Zero morphology and change-of-state verbs

Pavel Caha\textsuperscript{1} \hspace{1em} Karen De Clercq\textsuperscript{2} \hspace{1em} Guido Vanden Wyngaerd\textsuperscript{3}

\textsuperscript{1}Masaryk University (Brno)
\textsuperscript{2}FWO/U Ghent (Ghent)
\textsuperscript{3}KU Leuven (Brussels)

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Workshop \textit{Derivational zero affixes}
Outline

Introduction

Data

Prerequisites

Zero-marking is phrasal spellout

Suffixal marking

Three INCH/CAUS scenarios in Czech

Conclusions
Introduction

Data

Prerequisites

Zero-marking is phrasal spellout

Suffixal marking

Three INCH/CAUS scenarios in Czech

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Introduction

Claim

- Derivational ‘zero affixes’ do not exist
- ‘silent’ meaning components are pronounced cumulatively within overt morphemes ⇒ phrasal spellout
Introduction

Claim

- Derivational ‘zero affixes’ do not exist
- ‘silent’ meaning components are pronounced cumulatively within overt morphemes ⇒ phrasal spellout

Empirical domain

- Adjective-to-verb conversion
- Inchoative-causative alternation
Introduction

(1)  
   a. The road is narrow.
   b. The road narrowed.
Introduction

(1)  
   a. The road is **narrow**.  
   b. The road **narrowed**.  

(2)  
   a.  
      \[
      \begin{array}{c}
      A \\
      \text{\scriptsize narrow}
      \end{array}
      \]  
   b.  
      \[
      \begin{array}{c}
      V \\
      A & V \\
      \text{\scriptsize narrow} & \emptyset
      \end{array}
      \]
Introduction

(1) a. The road is narrow.
    b. The road narrowed.

(2) a. A
    |   narrow

(3) V
   /   \
  A   V
   |   |
  narrow ∅
Introduction

Data

Prerequisites

Zero-marking is phrasal spellout

Suffixal marking

Three INCH/CAUS scenarios in Czech

Conclusions
<table>
<thead>
<tr>
<th></th>
<th>-en</th>
<th>-ify</th>
<th>-ise</th>
</tr>
</thead>
<tbody>
<tr>
<td>cool</td>
<td>tighten</td>
<td>solidify</td>
<td>generalise</td>
</tr>
<tr>
<td>narrow</td>
<td>widen</td>
<td>prettify</td>
<td>formalise</td>
</tr>
<tr>
<td>open</td>
<td>shorten</td>
<td>simplify</td>
<td>americanise</td>
</tr>
<tr>
<td>thin</td>
<td>sharpen</td>
<td>humidify</td>
<td>sexualise</td>
</tr>
<tr>
<td>dim</td>
<td>slacken</td>
<td>acidify</td>
<td>christianise</td>
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<tr>
<td>tame</td>
<td>brighten</td>
<td>fluidify</td>
<td>commercialise</td>
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<tr>
<td>blind</td>
<td>cheapen</td>
<td>falsify</td>
<td>conceptualise</td>
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<td>warm</td>
<td>coarsen</td>
<td>Frenchify</td>
<td>actualise</td>
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<td>clean</td>
<td>dampen</td>
<td>intensify</td>
<td>annualise</td>
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<tr>
<td>empty</td>
<td>darken</td>
<td>uglify</td>
<td>grammaticalise</td>
</tr>
<tr>
<td>clear</td>
<td>deaden</td>
<td>diversify</td>
<td>brutalise</td>
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<tr>
<td>dry</td>
<td>deafen</td>
<td>mummify</td>
<td>centralise</td>
</tr>
<tr>
<td>quiet</td>
<td>lighten</td>
<td>fortify</td>
<td>criminalise</td>
</tr>
<tr>
<td>brown</td>
<td>fasten</td>
<td>modify</td>
<td>materialise</td>
</tr>
</tbody>
</table>
(4)

INCHOATIVE
a. The road *narrowed*

CAUSATIVE
The workers *narrowed* the road

b. Her stomach tightened

She tightened the lid

c. The mixture solidified

The company *solidified* its position

d. Forms and ideas *materialise*

They *materialised* their ideas
Introduction

Data

Prerequisites

Zero-marking is phrasal spellout

Suffixal marking

Three INCH/CAUS scenarios in Czech

Conclusions
The verb contains the adjective

- morphologically
- semantically
Morphology: English

(5)  a. V
    A                    V
        tight          -en
        solid        -ify
        criminal     -ise

b. V
    A
    V
    en-
    rich
### Morphology: Dutch

(6) | A       | $V_{INCH/CAUS}$                  |
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>bleek</td>
<td>ver-bleek-en</td>
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<tr>
<td>warm</td>
<td>ver-warm-en</td>
</tr>
<tr>
<td>breed</td>
<td>ver-breed-en</td>
</tr>
<tr>
<td>smal</td>
<td>ver-small-en</td>
</tr>
<tr>
<td>groot</td>
<td>ver-groot-en</td>
</tr>
<tr>
<td>klein</td>
<td>ver-klein-en</td>
</tr>
<tr>
<td>dik</td>
<td>ver-dikk-en</td>
</tr>
<tr>
<td>dun</td>
<td>ver-dunn-en</td>
</tr>
<tr>
<td>arm</td>
<td>ver-arm-en</td>
</tr>
</tbody>
</table>
Semantics

(7) \([v \text{ open}] = [(\text{cause to}) \text{ become } [a \text{ open}]\]
The causative contains the inchoative

- morphologically
- semantically
Morphology

(8) Haspelmath (1993)

a. Georgian  duγ-s  ‘cook’ (INCH)
               a-duγ-ebs  ‘cook’ (CAUS)

b. French    fondre  ‘melt’ (INCH)
               faire fondre  ‘melt’ (CAUS)

c. Arabic    darasa  ‘learn’ (INCH)
               darrasa  ‘teach’ (CAUS)
(9) \([_V \text{ open}]_{\text{CAUS}} = [\text{cause to}_{_V \text{ open}}]_{\text{INCH}}\)_{\text{CAUS}}
Decomposing V (Ramchand 2008)

(10) \[\text{INITP} \]
\[\text{INIT} \quad \text{PROC} \quad \text{RES} \]

INITP

INIT

PROC

RES
(11) **Causative**

```
INITP

INIT  PROC

PROC  AP

...```

Putting A into V
Putting A into V

(11) **Causative**

\[
\text{INITP} \\
\text{INIT} \quad \text{PROC} \\
\text{PROC} \quad \text{AP} \\
\]

(12) **Inchoative**

\[
\text{PROC} \quad \text{AP} \\
\]

...
Introduction

Data

Prerequisites

Zero-marking is phrasal spellout

Suffixal marking

Three INCH/CAUS scenarios in Czech

Conclusions
Zero-marking is phrasal spellout

(13) Syntax of causative verb

```
  INITP
    INIT
    PROC
      PROC
      AP
      ...
```
Zero-marking is phrasal spellout

(14) **Lexicon**

\[
\begin{array}{c}
\text{INITP} \\ \text{INIT} \\ \text{PROC} \\ \text{PROC} \\ \text{AP} \\ \ldots
\end{array}
\]

\[\leftrightarrow \quad \text{narrow}\]
Zero-marking is phrasal spellout

(15) Phrasal Spellout

```
  INITP
     INIT  PROC
           PROC
               AP
```

narrow
(16)  a. Inchoative verb

\[ \text{PROC} \]
\[ \text{AP} \]
\[ \text{\ldots} \]

b. Adjective

\[ \text{AP} \]
\[ \text{\ldots} \]
(17)  *Superset Principle* (Starke 2009)
A lexically stored tree L matches a syntactic node S iff L contains the syntactic tree dominated by S as a subtree
(18) a. Inchoative verb

b. Adjective

\[ \text{PROCP} \quad \text{PROC} \quad \text{AP} \quad \ldots \quad \text{narrow} \]
Introduction

Data

Prerequisites

Zero-marking is phrasal spellout

Suffixal marking

Three INCH/CAUS scenarios in Czech

Conclusions
Suffixal marking

(19)  
  a. The workers narrowed/**wided the road.  
  b. The road narrowed/**wided.
Suffixal marking

(19)   a.  The workers narrowed/*wided the road.
        b.  The road narrowed/*wided.

(20)     AP  ⇔  wide
        △
        ...

Suffixal marking

(21)

```
(INITP
  (INIT)
  (PROCP
    (PROC -en)
    (AP ...
      wide)
  )
)
```
Suffixal marking

(22) \[ \text{INITP} \iff -en \]

\[
\begin{array}{c}
\text{INIT} & \text{PROC} \\
\text{PROC} & \\
\end{array}
\]
Suffixal marking

(23)

\[
\text{INITP} \\
\text{INIT} \quad \text{PROC} \\
-\text{en} \quad \text{PROC} \quad \text{AP} \\
\ldots \\
\text{wide}
\]
Suffixal marking

(24)

```
AP

... wide

INITP

INIT

PROC

PROC
```

en
Suffixal marking

(25) PROC

PROCP

AP

... wide

(26) AP

PROCP

... wide

en
Possible scenarios

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>PROC</th>
<th>INIT</th>
<th></th>
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<tbody>
<tr>
<td>1</td>
<td>root</td>
<td>suffix</td>
<td></td>
<td>Eng. <em>wid-en</em></td>
</tr>
<tr>
<td>2</td>
<td>root</td>
<td>suffix1</td>
<td></td>
<td>?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>suffix2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>root</td>
<td>suffix</td>
<td></td>
<td>?</td>
</tr>
<tr>
<td>4</td>
<td>root</td>
<td></td>
<td></td>
<td>Eng. <em>narrow</em></td>
</tr>
</tbody>
</table>
Introduction

Data

Prerequisites

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Suffixal marking

Three INCH/CAUS scenarios in Czech

Conclusions
Causatives in Czech

(28) causative -i
Causatives in Czech

(28) causative -i
a. tup-ý
   blunt-AGR
Causatives in Czech

(28) causative -i

a. tup-ý
   blunt-AGR

b. tup-i -l
   blunt-CAUSE -PAST
Causatives in Czech

(28) causative -i
   a. tup-ý
      blunt-AGR
   b. tup-i
      blunt-CAUSE -PAST

(29) palatalization
   a. tich-ý
      silent-AGR
   b. tiš-i
      silent-CAUSE -PAST

(30) prefixation
   a. snadn-ý
      easy-AGR
   b. *snadn-i
      easy-CAUSE -PAST
   c. u-UP snadn-i
      easy-CAUSE -PAST

(31) allomorphy
   a. tup-i
      blunt-CAUSE -PAST
   b. tup-í
      blunt-CAUSE -1.SG
   c. tup-e
      blunt-CAUSE -NOM
Causatives in Czech

(28) causative -i
a. tup-ý
   blunt-AGR
b. tup-i
   blunt-CAUSE -PAST

(29) palatalization
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(30) prefixation
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b. *snadn-í
   easy-CAUSE -PAST
c. u-snadn-í
   easy-CAUSE -PAST

(31) allomorphy
a. tup-í
   blunt-CAUSE -PAST
b. tup-í
   blunt-CAUSE -m -1.SG
   blunt-CAUSE -n -NOM
Causatives in Czech

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Causatives in Czech

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Causatives in Czech

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      blunt-CAUSE -PAST

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      silent-AGR
   b. tiš-i -l
      silent-CAUSE -PAST

(30) prefixation
   a. snadn-ý
      easy-AGR
   b. *snadn-i -l
      easy-CAUSE -PAST
Causatives in Czech

(28) causative -i
   a. tup-ý
      blunt-AGR
   b. tup-i
      blunt-CAUSE -PAST

(29) palatalization
   a. tich-ý
      silent-AGR
   b. tiš-i
      silent-CAUSE -PAST

(30) prefixation
   a. snadn-ý
      easy-AGR
   b. *snadn-i
      easy-CAUSE -PAST
   c. u- snadn-i
      UP easy-CAUSE -PAST
Causatives in Czech

(28) causative -i
   a. tup-ý
      blunt-AGR
   b. tup-i
      blunt-CAUSE -PAST

(29) palatalization
   a. tich-ý
      silent-AGR
   b. tiš-i
      silent-CAUSE -PAST

(30) prefixation
   a. snadn-ý
      easy-AGR
   b. *snadn-i
      easy-CAUSE -PAST
   c. u- snadn-i
      UP easy-CAUSE -PAST

(31) allomorphy
Causatives in Czech

(28) causative -i
a. tup-ý blunt-AGR
b. tup-i -l blunt-CAUSE -PAST

(29) palatalization
a. tich-ý silent-AGR
b. tiš-i -l silent-CAUSE -PAST

(30) prefixation
a. snadn-ý easy-AGR
b. *snadn-i -l easy-CAUSE -PAST
c. u- snadn-i -l UP easy-CAUSE -PAST

(31) allomorphy
a. tup-i -l blunt-CAUSE -PAST
Causatives in Czech

(28) causative -i
a. tup-ý
    blunt-AGR
b. tup-i -l
    blunt-CAUSE -PAST

(29) palatalization
a. tich-ý
    silent-AGR
b. tiš-i -l
    silent-CAUSE -PAST

(30) prefixation
a. snadn-ý
    easy-AGR
b. *snadn-i -l
    easy-CAUSE -PAST
c. u- snadn-i -l
    UP easy-CAUSE -PAST

(31) allomorphy
a. tup-i -l
    blunt-CAUSE -PAST
b. tup-í -m
    blunt-CAUSE -1.SG
Causatives in Czech

(28) causative -i
   a. tup-ý
      blunt-AGR
   b. tup-i -l
      blunt-CAUSE -PAST

(29) palatalization
   a. tich-ý
      silent-AGR
   b. tiš-i -l
      silent-CAUSE -PAST

(30) prefixation
   a. snadn-ý
      easy-AGR
   b. *snadn-i -l
      easy-CAUSE -PAST
   c. u- snadn-i -l
      UP easy-CAUSE -PAST

(31) allomorphy
   a. tup-i -l
      blunt-CAUSE -PAST
   b. tup-í -m
      blunt-CAUSE -1.SG
   c. tup-e -ní
      blunt-CAUSE -NOM
Table 1: A sample of causatives derived from adjectives beginning with *p*

<table>
<thead>
<tr>
<th>gloss</th>
<th>adjective</th>
<th>causatives with various prefixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>coulourful</td>
<td>pestr-ý</td>
<td>z-pestř-i-t</td>
</tr>
<tr>
<td>firm</td>
<td>pevn-ý</td>
<td>při-pevn-i-t, z-pevn-i-t, u-pevn-i-t</td>
</tr>
<tr>
<td>shy</td>
<td>plach-ý</td>
<td>po-plaš-i-t, vy-plaš-i-t</td>
</tr>
<tr>
<td>full</td>
<td>pln-ý</td>
<td>do-pln-i-t, na-pln-i-t, pře-pln-i-t, vy-pln-i-t</td>
</tr>
<tr>
<td>flat</td>
<td>plosk-ý</td>
<td>z-plošt-i-t</td>
</tr>
<tr>
<td>similar</td>
<td>podobn-ý</td>
<td>z-podobn-i-t, při-podobn-i-t, vy-podobn-i-t</td>
</tr>
<tr>
<td>substantial</td>
<td>podstatn-ý</td>
<td>o-podstatn-i-t</td>
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<tr>
<td>doubtful</td>
<td>pochybn-ý</td>
<td>z-pochybn-i-t</td>
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<tr>
<td>slow</td>
<td>pomal-ý</td>
<td>z-pomal-i-t</td>
</tr>
<tr>
<td>late</td>
<td>pozd-n-í</td>
<td>z-pozd-i-t, o-pozd-i-t, pozd-i-t, při-pozd-i-t</td>
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<td>u-pozorn-i-t</td>
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<td>empty</td>
<td>prázdn-ý</td>
<td>u-prázdn-i-t, vy-prázdn-i-t</td>
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<td>flexible</td>
<td>pružn-ý</td>
<td>z-pružn-i-t</td>
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<td>passable</td>
<td>průchodn-ý</td>
<td>z-průchodn-i-t</td>
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<td>průhledn-ý</td>
<td>z-průhledn-i-t</td>
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<td>passable</td>
<td>průjezdn-ý</td>
<td>z-průjezdn-i-t</td>
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<td>preferential</td>
<td>přednostn-í</td>
<td>u-přednostn-i-t</td>
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<td>přehledn-ý</td>
<td>z-přehledn-i-t</td>
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<td>přesn-ý</td>
<td>z-přesn-i-t, u-přesn-i-t</td>
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<td>pleasant</td>
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<td>z-příjemn-i-t</td>
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<td>přím-ý</td>
<td>na-přím-i-t, vz-přím-i-t</td>
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<td>strict</td>
<td>přísn-ý</td>
<td>z-přísn-i-t</td>
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<td>accessible</td>
<td>přístupn-ý</td>
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</tr>
<tr>
<td>present</td>
<td>přítomn-ý</td>
<td>z-přítomn-i-t</td>
</tr>
</tbody>
</table>
Three INCH/CAUS scenarios in Czech

- We now focus on inchoative counterparts
Three INCH/CAUS scenarios in Czech

- We now focus on inchoative counterparts
  - not uniform
We now focus on inchoative counterparts
  not uniform
  we introduce three different classes
Three **INCH/CAUS** scenarios in Czech

- We now focus on inchoative counterparts
  - not uniform
  - we introduce three different classes
- We focus mainly on the past participle
Three INCH/CAUS scenarios in Czech

- We now focus on inchoative counterparts
  - not uniform
  - we introduce three different classes
- We focus mainly on the past participle
- All wordlists and example sentences from the Czech National Corpus (https://www.korpus.cz)
Czech Class I \(i/i\)

- CAUS and INCH are both marked by the \(-i\)-suffix (cf. English \textit{wid-en})
Czech Class I i/i

- CAUS and INCH are both marked by the -i- suffix (cf. English *wid-en*)

32) *levn-ý*
    cheap-AGR

33) The Škoda Auto company has made its two main models cheaper.

34) Vodka got cheaper.

35) A PROC INIT root
Czech Class I i/i

- CAUS and INCH are both marked by the -i- suffix (cf. English wid-en)

(32) levn-ý
cheap-AGR

(33) Škoda Auto z- levn -i -la své dva hlavní modely
Škoda auto PREF- cheap -CAUS -PST its two main models
‘The Škoda Auto company has made its two main models cheaper.’
Czech Class I \textit{i/i}

- \textsc{CAUS} and \textsc{INCH} are both marked by the -\textit{i}- suffix (cf. English \textit{wid-en})

(32) \textit{levn}\textendash ñ
\begin{flushleft}
cheap-AGR
\end{flushleft}

(33) Škoda Auto \textsc{z-} \textit{levn} \textsc{-i} \textsc{-la} své dva hlavní modely
Škoda auto \textsc{PREF-} cheap \textsc{-CAUS} \textsc{-PST} its two main models
‘The Škoda Auto company has made its two main models
cheaper.’

(34) Vodka \textsc{z-} \textit{levn} \textsc{-i} \textsc{-la}
vodka \textsc{PREF-} cheap \textsc{-INCH} \textsc{-PST}
‘Vodka got cheaper.’
Czech Class I i/i

▶ CAUS and INCH are both marked by the -i- suffix (cf. English *wid-en*)

(32)  levn-ý
cheep-AGR

(33) Škoda Auto z- levn -i -la své dva hlavní modely Škoda auto PREF- cheap -CAUS -PST its two main models ‘The Škoda Auto company has made its two main models cheaper.’

(34) Vodka z- levn -i -la
vodka PREF- cheap -INCH -PST ‘Vodka got cheaper.’

(35) A PROC INIT

root -i-

root -i-
A list

Table 2: Causative-inchoative ambiguity (Czech National Corpus)

<table>
<thead>
<tr>
<th>inchoative</th>
<th>gloss</th>
<th>adjective</th>
<th>causative</th>
</tr>
</thead>
<tbody>
<tr>
<td>z-draž-i-t</td>
<td>expensive</td>
<td>drah-ý</td>
<td>z-draž-i-t</td>
</tr>
<tr>
<td>z-levn-i-t</td>
<td>cheap</td>
<td>levn-ý</td>
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Three INCH/CAUS scenarios in Czech

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Czech Class II: $i/ě$

- Some verbs have a dedicated inchoative marker -ě

Example:

Tento moment z-nervózn-i-caus-l-PST domácí hráče 'This moment made the home players nervous.'

Táta z-nervózn-ě-become-l-PST 'My father got nervous.'
Some verbs have a dedicated inchoative marker -ě

(37) nervózn-í
nervous-AGR
Some verbs have a dedicated inchoative marker -ě

(37) **nervózn-í**
nervous-AGR

(38) Tento moment z- **nervózn -i** -l domácí hráče
this moment PREF- nervous -CAUS -PST home players
‘This moment made the home players nervous.’
Czech Class II: i/ě

- Some verbs have a dedicated inchoative marker -ě

(37) **nervózn-í**
nervous-AGR

(38) Tento moment **z- nervózn -i -l** domácí hráče
this moment PREF- nervous -CAUS -PST home players
‘This moment made the home players nervous.’

(39) Táta **z- nervózn -ě -l**
father PREF- nervous -BECOME -PST
‘My father got nervous.’
Some verbs have a dedicated inchoative marker -ě

(37)  *nervózn-í*

nervous-AGR

(38)  Tento moment *z- nervózn -i -l* domácí hráče

this moment PREF- nervous -CAUS -PST home  players

‘This moment made the home players nervous.’

(39)  Táta *z- nervózn -ě -l*

father PREF- nervous -BECOME -PST

‘My father got nervous.’

(40)  

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root  

-ě-
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Three INCH/CAUS scenarios in Czech

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</table>
Czech Class III: $i/\emptyset$

- Some verbs seem to have a zero inchoative
Czech Class III: $i/\emptyset$

Some verbs seem to have a zero inchoative

(42) $slep$-ý
blind-AGR
Some verbs seem to have a zero inchoative

(42) **slep-ý**
    blind-AGR

(43) Plyn Botonese o- **slep** -i -l
    gas.NOM Botonese.ACC PREF blind -CAUSE PST
    ‘The gas made Botonese blind.’
Czech Class III: $i/∅$

- Some verbs seem to have a zero inchoative

(42)  $\text{slep-ý}$
blind-AGR

(43)  Plyn Botonese o- $\text{slep} -i -l$
gas.NOM Botonese.ACC PREF blind -CAUSE PST
‘The gas made Botonese blind.’

(44) Otec [... téměř o- $\text{slep} -Ø -l$.
father ... almost PREF blind -BECOME PST
‘My father became almost blind.’
Czech Class III: $i/\emptyset$

- Some verbs seem to have a zero inchoative

(42)  
\[ \text{slep-ý} \]
blind-AGR

(43)  
Plyn Botonese \text{o- slep} -i -I
\text{gas.NOM Botonese.ACC PREF blind -CAUSE PST}
‘The gas made Botonese blind.’

(44)  
Otec [...] téměř \text{o- slep} -Ø -I.
father ... almost PREF blind -BECOME PST
‘My father became almost blind.’

(45)  
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<tr>
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<td>root</td>
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Czech Class III: $i/\emptyset$

- Some verbs seem to have a zero inchoative

(42) $\text{slep-}\acute{\text{y}}$
    blind-AGR

(43) Plyn Botonese $o$ $\text{slep} -i$ -l
    gas.NOM Botonese.ACC PREF blind -CAUSE PST
    ‘The gas made Botonese blind.’

(44) Otec [...] téměř $o$ $\text{slep} -\emptyset$ -l.
    father ... almost PREF blind -BECOME PST
    ‘My father became almost blind.’

(45) \[
\begin{array}{ccc}
A & PROC & INIT \\
\text{root} & -i- & \\
\text{root} & \\
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### Table 4: A list of \( i/\emptyset \) pairs

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<td>bohat-(\acute{y})</td>
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<td>brown</td>
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<td>z-krot-i-l</td>
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<td>na-moč-i-l</td>
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<td>tuh-(\acute{y})</td>
<td>z-tuž-i-l</td>
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Three INCH/CAUS scenarios in Czech

(46)

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Eng. *wid-en*
Introduction

Data

Prerequisites

Zero-marking is phrasal spellout

Suffixal marking

Three INCH/CAUS scenarios in Czech

Conclusions
Conclusions

- Two analytical claims
Conclusions

- Two analytical claims
  - Conversion arises as an effect of phrasal spellout (derivational ‘zero affixes’ do not exist)
  - Causatives contain inchoatives
  - Inchoatives contain adjectives
Conclusions

- Two analytical claims
  i. Conversion arises as an effect of phrasal spellout (derivational ‘zero affixes’ do not exist)
  ii. Causatives contain inchoatives
Conclusions

▶ Two analytical claims
  i Conversion arises as an effect of phrasal spellout (derivational ‘zero affixes’ do not exist)
  ii Causatives contain inchoatives
  iii Inchoatives contain adjectives
Conclusions

- Two analytical claims
  - Conversion arises as an effect of phrasal spellout (derivational ‘zero affixes’ do not exist)
  - Causatives contain inchoatives
  - Inchoatives contain adjectives
- The empirical part
Conclusions

- Two analytical claims
  - i. Conversion arises as an effect of phrasal spellout (derivational ‘zero affixes’ do not exist)
  - ii. Causatives contain inchoatives
  - iii. Inchoatives contain adjectives

- The empirical part
  - i. Works well for deadjectival inchoative/causative verbs in English
Conclusions

▶ Two analytical claims
  i Conversion arises as an effect of phrasal spellout (derivational ‘zero affixes’ do not exist)
  ii Causatives contain inchoatives
  iii Inchoatives contain adjectives

▶ The empirical part
  i Works well for deadjectival inchoative/causative verbs in English
  ii Allows us to capture the inchoative/causative alternation in Czech
Thank you!
(47) Almin netečný tón Claudine z- nervózn -í
Alma’s indifferent voice Claudine.ACC PREF- nervous -CAUS+PRS
‘Alma’s indifferent voice makes Claudine nervous.’
Czech Class II: Present tense

(47) Almin netečný tón Claudine z- nervózn -í
Alma’s indifferent voice Claudine.ACC PREF- nervous -CAUS+PRS
‘Alma’s indifferent voice makes Claudine nervous.’

(48) Lidé z- nervózn -í, když s nimi
people PREF- nervous -INCH+PRES if with then
nechcete pít.
not.want.you drink
‘People get nervous if you don’t want to drink with them.’
Czech Class II: Present tense

(47) Almin netečný tón Claudine z- nervózn -í
Alma’s indifferent voice Claudine.ACC PREF- nervous -CAUS+PRS
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‘People get nervous if you don’t want to drink with them.’

▶ Each tense represents a system of causative/inchoative marking on its own.
Czech Class II: Present tense

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Each tense represents a system of causative/inchoative marking on its own.

(49) Present tense

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Czech Class II: Present tense

(47) Almin netečný tón Claudine z- nervózn -í
Alma’s indifferent voice Claudine.ACC PREF- nervous -CAUS+PRS
‘Alma’s indifferent voice makes Claudine nervous.’

(48) Lidé z- nervózn -í, když s nimi
people PREF- nervous -INCH+PRES if with then
nechcete pít.
not.want.you drink
‘People get nervous if you don’t want to drink with them.’

Each tense represents a system of causative/inchoative marking on its own.

(49) One possibility (approximation)

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Introducing -nu-

In the infinitive of Class III verbs, we find *nou*:

(50)  Sníh tě může **o-** *slep* -i -t
snow you-ACC can  PREF blind  -CAUS INF
‘The snow can make you blind.’
In the infinitive of Class III verbs, we find *nou*:

(50) **Sníh tě může o- **slep **-i** **-t**
    snow you-ACC can  PREF blind  -CAUS INF
    ‘The snow can make you blind.’

(51) **Koza může dokonce o- **slep **-nou** **-t**
    goat can  even  PREF blind  -BECOME INF
    ‘The goat can even turn blind.’
Introducing -nu-

In the infinitive of Class III verbs, we find *nou*:

(50) Sníh tě může o- *slep* -i -t
snow you-ACC can PREF blind -CAUS INF
‘The snow can make you blind.’

(51) Koza může dokonce o- *slep* -nou -t
goat can even PREF blind -BECOME INF
‘The goat can even turn blind.’

(52) 

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-nu- in the past tense

-nu- is optional in the past tense

(53) Plyn Botonese o- slep -i -l
gasm.NOM Botonese.ACC PREF blind -CAUSE PST
‘The gas made Botonese blind.’
-nu- in the past tense

-nu- is optional in the past tense

(53) Plyn Botonese o- slep -i -l
    gas.NOM Botonese.ACC PREF blind -CAUSE PST
    ‘The gas made Botonese blind.’

(54) Otec [...] téměř o- slep -∅ -l.
    father ... almost PREF blind -BECOME PST
    ‘My father became almost blind.’

▶ According to Mluvnice Češtiny II [The Grammar of Czech II], this is an ongoing change motivated by 'paradigm leveling'
-nu- in the past tense

- nu- is optional in the past tense

(53) Plyn Botonese o- slep -i -l
   gas.NOM Botonese.ACC PREF blind -CAUSE PST
   ‘The gas made Botonese blind.’

(54) Otec [...] téměř o- slep -Ø -l.
   father ... almost PREF blind -BECOME PST
   ‘My father became almost blind.’

(55) Táta skoro o- slep -nu -l
   dad almost PREF blind -BECOME PST
   ‘My dad became almost blind.’
-nu- in the past tense

-nu- is optional in the past tense

(53) Plyn Botonese o- slep -i -l
gas.NOM Botonese.ACC PREF blind -CAUSE PST
‘The gas made Botonese blind.’

(54) Otec [...] téměř o- slep -Ø -l.
father ... almost PREF blind -BECOME PST
‘My father became almost blind.’

(55) Táta skoro o- slep -nu -l
dad almost PREF blind -BECOME PST
‘My dad became almost blind.’

According to *Mluvnice Češtiny II* [The Grammar of Czech II], this is an ongoing change motivated by ‘paradigm leveling’
-nu- in the past tense

(56) Old system

<table>
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Problem 1: -nu- is sometimes impossible in the inchoative reading...

...že
není
úplně

o -PREF
slep
- BECOME -l
PST -ý
AGR

'... that he has not turned completely blind.'
-\textit{nu}- in the past tense

(56) Old system

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(57) New system

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-nu- in the past tense

(56) Old system

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Problem 1: -nu- is sometimes impossible in the inchoative reading
-nu- in the past tense

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▶ Problem 1: -nu- is sometimes impossible in the inchoative reading

(58) ... že není úplně o- *slep* (-nu) -l -ý
... that he.is.not completely PREF blind -BECOME PST AGR
‘... that he has not turned completely blind.’
Why -nu- is not PROC (2)

- Problem 2: the roots may have different shapes
Why -nu- is not PROC (2)

- Problem 2: the roots may have different shapes

**Table 5:** Adjectives with mildly suppletive forms before -nu-

<table>
<thead>
<tr>
<th>inchoative</th>
<th>gloss</th>
<th>adjective</th>
<th>causative</th>
</tr>
</thead>
<tbody>
<tr>
<td>z-houst-nou-t</td>
<td>dense</td>
<td>hust-ý</td>
<td>za-hust-i-t</td>
</tr>
<tr>
<td>sch-nou-t</td>
<td>dry</td>
<td>such-ý</td>
<td>suš-i-t</td>
</tr>
<tr>
<td>o-hluch-nou-t</td>
<td>deaf</td>
<td>hluch-ý</td>
<td>o-hluš-i-t</td>
</tr>
<tr>
<td>o-mlád-nou-t</td>
<td>young</td>
<td>mlad-ý</td>
<td>o-mlad-i-t</td>
</tr>
<tr>
<td>ze-sláb-nou-t</td>
<td>weak</td>
<td>slab-ý</td>
<td>o-slab-i-t</td>
</tr>
<tr>
<td>slád-nou-t</td>
<td>sweet</td>
<td>slad-k-ý</td>
<td>slad-i-t</td>
</tr>
<tr>
<td>zlát-nou-t</td>
<td>golden</td>
<td>zlat-ý</td>
<td>po-zlat-i-t</td>
</tr>
<tr>
<td>žlout-nou-t</td>
<td>yellow</td>
<td>žlut-ý</td>
<td>za-žlut-i-t</td>
</tr>
<tr>
<td>z-křeh-nou-t</td>
<td>fragile</td>
<td>křeh-k-ý</td>
<td>z-křeh-č-i-t</td>
</tr>
<tr>
<td>měk-nou-t</td>
<td>soft</td>
<td>měk-k-ý</td>
<td>měk-č-i-t</td>
</tr>
<tr>
<td>vlh-nou-t</td>
<td>wet</td>
<td>vlh-k-ý</td>
<td>vlh-č-i-t</td>
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</tbody>
</table>
Why -nu- is not PROC

(59) New system

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Why *-nu-* is not PROC

(59) New system

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(60) Je to *vy-* sch *Ø* -l -ý vodopád

is this PREF dry -BECOME PST AGR waterfall

‘This is a dried-up waterfall.’
Why \(-nu\)- is not PROC

(59) New system

\[
\begin{array}{ccc}
A & \text{PROC} & \text{INIT} \\
\hline
\text{root} & -i- & \text{nu-} \\
\end{array}
\]

(60) Je to \text{vy- sch -Ø -l -ý} vodopád is this \text{PREF dry -BECOME PST AGR waterfall}
\text{‘This is a dried-up waterfall.’}

(61) A \text{PROC INIT}

\[
\begin{array}{ccc}
\text{such} & \text{-i-} & \text{‘dry’} \\
\text{sch} & \text{sch} & \text{sch} \\
\end{array}
\]
(62) Old system

<table>
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‘dry’
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Support for the proposal (I)

- Independent evidence that -\textit{nu}- is an aspect marker comes from what corresponds to progressive aspect in English (secondary imperfective).
Support for the proposal (I)

- Independent evidence that -nu- is an aspect marker comes from what corresponds to progressive aspect in English (secondary imperfective).

(64) If a language were strictly agglutinative ...
Support for the proposal (I)

- Independent evidence that -nu- is an aspect marker comes from what corresponds to progressive aspect in English (secondary imperfective).

(64) If a language were strictly agglutinative ...

a. A
Support for the proposal (I)

- Independent evidence that -nu- is an aspect marker comes from what corresponds to progressive aspect in English (secondary imperfective).

(64) If a language were strictly agglutinative ...

a. A
b. A-V_INCH
Support for the proposal (I)

- Independent evidence that -\textit{nu}- is an aspect marker comes from what corresponds to progressive aspect in English (secondary imperfective).

(64) If a language were strictly agglutinative ...

a. \textit{A}
b. \textit{A-V}_{\text{INCH}}
c. \textit{A-V}_{\text{INCH}}^{\text{PROG}}
Support for the proposal (I)

- Independent evidence that -\textit{nu-} is an aspect marker comes from what corresponds to progressive aspect in English (secondary imperfective).

(64) If a language were strictly agglutinative ...

a. A
b. A-V\textsubscript{INCH}
c. A-V\textsubscript{INCH}-PROG

(65) This is not what we get for -\textit{nu-}

a. tich-ý silent
b. u-tich-nou-t to become silent
c. u-tich-a-t to be becoming silent
Support for the proposal (II)

- causative -i- behaves differently and is not eliminated by the progressive aspect marker
Support for the proposal (II)

▶ causative -i- behaves differently and is not eliminated by the progressive aspect marker

(66) a. tich-ý silent
Support for the proposal (II)

- causative -i- behaves differently and is not eliminated by the progressive aspect marker

(66)  
  a. tich-ý silent  
  b. u-tiš-i-t to make silent
Support for the proposal (II)

causative -i- behaves differently and is not eliminated by the progressive aspect marker

(66)  a. tich-ý silent
     b. u-tiš-i-t to make silent
     c. u-tiš-ova-t to be making silent
Support for the proposal (II)

causative -i- behaves differently and is not eliminated by the progressive aspect marker

(66)  a. tich-ý silent  
b. u-tiš-i-t to make silent  
c. u-tiš-ova-t to be making silent

(67)  a. dech breath  
b. vy-dech-nou-t to breathe out  
c. vy-dech-ova-t to be breathing out  
*vy-deš-ova-t to be breathing out
Support for the proposal (II)

- causative -i- behaves differently and is not eliminated by the progressive aspect marker

(66) a. tich-ý silent  
b. u-tiš-i-t to make silent  
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b. vy-dech-nou-t to breathe out  
c. vy-dech-ova-t to be breathing out  
*vy-deš-ova-t to be breathing out
Support for the proposal (II)

- progressive -(ov)a- stacks onto causative -i-
- progressive -(ov)a- does not stack onto -nu-
- this confirms that -nu- is an aspect marker, not an inchoative marker
