Syllables are not structure

Péter Szigetvári

Eötvös Loránd University, Budapest
szigetvari@elte.hu

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first approach: all in

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

- tat∅ → (ta)(t∅) (or (tat)(∅)?)
- 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
  \[ \alpha \# \leftrightarrow \alpha \$, \# \alpha \leftrightarrow \$ \alpha \]

- no theory of what a syllable may or may not look like

- word and syllable edges are not the same: eg
  - E \textit{ndz}# vs *\textit{ndzC}
  - Ancient Greek ‘hope’ must be (\textit{el})(\textit{pis}) (*lp#, *#lp), but *l#
  - E \textit{karij} → (\textit{ka})(\textit{rij}) or (\textit{kar})(\textit{ij}), but *a# and *ar#
  - Finnish -\textit{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 → (taks)
- takst → (takst)
- taŋks → (taŋks)
- 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

- tate → (ta)(tə)
- tap → (ta)(p⊗)
- taks → (tak)(s⊗)
- takst → (tak)(s⊗)(t⊗)
- taks → (taN)(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 fámalij vs kámol, pénältij)
- epenthesis is typical in C___C# or C___CC position (eg ríðəm vs ríðmik, héləm vs hélmət)
- epenthesis is inhibited by sharing eg poa (cf Kaye 1990)

  Polish  
zombek ‘clove’ ~ zomp ‘tooth’  
  banjki ‘banks’ ~ banj ‘bank’  
  banjki ‘bubbles’ ~ banek ‘bubble-plGen’  
  zamki ‘castles’ ~ zamek ‘castle’  
  xanja ‘shame’ ~ xanjebnɨ ‘shameful’  
  jînka ‘ham’ ~ jînek ‘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)  
\[ V \rightarrow C \rightarrow V \]

### Sharing

C-to-C relation: (interconstituent) government (ibid)  
\[ C \rightarrow V \rightarrow C \]

### Onset Strength

V-to-C relation: (onset) licensing (Harris 1997)  
\[ C \leftarrow V \]

### 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 bańk vs bańek)
- 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: Е help vs Dutch ələp

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)

C v C v C v V
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)

\[
\begin{align*}
\# & \quad v & C & \quad v & C & V \\
\# & \quad v & C & \quad v & C & V \\
\text{t l a} & & & & \text{l t a}
\end{align*}
\]

- 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, bo:t, bə:t * could all be CVCC?

* beat, built, bait, bent, boat, boot, bust, bought, Bert, respectively
if nothing branches

- the skeleton is \ldots CVCV\ldots (or \ldots VCVC\ldots, an exciting decision which we do not make now)

- “syllabification” means:
  - assign consonants to Cs
  - assign 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

\[
\begin{align*}
\text{t} & \quad \text{a} & \quad \text{t} & \quad \text{e} \\
\text{t} & \quad \text{a} & \quad \text{m} & \quad \text{p} & \quad \text{e}
\end{align*}
\]
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’ | pórótos 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)

- 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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