Towards a fine-grained analysis of Dutch *de/het meeste*

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(1) Jan   heeft de   meeste bergen   beklommen.

John has   the$_{pl.masc.}$ most   mountains$_{pl.masc.}$ climbed

John climbed most mountains.

Two different readings:

1. Absolute: "John climbed more than half of the mountains"

2. Relative: "John climbed more mountains than the other climbers did"

Claim 1: In Dutch, the different readings are linked to definiteness and specificity.

(2) Jan   heeft het   meeste bergen   beklommen.

John has   the$_{sing.neut.}$ most   mountains$_{pl.masc.}$ climbed

John climbed the most mountains.

The article *het* 'the' does not agree with the noun *bergen* 'mountains'.

Claim 2: In Dutch, there are two different structures underlying *de meeste* and *het meeste*. One has a D that agrees with the head noun, the other one does not.

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Outline

1. Analysis of English superlatives
   a. Absolute reading
   b. Relative reading
2. Analysis of English *most*
   a. Absolute reading
   b. Relative reading
3. Analysis of Dutch *de meeste* and *het meeste*
   a. Preamble: *de* and *het*, specificity
   b. Dutch data
      i. First test: scrambling
      ii. Second test: existential *there*
   c. Claim 1: definiteness and specificity
   d. Claim 2: two different syntactic structures
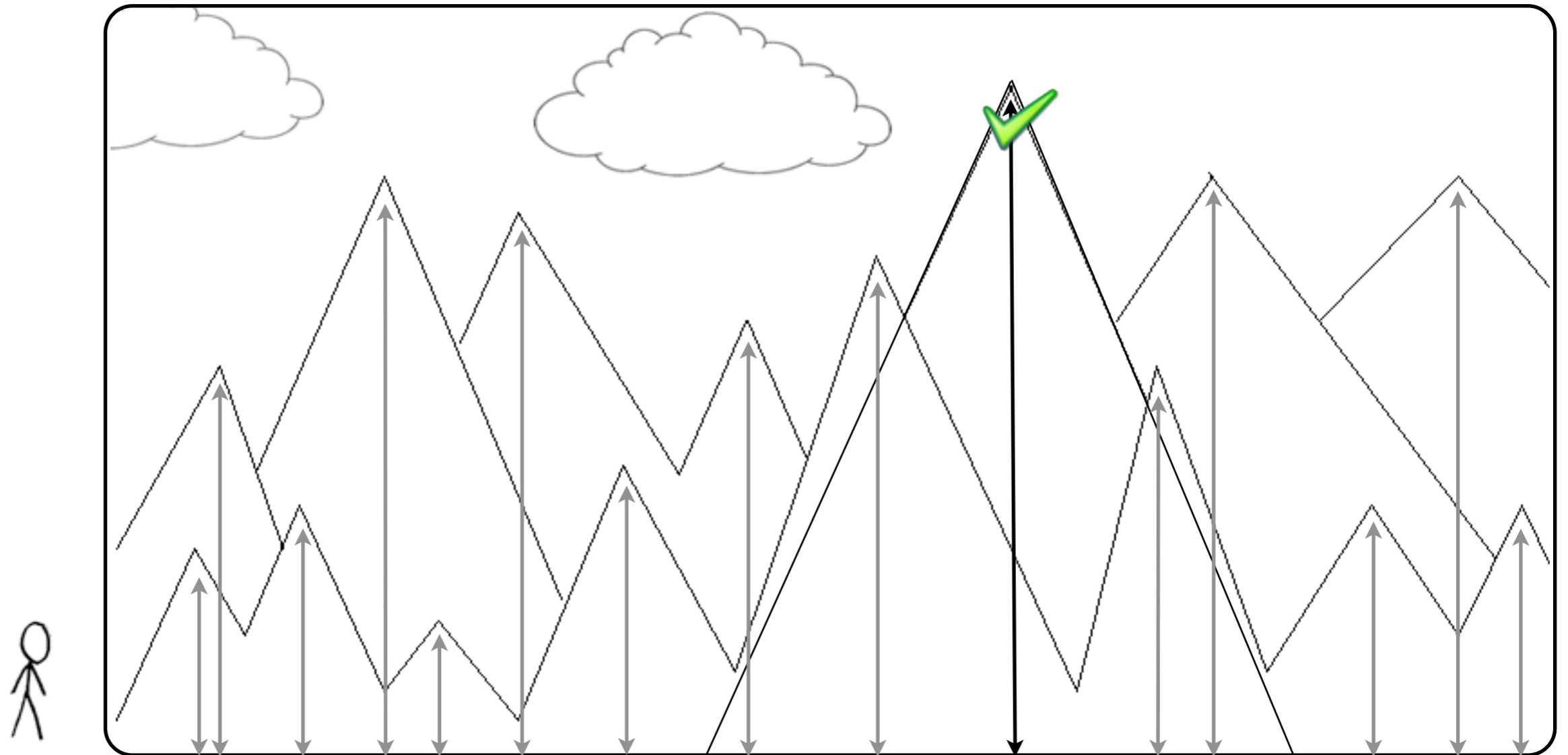   i. AGR
      ii. *AGR
4. Conclusion

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Analysis of superlatives by Heim (1999) and Szabolcsi (1986).

- Two different readings:
    - absolute reading
    - relative reading.

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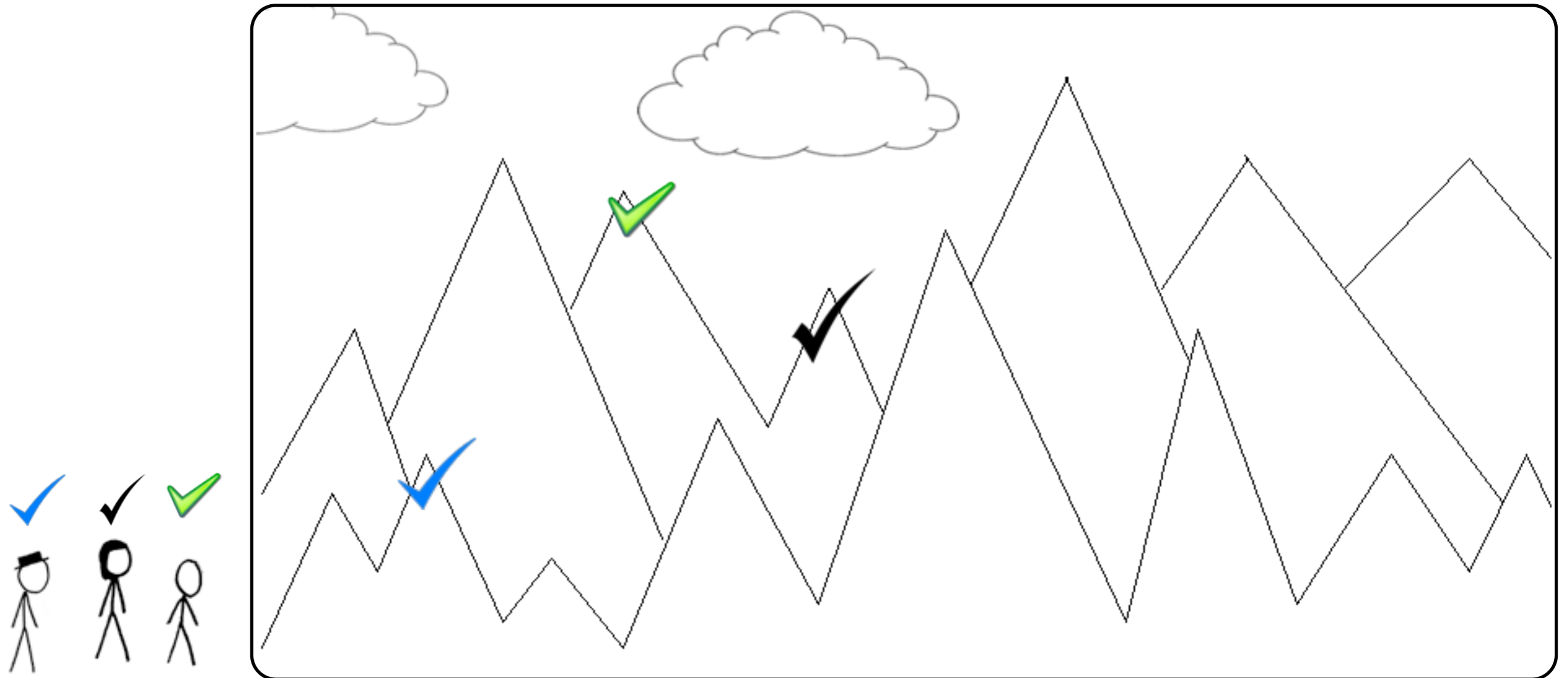
English superlatives: absolute reading

John climbed the highest mountain.

$$[\![[\text{-est C}]_i[d_i\text{-high mountain}]]\!] = \lambda x.\forall y \in C\ [y \neq x \rightarrow$$

$$\max\ \{d: x \text{ is a } d_i\text{-high mountain}\} > \max\ \{d: y \text{ is a } d\text{-high mountain}\}]$$

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John climbed the highest mountain.

$[\![[\text{-est C}]_i \, [\text{climbed } [d_i\text{-high mountain}]]]\!] = \lambda x.\forall y \in C \, [y \neq x \rightarrow$
$\max \{d: x \text{ climbed a } d\text{-high mountain}\} > \max \{d: y \text{ climbed a } d\text{-high}$
$\text{mountain}\}]$

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Analysis of *most* by Hackl (2009).

- *Most* is the superlative of *many*.

- Two different readings:

    - absolute (or proportional) reading

    - relative reading.

- The two different readings are triggered by the presence or absence of *the*.

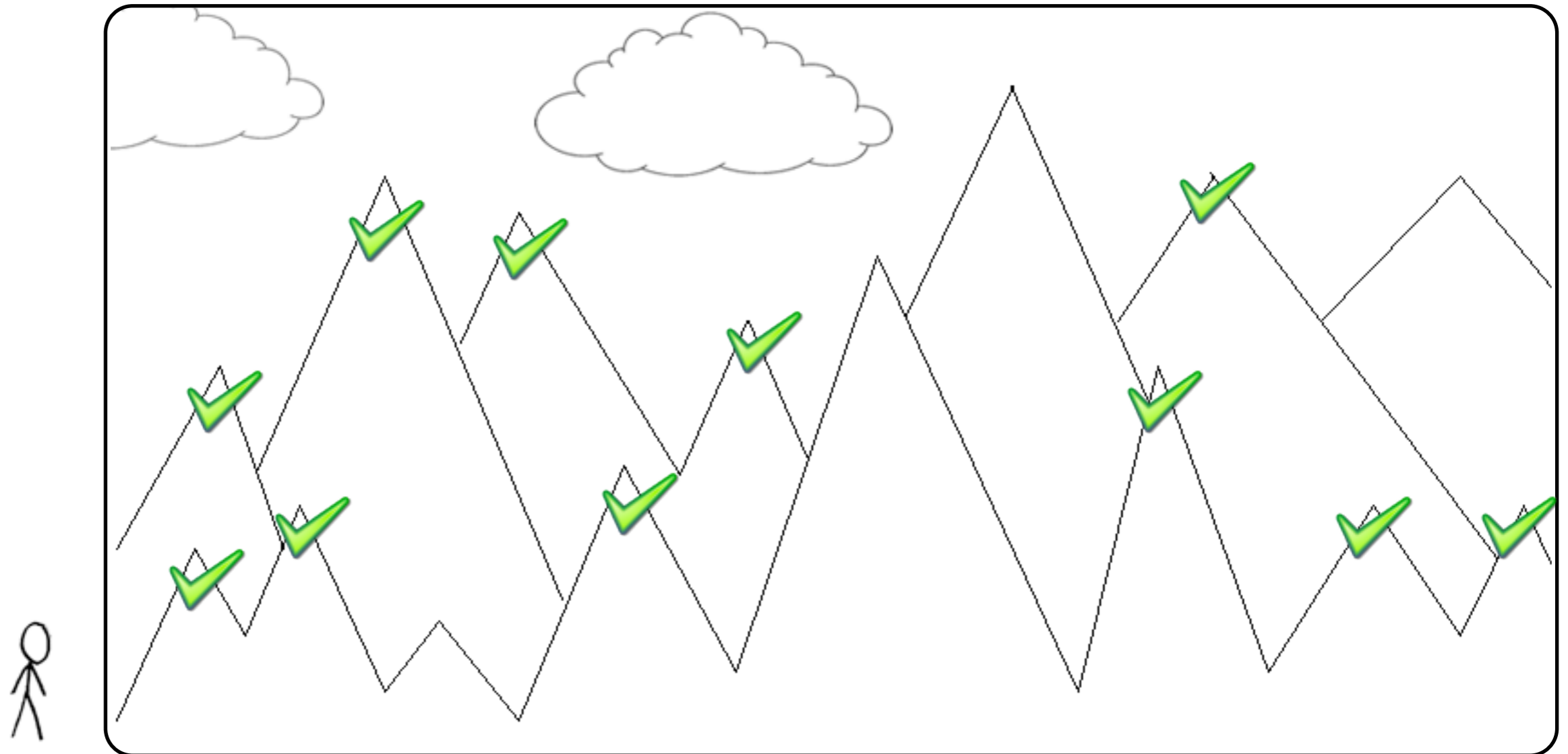(3) (a) John climbed most mountains. (absolute)

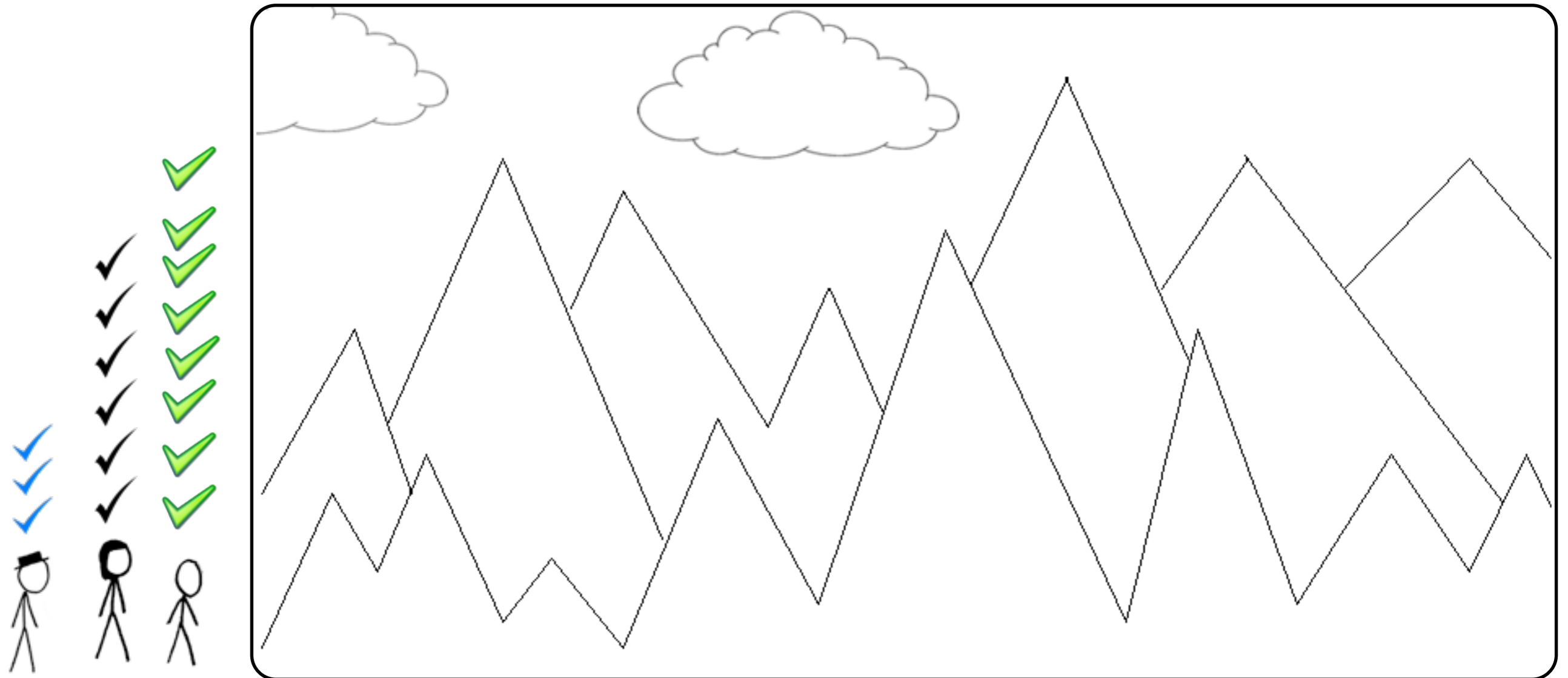   (b) John climbed the most mountains. (relative)

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English *most*: absolute reading

John climbed most mountains

$$[\![[\text{-est C}]_i[d_i\text{-many mountains}]]\!] = \lambda x.\forall y \in C\ [y \neq x \rightarrow$$

$$\max\ \{d: \text{mountains}(x)\ \&\ |x| \geq d\} > \max\ \{d: \text{mountains}(y)\ \&\ |y| \geq d\}]$$

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John climbed the most mountains.

$$[\![[\text{-est } C]_i \ [\text{climbed } [\varnothing \ d_i\text{-many mountains}]]\!] = \lambda x. \forall y \in C \ [y \neq x \rightarrow$$
$$\max \{d: \exists z \ [\text{mountains}(z) \ \& \ |z| \geq d \ \& \ \text{climbed}(x, z)]\} >$$
$$\max \{d: \exists z \ [\text{mountains}(z) \ \& \ |z| \geq d \ \& \ \text{climbed}(y, z)]\}]$$

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Dutch *de meeste* and *het meeste*

- Analyse *de/het meeste* 'most' as the superlative of *veel* 'many'.

Definiteness and specificity

- DPs with *de/het meeste* and relative readings are non-specific indefinite.
- DPs with *de/het meeste* and absolute readings are definite.
- Tests:
    1. Scramble the DP
    2. Existential *there*.

Two syntactic structures

- There are two syntactic structures underlying *de meeste* and *het meeste*:
    1. with a D that agrees with the head noun
    2. with a D that does not agree with the head noun.

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<u>*De* versus *het*</u>

(4) (a) de man   - de vrouw

the man$_{sing.masc.}$ - the woman$_{sing.fem.}$

(b) het huis   - het geld

the house$_{sing.neut.}$ - the   money$_{sing.neut.}$

(c) de mannen   - de vrouwen   - de   huizen

the men$_{pl.masc.}$ - the women$_{pl.fem.}$ - the houses$_{pl.neut.}$

<u>Specificity</u>

Specific: the speaker has a particular object in mind.

Non-specific: the speaker does not have a particular object in mind.

(Hawkins 1978)

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First test: scrambling

Non-specific indefinite DPs can't be scrambled

(5) (a) ...dat Jan gisteren   wat   gekregen heeft.
         ...that John yesterday something got   has
         ...that John got something yesterday.

   (b) * ...dat Jan wat   gisteren   gekregen heeft.
         ...that John something yesterday got   has

(6) (a) ...dat Jan gisteren   de/één/een gitaar gekregen heeft.
         ...that John yesterday the/one/a guitar got   has
         ...that John got the/one/a guitar yesterday.

   (b) ...dat Jan de/één/??een gitaar gisteren   gekregen heeft.
        ...that John the/one/??a   guitar yesterday got   has
        ...that John got the/one/a guitar yesterday.

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Scrambling: *de meeste* versus *het meeste*

(7) (a) ...dat Jan gisteren de meeste bergen beklommen heeft. (relative/absolute)
...that John yesterday the most mountains_{pl.} climbed has
...that John climbed (the) most mountains yesterday.

(b) ...dat Jan de meeste bergen gisteren beklommen heeft. (absolute)
...that John the most mountains_{pl.} yesterday climbed has
...that John climbed most mountains yesterday.

(8) (a) ...dat Jan gisteren het meeste bergen beklommen heeft. (relative)
...that John yesterday the most mountains_{pl.} climbed has
...that John climbed the most mountains yesterday.

(b) * ...dat Jan het meeste bergen gisteren beklommen heeft.
...that John the most mountains_{pl.} yesterday climbed has

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(9) (a) ...dat Jan   gisteren   het meeste geld   verloren   heeft. (relative/absolute)
      ...that John yesterday the most   money$_{sing.neut}$ lost   has
      ...that John lost (the) most money yesterday.

   (b) ...dat Jan   het meeste geld   gisteren   verloren heeft.   (absolute)
      ...that John the most   money$_{sing.neut}$ yesterday lost   has
      ...that John lost most money yesterday.

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Only indefinite DPs can appear in sentences with existential *there.*

(10)(a) Er   is   een   man   in   de   straat.

       there   is   a   man   in   the   street

  (b)   Er   zijn   mannen   in   de   straat.

       there   are   men   in   the   street

  (c)* Er   is   de   man   in   de   straat.

       there   is   the   man   in   the   street

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Existential *there*: *de/het meeste*

Only indefinite DPs can appear in sentences with existential *there.*

(11)(a) Er is het meeste geld in Monaco. (relative)

there is the most money in Monaco

(b) Er zijn het meeste bergen in Zwitserland. (relative)

there are the most mountains in Switzerland

(c)* Er zijn de meeste bergen in Zwitserland.

there are the most mountains in Switzerland

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Claim 1

- DPs with *de/het meeste* and relative readings are non-specific indefinite.
- DPs with *de/het meeste* and absolute readings are definite.

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Claim 2

- There are two syntactic structures underlying *de meeste* and *het meeste:*

  1. AGR: with a D that agrees with the head noun
  2. *AGR: with a D that does not agree with the head noun.

(1) Jan   heeft de   meeste bergen   beklommen.   (relative/absolute)

   John has   the$_{pl.masc.}$ most   mountains$_{pl.masc.}$ climbed

   John climbed (the) most mountains.

(2) Jan   heeft het   meeste bergen   beklommen.   (relative)

   John has   the$_{sing.neut.}$ most   mountains$_{pl.masc.}$ climbed

   John climbed the most mountains.

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- The determiner agrees with the head noun:

(12) (a) de   meeste mannen

the$_{pl.masc.}$ most   men$_{pl.masc.}$

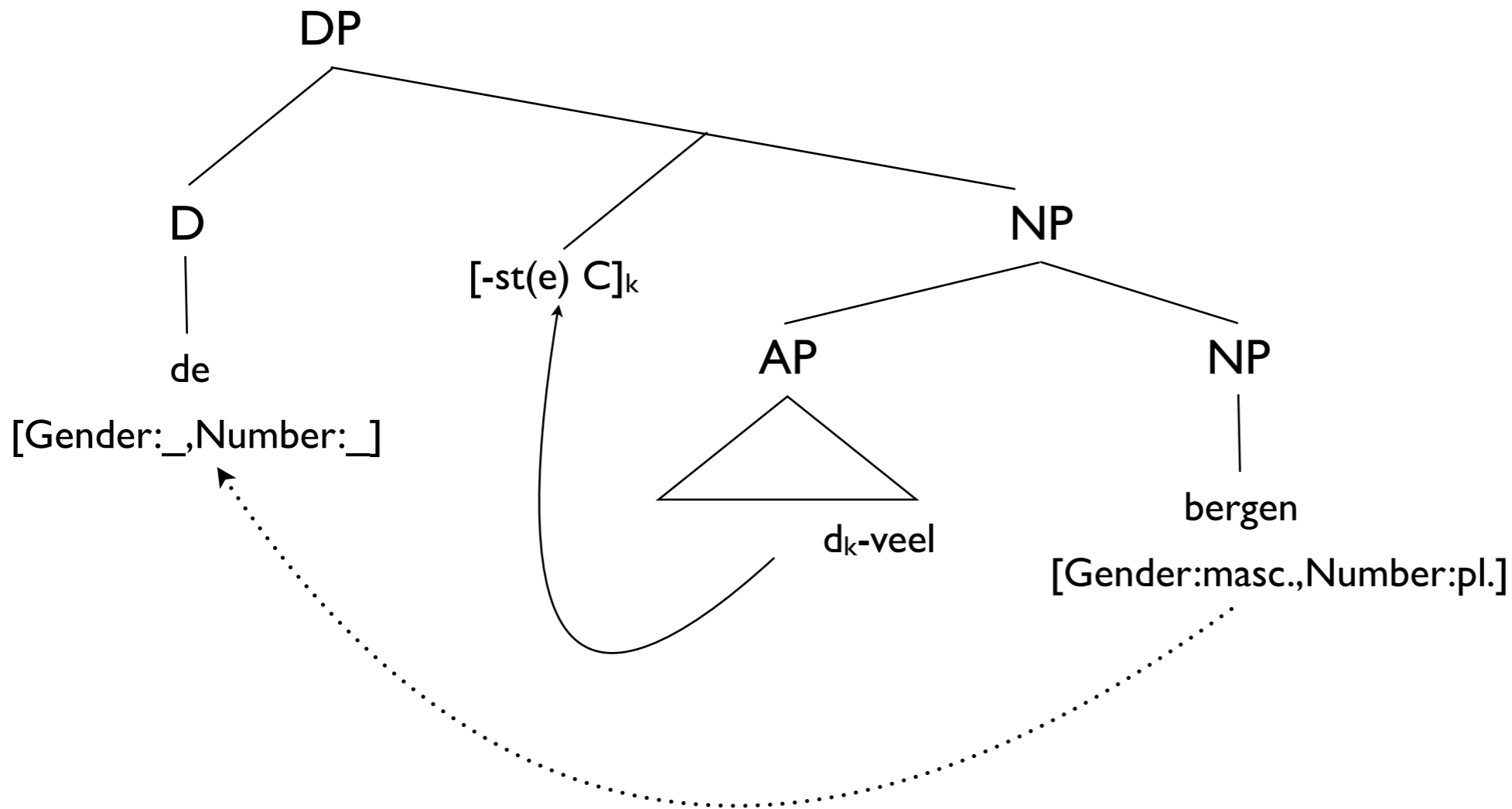 (b) de   meeste vrouwen

the$_{pl.fem.}$ most   women$_{pl.fem.}$

  (c) de   meeste huizen

the$_{pl.neut.}$ most   houses$_{pl.neut.}$

  (d) het   meeste geld

the$_{sing.neut.}$ most   money$_{sing.neut.}$

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DP

D

[-st(e) C]$_k$

NP

de
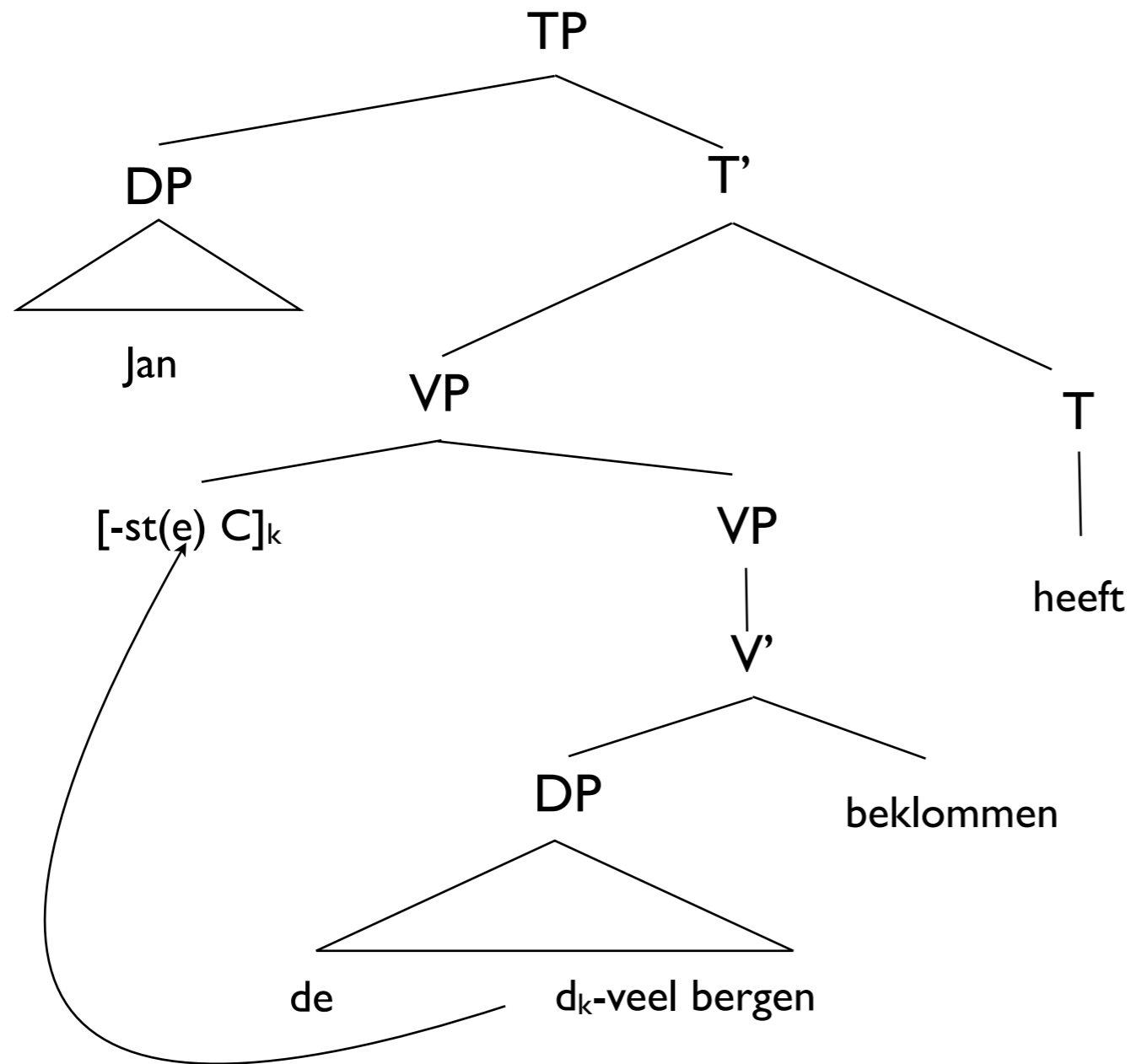
[Gender:_,Number:_]

AP

NP

d$_k$-veel

bergen

[Gender:masc.,Number:pl.]

- D agrees with the NP in number and gender.

- [-st(e) C]$_k$ moves out of the AP (Heim (1999), Hackl (2009)).

- [[-st(e) C]$_k$ [d$_k$-veel bergen]] is the expected absolute reading.

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AGR: relative reading

- [-st(e) C]$_k$ adjoins to VP (Szabolcsi (1986), Heim (1999), Hackl (2009)).
- [[-st(e) C]$_k$[[de d$_k$-veel bergen] beklommen]] is the relative reading.
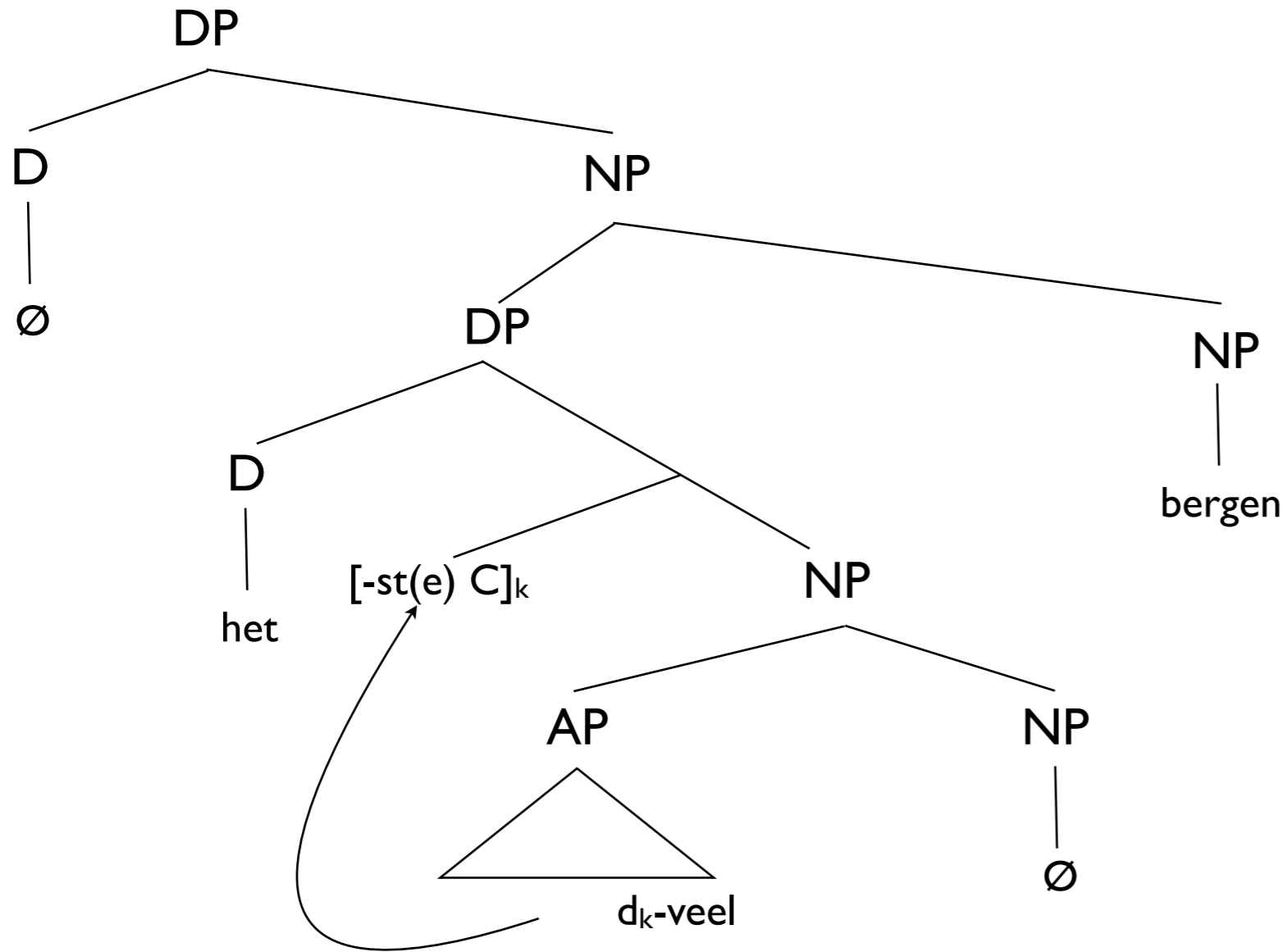
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*AGR

- The determiner in *AGR does not agree with the head noun:

(13) (a) het meeste mannen
the$_{sing.neut.}$ most men$_{pl.masc.}$

  (b) het meeste vrouwen
the$_{sing.neut.}$ most women$_{pl.fem.}$

  (c) het meeste huizen
the$_{sing.neut.}$ most houses$_{pl.neut.}$

- The *AGR structure shows similarities with indefinite plurals. We assume that there is a null D in both cases:
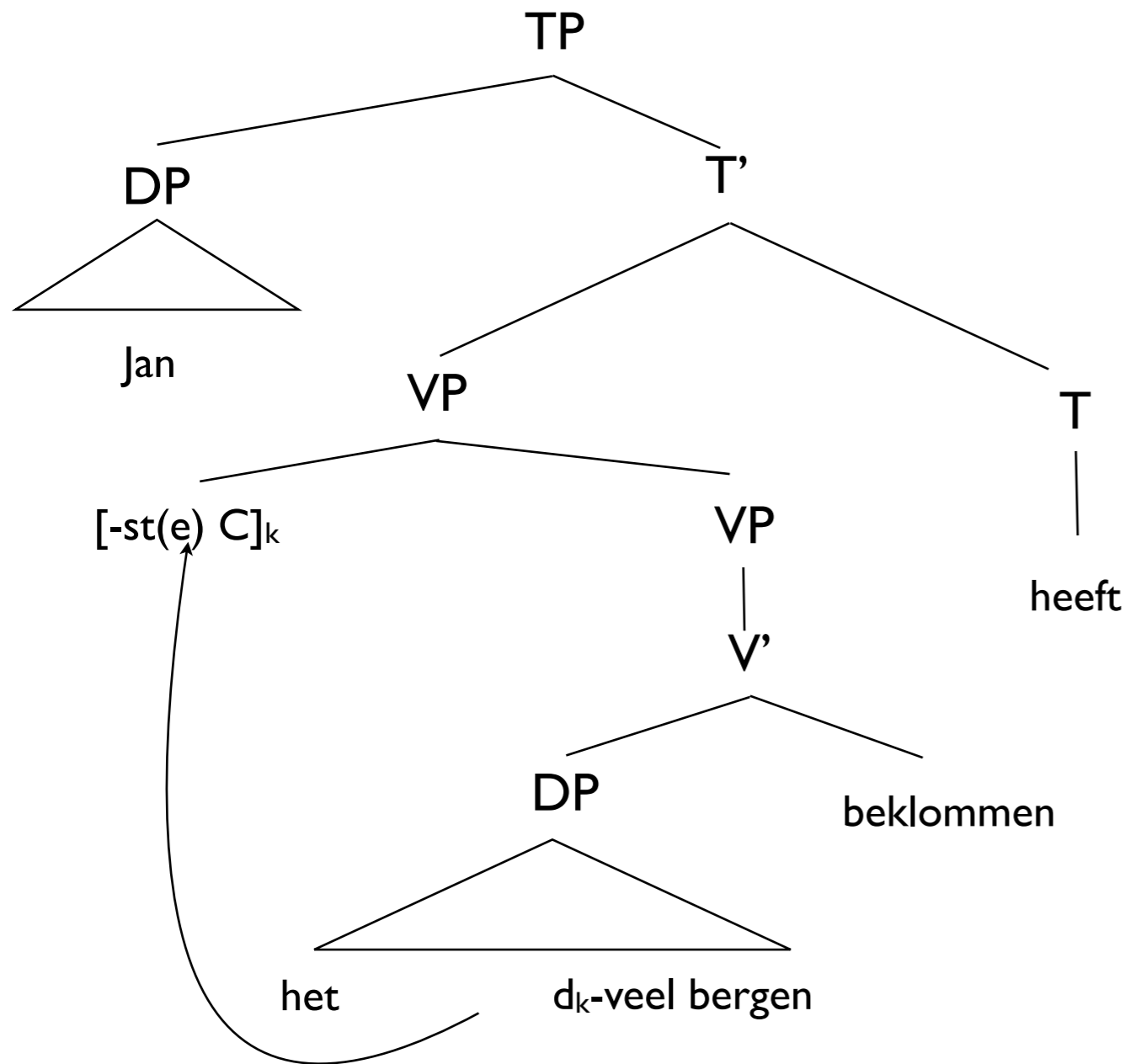
(14) (a) Er zijn $\varnothing$ het meeste bergen in Zwitserland.
there are $\varnothing$ the most mountains in Switzerland

  (b) Er zijn $\varnothing$ mannen in de straat.
there are $\varnothing$ men in the street

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DP
- D
  - Ø
- NP
  - DP
    - D
      - het
    - $[\text{-st(e) C}]_k$
    - NP
      - AP
        - $d_k\text{-veel}$
      - NP
        - Ø
  - NP
    - bergen

- Null D in the highest DP accounts for the combination with existential *there*.
- Anaphoric gender marking in Dutch (predicate) superlatives may be optional (Matushansky 2008).
- This explains why there is no agreement between *het* and the null NP.
- $[[[\text{-st(e) C}]_k \ [d_k\text{-veel bergen]]bergen]}$ is not a valid absolute reading.

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- $[\text{-st(e) C}]_k$ adjoins to VP (Szabolcsi (1986), Heim (1999), Hackl (2009)).
- $[[\text{-st(e) C}]_k [[\text{het } d_k\text{-veel bergen}] \text{ beklommen}]]$ is the relative reading.
- This is the only available reading for *AGR structures.

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Conclusion

- In Dutch, *de/het meeste* has an absolute and a relative reading:

  - the different readings do not depend on the article

  - the DPs with relative readings are non-specific indefinite

  - the DPs with absolute ('proportional') readings are definite

  - there are two different syntactic structures underlying *de/het meeste.*

- Future research:

  - Research of English data (and other languages)

  - AGR and *AGR structure

  - Consequences for the semantics of *most* and *de/het meeste*

  - Similar expressions, such as *de/het minste*, *de meerderheid* etc.

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Bibliography

Martin Hackl. On the grammar and processing of proportional quantifiers: Most versus more than half. *Natural Language Semantics*, 17(1):63–98, 2009.

John Hawkins. *Definiteness and indefiniteness: a study in reference and grammaticality prediction*. Croom Helm Linguistics Series. Croom Helm; Atlantic Highlands, N.J., 1978.

Irene Heim. Notes on superlatives. MIT lecture notes. Available at http://semanticsarchive.net/Archive/T11MTlhZ/Superlative.pdf, 1999.

Ora Matushansky. On the attributive nature of superlatives. *Syntax*, 11(1):26–90, 2008.

Anna Szabolcsi. Comparative superlatives. In Elizabeth Sagey, Tova R. Rapoport, and Naoki Fukui, editors, *Papers in Theoretical Linguistics. MIT WPL 8*. MIT, 1986.

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Thank you!!!

http://www.xkcd.com

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