Achievements and paths: Degree achievements from the Slavic perspective

SinFonIJA 13, Budapest, Hungary

Mojmír Dočekal docekal@phil.muni.cz
Lucia Vlášková l.vlaskova@gmail.com

Faculty of Arts, Masaryk University

September 25, 2020
Variable telicity
Variable telicity

(1) a. John walked for/#in one hour.
Variable telicity

(1) a. John walked for/#in one hour.
b. John walked to the pub in/#for one hour.
Variable telicity
Degree achievements
Variable telicity
Degree achievements

without argument change:
Variable telicity
Degree achievements

without argument change:

(2)  
  a. The tea cooled in one hour.  
  b. The tea cooled for one hour.
Variable telicity
Degree achievements

without argument change:

(2) a. The tea cooled in one hour. positive
    b. The tea cooled for one hour. comparative

analyses:
Variable telicity
Degree achievements

without argument change:

(2)   a. The tea cooled in one hour. positive
     b. The tea cooled for one hour.    comparative

analyses:
   1. ambiguity approach: Abusch (1986)
Variable telicity
Degree achievements

without argument change:

(2)  
   a. The tea cooled in one hour.       positive  
       b. The tea cooled for one hour.   comparative

analyses:
  1. ambiguity approach: Abusch (1986)
Scale typology
Scale typology

1. (totally) open scale
Scale typology

1. (totally) open scale
   *tall, rich, expensive, deep*
Scale typology

1. (totally) open scale
   tall, rich, expensive, deep

2. upper-bounded scale
Scale typology

1. (totally) open scale
   
   *tall, rich, expensive, deep*

2. upper-bounded scale
   
   *straight, healthy, clean, safe*
Scale typology

1. (totally) open scale
   *tall, rich, expensive, deep*

2. upper-bounded scale
   *straight, healthy, clean, safe*

3. lower-bounded scale
Scale typology

1. (totally) open scale
   *tall, rich, expensive, deep*

2. upper-bounded scale
   *straight, healthy, clean, safe*

3. lower-bounded scale
   *bent, dirty, wet, dangerous*
Background

Scale typology

1. (totally) open scale
   *tall, rich, expensive, deep*

2. upper-bounded scale
   *straight, healthy, clean, safe*

3. lower-bounded scale
   *bent, dirty, wet, dangerous*

4. (totally) closed scale
**Scale typology**

1. (totally) open scale
   - tall, rich, expensive, deep
2. upper-bounded scale
   - straight, healthy, clean, safe
3. lower-bounded scale
   - bent, dirty, wet, dangerous
4. (totally) closed scale
   - full, empty, open, closed
DAs corresponding to scales

1. open scale: wide → widen
2. upper-bounded: dry → dry
3. lower-bounded: dirty → dirty
4. closed scale: empty → empty
DAs and scales

- main idea of Kennedy and Levin (2008): the telicity of DA is derived from the type of its scale
- (3) is telic/positive because its scale is upper-bounded
- our claim: Kennedy and Levin (2008) is wrong cross-linguistically

(3) The paint dried. positive
DAs and scales

(4) The paint dried. positive

- has two corresponding translation in (pseudo)Czech: (5)
- Kennedy and Levin (2008) can be made to work cross-linguistically if the division of telicity labor is split:

1. algebraic properties of DAs’ prefixes (and other modifiers);
2. types of DAs’ scales.

(5) a. Paint from-dried. positive
   b. Paint about-dried. comparative
assumption: DAs (and comparatives) denote **difference functions**
measure the degree to which two objects are different relative to a scale

(6) a. wide
measure function returning the value on the scale
b. wider than the road
function returning the value from the subpart of the scale

(7) a. wide: 0 \[\rightarrow \infty\]
b. wider: 0 \[\rightarrow \infty\]
(8) **Difference Function**

For any measure function \( m \) from objects and times to degrees on a scale \( S \), and for any \( d \in S \), \( m_d \) is a function like \( m \) except that:

a. its range is \( \{ d' \in S | d \leq d' \} \)

b. and for any \( x, t \) in the domain \( m \), if \( m(x)(t) \leq d \) then \( m_d(x)(t) = d \).

Kennedy and Levin (2008, ex. 23)
Kennedy and Levin (2008) analyse the DAs and comparatives by (nearly) the same function returning difference between two objects (comparative) or phases of the event (DAs)

(9) a. long: positive
   \[ \text{long}: 0 \to \infty \]

b. longer than the bridge: comparative
   \[ \text{long}_{\text{long(TB)}}: 0 \to \text{long(TB)} \to \infty \]

c. lengthen the bridge: DA
   \[ \text{long}_{\Delta}: 0 \to \text{stnd}(\text{long}_{\Delta}) \to \infty \]
Difference function and DAs

- The `std` for DAs is determined by Interpretative Economy.
- For open scales, it is taken from the difference function ($\Delta$) scale (not the regular measure function).
- And as there is only minimal degree, the open scale DAs are for Kennedy and Levin (2008) predicted to be only atelic/comparative.

(10) *Interpretative Economy*
Maximize the contribution of the conventional meanings of the elements of a sentence to the computation of its truth conditions.

Kennedy and Levin (2008, ex. 18)
Similarity of DAs and comparatives

- independent support from typology

<table>
<thead>
<tr>
<th>Language</th>
<th>Positive</th>
<th>Comparative</th>
<th>DA</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>good</td>
<td>bett-er</td>
<td>(to) bett-er</td>
<td>NA</td>
</tr>
<tr>
<td>English</td>
<td>bad</td>
<td>worse</td>
<td>(to) wors-en</td>
<td>NA</td>
</tr>
<tr>
<td>German</td>
<td>gut</td>
<td>bess-er</td>
<td>ver-bess-er-n</td>
<td>‘good’</td>
</tr>
<tr>
<td>Russian</td>
<td>plox-oj</td>
<td>xuž-e</td>
<td>u-xud-š-ať</td>
<td>‘bad’</td>
</tr>
<tr>
<td>Finnish</td>
<td>hyvä</td>
<td>pare-mpi</td>
<td>para-ntaa</td>
<td>‘good’</td>
</tr>
<tr>
<td>Georgian</td>
<td>cud-i</td>
<td>u-ar-es-i</td>
<td>a-u-ar-es-eb</td>
<td>‘bad’</td>
</tr>
<tr>
<td>(Late) Latin</td>
<td>bon-us</td>
<td>mel-ior</td>
<td>mel-iō-o</td>
<td>‘good’</td>
</tr>
</tbody>
</table>

Table: Suppletion in DAs (Bobaljik 2015)
Degree achievement analysis
Kennedy and Levin (2008)

(11) Measure of change
For any measure function \( m \),
\[
m_{\Delta}^{\Theta} = \lambda e[m_{m^\uparrow(\Theta(e))(init(e))}(\Theta(e))(fin(e))]\]
Kennedy and Levin (2008, ex. 25)

Extended by access to arguments via theta-roles, following Henderson (2013)
open scale adjective *long*: DAs with *std* at $\text{long}_\Delta$ scale picks up the minimum standard

any degree increase $>$ minimum standard makes (12-b) true $\rightarrow$ divisivity and atelicity/comparative reading

general prediction of Kennedy and Levin (2008): open scale based DAs $\rightarrow$ only comparative/atelic reading

(12)  
\begin{align*}
\text{a. } & \text{The shadow lengthened.} \\
\text{b. } & \exists e [\text{long}^{\theta_1}(e) \geq \text{std}(\text{long}_\Delta) \land \theta_1(e) = \sigma x.*\text{shadow}(x)]
\end{align*}
Degree achievements

- upper-bounded As as *dark*: DA *dark* picks up the maximum standard
- the final stage of the event has to reach the maximal degree
- no sub-event has the divisivity property → telic/positive
- general prediction: DAs based on upper-bounded scales → telic/positive interpretation

(13) a. The sky darkened.
    b. $\exists e[\text{dark}_1^\Delta(e) \geq \text{stnd}(\text{dark}_\Delta) \land \theta_1(e) = \sigma x.*\text{sky}(x)]$
Compositional details

- the difference functions are of the type $\langle e, d \rangle$
- the type shift into the property of entities, $\text{pos}_v$ is utilized
- $\text{pos}_v$ works with Interpretive economy: $\text{stnd}$ is (for Kennedy and Levin (2008)) given entirely by the nature of the scale

(14) a. $\llbracket \text{pos}_v \rrbracket = \lambda g \in D_{m_\Delta} \lambda x \lambda e. g(x)(e) \geq \text{stnd}(g)$

b. $\llbracket \text{pos}_v \rrbracket(\llbracket \text{lengthen} \rrbracket) = \lambda x. \lambda e. \text{long}_\Delta(x)(e) \geq \text{stnd}(\text{long}_\Delta)$
Our claim

- Kennedy and Levin (2008) has to be enriched with more systematic account of grammatical components (of telicity)
  - in Slavic case: algebraic properties of prefixes
- prototypical Czech imperfective DAs confirm our claim about importance of grammatical signals of telicity
- we didn’t focus on imperfective DAs since they are less frequent than prefixed perfective DAs (perfective RE \textit{+.rovnat ’straighten’} yields 13946 CNC hits but the imperfective \textit{rovnat ’straighten’} only 1469, e.g.)
Short note about imperfective Czech DAs

- short note about imperfectives: the prototypical imperfective examples of each scale type (*hloubit* ‘deepen’, *čistit* ‘clean’, *špinit* ‘dirty’, *plnit* ‘fill’) prefer the comparative/atelic interpretation
- example: closed scale imperfective *plnit* ‘fill’ is preferentially interpreted as atelic
- more systematic data work needed though

(15) Sál se pomalu plnil kouřem.
    hall SE slowly filled.IMPERF smoke.INSTR
    ‘The hall was slowly filling with smoke.’
Cross-linguistic complications
Cross-linguistic complications

- **Japanese**: open-scaled DAs only positive (Kawahara 2017)
Cross-linguistic complications

- **Japanese**: open-scaled DAs only positive (Kawahara 2017)
- **Slavic languages**: not ambiguous but dependent on prefixes
Slavic prefixes
Slavic prefixes

- common assumption: linguistic identity of Slavic prefixes and prepositions (Matushansky 2002)
Slavic prefixes

- common assumption: linguistic identity of Slavic prefixes and prepositions (Matushansky 2002)
- algebraic approach (Zwarts 2005)
Slavic prefixes

- common assumption: linguistic identity of Slavic prefixes and prepositions (Matushansky 2002)
- algebraic approach (Zwarts 2005)
  - formalized as trajectories

- telicity status determined by the lexical meaning
- main criterion: concatenation
- atelic prepositions: goal (towards), route (along)
- telic prepositions: goal (to, into), source (from), route (over)
- ambiguous prepositions: goal/route (up, down)
Slavic prefixes

- common assumption: linguistic identity of Slavic prefixes and prepositions (Matushansky 2002)
- algebraic approach (Zwarts 2005)
  - formalized as trajectories
  - telicity status determined by the lexical meaning
Slavic prefixes

- common assumption: linguistic identity of Slavic prefixes and prepositions (Matushansky 2002)
- algebraic approach (Zwarts 2005)
  - formalized as trajectories
  - telicity status determined by the lexical meaning
  - main criterion: concatenation
Slavic prefixes

- common assumption: linguistic identity of Slavic prefixes and prepositions (Matushansky 2002)
- algebraic approach (Zwarts 2005)
  - formalized as trajectories
  - telicity status determined by the lexical meaning
  - main criterion: concatenation
  - atelic prepositions: goal (*towards*), route (*along*)
Slavic prefixes

- common assumption: linguistic identity of Slavic prefixes and prepositions (Matushansky 2002)
- algebraic approach (Zwarts 2005)
  - formalized as trajectories
  - telicity status determined by the lexical meaning
  - main criterion: concatenation
  - atelic prepositions: goal (towards), route (along)
  - telic prepositions: goal (to, into), source (from), route (over)
Slavic prefixes

- common assumption: linguistic identity of Slavic prefixes and prepositions (Matushansky 2002)
- algebraic approach (Zwarts 2005)
  - formalized as trajectories
  - telicity status determined by the lexical meaning
  - main criterion: concatenation
  - atelic prepositions: goal (towards), route (along)
  - telic prepositions: goal (to, into), source (from), route (over)
  - ambiguous prepositions: goal/route (up, down)
New data
Excerpting
New data
Excerpting

- Czech National Corpus SYN2015 (Křen et al. 2015)
New data

Excerpting

- Czech National Corpus SYN2015 (Křen et al. 2015)
- CQL/regular expression queries
New data
Excerpting

- Czech National Corpus SYN2015 (Křen et al. 2015)
- CQL/regular expression queries
- prototypical ways of prefixation
New data
Excerpting

- Czech National Corpus SYN2015 (Křen et al. 2015)
- CQL/regular expression queries
- prototypical ways of prefixation
- four classes of Czech DAs
New data
Excerpting

- Czech National Corpus SYN2015 (Křen et al. 2015)
- CQL/regular expression queries
- prototypical ways of prefixation
- four classes of Czech DAs
- majority: prefixed perfective DAs
New data

Classification

1. contradiction test

The gap widened, but it wasn't wide.

comparative

The rod was straightened, but it wasn't straight.

positive

2. progressive

→ perfect test

English: The tea is cooling.

→ The tea has cooled.

comparative

Czech: equivalent imperfective

→ perfective test

3. differential phrase compatibility

The gap widened 2 meters.

comparative

The rod straightened #2 meters.

positive
New data
Classification

1. contradiction test
New data
Classification

1. contradiction test

*The gap widened, but it wasn’t wide.*
New data
Classification

1. contradiction test

*The gap widened, but it wasn’t wide.*

comparative
New data
Classification

1. contradiction test
   *The gap widened, but it wasn’t wide.*
   *The rod was straightened, #but it wasn’t straight.*
New data
Classification

1. contradiction test

*The gap widened, but it wasn’t wide.* comparative

*The rod was straightened, #but it wasn’t straight.* positive
New data
Classification

1. contradiction test
   *The gap widened, but it wasn’t wide.*
   *The rod was straightened, #but it wasn’t straight.*

2. progressive → perfect test
New data
Classification

1. contradiction test
   *The gap widened, but it wasn’t wide.*
   *The rod was straightened, #but it wasn’t straight.*
   
   comparative
   positive

2. progressive → perfect test
   English: *The tea is cooling.* → *The tea has cooled.*
New data
Classification

1. contradiction test
   *The gap widened, but it wasn’t wide.* comparative
   *The rod was straightened, #but it wasn’t straight.* positive

2. progressive → perfect test
   English: *The tea is cooling.* → *The tea has cooled.* comparative
New data

Classification

1. contradiction test
   *The gap widened, but it wasn’t wide.* comparative
   *The rod was straightened, #but it wasn’t straight.* positive

2. progressive → perfect test
   English: *The tea is cooling.* → *The tea has cooled.* comparative
   Czech: equivalent imperfective → perfective test
New data
Classification

1. contradiction test
   *The gap widened, but it wasn’t wide.* comparative
   *The rod was straightened, #but it wasn’t straight.* positive

2. progressive → perfect test
   English: *The tea is cooling.* → *The tea has cooled.* comparative
   Czech: equivalent imperfective → perfective test

3. differential phrase compatibility
New data
Classification

1. contradiction test
   - English: *The gap widened, but it wasn’t wide.*
   - comparative
   - Czech: *The rod was straightened, #but it wasn’t straight.*
   - positive

2. progressive → perfect test
   - English: *The tea is cooling.* → *The tea has cooled.*
   - comparative
   - Czech: equivalent imperfective → perfective test

3. differential phrase compatibility
   - *The gap widened 2 meters.*
New data

Classification

1. contradiction test
   *The gap widened, but it wasn’t wide.*
   *The rod was straightened, #but it wasn’t straight.*
   comparative positive

2. progressive → perfect test
   English: *The tea is cooling.* → *The tea has cooled.*
   comparative
   Czech: equivalent imperfective → perfective test

3. differential phrase compatibility
   *The gap widened 2 meters.*
   comparative
New data

Classification

1. contradiction test
   *The gap widened, but it wasn’t wide.*
   *The rod was straightened, #but it wasn’t straight.*

2. progressive → perfect test
   English: *The tea is cooling.* → *The tea has cooled.*
   Czech: equivalent imperfective → perfective test

3. differential phrase compatibility
   *The gap widened 2 meters.*
   *The rod straightened #2 meters.*
New data
Classification

1. contradiction test
   *The gap widened, but it wasn’t wide.* comparative
   *The rod was straightened, #but it wasn’t straight.* positive

2. progressive → perfect test
   English: *The tea is cooling.* → *The tea has cooled.* comparative
   Czech: equivalent imperfective → perfective test

3. differential phrase compatibility
   *The gap widened 2 meters.* comparative
   *The rod straightened #2 meters.* positive
Hypothesis
Hypothesis

The telicity status of Czech DAs can be determined by
Hypothesis

The telicity status of Czech DAs can be determined by

1. the boundedness properties of prefixes
Hypothesis

The telicity status of Czech DAs can be determined by

1. the boundedness properties of prefixes
2. the scalar denotation of the adjectival root
Results

![Bar chart showing the distribution of telic and atelic variables across different scales: lower-bounded, open, totally closed, upper-bounded. The telic variable is represented in red, and the atelic variable in blue.](image)
Our analysis

Two additional difference-function type-shifters:

1. telic prefixes with positive interpretation

\[ J^{\text{pref}}_{\text{tel}} K = \lambda g \in D \Delta \lambda d \lambda x \lambda e. g(x)(e) = \max(g) \]

2. atelic prefixes with comparative interpretation

\[ J^{\text{pref}}_{\text{atel}} K = \lambda g \in D \Delta \lambda d \lambda x \lambda e. g(x)(e) \geq \min(g) \]

3. ambiguous prefixes: telic/atelic based on atomic/pluralized algebraic denotation
Our analysis

Two additional difference-function type-shifters:

1. telic prefixes with positive interpretation

2. atelic prefixes with comparative interpretation

3. ambiguous prefixes: telic/atelic based on atomic/pluralized
Our analysis

Two additional difference-function type-shifters:

1. telic prefixes with positive interpretation $[\text{pref}_{\text{tel}}]$
Our analysis

Two additional difference-function type-shifters:

1. telic prefixes with positive interpretation \([\text{pref}_{\text{tel}}]\)
   \[\text{[pref}_{\text{tel}}] = \lambda g \in D_{m_\Delta} \lambda d \lambda x \lambda e. g(x)(e) = \max(g)\]

2. atelic prefixes with comparative interpretation \([\text{pref}_{\text{atel}}]\)
   \[\text{[pref}_{\text{atel}}] = \lambda g \in D_{m_\Delta} \lambda d \lambda x \lambda e. g(x)(e) \geq \min(g)\]

3. ambiguous prefixes: telic/atelic based on atomic/pluralized algebraic denotation
Our analysis

Two additional difference-function type-shifters:

1. telic prefixes with positive interpretation $[\text{pref}_{\text{tel}}]$ 
   
   \[
   [\text{pref}_{\text{tel}}] = \lambda g \in D_{m\Delta} \lambda d \lambda x \lambda e. g(x)(e) = \max(g)
   \]

2. atelic prefixes with comparative interpretation $[\text{pref}_{\text{atel}}]$ 
   
   \[
   [\text{pref}_{\text{atel}}] = \lambda g \in D_{m\Delta} \lambda d \lambda x \lambda e. g(x)(e) \geq \min(g)
   \]
Our analysis

Two additional difference-function type-shifters:

1. telic prefixes with positive interpretation $\llbracket \text{pref}_{\text{tel}} \rrbracket$
   \[ \llbracket \text{pref}_{\text{tel}} \rrbracket = \lambda g \in D_{m\Delta} \lambda d \lambda x \lambda e. g(x)(e) = \max(g) \]

2. atelic prefixes with comparative interpretation $\llbracket \text{pref}_{\text{atel}} \rrbracket$
   \[ \llbracket \text{pref}_{\text{atel}} \rrbracket = \lambda g \in D_{m\Delta} \lambda d \lambda x \lambda e. g(x)(e) \geq \min(g) \]
Our analysis

Two additional difference-function type-shifters:

1. telic prefixes with positive interpretation $\llbracket \text{pref}_{\text{tel}} \rrbracket$
   \[
   \llbracket \text{pref}_{\text{tel}} \rrbracket = \lambda g \in D_{m_\Delta} \lambda d \lambda x \lambda e. g(x)(e) = \max(g)
   \]

2. atelic prefixes with comparative interpretation $\llbracket \text{pref}_{\text{atel}} \rrbracket$
   \[
   \llbracket \text{pref}_{\text{atel}} \rrbracket = \lambda g \in D_{m_\Delta} \lambda d \lambda x \lambda e. g(x)(e) \geq \min(g)
   \]

3. ambiguous prefixes: telic/atelic based on atomic/pluralized algebraic denotation
Results & analysis

Open-scale DAs
**Results & analysis**

**Open-scale DAs**

**Prediction** of Kennedy and Levin (2008)

- only comparative interpretation
- except ‘conventionalized’ *cool*
Results & analysis
Open-scale DAs

- only comparative interpretation
- except ‘conventionalized’ cool

Czech reality
- mostly atelic or ambiguous route prefixes
- but also telic prefixes with source and goal algebraic denotation
  → positive interpretation
Results & analysis

Open-scale DAs

'Peter dug out the pit.'

∃ \[ \text{deep} \theta_2 \Delta (e) \geq \text{max} (\text{deep} \Delta) \land \theta_2 (e) = \sigma \times \pi (x) \]

'Peter deepened the pit.'

∃ \[ \text{deep} \theta_2 \Delta (e) \geq \text{min} (\text{deep} \Delta) \land \theta_2 (e) = \sigma \times \pi (x) \]
Results & analysis

Open-scale DAs

(16) a. Petr vy-hloubil jámu.
   Petr from-deepened pit
   ‘Peter dug out the pit.'
   $\exists e [\text{deep}^{\theta_2}(e) \geq \text{max}(\text{deep}_\Delta) \land \theta_2(e) = \sigma_X.\ast\text{pit}(x)]$
   positive
Results & analysis
Open-scale DAs

(16) a. Petr vy-hloubil jámu.
   Petr from-deepened pit
   ‘Peter dug out the pit.’
   $\exists e[\text{deep}_\Delta(e) \geq \text{max}(\text{deep}_\Delta) \land \theta_2(e) = \sigma x.\text{pit}(x)]$
   positive

b. Petr pro-hloubil jámu.
   Petr through-deepened pit
   ‘Peter deepened the pit.’
   $\exists e[\text{deep}_\Delta(e) \geq \text{min}(\text{deep}_\Delta) \land \theta_2(e) = \sigma x.\text{pit}(x)]$
   comparative
Results & analysis
Open-scale DAs

'Dad will have a hole dug out for the swimming pool because of the kids.'
Slavic DAs

Results & analysis
Open-scale DAs

(17) Táta nechá vy-hloubit jámu pro bazén
dad lets from-deepen hole for swimming-pool
kvůli dětem.
because-of kids
‘Dad will have a hole dug out for the swimming pool because of the kids.’
positive
Results & analysis
Open-scale DAs

(17) Táta nechá vy-hloubit jámu pro bazén
dad lets from-deepen hole for swimming-pool
kvůli dětem.
because-of kids
‘Dad will have a hole dug out for the swimming pool because of the kids.’ positive

(18) Já se jen snažím z-výšit obrat.
I REFL only try down-heighten sales
‘I am only trying to increase the sales.’ comparative
Results & analysis

Upper-bounded DAs
Results & analysis
Upper-bounded DAs

- only positive interpretation
Results & analysis

Upper-bounded DAs

- only positive interpretation

Czech reality
- mostly telic source/goal or ambiguous route prefixes
- rarely atelic prefixes (in pluralized algebraic meaning)
- the prefixation mostly respects the lexical semantics of the source adjective
Results & analysis

Upper-bounded DAs

She tidied up and straightened my covers.

...the roots will be healthier and the flower will grow better.
Results & analysis

Upper-bounded DAs

(19) Uklidila a vy-rovnala mé přikrývky. tidied-up and from-straightened my covers
‘She tidied up and straightened my covers.’ positive
Results & analysis

Upper-bounded DAs

(19) Uklidila a vy-rovnala mé přikrývky.
    tidied-up and from-straightened my covers
    ‘She tidied up and straightened my covers.’    positive

(20) ...kořeny se o-zdraví a květiny lépe porostou.
    roots    REFL around-heal and flowers better grow
    ‘...the roots will be healthier and the flower will grow better.’    comparative
Results & analysis

Lower-bounded DAs
Results & analysis

Lower-bounded DAs

- only comparative interpretation
Results & analysis

Lower-bounded DAs

- only comparative interpretation

Czech reality
- mostly telic *past* and ambiguous route prefixes
- but also atelic or ambiguous *down* prefixes
- max interpretation not from the lexical semantics of the source adjective but from the mapping of the completely affected object
Results & analysis

Lower-bounded DAs

The sensors and radars get dirty, and a problem can arise.

When she remembered where she is and who she is, the guilt spoiled her satisfaction.
Results & analysis

Lower-bounded DAs

(21) Čidla a radary se za-špiní a může nastat problém.

‘The sensors and radars get dirty, and a problem can arise.’
Results & analysis

Lower-bounded DAs

(21) Čidla a radary se za-špiní a může nastat sensors and radars REFL past-dirty and can come problém. problem
‘The sensors and radars get dirty, and a problem can arise.’

(22) Když si vzpomněla, kde je a kdo je, when REFL remembered where is and who is z-kalila down-muddied její spokojenost vina. down-muddied her satisfaction guilt
‘When she remembered where she is and who she is, the guilt spoiled her satisfaction.’

M. Dočekal & L. Vlášková • Degree achievements and paths • September 25, 2020
Results & analysis

Totally closed DAs

Prediction of Kennedy and Levin (2008) behave identically to upper-bounded DAs. Czech reality is different from upper-bounded DAs, with half of them having telic source or ambiguous prefixes, and the other half being atelic.

The lexical scale supplies minimum and maximum values, used by \( J \) pref \( atel \) and \( J \) pref \( tel \).

M. Dočekal & L. Vlášková • Degree achievements and paths • September 25, 2020
Results & analysis

Totally closed DAs


- behave identically to upper-bounded DAs
Results & analysis

Totally closed DAs

- behave identically to upper-bounded DAs

Czech reality
- different from upper-bounded DAs
- half of them: telic source or ambiguous prefixes
- another half: atelic toward
- lexical scale supplies min and max $\rightarrow$ easily used by $[\text{pref}_{atel}]$
  and $[\text{pref}_{tel}]$
Results & analysis
Totally closed DAs

He drank up, poured himself another cup and slowly emptied it.

Also, the effort to fill the party cash box is rather sympathetic to him.
Results & analysis

Totally closed DAs

(23) Dopil, pak si znovu nalil a pomalu šálek drank-up then REFL again poured and slowly cup vy-prázdnil.
from-emptied
‘He drank up, poured himself another cup and slowly emptied it.’

positive
Results & analysis

Totally closed DAs

(23) Dopil, pak si znovu nalil a pomalu šálek drank-up then REFL again poured and slowly cup vy-prázdnil.
from-emptied
‘He drank up, poured himself another cup and slowly emptied it.’ positive

(24) I snaha připlnit stranickou kasu je mu spíše also effort toward-fill party cash-box is him rather sympatická.
sympathetic
‘Also, the effort to fill the party cash box is rather sympathetic to him.’ comparative
Results
Thank you for your attention!
Bibliography I


Bibliography II


Bibliography III


