

# *(The) most* in Dutch: Definiteness and Specificity

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# Introduction

(1) Jan heeft **de** (meeste) bergen beklommen.

John has the<sub>pl.masc.</sub> most mountains<sub>pl.masc.</sub> climbed

John climbed (the) most mountains.

Two different readings:

1. Proportional: “John climbed more mountains than he didn’t climb”

2. Comparative: “John climbed more mountains than the other climbers did”

(2) Jan heeft **het** \*(meeste) bergen beklommen.

John has the<sub>sing.neut.</sub> most mountains<sub>pl.masc.</sub> climbed

John climbed the most mountains.

(2) only has a comparative reading.

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

**Claim 2:** In Dutch, there are two different structures underlying *de meeste* and *het meeste*. Either D agrees with the head noun, or it doesn’t.

# Outline

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1. Analysis of English superlatives
  - a. Proportional reading
  - b. Comparative reading
  - c. Definiteness
2. Analysis of English *most*
  - a. Proportional reading
  - b. Comparative reading
  - c. Definiteness
3. Analysis of Dutch *de meeste* and *het meeste*
  - a. Preamble: *de* and *het*, status of *het meeste*
  - b. Dutch data
    - i. First test: existential *there*
    - ii. Second test: DP-internal focus
    - iii. Third test: scrambling
  - c. Claim 1: definiteness and specificity
  - d. Claim 2: two different syntactic structures
4. Conclusion

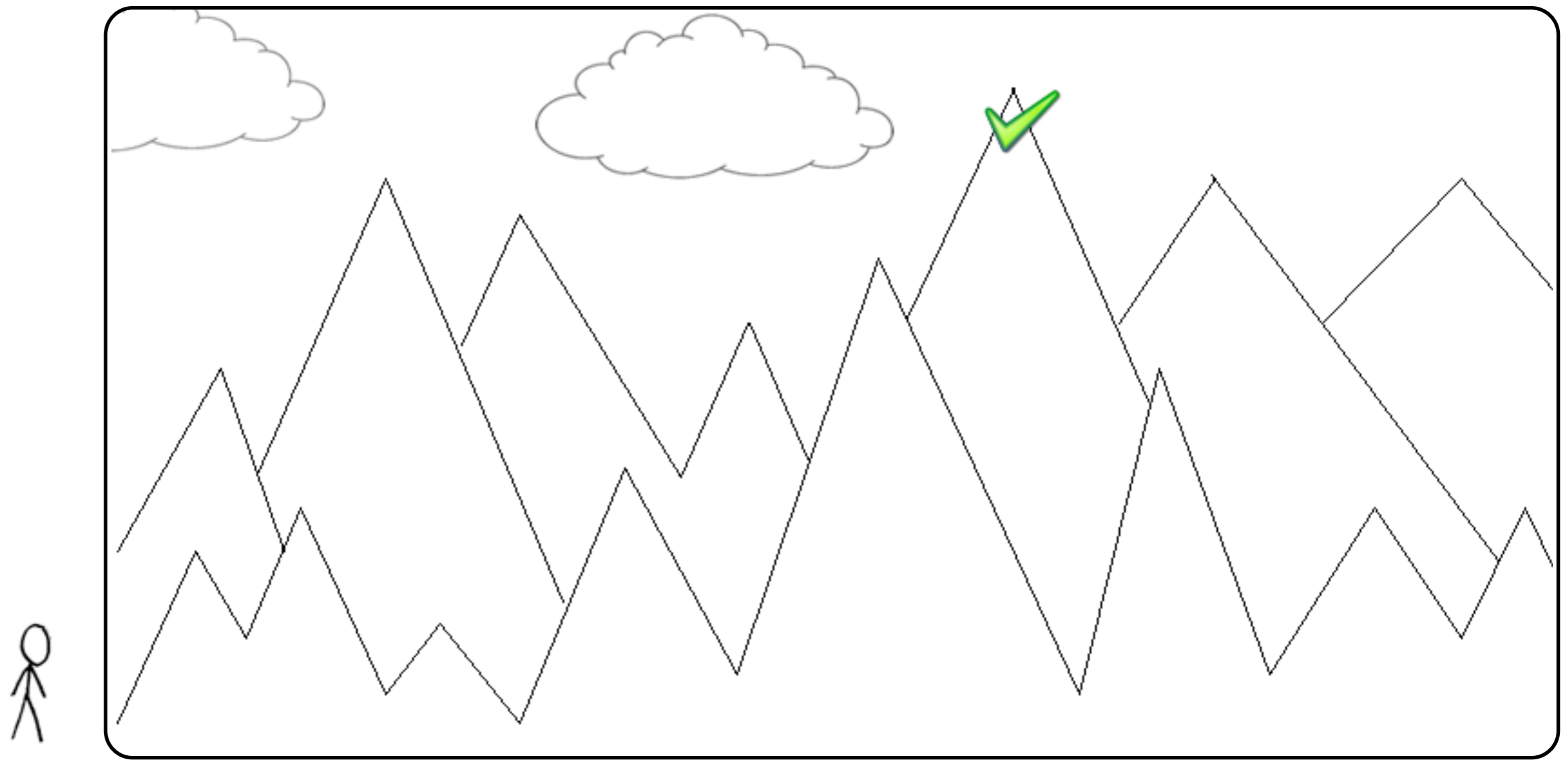
# English superlatives

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

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

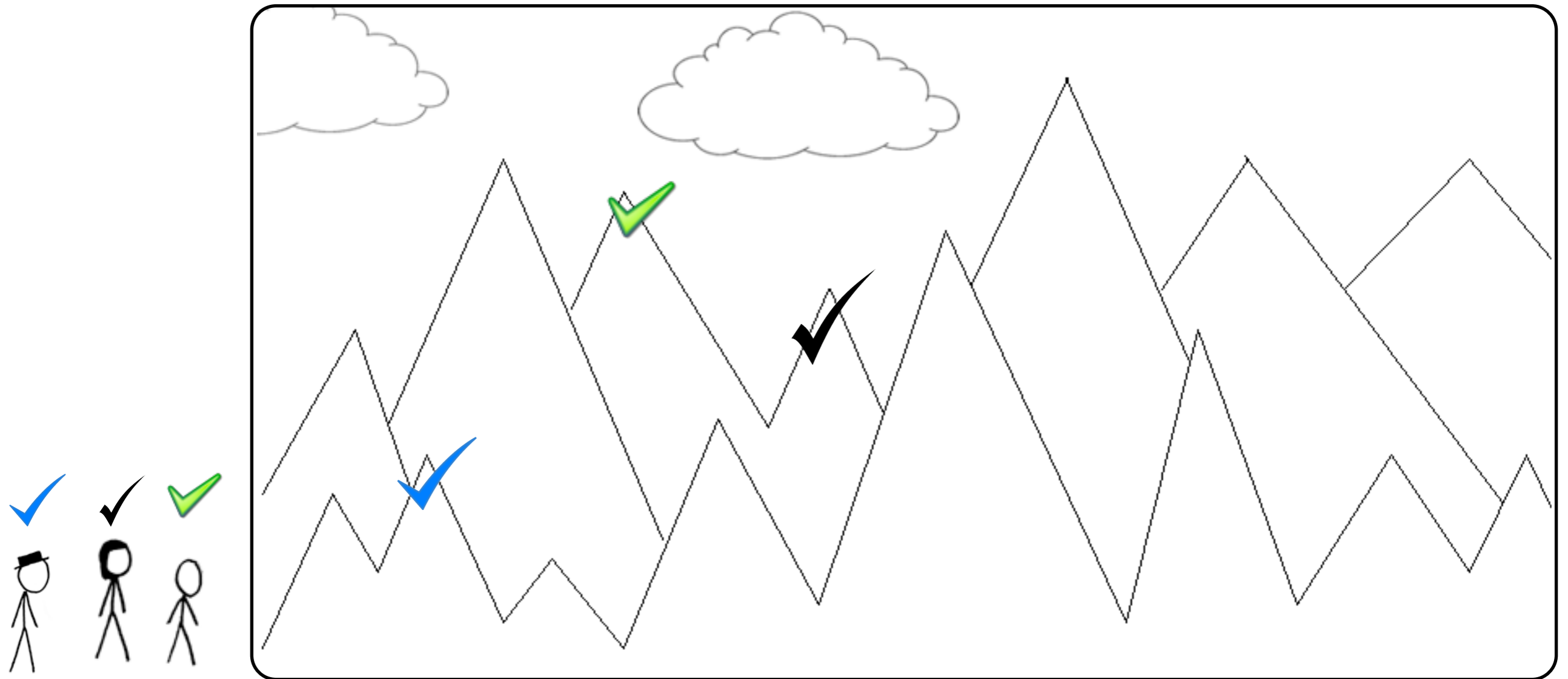
# English superlatives: absolute reading



John climbed **the highest mountain**.

$$\begin{aligned} \llbracket [-\text{est } C ]_i [d_i\text{-high mountain}] \rrbracket &= \lambda x. \forall y \in C [y \neq x \rightarrow \\ &\max \{d: x \text{ is a } d_i\text{-high mountain}\} > \\ &\max \{d: y \text{ is a } d\text{-high mountain}\}] \end{aligned}$$

# English superlatives: comparative reading



John climbed the highest mountain.

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

# English superlatives: definiteness

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Heim (1999):

- The *the* which appears on the surface is semantically vacuous.
- On a deeper level, *the* represents the definite or the indefinite article.
  - Definite in absolute readings.  
The DP acts as an island, which prevents movement of [-est C] out of the DP.
  - Indefinite in comparative readings.  
[-est C] can move out of the DP to adjoin to [SPEC, VP].

# English *most*

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Analysis of *most* by Hackl (2009).

- *Most* is the superlative of *many*.
- Two different readings:
  - proportional reading
  - comparative reading.
- The two different readings are triggered by the presence or absence of *the*.

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

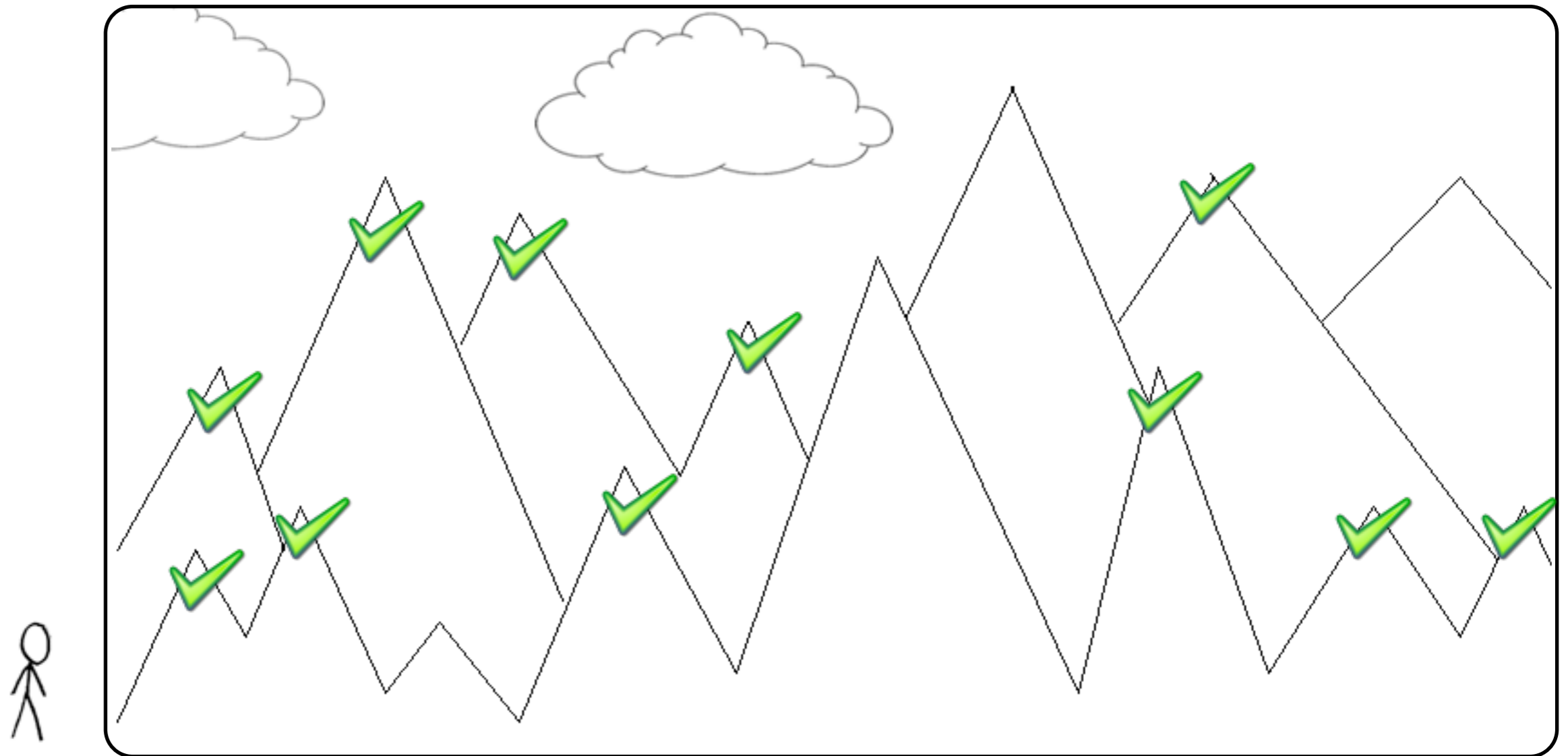
(proportional)

(b) John climbed *the most* mountains.

(comparative)



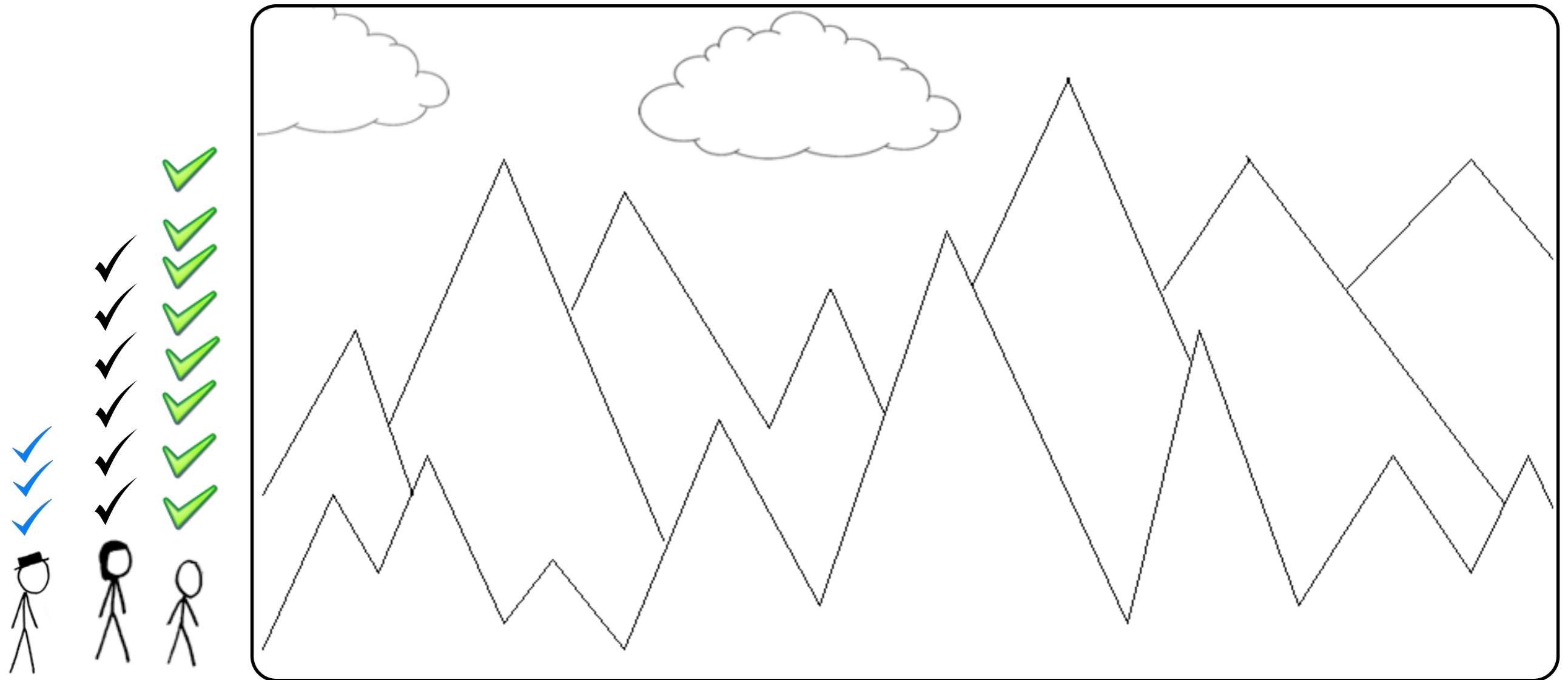
# English *most*: proportional reading



John climbed **most** mountains.

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

# English *most*: comparative reading



**John climbed the most mountains.**

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

# Most: definiteness

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Hackl (2009):

- *The* is undefined (and absent?) in an proportional reading:
  - Maximality presupposition (Link (1983)): *the* demands reference to the full set of objects ('the mountains' = 'all mountains').
  - The proportional reading is incompatible with the full set since it denotes a proportion of the set.
- *The* is indefinite in comparative readings.  
[-est C] can move out to adjoin to [SPEC, VP].

# Preamble: *de* and *het*

	<b>feminine</b>	<b>masculine</b>	<b>neuter</b>
<b>definite</b>	de	de	het
<b>mass</b>	de	de	het
<b>plural</b>	de	de	de

# Dutch *de meeste* and *het meeste*

## Two puzzles

(1) Jan heeft **de** (meeste) bergen beklommen. (comp/prop)

John has the<sub>pl.masc.</sub> most mountains<sub>pl.masc.</sub> climbed

John climbed (the) most mountains.

(2) Jan heeft **het** \*(meeste) bergen beklommen. (comp)

John has the<sub>sing.neut.</sub> most mountains<sub>pl.masc.</sub> climbed

John climbed the most mountains.

1. Why does (2) only have a comparative reading?

2. Why can the neuter article *het* combine with plural masculine *bergen* in (2)?

## Claims

1. The different readings and distribution are linked to definiteness and specificity.

2. There are two distinct structures underlying *de meeste* and *het meeste*.

## The status of *het meeste bergen*

*Het meeste* can be an adverb:

- (4) [Het meeste] heeft Jan bergen beklommen.  
the. most has John mountains climbed  
Mostly, John climbed mountains.

But *het meeste N* can also be a constituent, especially in Flemish Dutch:

- (5) % [Het meeste bergen] heeft Jan beklommen.  
the. most mountains has John climbed  
John climbed the most mountains.

## Definiteness test: existential *there*

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

Milsark (1974), Szabolcsi (1986)

- (6) (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

## Existential *there*: *de/het meeste*

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

- (7) (a) Er zijn het meeste bergen in Zwitserland. (comparative)  
there are the most mountains in Switzerland
- (b)\*Er zijn de meeste bergen in Zwitserland.  
there are the most mountains in Switzerland

➔ *Het meeste* appears to be indefinite, *de meeste* definite.



## Definiteness test: DP-internal focus

Only indefinite DPs can have DP-internal focus. (Pancheva and Tomaszewicz (2012))

- The comparative reading with DP-internal focus is not available in English.
- It can be found in Slavic languages if the DP is indefinite.
- If one puts a definite article in front of the DP, this comparative reading disappears in Macedonian and Bulgarian.

(8) ... dat JAN [DP het meeste platen [PP van Zappa]] beluisterd heeft. (comp)  
... that John the most records by/of Zappa listened has  
... that John listened to the most records by/of Zappa

(9) ... dat Jan [DP het meeste platen [PP van ZAPPA]] beluisterd heeft. (comp)  
... that John the most records by/of Zappa listened has  
... that John listened to the most records by/of Zappa

## Definiteness test: DP-internal focus

- If we build a sentence with *de meeste* instead of *het meeste*, the comparative reading with DP-internal focus disappears.

(10) ... dat Jan [<sub>DP</sub> de meeste platen [<sub>PP</sub> van ZAPPA]] beluisterd heeft. (prop)  
... that John the most records by/of Zappa listened has  
... that John listened to most records by/of Zappa

➔ *Het meeste* appears to be indefinite, *de meeste* definite.

# Specificity test: scrambling

## Non-specific indefinite DPs can't be scrambled

Specific: the speaker has a particular object in mind

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

(Hawkins 1978)

(11)(a) ...dat Jan gisteren iets/wat gekregen heeft.

...that John yesterday something gotten has

...that John got something yesterday.

(b) ...dat Jan iets/\*wat gisteren gekregen heeft.

...that John something yesterday gotten has

(12)(a) ...dat Jan gisteren de/één/een auto gekregen heeft.

...that John yesterday the/one/a car gotten has

...that John got the/one/a car yesterday.

(b) ...dat Jan de/één/??een auto gisteren gekregen heeft.

...that John the/one/??a car yesterday gotten has

...that John got the/one/a car yesterday.

## Scrambling: *de meeste* versus *het meeste*

(13)(a) ...dat Jan gisteren de meeste bergen beklommen heeft. (comp/prop)  
...that John yesterday the most mountains climbed has  
...that John climbed (the) most mountains yesterday.

(b) ...dat Jan de meeste bergen gisteren beklommen heeft. (prop)  
...that John the most mountains yesterday climbed has  
...that John climbed most mountains yesterday.

(14)(a) ...dat Jan gisteren het meeste bergen beklommen heeft. (comp)  
...that John yesterday the most mountains climbed has  
...that John climbed the most mountains yesterday.

(b) \* ...dat Jan het meeste bergen gisteren beklommen heeft.  
...that John the most mountains yesterday climbed has

➔ DPs with comparative readings pattern with the distribution of non-specific indefinite DPs: they are excluded in a scrambled position.

# Claim I: definiteness and specificity

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## DPs with comparative readings

- are only found in the base-generated position, just like non-specific indefinites
- can occur in clauses with existential *there*
- can have a comparison class defined by the DP-internal PP.

## DPs with proportional readings

- can be scrambled
- are ungrammatical in clauses with existential *there*
- do not have a comparison class defined by the DP-internal PP.

## Claim I

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

➡ *het meeste bergen* can only have comparative readings and is always indefinite

## Claim 2: two structures

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Why can the neuter article *het* combine with plural masculine *bergen*?

### Claim 2

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

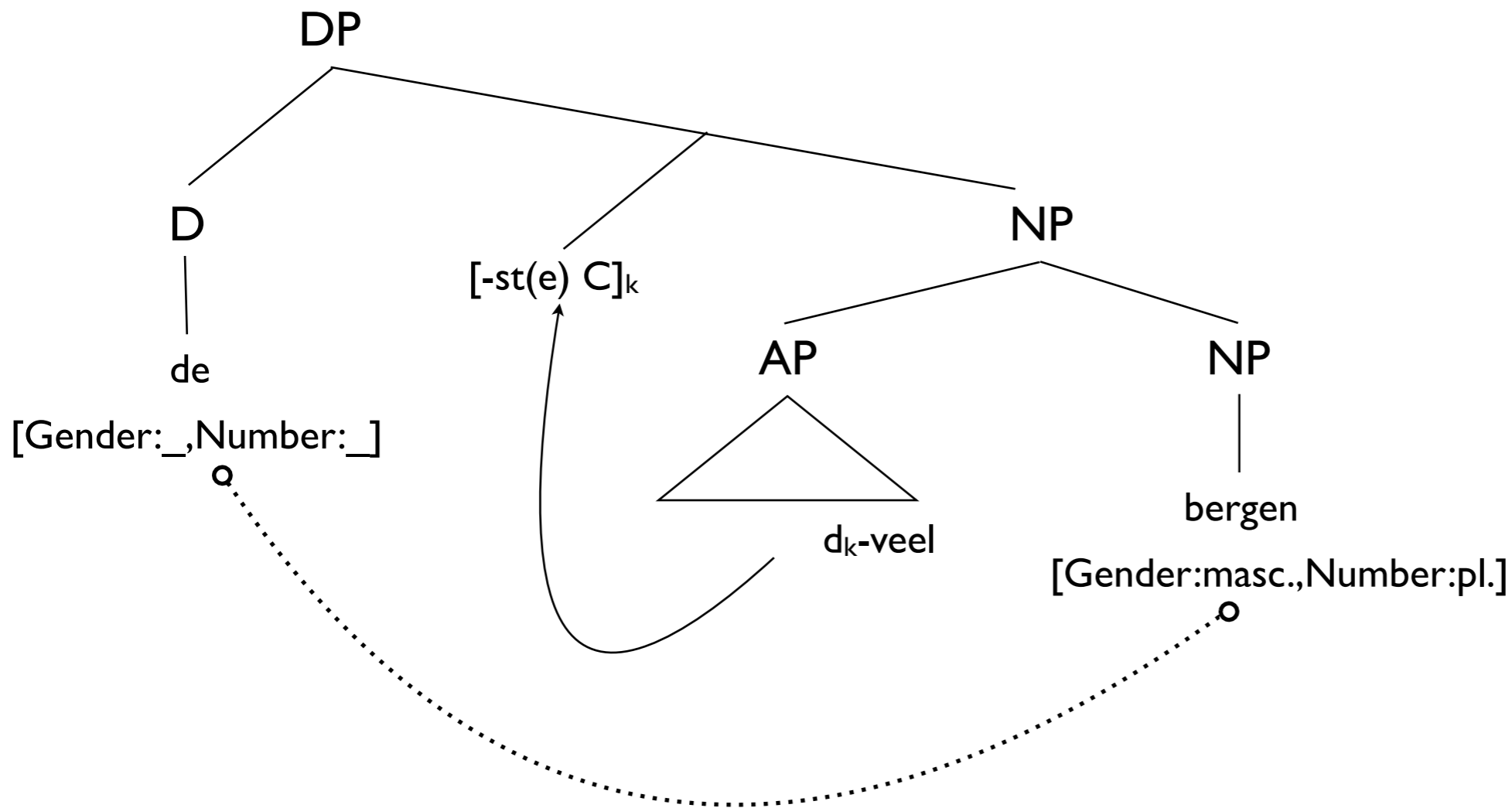
1. AGR: with a D that agrees with the head noun
2. \*AGR: with a D that does not agree with the head noun
3. *het meeste* + neuter mass N is ambiguous between the two.

# AGR

- The determiner agrees with the head noun:

- (15) (a) de           meeste mannen  
          the<sub>pl.masc.</sub> most   men<sub>pl.masc.</sub>
- (b) de           meeste vrouwen  
          the<sub>pl.fem.</sub> most   women<sub>pl.fem.</sub>
- (c) de           meeste huizen  
          the<sub>pl.neut.</sub> most   houses<sub>pl.neut.</sub>

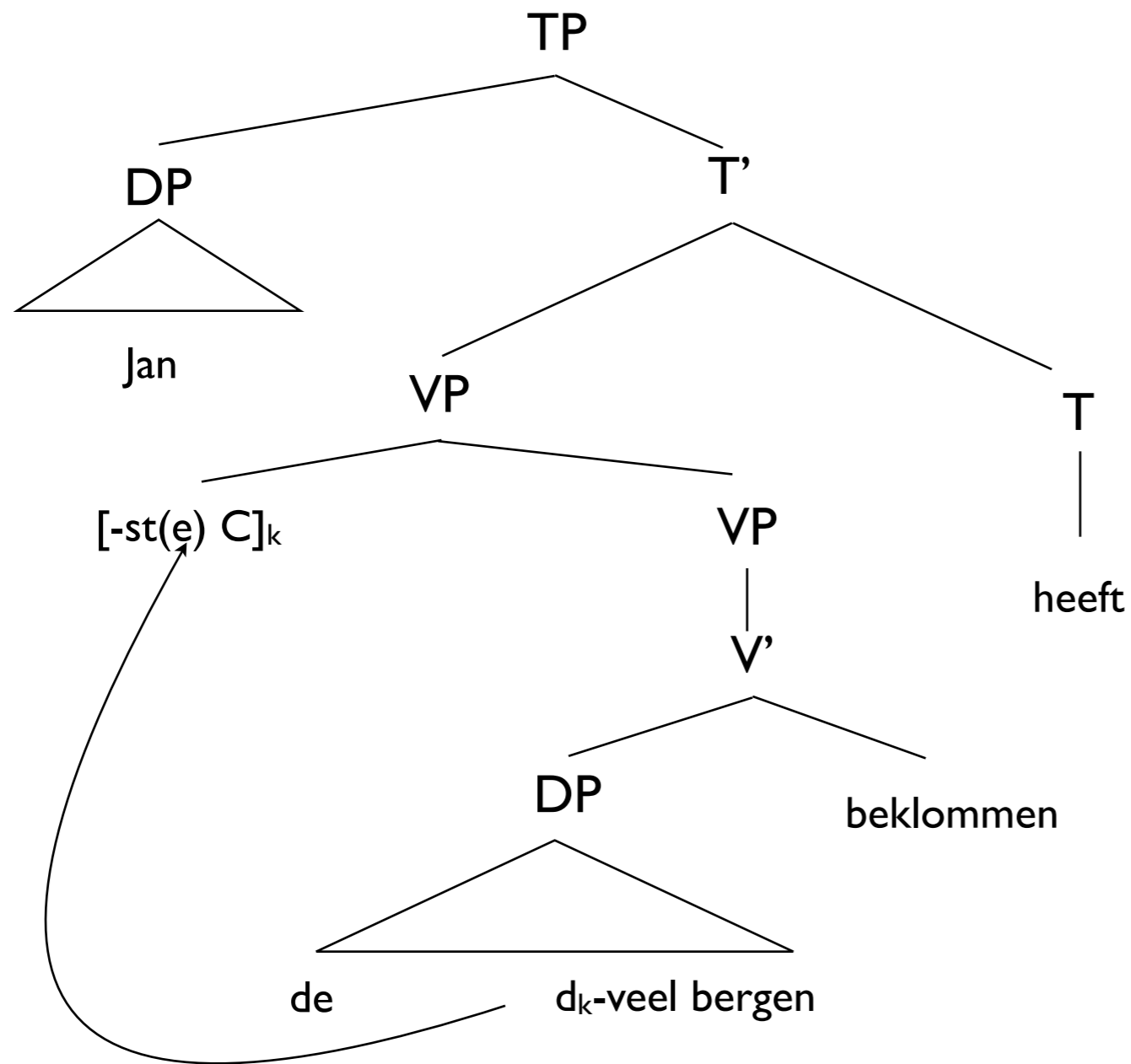
# AGR: proportional reading



- D agrees with the NP in number and gender.
- [-st(e) C]<sub>k</sub> moves out of the AP (Heim (1999), Hackl (2009)).
- [[-st(e) C]<sub>k</sub> [d<sub>k</sub>-veel bergen]] is the expected proportional reading.



# AGR: comparative reading



- $[-st(e) C]_k$  adjoins to VP (Szabolcsi (1986), Heim (1999), Hackl (2009)).
- $[[ -st(e) C ]_k [[de d_k\text{-veel bergen}] beklommen]]$  is the comparative reading.

## \*AGR

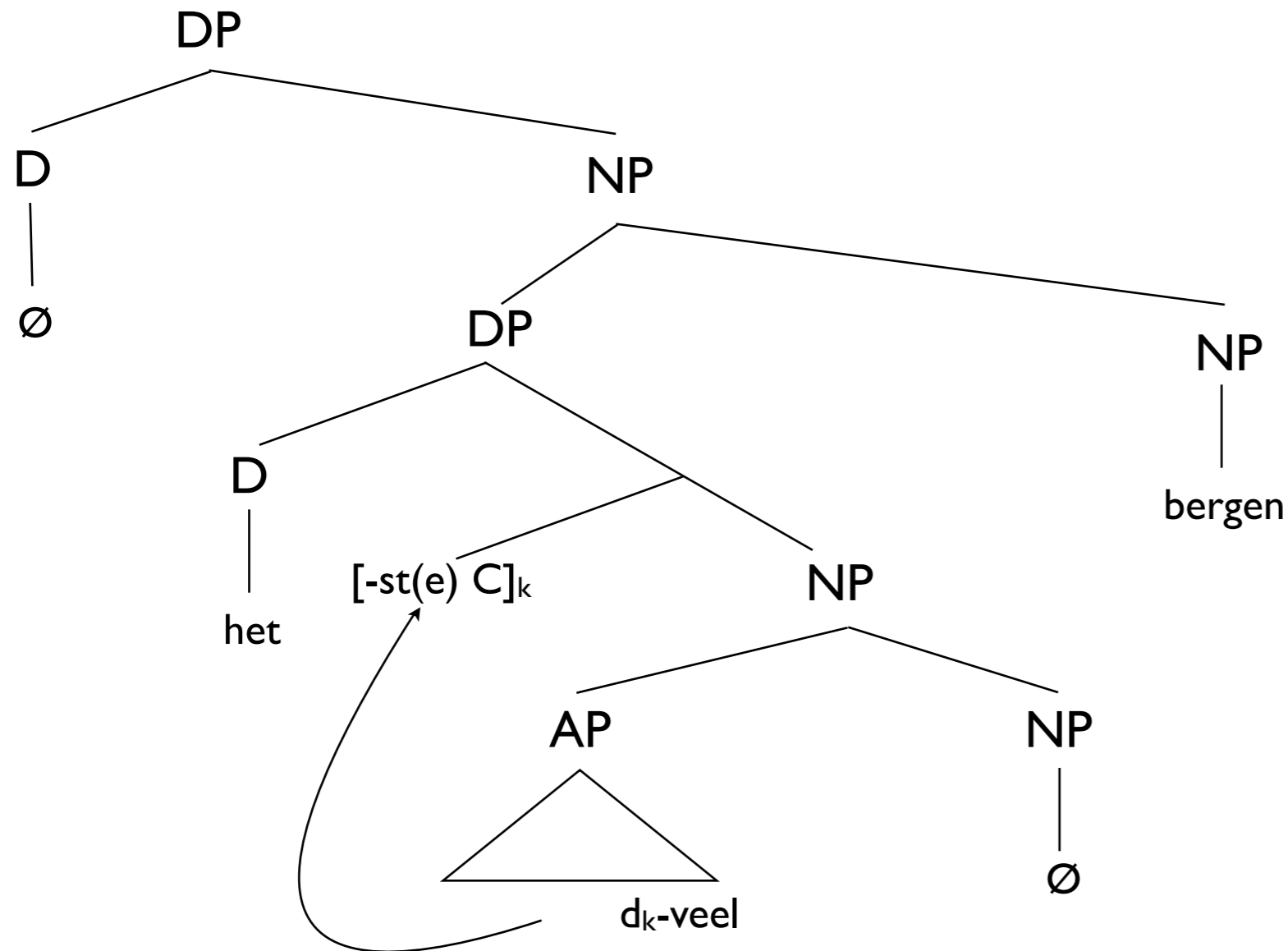
- The determiner in \*AGR does not agree with the head noun:

- (16) (a) het meeste mannen  
the<sub>sing.neut.</sub> most men<sub>pl.masc.</sub>
- (b) het meeste vrouwen  
the<sub>sing.neut.</sub> most women<sub>pl.fem.</sub>
- (c) het meeste huizen  
the<sub>sing.neut.</sub> most houses<sub>pl.neut.</sub>

- The \*AGR structure shows similarities with indefinite plurals. We assume that there is a null D in both cases:

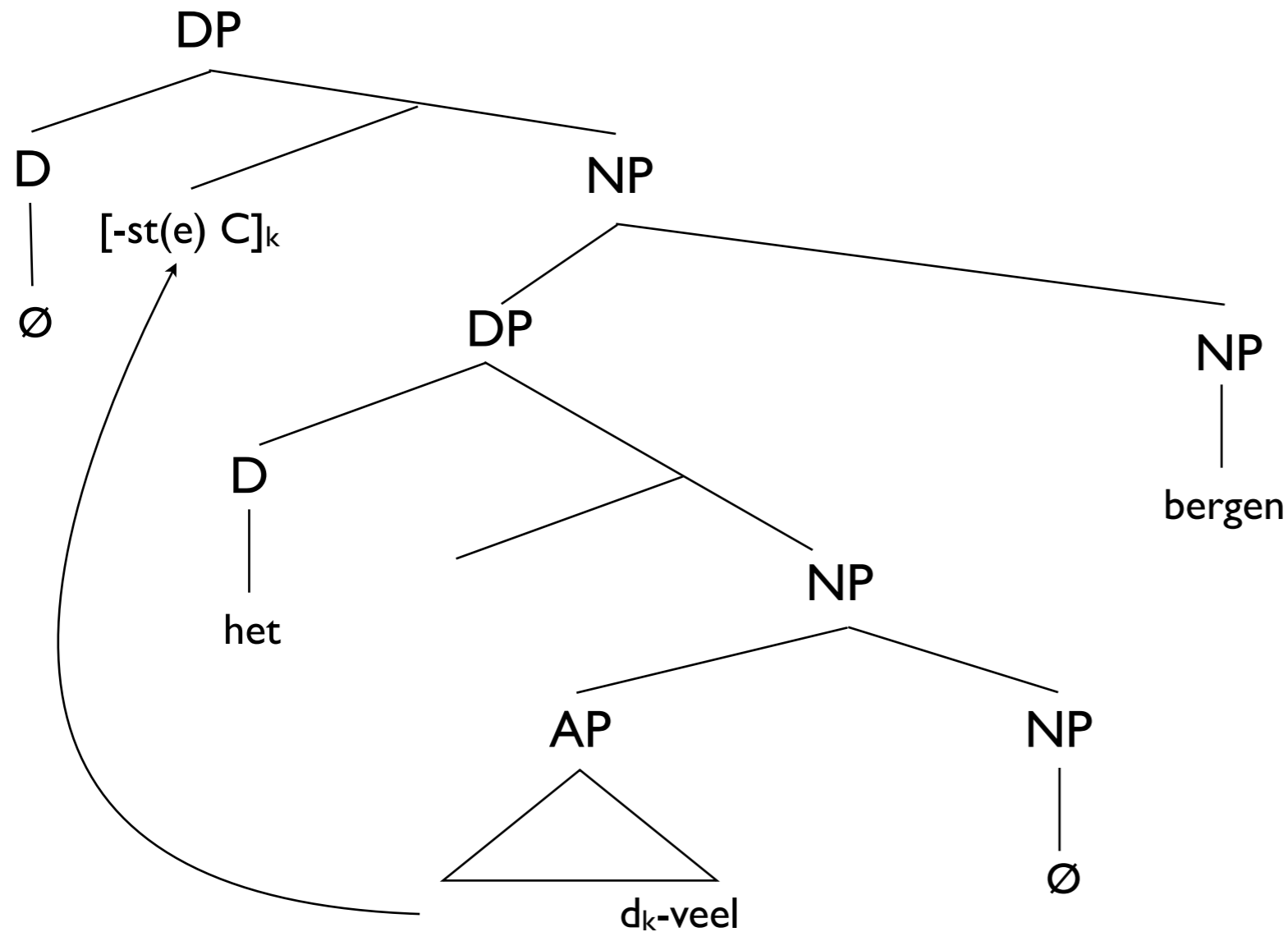
- (17) (a) Er zijn [DP  $\emptyset$  [DP het meeste] bergen [PP in Zwitserland.]]  
there are  $\emptyset$  the most mountains in Switzerland
- (b) Er zijn [DP  $\emptyset$  mannen [PP in de straat.]]  
there are  $\emptyset$  men in the street

# \*AGR: no proportional reading



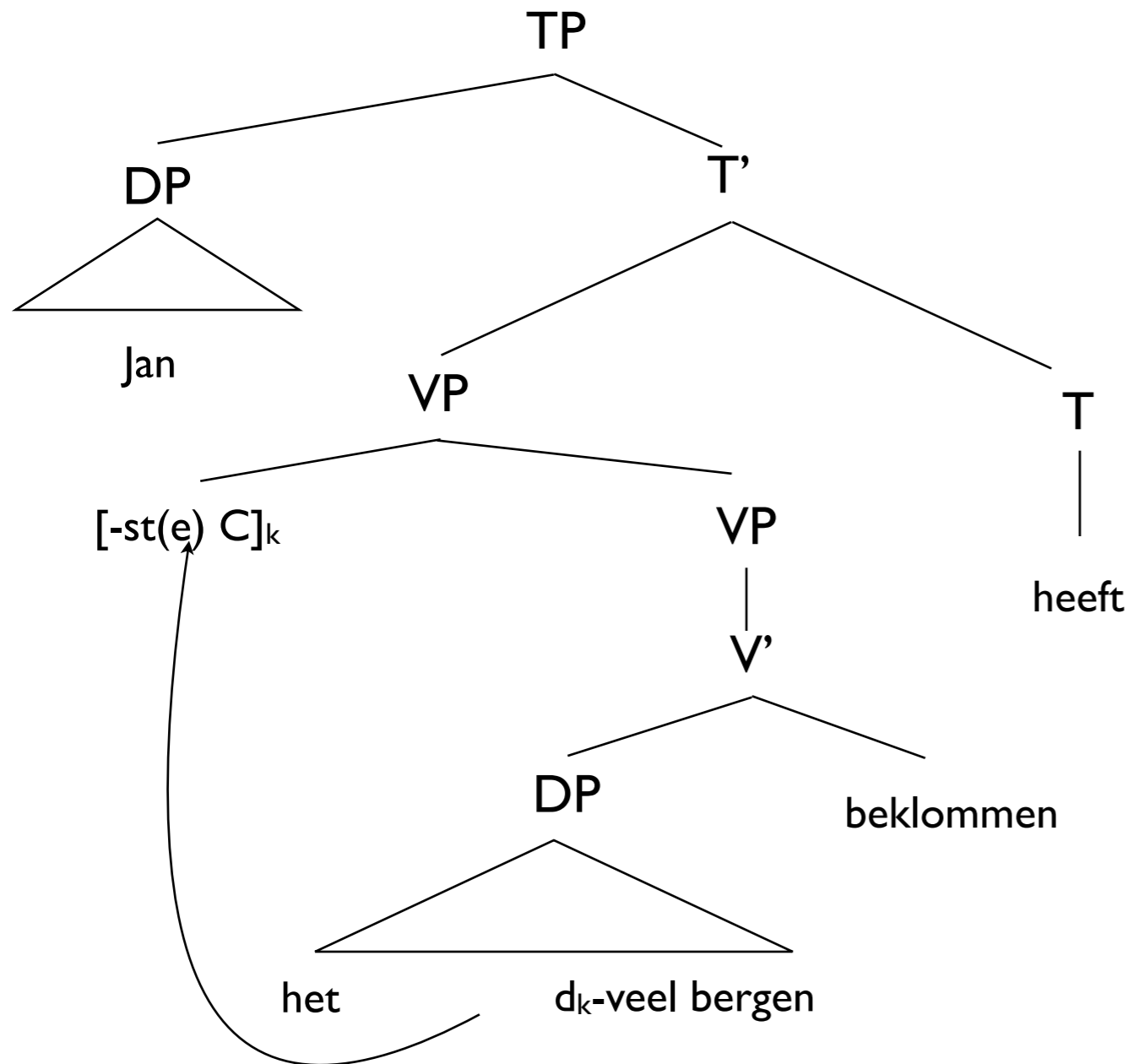
- Null D in the highest DP accounts for the combination with existential *there*.
- Null NP accounts for the absence of agreement

# \*AGR: no proportional reading



- Null D in the highest DP accounts for the combination with existential *there*.
- Null NP accounts for the absence of agreement

# \*AGR: comparative reading



- [-st(e) C]<sub>k</sub> adjoins to VP (Szabolcsi (1986), Heim (1999), Hackl (2009)).
- [[-st(e) C]<sub>k</sub>[[het d<sub>k</sub>-veel bergen] beklommen]] is the comparative reading.
- This is the only available reading for \*AGR structures.

# Interesting consequences

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- Proportional readings are definite:
  - There is a unique plurality of mountains that John climbed and that is greater than the mountains he did not climb.
  - Uniqueness is a feature of definite DPs (Milsark (1974), Farkas and Kiss (2000))
- Comparative readings are non-specific indefinite:
  - The cardinality of different pluralities of mountains is compared relative to climbers.
  - It is not possible to refer to one unique plurality of mountains.

# Conclusion

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- In Dutch, *de/het meeste* has a proportional and a comparative reading:
  - the different readings do not depend on the article
  - the DPs with comparative readings are non-specific indefinite
  - the DPs with proportional readings are definite
  - there are two different syntactic structures underlying *de/het meeste*.
- Future research:
  - How can definite *de meeste* become indefinite in the comparative reading?
  - What is the internal structure of the DPs?
  - Is an analysis possible without Heim's movement analysis for superlatives?
  - Similar expressions, such as *de/het minste*, *de meerderheid* etc.

# Bibliography

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