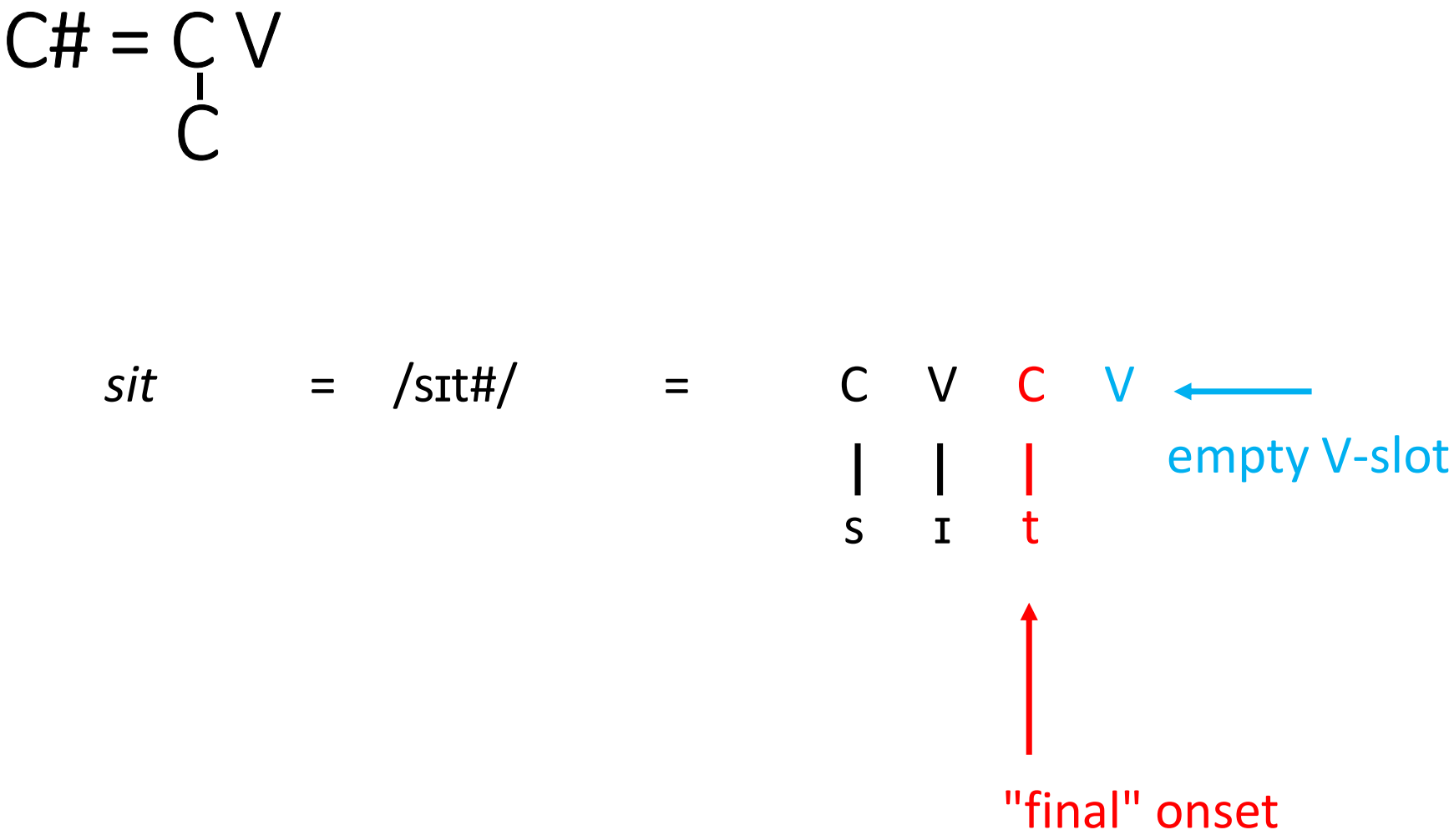
It is not the end: Final onsets in Czech

Markéta Ziková (MUNI, Brno)

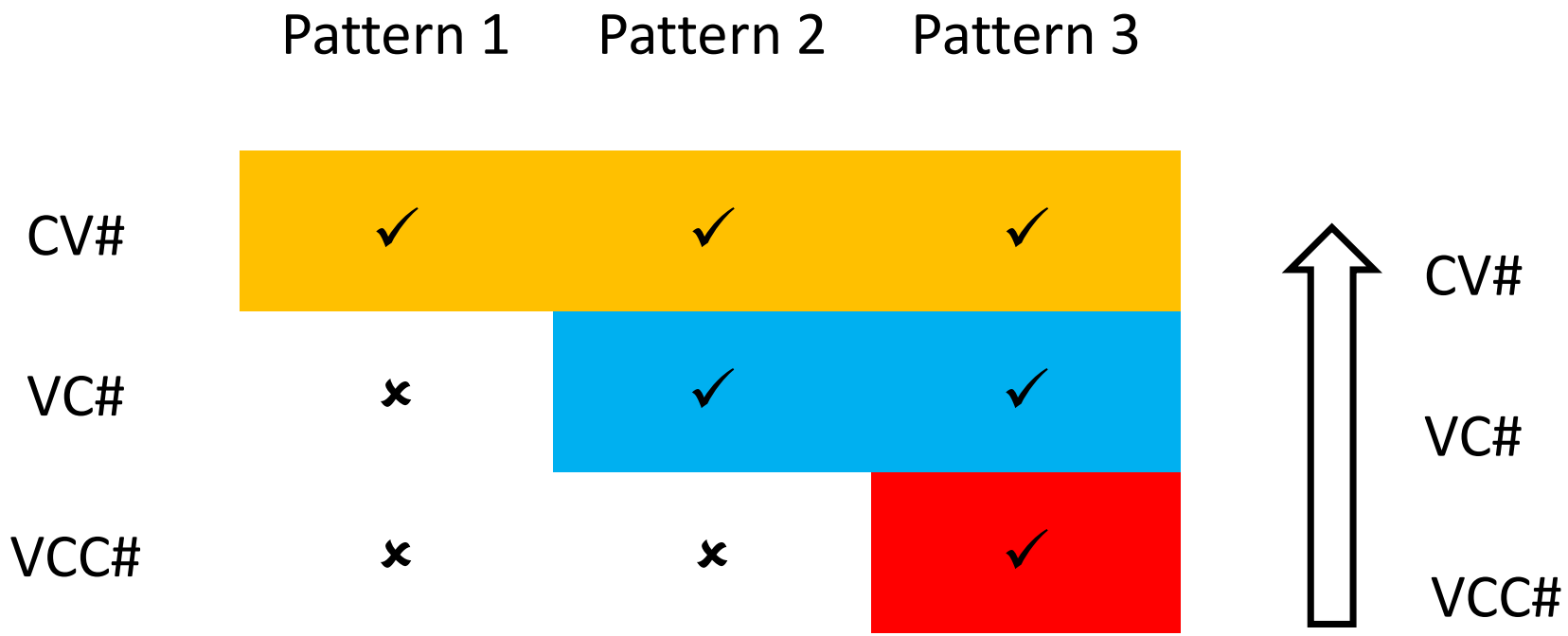
SinFonIJA 13, Budapest, 26. 9. 2020


C# = C V
C
sit = /sɪt#/ = C V C V
s ɪ t
empty V-slot
"final" onset

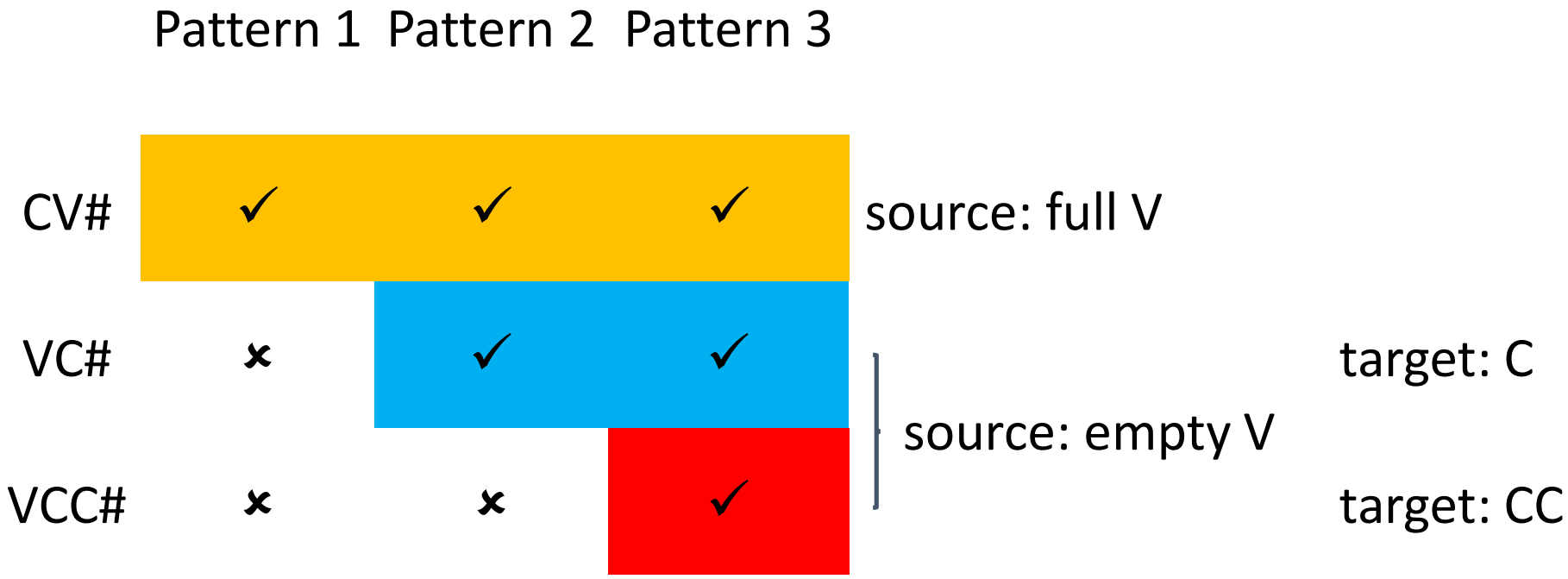
Word-final typology

	CV#	VC#	VCC#	
pattern 1	✓	✗	✗	Japanese, Hawaiian …
pattern 2	✓	✓	✗	Somali, Yawelmani …
pattern 3	✓	✓	✓	English, Czech …
*pattern 4	✓	✗	✓	tata, *tat, tart
*pattern 5	✗	✓	✗	*tata, tat, *tart
*pattern 6	✗	✗	✓	*tata, *tat, tart

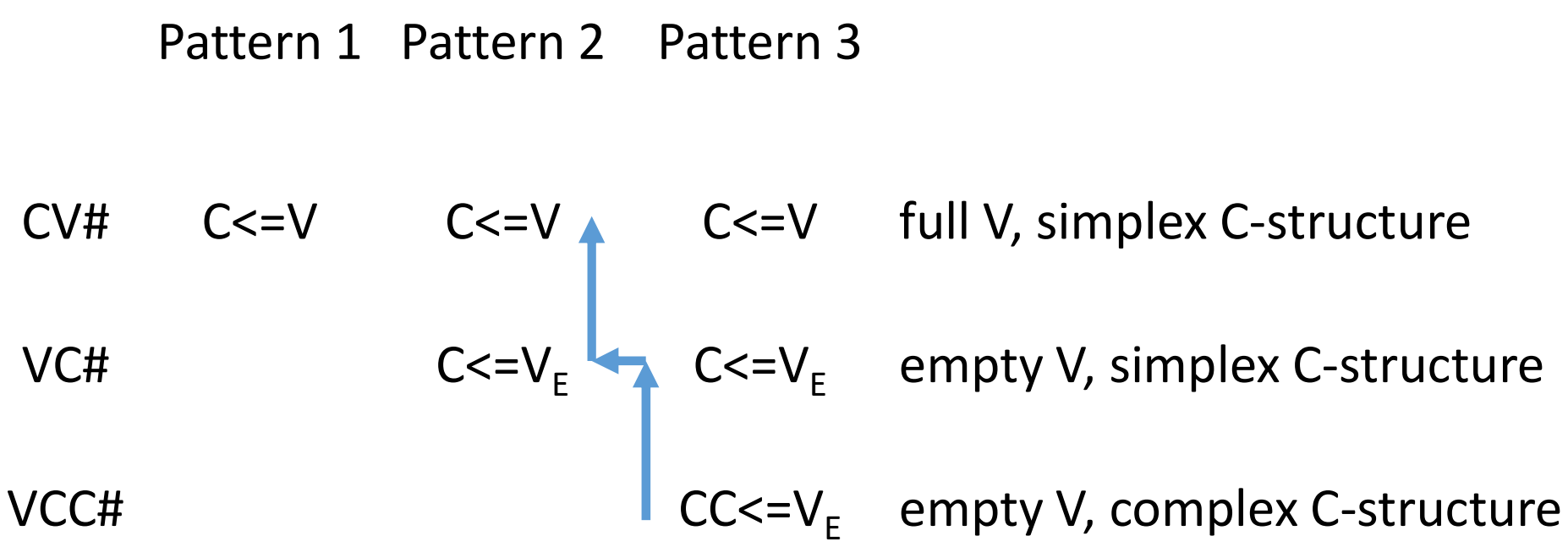
Typological implications



Licensing


Pattern 1
Pattern 2
Pattern 3
CV#
✓
✓
✓
source: full V
VC#
✘
✓
✓
target: C
source: empty V
VCC#
✘
✘
✓
target: CC

Licensing hierarchies (Cyran 2010)



Phonotactics of final clusters

Greenberg‘s (1978) generalization (18) on final clusters:

In final systems, the existence of at least one sequence containing an obstruent immediately followed by a liquid implies the presence of at least one sequence containing a liquid followed by an obstruent.

Split of pattern 3

	CV#	VC#	VLT#	VTL#	
Pattern 3A	✓	✓	✓	✗	Albanian, Catalan …
Pattern 3B	✓	✓	✓	✓	Icelandic, Welsh …
*Pattern 3C	✓	✓	✗	✓	

Sonority Sequencing Principle

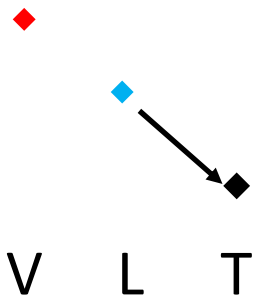
Sonority Hierarchy

level 3 V

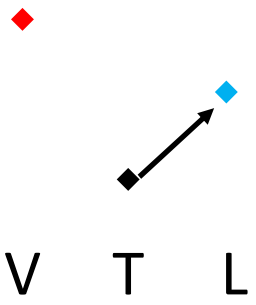
level 2 L

level 1 T

LT#: falling sonority
= unmarked string



TL#: rising sonority
= marked string

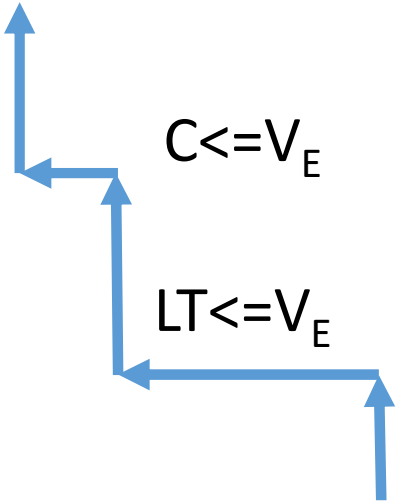


Licensing and sonority

	Pattern 3A	Pattern 3B	
VLT#	LT<=V_E	LT<=V_E	empty V, falling sonority
VTL#		TL<=V_E	empty V, rising sonority

Word-final typology: summary

	Pattern 1	Pattern 2	Pattern 3A	Pattern 3B
CV#	C<=V	C<=V	C<=V	C<=V
VC#		$C<=V_E$	$C<=V_E$	$C<=V_E$
VLT#			$LT<=V_E$	$LT<=V_E$
VTL#				$TL<=V_E$



Repair strategies in Pattern 3A

metathesis	TL# > LT#
V-epenthesis	TL# > TVL#
L-deletion	TL# > T#
L-syllabification	TL# > T$\underset{\text{ }}{\text{L}}$#

Metathesis (Persian)

- Jahangiri (1980)

	prestigious register	substandard register	
LT#	✓ (ka**rd**)	✓ (ka**rd**)	ʿknifeʾ
TL#	✓ (pu**dr**)	✗ (pu**rd**)	ʿpowderʾ

V-epenthesis (Polish)

- Laskowski (1975)

	prestigious register	substandard register
LT#	✓ (spo**rt**)	✓ (spo**rt**)
TL#	✓ (me**tr**)	✗ (me**te**r)

L-deletion (French)

- Côté (2004)

	Standard French	Québec French	
LT#	✓ (ʁizo**ʁt**)	✓ (ʁizo**ʁt**)	<resort>
TL#	✓ (po**vʁ**)	✗ (po**v**)	<pauvre> ʿpoorʾ

Czech: two repair strategies

	Modern Czech	Old Czech	
e-epenthesis	ja**te**r	(ja**tr**)$_{\sigma}$	‘liver, Gpl’
L-syllabification	(bra.**t̩r**)$_{\sigma\sigma}$	(bra**tr**)$_{\sigma}$	‘brother, Nsg’

Syllabic vs non-syllabic CC#: final devoicing

/_+V [Gsg]	hra[d]-u	mo[dř]-i	pu[dr]-u
/_# [Nsg]	hra[t]	mo[t̥ř]	pu[dr̥]
	ʻcastleʼ	ʻblue colourʼ	ʻpowderʼ

L-syllabification = unmarked strategy

- Nsg of masculine nouns: bobr [bobr̩] ʻbeaverʼ
- Nsg of feminine nouns: mysl [mis̩l] ʻmindʼ
- abbreviations: GAČR [gaʧr̩] ʻ**G**rant **A**gency of the **C**zech **R**epublicʼ
- onomatopoeia: cimpr campr [ʦimpr̩ ʦampr̩] ʻinto piecesʼ
- past participles: sekl [sek̩l] ʻhe cutʼ

e-epenthesis = marked strategy (Gpl)

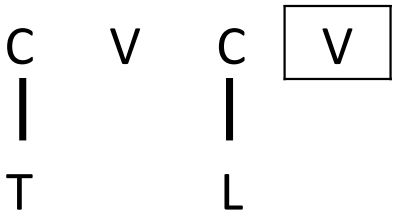
Npl	Gpl	
stébl-a	stébel	‘blade of grass’
zebr-y	zeber	‘zebra’
světl-a	světel	‘light’
futr-a	futer	‘jamb’
kukl-y	kukel	‘pupa’
čakr-y	čaker	‘chakra’

Bi-gender roots

Cr-a Nsg♂/Gsg♀	Cr̩# Nsg♂	Cer# Gpl♀	
Petr-a	Petr̩	Peter	ʻfirst nameʼ
Alexandr-a	Alexandr̩	Alexander	ʻfirst nameʼ
magistr-a	magistr̩	magister	ʻmasterʼ
kmotr-a	kmotr̩	kmoter	ʻgod-father/motherʼ

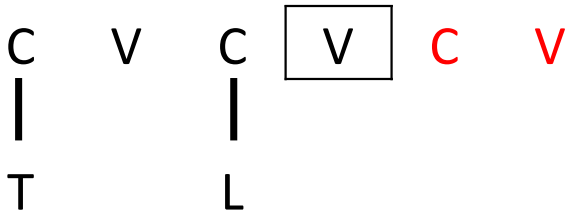
Proposal

a. TL# > TL̩# / elsewhere



TL is followed by
a **final** empty V

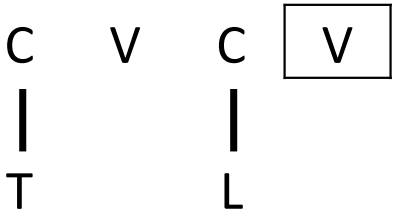
b. TL# > TeL# / Gpl



TL is followed by
an **internal** empty V

Nsg vs Gpl

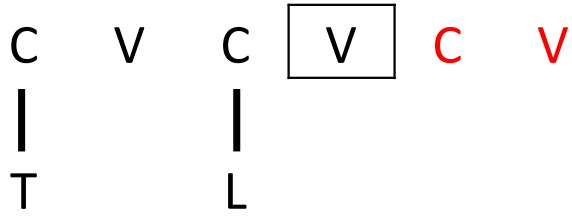
a. Nsg = / /



Nsg zero marker

= literally nothing

b. Gpl = /CV/

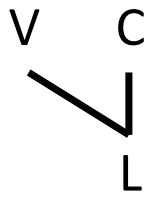


Gpl zero marker

= a piece of prosodic structure

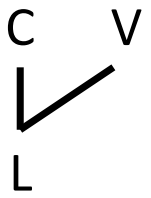
Syllabic consonants = bi-positional objects

a. VC



Harris (1994), Toft (2002)
Scheer (2004), Polgárdi (2015)

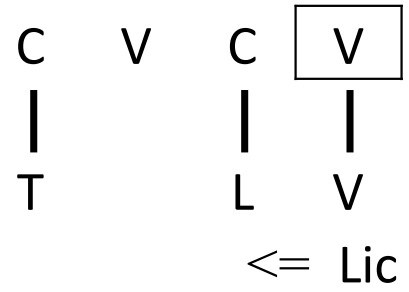
b. CV



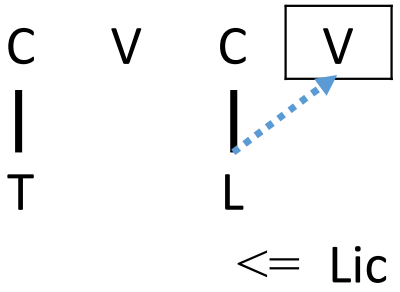
Rowicka (1999), Blaho (2001)
Scheer (2009), Scheer & Ziková (2017)

Scheer (2009): branch to license

a. TLV



b. TL̥



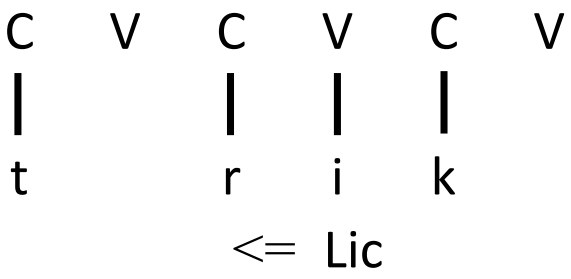
Prediction 1: #LT are not syllabified

- Czech shows both possible types of initial clusters

a. #TL

trik ‘trick’

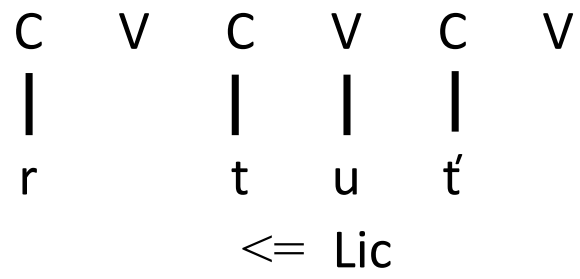
hlas ‘voice’



b. #LT

rtuť ‘mercury’

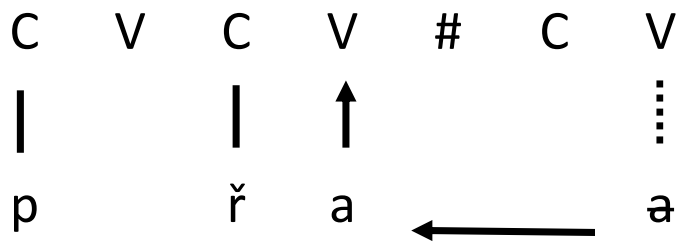
lhář ‘liar’

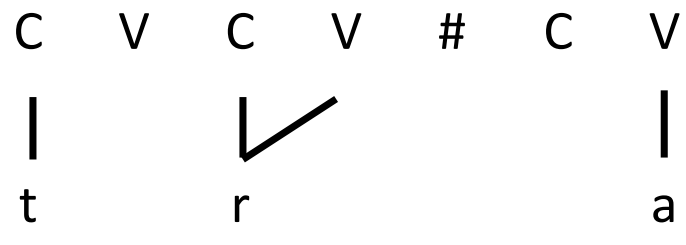


Prediction 2: absence of sandhi linking

a. TT#V: ʿsalt and pepperʾ
[pepř a suːl] OR
[pepřa suːl]

b. TĻ#V: ʿPeter and Paulʾ
[petŗ a pavel]
*[petra pavel]



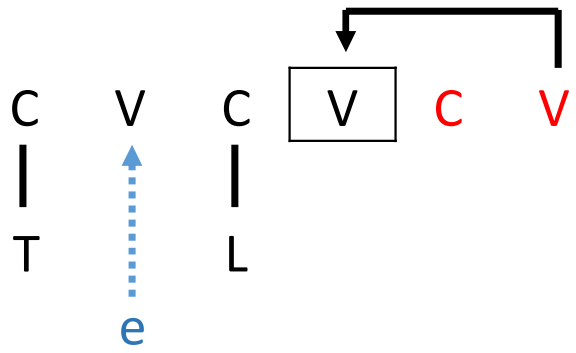


Interim summary

- Czech: TL can only be licensed by full vowels
- This is the reason why Ls branch to the cluster-final empty V-slot and hence become syllabic in final position.
- Why do they fail to branch in the Gpl?

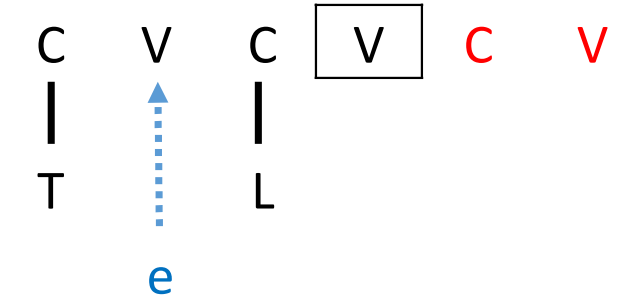
Gpl: syllabic Ls are blocked by government

- cluster-final empty V is **governed** by a Gpl marker

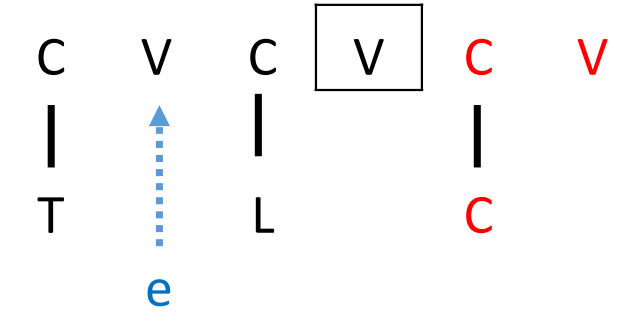


Prediction: epenthesis before C-suffixes

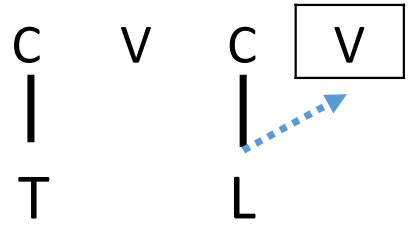
a. Gpl



b. C-suffix



c. Nsg



The epenthetic pattern

TL# (Gpl)	svě**te**l	pe**ke**l	ci**fe**r	ses**te**r
TL-C	svě**te**l-ný	pe**ke**l-ný	ci**fe**r-ník	ses**te**r-ský
TL-V (Gsg)	svě**tl**-a	pe**kl**-a	ci**fr**-y	ses**tr**-y
	ʻlightʼ	ʻhellʼ	ʻnumberʼ	ʻsisterʼ
TL# (Nsg)	ni**kl̩**	Ky**pr̩**	cu**kr̩**	snaj**pr̩**
TL-C	ni**ke**l-natý	ky**pe**r-ský	cu**ke**r-ný	snaj**pe**r-ský
TL-V (Gsg)	ni**kl**-u	Ky**pr**-u	cu**kr**-u	snaj**pr**-a
	ʻnickelʼ	ʻCyprusʼ	ʻsugarʼ	ʻsniperʼ

Gpl: TeL# vs LT#

	Gpl	C-suffix	Npl	
TL > TeL	ja**ter**	ja**ter**-ní	játr-a	ʻliverʼ
LT	ao**rt**	ao**rt**-ní	aort-y	ʻaortaʼ

Pattern 3A: only LT are licensed by empty Vs

	LT	TL	
V_E (final)	<=	✘	L-syllabification
V_E (internal)	<=	✘	*e*-penthesis

Gpl: LT# or LeT#

	Gpl	C-suffix	Npl	
TL > TeL	ja**ter**	ja**ter**-ní	já**tr**-a	‘liver’
LT	ao**rt**	ao**rt**-ní	ao**rt**-y	‘aorta’
LT > LeT	ka**ret**	ka**ret**-ní	ka**rt**-y	‘card’

Phonological computation vs lexical storage

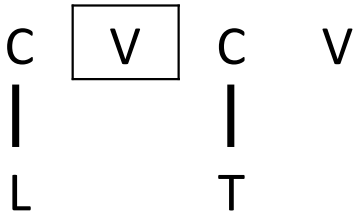
TL > TeL (Gpl *jater*) ➔ predictability ➔ *e* is inserted by phonology

LT > LeT (Gpl *karet*) ➔ unpredictability ➔ *e* is a lexically floating segment

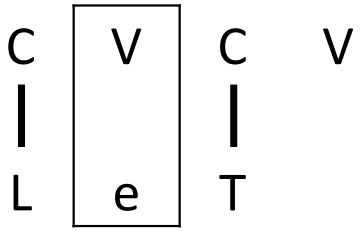
- Scheer (2012): v-zero alternations in Polish are either epenthetic or lexical

Floating vowels

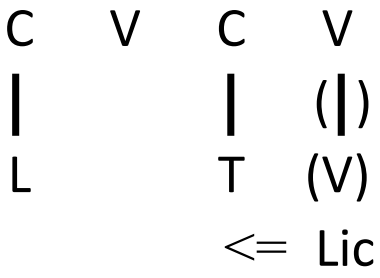
a. true cluster



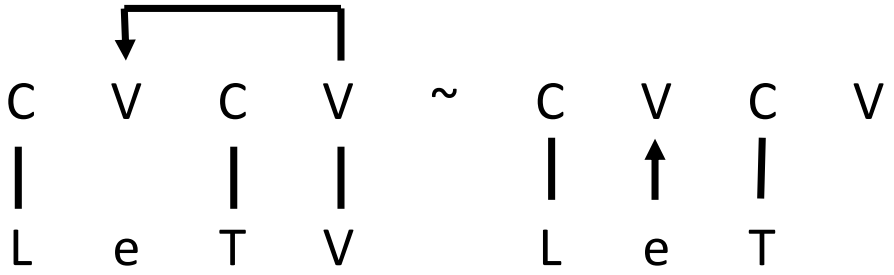
b. bogus cluster



aa. licensing: *aort-y*/*aort*



bb. government: *kart-y* ~ *karet*



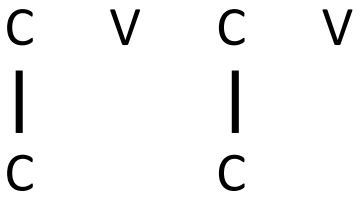
Czech is like BCS: Nsg ≠ Gpl

	Nsg	Gpl
Czech	Pe**tr**-Ø	Pe**te**r-Ø
BCS	se**str**-a	se**sta**r-a

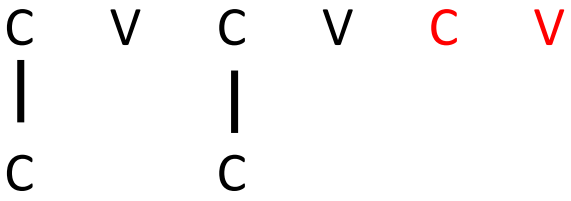
Unification

- Gpl is prosodically bigger than Nsg in both Czech and BCS

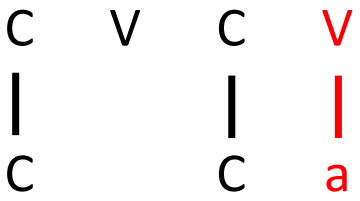
a. Cz: Nsg



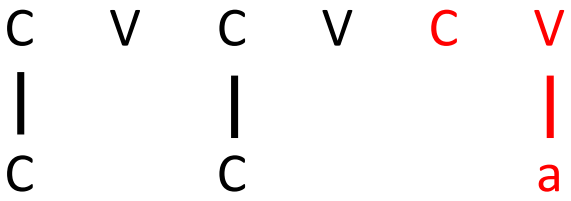
Cz: Gpl



b. BCS: Nsg



BCS: Gpl (Scheer, Ziková & Starčević 2011



Conclusion

- I analyzed word-final phonotactic patterns in Czech
- Typologically, Czech belongs to Pattern 3A (VLT#, VC#, CV#)
- Pattern 3A: empty V cannot license rising-sonority clusters
- Czech uses two strategies to repair unlicensed TL

  V-epenthesis, L-syllabification

Conclusion

- The repair processes are not random
- This can be best seen by comparing zero-derived Nsg a Gpl
- Nsg: L-syllabification, Gpl: V-epenthesis
- I explained this systematic pattern as resulting from different phonological structures of the zero endings

Thank you!

Köszönöm!

Děkuji!