

**Pretonic unstressed syllables in English**

Katalin Balogné Bérces  
 PPCU, Piliscsaba, Hungary  
 bbkati@yahoo.com

**0. Intro**

The paper aims to contribute to the study of phonological strength.

Claims:

- (i) the phonological strength of consonants and vowels should be evaluated separately; consequently:
- (ii) stress is a property of vowels (rather than syllables);
- (iii) foot-based analyses are inadequate; instead
- (iv) a system of V-to-V and V-to-C interactions makes better predictions.

**1. Phonological strength**

- weak = frequent site for lenition (weakening, incl. all types of reduction and deletion)
- strong = more resistant to lenition (stability, fortition, or less weakening than in weak position)
- certain positions (e.g., stressed vowels, word-initial or post-coda consonants) are stronger than others (e.g., unstressed vowels, word-final or coda consonants) both synchronically and diachronically
- universal tendencies + parameters (e.g., word-initial C, stress-sensitivity, quality of C<sub>1</sub> for post-coda C<sub>2</sub>, etc., see Ségéral and Scheer 2008)

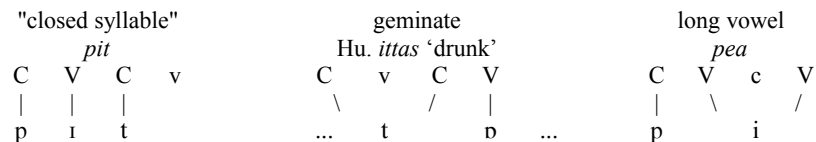
**2. Analysis**

Traditional:

- syllable-initial/onset, foot-initial/fothead -> strong(er)
- syllable-final/coda, foot-internal intervocalic (ambisyllabic) -> weak(er)
- i.e., reference to hierarchical/arboreal structure

A model with lateral relations predominantly: Strict CV / CVCV Phonology (Lowenstamm 1996, Lowenstamm 1999, Scheer 2004, Ségéral and Scheer 1999, Szigetvári 1999, etc.)

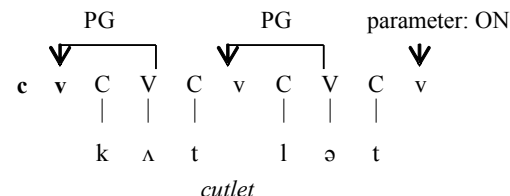
(1)<sup>1</sup>



(2) The phonological ECP (simplified)

An empty nuclear position is licensed to remain unpronounced if one of the following holds: (a) it is properly governed; or (b) it is parametrically licensed domain-finally.

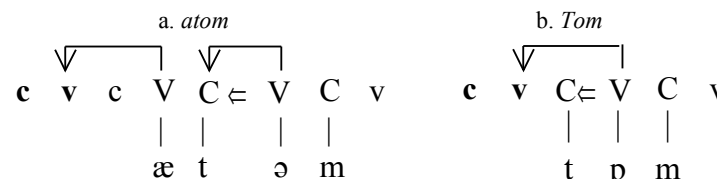
(3)



(4)

- a. Government spoils the inherent properties of its target. (Szigetvári 1999: 66)
- b. Licensing comforts segmental expression of its target. (Ségéral and Scheer 1999: 20)

(5)



universal tendencies:

- "post-coda" is preceded by empty V => strong
- "coda" is followed by empty V => weak<sub>1</sub>
- "(foot-internal) intervocalic" is sandwiched between 2 nonempty V's => weak<sub>2</sub><sup>2</sup>

parameters:

- boundary-marker CV is present/needs licensing: word-initial C is strong

<sup>1</sup> lowercase letters = empty positions; boldfaced **cv** = boundary-marker; single arrow = government; double arrow = licensing

<sup>2</sup> For the *Two directions for lenition*, see Szigetvári (1999, 2008).

- stress-sensitivity: stressed vowels can only govern the boundary marker CV (stress "materializes" as an empty CV unit – Ségéral and Scheer 2008; Antipenetration Constraint ["Government cannot penetrate a stress domain"] – Szigetvári 1999:79)

(6) Predictions of CVCV for stress-sensitive systems

- #C is strong whatever V follows it: **cvCV**
- 'V<sub>1</sub>CV<sub>2</sub>: C is weak<sub>2</sub>, stressed V's cannot be PG-ed
- V<sub>1</sub>C'V<sub>2</sub>: (see e. and f. below)
- 'VC<sub>1</sub>V<sub>1</sub>C<sub>2</sub>V<sub>2</sub>: 2 possibilities, e.g., alternative pronunciations:<sup>\*</sup>



- C<sub>1</sub> will never be strong(er than C<sub>2</sub>); V<sub>1</sub> will never be stronger than V<sub>2</sub>
- pretonic unstressed syllables: the word-initial case: #C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>V<sub>2</sub>: C<sub>1</sub>=C<sub>2</sub> (strong); V<sub>1</sub> is weak (being unstressed) and may be PG-ed by 'V<sub>2</sub> in faster/connected speech, where the licensing condition on the boundary marker is relaxed
  - pretonic unstressed syllables: the word-medial case<sup>\*</sup>: C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>V<sub>2</sub>C'V<sub>3</sub> as in d. + V2 is not expected to be PG-ed by 'V3<sup>3</sup>

(7) Comparison of pretonic unstressed syllables

	initial (e.)	medial (f.)
consonant	stronger than in f.	weaker than in e. (but stronger than b.)
vowel	weaker than in f.	stronger than e.

**3. Data from English: bear out the predictions**

English<sup>4</sup>: typical symptoms:

- strong: stressed/full vowel, aspiration, /h/
- weak V: reduced (typically: schwa), syncope

<sup>\*</sup> C<sub>1</sub>V<sub>1</sub> are in weak position, C<sub>2</sub>V<sub>2</sub> are in "semi-weak" position, according to the distinction in Balogné Bérces (2008, to appear), based on van Oostendorp (2000: 147-8) for Dutch. Inexpressible in Coda Mirror v2 (Scheer and Ziková 2010), where government cannot combine with licensing.

<sup>3</sup> Unstressed syllables between two stresses (e.g., *séparâte*) are not considered here: their C is immediate post-stress (like b.) but stress clash avoidance interferes with PG

<sup>4</sup> By "English", I mean the major tendencies constituting a common core of the phonologies of the varieties of English.

- weak<sub>1</sub> C: (pre)glottalization, unreleased plosive, no /h/
- weak<sub>2</sub> C: tapping/flapping, no /h/

lenition sites: a typical representative of the Germanic pattern

- word-initial C is strong
- stress-sensitive system in its consonants: pre-stress vs. post-stress behaviour
- consonants are strong before full vowels (*atômic*, *vehîcular*) but weak after them (cf. *atom* and *vehîcle*)
- zero-stressed syllables contain schwas (or syllabic consonants – irrelevant here)
- only schwas are subject to deletion (syncope – *battery* vs. *batt'ry*)

(8) Predictions of CVCV confronted with English data (cf. (6))

- #C: *tén/Tóm* = *tomórrrow*<sup>5</sup>
- 'VCV: *létter*, *átom*
- 'VCVCV: ɪ immediately following the stressed vowel (e.g. *Italy*) *must* be a flap, later ɫ (e.g. *sanity*) *may* be a flap (Kahn 1976: 165 fn.17, Hooper 1978, Selkirk 1982, Kreidler 1989: 110-111, Kenstowicz 1994: 69, Vaux 2002 and references therein); two successive potential lenition sites, e.g., *compétitive* (Harris and Kaye 1990: 261): the second can only reduce if the first reduces, too; alternative pronunciations of *Italy*
- pretonic unstressed syllables: #CVC'V: *potáto*, *políce*, *suppóse*, *prám* (from *perámbulator*)
- pretonic unstressed syllables: CVCVC'V:  
C<sub>2</sub> is stronger: *Mèditerráean*, *militáristic*, *Návraŕílóva*, *abraçadabra*, *Winnepesaukee*, etc. (the "Withgott-effect": the systematic absence of lenition in the third position of nonfinal dactyls – Withgott 1983)  
*capítalistic/militáristic* ("Withgott-effect" + Paradigm Uniformity – Steriade 2000: 322-326)  
(no Withgott-effect in cases like (*statístic* –) *statístician*)  
V<sub>2</sub> is stronger: affected by reduction to a lesser extent: *Tatamagouchi* (Burzio 1994: 113, footnote 14 – also cited in van Oostendorp 2000)  
pre-stress syncope: word-initially only (?): *milit'ristic?* *nation'lize?* (lexicalized examples?)

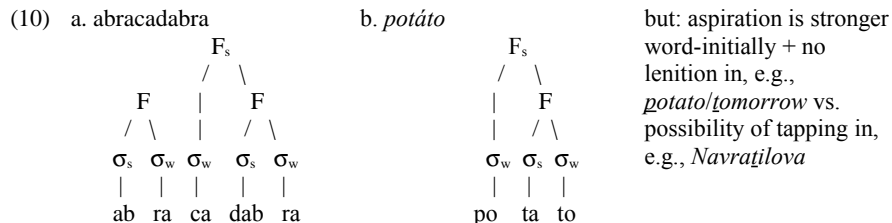
(9) Comparison of pretonic unstressed syllables in English (cf. (7))

	initial	medial
consonant	stronger: <i>potáto</i> , <i>políce</i>	weaker: <i>capítalistic/militáristic</i> (cf. <i>better</i> )
vowel	weaker: <i>potáto</i> , <i>políce</i> (+ <i>pram</i> , <i>s'pose</i> , <i>praps</i> )	stronger: <i>?milit'ristic/nation'lize</i> , <i>Tatamagouchi</i>

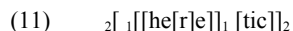
<sup>5</sup> Degrees of aspiration (Balogné Bérces 2008): *tén* > [...] > *tomórrrow* > *Mèditerráean* > *vánity* > [...] > *létter* > [...] > *Scótlánda/éat* > [...] > *s'tém*

**4. Foot-based adjunction analyses: problems with "unfooted" syllables**

Davis's (2005) ~ Withgott (1983), Jensen (2000)

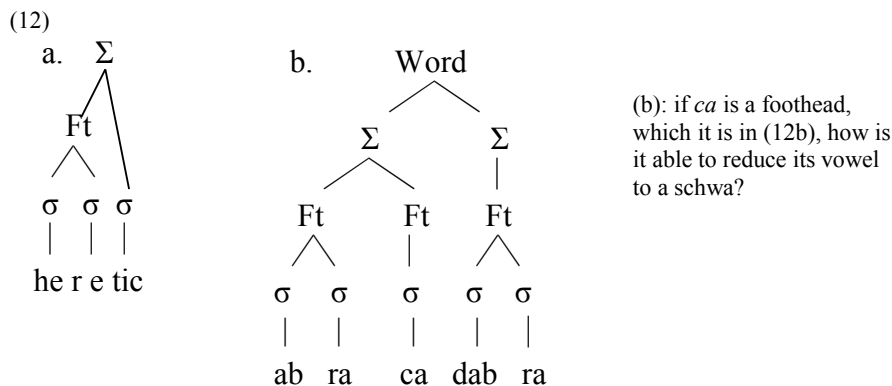


Anderson and Ewen (1987: 83): ambisyllabicity vs. absolute onsethood: *heretic*



cf. (12a)

if ambisyllabicity is not accepted as a theoretical device: why is the third syllable stronger than the second? -> (12b)



**5. Conclusions**

- the evaluation of the strength of the pretonic unstressed syllable as a whole is ambivalent
- the phonological strength of consonants and vowels should be evaluated separately

- foot-adjunction analyses predict too much strength for either the vowel or the consonant
- prominence relations can be reduced to lateral interactions
- avoid the debatable notion of the syllable
- no reference to foot structure

**References**

Anderson, J. and C. Ewen (1987) *Principles of Dependency Phonology*. Cambridge: CUP.  
 Balogné Bérces, K. 2008. Strict CV phonology and the English cross-word puzzle. Saarbrücken: VDM Verlag Dr Müller.  
 Balogné Bérces, K. to appear. Weak and semi-weak positions. *Journal of English Studies*.  
 Burzio, L. 1994. *Principles of English Stress*. Cambridge: CUP.  
 Davis, S. 2005. "Capitalistic" vs. "militaristic": The paradigm uniformity effect reconsidered. In L. Downing, T. A. Hall, and R. Raffelsieffen (eds.) *Paradigms in Phonological Theory*. Oxford: OUP.  
 Harris, J. and J. Kaye 1990. A tale of two cities: London glottalling and New York City tapping. *The Linguistic Review* 7: 251-274.  
 Hooper, J. B. 1978. Constraints on schwa-deletion in American English. In J. Fisiak (ed.) *Recent Developments in Historical Phonology*. Berlin/New York: Mouton de Gruyter. 183-207.  
 Jensen, J. T. 2000. Against ambisyllabicity. *Phonology* 17.2: 187-235.  
 Kahn, D. 1976. *Syllable-Based Generalizations in English Phonology*. Doctoral dissertation, MIT. (Published by New York and London: Garland Publishing Inc. in 1980.)  
 Kenstowicz, M. 1994. *Phonology in Generative Grammar*. Cambridge, Mass. and Oxford: Blackwell.  
 Kreidler, C. 1989. *The Pronunciation of English*. Cambridge, Mass. and Oxford: Blackwell.  
 Lowenstamm, J. 1996. CV as the only syllable type. In J. Durand and B. Laks (eds.) *Current Trends in Phonology: Models and Methods*. European Studies Research Institute, University of Salford Publications: 419-442.  
 Lowenstamm, J. 1999. The beginning of the word. In Rennison, J. and K. Kühnhammer (eds.) *Phonologica* 1996. Syllables!? The Hague: Holland Academic Graphics. 153-166.  
 Scheer, T. 2004. *A Lateral Theory of Phonology. Vol 1: What is CVCV, and Why Should it Be?* Berlin: Mouton de Gruyter.  
 Scheer, T. and M. Ziková. 2010. The Coda Mirror v2. *Acta Linguistica Hungarica* 57.4: 411-431.  
 Ségéral, P. and T. Scheer 1999. *The Coda Mirror*. Ms., Université de Paris 7 and Université de Nice.  
 Ségéral, P. and T. Scheer 2008. *The Coda Mirror, stress and positional parameters*. In: J. Brandao de Carvalho et al. (eds.) *Lenition and fortition*. Berlin: de Gruyter. 483-518.  
 Selkirk, E. O. 1982. The syllable. In H. van der Hulst and N. Smith (eds.) *The Structure of Phonological Representations, Part II*. Dordrecht: Foris Publications. 337-383.  
 Steriade, D. 2000. Paradigm uniformity and the phonetics-phonology boundary. In: J. Pierrehumbert and M. Broe (eds.) *Papers in Laboratory Phonology. Vol.5*. Cambridge, CUP: 313-334.  
 Szigetvári, P. 1999. *VC Phonology: A Theory of Consonant Lenition and Phonotactics*. PhD dissertation, MTA/ELTE, Budapest  
 Szigetvári, P. 2008. Two directions for lenition. In: J. Brandao de Carvalho et al. (eds.) *Lenition and fortition*. Berlin: de Gruyter. 561-591.  
 van Oostendorp, M. 2000. *Phonological Projection. A Theory of Feature Content and Prosodic Structure*. Berlin and New York: Mouton de Gruyter.  
 Vaux, B. 2002. *Aspiration in English*. Ms., Harvard University.  
 Withgott, M. M. 1983. *Segmental Evidence for Phonological Constituents*. Doctoral dissertation, University of Texas, Austin.