

No derivation levels needed

an alternative take on glottalisation of vowel-initial words in
Slavic

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Filling empty onsets

There are various strategies of onset filling:

» No filling

(1) #V *Irán* [i] 'Iran', *ucho* [u] 'ear' (Slovak, Rubach 2000: p. 274)

» Glide insertion

(2) #i → #ji *Irena* [ji] 'Irene', *idę* [ji] 'I go', *inny* [ji] 'other'
(uneducated Polish, Rubach 2000: p. 296)

» Glottalisation (hard attack)

(3) #V → #ʔV *Amerika* [ʔa] 'America', *ulice* [ʔu] 'street'
(Czech, Rubach 2000: p. 298)

Argument for derivational levels?

- Rubach (2000) investigates onset filling strategies in Slavic, both word-initial and word-medial positions
- Empty onset filling can be an argument for derivational levels: lexical and post-lexical
- Derivational levels prevent proliferation of constraints

- (4) a. *Amerika* [ʔa.me.ri.ka] ‘America’
v *Amerika* [fʔa.me.ri.ka] ‘in America’
(Bulgarian, Rubach 2000: p. 289)
- b. *Amerika* [ʔa], but s *Amerikoj* [sa], v *Amerike* [va]
(Russian, Rubach 2000: p. 289)

Empty onsets and derivational levels

- » Why does the glottal stop disappear after prepositions in some languages but not in others?
- » “The answer is simple if we recognize the fact that word phonology may be different from sentence phonology.”
(Rubach 2000: p. 289)

- » **Hypothesis:** the problematic pattern can be modelled without derivational levels

Initial CV effects

Initial CV

- Framework of choice – Strict CV (Kaye, Lowenstamm & Vergnaud 1990, Scheer 2004)
- Syllabic space can be an exponent of morphosyntactic boundaries

Initial empty CV diagnostics (Scheer 2012: p. 187):

- Fortition of initial consonants
- Ban on #RT clusters
- The first vowel of the word cannot alternate with zero

Initial CV as a parameter

Based on the data about initial cluster restrictions (Scheer 2012: p. 254), Slavic languages can be divided into three groups:

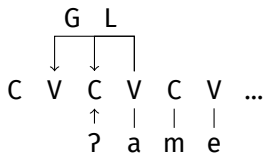
- Anything goes: Czech, Polish, Russian, Ukrainian, Slovak
- #TR only: Bulgarian, Macedonian, Slovene, Belarussian
- N/A: BCMS with syllabic /r/

#TR-only languages are expected to have initial CV and therefore initial fortition effects

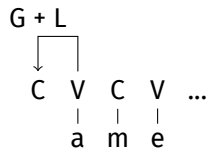
Predictions

Initial CV as a parameter

Initial CV (Bulgarian)
[ʔamerika]

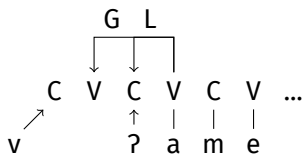


No initial CV (Slovak)
[amerika]

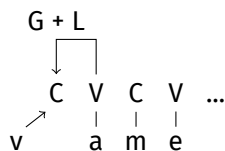


Floating preposition or not

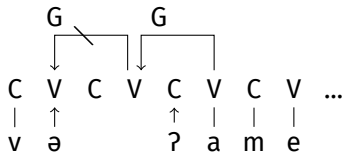
Floating, CV (Bulgarian)
[fʔamerika]



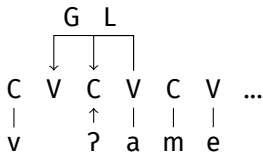
Floating, no CV (Slovak)
[vamerike]



Associated, CV (unattested)
[vəʔamerika]

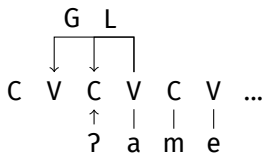


Associated, no CV (Czech)
[fʔamerice]



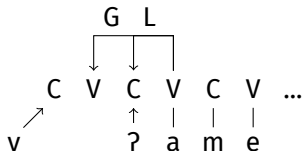
With initial CV

- » Bulgarian language – #TR only
- » Strong initial onset – ungoverned and licensed
- » #V → #?V: *Amerika* [ʔa] ‘America’



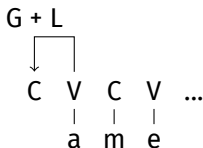
With initial CV

- » Final vowels of prepositions are floating
- » They associate to the closest C – the C of the empty syllabic unit
- » The licensing and the lack of government of the initial onset are still there
- » A glottal stop is inserted



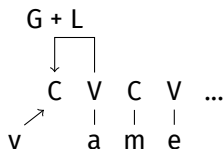
No initial CV

- Slovak language – anything goes
- Initial position is weak: governed and licensed
- #V: *Amerika* [a] ‘America’



No initial CV

- » Final vowels of prepositions are floating (if they are not, glottalisation proceeds as if there were an initial CV)
- » They fill in the initial empty onset
- » No glottal stop



Russian in the middle

- Vowel-initial words glottalised: *Amerika* [ʔa]
- Initial CV-free, according to #RT restrictions
- In PPs, the ‘bare N’ complement is in the same phonological domain as the preposition; not so with complex complements (Shikunova & Kasenov 2022)

(5) *po pólju*
‘through a/the field’

(6) *pó polyu*
‘through a/*the field’

(7) **pó polyu zelënomu/bitvy*
‘through a green field/a battlefield’

Russian in the middle

- Glottalisation points in the same direction
- It is easier to glottalise #V of a complex complement

- (8) a. [?]v *Anglii* [fʔa] ‘in England’
b. ^{OK}v *Aninoj sumke* [fʔa] ‘in Anya’s bag’
c. [?]s *Amerikoj* [sʔa] ‘with America’
d. ^{OK}s *otličnymi ocenkami* [sʔa] ‘with excellent grades’

Glottalisation by other means

Czech

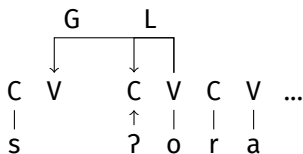
In Czech, glottalisation happens word-initially as well as word-internally (Dvořák 2010)

- (9) a. [ʔoral] ‘plow’ 3.SG.PST
b. [s-ʔoral] ‘together-plow’ 3.SG.PST
c. [ˈbɛs ʔotpadu] ‘without a waste’ (Dvořák 2010: p. 6)

The lack of restrictions on #RT signal the absence of the initial CV

Czech

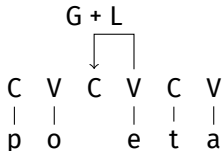
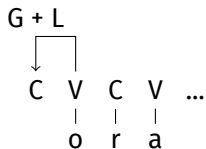
- » Glottalisation at morpheme boundaries is explained if the prefix-final consonant is associated
- » Thus, the initial CV effect is replicated
- » Root-initial C is strong



A problem with Czech

- Word-initial Cs are weak (there is no initial CV)
- Vowel hiatus is not obligatorily broken up with ? (10) ⇒ no obligatory empty onset filling

(10) *poeta* [o.e] 'poet'
neandertalec 'Neanderthal man' (Czech, Rubach 2000: p. 298)



Glottalisation and voicing assimilation

There are two types of glottalisation wrt. voicing assimilation

- » Czech has final devoicing and regressive voicing assimilation word- and PP-internally in obstruent clusters (Janda & Townsend 2000)
- » After prepositions, #V is glottalised and #C assimilates the C to the left
- » At word boundaries, #V is glottalised and #C does *not* assimilate

Glottalisation and voicing assimilation

(11) Prepositional phrases

- a. *v noze* [vno] ‘in the leg’, *v peci* [fpe] ‘in the oven’
- b. *v okne* [fʔok] ‘in the window’, *z okna* [sʔok] ‘from the window’

(12) Between words

- a. *sруб Dáši* [srupda:shi] ‘Dasha’s hut’
- b. *sруб Anny* [srupʔanny] ‘Anna’s hut’

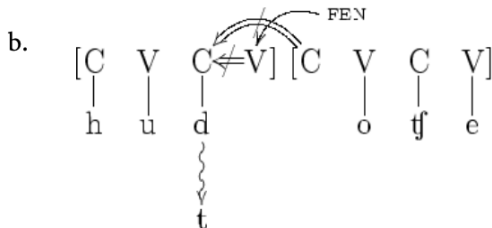
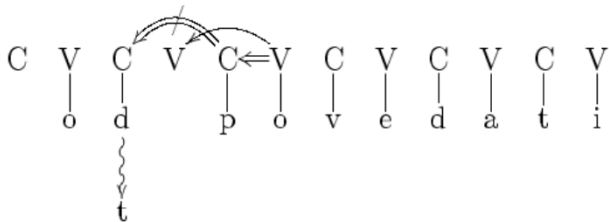
» There are different boundaries between words and after prepositions: one can be crossed by assimilation and one cannot

» “Even speakers who do not use the glottal stop device these [pre-glottal stop] obstruents” (Janda & Townsend 2000: p. 10)

Voicing assimilation

- » In Strict CV, final devoicing and voicing assimilation have been analysed as a function of final empty nuclei (FENs; see Ferme 2006 on Slovene)
- » Licensing can be done by voiced obstruents or by vowels
- » FENs cannot license final obstruents \Rightarrow they are devoiced
- » Phase boundaries inhibit voicing assimilation

Voicing assimilation



(Ferme 2006: pp. 198–199)

Glottalisation and voicing assimilation

- » Judging by the devoicing effect, the word-initial glottal stop is at the left edge of a phase
- » The post-prepositional glottal stop is not

There are two different glottal stops:

Strong position ?

- » Devoices the C to the left
- » Boundary can be crossed by voicing assimilation









Pause/left edge of a domain ?

- » The C to the left devoiced by FEN
- » Boundary cannot be crossed by voicing assimilation

Two glottal stops: predictions

+CV		-CV		
		+[ʔ]	-[ʔ]	
+Str?	Bulgarian	+Str?	Russian Czech	unattested?
-Str?	unattested?	-Str?	Polish	Slovak

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