

A Representational Analysis of Czech Palatalisation

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 - ▶ ‘small’, e.g. /k/ → /ts/ (*voják* ‘soldier’ → *vojáč-i* ‘soldiers’)

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- ▶ Many suffixes trigger palatalisation of elements to their left
- ▶ The suffixes differ in the types of palatalisation they trigger
- ▶ Scheer (2001) distinguishes two types of palatalisation:
 - ▶ ‘small’, e.g. /k/ → /ts/ (*voják* ‘soldier’ → *vojáč-i* ‘soldiers’)
 - ▶ ‘big’, e.g. /k/ → /tʃ/ (*plak-at* ‘to cry’ → *pláč-u* ‘I cry’)

Two types of palatalisation (Scheer 2001)

	small	LOC/DAT.F.SG -ě	big	PST.PASS.PTCPL -ěn
/k/	/ts/	<i>louka–louce</i> ‘meadow’	/tʃ/	<i>zatkout–zatčen</i> ‘arrested’
/h/	/z/	<i>kniha–knize</i> ‘book’	/ʒ/	<i>táhnout–tažen</i> ‘pulled’
/g/	/z/	<i>liga–lize</i> ‘league’	?	(<i>Olga–Olžin</i>)
/x/	/ʃ/	<i>střecha–střeše</i> ‘roof’	/ʃ/	<i>nadchnout–nadšen</i> ‘excited’
/t/	/c/	<i>máta–mátě</i> ‘mint’	/ts/	<i>nutit–nucen</i> ‘forced’
/d/	/ɟ/	<i>vláda–vládě</i> ‘government’	/z/	<i>uklidit–uklizen</i> ‘cleaned up’
/ts/	/ts/	(<i>Bystrica</i> - <i>Bystrice</i> ‘Bystrica’)	/tʃ/	<i>péci–pečen</i> ‘baked’
/s/	/s/	<i>mísá–míše</i> ‘bowl’	/ʃ/	<i>hlásit–hlášen</i> ‘reported’
/z/	/z/	<i>koza–koze</i> ‘goat’	/ʒ/	<i>ohrozit–ohražen</i> ‘endangered’
/n/	/ɲ/	<i>vina–vině</i> ‘guilt’	/ɲ/	<i>ranit–raněn</i> ‘wounded’
/r/	/ř/	<i>sestra–sestře</i> ‘sister’	/ř/	(<i>Věra–Věřin</i>)
/p/	/pj/	<i>stoupa–stoup[j]ě</i> ‘rise’	/p/	<i>zatopit–zatopen</i> ‘flooded’
/b/	/bj/	<i>ryba–ryb[b]jě</i> ‘fish’	/b/	<i>rozzlobit–rozzloben</i> ‘angered’
/f/	/fj/	<i>karafa–karaf[f]jě</i> ‘decanter’	/f/	
/v/	/vj/	<i>hlava–hla[v]jě</i> ‘head’	/v/	<i>obarvit–obarven</i> ‘dyed’
/m/	/mj/	<i>zima–zim[m]ě</i> ‘winter’	/m/	<i>zlomit–zlomen</i> ‘broken’

Aims of this talk

- ▶ To discuss a third pattern, which does not fit Scheer's typology

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 - ▶ Element Theory (?)

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Patterns of palatalisation

- ▶ small
- ▶ big
- ▶ CMPR -ěj-(-š) (Caha et al. 2019)
- ▶ CAUS -i (Caha et al. 2023)

CMPR -ěj

base			small		big	
/k/	<i>divoký</i>	'wild'	/tš/		/tʃ/	<i>divočejší</i>
/h/	<i>strohý</i>	'austere'	/z/		/ʒ/	<i>strožejší</i>
/g/	—		/z/		?	—
/x/	<i>plachý</i>	'timid'	/ʃ/		/ʃ/	<i>plašejší</i>
/t/	<i>kulatý</i>	'round'	/c/	<i>kulatější</i>	/tš/	
/d/	<i>hrdý</i>	'proud'	/tʃ/	<i>hrdější</i>	/z/	
/ts/			/ts/	—	/tʃ/	
/s/	<i>lysý</i>	'bald'	/s/	<i>lysejší</i>	/ʃ/	
/z/	<i>ryzí</i>	'pure'	/z/	<i>ryzejší</i>	/ʒ/	
/n/	<i>benigní</i>	'benign'	/ɲ/	<i>benignější</i>	/ɲ/	
/r/	<i>bujarý</i>	'merry'	/ř/	<i>bujařejší</i>	/ř/	
/p/	<i>hloupý</i>	'stupid'	/pj/	<i>hloup[j]-ější</i>	/p/	
/b/	<i>blbý</i>	'stupid'	/bj/	<i>blb[j]ěš-í</i>	/b/	
/f/			/fj/	—	/f/	
/v/	<i>hravý</i>	'playful'	/vj/	<i>hrav[j]ější</i>	/v/	
/m/	<i>lakomý</i>	'stingy'	/mɲ/	<i>lakom[n]ější</i>	/m/	

CAUS -i

	base		small		big
/k/	<i>trpký</i>	'bitter'	/ts/		/tʃ/ <i>ztrpčil</i>
/h/	<i>drahý</i>	'expensive'	/z/		/ʒ/ <i>zdražil</i>
/g/	—		/z/		?
/x/	<i>tičhý</i>	'silent'	/ʃ/		/ʃ/ <i>tišil</i>
<hr/>					
/t/	<i>nejistý</i>	'unsure'	/c/	<i>znejistil</i>	/ts/
/d/	<i>hnědý</i>	'brown'	/ɟ/	<i>zahnědil</i>	/z/
/ts/			/ts/	—	/tʃ/
/s/	<i>hlásý</i>	'voice'	/s/	<i>hlásil</i>	/ʃ/
/z/	<i>mráz</i>	'frost'	/z/	<i>zmrazil</i>	/ʒ/
/n/	<i>levný</i>	'cheap'	/ɲ/	<i>zlevnil</i>	/ɲ/
/r/	<i>moudrý</i>	'wise'	/ɾ/	<i>zmoudřil</i>	/ɾ/
<hr/>					
/p/	<i>tupý</i>	'blunt'	/pj/		/p/ <i>tupil</i>
/b/	<i>chabý</i>	'weak'	/bj/		/b/ <i>ochabil</i>
/f/			/fj/		/f/
/v/	<i>ošklivý</i>	'ugly'	/vj/		/v/ <i>ošklivil</i>
/m/	<i>chromý</i>	'lame'	/mj/		/m/ <i>ochromil</i>

Patterns of palatalisation

	small	CMPR -ěj	CAUS -i	big
/k/	/ts/	/tʃ/	/tʃ/	/tʃ/
/h/	/z/	/ʒ/	/ʒ/	/ʒ/
/g/	/z/	?	?	/ʒ/
/x/	/ʃ/	/ʃ/	/ʃ/	/ʃ/
/t/	/c/	/c/	/c/	/ts/
/d/	/tʃ/	/tʃ/	/tʃ/	/z/
/ts/	/ts/	?	?	/tʃ/
/s/	/s/	/s/	/s/	/ʃ/
/z/	/z/	/z/	/z/	/ʒ/
/n/	/ɲ/	/ɲ/	/ɲ/	/ɲ/
/r/	/ɾ/	/ɾ/	/ɾ/	/ɾ/
/p/	/pj/	/pj/	/p/	/p/
/b/	/bj/	/bj/	/b/	/b/
/f/	/fj/	/fj/	/f/	/f/
/v/	/vj/	/vj/	/v/	/v/
/m/	/mɲ/	/mɲ/	/m/	/m/

Patterns of palatalisation

	small	CMPR -ěj	CAUS -i	big
/k/	/ts/	/tʃ/	/tʃ/	/tʃ/
/h/	/z/	/ʒ/	/ʒ/	/ʒ/
/g/	/z/	?	?	/ʒ/
/x/	/ʃ/	/ʃ/	/ʃ/	/ʃ/
/t/	/c/	/c/	/c/	/ts/
/d/	/tʃ/	/tʃ/	/tʃ/	/z/
/ts/	/ts/	?	?	/tʃ/
/s/	/s/	/s/	/s/	/ʃ/
/z/	/z/	/z/	/z/	/ʒ/
/n/	/ɲ/	/ɲ/	/ɲ/	/ɲ/
/r/	/ɾ/	/ɾ/	/ɾ/	/ɾ/
/p/	/pj/	/pj/	/p/	/p/
/b/	/bj/	/bj/	/b/	/b/
/f/	/fj/	/fj/	/f/	/f/
/v/	/vj/	/vj/	/v/	/v/
/m/	/mɲ/	/mɲ/	/m/	/m/

Patterns of palatalisation

	small	CMPR -ěj	CAUS -i	big
/k/	/ts/	/tʃ/	/tʃ/	/tʃ/
/h/	/z/	/ʒ/	/ʒ/	/ʒ/
/χ/	/ʃ/	/ʃ/	/ʃ/	/ʃ/
/t/	/c/	/c/	/c/	/ts/
/d/	/tʃ/	/tʃ/	/tʃ/	/z/
/ts/	/ts/	?	?	/tʃ/
/s/	/s/	/s/	/s/	/ʃ/
/z/	/z/	/z/	/z/	/ʒ/
/n/	/ɲ/	/ɲ/	/ɲ/	/ɲ/
/r/	/ř/	/ř/	/ř/	/ř/

Patterns of palatalisation

	small		big
/k/	/ts/	/tʃ/	/tʃ/
/h/	/z/	/ʒ/	/ʒ/
/χ/	/ʃ/	/ʃ/	/ʃ/
/t/	/c/	/c/	/ts/
/d/	/tʃ/	/tʃ/	/z/
/ts/	/ts/	?	/tʃ/
/s/	/s/	/s/	/ʃ/
/z/	/z/	/z/	/ʒ/
/n/	/ŋ/	/ŋ/	/ŋ/
/r/	/ɹ/	/ɹ/	/ɹ/

Patterns of palatalisation

	small	medium	big
/k/	/ts/	/tʃ/	/tʃ/
/h/	/z/	/ʒ/	/ʒ/
/x/	/ʃ/	/ʃ/	/ʃ/
/t/	/c/	/c/	/ts/
/d/	/tʃ/	/tʃ/	/z/
/ts/	/ts/	?	/tʃ/
/s/	/s/	/s/	/ʃ/
/z/	/z/	/z/	/ʒ/
/n/	/ŋ/	/ŋ/	/ŋ/
/r/	/ɹ/	/ɹ/	/ɹ/

Patterns of palatalisation

	small	medium	big
/k/	/ts/	/tʃ/	/tʃ/
/h/	/z/	/ʒ/	/ʒ/
/χ/	/ʃ/	/ʃ/	/ʃ/
/t/	/c/	/c/	/ts/
/d/	/tʃ/	/tʃ/	/z/
/ts/	/ts/	?	/tʃ/
/s/	/s/	/s/	/ʃ/
/z/	/z/	/z/	/ʒ/
/n/	/ŋ/	/ŋ/	/ŋ/
/r/	/ɹ/	/ɹ/	/ɹ/

Patterns of palatalisation

	small	medium	big
/k/	/ts/	/tʃ/	/tʃ/
/x/	/ʃ/	/ʃ/	/ʃ/
/t/	/c/	/c/	/ts/
/ts/	/ts/	?	/tʃ/
/s/	/s/	/s/	/ʃ/
/n/	/ɲ/	/ɲ/	/ɲ/
/r/	/r/	/r/	/r/

Patterns of palatalisation

	small	medium	big
	PAL ₁	PAL ₂	PAL ₃
/k/	/ts/	/tʃ/	/tʃ/
/χ/	/ʃ/	/ʃ/	/ʃ/
/t/	/c/	/c/	/ts/
/ts/	/ts/	?	/tʃ/
/s/	/s/	/s/	/ʃ/
/n/	/ɲ/	/ɲ/	/ɲ/
/r/	/ɾ/	/ɾ/	/ɾ/

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Overview

- ▶ **Palatalizers** are floating structures associating with the root-final available C (or V)

		small adds <u>I</u>		medium adds <u>H.I</u>		big adds <u>H.I</u>	
/k/	?	/ts/	?. <u>I</u>	/tʃ/	?. <u>H.I</u>	/tʃ/	?. <u>H.I</u>
/x/	H	/ʃ/	H. <u>I</u>	/ʃ/	H. <u>I</u>	/ʃ/	H. <u>I</u>
/t/	?. <u>A</u>	/c/	?. <u>A.I</u>	/c/	?. <u>H.A.I</u>	/ts/	?. <u>H.A.I</u>
/ts/	?. <u>I</u>	/ts/	?. <u>I</u>	/ts/	?. <u>H.I</u>	?	
/s/	H. <u>A</u>	/s/	H. <u>A.I</u>	/s/	H. <u>A.I</u>	/ʃ/	H. <u>A.I</u>
/n/	L	/n/	L. <u>I</u>	/n/	L. <u>H.I</u>	/n/	L. <u>H.I</u>
/r/	A	/r/	A. <u>I</u>	/r/	A. <u>H.I</u>	/r/	A. <u>H.I</u>

Overview

		small adds <u>I</u>		medium adds <u>H.I</u>		big adds <u>H.I</u>	
/k/	?	/ts/	?. <u>I</u>	/tʃ/	?. <u>H.I</u>	/tʃ/	?. <u>H.I</u>
/x/	H	/ʃ/	H. <u>I</u>	/ʃ/	<u>H.I</u>	/ʃ/	<u>H.I</u>
/t/	?. <u>A</u>	/c/	?. <u>A.I</u>	/c/	?. <u>H.A.I</u>	/ts/	?. <u>H.A.I</u>
/ts/	?. <u>I</u>	/ts/	?. <u>I</u>	/ts/	?. <u>H.I</u>	?	
/s/	H. <u>A</u>	/s/	H. <u>A.I</u>	/s/	<u>H.A.I</u>	/ʃ/	<u>H.A.I</u>
/n/	L	/ŋ/	L. <u>I</u>	/ŋ/	L. <u>H.I</u>	/ŋ/	L. <u>H.I</u>
/r/	A	/ɹ/	A. <u>I</u>	/ɹ/	A. <u>H.I</u>	/ɹ/	A. <u>H.I</u>

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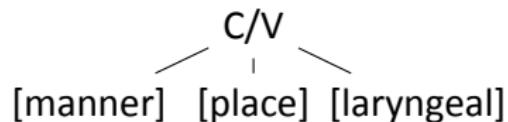
Conclusion

Prerequisites

- ▶ Strict CV (?Scheer 2004)
- ▶ Element Theory (?) ?2012

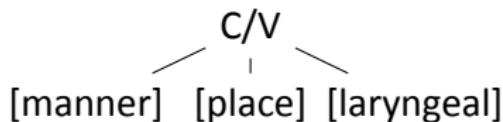
Prerequisites

a. General schema

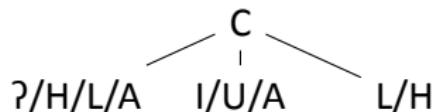


Prerequisites

a. General schema



b. Consonants



c. Vowels

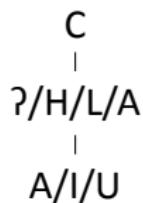


- ▶ [manner] and [place] can be complex → 2/3 elements
 - ▶ E.g. /tʃ/ = ?·H·I, and /e/ = A·I

Prerequisites

- ▶ For ease of exposition
 - ▶ we verticalise the geometry
 - ▶ we ignore the [laryngeal] node

a. Consonants



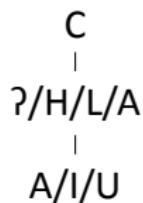
b. Vowels



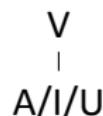
Prerequisites

- ▶ For ease of exposition
 - ▶ we verticalise the geometry
 - ▶ we ignore the [laryngeal] node

a. Consonants



b. Vowels



- ▶ The **palatalizers** are floating structures: no C/V node
- ▶ They strive for association to an available C/V node
- ▶ Association starts from the leftmost available C/V node

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Velars

small	medium	big
adds I	adds H.I	adds H.I
/k/ ?	/tʃ/ ?. <u>I</u>	/tʃ/ ?. <u>H.I</u>
/x/ H	/ʃ/ H.I	/ʃ/ H. <u>I</u>

Small: /k/ → [ts] = ? → ?.!

- ▶ /k/-final ROOT

... C V
|
?

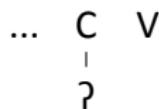
- ▶ -ě.LOC/DAT.F.SG

C V
|
e

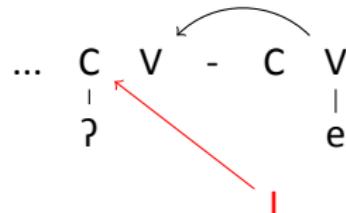
I

Small: /k/ → [ts] = ? → ?.i

► /k/-final ROOT



► | associates to root-final C



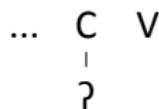
► -ě.LOC/DAT.F.SG



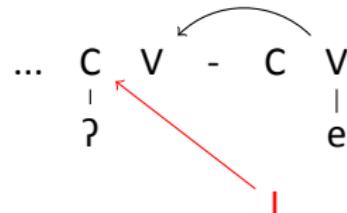
|

Small: /k/ → [ts] = ? → ?.i

► /k/-final ROOT



► | associates to root-final C

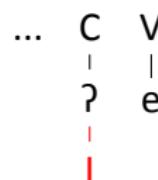


► -ě.LOC/DAT.F.SG



► ...k-ě → [ts]

► Empty VC deletion (?)



Medium: /k/ → [tʃ] = ? → ?.H.I

- ▶ /k/-final ROOT

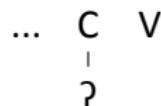
... C V
|
?

- ▶ -ěj-.CMPR

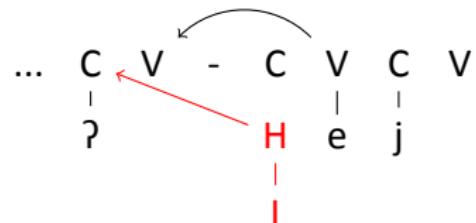
C V C V
| |
H e j
| |

Medium: /k/ → [tʃ] = ? → ?.H.I

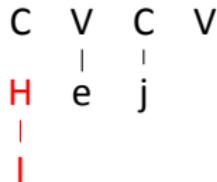
► /k/-final ROOT



► H.I associates to root-final C

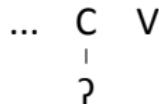


► -ěj-.CMPR

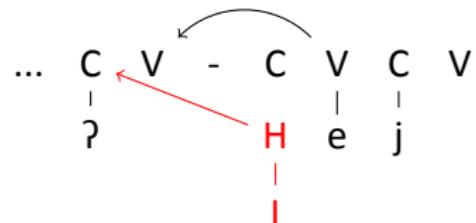


Medium: /k/ → [tʃ] = ? → ?.H.I

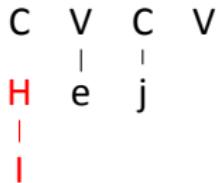
► /k/-final ROOT



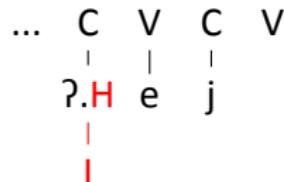
► H.I associates to root-final C



► -ěj-.CMPR



► ...k-ěj → [tʃej]



Big: /k/ → [tʃ] = ? → ?H.I

► /k/-final ROOT

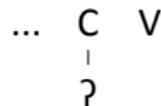
... C V
|
?

► -ěn-.P.PRT

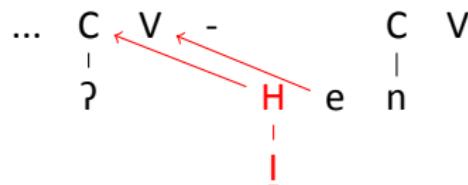
C V
|
H e n
|
I

Big: /k/ → [tʃ] = ? → ?.H.I

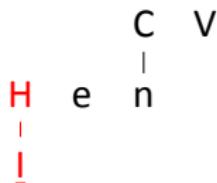
- ▶ /k/-final ROOT



- ▶ H.I associates to root-final C
- ▶ *e* associates to root-final V

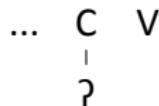


- ▶ -ěn-.P.PRT

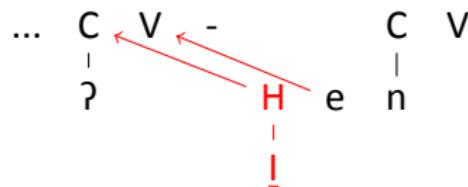


Big: /k/ → [tʃ] = ? → ?.H.I

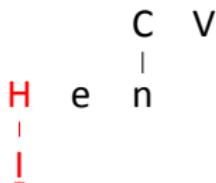
- ▶ /k/-final ROOT



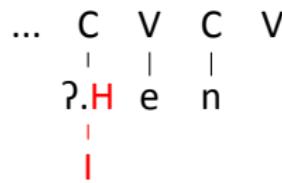
- ▶ H.I associates to root-final C
- ▶ *e* associates to root-final V



- ▶ -ěn-.P.PRT



- ▶ ...k-ěn → [tʃen]



Outline

Introduction

Patterns of palatalisation

The analysis

Overview

Prerequisites

Velars

Coronals

Conclusion

Coronals

		small adds I		medium adds H.I		big adds H.I	
/t/	?A	/c/	?A.I	/c/	?H.A.I	/ts/	?H.A.I
/ts/	?I	/ts/	?I	/ts/	?H.I	?	
/s/	H.A	/s/	H.A.I	/s/	H.A.I	/ʃ/	H.A.I
/n/	L	/ŋ/	L.I	/ŋ/	L.H.I	/ŋ/	L.H.I
/r/	A	/r/	A.I	/r/	A.H.I	/r/	A.H.I

Coronals

		small adds I		medium adds H.I		big adds H.I	
/t/	?A	/c/	?A.I	/c/	?H.A.I	/ts/	?H.A.I
/ts/	?I	/ts/	?I	/ts/	?H.I	?	
/s/	H.A	/s/	H.A.I	/s/	H.A.I	/ʃ/	H.A.I
/n/	L	/ŋ/	L.I	/ŋ/	L.H.I	/n/	L.H.I
/r/	A	/r/	A.I	/r/	A.H.I	/r/	A.H.I

- ▶ Some similar-sounding segments have different URs

Coronals

		small adds I		medium adds H.I		big adds H.I	
/t/	?A	/c/	?A.I	/c/	?H.A.I	/ts/	?H.A.I
/ts/	?I	/ts/	?I	/ts/	?H.I	?	
/s/	H.A	/s/	H.A.I	/s/	H.A.I	/ʃ/	H.A.I
/n/	L	/ŋ/	L.I	/ŋ/	L.H.I	/n/	L.H.I
/r/	A	/r/	A.I	/r/	A.H.I	/r/	A.H.I

- ▶ Some similar-sounding segments have different URs
- ▶ No single UR has different phonetic interpretations

Coronals

		small adds I		medium adds H.I		big adds H.I	
/t/	?A	/c/	?A.I	/c/	?H.A.I	/ts/	?H.A.I
/ts/	?I	/ts/	?I	/ts/	?H.I	?	
/s/	H.A	/s/	H.A.I	/s/	H.A.I	/ʃ/	H.A.I
/n/	L	/ŋ/	L.I	/ŋ/	L.H.I	/ɲ/	L.H.I
/r/	A	/ɾ/	A.I	/ɾ/	A.H.I	/r/	A.H.I

- ▶ Some similar-sounding segments have different URs
- ▶ No single UR has different phonetic interpretations
 - ▶ H.A.I (/s/) ≠ A.H.I (/ɾ/)

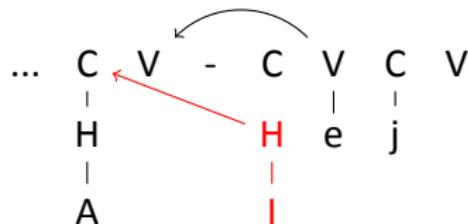
Coronals

		small adds I		medium adds H.I		big adds H.I	
/t/	?A	/c/	?A.I	/c/	?H.A.I	/ts/	?H.A.I
/ts/	?I	/ts/	?I	/ts/	?H.I	?	
/s/	H.A	/s/	H.A.I	/s/	H.A.I	/ʃ/	H.A.I
/n/	L	/ŋ/	L.I	/ŋ/	L.H.I	/n/	L.H.I
/r/	A	/r/	A.I	/r/	A.H.I	/r/	A.H.I

- ▶ Some similar-sounding segments have different URs
- ▶ No single UR has different phonetic interpretations
 - ▶ H.A.I (/s/) ≠ A.H.I (/r/)
 - ▶ H.A.I (/ʃ/) ≠ A.H.I (/r/)

H.A.I (/s/) ≠ A.H.I (/r/)

► ...s-ěj-.CMPR

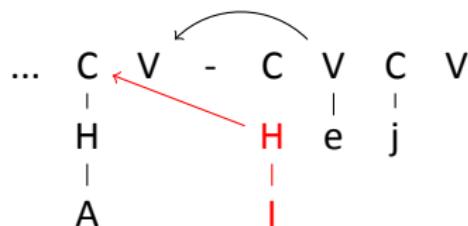


► Output: [sej]

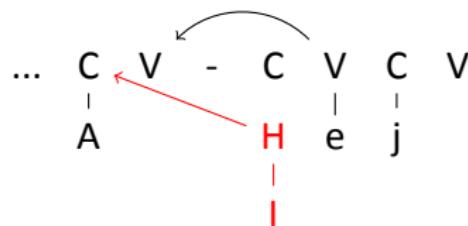


H.A.I (/s/) ≠ A.H.I (/r/)

► ...s-ěj-.CMPR



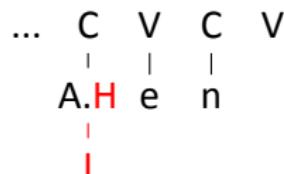
► ...r-ěj-.CMPR



► Output: [sej]

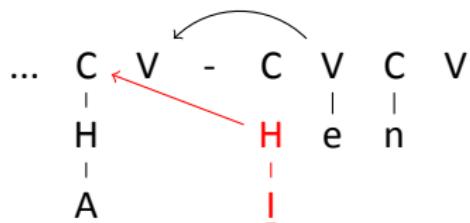


► Output: [rej]

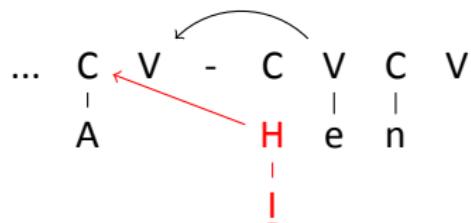


H.A.I (/ʃ/) ≠ A.H.I (/r/)

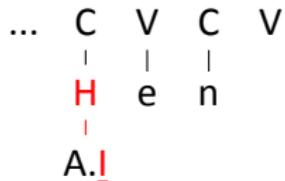
► ...s-ěn-.P.PRT



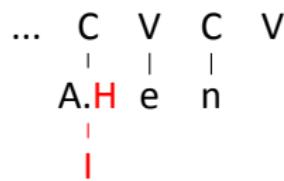
► ...r-ěn-.P.PRT



► Output: [jen]



► Output: [rɛj]



Outline

Introduction

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The analysis

Conclusion

Conclusion

	small	medium	big
/k/	/ts/	/tʃ/	/tʃ/
/x/	/ʃ/	/ʃ/	/ʃ/
/t/	/c/	/c/	/ts/
/ts/	/ts/	?	/tʃ/
/s/	/s/	/s/	/ʃ/
/n/	/ŋ/	/ŋ/	/ŋ/
/r/	/ɹ/	/ɹ/	/ɹ/

Conclusion

	small	medium	big
?	?. <u>I</u>	?. <u>H.I</u>	?. <u>H.I</u>
H	H. <u>I</u>	H. <u>I</u>	H. <u>I</u>
?	?. <u>A.I</u>	?. <u>H.A.I</u>	?. <u>H.A.I</u>
.I	?. <u>I</u>	?. <u>H.I</u>	?
H.A	H.A. <u>I</u>	H.A. <u>I</u>	H.A. <u>I</u>
L	L. <u>I</u>	L. <u>H.I</u>	L. <u>H.I</u>
A	A. <u>I</u>	A. <u>H.I</u>	A. <u>H.I</u>

Conclusion

- ▶ Abstract segmental representations
 - ▶ Similar-sounding segments with different representations
- ▶ Substance-free phonology
 - ▶ Focus on phonological behaviour rather than on phonetics
- ▶ Strict modularity
 - ▶ Phonology and phonetics as two different modules

References

- Caha, P., De Clercq, K. & Vanden Wyngaerd, G. (2019), 'The fine structure of the comparative', *Studia Linguistica* 73(3), 470–521.
- Caha, P., De Clercq, K. & Vanden Wyngaerd, G. (2023), 'Zero-morphology and change-of-state verbs', *Zeitschrift für Sprachwissenschaft* 42(1), 35–62.
- Scheer, T. (2001), Čeština ve Waršawě. Handout of a course at Instytut Anglistiki Uniwersytet Warszawski.
- Scheer, T. (2004), *What is CVCV and why should it be?*, Vol. 1 of *A Lateral Theory of Phonology*, De Gruyter Mouton, Berlin.
- Short, D. (1993), Czech, in B. Comrie & G. G. Corbett, eds, 'The Slavonic Languages', Routledge, London.

Outline

Labials

Comparative -š: assimilation

Adjectivising -í (God and animals)

Overview of patterns

Labials

- ▶ When followed by some palatalizers, labials ‘develop a fully developed palatal element [j]’, i.e. [bj], [pj], [vj] (Short 1993, 459)
- ▶ ‘after bilabial /m/ nasal resonance extends over both segments’, i.e. [mŋ] (Short 1993, 459)

Labials

- ▶ When followed by some palatalizers, labials ‘develop a fully developed palatal element [j]’, i.e. [bj], [pj], [vj] (Short 1993, 459)
- ▶ ‘after bilabial /m/ nasal resonance extends over both segments’, i.e. [mj] (Short 1993, 459)
- ▶ The surfacing of [j] is not related to palatalization ‘size’, but rather to the CV profile of the relevant suffix
 - ▶ ‘Small’ -e.LOC/DAT.F.SG and ‘medium’ -ej.CMPR display [j]
 - ▶ ‘Big’ -en.P.PRT doesn’t
- ▶ Some (small) palatalizing *e* pattern with long vowels
 - ▶ nes-l ~ nés-t ... ⇒ P.PRT CVC-l ~ INF CVVC-t
 - ▶ spě-l ~ spě-t ... ⇒ P.PRT CěC-l ~ INF CěC-t ⇒ ě = VV
- ▶ These *e* can govern a preceding alternation site
 - ▶ N.SG barv-a, G.PL barev, LOC.SG barv-ě [rvje]

Labials

- ▶ Labials have an U element
- ▶ U and I are on the same tier
- ▶ Floating I cannot associate to a node containing U
- ▶ I has two choices:
 - ▶ it can associate with the final V of the root, if available, and surface as [j] (thus, *je* = VV)
 - ▶ if no such V is available, I remains unassociated, and therefore unpronounced

Labials: /p/ → /pj/

► -ě.LOC/DAT.F.SG

C V
|
e
|

Labials: /p/ → /pj/

- ▶ -ě.LOC/DAT.F.SG

C V
|
e

|

- ▶ | tries to associate to the leftmost available slot, but
- ▶ U prevents | associating to the stem-final C

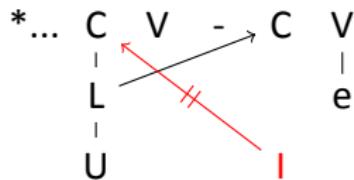
* ... C V - C V
| | | |
? - e
| |
U |

- ▶ | associates to the second left-most slot, i.e. the stem-final V
- ▶ ...p-ě → [pje]

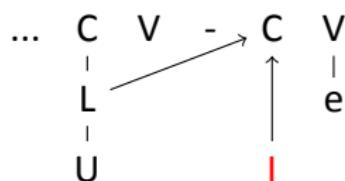
... C V - C V
| | | |
? - e
| |
U |

Labials: /m/ → [mj]

- ▶ | tries to associate to the leftmost available slot, but
- ▶ U prevents | associating to the stem-final C
- ▶ L association with the suffix's C prevents | associating to V



- ▶ | associates to the second leftmost slot, i.e. the suffix-initial C
- ▶ ...m-ě → [mje]



Labials: /p/ → /p/

- ▶ -en.P.PRT



- ▶ U prevents H.I associating to root-final C
- ▶ H.I associates root-final V
- ▶ e joins H.I ($e = A.I$) $\Rightarrow \dots p\text{-}en \rightarrow [pen]$



Outline

Labials

Comparative -š: assimilation

Adjectivising -í (God and animals)

Overview of patterns

Comparative -š: assimilation

	base		zero		small		big
/k/	<i>lehký</i>	'light'	/k/		/ts/	/tʃ/	<i>lehč(sí)</i>
/h/	<i>drahý</i>	'expensive'	/h/		/z/	/ʒ/	<i>dražší</i>
/g/	—		/g/		/z/	?	
/x/	<i>tichý</i>	'silent'	/x/		/ʃ/	/ʃ/	<i>tišší</i>
/t/	<i>bohatý</i>	'rich'	/t/	<i>bohatší</i>	/c/	/ts/	
/d/	<i>tvrđý</i>	'hard'	/d/	<i>tvrđší</i>	/ɟ/	/z/	
/ts/			/ts/		/ts/	/tʃ/	
/s/	<i>vyšoký</i>	'high'	/s/		/s/	/ʃ/	<i>vyšší</i>
/z/	<i>nízký</i>	'low'	/z/		/z/	/ʒ/	<i>nižší</i>
/n/			/n/		/ɲ/	/ɲ/	
/r/	<i>starý</i>	'old'	/r/	<i>starší</i>	/ɾ/	/ɾ/	
/p/	(<i>dobrý</i>)	'good'	/p/	<i>lepší</i>	/pj/	/p/	
/b/	<i>slabý</i>	'weak'	/b/	<i>slabší</i>	/bj/	/b/	
/f/			/f/		/fj/	/f/	
/v/	<i>tmařý</i>	'dark'	/v/	<i>tmařší</i>	/vj/	/v/	
/m/			/m/		/mj/	/m/	

Comparative -š: assimilation

- ▶ drahý-dražší, tichý-tišší, but also vysoký-vyjjí, blízký-blížší, úzký-užší, nízký-nižší, krásný-krašší
- ▶ /ʃ/ palatalizes both velar and coronal consonants, as long as they are fricative, but labials are still out
 - ▶ U repels I
 - ▶ Strong typological evidence for the resistance of labials to palatalize
- ▶ OCP effect

Comparative -š: assimilation

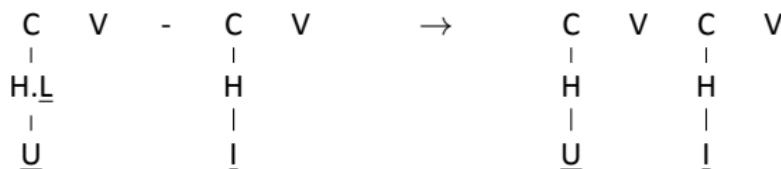
- ▶ Velar - /x-ʃ/ → [ʃʃ]



- ▶ Coronal - /s-ʃ/ → [ʃʃ] (I+I=I)



- ▶ Labial - /v-ʃ/ → [fʃ] (U ↔ I; /v/-devoicing → L-removal)



Comparative -š: assimilation

- ▶ **PAL₃** as fricative assimilation
 - ▶ OCP effect
 - ▶ Labials out because labial's U repels I
- ▶ Where does the difference between feature integration and assimilation come from?
- ▶ What drives the application of the two different processes?
- ▶ Tentative answer
 - ▶ **PAL₁** I is 'manner-less' → it links to whatever 'manner' feature it finds, or to an empty C if repelled by U
 - ▶ **PAL₃** I is bound to its 'manner' feature, and it follows its fate, unless repelled by U

Outline

Labials

Comparative -š: assimilation

Adjectivising -í (God and animals)

Overview of patterns

Adjectivising -í (God and animals)

	base		small		big
/k/	<i>pták</i>	'bird'	/ts/		/tʃ/ <i>ptačí</i>
/h/	<i>Bůh</i>	'God'	/z/		/ʒ/ <i>Boží</i>
/g/			/z/		? —
/x/	<i>moučha</i>	'fly'	/ʃ/		/ʃ/ <i>muší</i>
/t/	<i>mamut</i>	'mammoth'	/c/	<i>mamutí</i>	/ts/
/d/	<i>had</i>	'snake'	/ɟ/	<i>hadí</i>	/z/
/ts/	<i>ovce</i>	'sheep'	/ts/		/tʃ/ <i>ovčí</i>
/s/	<i>husa</i>	'goose'	/s/	<i>husí</i>	/ʃ/
/z/	<i>koza</i>	'goat'	/z/	<i>kozí</i>	/ʒ/
/n/	<i>havran</i>	'raven'	/ɲ/	<i>havraní</i>	/ɲ/
/r/	<i>vydra</i>	'otter'	/r/	<i>vydří</i>	/r/
/p/	<i>sup</i>	'vulture'	/pj/		/p/ <i>supí</i>
/b/	<i>ryba</i>	'fish'	/bj/		/b/ <i>rybí</i>
/f/			/fj/		/f/ —
/v/	<i>lev</i>	'lion'	/vj/		/v/ <i>lví</i>
/m/			/mj/		/m/ —

Outline

Labials

Comparative -š: assimilation

Adjectivising -í (God and animals)

Overview of patterns

Overview of patterns

- ▶ Small
 - ▶ Nouns
 - ▶ case marker NOM.PL.M *-i*
 - ▶ case marker LOC/DAT.F.SG *-ě*
 - ▶ Adjectives
 - ▶ soft agreement marker *-í* (ROOT-í-{Ø/-ho/-mu/-m/-ch/-mi}))
- ▶ Medium
 - ▶ Adjectives
 - ▶ denominal *-í* (animals and God)
 - ▶ comparative *-ěj*
 - ▶ Verbs
 - ▶ causative *-i*
- ▶ Big
 - ▶ Verbs
 - ▶ past passive participle *-ěn*