthening in penults presumably secondary? What about tensing?

Related issues

- Breton and Cornish have (effectively) the South Welsh system: how?
- Breton generally does **not** have the tense/lax connection with quantity, but probably used to
- Where does the tense/lax distinction come from in stressed penults?
- When did complementary length of consonants arise in Welsh?

Lengthening and tensing

If South Welsh lengthening is secondary, can we expect the tensing to follow?

- Breton: lengthening without tensing (Jackson 1967)
- Evidence for earlier lax short vowels

- (5) a. After [w]-vocalization: ['d̪ɛ:ro] 'oak' (< **derw*)
b. After **ae* > *e*: ['b̪ɛ:l̪ək] 'priest', MBr *baelec*
c. From **ez*: ['l̪ɛ:r] 'strap', MBr *lezr*
d. Before svarabhakti vowel: ['æ:rax] 'snow' *erc'h*

- Contrast North Germanic: both outcomes attested (Küspert 1988)

- (6) a. ON *vita* 'know'
b. Lax/lowered outcome: Icelandic [vɪ:ta], West Norwegian *veta*
c. Tense outcome: Faroese [vɪ:ta]

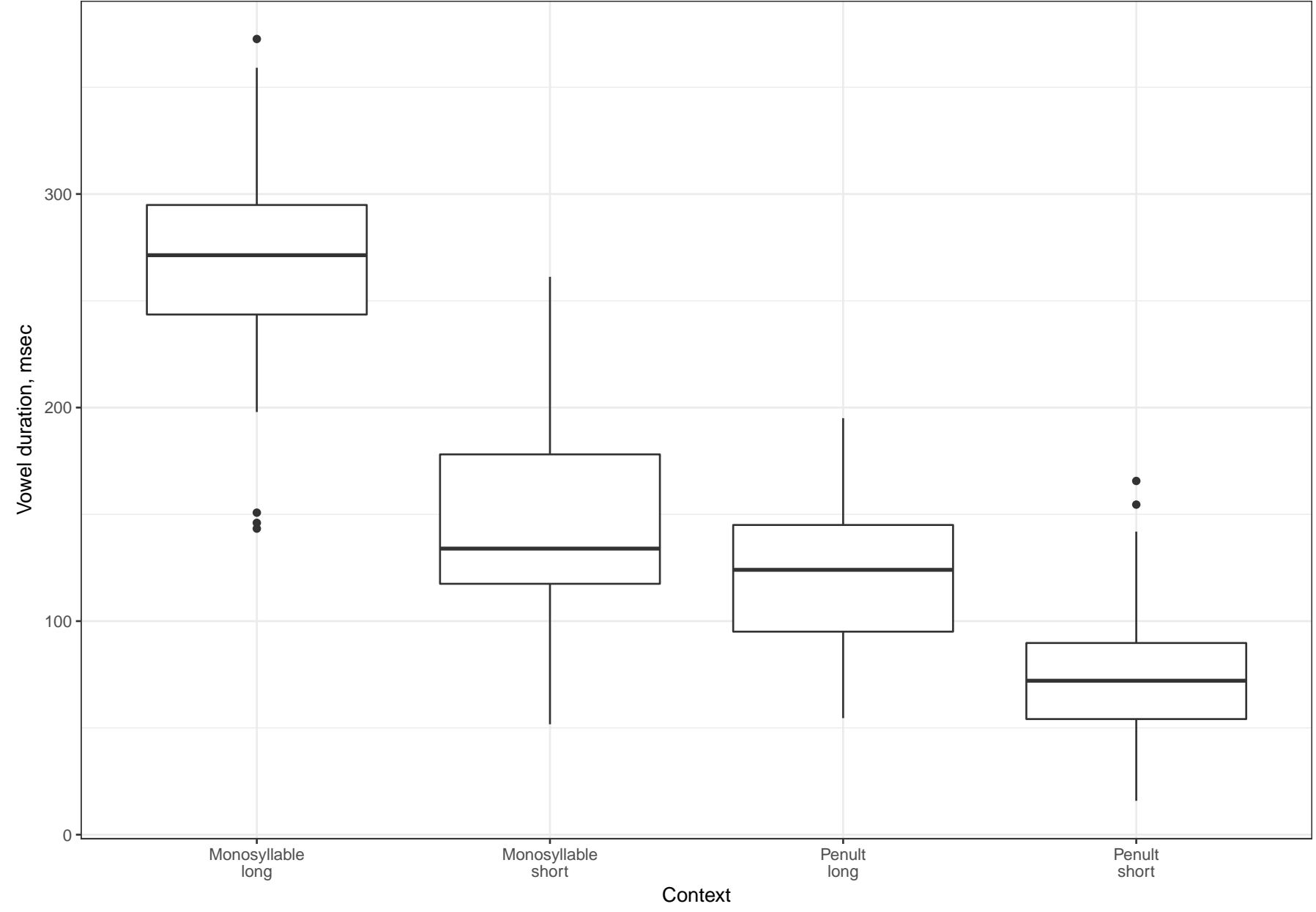
Selected references

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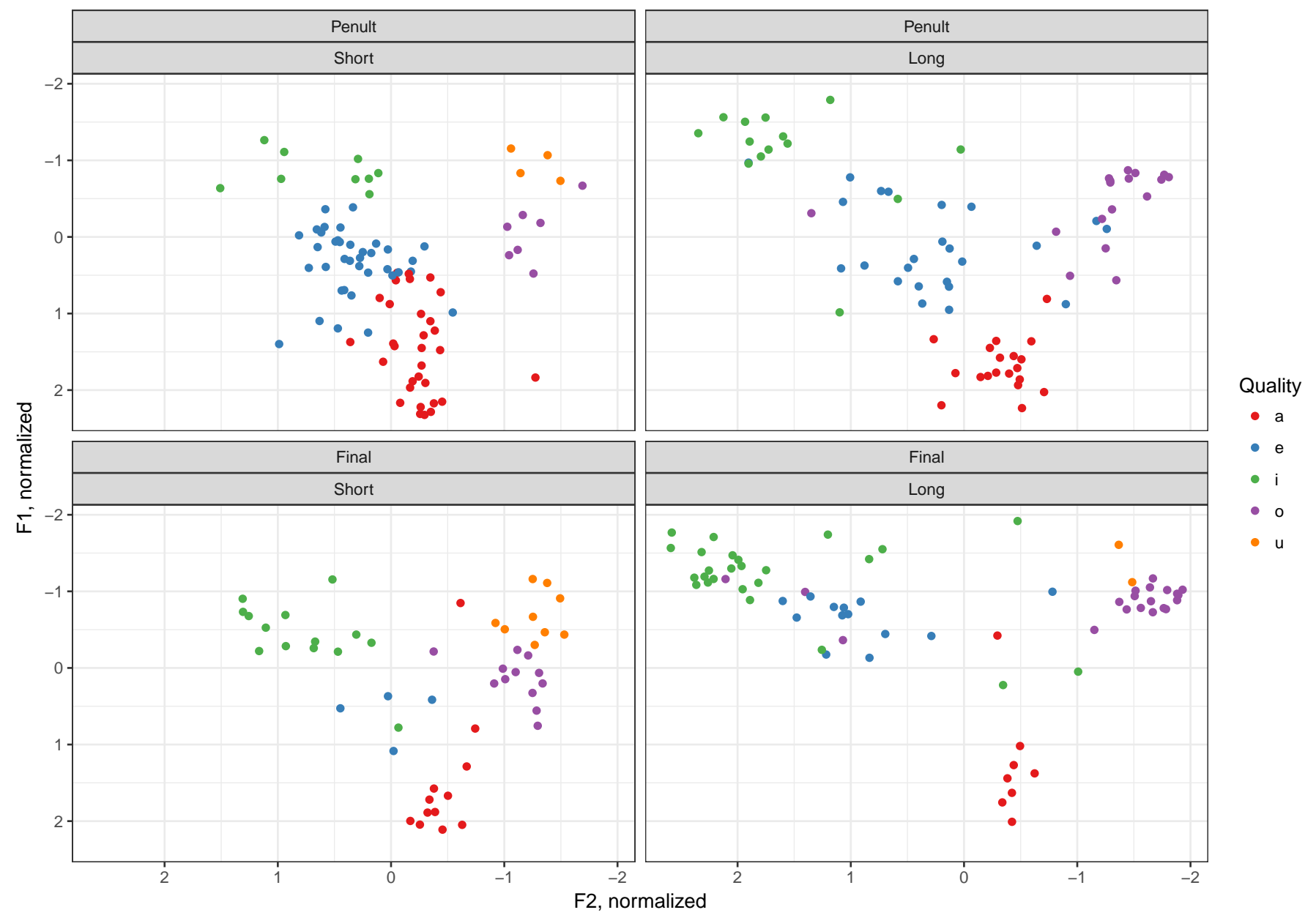
Mid Welsh: pre-lengthening system?

- Poorly described, but indications of a third system
 - Pilch (1957) (ɪ speaker, Bow Street): structuralist phonemics; forms like [m̪ɛðɪg] for *meddyg* 'doctor' suggest no tensing in penults
 - Lewis (1960) (rural N Cards): free short/long variation in penults, **no quality difference**
 - Iosad (2017): ɪ speaker (Aberystwyth), **lax** vowels in penults **but** a quantity contrast in penults **and** a tenseness distinction in final unstressed syllables: [m̪ɛ:ðɪg] 'doctor', [b̪ɔ:ðɪ] 'perish'
- Study of the *Paldaruo* corpus (Cooper, Chan & D. B. Jones 2015); 3 speakers so far, N Cards

Southern quantity system

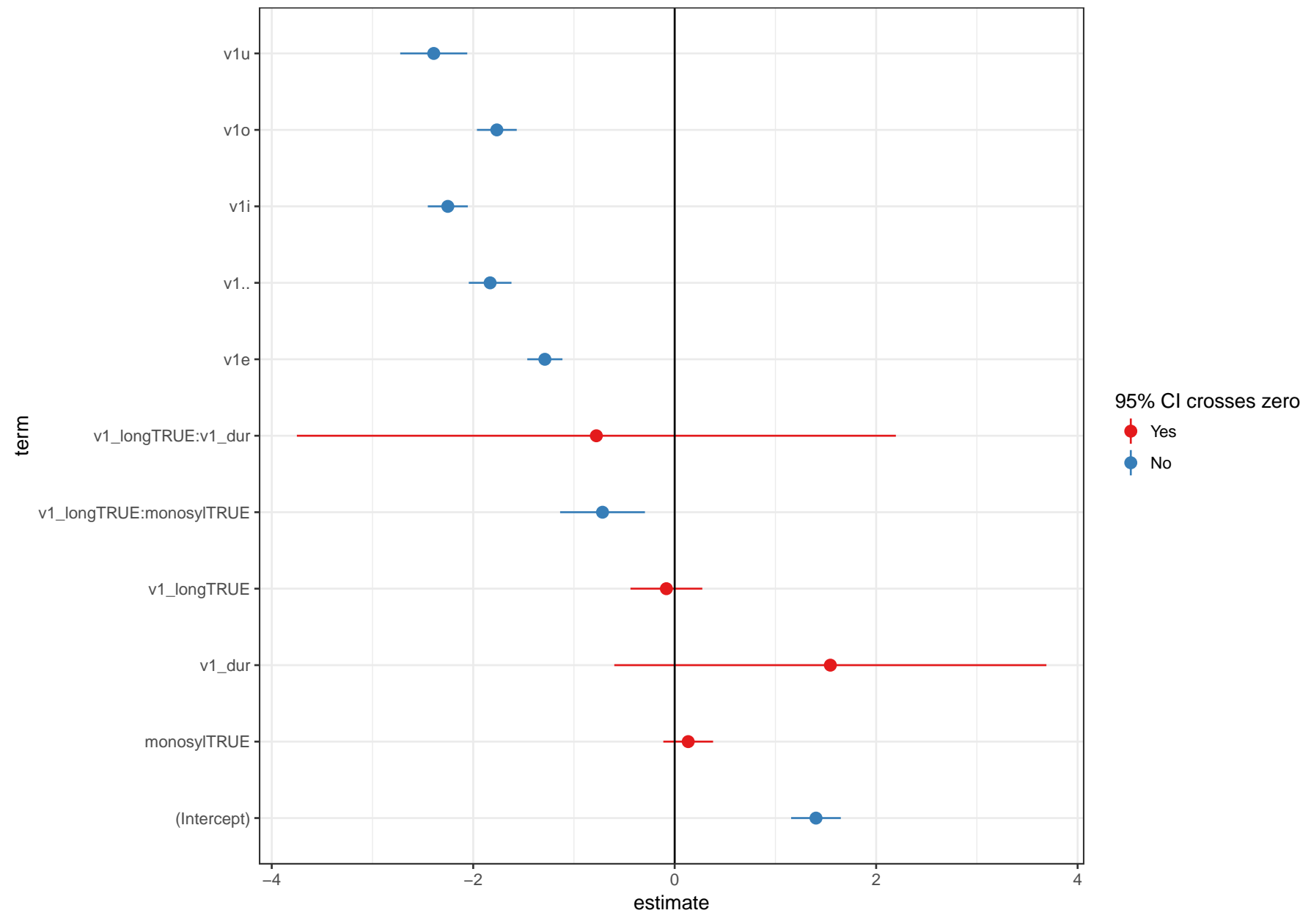


Tense/lax only in ultima



Penult vowel lengthening is primary

$\text{lmer}(v1_f1_normalized \sim v1 + v1_long * monosyl + v1_long * v1_dur + (1|speaker) + (1|word))$



- Length contrast: **all** stressed syllables, whether final or penult
- Tenseness contrast: **all** final syllables, whether stressed or unstressed, **not** stressed penults

Support for the analysis in Iosad (2017): tense/lax is bound to syllable structure, not length

Suggested reconstruction

- North and Mid Welsh preserve the lack of tense/lax distinction in penults from pre-stress retraction system
- Vowel lengthening in South and Mid Welsh stressed penults (and Breton and Cornish?) is secondary
- Tense/lax in Brythonic is historically driven by presence of coda not by vowel length
- Distinctive if not always contrastive (Kiparsky 2015) in both stressed and unstressed syllables
- Tensing is originally **word-final** and spreads to non-final syllables (including stressed penults) via **rule generalization**

A final speculation

- Tense/lax has often been suggested as a factor in Germanic languages being prone to vowel shifts (e.g. Kazmierski 2015)
- Does the Brythonic decoupling of tenseness from length explain why these languages do not vowel-shift nearly as much?
- ☞ Even if it does not, Brythonic (and Gaelic) should be interesting for the typology of tense/lax vowel systems and vowel shifting