Syllables are not structure

Péter Szigetvári

Eötvös Loránd University, Budapest
szigetvari@elte.hu

The 23rd Manchester Phonology Meeting/Syllables, 2015-05-29

first apprach: all in

"in all languages, syllable edges correspond with word/utterance edges" (Blevins 1995:209)

- tatə → (ta)(tə) (or (tat)(ə)?)
- tap → (tap)
- taks → (taks)
- takst → (takst)
- taŋks → (taŋks)
- trap → (trap)
- strandz → (strandz)
- trejps → (trejps)

what's wrong with the all-in approach?

- possible syllables defined by reference to possible words
  $\alpha\# \iff \alpha\$, \#\alpha \iff \$\alpha$
- no theory of what a syllable may or may not look like
- word and syllable edges are not the same: eg
  - E ndz# vs *ndzC
  - Ancient Greek 'hope' must be (el)(pís) (*lp#, *#lp), but *l#
  - E karij → (ka)(rij) or (kar)(ij), but *a# and *ar#
  - Finnish -CCC-, but *#CC and *CC# (Lowenstamm 1981:601)
- that is, a polysyllabic word is not the concatenation of monosyllabic words
- syllables are not morphological objects, ie morphological boundaries should not influence them (too much)

amendment: edges off

- tatə → (ta)(tə)
- tap → (tap)
- taks → (tak)s
- takst → (tak)st
- taŋks → (taŋk)s
- trap → (trap)
- strandz → s(trand)z
- trejps → (trejp)s

what's wrong with the edges-off approach?

- stray consonants are not phonotactically independent of their neighbour (Hall 2002)
- to be pronounced stray consonants must ultimately be incorporated into prosodic structure
- word-final CC clusters greatly overlap with word-internal heterosyllabic (ie coda+onset) clusters (Harris 1994)
- that is, word-final Cs look like, because they *are* syllable-initial Cs

the edges-off approach rephrased: vowelless syllables

- tatə → (ta)(tə)
- tap → (ta)(p⊗)
- taks → (tak)(s⊗)
- takst → (tak)(s⊗)(t⊗)
- taŋks → (taŋ)(k⊗)(s⊗)
- trap → (tra)(p⊗)
- strandz → (⊗s)(tran)(d⊗)(z⊗)
- trejps → (trej)(p⊗)(s⊗)

what's wrong with vowelless syllabes?

"there are no well-formed syllables in any language that lack an overt nuclear segment on the surface. The nuclear vowel is the only element of the syllable that is obligatory in all languages" (Hayes 1989:268)

- the nonpronunciation of a vowel sounds more outrageous than the nonpronunciation of a consonant
- consonants seem to depend on vowels, but vowels do not depend on consonants
- vowels are loud (top sonority), consonants are mute (low sonority)
- if a vowel may remain unpronounced, the theory becomes absolutely unconstrained

unless. . .

taming empty nuclei

- syncope occurs before CV (very rare before C# or CC)
- a vowel may remain unpronounced if followed by a pronounced vowel maximally one C away (eg fámə̸lij vs kámə̸l, pénə̸ltij)
- epenthesis is typical in C__C# or C__CC position (eg ríðə̸m vs ríðmik, hélə̸m vs hélmə̸t)
- epenthesis is inhibited by sharing eg poa (cf Kaye 1990)

  Polish zombek 'clove' ~ zomp 'tooth'
  baŋki 'banks' ~ baŋk 'bank'
  baɲki 'bubbles' ~ baɲek 'bubble-plGen'
  zamki 'castles' ~ zamek 'castle'
  xaɲba 'shame' ~ xaɲebnɨ 'shameful'
  ʃɨnka 'ham' ~ ʃɨnek 'ham-plGen'
- that is, a vowel may remain unpronounced if it is
  1. followed by CV or
  2. surrounded by consonants sharing their poa (or perhaps laryngeal properties also qualify?)

relations

syncope

V-to-V relation: (proper) government (Kaye et al 1990)

sharing

C-to-C relation: (interconstituent) government (ibid)

onset strength

V-to-C relation: (onset) licensing (Harris 1997)

C⟸V

constraints

- only pronounced Vs govern or license the nearest V or C to their left
- only pronounced Cs may govern the nearest C to their left (subject to melodic constraints, sharing and sonority)

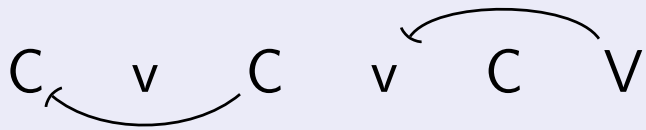
how consonant clusters arise

word finally: due C-to-C government

- we expect CCs that "share" (Polish baŋk vs baɲek)
- CCs that don't share may still survive (ie the empty vowel between them may remain silent) if the Cs have the "right" sonority profile: E help vs Dutch hɛləp

word medially: due to either C-to-C or V-to-V government

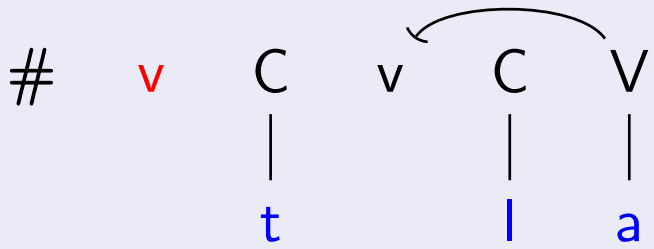
- any CC should be possible (if not by C-to-C then by V-to-V government)
- in CCC the first two Cs are expected to be possible word finally (ie involve C-to-C government)

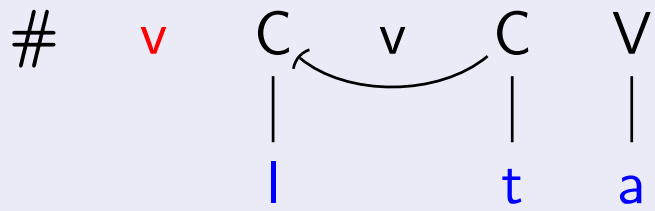


further refinements

word initial consonant clusters

- any CC should be found, but this is not the case in many languages
- words have an empty V at their beginning (Lowenstamm 1999)





- this inhibits any #CC, because the initial empty V must be governed by a the V between the first two Cs, ie it must be pronounced
- proposals
  - word initial empty V is parametric (Scheer 2007)
  - stop+liquid clusters are monosegmental (Lowenstamm 2003)
  - the liquid is "syllabic" in stop+liquid clusters (me 1999)
- all this certainly leaves us with the mystery of #sC and CsC

the rhyme

reasons to assume the rhyme

- phonotactic constraints
- syllable weight (closed syllable shortening, compensatory lengthening)

but

- phonotactic constraints are much rarer between nucleus and coda than between coda and onset
- phonotactic constraints are about adjacent segments, not about syllable structure
- syllable weight is more easily expressible with empty nuclei (qv below)

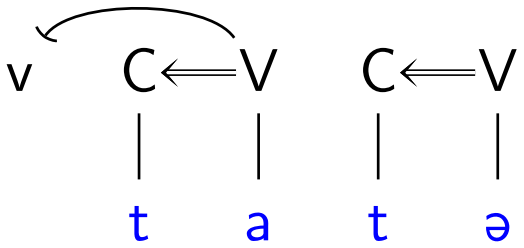
the nucleus

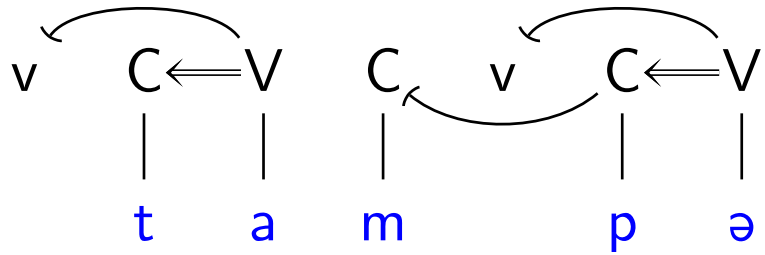
- syllabic constituents make sense if they branch
- does English have branching nuclei? perhaps no
- bijt, bilt, bejt, bent, bəwt, buwt, bəst, boːt, bəːt * could all be CVCC?

* *beat, built, bait, bent, boat, boot, bust, bought, Bert,* respectively

if nothing branches

- the skeleton is . . . CVCV. . . (or . . . VCVC. . . , an exciting decision which we do not make now)
- "syllabification" means:
  - assign consonants to Cs
  - assing vowels to Vs
  - CC $\rightarrow$ CvC
  - VV $\rightarrow$ VcV
- "syllable structure" is a result of government and licensing relations between Vs and Cs
- if arrows connect parts of a "syllable", syllable boundaries don't always fall where expected





observation vs explanation: syllable weight

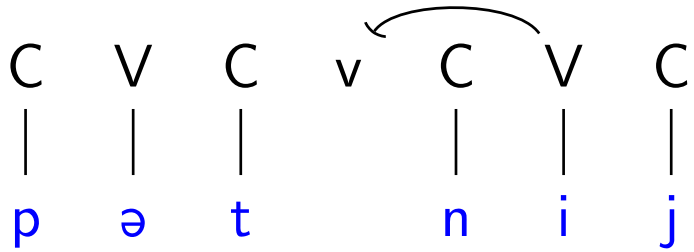
- why codas may but onsets may not contribute to syllable weight?
  light: CV, light/heavy: CVCv, heavy: CVcV
- onsets inducing compensatory lengthening:
  only #__V and C__V, not V__V

Greek		Samothraki Gk
prótos 'first'	⊗p⊗rótos	pó:tus
rúxa 'clothes'	⊗rúxa	ú:xa
méra 'day'	⊗méra	mía

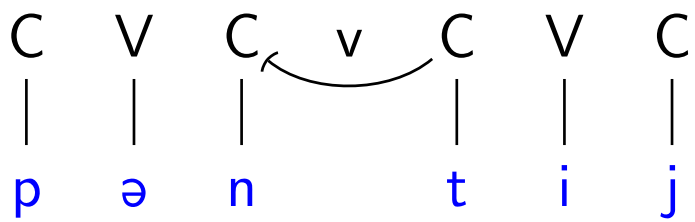
- (for an overall theory of syllable weight see Ulfsbjorninn in prep)

observation vs explanation: consonant lenition

- recap: pronounced V governs preceding empty V (=syncope/epenthesis), C governs preceding C (over empty V, = coda–onset cluster), V licenses preceding C (=onsets are strong)

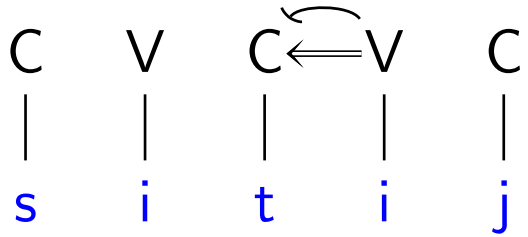


Putney



punty

- if V cannot govern preceding V (because it is not empty), it governs preceding C causing it to sonorize (=intervocalic sonorization, parametrically conditioned by stress)



observation vs explanation: consonant lenition

consonant lenition is expected

- when a consonant is not followed by a pronounced vowel (hence unlicensed): __#, __C
- when a consonant is preceded by a vowel (hence either governed, or ungoverned but unlicensed): V__V

consonant lenition is not expected

- when a consonant is followed by a vowel (hence licensed) and not preceded by a vowel (hence ungoverned): C__V, #__V

so do syllables exist?

short answer

no

more elaborate answer

this is a philosophical question, similar to
“does the English language exist?”

thanks to

- all of you

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- OTKA 104897

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