

# Reinterpreting the Root Suppletion Generalisation

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## Introduction

The comparative: splitting up CMPR

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## Root Suppletion Generalisation (RSG) (Bobaljik 2012)

Root suppletion is limited to synthetic (i.e., morphological) comparatives.

(1)	Greek	POS	CMPR
	SYNTHETIC	kakós	<b>cheiró</b> -ter-os 'bad'
	ANALYTIC	kakós	pjo kak-ós
	ANALYTIC	kakós	*pjo <b>cheir</b> -ós

(2)		POS	CMPR
	SYNTHETIC	good	bett- <b>er</b>
	ANALYTIC	intelligent	<b>more</b> intelligent
	ANALYTIC	good	* <b>more</b> bett

## Czech Suppletion Generalisation (CzSG) (Caha 2016)

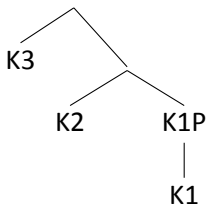
When the comparative degree is expressed by two overt markers in addition to the root, there is no suppletion.

- (3)
- |    | Czech   | POS | CMPR         |         |
|----|---------|-----|--------------|---------|
| a. | bujar-ý |     | bujař-ej-š-í | 'merry' |
| b. | dobř-ý  |     | lep-š-í      | 'good'  |
| c. | star-ý  |     | star-š-í     | 'old'   |
| d. | dobř-ý  |     | *lep-ěj-š-í  | 'good'  |

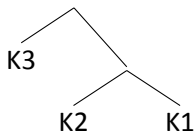
## PRE vs POST marking (Starke to appear)

PRE markers have a binary bottom, POST markers have a unary bottom.

(4) POST: unary bottom



(5) PRE: binary bottom



## Claim

CMPR = 2 functional heads (C1, C2)

- (6) a. bujař-ej-š-(i) 'merrier'  
b. [[A C1] C2]

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CMPR = 2 functional heads (C1, C2)

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## Generalised Comparative Suppletion Generalisation (G-CSG)

When the comparative degree (C1+C2) is expressed by a PRE marker, there is no root suppletion.



## Aims of this talk:

- ▶ refine Bobaljik's proposal on the internal complexity of CMPR by splitting up CMPR into C1 and C2
- ▶ show that Caha's CzSG can be generalised, and covers cases not covered by Bobaljik's RSG.
- ▶ show that PRE marking of the comparative is incompatible with suppletion (= G-CSG)

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(7)	POS	CMPR	SPRL	
	bujar- <b>ý</b>	bujař-ějš- <b>í</b>	nej-bujař-ějš- <b>í</b>	'merry'
	červen- <b>ý</b>	červen-ějš- <b>í</b>	nej-červen-ějš- <b>í</b>	'red'
	hloup- <b>ý</b>	hloup-ějš- <b>í</b>	nej-hloup-ějš- <b>í</b>	'stupid'
	moudr- <b>ý</b>	moudř-ějš- <b>í</b>	nej-moudř-ějš- <b>í</b>	'wise'

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

# Comparative $\check{e}j\check{s}$ = $\check{e}j$ + $\check{s}$

2 pieces of evidence showing that  $-\check{e}j\check{s}$ - consists of two parts:

1.  $-\check{e}j$ - disappears with certain adjectives
2.  $-\check{s}$ - disappears with comparative adverbs

1. -ěj- disappears with certain adjectives

(8)

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'

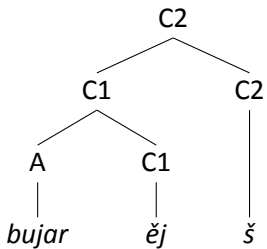
2. -š- disappears with comparative adverbs

(9)	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'

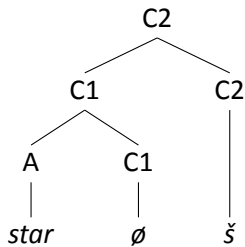
## Proposal

- ▶ 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

(10) The -ějš-comparative



(11) The -š-comparative





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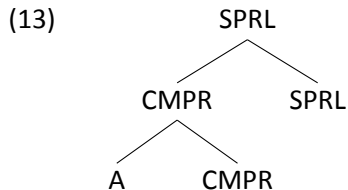
# Suppletion

Two types:

- ▶ Portmanteau suppletion (12a)
- ▶ Root suppletion (12b)

(12)		POS	CMPR
	a.	bad	worse
	b.	good	bett-er

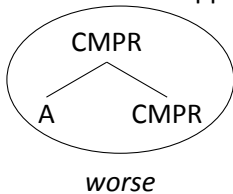
# Suppletion in DM



(14) a.  $\sqrt{\text{BAD}} \oplus \text{CMPR} \rightarrow \textit{worse}$   
b.  $\sqrt{\text{BAD}} \rightarrow \textit{bad}$

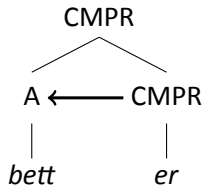
(15) a.  $\sqrt{\text{GOOD}} \rightarrow \textit{bett- / \_\_\_} ] \text{CMPR} ]$   
b.  $\sqrt{\text{GOOD}} \rightarrow \textit{good}$

(16) Portmanteau suppletion



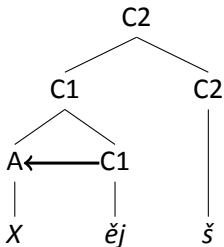
(17)

Root suppletion

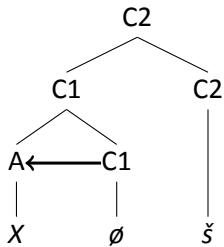


- ▶ Caha (2016): ‘Do we expect there to be a difference between (10) and (11) with respect to root suppletion?’ ⇒ NO

(10) The -ějš-comparative



(11) The -š-comparative



- (18) a.  $\sqrt{X} \rightarrow \alpha / \text{___} ] C1 ]$   
 b.  $\sqrt{X} \rightarrow \beta$

- ▶ suppletion is never found with (10)
- ▶ *-ěj-* systematically disappears with suppletive roots:

(19)

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'

## Czech Suppletion Generalisation (CzSG) (Caha 2016)

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

(20)

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

## Extension to English

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



# Extension to English

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

## Hypothesis

*More* is bi-componential, like *ej-š*.

(21)	POS	CMPR
	good	bett-er
	much	mo-er

## Hypothesis

*More* is bi-componential, like *ej-š*.

(22)	A	C1	C2
	intelligent	mo-	er
	bett	∅	er
	fast	∅	er

(23)

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

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

- ▶ Both Czech and English have a gap in (23).
- ▶ It looks like this is the same gap.

- ▶ The gap in English in (23) falls under the RSG.
- ▶ But the Czech gap does not fall under the RSG, as both markers are morphological markers.
- ▶ Both gaps fall under Caha's CzSG (hence Comparative Suppletion Generalisation (CSG)).

### Root Suppletion Generalisation (Bobaljik 2012)

Root suppletion is limited to synthetic (i.e., morphological) comparatives.

### Comparative Suppletion Generalisation (CSG)

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

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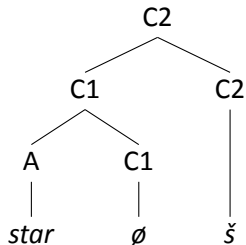
# Explaining the CSG

Two assumptions:

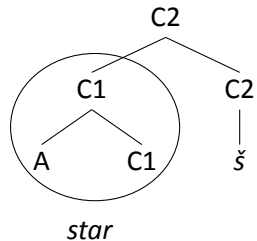
- ▶ There are no zero exponents.
- ▶ A single lexical item may realise multiple positions in the syntactic/morphological structure (=phrasal spellout).

## Nonsuppletive patterns

(24) Old (with zeroes)

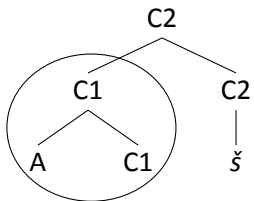


(25) New (without zeroes)



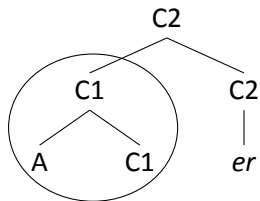


(25)



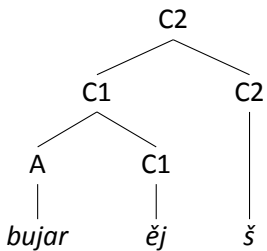
*star*

(26)

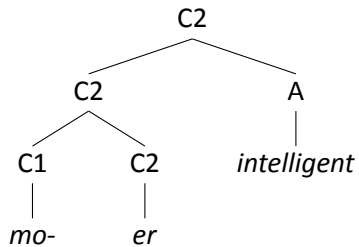


*fast*

(10)



(27)



## Suppletive patterns

Splitting up CMPR into C1 and C2 opens up a possibility:

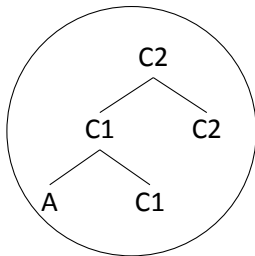
# Suppletive patterns

Splitting up CMPR into C1 and C2 opens up a possibility:

## Hypothesis

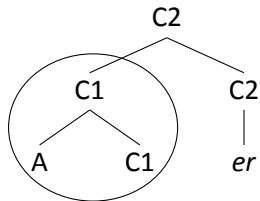
All suppletion is portmanteau suppletion.

(28)



*worse*

(29)



*bett*

- The table in (30) shows a root-affix tradeoff:

(30)

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

(31)

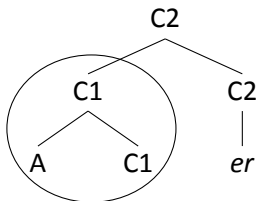
A	C1	C2
X		
	ěj	š
	mə	er

- (32)
- \*lep-ěj-š-í
  - \*mo-er bett

(33)

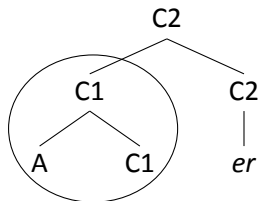
A	C1	C2
star		š
fast		er

(29)



*bett*

(26)



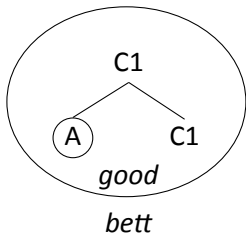
*fast*

## The Lexicon (Starke 2014)

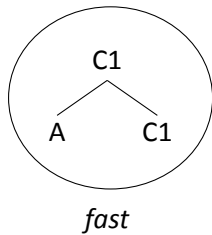
The lexicon contains nothing but well-formed syntactic expressions.



(34)



(35)



## Superset Principle (Starke 2009; Caha 2009)

(Overspecified) lexical entries spell out syntactic structures that they contain.

## Elsewhere Principle

If there is more than one candidate for insertion, the lexical item with least superfluous structure wins.

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# PRE vs POST

(1')

	POS	CMPR	
POST	kakós	<b>cheiró</b> -ter-os	'bad'
PRE	kakós	pjo kak-ós	
PRE	kakós	*pjo <b>cheir</b> -ós	

# PRE vs POST

(1')

	POS	CMPR
POST	kakós	<b>cheiró</b> -ter-os 'bad'
PRE	kakós	pjo kak-ós
PRE	kakós	*pjo <b>cheir</b> -ós

(2')

	POS	CMPR
POST	good	bett- <b>er</b>
PRE	intelligent	<b>more</b> intelligent
PRE	good	* <b>more</b> bett

# PRE vs POST

## POST marking:

- ▶ suffixal
- ▶ to the right of the stem
- ▶ displays mirror principle ordering

## PRE marking:

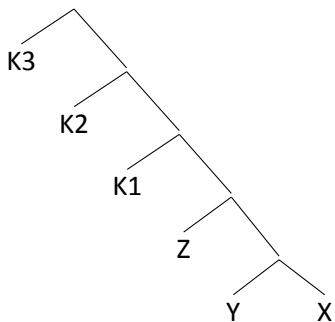
- ▶ prefixal
- ▶ functional material to the left of the stem
- ▶ ordering reflects the underlying order of the functional sequence

Starke (to appear): two modes of combination:

- ▶ Merge-f
- ▶ Merge-XP

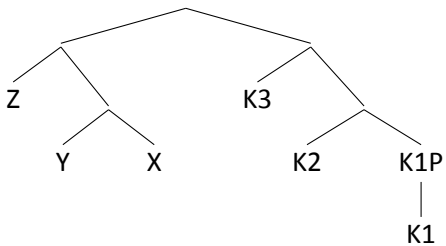
# POST

(36) Merge-f

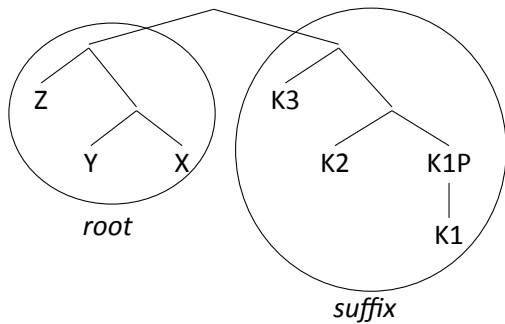




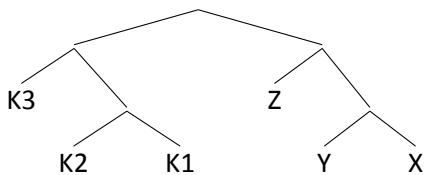
(37) Move-ZP



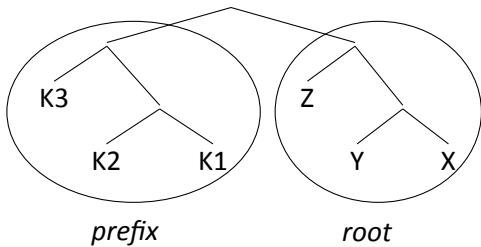
(38) Move-ZP



(39) Merge-XP

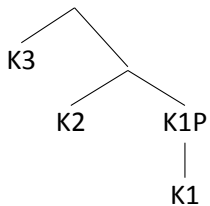


(40) Merge-XP

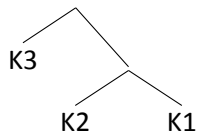


# The Lexicon

(41) POST: unary bottom

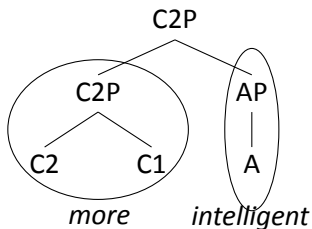
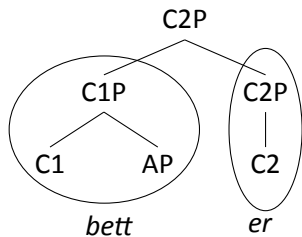


(42) PRE: binary bottom



## Generalised Comparative Suppletion Generalisation (G-CSG)

When the comparative degree (C1+C2) is expressed by a PRE marker, there is no suppletion.



- ▶ root suppletion is the portmanteau spellout of A+C1
- ▶ in the presence of a suppletive root, any regular comparative morphology only spells out a single feature: C2
- ▶ C2 morphology having a unary bottom, it can only be suffixal

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# Slavic

- ▶ only two languages (Bulgarian/Macedonian) have a prefixal comparative marker
- ▶ no comparative suppletion in Bulgarian/Macedonian

(43) (Bobaljik 2012: 45)

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

# GOOD

Bobaljik (2012: 106)

- ▶ 32 suppletive adjectival triples (POS-CMPR-SPRL)
- ▶ 29 with an exclusively suffixal (or portmanteau) comparative
- ▶ 3 with what looks like a circumfixally marked comparative (Georgian, Svan)

# BIG (GREAT)

Bobaljik (2012: 107)

- ▶ 7 suppletive adjectival triples
- ▶ 6 with an exclusively suffixal (or portmanteau) comparative
- ▶ 1 with what looks like a circumfixal marker (Svan)

Bobaljik (2012: 106)

- ▶ 22 suppletive adjectival triples
- ▶ all with an exclusively suffixal (or portmanteau) comparative

# SMALL

Bobaljik (2012: 107)

- ▶ 9 suppletive adjectival triples
- ▶ all with an exclusively suffixal (or portmanteau) comparative

# MANY, MUCH

Bobaljik (2012: 125)

- ▶ 31 suppletive adjectival triples
- ▶ 30 with an exclusively suffixal (or portmanteau) comparative
- ▶ 1 with prefixal marking of the comparative (Bulgarian/Macedonian)

# Bulgarian/Macedonian

(44)

	POS	CMPR	SPRL	
Bg.	mного	po-veče	naj-mного	'much/many'
Mac.	mnogu	po-veke	naj-mnogu	

Two issues:

- ▶ ABA pattern
- ▶ root suppletion with PRE marking?

- ▶ *po* spells out more than just C2

(45)

A	C1	C2	F	
nov		po		'new(er)'
mnogo				'much'
veče		po		'more'

- ▶ F = ADV?



# Georgian

(46) POS      CMPR  
k'argi-i    u-mjob-es-i    'good'  
                 u-k'et-es-i

(47)

A	C1	C2
	es	u
	u	es
k'argi		
mjob		
k'et		

Gippert (1996):

- ▶ ‘The Old Georgian comparatives, **nowadays used with a ‘superlative/elative’ function only**, were commonly formed with a prefixed *u-* plus a suffix that appeared either as a shorter variant, *-e* or *-o*, or as a longer, declinable one, *ēs-*
- ▶ ...these formations are restricted to superlative/elative functions today while **real comparatives are built analytically** ...
- ▶ ...**the prefix appearing as *u-*** [...] is identical with the versional marker of a third person in finite verbal forms and **refers to the object of the comparison**’

# Old Georgian

(48)

A	C1	C2	AGR
k'argi			
mjob		es	u
k'et		es	u

# Svan

(49) POS    CMPR  
ezär    xo-č-a    'good'  
          xo-č-el

(50) POS    CMPR  
dzyəd    xo-š-a    'big'  
          xo-š-el

Bobaljik (2012: 108n):

'Gudjedjiani and Palmaitis (1986) list four suppletive comparatives in Svan; but note also that the comparative forms in *xo-...-a* for these adjectives are used with a positive sense, and subject to further comparative formation in *xo-...-el*. **It may thus be synchronically inappropriate to include these forms here.**'

Gippert (1996: 37)

'It can easily be shown that the synthetic type was inherited from Proto-Kartvelian, given that similar formations exist in the Zan languages as well as **Svan**; cp. Megrelian *u-magal-aš-i* 'highest (from *magal-i* 'high'), Laz *u-ʒgi-š-i* 'best', or Svan *xo-lqmaš-a* 'strongest (from *ləqmäš* 'strong'). Curiously enough, **all sister languages show the same tendency as Georgian does**, in that these formations are restricted to superlative/relative functions today while **real comparatives are built analytically**: Megrelian uses *umosi*, Laz, *dido*, and Svan, *gun* or *ʒǰad* as equivalents of Georgian *upro*.'

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# Conclusion

- ▶ Bobaljik's RSG relies on the existence of a distinction between morphological and syntactic comparative formation.
- ▶ Caha's CzSG ties the absence of suppletion to the presence of double marking in the comparative.
- ▶ Given that PRE marking requires C1+C2 to form a constituent, PRE marking is predicted to be incompatible with suppletion (G-CSG).
- ▶ The G-CSG is confirmed by the data in Bobaljik (2012).

# References

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