Markedness and *ABA

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Markedness: Perspectives in Morphology and Phonology
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Outline

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Markedness in degree comparison

Comparative-Superlative Generalisation

When the comparative has a suppletive form, the superlative will also be suppletive, and vice versa (Bobaljik 2012: 29-30).

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(1)

ABB	good	better	best
*AAB	good	gooder	best
*ABA	good	better	goodest

Markedness and *ABA

*ABA = 'Avoid ABA'
= Arrange paradigms in such a way that syncretic forms are contiguous.
⇒ 'Avoid ABA' gives Markedness Hierarchy.

(2) a. POS < CMPR < SPRL
b. POS < SPRL < CMPR
c. *CMPR < POS < SPRL

Markedness hierarchies by the 'Avoid ABA' principle

Bobaljik (2012); Wiese (2008); Caha (2009); Smith et al. (2016)

Domain	Markedness Hierarchy
Degree	POS $<$ CMPR $<$ SPRL
Ablaut	PRESENT $<$ PARTICIPLE $<$ PRETERITE
Case	UNMARKED $<$ DEPENDENT $<$ OBLIQUE
Case	NOM $<$ ACC $<$ GEN $<$ PREP $<$ DAT $<$ INSTR
Clusivity	1SG $<$ 1EXCL $<$ 1INCL
Number	SG $<$ PL $<$ DU
Number	SG $<$ DU $<$ PL

Question

Have we done anything more than arrange paradigms in an aesthetically pleasing fashion?

Russian Case endings (Caha 2009)

	window (sg.)	teacher (pl.)	both	book (sg.)	100
NOM	okn-o	učitel-ja	dv-a	knig-a	st-o
ACC	okn-o	učitel-ej	dv-a	knig-u	st-o
GEN	okn-a	učitel-ej	dv-ux	knig-y	st-a
PREP	okn-e	učitel-jax	dv-ux	knig-e	st-a
DAT	okn-u	učitel-am	dv-um	knig-e	st-a
INSTR	okn-um	učitel-ami	dv-umja	knig-oj	st-a

(3) NOM $<$ ACC $<$ GEN $<$ PREP $<$ DAT $<$ INSTR

Russian Case endings

6 cases = 203 syncretism patterns

	6	7	8	9	10	11	12	...
NOM	A	C	C	C	A	D	D	
ACC	B	A	D	D	B	A	E	
GEN	A	B	A	E	C	B	A	
PREP	C	A	B	A	A	C	B	
DAT	D	D	A	B	D	A	C	
INSTR	E	E	E	A	E	E	A	

- The fact that it is at all possible to arrange paradigms in an 'Avoid ABA' fashion is not coincidental.
- It tells us something:

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Hypothesis about syncretism

The link between meaning and form is not entirely arbitrary: Syncretism (i.e. formal identity) is revealing about underlying organisation.

Markedness

Markedness Theory (MT)

Markedness is a function of internal complexity.

Markedness

Markedness Theory (MT)

Markedness is a function of internal complexity.

- Items higher on the hierarchy have greater internal complexity.
- Internal complexity (among other things) derives *ABA

(4) POS $<$ CMPR $<$ SPRL

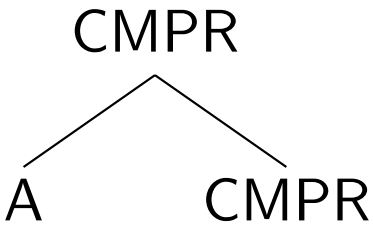
(5) SPRL has greater internal complexity than CMPR
CMPR has greater internal complexity than POS

Containment Hypothesis

'The representation of the superlative properly contains that of the comparative' (Bobaljik 2012: 4)

(6) A

(7)



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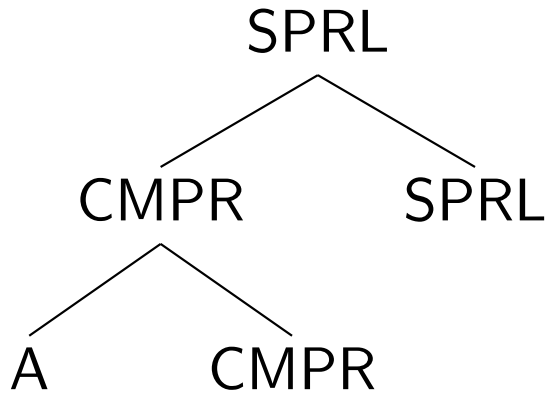


	POS	CMPR	SPRL	
Persian	kam	kam-tar	kam-tar-in	‘little’
Cimbrian	šüa	šüan-ar	šüan-ar-ste	‘pretty’
Czech	mlad-ý	mlad-ší	nej-mlad-ší	‘young’
Hungarian	nagy	nagy-obb	leg-nagy-obb	‘big’
Latvian	zil-ais	zil-âk-ais	vis-zil-âk-ais	‘orange’
Ubykh	nüsʷə	ç’a-nüsʷə	a-ç’a-nüsʷə	‘pretty’

Aims of this talk:

- refine Bobaljik's proposal on the internal complexity of CMPR and SPRL
- develop an analysis of root suppletion in terms on internal complexity
- derive the impossibility of ABA patterns in root suppletion from internal complexity

Outline

Czech regular comparative degree morphology

-ějš-

(9)

POS	CMPR	SPRL	
bujar-ý	bujař-ejš-í	nej-bujař-ejš-í	‘merry’
červen-ý	červen-ějš-í	nej-červen-ějš-í	‘red’
hloup-ý	hloup-ějš-í	nej-hloup-ějš-í	‘stupid’
moudr-ý	moudř-ejš-í	nej-moudř-ejš-í	‘wise’

Czech regular comparative degree morphology

-ějš-

(10)

POS	CMPR	SPRL	
bujar-ý	bujař-ejš-í	nej-bujař-ejš-í	‘merry’
červen-ý	červen-ějš-í	nej-červen-ějš-í	‘red’
hloup-ý	hloup-ějš-í	nej-hloup-ějš-í	‘stupid’
moudr-ý	moudř-ejš-í	nej-moudř-ejš-í	‘wise’

í/ý = adjectival agreement: Case, number, gender

$ějš = ěj+š$

2 pieces of evidence showing that *-ějš-* consists of two parts:

1. *-ěj-* disappears with certain adjectives
2. *-š-* disappears with comparative adverbs

❶ *-ěj-* disappears with certain adjectives

(11)

POS	CMPR	
star-ý	star-š-í	'old'
such-ý	suš-š-í	'dry'
drah-ý	draž-š-í	'expensive'
tvrd-ý	tvrd-š-í	'hard'
tich-ý	tiš-š-í	'silent'

- roots ending in velars undergo palatalisation triggered by š
- the distribution of the allomorphs is not phonologically conditioned, e.g. *bujař-ejš-í* 'merrier' vs *star-š-í* 'older' (see also comparison w Polish)

❷ *-š-* disappears with comparative adverbs

(12)

CMPR ADJ	CMPR ADV	
červen-ěj-š-í	červen-ěj-i	‘redder’
hloup-ěj-š-í	hloup-ěj-i	‘sillier’
moudř-ej-š-í	moudř-ej-i	‘wiser’
rychl-ej-š-í	rychl-ej-i	‘faster’

Polish

Phonologically conditioned allomorphy of *-ejsz-(y)* and *-sz-(y)*:

- *-ejszy* appears when the adjectival root ends in a cluster of either increasing or the same sonority (Rubach 1986).

(13)

	POS	CMPR	
a.	mądr-y	mądrz-ejsz-y	'wise'
	rozlegl-y	rozlegl-ejsz-y	'vast'
	fajn-y	fajni-ejsz-y	'nice'
	zimn-y	zimni-ejsz-y	'cold'
b.	głup-i	głup-sz-y	'silly'
	mil-y	mil-sz-y	'pleasant'
	twarɗ-y	twarɗ-sz-y	'hard'
	prost-y	prost-sz-y	'simple'

Polish vs Czech

(14)

	POS	CMPR	
Czech	hloup-ý	hloup-ěj-š-í	‘silli(er)’
Polish	głup-i	głup-sz-y	‘silli(er)’
Czech	mil-ý	mil-ejš-í	‘nice(r)’
Polish	mił-y	mil-sz-y	‘nice(r)’

(15)

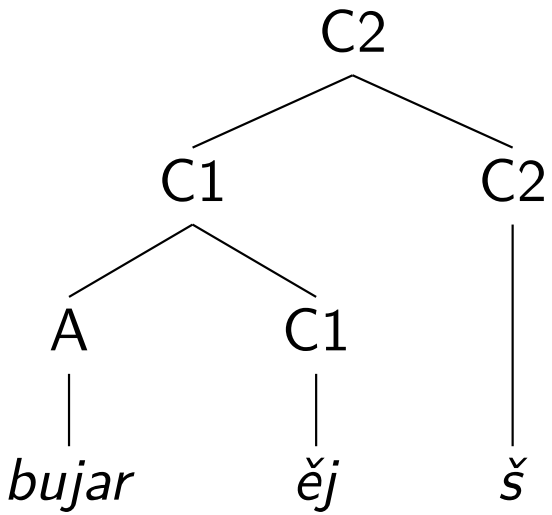
	POS	CMPR
Czech	červen-ěj-š-í	‘redder’
	bujar-ěj-š-í	‘merrier’
	divok-ěj-š-í	‘wilder’

Conclusion and Proposal

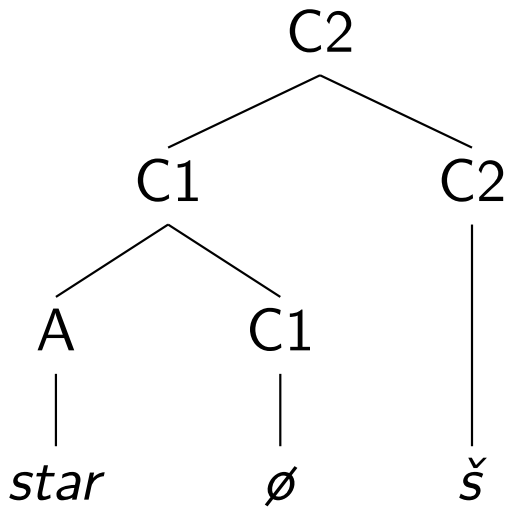
- The alternation between *-ejš-* and *-š-* is morphologically conditioned
- The Czech comparative suffix consists of two parts: *ěj+š*
- These two parts correspond with two syntactic heads: C1 and C2
- These two heads supersede Bobaljik's CMPR

Comparative

(16) The *-ějš*-comparative



(17) The *-š*-comparative



Outline

Suppletion

Two types:

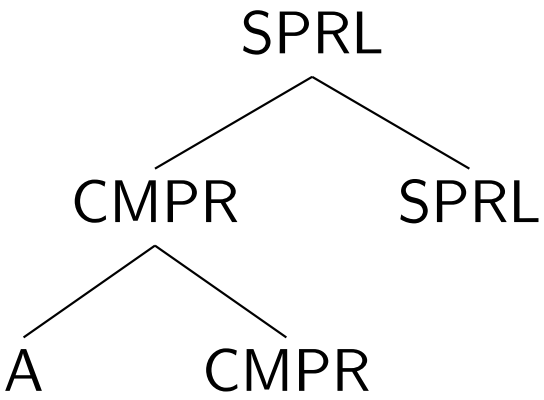
- Portmanteau suppletion (18a)
- Root suppletion (18b)

(18)

	POS	CMPR
a.	bad	worse
b.	good	bett-er

Suppletion in DM

(19)



(20) a. $\sqrt{\text{BAD}} \oplus \text{CMPR} \rightarrow$ *worse*

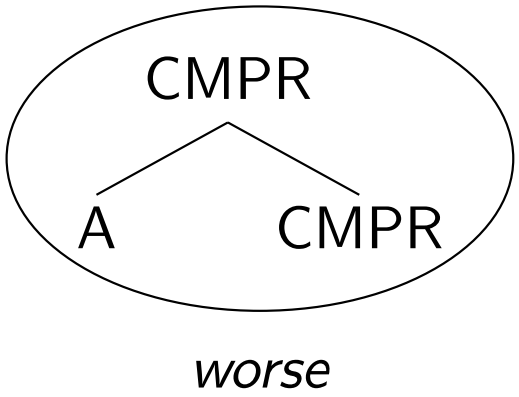
b. $\sqrt{\text{BAD}} \rightarrow$ *bad*

(21) a. $\sqrt{\text{GOOD}} \rightarrow$ *bett-* / ____] CMPR]

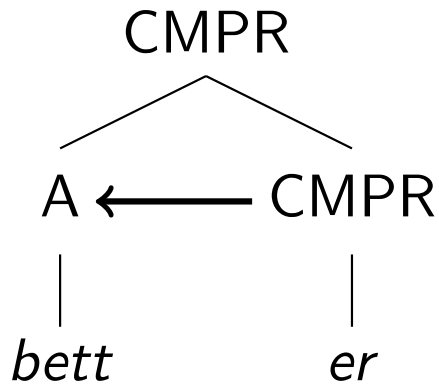
b. $\sqrt{\text{GOOD}} \rightarrow$ *good*

Suppletion in DM

(22) Portmanteau supppletion



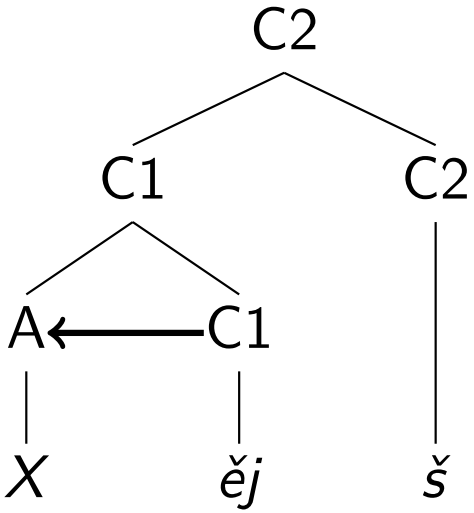
(23) Root suppletion



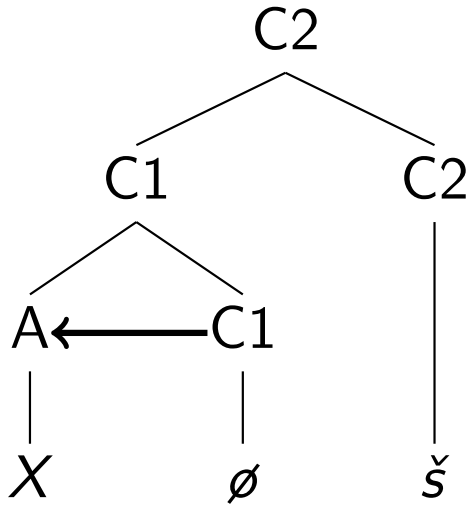
Suppletion in DM

- Caha (2016): 'Do we expect there to be a difference between (16) and (17) with respect to root suppletion?'

(16) The *-ějš*-comparative



(17) The *-š*-comparative



(24) a. $\sqrt{X} \rightarrow Y$ / ____] C1]

b. $\sqrt{X} \rightarrow X$

- suppletion is only found with (17)
- *-ěj-* systematically disappears with suppletive roots:

(25)

POS	CMPR	
dobr-ý	lep-š-í	‘good’
špatn-ý	hor-š-í	‘bad’
mal-ý	men-š-í	‘little, small’
velk-ý	vět-š-í	‘big’
dlouh-ý	del-š-í	‘long’
vysok-ý	vyš-š-í	‘tall’

Comparative Suppletion Generalisation (CSG) (Caha 2016)

When the comparative degree is expressed by two overt markers in addition to the root, there is no suppletion.

(26)

	A	C1	C2	
'merry'	bujar	ěj	š	2 markers, no suppletion
'bett-'	lep	ø	š	1 marker, suppletion
'old'	star	ø	š	1 marker, no suppletion
	*	ěj	š	2 markers, suppletion

CSG

- morphological comparative: *fast-er*
- syntactic comparative: *more intelligent*

CSG

- morphological comparative: *fast-er*
- syntactic comparative: *more intelligent*

Hypothesis

More is bi-componential, like *ej-š*.

(27)

POS	CMPR
good	bett-er
much	mo-er

CSG

Hypothesis

More is bi-componential, like *ej-š*.

(28)

A	C1	C2
intelligent	mo-	er
bett	ø	er
fast	ø	er

CSG

(29)

A	C1	C2	
bujar	ěj	š	2 markers, no suppletion
lep	ø	š	1 marker, suppletion
star	ø	š	1 marker, no suppletion
*	ěj	š	2 markers, suppletion
intelligent	mo-	er	2 markers, no suppletion
bett	ø	er	1 marker, suppletion
fast	ø	er	1 marker, no suppletion
*	mo-	er	2 markers, suppletion

- The gap in English in (29) falls under the RSG:

(30) *Root Suppletion Generalisation* (Bobaljik 2012)
Root suppletion is limited to synthetic (i.e., morphological) comparatives.

- The gap in English in (29) falls under the RSG:

(30) *Root Suppletion Generalisation* (Bobaljik 2012)
Root suppletion is limited to synthetic (i.e., morphological) comparatives.

- But the same gap in Czech does not fall under the RSG.
- Both gaps fall under Caha's CSG.

Comparative Suppletion Generalisation (CSG)

When the comparative degree is expressed by two overt markers in addition to the root, there is no suppletion.

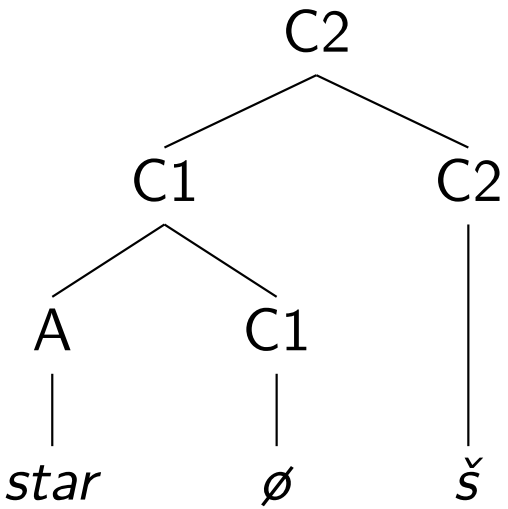
Outline

Explaining the CSG

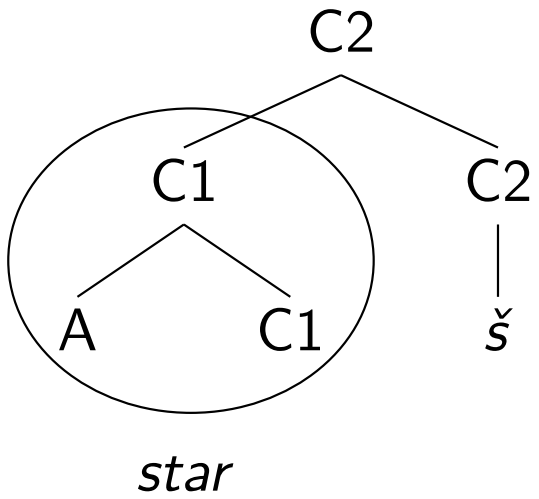
- There are no zero exponents.
- A single lexical item may realise multiple positions in the syntactic/morphological structure (=phrasal spellout).

Explaining the CSG

(31) Old (with zeroes)

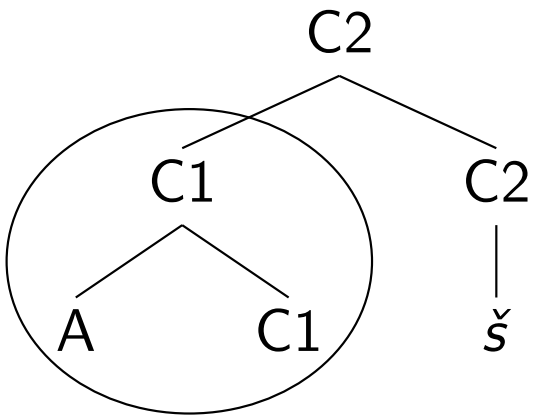


(32) New (without zeroes)



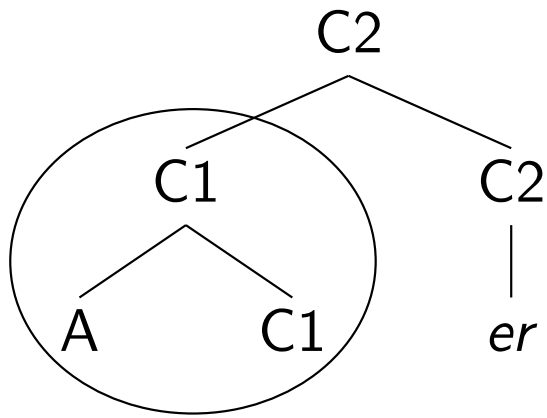
Explaining the CSG

(32)



star

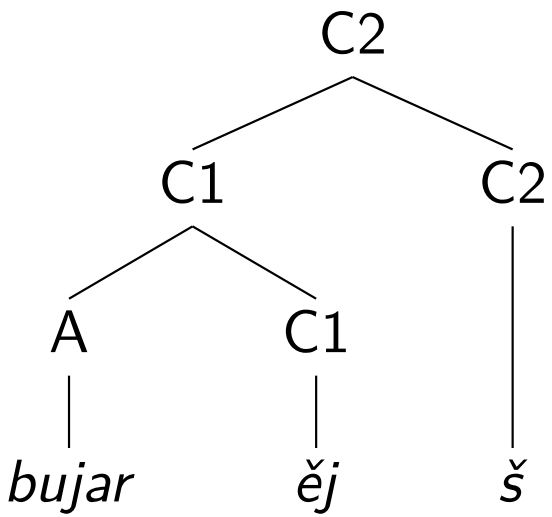
(33)



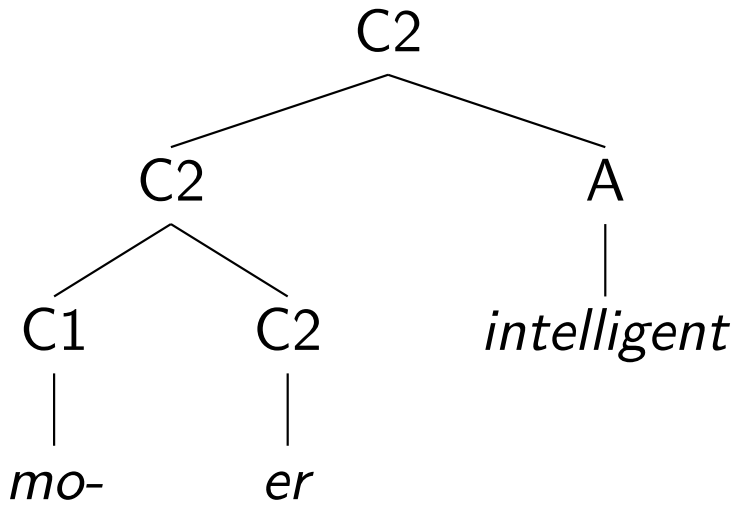
fast

Explaining the CSG

(16)



(34)

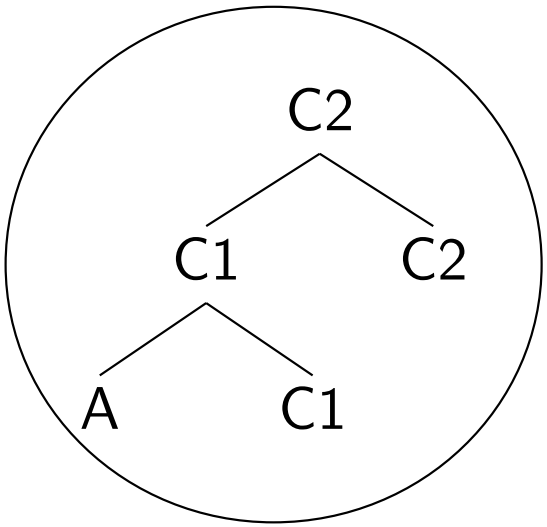


Hypothesis

All suppletion is portmanteau suppletion.

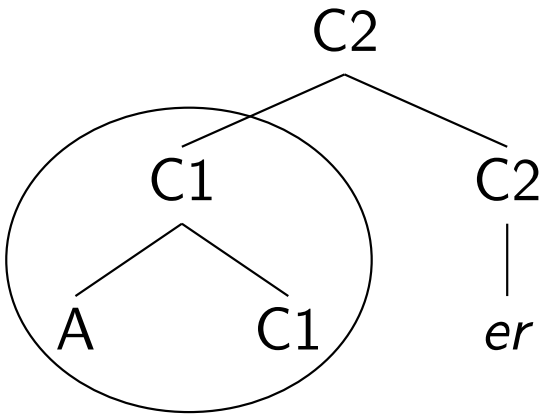
Explaining the CSG

(35)



worse

(36)



bett

Explaining the CSG

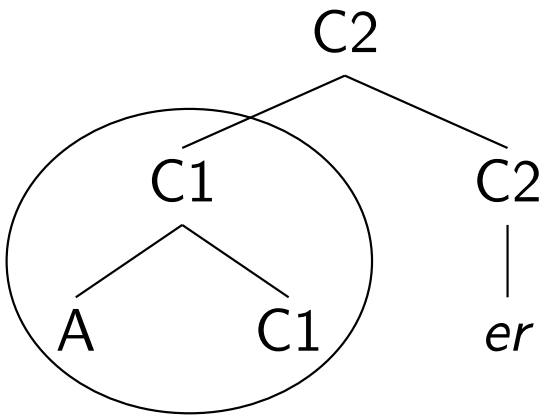
- The table in (37) shows a root-affix tradeoff:

(37)

A	C1	C2
bujar	ěj	š
lep		š
intelligent	mo-	er
bett		er
worse		

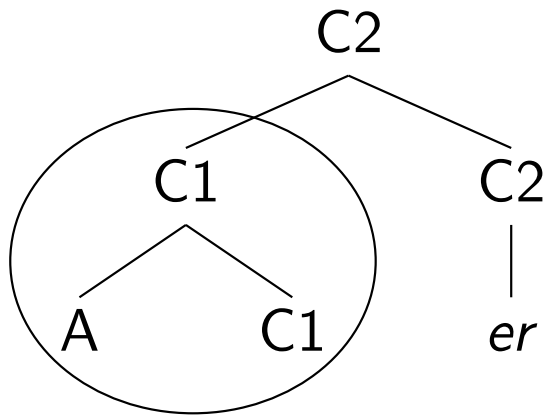
(38)
a. *lep-ěj-š-í
b. *mo-er bett

(36)



bett

(33)



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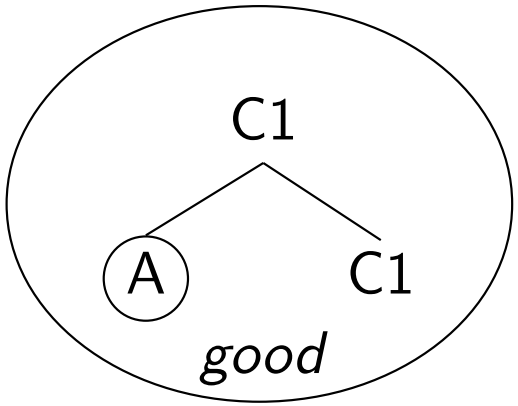
The Lexicon

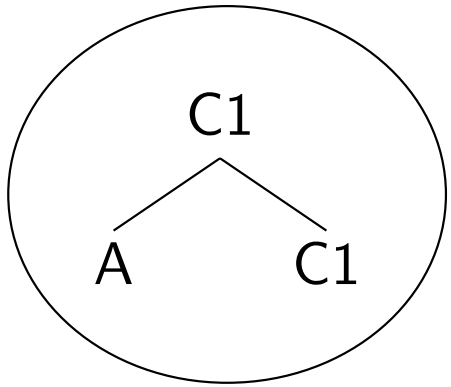
'The lexicon contains nothing but well-formed syntactic expressions' (Starke 2014).

(39)



bett

(40)



fast

Explaining the CSG

(41) *Superset Principle* (Starke 2009; Caha 2009)
(Overspecified) lexical entries spell out syntactic structures that they contain.

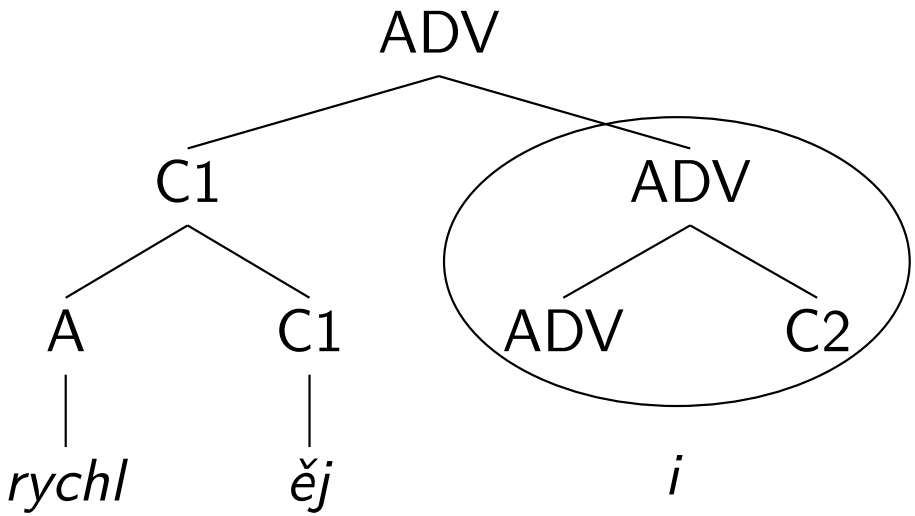
(42) *Elsewhere Principle*
If there is more than one candidate for insertion, the lexical item with least superfluous structure wins.

Comparative adverbs

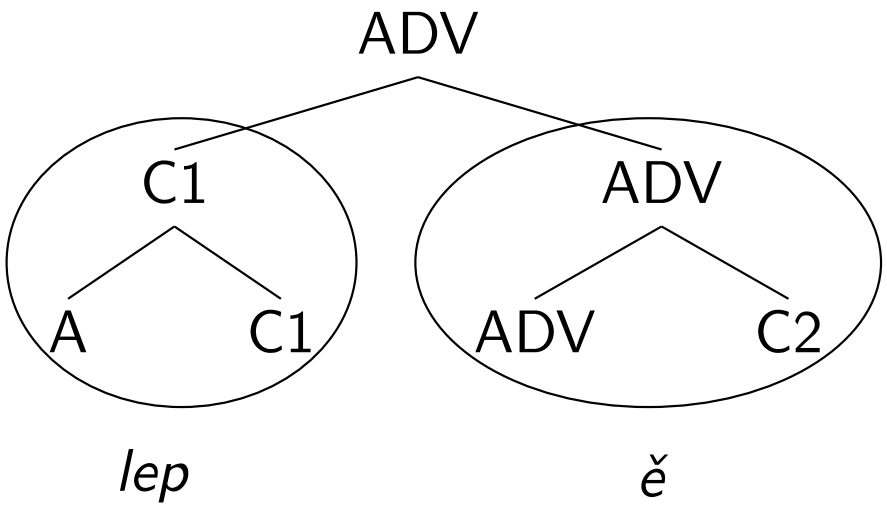
(43)

A	C1	C2	Adv
rychl	ěj	i	
lep		ě	

(44)



(45)



(Caha et al. in preparation)

Outline

Regular degree morphology

(46)

	CMPR	SPRL	
alt-us	alt-ior alt-ius	alt-issim-us	‘high’

Regular degree morphology

(46)

	CMPR	SPRL	
alt-us	alt-ior alt-ius	alt-issim-us	'high'

CMPR

- *altius* in NOM/ACC.N, *altior* elsewhere.
- *ior/ius* = *i-or/i-us* = *-i-AGR* (De Clercq and Vanden Wyngaerd 2017)

Regular degree morphology

(46)

	CMPR	SPRL	
alt-us	alt-ior alt-ius	alt-issim-us	‘high’

CMPR

- *altius* in NOM/ACC.N, *altior* elsewhere.
- *ior/ius* = *i-or/i-us* = *-i-AGR* (De Clercq and Vanden Wyngaerd 2017)

SPRL

- *-issimus* = *-i-ssim-AGR*
- *-ssim-* has an allomorph *-im-*, which appears with (some) suppletive roots (e.g. *opt-im-us* ‘best’)
- *-ssim-* = *-ss-im-*

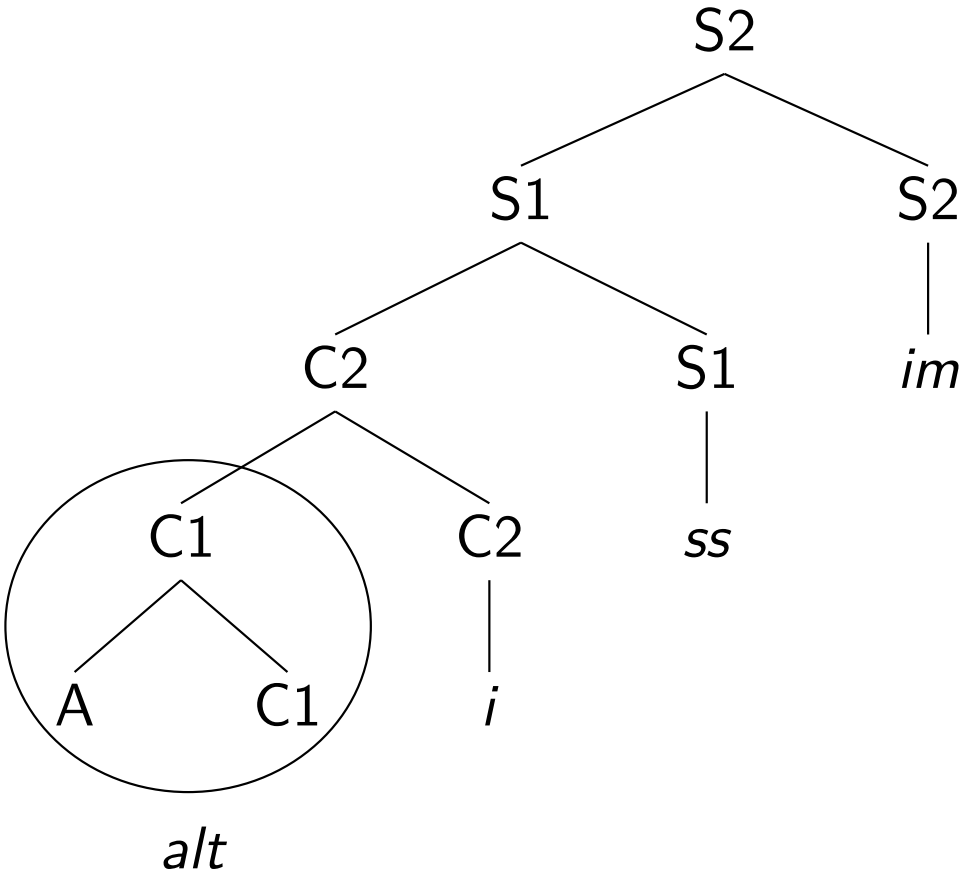
Regular degree morphology

- SPRL is split up in S1 and S2

(47)

	A	C1	C2	S1	S2	AGR
CMPR	alt		i			or
SPRL	alt		i	ss	im	us

Regular degree morphology



Suppletive patterns

Three types:

- ABB(1): some suffixes disappear (suppletion at the S1 level)
- ABB(2): all suffixes present (suppletion at the C1 level)
- ABC (suppletion at both levels)

ABB(1)

(48)

POS	CMPR	SPRL	
parvus	min-or	min-im-us	‘small’
paucus	min-or	min-im-us	‘little’
multus	plūs	plūr-im-us	‘much’

- comparative *-i-* is absent (in both CMPR and SPRL)
- superlative *-ss-* is absent

ABB(1)

- suppletive root *min-* is a portmanteau for A+C1+C2+S1

(49)

	A	C1	C2	S1	S2	AGR
POS	parv					us
CMPR	min					or
SPRL	min				im	us

ABB(1)

- suppletive root *min-* is a portmanteau for A+C1+C2+S1

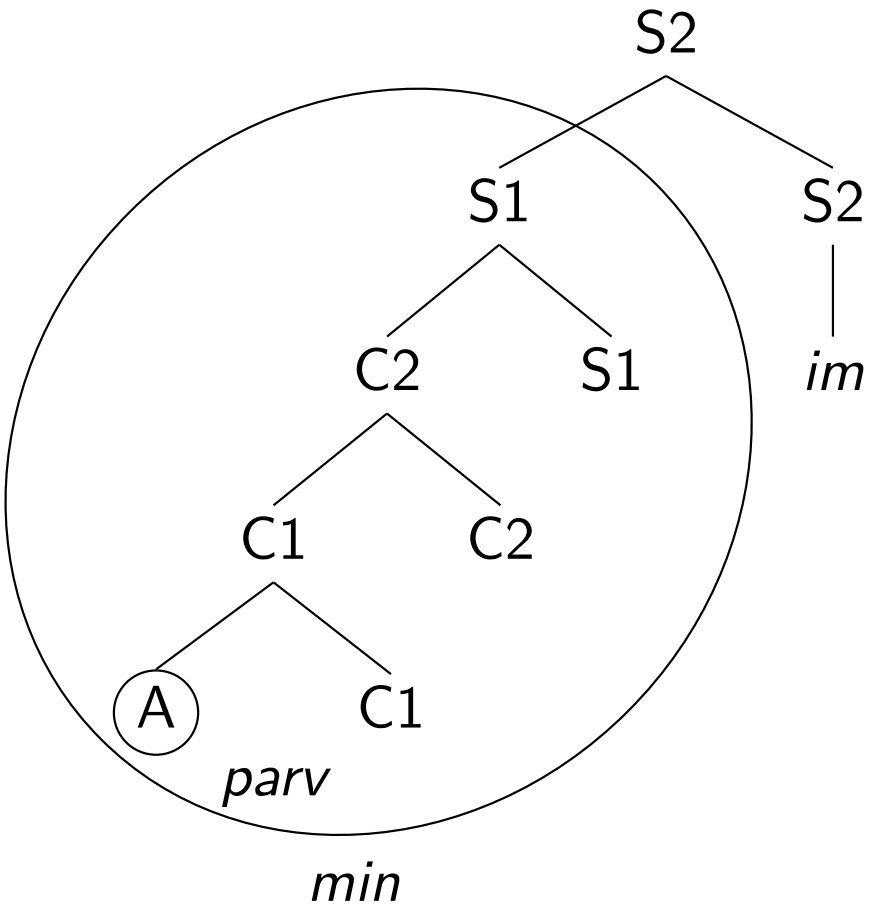
(49)

	A	C1	C2	S1	S2	AGR
POS	parv					us
CMPR	min					or
SPRL	min				im	us

This explains:

- the absence of the S1 exponent *-ss-* in *minimus* 'smallest'
- the absence of the C1 exponent *-i-* in *minor* 'smaller'

ABB(1)



ABB(2)

(50)

POS	CMPR	SPRL	
malus	pē-j-or	pe-ss-im-us	‘bad’

ABB(2)

(50)

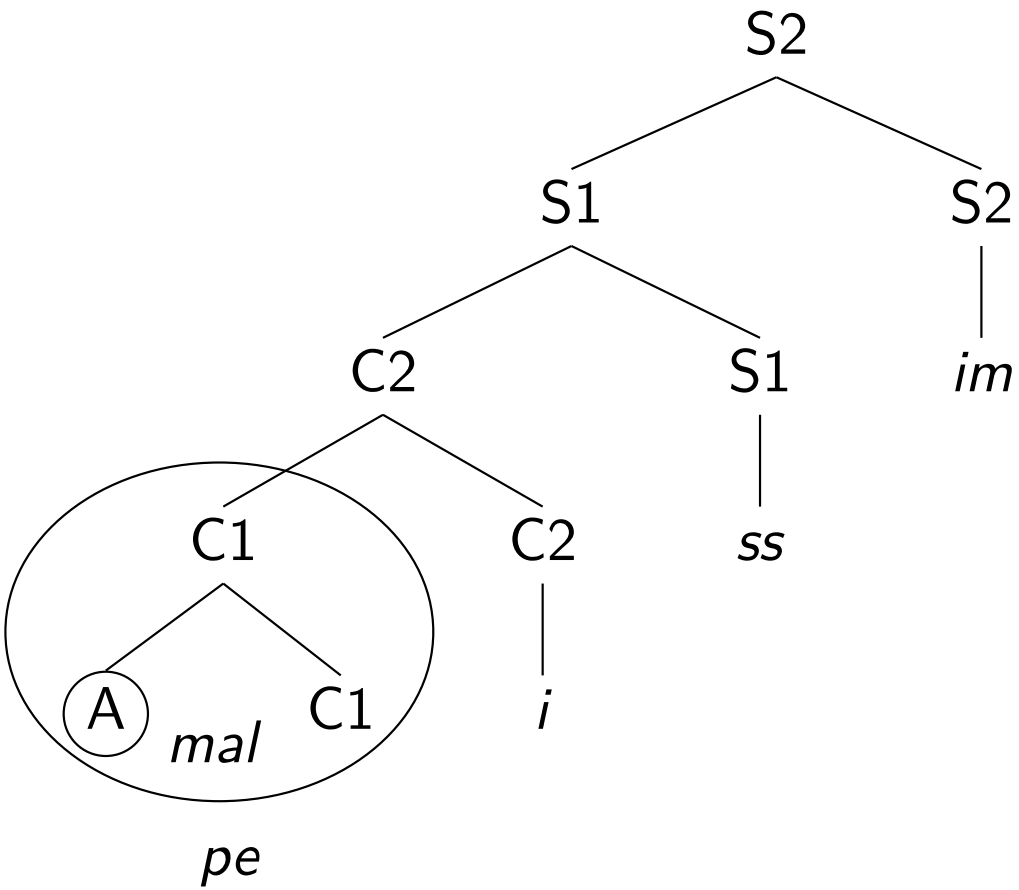
POS	CMPR	SPRL	
malus	pē-j-or	pe-ss-im-us	‘bad’

- suppletive root *pe-* is a portmanteau for A+C1

(51)

	A	C1	C2	S1	S2	AGR
POS	mal					us
CMPR	pe		i			or
SPRL	pe		i	ss	im	us

ABB(2)



ABC

- ABC patterns combine ABB(1) (suppletion at the S1 level) with ABB(2) (suppletion at the C1 level)

(52)

POS	CMPR	SPRL	
bonus	mel-i-or	opt-im-us	'good'

ABC

- ABC patterns combine ABB(1) (suppletion at the S1 level) with ABB(2) (suppletion at the C1 level)

(52)

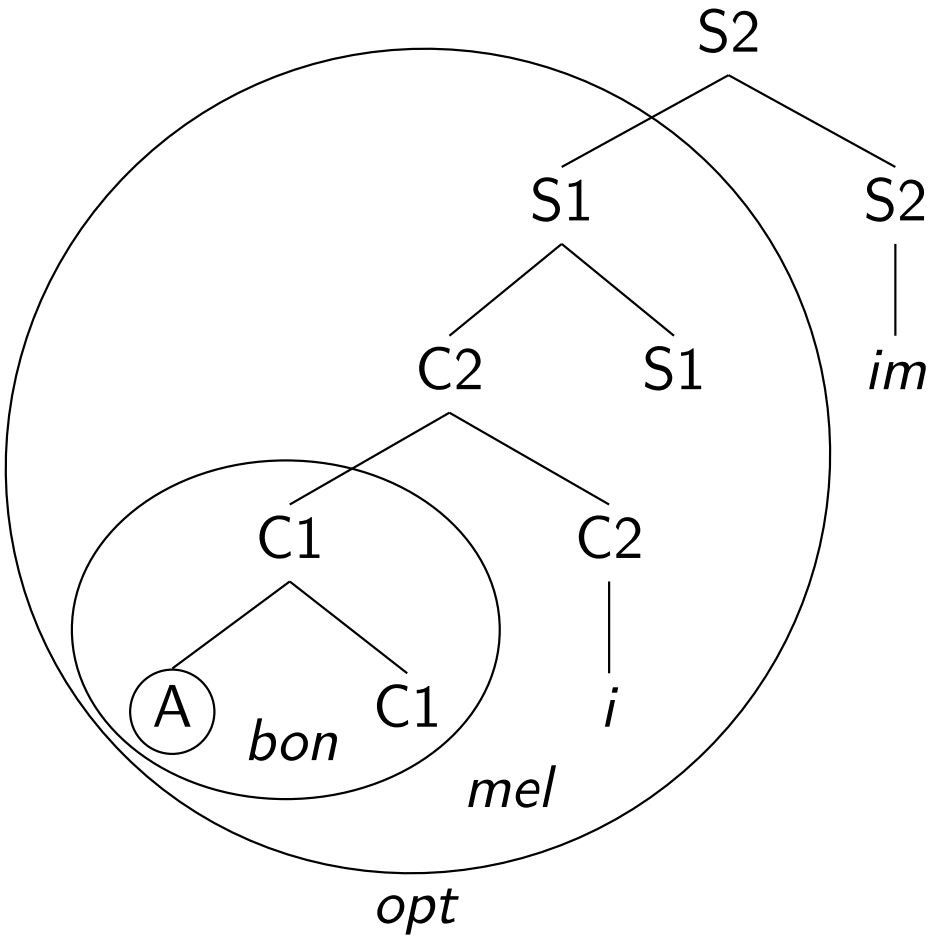
POS	CMPR	SPRL	
bonus	mel-i-or	opt-im-us	'good'

- suppletive root *mel-* is a portmanteau for A+C1
- suppletive root *opt-* is a portmanteau for A+C1+C2+S1

(53)

	A	C1	C2	S1	S2	AGR
POS	bon					us
CMPR	mel		i			or
SPRL	opt				im	us

ABC



Outline

The impossibility of ABA in Latin follows from

- the standard logic excluding ABA patterns, in particular the Elsewhere Principle
- general principles governing cyclic spellout.

Two cases to consider:

(54) a. *bon-us mel-i-or bon-im-us
b. *bon-us mel-i-or bon-i-ss-im-us

**bon-im-us*

(55)

	A	C1	C2	S1	S2	AGR
POS	bon					us
CMPR	mel		i			or
SPRL	bon				im	us

- in SPRL, *bon* spells out A+C1+C2+S1
- in POS, *bon* loses against *mel* because it has more superfluous structure (Elsewhere Principle)

**bon-i-ss-im-us*

(56)

	A	C1	C2	S1	S2	AGR
POS	bon					us
CMPR	mel		i			or
SPRL	bon		i	ss	im	us

- *bon* spells out A, thus winning against *mel-* in POS
- in SPRL, C1 does not get spelled out

Is ABA ruled out in principle?

No, there is an ABA loophole. However, there are two clear predictions for languages with an ABA pattern:

- no ABB
- no morphological containment

Attested ABA: Bulgarian/Macedonian (Bobaljik 2012: 126):

(57)

	POS	CMPR	SPRL	
Bul.	mnogo	po-veče	naj-mnogo	'much/many'
Mac.	mnogu	po-veḱe	naj-mnogu	

Attested ABA: Bulgarian/Macedonian (Bobaljik 2012: 126):

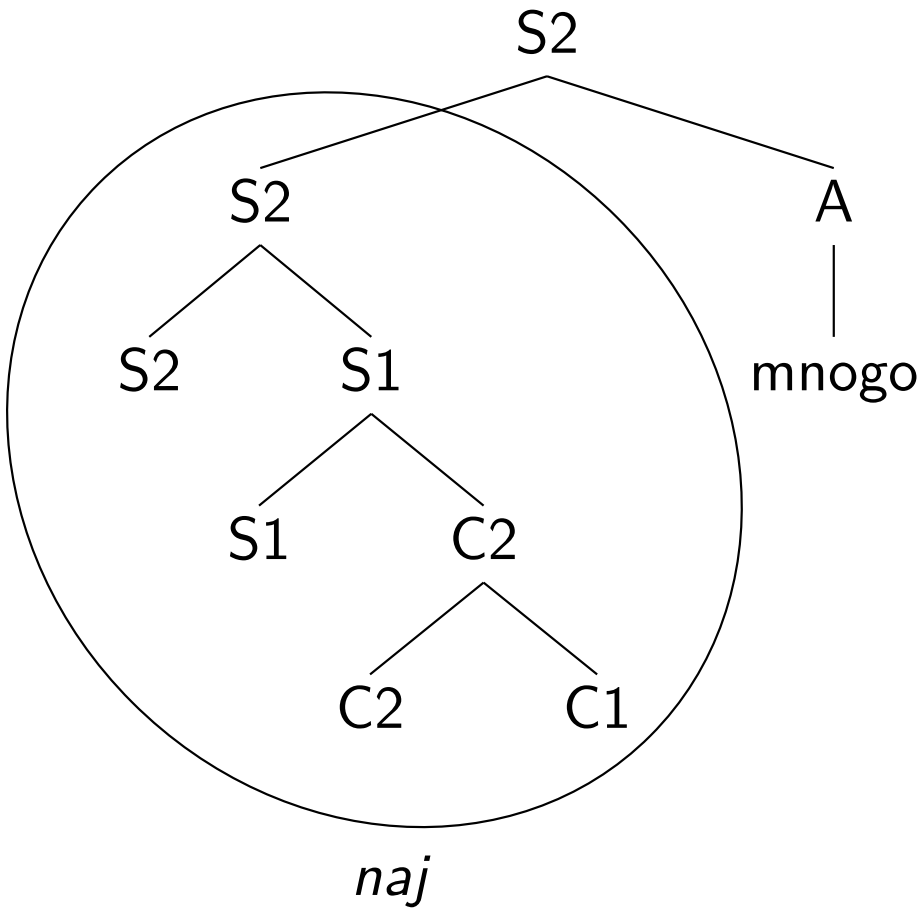
(57)

	POS	CMPR	SPRL	
Bul.	mnogo	po-veče	naj-mnogo	'much/many'
Mac.	mnogu	po-veḱe	naj-mnogu	

(58)

	A	C1	C2	S1	S2
POS	mnogo				
CMPR	veče		po		
SPRL	mnogo	naj			
SPRL	veče	*naj			

(59)



- No constituent in (59) contains C2, S1, S2 (excluding C1)

Two predictions:

- no ABB
- no morphological containment of CMPR in SPRL

(60)

	A	C1	C2	S1	S2
SPRL	mnogo	naj			
SPRL-ABB(2)	X		*naj		
SPRL-ABB(1)	X				*naj
SPRL-CTMT	X		po	*naj	

The two predictions are borne out (data from Bobaljik 2012: 45)

- no ABB in Bulgarian/Macedonian
- no morphological containment of CMPR in SPRL

(61)

	POS	CMPR	SPRL
Bulgarian	dobər	po-dobər	naj-dobər
Czech	dobr-ý	lep-š-í	nej-lep-š-í
Sorbian	dobr-y	redl-iši	
Serbian	dobar	bol-ji	naj-bol-ji
Ukranian	dobr-yj	krašč-yj	naj-krašč-yj
Russian	xoroš-ij	luč-š-e	(nai-luč-š-ij)

Outline

Summary

- 'Avoid ABA': arrange paradigms such that syncretic forms are contiguous.
- 'Avoid ABA' yields markedness hierarchies.
- Markedness is a function of structural complexity.
- All suppletion is portmanteau suppletion.
- *ABA follows from
  - internal complexity
  - phrasal spellout, Superset Principle, Elsewhere Principle
- *ABA loopholes exist, but in languages where the pattern is attested
  - no ABB can arise
  - no morphological containment is possible

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