

Suppletion in nanosyntax

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Degree morphology meets negation (with G. Vanden Wyngaerd and Pavel Caha)

Roots and suppletion in DM and nano

Conclusion

Suppletion

Two types:

- ▶ Portmanteau suppletion (1a)
- ▶ Root suppletion (1b)

(1)		POS	CMPR	SPRL
	a.	bad	worse	worst
	b.	good	bett-er	be(t)-st

- ▶ Portmanteau suppletion: phrasal spellout (cf. class 1)
- ▶ Root suppletion can be accounted for if CPMR and SPRL are split up.

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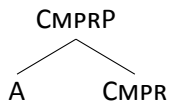
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Conclusion

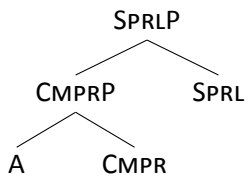
Containment Hypothesis

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

(2)



(3)



Morphological evidence

	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	nüs ^{wə}	ç'a -nüs ^{wə}	a- ç'a -nüs ^{wə}	'pretty'

Comparative-Superlative Generalisation

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

Comparative-Superlative Generalisation

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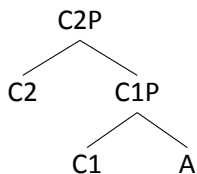
- (4) ABB good better best
 *ABA good better goodest
 *AAB good gooder best

$$C_{mpr} = C1 + C2$$

Claim 1

- ▶ the C_{mpr} head is to be split up into two distinct heads, $C1$ and $C2$

(5)



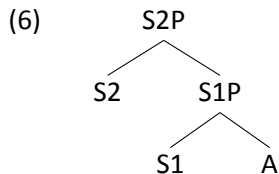
Evidence comes from Czech

- ▶ regular degree morphology
- ▶ root suppletion in degree morphology

$$\text{SPRL} = \text{S1} + \text{S2}$$

Claim 2

- ▶ the SPRL head is to be split up into two distinct heads, S1 and S2



Claim 2: Evidence comes from Latin

- ▶ regular degree morphology
- ▶ root suppletion in degree morphology

Czech degree morphology

-ějš-

(7)	POS	CMPR	SPRL	
	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'

Regular comparative degree morphology

-ějš-

(8)	POS	CMPR	SPRL	
	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

4 pieces of evidence showing that -ějš- consists of two parts (ěj+š)

1. -ěj- disappears with suppletive roots
2. -ěj- disappears in cases where the root shortens
3. -ěj- can disappear non-predictably
4. -š- disappears with comparative adverbs

1. -ěj- disappears with suppletive roots

(9)

Pos	CMPR	SPRL	
dobr-ý	lep-š-í	nej-lep-š-í	'good'
špatn-ý	hor-š-í	nej-hor-š-í	'bad'
mal-ý	men-š-í	nej-men-š-í	'little, small'
velk-ý	vět-š-í	nej-vět-š-í	'big'

2. -ěj- disappears in cases where the root shortens

(10)

Pos	CMPR	
dlouh-ý	del-š-í	'long'
blízk-ý	bliž-š-í	'close'
vys-ok-ý	vyš-š-í	'tall'

3. -ěj- can disappear non-predictably

(11)

POS	CMPR	
star-ý	star-š-í	'old'
such-ý	suš-š-í	'dry'
drah-ý	draž-š-í	'expensive'

4. -š- disappears with comparative adverbs

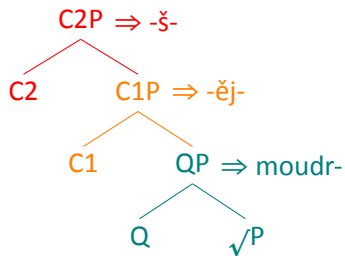
(12)	CMPR ADJ	CMPR ADV	
	červen-ěj-š-í	červen-ěj-i	'redder'
	hloup-ěj-š-í	hloup-ěj-i	'more stupid'
	moudř-ej-š-í	moudř-ej-i	'wiser'

Preliminary Conclusion

The regular comparative suffix consists of two parts: *ěj+š*

The Czech regular comparative

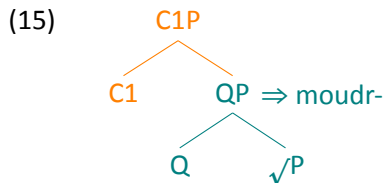
(13)



The lexicon

- (14)
- a. $\langle /moudr-/ , [_{QP} Q [\sqrt{P} \sqrt{ }]] , WISE \rangle$
 - b. $\langle /-ěj-/ , [_{C1P} C1] \rangle$
 - c. $\langle /-š-/ , [_{C2P} C2] \rangle$

The derivation-1

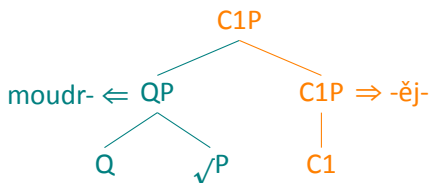


< /moudr-/, [QP Q [√P √]], WISE >

< /-ěj-/, [C1P C1] >

The derivation-2 (spellout-driven movement)

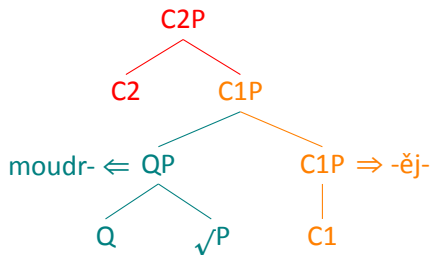
(16)



< /-ěj-/, [C1P C1] >

The derivation-3

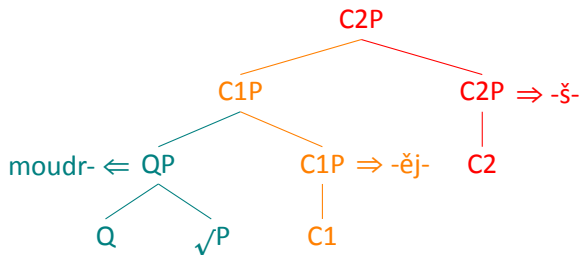
(17)



< /-š-/, [C2P C2] >

The derivation-4

(18)



< /-š-/, [C2P C2] >

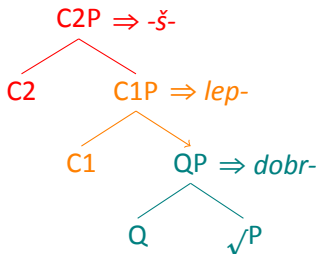
The decomposition explains

1. why *-ěj-* disappears with suppletive roots

- ▶ *-ěj-* spells out the C1 feature
- ▶ if the suppletive root spells out C1, suppletive roots are predicted to be incompatible with *-ěj-* in principle

lep- eats up -ěj-

(19)



(20)

- a. $\langle_{\text{DOBR}} / \text{dobr-} /, [\text{QP } \text{Q} [\sqrt{\text{P}} \sqrt{\text{P}}]] \rangle$
- b. $\langle_{\text{LEP}} / \text{lep-} /, [\text{C1P } \text{C1 } \text{DOBR}] \rangle$
- c. $\langle / \text{-ěj-} /, [\text{C1P } \text{C1}] \rangle$
- d. $\langle_{\text{Š}} / \text{-š-} /, [\text{C2P } \text{C2}] \rangle$

Faithfulness Restriction

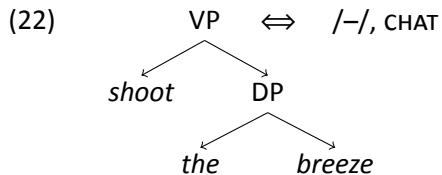
- ▶ lexical insertion at the level of the \surd is determined by Free Choice
- ▶ Cyclic override of roots respects a Faithfulness Restriction

(21) *Faithfulness Restriction (FR)*

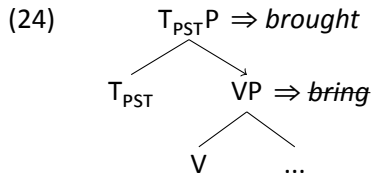
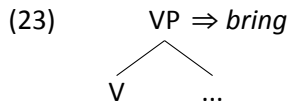
A spellout α may overwrite an earlier spellout β iff

- α contains a pointer to β
- $\alpha = \beta$

Pointers (I)



Pointers (II)



- (25)
- $\langle /bring/, [_{VP} V], BRING \rangle$
 - $\langle /brought/, [_{T_{PST}^P} T_{PST} BRING], BRING \rangle$

The decomposition explains

1. why **-ěj-** disappears with suppletive roots
2. why **-ěj-** **disappears in cases where the root shortens**

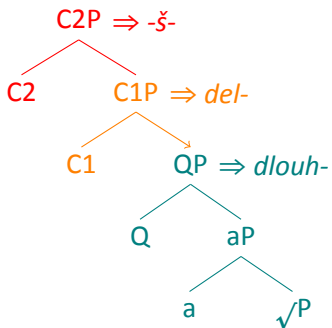
⇒ shortened roots (like suppletive roots) spell out C1P

(10)

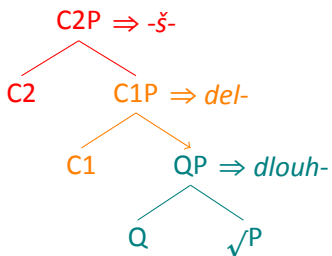
Pos	CMPR	
dlouh-ý	del-š-í	'long'
blízk-ý	bliž-š-í	'close'
vys-ok-ý	vyš-š-í	'tall'

- (26)
- a. $\langle_{\text{DLOUH}} /dlouh-/ , [_{\text{QP}} \text{Q} [_{\sqrt{\text{P}}} \sqrt{\quad}]] \rangle$
- b. $\langle_{\text{DEL}} /del-/ , [_{\text{C1P}} \text{C1 DLOUH}] \rangle$

(27)



(28)



The decomposition explains

1. why *-ěj-* disappears with suppletive roots
2. why *-ěj-* disappears in cases where the root shortens
3. **why *-ěj-* can disappear non-predictably**

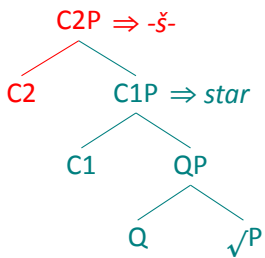
⇒ the relevant lexical items spell out C1P

(11)	Pos	CMPR	
	star-ý	star-š-í	'old'
	such-ý	suš-š-í	'dry'
	drah-ý	draž-š-í	'expensive'

(29) < /star-/, [C_{1P} C1 [Q_P Q [√_P √]]] >

- ▶ the difference between these adjectives and the ones that do take -ěj-š- is a matter of lexical idiosyncrasy

(30)



alternation is morphological

(31)

Pos	CMPR		
bohat-ý	bohat-š-í	'rich'	PAL _V
kulat-ý	kulat-ěj-š-í	'round'	PAL _{VAL}
star-ý	star-š-í	'old'	PAL _V
bujar-ý	bujar-ěj-š-í	'merry'	PAL _{VAL}

Language variation

(32)

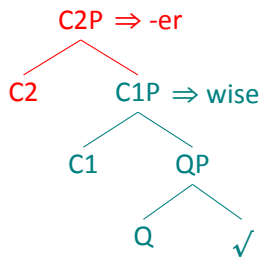
POS	CMPR	SPRL
wise	wis-er	wis-est
moudr-ý	moudř-ej-š-í	nej-moudř-ej-š-í

(33)

$\sqrt{\quad}$	Q	C1	C2
bujar		ěj	š
star			š
intelligent		mo	re
old			er

- ▶ the difference between Czech and English is entirely located in the size of the lexically stored trees

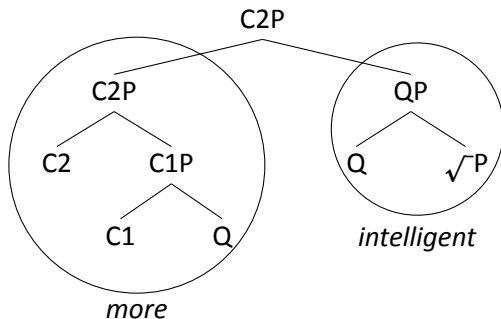
(34)



(35)

- a. $\langle /wise/, [_{C1P} C1 [_{QP} Q [_{\sqrt{P}} \checkmark]]] \rangle$
- b. $\langle /-er/, [_{C2P} C2] \rangle$

(36)

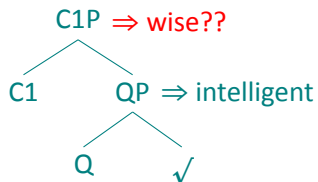


(37)

- a. $\langle /intelligent/, [_{QP} Q \sqrt{P}] \rangle$
 b. $\langle /more/, [_{C2P} C2 [_{CP1} C1 Q]] \rangle$

Faithfulness Restriction

(38)



(39)

- a. $\langle \text{/intelligent/}, [\text{QP } Q \ \checkmark] \rangle$
- b. $\langle \text{/wise/}, [\text{C1P } C1 [\text{QP } Q [\text{√P } \checkmark]]] \rangle$

(40)

Faithfulness Restriction (FR)

A spellout α may overwrite an earlier spellout β iff

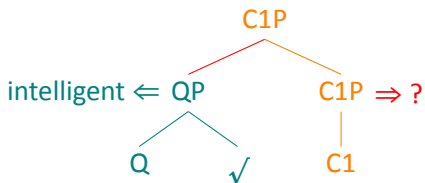
- a. α contains a pointer to β
- b. $\alpha = \beta$

Spellout algorithm

Starke (2018)

- (41) Merge F and
- a. Spell out FP
 - b. If (a) fails, attempt any of the rescue strategies below (in the order given), and retry (a), until spellout is successful
 - (i) move the spec of the complement of F
 - (ii) move the complement of F**
 - (iii) start a new derivation by merging F with the last successfully spelled out feature, i.e. F^{-1} .

(42)



(43)

- a. $\langle \text{/intelligent/}, [\text{QP Q } \checkmark] \rangle$
- b. $\langle \text{/more/}, [\text{C2P C2 } [\text{CP1 C1 Q}]] \rangle$

Spellout algorithm

Starke (2018)

- (44) Merge F and
- a. Spell out FP
 - b. If (a) fails, attempt any of the rescue strategies below (in the order given), and retry (a), until spellout is successful
 - (i) move the spec of the complement of F
 - (ii) move the complement of F
 - (iii) start a new derivation by merging F with the last successfully spelled out feature, i.e. F^{-1}**

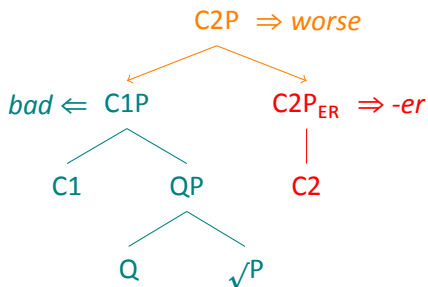
Portmanteau suppletion

- (45)
- a. $\langle \text{WORSE} / \text{worse}/, [\text{C}_{2\text{P}} \text{BAD ER}] \rangle$
 - b. $\langle \text{BAD} / \text{bad}/, [\text{C}_{1\text{P}} \text{C1} [\text{Q}_{\text{P}} \text{Q} \sqrt{\text{P}}]] \rangle$
 - c. $\langle \text{/er}/, [\text{C}_{2\text{P}} \text{C2}] \rangle$

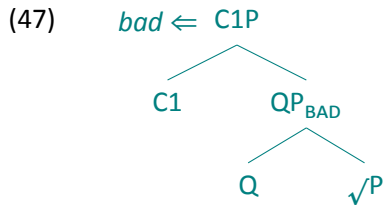
Portmanteau suppletion

- (45) a. $\langle \text{WORSE} / \text{worse}/, [\text{C2P BAD ER}] \rangle$
b. $\langle \text{BAD} / \text{bad}/, [\text{C1P C1} [\text{QP Q } \sqrt{\text{P}}]] \rangle$
c. $\langle /-er/, [\text{C2P C2}] \rangle$

(46)



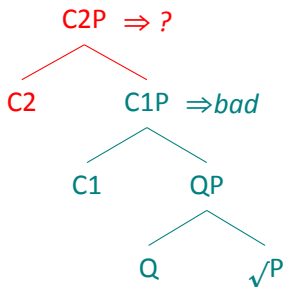
The derivation 1



(48) $\langle_{BAD} /bad/, [C1P C1 [QP Q \sqrt{P}]] \rangle$

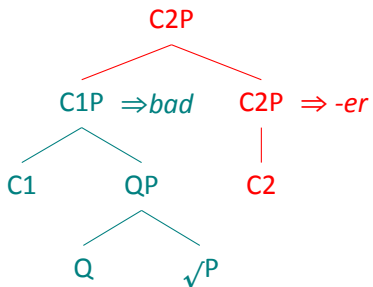
The derivation

(49)



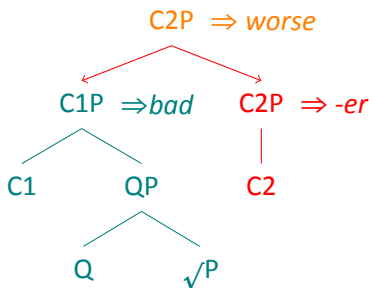
The derivation

(50)



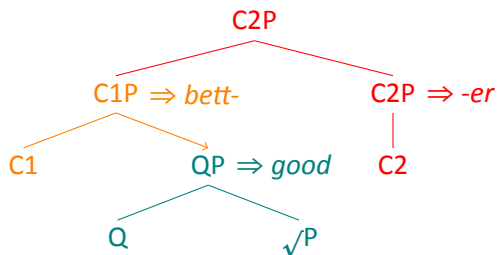
The derivation

(51)



Root suppletion: *better*

(52)



(53)

- a. $\langle_{\text{GOOD}} /good/, [_{\text{QP}} Q [_{\text{aP}} a [_{\sqrt{P}} \sqrt{ }]]] \rangle$
b. $\langle_{\text{BETT}} /bett-/, [_{\text{C1P}} \text{C1 GOOD}] \rangle$

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Latin regular degree morphology

CMPR

- ▶ *-ior/iōr*
- ▶ *-ius* (for nominative singular neuter)

SPRL

- ▶ *-issimus*

⇒ Comparative and superlative show agreement with the noun

Agreement markers of the first declension class

		SG		PL	
		'high(est)'	'rose'	'high(est)'	'rose'
SG	NOM	alt-(issim-)a	ros-a	alt-(issim-)ae	ros-ae
	ACC	alt-(issim-)am	ros-am	alt-(issim-)ās	ros-ās
	GEN	alt-(issim-)ae	ros-ae	alt-(issim-)ārum	ros-ārum
	DAT	alt-(issim-)ae	ros-ae	alt-(issim-)īs	ros-īs
	ABL	alt-(issim-)ā	ros-ā	alt-(issim-)īs	ros-īs

Agreement markers of the second declension class

		MASC		NEUT	
		‘high(est)’	‘grandpa’	‘high(est)’	‘gift’
SG	NOM	alt-(issim-)us	av-us	alt-(issim-)um	dōn-um
	ACC	alt-(issim-)um	av-um	alt-(issim-)um	dōn-um
	GEN	alt-(issim-)ī	av-ī	alt-(issim-)ī	dōn-ī
	DAT	alt-(issim-)ō	av-ō	alt-(issim-)ō	dōn-ō
	ABL	alt-(issim-)ō	av-ō	alt-(issim-)ō	dōn-ō
PL	NOM	alt-(issim-)ī	av-ī	alt-(issim-)a	dōn-a
	ACC	alt-(issim-)ōs	av-ōs	alt-(issim-)a	dōn-a
	GEN	alt-(issim-)ōrum	av-ōrum	alt-(issim-)ōrum	dōn-ōrum
	DAT	alt-(issim-)īs	av-īs	alt-(issim-)īs	dōn-īs
	ABL	alt-(issim-)īs	av-īs	alt-(issim-)īs	dōn-īs

Agreement markers of the third declension class

		M, F		NEUT	
		‘higher’	‘king’	‘higher’	‘noun’
SG	NOM	alt-ior	rēx	alt-ius	nōmen
	ACC	alt-iōr-em	rēg-em	alt-ius	nōmen
	GEN	alt-iōr-is	rēg-is	alt-iōr-is	nōmin-is
	DAT	alt-iōr-ī	rēg-ī	alt-iōr-ī	nōmin-ī
	ABL	alt-iōr-e	rēg-e	alt-iōr-e	nōmin-e
PL	NOM	alt-iōr-ēs	rēg-ēs	alt-iōr-a	nōmin-a
	ACC	alt-iōr-ēs	rēg-ēs	alt-iōr-a	nōmin-a
	GEN	alt-iōr-um	rēg-um	alt-iōr-um	nōmin-um
	DAT	alt-iōr-ibus	rēg-ibus	alt-iōr-ibus	nōmin-ibus
	ABL	alt-iōr-ibus	rēg-ibus	alt-iōr-ibus	nōmin-ibus

Latin comparative

Two options:

1. *-ior/-iōr*

- ▶ gets overwritten by *-ius* in neuter NOM.SG and ACC.SG (=traditional view)

2. *-i*

- ▶ *-or/-ōr/-us* spells out an agreement complex

Evidence in favour of comparative *-i*:

- ▶ agreement complex in comparative differs from positive and superlative degree
 - ▶ *-or/-ōr* is a spellout of the declension class feature
- ▶ genitive plural: *-ōrum* in first declension, *-um* in third and fourth
 - ▶ *-ōr* in *-ōr-um* is declension marker, *-um* is genitive plural
- ▶ *i-* is now properly contained in superlative *i-ssimus*

Latin superlative *-ssim(us)*

- ▶ *-us* spells out agreement complex
- ▶ *-issim* can be split up in *-ss-* and *-im-*
- ▶ evidence from:

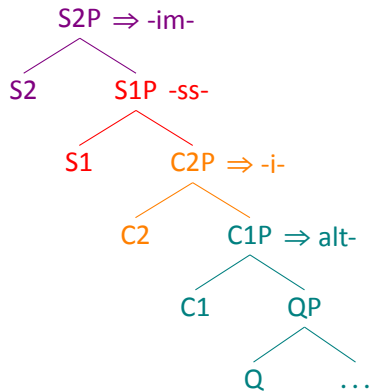
1. adjectives with root suppletion

(54)

POS	CMPR	SPRL	
bonus	mel-i-or	opt-im-us	'good'
parvus	min-or	min-im-us	'small'
paucus	min-or	min-im-us	'little'
multus	plūs	plūr-im-us	'much'
malus	pē-j-or	pe-ss-im-us	'bad'

- ▶ -ss is absent (but see *pessimus*)
- ▶ only *melior* and *pejor* have comparative -i

Derivation of a regular comparative and superlative



- (55)
- a. </alt/, [C1P [QP Q √]], HIGH >
 - b. </i/, [C2P C2] >
 - c. </ss/, [S1P S1] >
 - d. </im/, [S2P S2] >

Derivation of suppletive forms, ABC

(56) bonus - melior - optimus

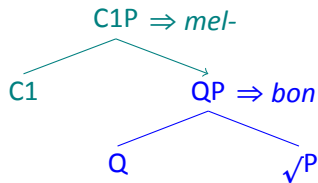
(57) $QP \Rightarrow bon$

```
graph TD; QP[QP] --> Q[Q]; QP --> P[√P]; QP --> bon[bon]
```

(58) $\langle_{bon} /bon/, [QP Q \sqrt{P}], GOOD \rangle$

Derivation of suppletive forms, ABC

(59)

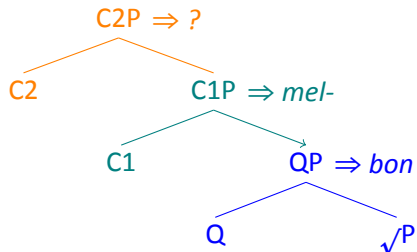


(60)

- a. $\langle_{\text{bon}} / \text{bon} /, [\text{QP } \text{Q } \sqrt{\text{P}}], \text{GOOD} \rangle$
- b. $\langle_{\text{mel}} / \text{mel} /, [\text{C1P } \text{C1 } [\text{BON}]] \rangle$

Derivation of suppletive forms, ABC

(61)

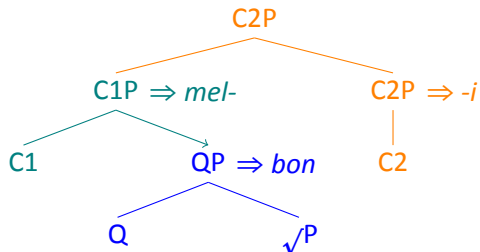


(62)

- $\langle \text{bon} / \text{bon} /, [\text{QP } \text{Q } \checkmark] , \text{GOOD} \rangle$
- $\langle \text{mel} / \text{mel} /, [\text{C1P } \text{C1} [\text{BON}]] \rangle$
- $\langle /i/, [\text{C2P } \text{C2}] \rangle$

Derivation of suppletive forms, ABC

(63)

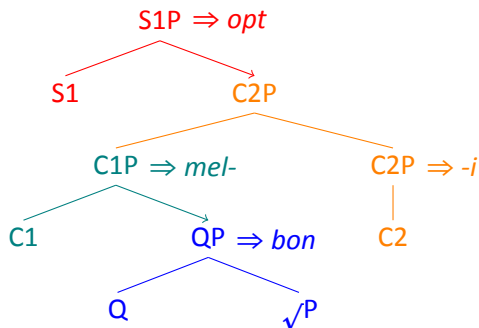


(64)

- $\langle \text{bon} / \text{bon}/, [\text{QP } \text{Q } \sqrt{\text{P}}], \text{GOOD} \rangle$
- $\langle \text{mel} / \text{mel}/, [\text{C1P } \text{C1} [\text{BON}]] \rangle$
- $\langle /i/, [\text{C2P } \text{C2}] \rangle$

Derivation of suppletive forms, ABC

(65)

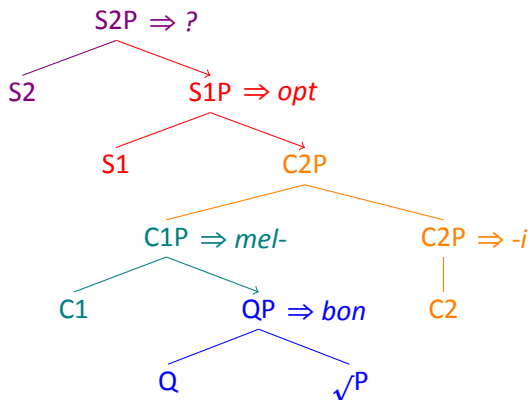


(66)

- $\langle \text{bon} / \text{bon} /, [\text{QP } \text{Q } \sqrt{\text{P}}], \text{GOOD} \rangle$
- $\langle \text{mel} / \text{mel} /, [\text{C1P } \text{C1} [\text{BON}]] \rangle$
- $\langle / \text{opt} /, [\text{S1P } \text{S1} [\text{C2P} [\text{MEL}] \text{i}]] \rangle$

Derivation of suppletive forms, ABC

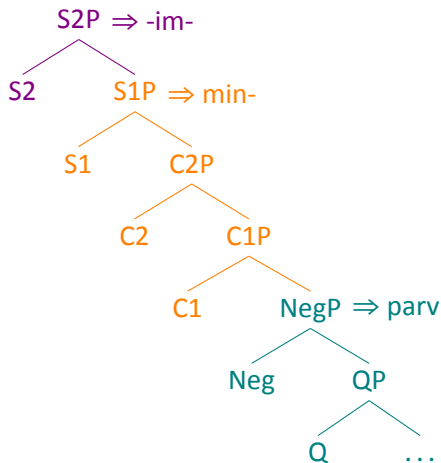
(67)



(68)

- $\langle \text{bon} / \text{bon} /, [\text{QP } \text{Q } \sqrt{\text{P}}], \text{GOOD} \rangle$
- $\langle \text{mel} / \text{mel} /, [\text{C1P } \text{C1} [\text{BON}]] \rangle$
- $\langle / \text{opt} /, [\text{S1P } \text{S1} [\text{C2P} [\text{MEL}] \text{i}]] \rangle$
- $\langle / \text{im} /, [\text{S2P } \text{S2}] \rangle$

The derivation of suppletive ABB



- (71)
- <_{parv} /parv/, [NegP Neg [QP Q √]], SMALL>
 - <_{min} /min/, [S1P S1 [C2P C2 [C1P C1 [PARV]]]] >

ABA cannot be derived

- (72)
- a. bon-us mel-i-or bon-im-us
 - b. bon-us mel-i-or bon-i-ss-im-us

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Case study II: Degree morphology meets negation

Support from suppletion in the comparative for:

- ▶ the presence of [Neg] in negative adjectives
- ▶ the distinction between the two low scope negative markers, $\text{Class}_{\text{Neg}}$ and Q_{Neg} in the fseq

A minimal contrast

(73)

POS		CMPR	
dobr-ý		lep-š-í	'good'
ne-dobr-ý	*	ne-lep-š-í	'bad'
		ne-dobř-ej-š-í	
mal-ý		men-š-í	'small'
ne-mal-ý		ne-men-š-í	'big, not small'
	*	ne-mal-š-í	

ne-dobř-ej-š-í has – theoretically speaking – 2 possible bracketings:

- (74) a. [MORE [NOT good]]
b. [NOT [MORE good]]

ne-dobř-ej-š-í has – theoretically speaking – 2 possible bracketings:

- (74) a. [MORE [NOT good]]
b. [NOT [MORE good]]

- ▶ these bracketings correspond with two readings
- ▶ the readings are distinguished in contexts where A and B are equally bad
- ▶ only (74b) can describe such a situation.

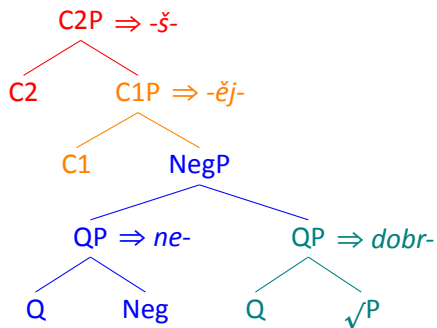
(75) A is *ne-dobř-ejš-í* than B.

- ▶ this is incompatible with a situation where A and B are equally bad
- ▶ the structure (74a)/(76) is correct for *ne-dobř-ejš-í*

(76) [-ejš- [ne- [dobr]]]

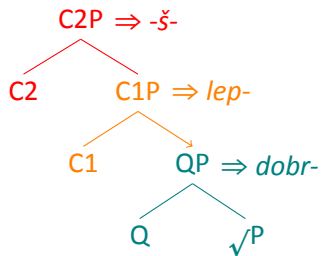
ne-dobř-ejš-í

(77)



lep-š-í

(78)

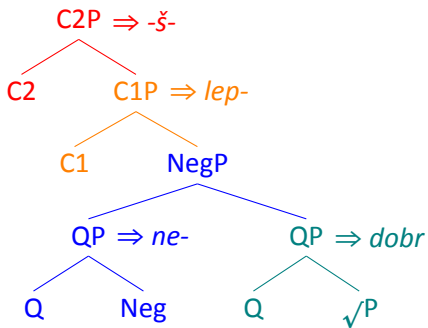


(79)

- a. <_{GOOD} /dobr-/, [QP Q [√]] >
b. <_{BETT} /lep-/, [C1P C1 DOBR]] >

**ne-lep-š-í*

(80)



- ▶ if NegP intervenes between C1P and QP, *lep-* can no longer spell out C1P
- ▶ this is because the syntactic tree now contains a feature Neg between C1 and Q
- ▶ as a result, C1P contains a Neg feature, which is not part of the lexical makeup of *lep-*
- ▶ as a result, *lep-* cannot spell out C1P
- ▶ in contrast, there is no problem with *ne-dobř-ej-š-í*: each exponent spells out a constituent in the syntactic tree

ne-men-š-í

(81)	POS	CMPR	
	mal-ý	men-š-í	'small'
	ne-mal-ý	ne-men-š-í	'not small, big'
	ne-mal-ý	*ne-mal-ej-š-í	

ne-men-š-í

(81)	POS	CMPR	
	mal-ý	men-š-í	'small'
	ne-mal-ý	ne-men-š-í	'not small, big'
	ne-mal-ý	*ne-mal-ej-š-í	

- ▶ the suppletion is unexpected
- ▶ the meaning is different!

ne-men-š-í

(81)

POS	CMPR	
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ne-mal-ý	*ne-mal-ej-š-í	

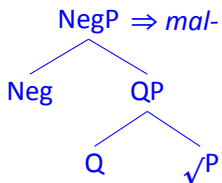
- ▶ the suppletion is unexpected
- ▶ the meaning is different!

ne-men-š-í

- = [not [more small]]
- = not smaller
- = compatible with a situation where A and B are equally big

mal-ý spells out a Neg feature

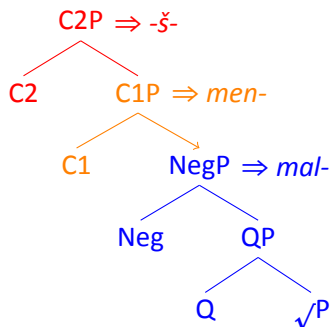
(82)



$\langle_{MAL} /mal-/ , [_{NegP} Neg [_{QP} Q \sqrt{P}]] \rangle$

men-š-í

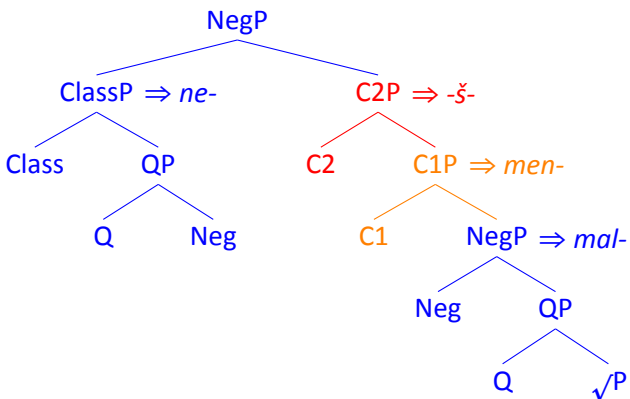
(83)



<_{MEN} /men-/, [C_{1P} C1 MAL]] >

<š /-š-/, [C_{2P} C2] >

(84)



- ▶ because the low Neg position is already taken up by *men/mal*, the *ne*-prefix has to take scope in a higher position, most probably ClassP.
- ▶ (84) has the bracketing [NOT [MORE [small]]]
- ▶ this bracketing accounts for the meaning of *ne-men-š-í* ‘not smaller’ (A and B can be equally big)
- ▶ it also accounts for the presence of root suppletion

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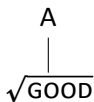
Conclusion

Suppletion in DM

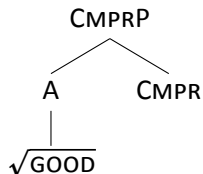
- ▶ root suppletion: contextual allomorphy
- ▶ portmanteau suppletion: contextual allomorphy + fusion

Root Suppletion = contextual allomorphy

(85)



(86)

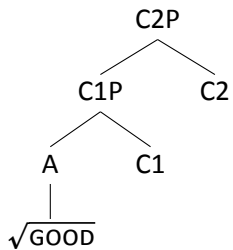


(87)

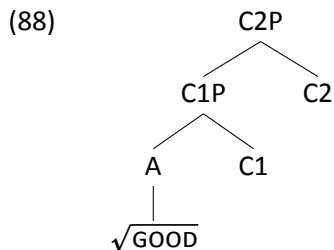
- a. $\sqrt{\text{GOOD}} \rightarrow \text{be(tt)- / ___] CMPR]}$
- b. $\sqrt{\text{GOOD}} \rightarrow \text{good}$

Root suppletion in Czech

(88)



Root suppletion in Czech



- (89)
- a. $\sqrt{\text{GOOD}} \rightarrow \text{dobr-}$
 - b. $\sqrt{\text{GOOD}} \rightarrow \text{lep- / ___] C1]}$

- (90)
- a. $C1 \rightarrow \text{ěj}$
 - b. $C1 \rightarrow \emptyset / \text{lep}] ___$
 - c. $C2 \rightarrow \text{š}$

Root suppletion in Czech

- (90)
- a. C1 → *ěj*
 - b. C1 → \emptyset / *lep*] ____
 - c. C2 → *š*

- ▶ a rule like (90b) must be duplicated for each suppletive root
- ▶ nothing in principle prevents the existence of suppletive roots with *-ěj-*: Czech could have (89), and at the same time lack (90b)
- ▶ there is no principled explanation for the systematic absence of *-ěj-* with suppletive (and shortened) roots

Portmanteau suppletion = Fusion + contextual allomorphy

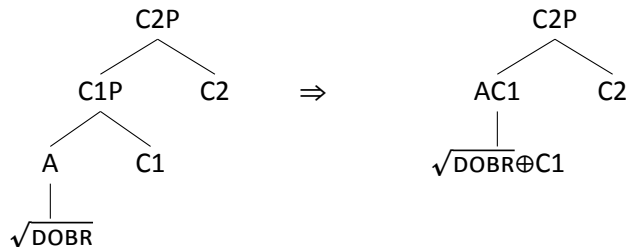
(91)



- (92) a. $\sqrt{\text{BAD}}, \text{Cmpr} \rightarrow \text{worse}$
b. $\sqrt{\text{BAD}} \rightarrow \text{bad}$

Alternative for Czech: *lep* analyzed like portmanteau suppletion

(93)



- (94)
- $\sqrt{\text{DOBR}}$, C1 \rightarrow lep
 - $\sqrt{\text{DOBR}}$ \rightarrow dobr
 - C1 \rightarrow ěj
 - C2 \rightarrow š

The Good

- ▶ *lep* lexically contains C1, therefore no spellout for C1 as *-ěj-* is needed.

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The Bad

- ▶ to derive the principled incompatibility of *-ěj-* with suppletive roots, the Fusion derivation *must* be chosen over the contextual allomorphy derivation.

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The Bad

- ▶ to derive the principled incompatibility of *-ěj-* with suppletive roots, the Fusion derivation *must* be chosen over the contextual allomorphy derivation.

The Ugly

- ▶ a timing paradox arises (Caha 2018).

The Paradox

- ▶ Fusion < Lexical insertion
- ▶ Fusion must apply in all and only those cases where a portmanteau morpheme is available:
 - ▶ *lep-* 'good'
 - ▶ *del-* 'long'
 - ▶ *star-* 'old'
- ▶ the rules manipulating the structure (like Fusion) must know what the lexicon contains, in advance of lexical insertion

The Paradox

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The Solution

- ▶ Give up the assumption that lexical insertion can only take place at terminals (Radkevich 2010).

DM and the problem of the root

- ▶ If syntax precedes lexical insertion, then actually roots should be phonology free.
- ▶ There is only one $\sqrt{\quad}$
- ▶ $\sqrt{\quad}$ has no grammatical, phonological, or semantic properties
- ▶ Halle and Marantz (1993); Marantz (1996; 1997); De Belder and Van Craenenbroeck (2015)

Problem to account for suppletion

- (95) a. $\sqrt{\quad} \Leftrightarrow$ *bett-* /] *a*] CMPR]
b. $\sqrt{\quad} \Leftrightarrow$ *good*

Problem to account for suppletion

- (95) a. $\sqrt{\quad} \Leftrightarrow$ *bett-* /] *a*] CMPR]
b. $\sqrt{\quad} \Leftrightarrow$ *good*

- (96) The *Elsewhere Condition* forces a **contextually-restricted allomorph** (95a) to block insertion of a **context-free allomorph** of the same root (95b), when the context for insertion is met (Bobaljik 2012: 10)

- (97) a. $\sqrt{\quad}$ \Leftrightarrow *bett-* / $___] a]$ CMPR]
b. $\sqrt{\quad}$ \Leftrightarrow *good, nice, happy, small, intelligent, tall, ...*

► But now **every** $\sqrt{\quad}$ will be realised as *bett-* in the comparative!

Solution

There is an infinity of different $\sqrt{\text{ }}$ s, individuated through numerical indices (Pfau 2000; 2009; Harley 2014)

(98) a. $\sqrt{\text{GOOD}}$ \Leftrightarrow *bett- / ___] a] CMPR]*

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

(99) a. $\sqrt{\text{NICE}}$ \Leftrightarrow *nice*

b. $\sqrt{\text{HAPPY}}$ \Leftrightarrow *happy*

c. $\sqrt{\text{SMALL}}$ \Leftrightarrow *small*

d. $\sqrt{\text{INTELLIGENT}}$ \Leftrightarrow *intelligent*

e. $\sqrt{\text{TALL}}$ \Leftrightarrow *tall*

f. ...

Solution

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(98) a. $\sqrt{\text{GOOD}}$ \Leftrightarrow *bett-* /] *a*] CMPR]

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c. $\sqrt{\text{SMALL}}$ \Leftrightarrow *small*

d. $\sqrt{\text{INTELLIGENT}}$ \Leftrightarrow *intelligent*

e. $\sqrt{\text{TALL}}$ \Leftrightarrow *tall*

f. ...

- ▶ Phonology sneaks in through the back door!

NS and phrasal spellout

- ▶ $\sqrt{\quad} \neq$ root
- ▶ there is one $\sqrt{\quad}$
- ▶ there is an infinite number of roots, i.e. lexical items spelling out functional structure
- ▶ a suppletive form like *worse* can only be inserted if *bad* was inserted at a previous cycle (pointers!)

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Conclusion

- ▶ Bobaljik's Cmpr and SPRL needs to be split up into two distinct heads/features, C1 and C2 and S1 and S2
- ▶ Czech morphology provides evidence for two distinct exponents corresponding to C1 and C2: *ěj+š*
- ▶ Latin morphology provides evidence for two distinct exponents corresponding to S1 and S2: *-ss-+im*
- ▶ we developed an analysis of root suppletion that accounts for the systematic absence of *ěj* with suppletive and shortened roots in Czech comparatives
- ▶ we developed an analysis of root suppletion that accounts for the systematic absence of *-ss* in suppletive superlative forms in Latin
- ▶ we discussed why a nanosyntactic account fares better at capturing suppletion than a DM account
- ▶ we explained how nanosyntax can keep syntax phonology free and nevertheless capture suppletion

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