

ACTL phonology tutorial 1

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Today's motto

“[T]here are significant generalizations to be made about assimilation and [...] the formulation of these generalizations and their incorporation into phonological metatheory represent promising objectives for research.” (Schachter 1969:355)

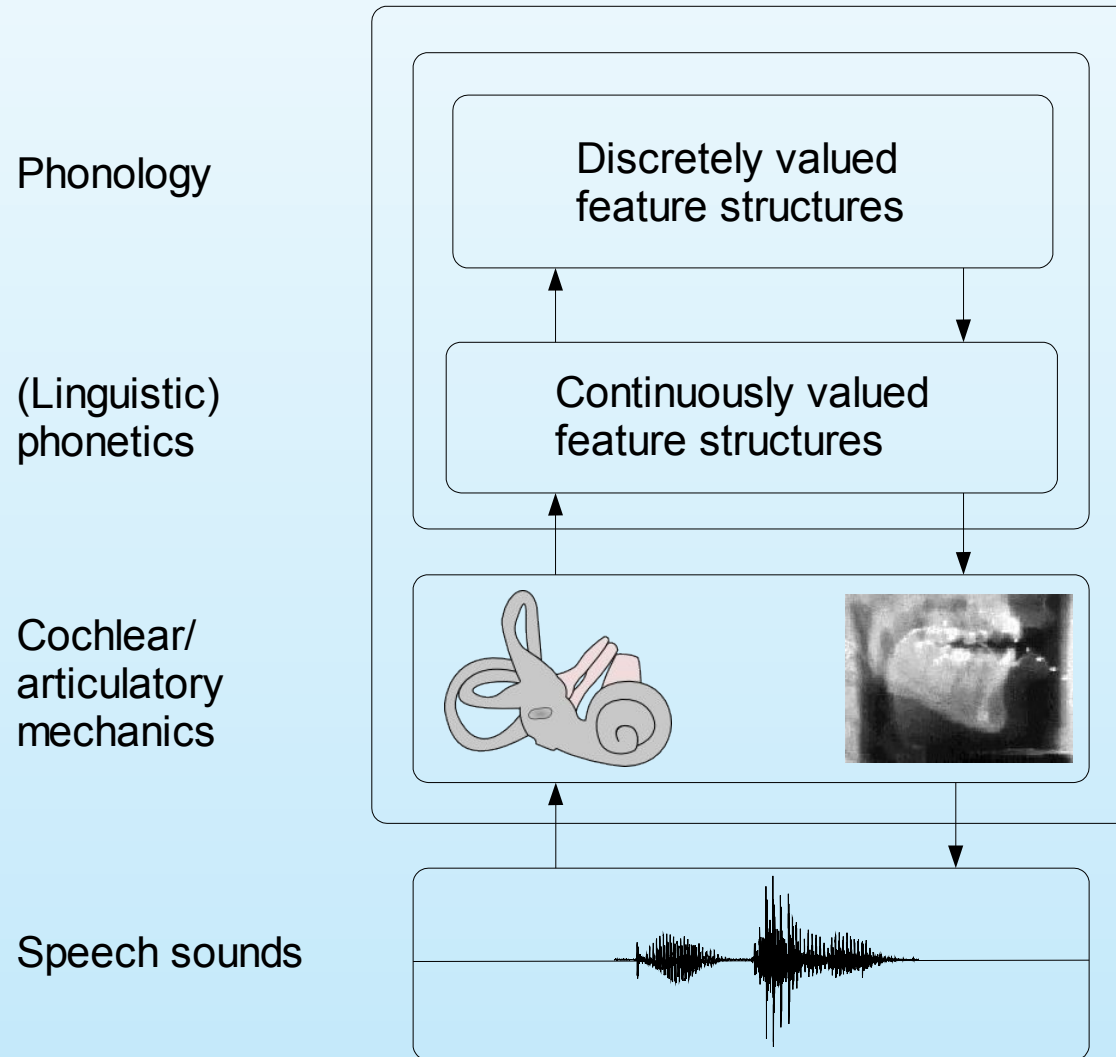
Recap of 15-10

- Two conceptions of the phonology-phonetics interface:
 1. A traditional model: **Modified Extended Standard Modularization** (MESM)
 2. An alternative: a single module covers both phonology and phonetics

MESM

- Phonological representations and rules stated in terms of categorical features
- Single underlying forms for (most) output allophones and allomorphs
- Phonological representations are converted into scalar phonetic features at the phonology-phonetics interface
- Linguistic phonetics responsible for ‘low-level’ post-processing and interfaces with peripheral auditory and articulatory systems

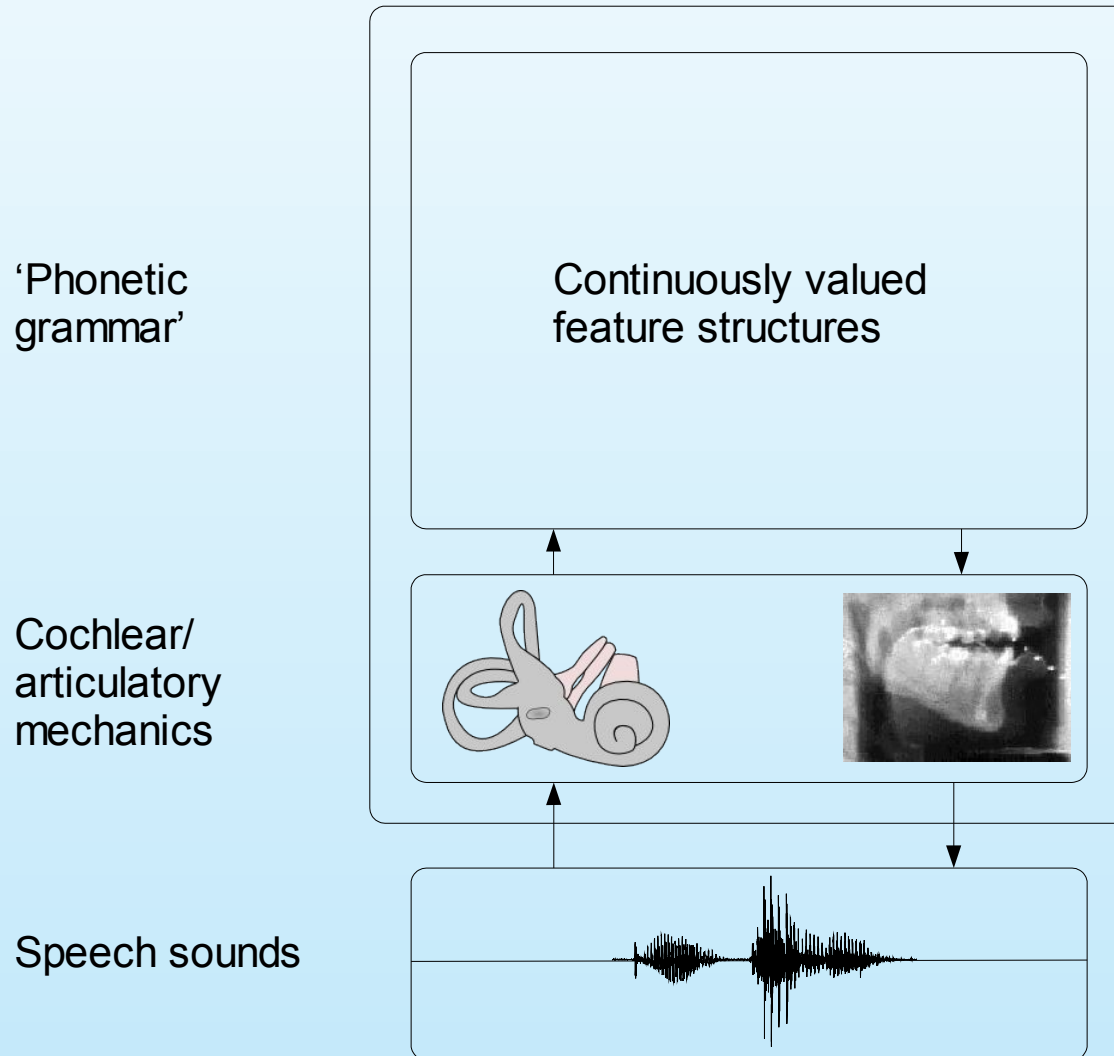
MESM



An alternative

- All representations and rules stated in terms of fine phonetic detail
- Allophones and allomorphs are stored in the lexicon and may interfere during production and perception

An alternative



An alternative

- The alternative model has been developed in part as a result of a more detailed understanding of:
 1. The phonetic manifestation of phonological rules: e.g., **incomplete neutralisation**
 2. The nature of 'low-level' phonetic processes
- Case studies: Hungarian and English RVA

Previous observations: Hungarian

- Hungarian is a language with [voice]-symmetric (neutralising) RVA (Vago, 1980; Kenesei et al., 1998; Siptár & Törkenczy, 2000)
- /fy:c/+ /bɔn/ [fy:ɟbɛn] 'in (a) whistle'
/se:p/+ /zɛne:s/ [se:ɓzɛne:s] 'beautiful musician'
- /rɔb/+ /to:l/ [rɔpto:l] 'from (a) prisoner'
/hɔb/+ /sifon/ [hɔpsifon] 'cream-maker'

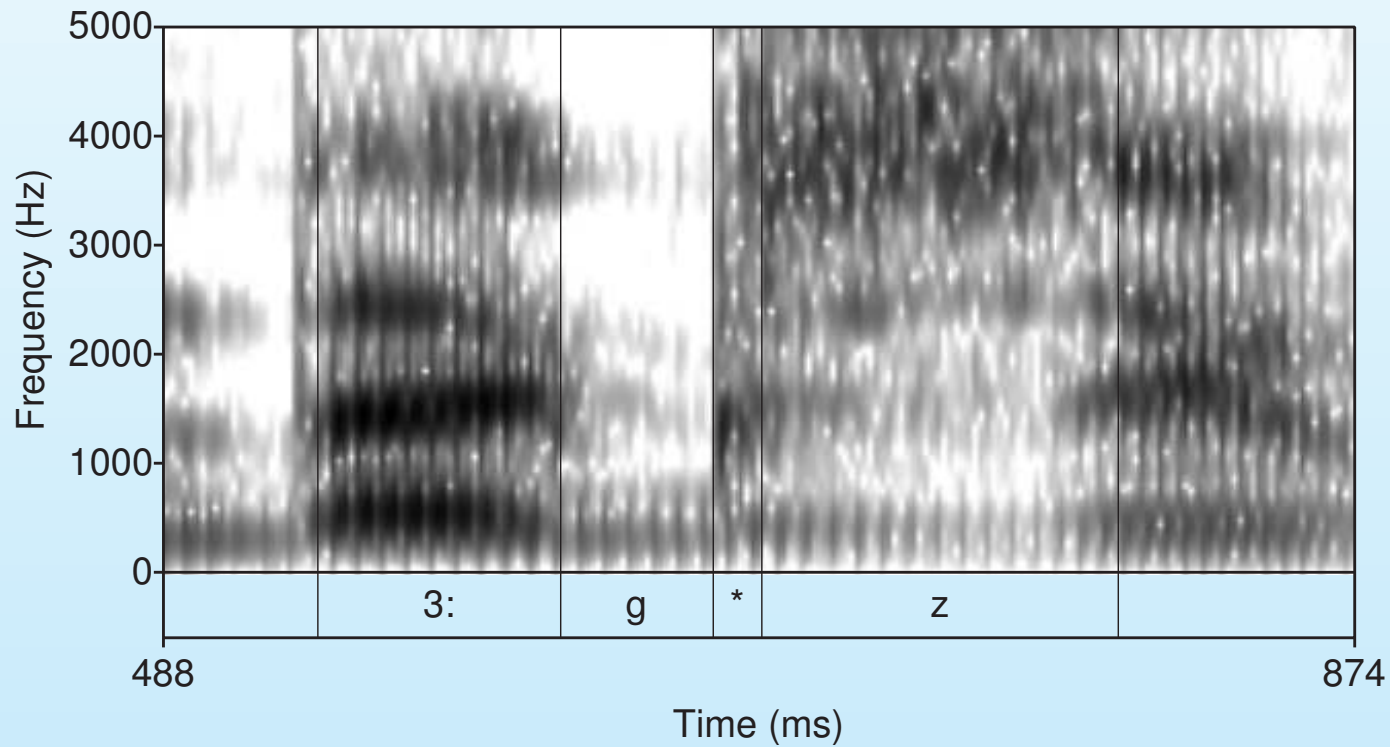
Previous observations: English

- RVA is at best a low-level phonetic process, triggered almost exclusively by [-voice] obstruents:
 - ◆ Jones (1956); Gimson (1994): RVA to lenis obstruents is typical L2 (French, Dutch) ‘error’
 - ◆ Gimson (1994): English [+voice] fricatives devoice before a [-voice] obstruents in ‘close-knit’ combinations. Vowel length rarely affected
 - ◆ Haggard (1978); Stevens et al. (1992); Smith (1996) English [+voice] fricatives are subject to (partial) devoicing across contexts, especially after another ([-voice]) obstruent and utterance finally

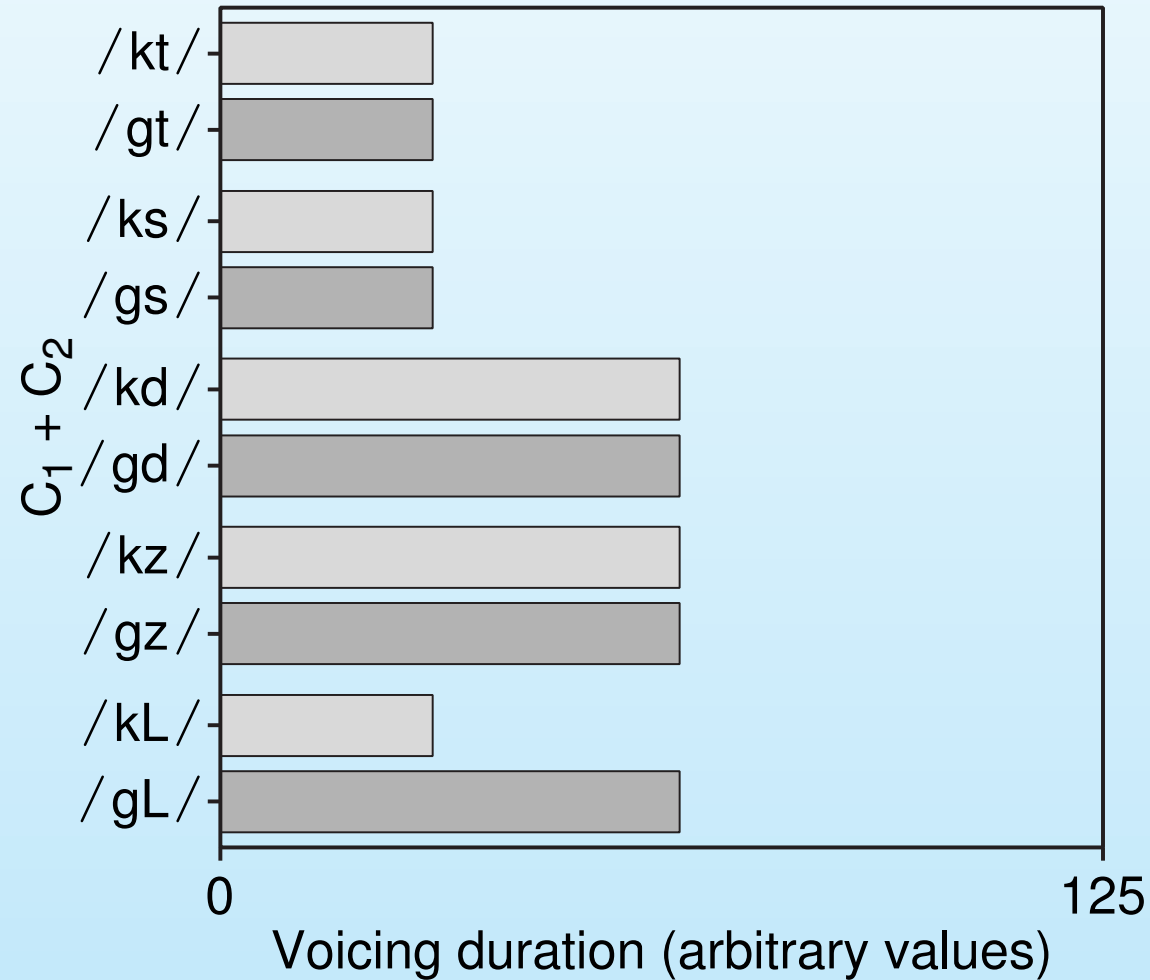
Previous observations: English

- Some evidence of assimilation to English [+ voice] obstruents: [N. Thorsen \(1971\)](#); [Myers \(2002\)](#)

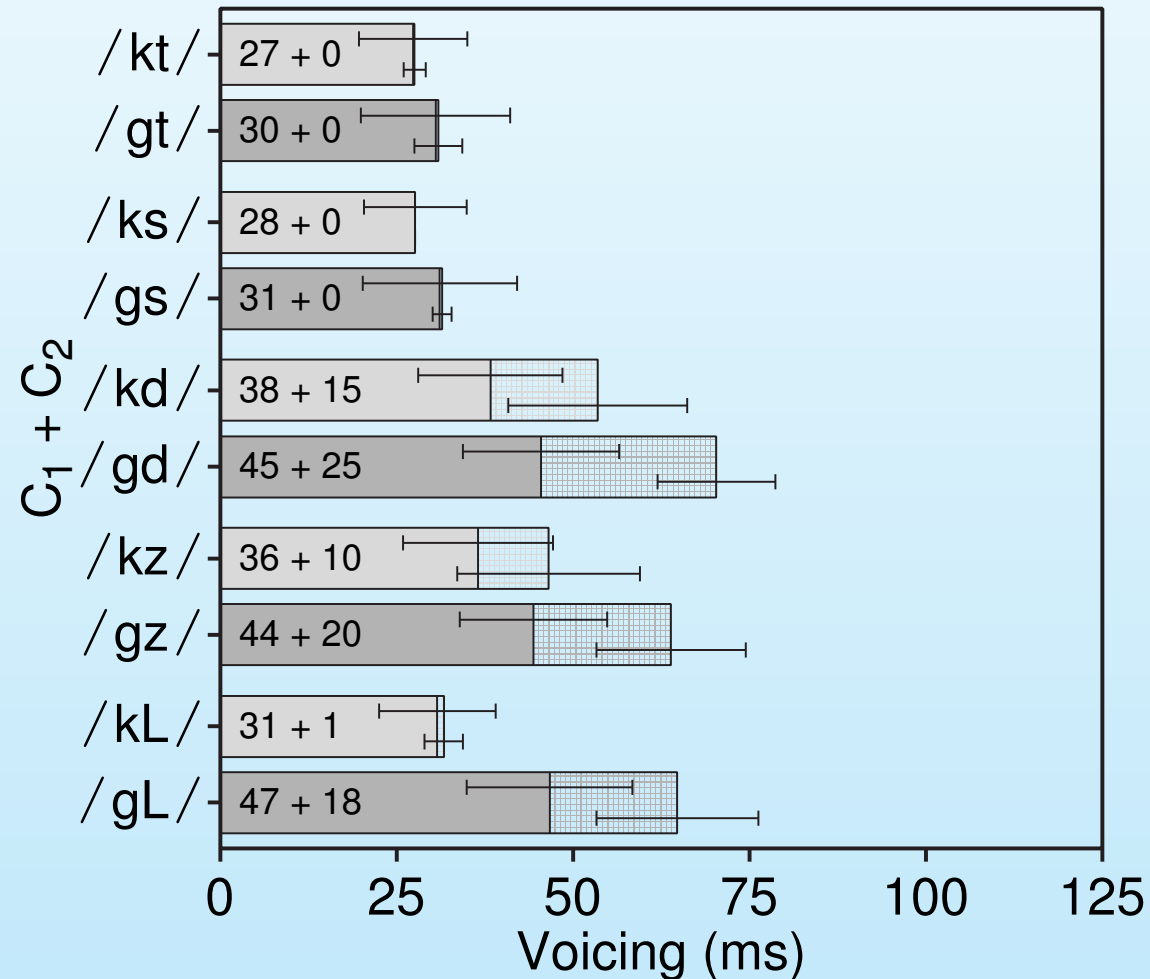
Acoustic analysis of two-way obstruent clusters



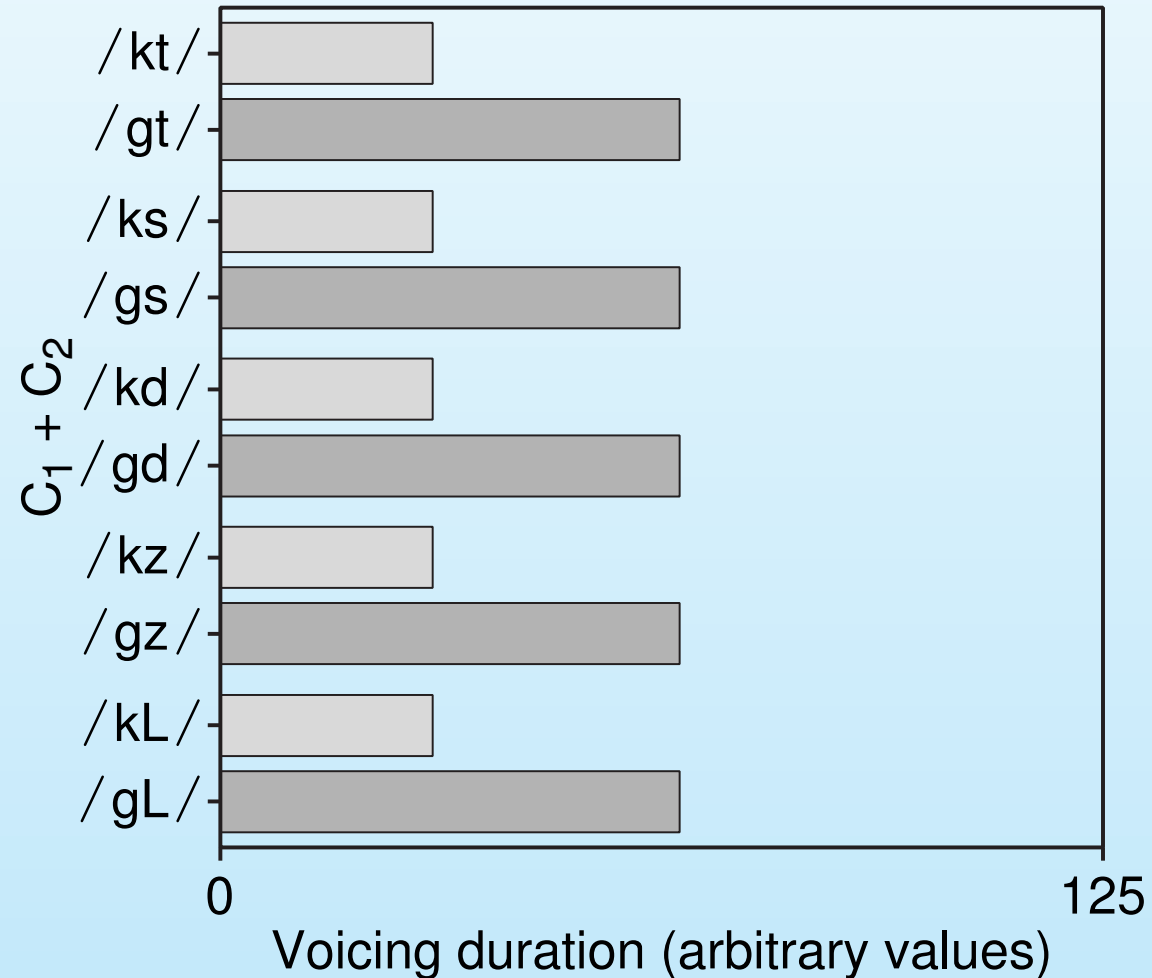
Hungarian C₁ voicing: predictions



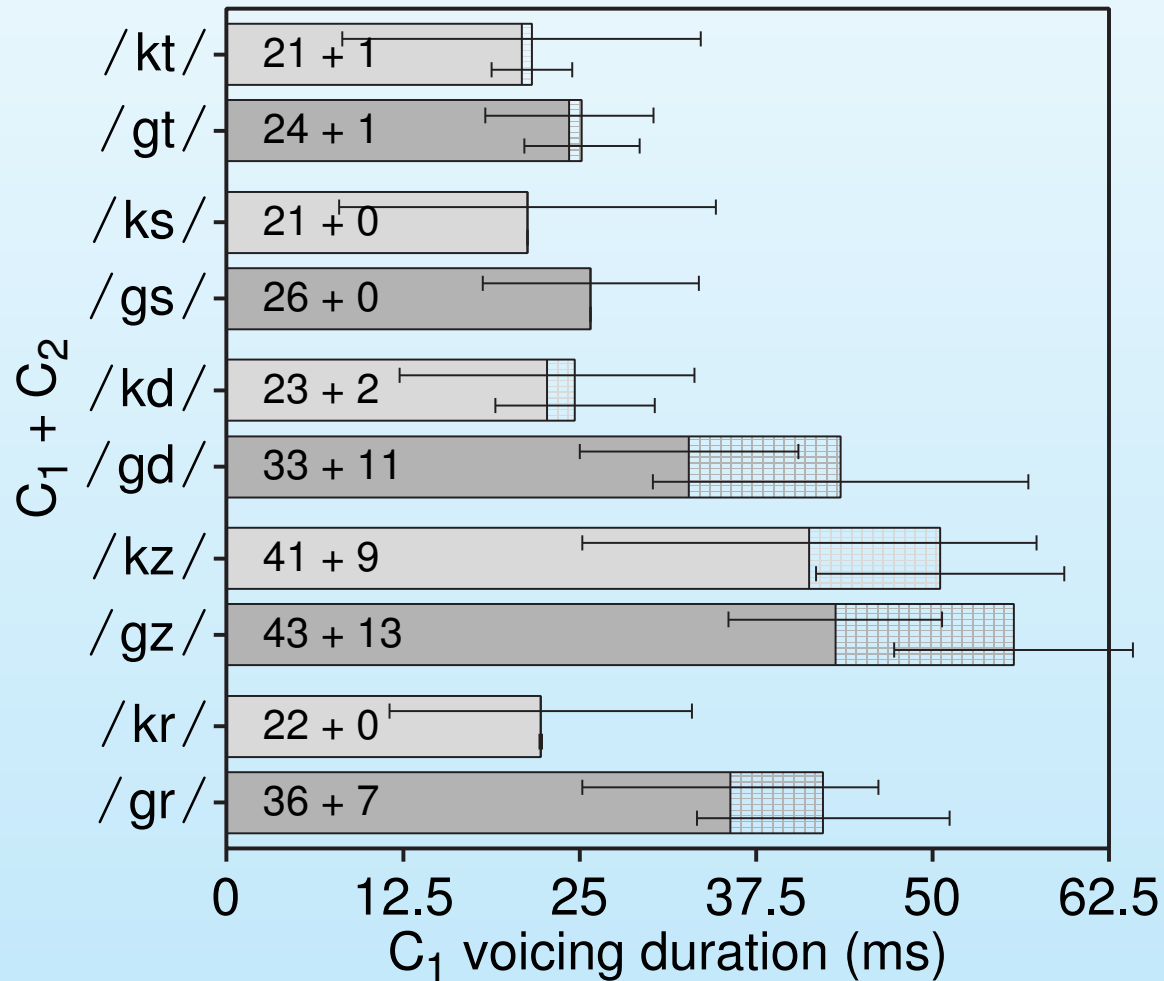
Results: Hungarian C₁ voicing



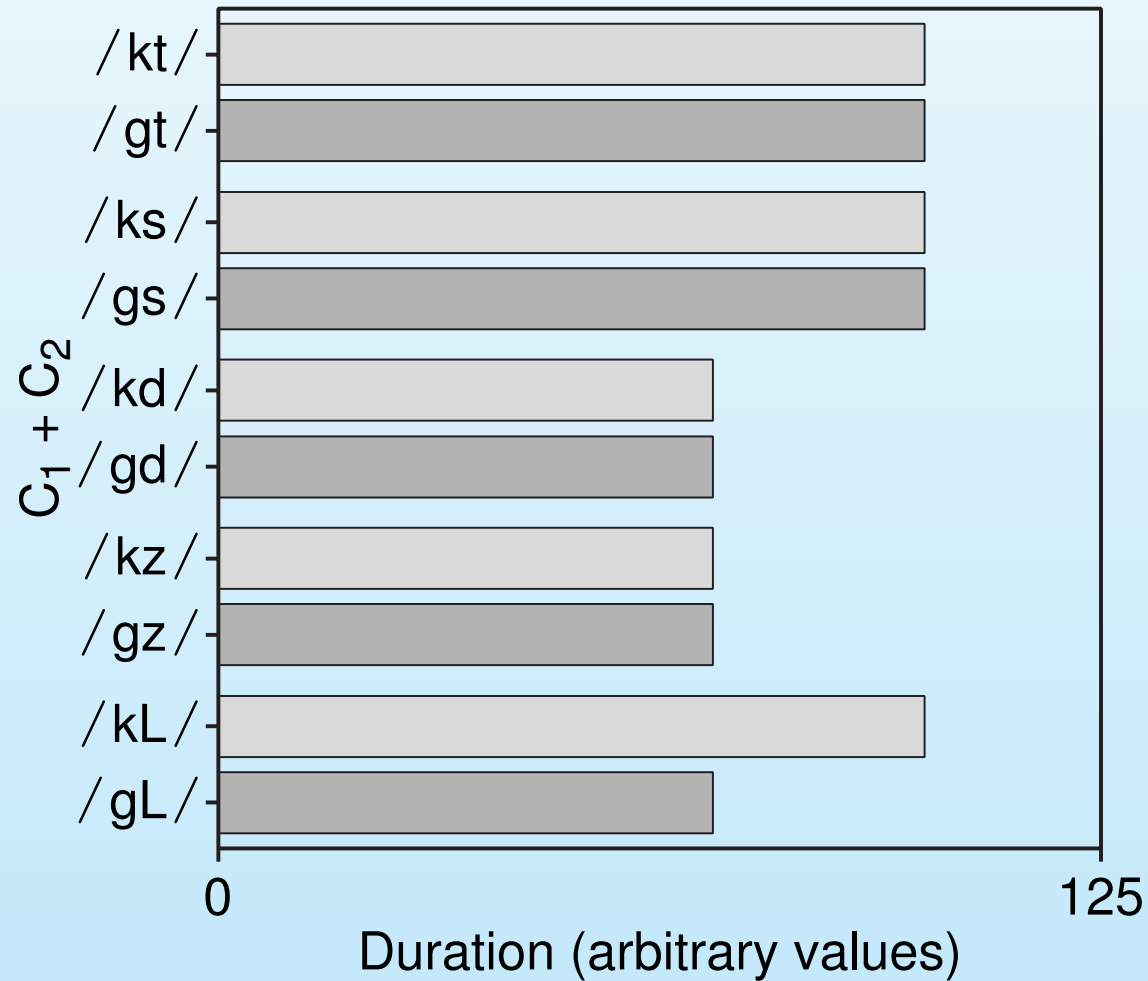
C₁ voicing: no assimilation



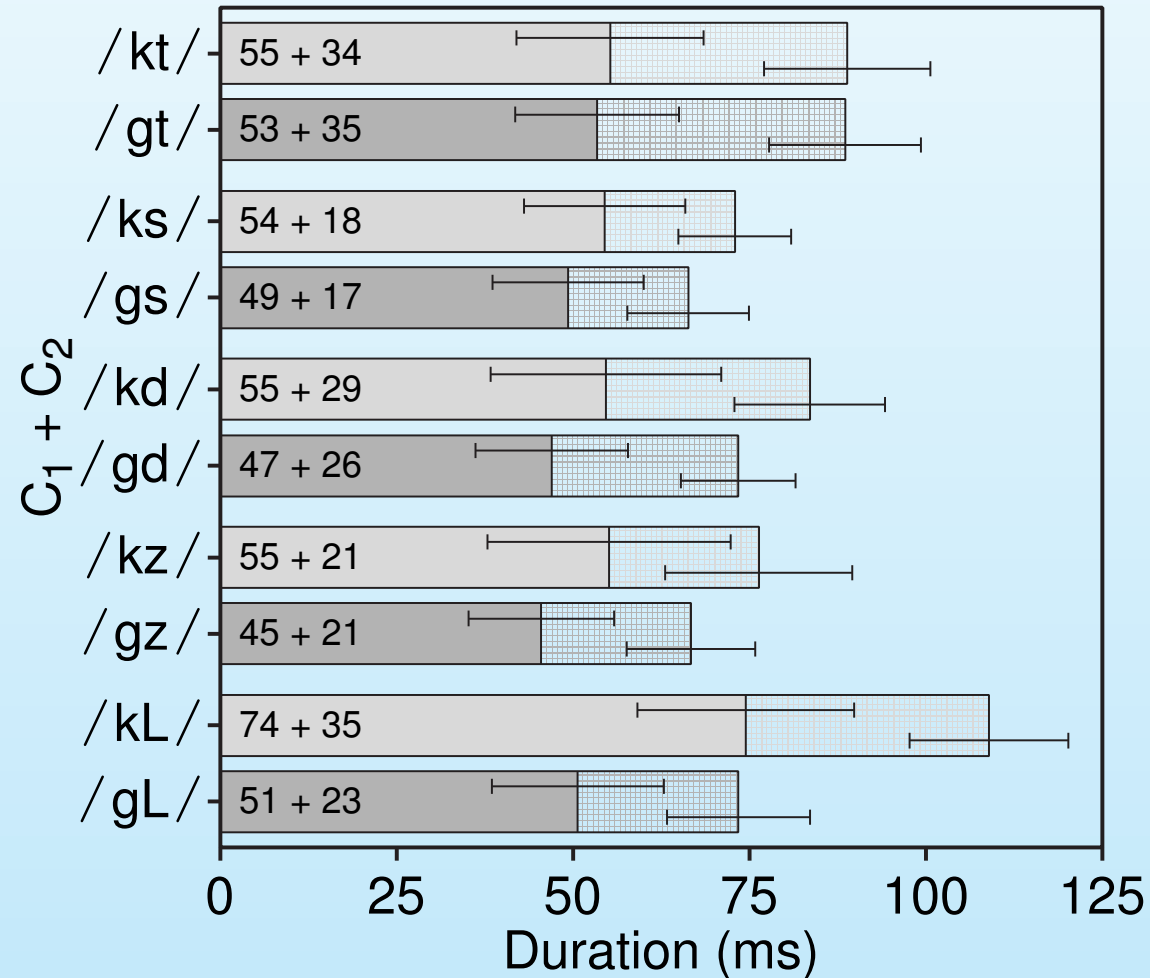
Results: English C₁ voicing



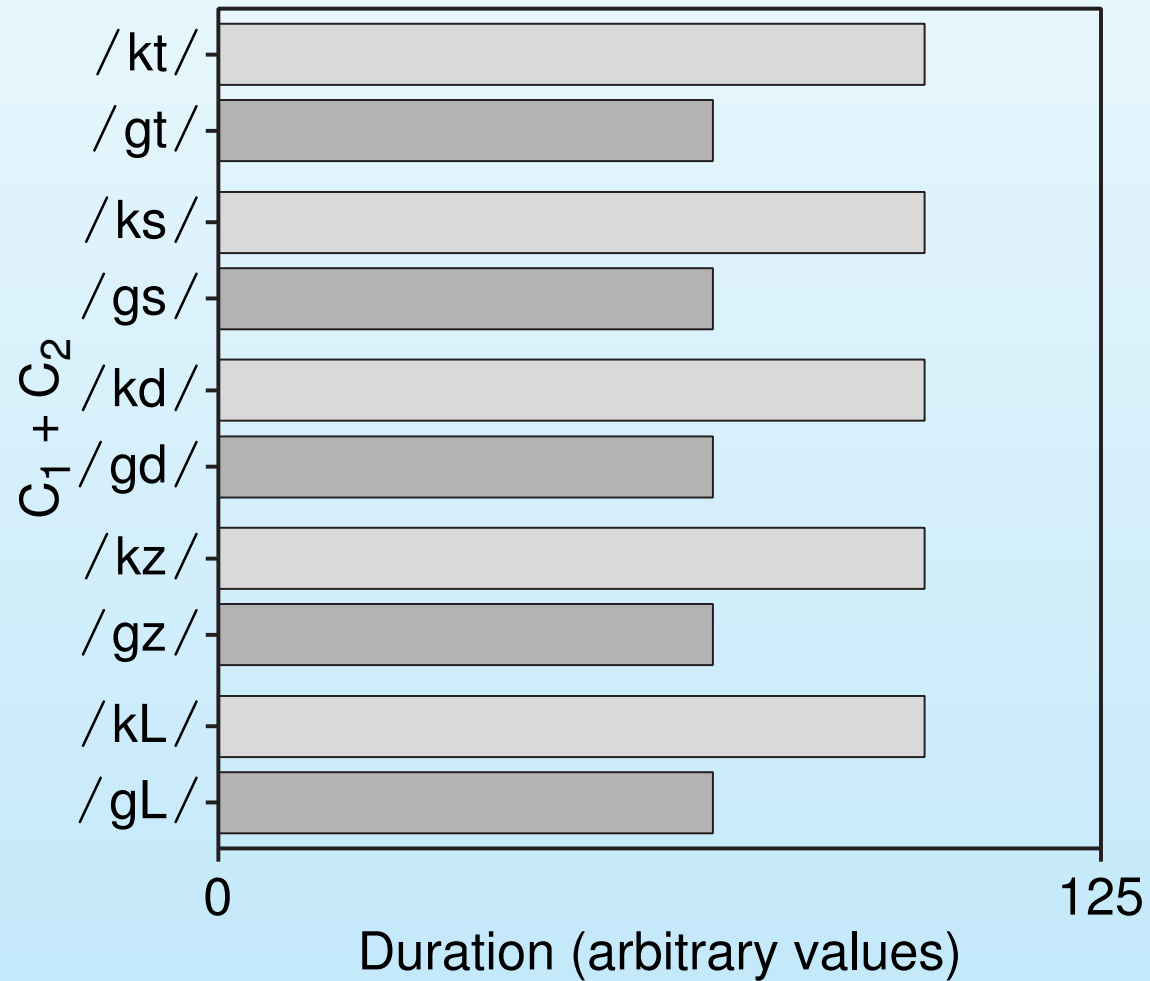
Hungarian C₁ duration: predictions



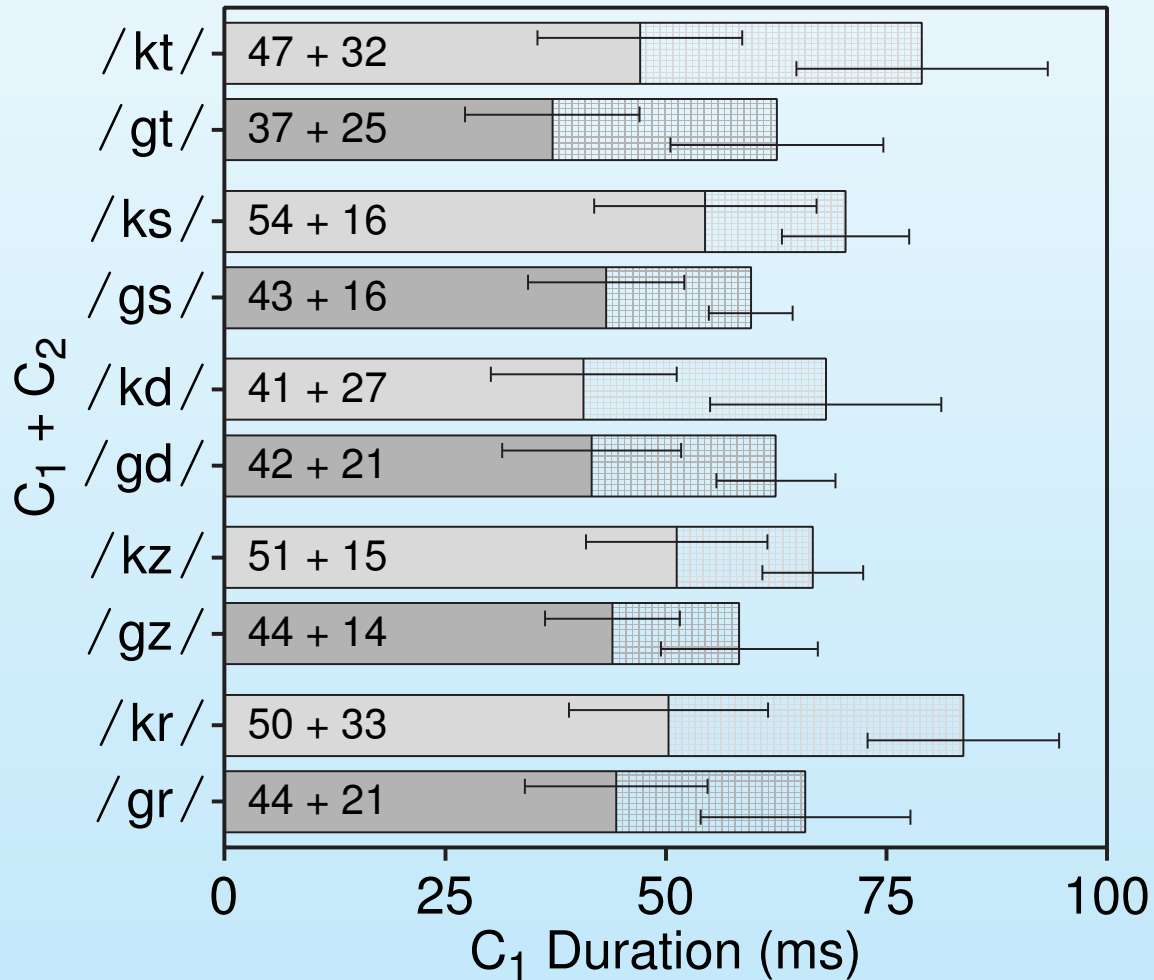
Results: Hungarian C₁ duration



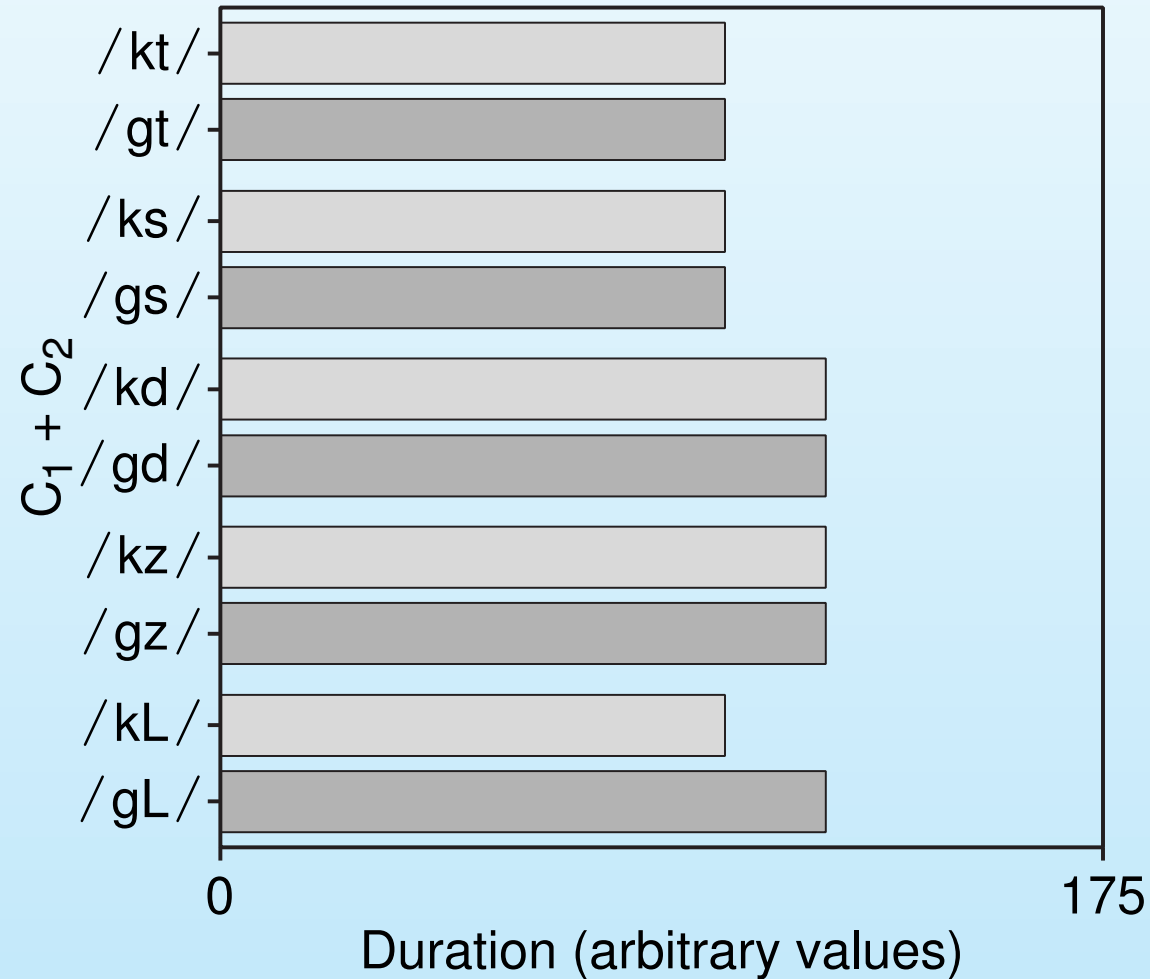
C₁ duration: no assimilation



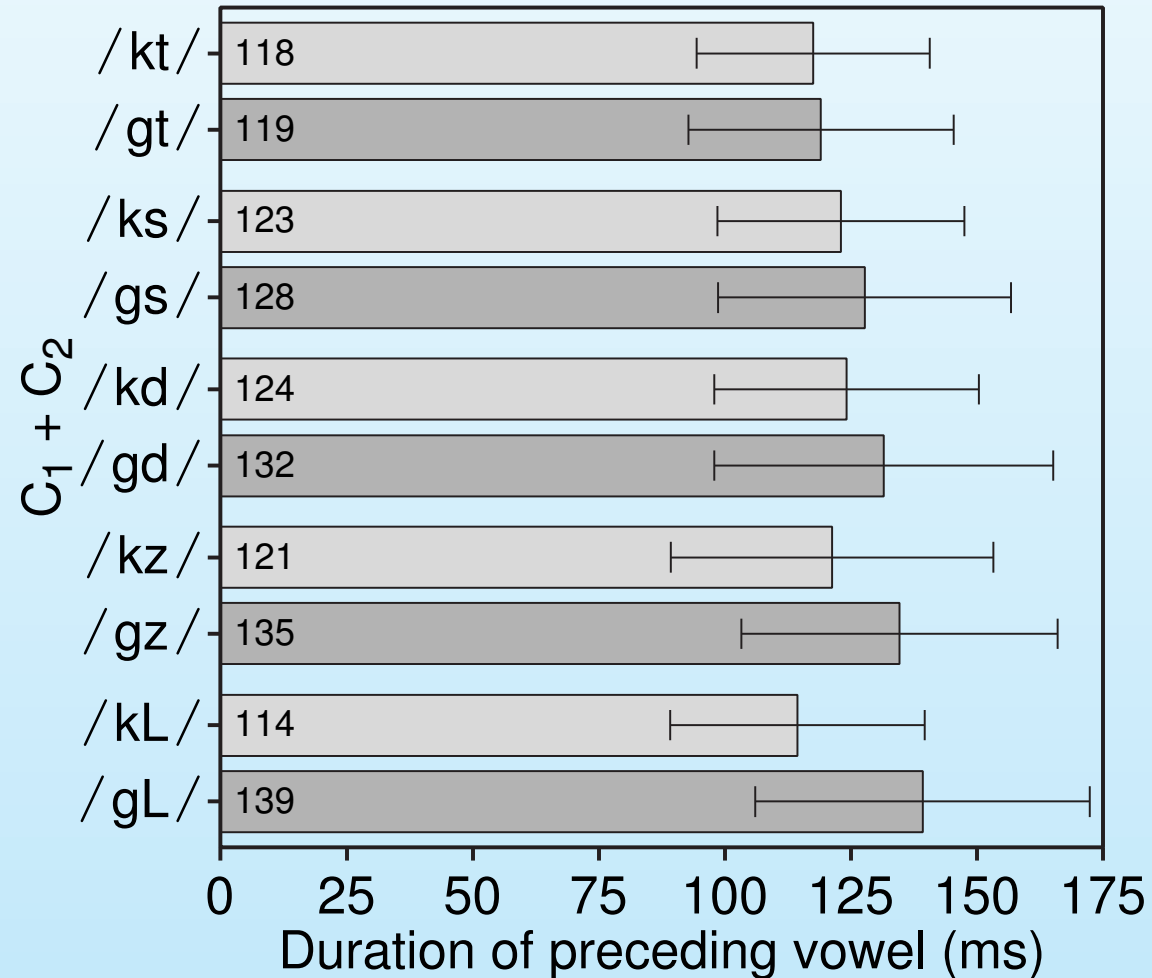
Results: English C₁ duration



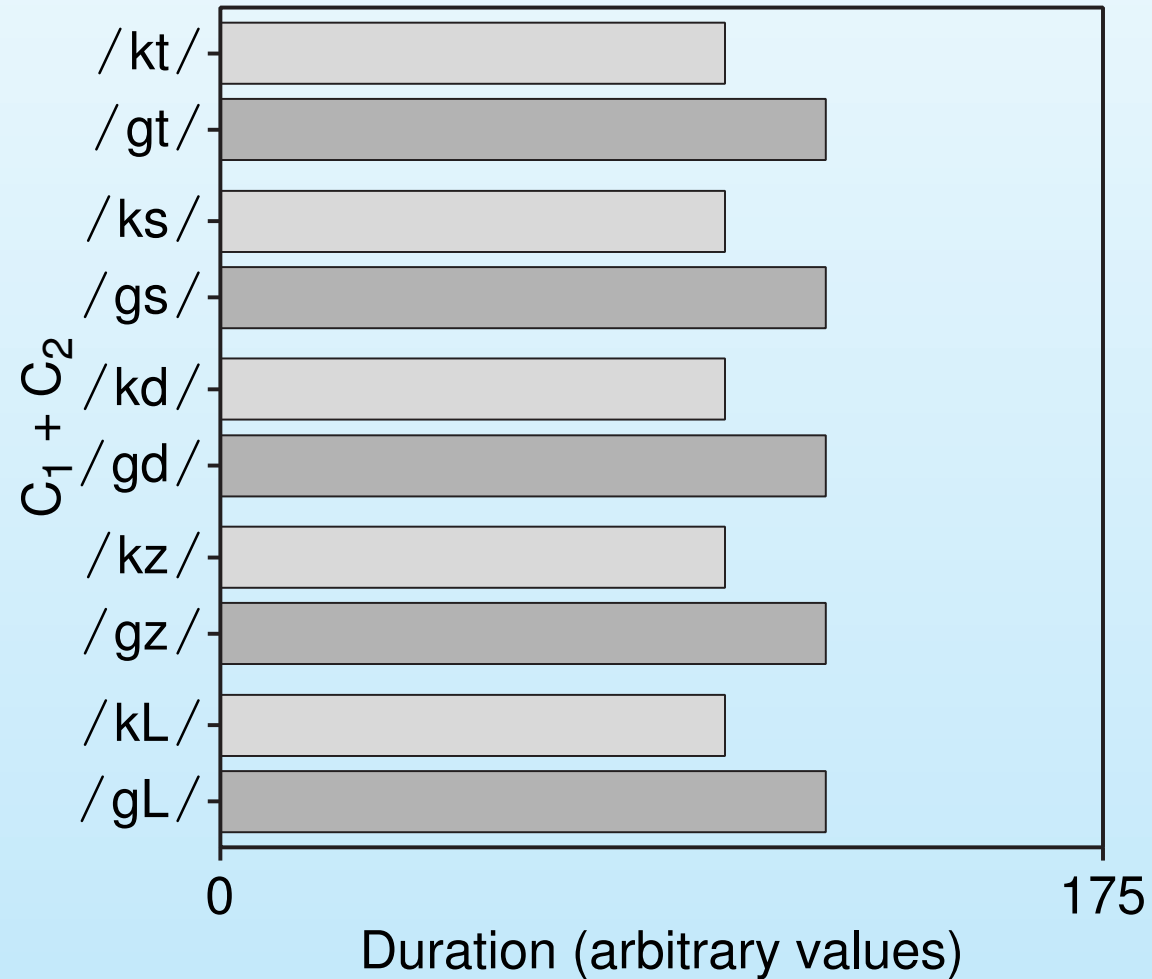
Hungarian V_1 duration: predictions



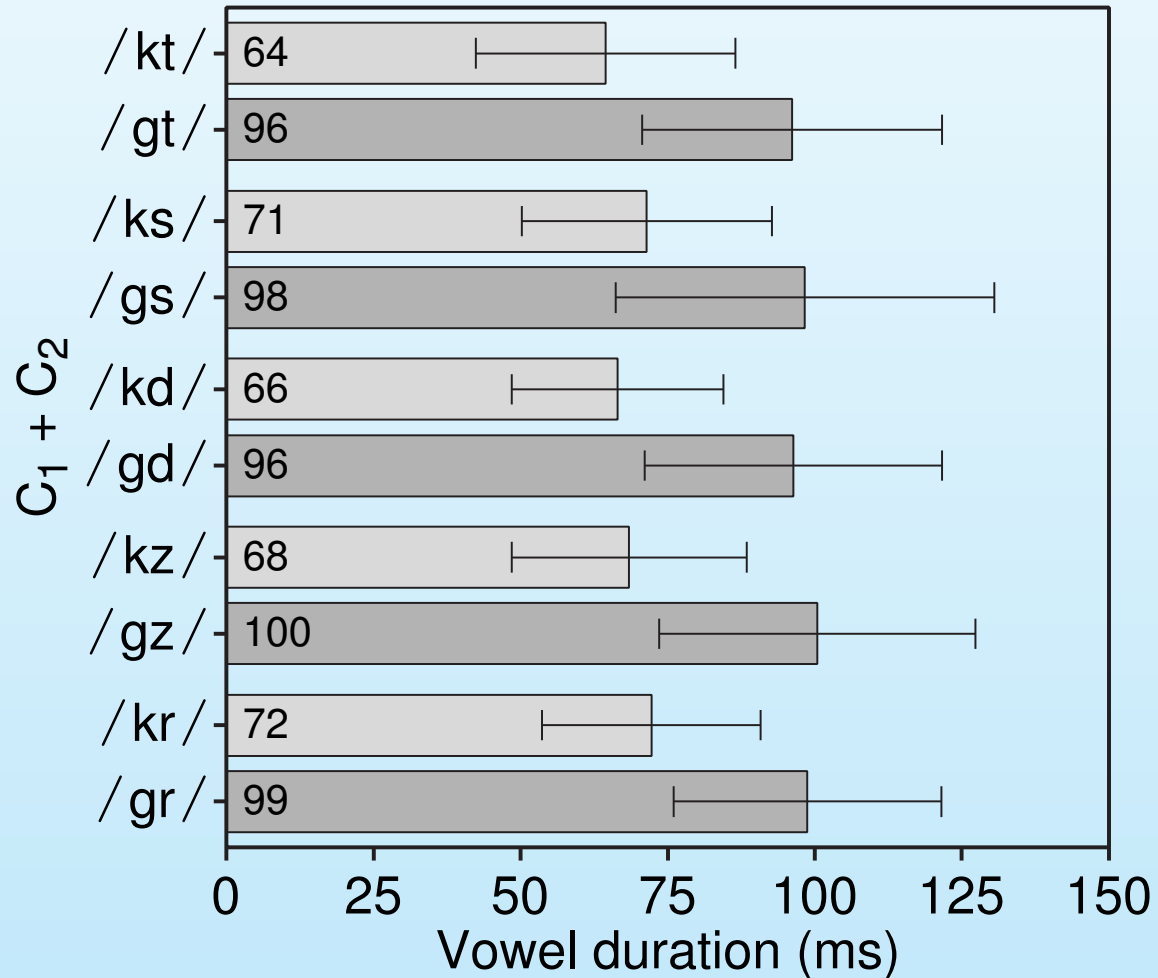
Results: Hungarian (long) V₁ duration



V₁ duration: no assimilation



Results: English V_1 duration



Conclusions

- English RVA applies to a subset of the phonetic cues to [voice] and is clearly non-neutralising
- Hungarian RVA is qualitatively and quantitatively different:
 - ◆ in applying to more (all?) cues
 - ◆ in having stronger effects
- Nevertheless, Hungarian RVA is still appears to be non-neutralising

Conclusions

- Voicing assimilation refers to a set of phonetically heterogeneous processes
- Any viable model of the phonology-phonetics interface needs to be able to account for at least the English and Hungarian forms of RVA

Assignment

- Read [Fourakis & Iverson \(1984\)](#) and [Port & O'Dell \(1985\)](#)
- Summarise the main arguments regarding (syllable-)final devoicing made by both sets of authors, paying special attention to methodological issues

References

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