1 Introduction

The Czech positive gradable adjective dobr-ý ‘good’ has a suppletive stem lep-, which is used in the comparative lep-ší ‘better’ (see (1)).

Its antonym ne-dobr-ý ‘bad’ uses the same root, yet does not have the suppletive stem in the comparative (see (2)).

malý ‘small’ has a suppletive stem men- (3).

its antonym ne-mal-ý ‘big’ also makes use of the suppletive stem (4).

(1) a. dobr-ý
   good-NOM
   ‘good’

   b. lep-ší
   good-CMPR
   ‘better’

(2) a. ne-dobr-ý
   NEG-good-NOM
   ‘bad’

   b. ne-dobř-ejší
   NEG-good-CMPR
   worse’

malý ‘small’ has a suppletive stem men- (3).

its antonym ne-mal-ý ‘big’ also makes use of the suppletive stem (4).

(3) a. mal-ý
   small-NOM
   ‘small’

   b. men-ší
   small-CMPR
   ‘smaller’

(4) a. ne-mal-ý
   NEG-small-NOM
   ‘big, large’

   b. ne-men-ší
   NEG-small-CMPR
   ‘bigger’

*We are very grateful to Pavel Caha, who pointed us to this data set.
The aim of this talk:
◦ to account for the data pattern above in terms of the presence of a negative feature in negative gradable adjectives;
◦ to show how the presence or absence of suppletion correlates with the different scopes that negative features can take.

Structure of this talk:
◦ Prerequisites for the analysis
◦ The Czech data: analysis
◦ Conclusion

2 Prerequisites for the analysis

2.1 Nanosyntax: general principles

late (postsyntactic) insertion

phrasal spellout: lexical items are inserted at the phrasal level (not at the level of the head)
in this way, lexical items can straightforwardly spell out sets of syntactic features (without the need for local dislocation, fusion, merger, etc.)
account for syncretism in terms of overspecification (instead of underspecification)

(5) Superset Principle
A lexical entry may spell out a syntactic node iff the features of the lexical entry are a superset of the features dominated by the syntactic node.

(6) The Elsewhere Principle
In case two rules, \( R_1 \) and \( R_2 \), can apply in an environment \( E \), \( R_1 \) takes precedence over \( R_2 \) if it applies in a proper subset of environments compared to \( R_2 \).

Suppose we have a syntactic object \( XP \) containing the features A, B, and C (as in (7)), and a lexicon as in (8):

(7) \[ \text{XP A B C} \]
both the lexical items \( \alpha \) and \( \beta \) are candidates for insertion (by the Superset Principle).

(8c) is not a candidate.

by the Elsewhere Principle, \( \beta \) will be inserted, as it is a closer match for (7), blocking the insertion of \( \alpha \).

2.2 Nanosyntax of negation

languages quite often have a variety of negative markers (e.g. English *not*, *non-* and *un-*)

these different negative markers have different scopes (e.g. sentence negation vs constituent negation).

De Clercq (2013) distinguishes four different categories of negative markers (based on their functions, semantics, scope, and differences in stackability):

- T\(^{\text{Neg}}\)-markers take sentential scope, and can stack on all the others.
- Foc\(^{\text{Neg}}\)-markers take scope over the untensed predicate.
- Class\(^{\text{Neg}}\)-markers scope over the predicate term.
- Q\(^{\text{Neg}}\)-markers take lowest scope and do not stack on top of any others.

studying syncretisms in negative markers in a sample of nine different languages, De Clercq (2013) has found that negative markers can be arranged in a paradigm that respects the *ABA*-restriction (syncretism only affects contiguous cells):

<table>
<thead>
<tr>
<th>Language</th>
<th>T(^{\text{Neg}})</th>
<th>Foc(^{\text{Neg}})</th>
<th>Class(^{\text{Neg}})</th>
<th>Q(^{\text{Neg}})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greek</td>
<td>dhen</td>
<td>oxi</td>
<td>mi</td>
<td>a-</td>
</tr>
<tr>
<td>English (formal)</td>
<td>not</td>
<td>not</td>
<td>non</td>
<td>un-</td>
</tr>
<tr>
<td>English (informal)</td>
<td>n’t</td>
<td>not</td>
<td>non</td>
<td>un-</td>
</tr>
<tr>
<td>French (formal)</td>
<td>ne ... pas</td>
<td>pas</td>
<td>non</td>
<td>iN-</td>
</tr>
<tr>
<td>French (informal)</td>
<td>pas</td>
<td>pas</td>
<td>non</td>
<td>iN-</td>
</tr>
<tr>
<td>Chinese</td>
<td>bù</td>
<td>bù</td>
<td>fēi</td>
<td>fēi</td>
</tr>
<tr>
<td>MS Arabic</td>
<td>laa</td>
<td>laa</td>
<td>ghayr-</td>
<td>ghayr-</td>
</tr>
<tr>
<td>Persian</td>
<td>na</td>
<td>na</td>
<td>qheyr-</td>
<td>qheyr-</td>
</tr>
<tr>
<td>Moroccan Arabic</td>
<td>ma (ši)</td>
<td>muši</td>
<td>muši</td>
<td>-tElEn</td>
</tr>
<tr>
<td>Dutch</td>
<td>niet</td>
<td>niet</td>
<td>niet-</td>
<td>on-</td>
</tr>
<tr>
<td>Hungarian</td>
<td>nem</td>
<td>nem</td>
<td>nem</td>
<td>-tElEn</td>
</tr>
<tr>
<td>Czech</td>
<td>ne-</td>
<td>ne-</td>
<td>ne-</td>
<td>ne-</td>
</tr>
</tbody>
</table>
Greek does not show any syncretism, and therefore provides evidence for the existence of four different types of negation.

Czech has a single syncretic negative marker (ne-), which is the equivalent of not, non- and un- in English.

(10) a. Ja ne- jsem šťátný.
    I neg- am happy.
    ‘I am not happy.’

b. Ja jsem ne- šťátný.
    I am neg- happy.
    ‘I am unhappy.’

c. Je ne- americký.
    is neg American
    ‘He is un-American.’
    ‘He is non-American.’

The Czech-type syncretism shows that there must be an underlying featural unity to all these negation types.

The underlying featural unity resides (minimally) in the presence of the feature Neg.

The Neg-feature is never spelled out alone: the different negative markers represent packagings of Neg with different sets of features.

We assume an fseq for negative markers <T, Foc, Class, Q>.

Negative markers are built by adding a negative feature Neg on top of either QP, ClassP, FocP, or TP:
\[ (11) \]
\[
\begin{array}{c}
\text{(NegP)} \\
\text{(Neg)} \\
\text{T} \\
\text{(Neg)} \\
\text{FocP} \\
\text{Foc} \\
\text{(Neg)} \\
\text{ClassP} \\
\text{Class} \\
\text{(Neg)} \\
\text{QP} \\
\end{array}
\]

▷ (11) is shorthand for a series of four different trees, each corresponding to a particular negative marker
▷ (12) gives the lexical items for the negative markers not, non, and un-, respectively:

\[ (12) \]
\[
\begin{array}{c}
a. < /n\text{ot} /, [\text{NegP Neg} [\text{TP T FocP Foc} [\text{ClassP Class} [\text{QP Q}]]]] > \\
b. < /n\text{on} /, [\text{NegP Neg} [\text{ClassP Class} [\text{QP Q}]]] > \\
c. < /u\text{n} /, [\text{NegP Neg} [\text{QP Q}]] > \\
\end{array}
\]

▷ negative markers also have an external syntax
▷ the highest non-negative feature in the nanospine indicates where negation will take scope in the clausal spine
  ○ if the nanospine spells out as not, its highest non-negative feature is either T or Foc; negation will then take scope high in the clausal spine, i.e. be inserted above either FocP or TP
  ○ if the nanospine spells out as un-, its highest non-negative feature is Q; its scope will be limited to those positions in the clausal spine where a QP occurs (i.e. low in the clausal spine)

2.3 Adjectives: a difference in size
▷ gradable adjectives spell out:
a root feature (√)
a categorial head feature (a)
a gradability feature (Q)
negative gradable adjectives differ from positive ones in the presence of an additional Neg-feature

(13) a. QP ⇒ positive gradable adjective (e.g. happy)

Q

aP

\[ \sqrt{\hat{\hat{\hat{a}}}} \]

b. NegP ⇒ negative gradable adjective (e.g. sad)

Neg

QP

Q

aP

\[ \sqrt{\hat{\hat{\hat{a}}}} \]

2.4 Evidence for a Neg-feature in negative adjectives

▷ De Clercq & Vanden Wyngaerd (2016) argue that there exists a ban on stacking negative affixes that are structurally adjacent

▷ data illustrating this ban from English morphology are given in (14):

(14) a. UN+DIS: *undishonest, *undiscourteous, *undisloyal, *undiscomfortable


d. UN+UN, DIS+DIS, LESS+LESS

▷ next consider the data in (15), with ‘synthetically negative adjectives’ (Jespersen 1942, Zimmer 1964, Horn 1989):

(15) a. unhappy, unwise, unclean, unfriendly, unhealthy, untrue

▷ the data in (15b) instantiate the same restriction as the ones in (14), assuming that negative adjectives have a Neg-feature
▷ we argue that these facts follow from the following constraint on double negation:

(16) *<Neg, Neg>
The functional sequence must not contain two immediately consecutive Neg-features.

(17)
```
  NegP
    ┌─ NegP ⇒ un-
    │   └─ Neg'
    │      ┌─ Neg
    │      │   └─ NegP ⇒ sad
    │        ┌─ Neg
    │        │   └─ NegP
    │        └─ Q
    └─ Q
```

(18)
```
  NegP
    ┌─ NegP ⇒ un-
    │   └─ Neg'
    │      ┌─ Neg
    │      │   └─ NegP ⇒ -less
    │      └─ Neg
    └─ Q
      └─ Q
```

▷ the prefixes un-, iN-, dis- and the suffix -less all take scope in the same position, at QP
▷ the negative marker not takes higher scope, and can therefore be stacked onto un/iN/dis/less without violating (16) (e.g. not disloyal/not useless/not impossible/not sad):
3 The Czech data: analysis

3.1 Positive gradable adjectives and suppletion

▷ the positive gradable adjective *dobr*- spells out the following structure:

(20) \[ \text{QP} \Rightarrow \text{dobr-} \]

▷ in the comparative, the suppletive root *lep*- appears (*lep-ší* ‘better’)
DM-analysis (Bobaljik 2012): suppletion is triggered by the presence of the Cmpr-head which is structurally adjacent to the root, as per the following insertion rule (B assumes that CmprP immediately dominates the root):

(21) $\sqrt{DOB} \rightarrow lep/\ldots ]Cmpr$

this proposal accounts for the the generalisation that, if the comparative uses a suppletive root, the superlative also does (Bobaljik 2012).

NS-approach to suppletion: pointers in lexical items, pointing to other lexical items

bring/brought suppletion: the lexical item of brought contains a pointer to the lexical items for bring and the past tense morpheme -ed:

(22) a. $<_{24}$/brought/, $[XP\ 22\ 23]$>
    b. $<_{22}$/bring/, $V>$
    c. $<_{23}$/ed/, $PastP>$

(23) $XP_{24} \Rightarrow brought$

    bring $\Leftarrow V_{22}$
    PastP$_{23} \Rightarrow ed$

suppletion in the comparative and superlative is different, as it concerns only the root, not the affix

we propose to decompose Cmpr into two different features, $\sigma$ and Cmpr. The suppletive root spells out $\sigma P$, as shown in (24):

(24) $CmprP \Rightarrow -\acute{\acute{s}}i$

    $Cmpr$
    $\sigma P \Rightarrow lep-$

    $\sigma$
    $QP \Rightarrow dobr-$

    $Q$
    $aP$

(25) a. $<-/\acute{s}i/, [CmprP [\sigma P \sigma ]]>$
    b. $<_{34}$/lep-/, $[\sigma P \sigma 32 ]>$
    c. $<_{32}$/dobr-/, $[QP [ \sqrt{\ldots } ]]>$
\( \text{dobr-} \) spells out \( \text{QP} \).

\( \text{at } \sigma \text{P}, \text{dobr-} \) is overwritten by the suppletive form \( \text{lep-} \).

\( \text{at CmprP} \) the comparative suffix is spelled out (modulo raising of \( \sigma \text{P} \) into SpecCmprP)

\( \text{Czech also has ‘analytic negative adjectives’, i.e. positive adjectives that feature the negative morpheme } \text{ne-} \text{ and get a negative meaning, e.g. } \text{ne-dobr}- \) \( \text{‘bad’}. \)

\( \text{we assume that these have the same structure as negative gradable adjectives} \) (see (13) above), except that there is a complex specifier in SpecNegP:

\[
\text{(26)}
\begin{array}{c}
\text{NegP} \\
\text{NegP} \Rightarrow \text{ne-} \\
\text{Neg} \quad \text{QP} \quad \text{Neg} \quad \text{QP} \Rightarrow \text{dobr-} \\
\text{Q} \quad \text{aP}
\end{array}
\]

\( \text{the comparative of } \text{ne-dobr-} \) ‘bad’ shows no suppletion (*\( \text{ne-lep-ší} \) vs \( \text{ne-dobř-} \) \( \text{eší} \) ‘worse’).

\( \text{in Bobaljik’s terms, this would suggest that there is no structural adjacency between Cmpr and the root } \sqrt{\text{DOBR}} \), as this will bleed the application of the rule in (21).

\( \text{this nonadjacency is achieved in the structure we propose, which has a Neg-} \)

\( \text{head between QP and Cmpr:} \)

\[
\text{(27)}
\begin{array}{c}
\text{CmprP} \Rightarrow -(e)čší \\
\text{Cmpr} \quad \sigma \text{P} \\
\quad \sigma \quad \text{NegP} \\
\quad \text{NegP} \Rightarrow \text{ne-} \\
\quad \text{Neg} \quad \text{QP} \quad \text{Neg} \quad \text{QP} \Rightarrow \text{dobr-} \\
\quad \text{Q} \quad \text{aP}
\end{array}
\]
no constituent in (27) could spell out the suppletive root *lep*- ‘bett-’:
- $\sigma P$ dominates too many features
- the lexical entry for *lep*- (see (30) above) does not contain a superset of the features of the syntactic tree $\sigma P$, since it does not contain a Neg-feature, and $\sigma P$ does.

A negated positive gradable adjective cannot get a suppletive comparative root because $\sigma P$ dominates a NegP, and the lexical entry for the suppletive root does not contain a Neg-feature.

### 3.2 Negative gradable adjectives and suppletion

- the negative gradable adjective *malý* ‘small’ spells out the following structure:

\[
\begin{array}{c}
\text{NegP} \\
\text{Neg} \\
\text{Q} \\
\text{Q} \\
\text{aP} \\
\text{a} \\
\end{array}
\Rightarrow \text{mal-}
\]

- *malý* ‘small’ has a suppletive comparative *menší*
- the suppletive form is not blocked in the context of the negative prefix: *ne- men-ší* (neg-small-er).
- the tree structure in (29) explains why this is the case:
(29)

\[
\begin{array}{c}
\text{NegP} \\
\text{NegP} \Rightarrow \text{ne-} & \text{Neg'} \\
\text{Neg} & \text{FocP} & \text{Neg} & \text{CmprP} \Rightarrow -\text{ší} \\
\text{Foc} & \text{ClassP} & \text{Cmpr} & \sigma P \Rightarrow \text{men-} \\
\text{Class} & \text{QP} & \sigma & \text{NegP} \Rightarrow \text{mal-} \\
\text{Neg} & \text{QP} \\
\text{Q} & \text{aP}
\end{array}
\]

- mal- ‘small’ spells out NegP.
- at σP, mal- is overwritten by the suppletive root men-.
- the ne-marker preceding the negative adjective cannot be merged at QP because of the ban on double negation
- ne is merged higher in the structure, i.e. it takes scope higher than CmprP (e.g. at the FocP level).

(30)  
a. \(< -\text{ší}/, [\text{CmprP } [\sigma P \sigma ]] > 
\)

\[
\begin{array}{c}
\text{NegP} \Rightarrow \text{mal-} \\
\text{Neg} & \text{QP} \\
\text{Q} & \text{aP}
\end{array}
\]

- A negated negative adjective can get a suppletive stem:
  - because a negative adjective spells out NegP, and a suppletive negative adjective spells out σP immediately dominating this NegP
  - the negative marker ne- cannot be merged at the same position because of the ban on double negation
  - it must therefore be merged in a higher position, after the suppletion root was spelled out at σP.
3.3 Readings of negated comparatives

- our analysis entails a different scope for the overt negative marker in ne-dobr-ejší and ne-men-ší.
- this structural difference entails a scopal and meaning difference:

\[(31) \]
\begin{itemize}
  \item a. \([\text{ne-dobř-}ejší] = [\text{MORE} \ [\text{NOT-GOOD}]] \ i.e. \ ‘\text{worse}’\)
  \item b. \([\text{ne-[men-š]]} = [\text{NOT} \ [\text{MORE SMALL}]] \ i.e. \ ‘\text{not smaller}’ \ (\text{rather than} \ ‘\text{bigger}’)\)
\end{itemize}

- (31a) is inconsistent with a situation where the two entities being compared are equally bad
- (31b) is consistent with a situation where the two entities being compared are equally small

(32) a. Your lunch was bad, but mine was worse.
   b. Your donation was big, but mine was not smaller.

- in the latter case, the scalar focus marker even is not possible, whereas it is possible (in fact preferred) in the former one.

3.4 Double negation in Czech negative adjectives

- in contrast to English (recall *unsad), Czech negative adjectives can be negated by ne:

\[(33) \text{ne-malý} \]
\begin{itemize}
  \item \text{NEG-small}
  \item \‘big, large’
\end{itemize}

- given that the Czech negative marker ne is fully syncretic, this is due to the fact that ne- can take higher scope than English un-/dis-/in-/less.
- that is, (33) is in fact equivalent to something like not inconsiderable
4 Conclusion

- We accounted for the Czech data pattern in terms of
  - the presence of a negative feature in negative gradable adjectives
  - the ban on double negation
- In negated positive adjectives
  - the negative marker ne- takes low scope, between Cmpr and Q
  - Neg acts as an intervener, blocking suppletion
- In a negated negative adjective
  - the negative marker ne- takes high scope, because the adjective already contains a negative feature, and because of the ban on double negation
  - as a result, the negative marker ne- does not act as an intervener between Cmpr and Q
  - suppletion takes place in the same manner as with positive adjectives: there is a lexical item that contains one extra feature ($\sigma$) as compared with the nonsuppletive root.

References


