

For *better* or *worse*, we need to talk about -š

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Adjectives, categorization and argument structure

A contrast between SC and Slovenian: Suppletion, comparatives and verbs

- In addition to regular comparatives,
- we can find a few suppletive comparatives in SC and Slovenian.
- In Slovenian they come with the comparative morphology (-š in (2) and (1)).
- Not the case for SC (comp. (4) vs. (3)).

(1) lep, lep-š-i
pretty, pretty-CMPR-M.SG.NOM
'pretty, prettier'

(2) dober, bolj-š-i
good, bett-CMPR-M.SG.NOM
'good, better' (Slo)

(3) lep, lep-š-i
pretty, pretty-CMPR-M.SG.NOM
'pretty, prettier'

(4) dobar, bolj-i
good, better-M.SG.NOM
'good, better' (SC)

A contrast between SC and Slovenian: Suppletion, comparatives and verbs

- But verbs from comparatives get (seemingly) comparative morphology in SC too.

(5) dober, bolj-š-i, (po-)bolj-š-a-ti (Slo)
good, good-CMPR-AGR (over-)better-CMPR-TV-INF

(6) dobar, bolj-i, po-bolj-š-a-ti (SC)
good, better-AGR over-better-CMPR-TV-INF
'good, better, to improve'

Issue no. 1

Why the sudden appearance of seemingly comparative morphology in SC verbs? I.e., is the -š in fact comparative?

Why are these cases special?

- Different form cases of disuppletion, e.g., Arregi & Nevins (2014):

(7) bad, worse

(8) bad, badder

- This is also found in SC, see Despić (2019):

(9) po-bolj-š-ati
pref-better-CMPR-INF
'to improve'

(10) pro-dobr-iti
pref-good-INF
'to become good'

Not a case of suppletion and regular comparative morphology with a single root, but a case of unexpected regular morphology on top of suppletion.

Part 2 of the issue: Prefixation in Serbo-Croatian and Slovenian

- In SC and Slovenian, simplex verb form is typically imperfective, adding a prefix leads to a perfective form, and the verb can become imperfective again.
- Save for a few exceptions, it is rarely the case that a prefixed verb does not have an unprefixed (i.e., simplex) counterpart.
- Also true for deadjectival verbs.
 - ▶ Verbs from the positive form behave as expected and have a simplex and a prefixed form (also a SI)

(11) čist, čist-i-ti, o-čist-i-ti, o-čišč-ev-a-ti^{Slo}/pro-čišč-av-ati^{SC}
clean.A clean-TV-INF pref-clean-TV-INF pref-clean-SI-TV-INF
'clean.A, to cleanIPFV, to clean.PFV, to clean.IPFV'

Verbs from comparatives in SC and Slovenian

- In Slovenian, verbs from comparatives are again well-behaved

(12) lep, lep-š-i, lep-š-a-ti, po-lep-š-a-ti (Slo)
pretty, pretty-CMPR-M.SG.NOM pretty-CMPR-TV-INF at-pretty-CMPR-TV-INF
'pretty, prettier, to embellish'

- In SC, however, verbs derived from a comparative tend not to appear without a prefix

(13) mek, mek-š-i, *mek-š-a-ti, s-mek-š-a-ti (SC)
soft, soft-CMPR-M.SG.NOM soft-CMPR-TV-INF, with-soft-CMPR-TV-INF
'soft, softer, to soften'

Issue no. 2

Why do SC verbs from a comparative need a prefix?

What's to follow

The goal for today:

To account for the presence of -š in SC verbs, derived from suppletive comparatives.

- To do so, we will give ...

1 Background on comparatives in SC and Slovenian

2 Proposal

- Data: (Un)available interpretations
- Specificity
- *good*/good** – better – better-š-ed*

How to make a synthetic comparative in SC and Slovenian

- The suffixes *-ij* in SC and *-(e)jš* in Slovenian.
 - ▶ Do not participate in verbs.
 - ▶ Note that these are the most widespread comparative suffixes.

(14) miran, mirn-ij-i (SC)
calm calm-CMPR-M.SG.NOM
'calm, calmer'

(15) debel, debel-ejš-i (Slo)
fat fat-CMPR-M.SG.NOM
'fat, fatter'

The relevant comparatives: -š...

- The comparative -š can be found in both SC and Slovenian.
- In SC, **only three** adjectives form a comparative with -š (Klajn, 2005):
lak, lakši 'easy, easier'; *mek, mekši* 'soft, softer', *lep, lepši* 'pretty, prettier'.
- In Slovenian, monosyllabic adjective ending on a *p*, *b* or *d*, get -š in the comparative. -š sometimes triggers iotation, but it is "lost" in some cases (Breznik, 1916; Toporišič, 2004)):
lep, lepši 'pretty, prettier', *hud, hujši* 'angry, angrier', *mlad, mlajši* 'young, younger', *širok, širši* 'wide, wider' ...

Suppletive comparatives

- A very small set of relevant adjectives.

- SC:

- (18)
- a. dobar, bolj-i
good, better-M.SG.NOM
'good, better, to improve'
 - b. zao, gor-i
bad, worse-M.SG.NOM
'bad, worse'

- Slovenian:

- (19)
- a. dober, bolj-š-i
good, bett-CMPR-M.SG.NOM
'good, better'

- ▶ We're not saying anything about the structure of comparatives (because time).

Going back to the verbs

- All is as expected in Slovenian:

(20) dober, bolj-š-i, (po-)bolj-š-a-ti (Slo)
good, good-CMPR-M.SG.NOM (over-)better-CMPR-TV-INF

- But not in Serbo-Croatian

(21) dobar, bolj-i, *po-bolj-a-ti/po-bolj-i-ti, po-bolj-š-a-ti (SC)
 good, better-M.SG.NOM over-better-CMPR-TV-INF over-better-CMPR-TV-INF
 'good, better, to improve'

(22) zao, gor-i, *po-gor-a-ti/po-gor-i-ti, po-gor-š-a-ti (SC)
 bad, worse-M.SG.NOM over-worse-CMPR-TV-INF over-worse-CMPR-TV-INF
 'bad, worse, to worsen'

- We see an explicit insertion of -š with *good* and *worse*.

Towards an analysis of -š

- Two options:

① It's a comparative -š.

② It's something else.

- Do we have any strict arguments to treat the -š in SC as the comparative -š?

- ▶ On the surface? Yes, there is a comparative -š and this is a comparative.
- ▶ Empirically? No. -j and especially -ij are more common, -š only with three adjectives.
- ▶ Theoretically? No. If we assume, e.g., a nanosyntactic approach, then the comparative feature is already spelled out in SC *bolj-*, *š-* would spell it out again. And we do not want recursive features within a functional projection.

- A different -š or any other uses of -š in SC?

(23) *tap*, *tap-š-a-ti*, *tap-nu-ti*, *tap-a-ti*
 tap, *tap-š-TV-INF*, *tap-nu-INF* *tap-TV-INF*
 'tap, to (gently) clap.IPFV, to tap.PFV, to feel around.IPFV

- ▶ Issue: Just one verb. And some disagreement.

It's semantics

What we know so far (empirically)

- -š is **present** in
 - ▶ the comparative form of the adjective, deadjectival verbs **Slovenian**
 - ▶ deadjectival verb only **SC**
 - -š is **absent** in
 - ▶ none of the forms under our consideration **Slovenian**
 - ▶ the comparative form of the adjective **SC**
 - ▶ (however, in both languages, the adverbial version *bolj*- obligatorily lacks the -š)
 - deadjectival verb **only** in its **prefixed** version **SC**, but not **Slovenian**
-
- If we want to figure out whether those empirical observations have meaning-related explanation, we have to take a closer look at...
 - ▶ interpretive differences between **positive** and **comparative forms of adjectives**,
 - ▶ and between **adjectives** and **deadjectival verbs** –
 - ▶ across the languages under discussion

Background

Intersective vs. non-intersective adjectives

(cf. Winter & Zwarts, 2007; Larson, 1998), a.m.o.

- (24) John is a blonde poledancer. INTERSECTIVE
a. 'John is blonde and John is a poledancer.'
b. #'John dances blonde.'
- (25) John is a beautiful poledancer. AMBIGUOUS
a. 'John is beautiful and John is a poledancer.'
b. 'John dances beautifully.'
- (26) John is a former poledancer. NON-INTERSECTIVE
a. #'John is former and John is a poledancer.'
b. 'John is not a poledancer anymore.'

- **(Un)available interpretations** of SC and Slovenian constructions involving suppletive comparative adjectives (SC examples below from Despić 2019: 511)

- (27) On je dobar lopov.
he is good thief
- a. 'He is a thief and good (as a person).' INTERSECTIVE
b. 'He has good stealing skills.' NON-INTERSECTIVE
- (28) On je bolji/najbolji lopov.
he is better/best thief
- a. **(unavailable)** 'He is a thief and better/best (as a person).' #INTERSECTIVE
b. 'He has better/the best stealing skills.' NON-INTERSECTIVE
- A striking difference: Adjectives that do **not** have suppletive comparative give rise to **both** readings in cases like (28a).

- Back to **deadjectival verbs**: Pos- vs. comp-based (*become* vs. *get better*) in **SC**

(examples below from Despić 2019: 522)

- (29)
- a. Ovaj lopov se pro-dobrio.
this thief REFL PRF-good.MASC.SG
'This thief became good (as a person).'
 - b. Ovaj lopov se po-boljšao.
this thief REFL PRF-better.MASC.SG
'This thief got better (i.e. more advanced stealing skills).'

What undergoes a **change**...

- is the thief as such (i.e. change in constitutive properties of the individual) in (29a)
 - are the skills (i.e. grad. change in a property of a property of an individual) in (29b)
- **Slovenian** does **not** have an attested version of 'pro-dobriti'
 - ▶ But when forced to make an equivalent version, speakers produce *po-dobriti* (i.e., the same as the SC 'pro-dobriti').

Comparison & Change

- positive form of the adjective

(30) {Napravili_{SC} / Naredili_{SIo}} smo {dobar_{SC} / dober_{SIo}} kolač.
made made AUX.1PL good good cake
'We made a good cake.'

- Property of 'goodness' holds of the cake-individual
no change, **no** comparison

⇒

- comparative form of the adjective

(31) {Napravili_{SC} / Naredili_{SIo}} smo {bolju tortu_{SC} / boljše torto_{SIo}}.
made made AUX.1PL better cake better cake
'We made a better cake.'

- Must be clear from the (discourse) context as compared to what the cake is better ⇒
– **no** change, comparison of ***n* individuals** (w.r.t. degree of *P*-ness at a point *t* in time)

Comparison & Change

- deadjectival verbs

- (32) a. Juče smo poboljšali kolač. (SC)
yesterday AUX.1PL PREFIX-better-š-PFV cake
- b. Včeraj smo poboljšali torto. (Slovenian)
yesterday AUX.1PL PREFIX-better-š-PFV cake
'We improved the cake yesterday.'
- c. Včeraj smo boljšali torto. (Slovenian)
yesterday AUX.1PL better-š cake
'We were improving the cake yesterday.'

- change in **degree** of *P*-ness,
comparing **the same individual** w.r.t. its *P*-ness degree at **different** points in time

In sum: Comparison & Change...

	change	comparison
ADJ.POS	✗	✗
ADJ.CMPR	✗	different individuals (their degree of <i>P</i> -ness at t_0)
DEADJ.VERB	in degree of <i>P</i> -ness	same individual (its degree of <i>P</i> -ness at different <i>ts</i>)
pro-dobriti	in individual	same individual (at different <i>ts</i>)
po-boljšati	in degree of <i>P</i> -ness	same individual (its degree of <i>P</i> -ness at different <i>ts</i>)

- How **specificity ((in)definiteness)** interacts with available interpretations in **SC**

(examples below from Despić 2019: 524-25)

(33) (Jedan) Dobar-∅ lopov je opljačkao predsednikovu kuću.
 some good-INDEF thief is robbed president.POSS house

a. ≈ An individual who is a thief and a good person has robbed the president's house. INTERSECTIVE

b. ≈ A thief with good stealing skills has robbed the president's house. NON-INTERSECTIVE

(34) Dobr-i lopov je opljačkao predsednikovu kuću.
 good-DEF thief is robbed president.POSS house

a. ≈ The individual who is a thief and a good person has robbed the president's house. INTERSECTIVE

b. (**unavailable**) The thief with good stealing skills has robbed the president's house. #NON-INTERSECTIVE

- Definite inflection on the adjective restricts (otherwise) available readings for the positive form to an **intersective** interpretation.

- How **specificity ((in)definiteness)** does **not** interact with available interpretations in **Slovenian**

- (35) (En) Dober lopov je oropal predsednikovo hišo.
 some good thief is robbed president.POSS house
- a. \approx An individual who is a thief and a good person has robbed the president's house. INTERSECTIVE
- b. \approx A thief with good stealing skills has robbed the president's house. NON-INTERSECTIVE
- (36) Ta dober lopov je oropal predsednikovo hišo.
 DEF good thief is robbed president.POSS house
- a. \approx The individual who is a thief and a good person has robbed the president's house. INTERSECTIVE
- b. \approx The thief with good stealing skills has robbed the president's house. NON-INTERSECTIVE

- But mind that...

- ▶ specificity gets marked on the adjective in SC (33)
- ▶ whereas it is 'introduced' by *ta* 'the, this' in Slovenian

(cf. Aljović, 2002; Talić, 2017)
 (cf. Marušič & Žaucer, 2014)

- good-DEF \implies INTERSECTIVE interpretation only
- DEF/INDEF good \implies either INTERSECTIVE or
NON-INTERSECTIVE reading

- The specific vs. unspecific distinction leads to...

	SC	Slovenian
a change in form	✓	✗
a change in (available) meaning(s)	✓	✗

- However...
 - ▶ **no** specificity marking on the adjective in its **comparative** form,
 - ▶ the reading we get by default is the **opposite** (i.e. the one that is unavailable for good-DEF),
Slovenian
 - ▶ definite / indefinite D-elements does not give rise to interpretive distinction
- ... and how does that help us anyway?

Two types of *good*...

- Despić (2019) distinguishes between

- ▶ INTERSECTIVE (37a) of type $\langle e, t \rangle$, and
- ▶ NON-INTERSECTIVE (37c) of type $\langle \langle s, \langle e, t \rangle \rangle, \langle e, t \rangle \rangle$.

- (37)
- a. $\llbracket \text{good}^*-d_2 \rrbracket^{w,C} = \lambda x_e : \text{context } C \text{ supplies an assignment } g_C, \text{ and a scale } S \text{ of 'goodness', } \text{GOOD}_{C,w}. \text{ the ranking of } x \text{ on } \text{GOOD}_{C,w} \text{ is at least } g_C(2)$
 - b. when defined, $\llbracket \text{John is a good}^*-d_2 \text{ thief} \rrbracket^{w,C} = \lambda y. \llbracket \text{good}^*-d_2 \rrbracket^{w,C}(\text{John}) \ \& \ \llbracket \text{thief} \rrbracket^{w,C}(\text{John})$
 - c. $\llbracket \text{good}^{**}-d_2 \rrbracket^{w,C} = \lambda P_{\langle s, \langle e, t \rangle \rangle}. \lambda x_e : \text{context } C \text{ supplies an assignment } g_C, \text{ and a scale } S_{P,w}, \text{ that ranks individuals by their } P\text{-skills in } w. \text{ the ranking of } x \text{ in } w \text{ on } S_{P,w} \text{ is at least } g_C(2)$
 - d. when defined, $\llbracket \text{John is a good}^{**}-d_2 \text{ thief} \rrbracket^{w,C} = \llbracket \text{good}^{**}-d_2 \rrbracket^{w,C}(\lambda w'. \llbracket \text{thief} \rrbracket^{w',C})(\text{John}) = 1 \text{ iff John's ranking in } w \text{ on } S_{[\lambda w'. \lambda y. y \text{ is a thief in } w'], w} \text{ is at least } g_C(2)$
- **definite affix** (assumed semantic type: $\langle \langle e, t \rangle, \langle \langle e, t \rangle, e \rangle \rangle$) can **only** combine with (37a)-*dobar* for type-related reasons (that is, to avoid a type-mismatch)

... but which one is *better* ?

- Recall that the comparative adjectival forms *bolji* (SC) and *boljši* (Slovenian) only give rise to one interpretation: We compare degrees of 'goodness' of two (or more) individuals s.t.
- *J is better than K* is true iff (roughly speaking)
the (max.) degree of *J*'s goodness \geq the (max.) degree of *K*'s goodness

$$(38) \quad \llbracket \text{bolji} \rrbracket = \max[\lambda d. \lambda x_e. \text{dobar}(x)(d)] \succ \max[\lambda d'. \lambda y. \text{dobar}(y)(d')]$$

- Yes, there are many other ways to express this.

(cf. Kennedy, 1999; Heim, 2000; Kennedy & McNally, 2005; Pancheva, 2006; Kennedy & Levin, 2008)

– just to mention **some**

- However, we will keep it simple for the time being.

For the *better-š-ed*

- We want (interpretation-wise)...
- that the cake has undergone some (better-ing) process, and (event, V)
- that, at the end, the property of 'goodness' holds of the cake to a higher degree (adj)
- ... and we want all this to hold of the very same cake.

Proposal

- The resulting interpretation of a sentence containing, e.g. *poboljšati* involves
 - ▶ intersection of the two 'properties' (components) from above – that is, we want both to hold, and we want both to hold of the one and the same individual
- -š functions as the definiteness / specificity marker for the comparative
 - ▶ which can be **absent** in the bare adjective in **SC**
(mind the difference in meaning we would predict otherwise)
 - ▶ which can be **present** in the bare adjective in **Slovenian**
(because it apparently has no effect on interpretation, or at least, does not restrict available readings)
 - ▶ which needs to be **present** in the deadjectival verb in **SC**
 - ▶ which comes 'for free' in the deadjectival verb in **Slovenian**

Open Questions

- But why don't we find the un-prefixed version *boljšati* in SC?
 - ▶ Maybe related to the necessity of a definite endpoint of an (better-ing) event?
- What about the non-suppletive forms, i.e. *lak-lakši*, *mek-mekši*, and *lep-lepši*? – what is so special about being 'easy', 'soft', and 'pretty'?
 - ▶ We don't know (yet).
- Definition of 'definiteness' ?
 - ▶ Not yet.
- More about the morphological side of the story?
 - ▶ Yes, sure – but would have it's own problems.
- ...

Thank you!

The work has been funded by ARIS grants J6-4614 ([Multifunctionality in Morphology](#)) and P6-0382.

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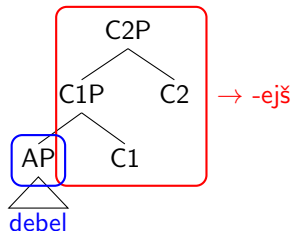
Appendix

The assumed analysis

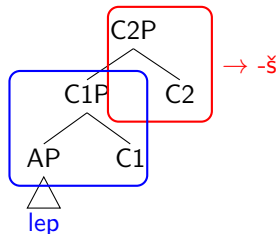
These slides include some preliminary work and should be taken with a grain of salt.

- SC and Slovenian can be captured by the nanosyntactic proposal for the structure of comparatives in Czech (Caha et al., 2019), Slovak (Vanden Wyngaerd et al., 2020) and Ukrainian (Vyshnevskaya, 2022).
- Two comparative heads.
 - ▶ See these for arguments for the split.
- Allows us to capture all possible comparatives.
 - ▶ Below just for Slovenian.

(39) SMALL ROOTS



(40) MEDIUM ROOTS



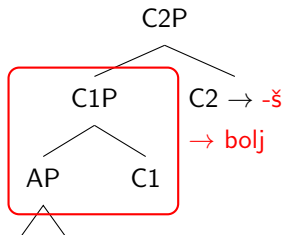
- Note that under this approach, medium roots can also spell out the positive (Superset principle).

Suppletive adjectives

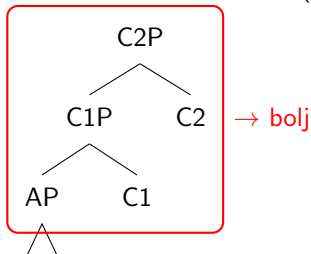
These slides include some preliminary work and should be taken with a grain of salt.

- The difference between Slovenian and SC comparative *bolj*- is in the size of the root:

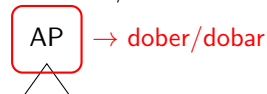
(41) Slo



(42) SC



(43) Slovenian/SC



It is a comparative, similar example: Czech baby animals

These slides include some preliminary work and should be taken with a grain of salt.

- Following Faltýnková & Ziková (2019).
- Different ways of deriving baby animal names in Czech
- ① The suffix /At/ as the realization of the syntactic head IM(mature)
 - ▶ Different phonological realizations (see Faltýnková & Ziková (2019))

(44) sokol, sokol-at
falcon falcon-IM 'falcon, baby falcon'

- ② Suppletion AND the suffix /At/
 - ▶ The suppletive root as the realization of the NP and the syntactic head IM(mature).

(45) pras-, sel-at
pig pig-IM 'pig, piglet/piggy'

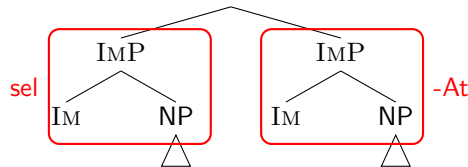
It is a comparative, similar example: Czech baby animals

These slides include some preliminary work and should be taken with a grain of salt.

- Czech baby animals with suppletion:
 - ▶ The suppletive root as the realization of the NP and the syntactic head IM(mature).
 - ▶ The suffix /At/ as the realization of the syntactic head IM(mature)
- To avoid recursive features within a functional projection, Faltýnková & Ziková (2019) propose that these are compounds:

(46) pras-, sel-at
pig pig-IM 'pig, piglet/piggy'

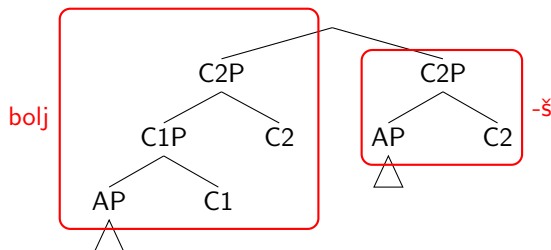
(47)



Option 1: It is a comparative and this is a compound

These slides include some preliminary work and should be taken with a grain of salt.

(48)



- Several issues

- ▶ Why -š and not -j?
- ▶ Why just with suppletion?
- ▶ Why in verbs?

No good arguments for maintaining the idea.