Scales, verbs and verbal prefixes

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Roadmap

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1. Scales

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4. Telicity and paths

5. Summary
Scales

- Adjectival and verbal scales
- Open / closed scales
- Two-point / multi-point scales
Open / closed scales

- Available endpoint (maximal value)
- Closed scales
  - empty, dry
- Open scales
  - large, wide, deep
Open / closed scales

- Identifying closed scales: *completely*
  - completely empty (closed scale)
  - */?? completely deep (open scale)
**Two-point / multi-point scales**

- **Two-point scales**
  - dead, alive
- **Multi-point scales**
  - dry, deep
Scales

- Adjectives
  - dry, deep, dead

- Verbs
  - dry, deepen
  - run, fly, swim
  - read, eat, knit
1. Scales

2. Degree achievements in English

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5. Summary
Degree achievements

- Deadjectival verbs
  - dry, deepen, darken
‘Degree achievements’

- Activities, accomplishments, achievements
- Dowty 1979
Adjectives and verbs

- Scalar properties can be inherited from adjectives

- $\text{dry}_A$
  - $\text{dry}_V$

- $\text{deep}_A$
  - $\text{deepen}_V$

(closed scale)

(endpoint)

(open scale)

(no endpoint)
Endpoints and telicity

- Degree achievements can inherit the maximal point (of a closed scale) from a scalar adjective

- If the scale of the adjective is closed, the degree achievement can be telic
A telic predicate is non-homogeneous


\(he \ escaped_{\text{telic}}\) vs. \(he \ ran_{\text{atelic}}\)

Diagnostics of telicity

- in-adverb \((the \ paint \ dried \ in \ three \ days)\)
- finish \((the \ paint \ finished \ drying)\)
Telicity arises as a maximality presupposition

For a telic event predicate, all event arguments of that predicate lack a continuation in all accessible worlds (cf. Piñón 2006)

Telic events reach an endpoint; no continuation beyond that endpoint
Adjectives and degree achievements

- Closed scale
  - dry\textsubscript{A}
  - dry\textsubscript{V}
    1. the paint dried in three days (telic)
    2. the paint dried for three days (atelic)
       (but still wasn’t completely dry)

- Open scale
  - deep\textsubscript{A}
  - deepen\textsubscript{V}
    1. the wound deepened in three days (telic)
    2. the wound deepened for three days (atelic)
The paint dried in three days  
(telic; maximal endpoint reached)

The paint dried for three days  
(atelic; endpoint not reached)
Telic degree achievements everywhere?

1. the pool *emptied* in ten minutes
   (closed scale; endpoint of scale)

2. the gap between the boats *widened* in ten minutes
   (open scale; arbitrary endpoint)
Telic degree achievements everywhere?

1. the pool emptied completely (closed scale)
2. the gap between the boats widened completely (open scale)
Telic degree achievements everywhere?

1. the pool emptied in ten minutes; ≠ it can still empty some more, though (closed scale)
2. the gap widened in ten minutes; it can still widen some more, though (open scale)
Telic open scale degree achievements

- *widen, deepen*
- Contextually determined endpoint
- Minimal change along the scale
Adjectival scales

- Closed scale
- Open scale
Degree achievements

- From closed scale adjectives
  - telic (maximal endpoint of adjectival scale is reached)
  - atelic (endpoint is not reached)

- From open scale adjectives
  - atelic (no adjectival scale endpoint can be reached)
  - (telic (contextually determined endpoint))
Degree achievements: Abusch 1986

- **cool**: function from contexts to properties of individuals

- **Telic**
  
  contextual argument $c$ is fixed to the context of utterance

- **Atelic**
  
  contextual argument $c$ is existentially bound
  (any increase in coolness)
Degree achievements: Kennedy and Levin 2008

- Adjectival core measures the amount of change along a scalar dimension as result of the event.
- Verbal morpheme $pos_v$ combines with the adjectival core.
- DA is true of an object $x$ and an event $e$ if in the course of $e$, $x$ changes in excess of the standard of comparison for the measure of change function.

- Telic
  Maximum element from the scale can be inherited; standard of comparison is based on the maximal element of the scale.

- Atelic
  Minimum standard interpretation (positive change in the measured property; based on minimal element of the scale).
Telic degree achievements

- Tied to the scale of the adjectival core
More on scales

- Abusch 1986
- Hay, Kennedy and Levin 1999
- Jackendoff 1996
- Kearns 2007
- Kennedy and Levin 2008
- Kennedy and McNally 2005
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Diagnosing telicity

- Durative adverbs (*in / alatt* adverbs)

(1) Feri két óra alatt el olvasta a könyvet
Feri two hour under away read the book.acc
‘Feri read the book *in two hours’
Open and closed scales

1. üres ‘empty’, egyenes ‘straight’
2. széles ‘wide’, mély ‘deep’
(2) Az út teljesen üres (# de lehetne még üresebb) emptier

‘The road is completely empty, # but it could still be emptier’

(3) Az út teljesen egyenes (# de lehetne még egyenessebb) straighter

‘The road is completely straight, # but it could still be straighter’
Open scales

(4) # Az út teljesen széles
    the road.nom completely wide
    #‘The road is completely wide’

(5) # Az árok teljesen mély
    the trench.nom completely deep
    #‘The trench is completely deep’
Open / closed scales

- *teljesen* ‘completely’  
  (closed scales only)

- *(teljesen* ‘very’, ‘sufficiently’; subjective judgment  
  (open / closed scales))

  (Gy. Rákosi, p.c.)
Adjectival scales

- Open / closed scales for adjectives in English and Hungarian
- Closed scale
  dry, empty, straight
- Open scale
  wide, deep
From closed scale adjectives
- telic (endpoint of adjectival scale is mapped)
- atelic (endpoint is not mapped)

From open scale adjectives
- atelic (no adjectival scale endpoint can be mapped)
- (telic (contextually determined endpoint))
Closed scales in Hungarian

(6) A póló száradt
the shirt.nom dried
‘The shirt dried / was drying’ (atelic; not completely)

(7) A póló meg száradt
the shirt.nom meg dried
‘The shirt dried’ (telic; completely)
Closed scales in Hungarian

(8) Az utat egyenesítették
    the road.acc straightened.3pl
    ‘The road was straightened’ (atelic; not completely)

(9) Az utat ki egyenesítették
    the road.acc out straightened.3pl
    ‘The road was straightened’ (telic; completely)
Closed scales in Hungarian

- From closed scale adjectives
  - telic with a verbal prefix / particle (scalar maximal endpoint is reached)
  - atelic without a prefix (maximal endpoint is not reached)
Open scales in Hungarian

(10) Az út szélesedett
the road.nom widened
‘The road widened’

(11) Az út ki szélesedett
the road.nom out widened
‘The road widened’

(atelic)

(telic)
Open scales in Hungarian

(12) Az árok mélyült
    the trench.nom deepened
    ‘The trench deepened’  (atelic)

(13) Az árok ki mélyült
    the trench.nom out deepened
    ‘The trench deepened’  (telic)
Open scales in Hungarian

- From open scale adjectives
  - telic with a verbal prefix (an endpoint is reached)
    (contextually determined endpoint or minimal change along the scale)
  - atelic without a prefix (no endpoint is reached)
Endpoints

- Endpoints with verbal prefixes
- Closed and open scale degree achievements
Closed scale DAs

- Affected argument has the property denoted by the adjective

(14)  A póló meg száradt, ...
the shirt.nom *meg* dried
‘The shirt dried. …’

a. ?? de még mindig elég vizes
   but yet always enough *wet*
   ‘but it’s still a bit wet’

b. ?? de még nem elég száraz
   but yet not enough *dry*
   ‘but it’s still not dry enough’
Closed scale DAs

- Maximal endpoint is reached

(15) ?? A póló kicsit meg száradt
   the shirt.nom small.acc meg dried

   ‘The shirt dried a bit’
Open scale DAs

- Affected argument does not necessarily have the property denoted by the adjective

(16) Az út ki szélesedett, ...
the road.nom out widened
‘The road widened, …’

a. de még mindig eléggé keskeny
but yet always enough narrow
‘but it’s still a bit narrow’

b. de még nem eléggé széles
but yet not enough wide
‘but it’s still not wide enough’
Open scale DAs

- There is no maximal endpoint to be reached

(17) Az út kicsit ki szélesedett
the road.nom little.acc out widened
‘The road widened a bit’
Endpoints with telic predicates

- Closed scale DA: maximal endpoint on the scale
- Open scale DA: minimal change along the scale or contextually determined endpoint
Endpoints and telicity

- Telic interpretation is available for closed and open scale DAs alike
- Telic interpretation is possible with verbal prefixes
- Endpoints with telic predicates differ
  - Closed scale: maximal scalar endpoint
  - Open scale: minimal change along the scale or contextually determined endpoint
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5 Summary
Prefix choice can determine interpretation
Free choice of prefixes?

- Conventionalized endpoint \(\sim\) maximal endpoint
  (warming soup / pizza / coffee)

(18) János \{meg / fel\} melegítette a levest
    J.nom meg / up warmed the soup.acc
    ‘János warmed the soup’
Choice of prefixes

(19) János félig \{meg / ?fel\} melegítette a levest
J.nom halfway meg / up warmed the soup.acc
‘János warmed the soup halfway’
Choice of participes

(20) János egy kicsit \{meg / fel\} melegítette a levest
J.nom a little.acc meg / up warmed the levest
soup.acc

‘János warmed the soup a bit’
Choice of prefixes

(21) János \{meg / fel\} melegítette a levest

J.nom meg / up warmed the soup.acc

‘János warmed the soup’

- **meg**: the soup is warm
- **fel**: the soup may still be cold
Warm: *meg* vs. *fel*

- *meg*: (conventionalized) endpoint of the scale
- *fel*: no scalar endpoint; the entire object is affected but change along the scale may be minimal (cf. *el olvas* (away read): object is maximally affected)
Cool

(22) A süti \{ki / le\} hült
the cake.nom \textit{out} / \textit{down} cooled
‘The cake cooled’
(23) A süti egy kicsit \{??ki / le\} hűlt
the cake.nom a  bit.acc out / down cooled
‘The cake cooled a bit’
Cool: *ki* vs. *el*

- *ki*: (conventionalized) endpoint of the scale
- *le*: minimal change along the scale
Dry

(24) A fal \{meg / ki\} száradt
the wall.nom meg / out dried
‘The wall dried’
(25) A fal {meg / ki} száradt, (?? de még kicsit vizes) wet
‘The wall dried, but it’s still a bit wet’
Dry

(26) ?? A fal egy kicsit \{meg / ki\} száradt
the wall.nom a bit.acc meg / out dried

‘The wall dried a bit’
Dry: *meg* vs. *ki*

- *meg*: maximal endpoint of the adjectival scale; surface of argument is affected
- *ki*: maximal endpoint of the adjectival scale; the entire argument is affected
Dry

(27) A festék {meg / be / ki} száradt
the paint.nom meg / in / out dried
‘The paint dried’
Telic DAs

- Change measured along the scale
  (e.g. *meg melegít* (meg warm))

- Change measured along the affected argument
  (e.g. *fel melegít* (up warm))
Telic DAs

- Change measured along the scale
  - Maximal / conventional endpoint of the scale (if available)
  - Minimal change along the scale
  - Contextually determined endpoint

- Change measured along the affected argument
  - Extension of the argument
  - Possibly different dimensions of the argument
Verbal prefixes

- To some extent, idiosyncratic

- *Meg* preferred with closed scale DAs, if the event is mapped onto the scale
(28) meg szárad

meg dries

‘dry’

(29) meg érik

meg ripen

‘ripens’

(30) meg melegszik

meg warms

‘warms’

(31) ki egyenesedik

out straightens

‘straightens’
Inceptive *meg*; scalar endpoint with another prefix

(32) A lemez {meg / be} feketedett
the sheet.nom *meg* / *in* blackened
‘The sheet blackened’

(33) A lemez kicsit {meg / ?be} feketedett
the sheet.nom little.acc *meg* / *in* blackened
‘The sheet blackened a bit’
Inceptive \textit{meg} and maximally affected arguments

(34) A jég \{meg / el\} olvadt
    the ice.nom \textit{meg} / away melted
    ‘The ice melted’

(35) A mamut \{meg / ki\} olvadt
    the mammoth.nom \textit{meg} / out thawed
    ‘The mammoth thawed’
Multiple scales for events

- Rappaport Hovav and Levin 2005

- Lee scrubbed the tub
  - surface of the tub (atelic)
  - scale of cleanliness (with an appropriate standard) (telic)
Locative alternation

(36) Feri \text{meg kente vajjal a kenyeret}
Feri.nom meg smeared butter.with the bread.acc
‘Feri smeared the bread with butter’

(37) Feri \text{rá kente a vajat a kenyérre}
Feri.nom onto smeared the butter.acc the bread.onto
‘Feri smeared butter onto the bread’
(38) Feri  meg pakolta az autót bútorokkal
   Feri.nom meg loaded the car.acc furniture.with
   ‘Feri loaded the car with furniture’

(39) Feri  rá pakolta a bútorokat az autóra
   Feri.nom onto loaded the furniture.acc the car.onto
   ‘Feri loaded the furniture onto the car’
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Scalar adjectives and degree achievements

- No direct correlation between closed / open adjectival scales and telicity of DAs
- Telic (and atelic) DAs from both closed and open scale DAs
Telicity and verbal affixes

- Telic interpretation with verbal prefixes

- Telic predicates are maximal, lack continuation (depending on the verbal prefix)
  - Endpoint determined by adjectival scale
  - Endpoint determined by the extension of the affected argument
Telicity and the lexical entry of verbs

- Telicity is not determined in the lexical entry of verbs
Two-point scales

- dead, alive

- Minimal change: maximal endpoint along the scale
Achievements

- Minimal change
- Frequently appear with verbal prefixes in Hungarian
Achievements

(40) Heather *(meg) halt
H.nom  meg    died
‘Heather died’

(41) Heather *(el) vesztette a versenyt
H.nom  away lost the race.acc
‘Heather lost the race’
Scalar adjectives and degree achievements

- Adjectival scales are relevant for the interpretations available for DAs
- Adjectival scale properties are not directly mapped to DAs
- Verbal prefixes introduce telicity
- Specific flavor of telicity can be affected by adjectival scales
- Specific flavor of telicity is determined by prefix choice
References


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