
(The) Most in Flemish Dutch: Definiteness and Specificity

Koen Roelandt*

KU Leuven HUBrussel / CRISSP
Warmoesberg 26, 1000 Brussel, Belgium
koen.roelandt@krowland.net

Abstract. This paper is concerned with *de meeste* ‘(the) most’ and *het meeste* ‘the most’ in Flemish Dutch. I first give an overview of their distribution and the different readings they produce. I then submit them to definiteness and specificity tests. The ensuing analysis of *de/het meeste* builds on the theory set out in Hackl [2009], but proposes a more complex syntactic structure to account for the Flemish data.

Keywords: proportional quantification, specificity, definiteness

1 Introduction

The denotation of the English proportional quantifier *most* has been a much-debated subject in the semantics and pragmatics literature (Ariel [2003, 2004], Horn [2006], Hackl [2009]). In this paper, I present data concerning two structures with *most* in Flemish Dutch: *de meeste* ‘(the) most’ and *het meeste* ‘the most’. The structures both contain definite determiners (*de* and *het*, respectively), but I demonstrate that DPs with *de meeste* are always definite and DPs with *het meeste* can be definite or indefinite depending on the head noun. A second point concerns the readings *de/het meeste* can receive: I claim that comparative readings are limited to the positions of non-specific indefinite DPs. The two claims lead to a new analysis of the structures underlying *de meeste* and *het meeste*.

This paper is organized as follows. Section 2 contains a short overview of the account for *(the) most* in Hackl [2009]. In Sect. 3, I present the Flemish data concerning the distribution of the definite determiners *de* and *het* and the different readings *de/het meeste* can receive. I submit *de/het meeste* to tests for definiteness and specificity in Sect. 4. The analysis in Sect. 5 accounts for the Flemish data, but some areas have to be dealt with in future research (Sect. 6).

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2 English (*the*) *most*: Hackl [2009]

Hackl [2009] distinguishes two interpretations for English *most*: proportional and comparative.¹ In order to explain the difference between them, I will introduce two sets. The first one, K , contains three persons: Allison, John and Bill (1a) and the second one, M , contains mountains (1b).

- (1) a. $K = \{a, j, b\}$
 b. $M = \{m_1, m_2, m_3, m_4, m_5\}$

In a situation where Allison, John and Bill go climbing, one could utter the following expressions:

- (2) a. John climbed most mountains.
 ‘John climbed more mountains than he didn’t climb.’
 (proportional)
 b. John climbed the most mountains.
 ‘John climbed more mountains than the other climbers did.’
 (comparative)

As noted by Hackl [2009, p. 75], English sentences containing *most* have a proportional reading (2a), where John climbed more mountains than he didn’t climb. If John climbed three mountains out of five (3), the expression in (2a) is true because three is greater than two. Since this reading refers to a proportion of mountains, I will call it “the proportional reading”.

- (3) $\llbracket \text{climbed}(j) \rrbracket = \{m_1, m_2, m_3\}$

Sentences with *the most*, on the other hand, can only receive a comparative reading (2b): John climbed more mountains than anyone else did. The comparative reading does not refer to a proportion of mountains. Instead, different climbers are compared relative to the number of mountains they climbed.

- (4) $\llbracket \text{climbed}(j) \rrbracket = \{m_1, m_2, m_3\}$
 $\llbracket \text{climbed}(a) \rrbracket = \{m_4, m_5\}$
 $\llbracket \text{climbed}(b) \rrbracket = \{m_3\}$

In (4), John climbed more mountains than Allison or Bill. Since this reading compares different numbers of mountains climbed by individuals, I will call it “the comparative reading”.

Superlative forms of gradable adjectives can have similar interpretations (Szabolcsi [1986], Heim [1999], Farkas and Kiss [2000]). In the absolute reading (5a), the height of the mountain is compared to the height of other mountains: the Mount Everest is the highest of all mountains. In the comparative reading (5b), climbers are compared relative to the height of the mountain(s) they climbed.

¹ Hackl uses “absolute/proportional” and “relative” for these interpretations. I refer to “proportional/comparative interpretations” of sentences containing *most* for expository purposes.

- (5) John climbed the highest mountain.
- a. “Mount Everest” (absolute)
 - b. “a higher mountain than the other climbers” (comparative)

Following Heim [1999], Hackl assumes that the superlative morpheme *-est* is a degree quantifier restricted by a comparison class C . The absolute reading of the superlative in example (5a) is derived by comparing the height of the mountains in the comparison class. Mountain x is the highest mountain if its maximal degree of height is greater than the maximal degree of height of any other mountain in the comparison class (6a, Hackl [2009, p. 80]). The comparative interpretation, on the other hand, compares people in the comparison class relative to the height of the mountains they climbed. Climber x climbed the highest mountain if he climbed a mountain with a maximal degree of height that is greater than the maximal degree of height of mountains climbed by any other climber in the comparison class (6b, Hackl [2009, p. 80]).

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

I will follow Hackl’s analysis of *most* as the superlative form of *many*, containing a superlative morpheme restricted by a comparison class C . In this analysis, *most* does not compare degrees, but the cardinality of pluralities consisting of atomic mountains. The semantics for the proportional reading in (7a) states that the maximal degree of cardinality of the plurality x (e.g. $m_1 \oplus m_2 \oplus m_3$) is greater than the maximal degree of cardinality of any other non-overlapping plurality y in the comparison class (i.e. $m_4 \oplus m_5$, m_4 , m_5).

- (7) a. $\llbracket [-est C]_i [d_i\text{-many mountains}] \rrbracket = \lambda x. \forall y \in C [y \neq x \rightarrow \max \{d: \text{mountains}(x)=1 \ \& \ |x| \geq d\} > \max \{d: \text{mountains}(y)=1 \ \& \ |y| \geq d\}]$
- b. $\llbracket [-est C]_i [\text{climbed } [\emptyset \ d_i\text{-many mountains}]] \rrbracket = \lambda x. \forall y \in C [y \neq x \rightarrow \max \{d: \exists z [\text{mountains}(z) = 1 \ \& \ |z| \geq d \ \& \ x \text{ climbed } z]\} > \max \{d: \exists z [\text{mountains}(z) = 1 \ \& \ |z| \geq d \ \& \ y \text{ climbed } z]\}]$

The comparative reading does not compare mountains, but climbers relative to the number of mountains they climb. The semantics for the comparative reading in (7b) states that the maximal degree of cardinality of the plurality climbed by x is greater than the maximal degree of cardinality of the plurality climbed by any other climber y in the comparison class. Applied to the situation in (4), John climbed the most mountains if the cardinality of the mountains he climbed ($m_1 \oplus m_2 \oplus m_3$) is greater than the cardinality of the mountains climbed by Alison or Bill ($m_4 \oplus m_5$ and m_3 , respectively). In Hackl’s analysis, the difference

between proportional and comparative readings depends on the position of [-est C] at LF. It stays inside the DP in proportional readings, but moves to [SPEC, VP] in comparative ones.

Hackl claims that the presence or absence of *the* triggers the two different readings of *most*. In the case of proportional readings (2a), the definite article is undefined and cannot occur because it clashes with Link’s maximality presupposition of *the* for plurals (Link [1983]). The maximality presupposition demands reference to the full set of objects (‘the books’ = ‘all books’), whereas the proportional reading of *most* is incompatible with a full set on Hackl’s view. In sentences with comparative readings (2b), *the* is indefinite. Following Heim [1999], Hackl assumes that indefinite DPs do not act as islands, allowing [-est C] to move out of the DP to [SPEC, VP].

In Hackl’s analysis, the definite determiner is either undefined in proportional readings or indefinite in comparative readings. An analysis of *most* in Dutch challenges this view: the definite determiner is always definite in proportional readings and the comparative reading is associated with the position of non-specific DPs. In the next section, I introduce the two Flemish structures with *most*: *de meeste* and *het meeste*.

3 Dutch Data: *de/het meeste*

In Flemish, there are two structures containing *most*, namely *de meeste* ‘(the) most’ and *het meeste* ‘the most’. These constituents show behavior that is of interest to Hackl’s analysis. Firstly, the determiner *de* ‘the’ of *de meeste* always agrees with the head noun it appears with, while this is not the case for the determiner ‘*het*’ in *het meeste* (Sect. 3.1). Secondly, *de meeste* is ambiguous between proportional and comparative readings, whereas *het meeste* only has a comparative reading in combination with plural nouns (Sect. 3.2).

3.1 The Distribution of the Definite Determiners

In this section, I discuss the distribution of the definite determiner in DPs with *het meeste* and *de meeste*. Before turning to *de/het meeste*, however, I will give a brief overview of definite determiners in Dutch.

The Dutch grammatical gender system has three classes: feminine, masculine and neuter. There are two definite determiners: *de* and *het*. The former appears in combination with plural count nouns and singular feminine/masculine count nouns. The latter only occurs with singular neuter nouns. Both *de* and *het* appear with mass nouns. Table 1 gives an overview of the distribution of definite articles in Dutch.

	feminine	masculine	neuter
singular	de	de	het
mass	de	de	het
plural	de	de	de

Table 1. The distribution of definite articles in Dutch

In many contexts, *de meeste* and *het meeste* follow the distribution of the determiners they contain. *De meeste* combines with plural count nouns (8a) and masculine/feminine mass nouns (8b), while *het meeste* precedes neuter mass nouns (8c).

- (8) a. de (meeste) vrouwen - de (meeste) mannen - de (meeste)
the most women_{pl.fem.} - the most men_{pl.masc.} - the most
huizen
houses_{pl.neut.}
- b. de (meeste) muziek - de (meeste) chocolade
the most music_{sing.fem.} - the most chocolate_{sing.masc.}
- c. het (meeste) geld
the most money_{sing.neut.}

A puzzling observation in Flemish Dutch, however, is that *het meeste* also combines with plural and with non-neuter mass nouns ((9a) and (9b)), despite the fact that *het* cannot appear in front of them ((9c) and (9d)).

- (9) a. het meeste vrouwen - het meeste mannen - het meeste
the most women_{pl.fem.} - the most men_{pl.masc.} - the most
huizen
houses_{pl.neut.}
- b. het meeste muziek - het meeste chocolade
the most music_{sing.fem.} - the most chocolate_{sing.masc.}
- c. *het vrouwen - *het mannen - *het huizen
the women_{pl.fem.} - the men_{pl.masc.} - the houses_{pl.neut.}
- d. *het muziek - *het chocolade
the music_{sing.fem.} - the chocolate_{sing.masc.}

De meeste is not as liberal because it cannot appear with neuter nouns (10).

- (10) *de meeste huis - *de meeste geld
the most house_{sing.neut.} - the most money_{sing.neut.}

It is important to note that Flemish speakers consider *het meeste N* as one constituent, since it can be topicalized (11).²

² Speakers of Dutch from the Netherlands, on the other hand, have different judgements. For them, *het meeste N* can never be a constituent and topicalizing it is

- (11) a. Het meeste vrouwen/mannen/huizen heeft Jan gezien.
 the most women/men/houses has John seen
 ‘John saw the most women/men/houses.’
 b. Het meeste muziek/chocolade heeft Jan gemaakt.
 the most music/chocolate has John made
 ‘John made the most music/chocolate.’

In another reading available to Flemish speakers, *het meest* (without the *-e* inflection) quantifies over events, which yields a different reading altogether (12):

- (12) a. Jan heeft [het meest] vrouwen/mannen/huizen gezien.
 John has the most women/men/houses seen
 ‘John mostly saw women/men/houses (and not something else such as trees).’
 b. Jan heeft [het meest] muziek/chocolade gemaakt.
 John has the most music/chocolate made
 ‘John mostly made music/chocolate (and not something else such as paintings).’

The sentence in (12a) states that the event of John seeing women/men/houses took place more often than the event of seeing trees.³ The cardinality of the different entities (women, men, houses etc.) is not taken into account. *Het meest* can also be topicalized:

- (13) a. Het meest heeft Jan vrouwen/mannen/huizen gezien.
 the most has John women/men/houses seen
 ‘Mostly, John saw women/men/houses.’
 b. Het meest heeft Jan muziek/chocolade gemaakt.
 the most has John music/chocolate made
 ‘Mostly, John made music/chocolate.’

In summary, *de meeste* must agree with the head noun in the DP. In Flemish Dutch, *het meeste N* is one constituent but *het meeste* does not have to agree with the head noun: it can appear with feminine/masculine mass nouns and plural count nouns.

ungrammatical. This means that both sentences in (11) are ungrammatical and the comparative reading of *het meeste* is not available to them. In the Netherlands, *het meeste* can only quantify over events, with some variation concerning the inflection *-e*.

³ *Voornamelijk* ‘mainly’ has the same interpretation. It would be interesting to explore the differences between *het meest* and *voornamelijk* regarding their distribution and interpretation, but this a point for future research.

3.2 Proportional and Comparative Readings

Flemish sentences with *de meeste* are ambiguous between proportional⁴ and comparative readings (14).

- (14) a. Jan heeft de meeste vrouwen/mannen/huizen gezien.
 John has the most women/men/houses seen
 ‘John saw (the) most women/men/houses.’
 i. ‘John saw more than half of the women/men/houses.’
 (proportional)
 ii. ‘John saw more women/men/houses than anybody else did.’
 (comparative)
- b. Jan heeft de meeste muziek/chocolade gemaakt.
 John has the most music/chocolate made
 ‘John made (the) most music/chocolate.’
 i. ‘John made more than half of the music/chocolate.’
 (proportional)
 ii. ‘John made more music/chocolate than anybody else did.’
 (comparative)

When *de meeste* is replaced with *het meeste*, the sentence yields different readings. The proportional reading is no longer available and only the comparative reading remains (15).

- (15) a. Jan heeft het meeste vrouwen/mannen/huizen gezien.
 John has the most women/men/houses seen
 ‘John saw the most women/men/houses.’
 i. - (proportional)
 ii. ‘John saw more women/men/houses than anybody else did.’
 (comparative)
- b. Jan heeft het meeste muziek/chocolade gemaakt.
 John has the most music/chocolate made
 ‘John made the most music/chocolate.’
 i. - (proportional)
 ii. ‘John made more music/chocolate than anybody else did.’
 (comparative)

When *het meeste* combines with a neuter mass noun such as *geld* ‘money’, both readings are available (16).

⁴ Hackl [2009] points out that the correct paraphrase of the proportional reading is *more N than he didn't V* (cf. example (2a)). However, I will use *more than half* in the glosses for ease of reading.

- (16) Jan heeft het meeste geld verloren.
 John has the most money lost
 ‘John lost (the) most money.’
- a. ‘John lost more than half of the money.’ (proportional)
 b. ‘John lost more money than anybody else did.’ (comparative)

To sum up, *de/het meeste* can produce different readings, depending on the definite determiner the speaker chooses. Sentences containing *de meeste* have both proportional and comparative readings. *Het meeste N* has the comparative reading in Flemish Dutch if *het* doesn’t agree with the noun in number and gender. Finally, *het meeste* combined with a neuter mass noun can have both proportional and comparative readings.

4 Tests: Definiteness and Specificity

In the previous section, I identified syntactic and semantic differences between *de meeste* and *het meeste*. In this section, I dig a bit deeper and examine the quantifiers’ relation to definiteness and specificity. I will concentrate on Flemish Dutch.

4.1 Definiteness

De meeste and *het meeste* will be submitted to two tests for definiteness: existential *there* clauses and expressions with DP-internal focus, i.e. focus on a PP postmodifier inside the DP.⁵

The definiteness effect context is a classic diagnostic for indefiniteness (Mil-sark [1974], Szabolcsi [1986]). Sentences that start with *there is/are* may contain indefinites (17a), bare plurals (17b) and bare mass nouns (17c-17d) in the associate position, but no definite DPs (18).

- (17) a. Er is een berg in Canada.
 there is a mountain in Canada
 ‘There is a mountain in Canada.’
- b. Er zijn bergen in Canada.
 there are mountains in Canada
 ‘There are mountains in Canada.’
- c. Er is chocolade in België.
 there is chocolate in Belgium
 ‘There is chocolate in Belgium.’

⁵ I will only use the plural count nouns *bergen* ‘mountains’ (masculine) and *platen* ‘records’ (feminine) in the examples, but the judgements can be extended to all plural nouns, regardless of their gender. I will also present data with the neuter mass noun *geld* ‘money’ because it yields different judgements.

- d. Er is geld in België.
there is money in Belgium
'There is money in Belgium.'
- (18) a. *Er is de berg in Canada.
there is the mountain in Canada
- b. *Er zijn de bergen in Canada.
there are the mountains in Canada
- c. *Er is de chocolade in België.
there is the chocolate in Belgium
- d. *Er is het geld in België.
there is the money in Belgium

When this test is applied to *de/het meeste*, we see that *het meeste* follows the pattern of indefinite DPs, both in combination with a masculine noun in examples (19a) and (19b) and a neuter mass noun in example (19c). Even though *het* is a definite article, *het meeste* is perfectly acceptable in these sentences. *De meeste*, however, is ungrammatical in combination with existential *there*, which suggests that it heads a definite DP.

- (19) a. Er zijn het meeste bergen in Canada.
there are the most mountains in Canada
'There are the most mountains in Canada.' (comparative)
- b. Er is het meeste chocolade in België.
there is the most chocolate in Belgium
'There is the most chocolate in Belgium.' (comparative)
- c. Er is het meeste geld in België.
there is the most money in Belgium
'There is the most money in Belgium.' (comparative)
- (20) a. *Er zijn de meeste bergen in Canada.
there are the most mountains in Canada
- b. *Er is de meeste chocolade in België.
there is the most chocolate in Belgium

Milsark [1974] makes a distinction between determiners based on this test. Determiners that are acceptable in sentences with existential *there* fall in the group with a cardinality reading (*a, three, ten* etc.). Determiners that are ungrammatical have quantificational readings (*the, each, every, most* etc.). Following this line of reasoning, *het meeste* yields cardinality readings, while *de meeste* only produces quantificational readings.

The second test uses DP-internal focus. Example (2b) shows a comparative reading where the comparison class is determined by the verb *klimmen* 'to climb' and the comparison class contains climbers. In Slavic languages, however, the comparison class can also be provided by a focused PP inside the DP containing

most, but only if this DP is indefinite [Pancheva and Tomaszewicz, 2012].⁶ Dutch sentences with *het meeste* can also have DP-internal focus. Example (21b) shows a comparative reading with a PP providing the comparison class.

- (21) ...dat Jan [DP_{het meeste platen} [PP_{van Zappa}]] beluisterd heeft.
 ...that John the most records of/by Zappa listened to has
 ‘... that John listened to the most records of/by Zappa.’
- a. John listened to more records of/by Zappa than anybody else did.
 (comparative - focus on *Jan*)
- b. John listened to more records of/by Zappa than he listened to records of/by any other band.
 (comparative - focus on *Zappa*)

Following the Slavic pattern, this suggests that the DP *het meeste N* is indefinite. Moreover, Pancheva and Tomaszewicz [2012] show that a DP with *most* can be headed by a definite determiner in Macedonian and Bulgarian, but the comparative reading with a comparison class delivered by the DP-internal PP is not available then. If *de meeste N* is indeed definite, it should follow the pattern of definite DPs in Bulgarian and Macedonian. This prediction is borne out. The sentences with *de meeste platen* can only have a proportional reading (22a) or a comparative reading with the comparison class determined by the verb (22b). The DP-internal comparative reading is not available.

- (22) ...dat Jan [DP_{de meeste platen} [PP_{van Zappa}]] beluisterd heeft.
 ...that John the most records of/by Zappa listened to has
 ‘... that John listened to (the) most records of/by Zappa.’
- a. John listened to more than half of the records of/by Zappa.
 (proportional)
- b. John listened to more records of/by Zappa than anybody else did.
 (comparative - subject)

Taking the Macedonian and Bulgarian pattern into account, this shows that *het meeste N* is indefinite and *de meeste N* definite. Sentences containing *het meeste* and a neuter mass noun can have all the readings associated with both definite and indefinite DPs (23), which suggests that it is ambiguous and can be both definite and indefinite.

- (23) ...dat Jan [DP_{het meeste geld} [PP_{uit zijn portefeuille}]] verloren heeft.
 ...that John the most money from his wallet lost
 heeft.
 has
 ‘... that John lost (the) most money from his wallet.’
- a. John lost more than half of the money from his wallet.
 (proportional)

⁶ I would like to thank the anonymous reviewer for pointing this out to me.

- b. John lost more money from his wallet than anybody else did.
(comparative - focus on *Jan*)
- c. John lost more money from his wallet than from his account.
(comparative - focus on *portefeuille*)

Tests with existential *there* and DP-internal focus show that *de meeste* is definite: it cannot appear in sentences with existential *there* and the comparative reading with DP-internal focus is not available. *Het meeste* $N_{pl.}$ is indefinite: it can appear in sentences with existential *there* and can have a comparative reading with DP-internal focus. *Het meeste* in combination with a neuter mass noun can appear in sentences with existential *there*, and it can have a comparative reading with DP-internal reading. This shows that it is indefinite. On the other hand, it can also have a proportional reading, which suggests that it can also be definite.

In short, diagnostics for definiteness offer a first insight into the behavior of *de/het meeste*, but the mechanism behind the comparative and proportional readings has not been clarified yet. Specificity tests will turn out to be a more fine-grained tool.

4.2 Specificity

Specificity makes a further distinction between the various uses or interpretations of indefinite noun phrases. The concept has a long history and covers a wide range of data. Von Heusinger [2011] distinguishes referential, scopal and epistemic specificity, specificity associated with familiarity and topicality, and specificity as noteworthiness and as discourse. In this paper, I limit myself to one type, namely epistemic specificity, where a specific indefinite NP refers to a particular referent, the referent “the speaker has in mind” (von Heusinger [2011]).

Scrambling is an excellent test for specificity in Dutch (??). The direct object is base-generated in a position adjacent to that of the verb. Different types of DPs can appear there (24a), namely indefinite DPs with *een* ‘a’ or definite DPs with *de* ‘the’. In (24a), the DP *een auto* ‘a car’ is non-specific: it can only refer to some car or other and not to a specific car. However, indefinite DPs are always specific when they are scrambled (24b). A sentence with *een auto* ‘a car’ in a position to the left of the adverb is degraded. A sentence with a definite DP is still correct when the DP is scrambled.

- (24) a. ...dat Jan gisteren de/een auto gekregen heeft.
...that John yesterday the/a car gotten has
'...that John got the/a car yesterday.'
- b. ...dat Jan [de/?een auto] gisteren t gekregen heeft.
...that John the/a car yesterday t gotten has
'...that John got the/a car yesterday.'

The non-specific indefinite pronoun *wat* ‘something’⁷ and the ambiguous (non-)specific indefinite pronoun *iets* ‘something’ also demonstrate this effect.

- (25) 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 t gekregen heeft.
 ↑
 ...that John something yesterday t gotten has
 ‘...that John got something yesterday.’

The pronouns can both appear in the base-generated position next to the verb, but sentences with non-specific *wat* become ungrammatical when *wat* is situated left of the adverb. However, *iets* is still felicitous in these cases because it can be specific. This makes scrambling a good diagnostic for the specificity of DPs.

Let us now turn to *de meeste* and *het meeste*. The former can have both proportional and comparative readings in the base-generated position (26a). When the DP appears to the left of the adverb, only the proportional reading remains (26b). This demonstrates that the comparative reading is limited to the position of non-specific DPs (compare with *wat* in (25b)).

- (26) a. ...dat Jan gisteren de meeste bergen beklommen heeft.
 ...that John yesterday the most mountains climbed has
 ‘...that John climbed (the) most mountains yesterday.’
 (proportional/comparative)
- b. ...dat Jan [de meeste bergen] gisteren t beklommen heeft.
 ↑
 ...that John the most mountains yesterday t climbed has
 ‘...that John climbed most mountains yesterday.’ (proportional)

In case *het meeste* combines with plural nouns, it is restricted to the comparative reading in the base-generated position (27a). If the DP is scrambled, the sentence is ungrammatical (27b).

- (27) a. ...dat Jan gisteren het meeste bergen beklommen heeft.
 ...that John yesterday the most mountains climbed has
 ‘...that John climbed the most mountains yesterday.’
 (comparative)
- b. *...dat Jan [het meeste bergen] gisteren t beklommen
 ↑
 ...that John the most mountains yesterday t climbed
 heeft.

has

⁷ *Wat* can be both an indefinite and an interrogative pronoun, depending on its position in the sentence (Postma [1994]).

Sentences with DP-internal focus are infelicitous when the DP is scrambled, no matter whether focus is on the subject (28b) or the PP (29b).

- (28) a. ...dat JAN gisteren [het meeste platen [van Zappa]]
 ...that JOHN yesterday the most records of/by Zappa
 beluisterd heeft.
 listened to has
 ‘... that John listened to more records of/by Zappa than anyone else did.’
 (comparative - subject)
- b. *...dat JAN [het meeste platen [van Zappa]] gisteren t
 ...that JOHN the most records of/by Zappa yesterday t
 beluisterd heeft.
 listened to has
- (29) a. ...dat Jan gisteren [het meeste platen [van ZAPPA]]
 ...that John yesterday the most records of/by ZAPPA
 beluisterd heeft.
 listened to has
 ‘... that John listened to more records of/by Zappa than to records of any other band.’
 (comparative - PP)
- b. *...dat Jan [het meeste platen [van ZAPPA]] gisteren t
 ...that John the most records of/by ZAPPA yesterday t
 beluisterd heeft.
 listened to has

Het meeste can receive both interpretations if it combines with neuter mass nouns. It has both a proportional and a comparative reading in the base-generated position (30a), but only a proportional one when scrambled (30b).⁸

⁸ A reviewer pointed out that the effect of scrambling can also be caused by the freezing principle [Wexler and Culicover, 1981, p. 542], represented in (a).

- (a) A node is frozen if (i) its immediate structure is non-base, or (ii) it has been raised.

Assuming that the DP with *de/het meeste* actually moves when it is scrambled, the node is frozen and nothing can move from it. The freezing principle thus prevents the superlative morpheme from moving to [SPEC, VP] at LF, which blocks the comparative reading: only the proportional reading is available. However, there is a counterexample: the freezing principle predicts that a comparative reading is impossible in case of topicalization. Example (1) however, shows that the comparative reading is still present.

- (30) a. ...dat Jan gisteren het meeste geld verloren heeft.
 ...that John yesterday the most money lost has
 ‘...that John lost (the) most money yesterday.’
 (proportional/comparative)
- b. ...dat Jan [het meeste geld] gisteren t verloren heeft.
 ...that John the most money yesterday t lost has
 ‘...that John lost most money yesterday.’ (proportional)

The specificity tests show that comparative readings of *de/het meeste* are restricted to the positions of non-specific indefinite DPs and that they disappear when the DP is scrambled. When only the comparative reading is available in the first place, scrambling the DP yields ungrammatical sentences. The tests lead to the generalisation that DPs with comparative readings follow the distribution of non-specific indefinite DPs. The results of the definiteness and specificity tests will form the basis for my analysis in the next section.

5 Analysis

The Flemish data confront us with two intriguing questions. Why can *het meeste* occur in combination with plural nouns even though *het* is a singular neuter determiner? And why are sentences containing *de meeste* and a plural noun ambiguous between proportional and comparative readings, while sentences with *het meeste* always have the latter readings?

Based on the definiteness tests, I propose that there are two distinct structures underlying *de/het meeste*. The first one contains a definite determiner that agrees in gender and number with the noun it c-commands (31). Therefore I will label it the “AGR structure”.

- (31) a. de meeste vrouwen - de meeste mannen -
 the_{pl.fem.} most women_{pl.fem.} - the_{pl.masc.} most men_{pl.masc.} -
 de meeste huizen
 the_{pl.neut.} most houses_{pl.neut.}
- b. het meeste geld
 the_{sing.neut.} most money_{sing.neut.}

-
- (1) Het meeste BERGEN heeft JAN beklommen.
 the most mountains has John climbed
 It is John who climbed more mountains (and not skyscrapers) than anybody
 else. (comparative)

The example discards the account of the freezing principle as an explanation, but it also presents challenges for the definiteness/specificity account. Firstly, non-specific indefinites normally cannot be topicalized. Secondly, the sentence is only felicitous with multiple stress on *bergen* ‘mountains’ and *Jan* ‘John’. Future research will have to clarify the effects and consequences of topicalization and focus.

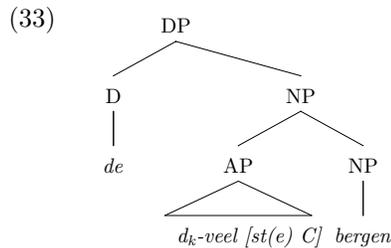
These AGR structures have comparative and proportional readings in the base-generated object position (26a/30a) and retain the proportional one in the scrambled position (26b/30b).

In the second structure, the determiner does not agree with the head noun. All nouns in (32a) would normally require *de* as a determiner because they are plural, but the singular neuter article *het* appears instead. I will term this the “*AGR structure” because of the lack of agreement. Note that constituents with neuter mass nouns are ambiguous between AGR (31b) and *AGR (32b) structures.

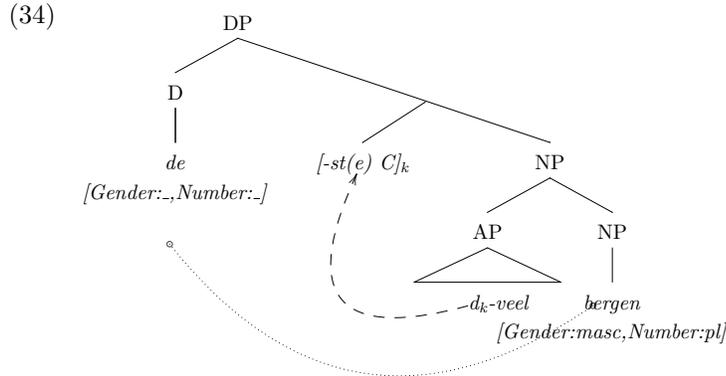
- (32) a. *het* *meeste vrouwen* - *het* *meeste mannen* -
 the_{sing.neut.} most women_{pl.fem.} - the_{sing.neut.} most men_{pl.masc.} -
 het *meeste huizen*
 the_{sing.neut.} most houses_{pl.neut.}
- b. *het* *meeste geld*
 the_{sing.neut.} most money_{sing.neut.}

5.1 AGR Structures

For the analysis of AGR structures, I follow Hackl and analyze them as the superlative of *veel* ‘many’. The superlative morpheme in Dutch is *-st*. The AGR structure thus consists of a definite determiner (*de/het*) agreeing with the head noun, an AP with the modifier *veel*, the superlative morpheme and the comparison class *C*, and the NP *bergen* (33).

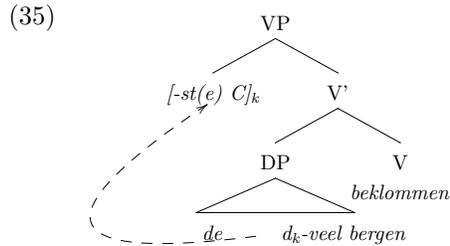


Following Hackl [2009], I assume that proportional readings require the superlative morpheme to stay inside the DP at LF. Example (34) shows how [-st(e) C] moves and has scope over the NP. The determiner of the DP is definite, which explains why *de meeste* is ungrammatical in sentences with existential *there*.



Although Hackl’s analysis would predict that *de* is undefined in combination with *meeste* (very much like *most*), this is not borne out by the Flemish data: *de meeste* is definite. The definiteness also follows from the semantics of *de/het meeste*, since the proportional reading refers to a unique fraction in the comparison class, and uniqueness is a feature of definite DPs (Farkas and Kiss [2000]). In other words, the proportional reading is true if John climbed a unique plurality of mountains that is greater than any other non-overlapping plurality in the comparison class.

For the comparative readings, Hackl assumes that the DP is indefinite. This prevents it from acting as an island, which allows the superlative morpheme to move to [SPEC, VP] (35) (cf. Szabolcsi [1986], Heim [1999]). In Flemish, comparative readings are indeed associated with DPs in base-generated positions, where non-specific indefinite DPs may appear.



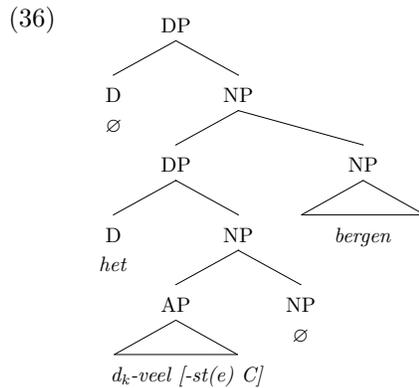
The indefiniteness of comparative readings may be connected to their semantics. In comparative readings, different pluralities are compared to each other (e.g. those climbed by John, Allison and Bill) and is not possible to pick out one unique plurality. The exact relation between definiteness and the semantics of proportional/comparative readings remains a matter for future research.

5.2 *AGR Structures

*AGR structures behave like indefinite DPs, but start with the definite determiner *het*. In order to resolve this problem, I propose that *het* is not the head of

the DP, but that *het meeste* is nevertheless part of it. When we use topicalization as a diagnostic, the complete *AGR constituent can be fronted in Flemish Dutch (11). This indicates that *het meeste* must be located inside the DP.

I propose the structure in (36) for *AGR constructions. I follow Matushansky [2008] and assume that superlative phrases without an overt noun modify a null head noun.

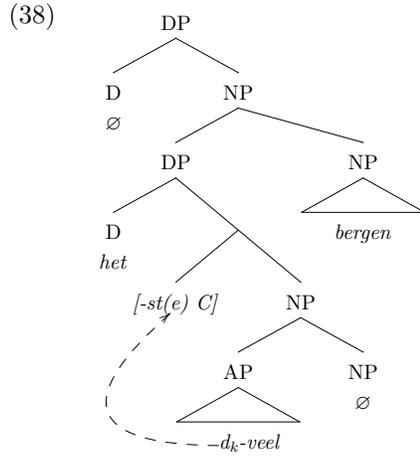


The *AGR structure explains the behavior of *het meeste*. Firstly, the head of the DP containing *bergen* has a null head determiner, which makes the whole constituent a bare plural. Bare plurals can indeed occur in existential *there*-constructions (37b).

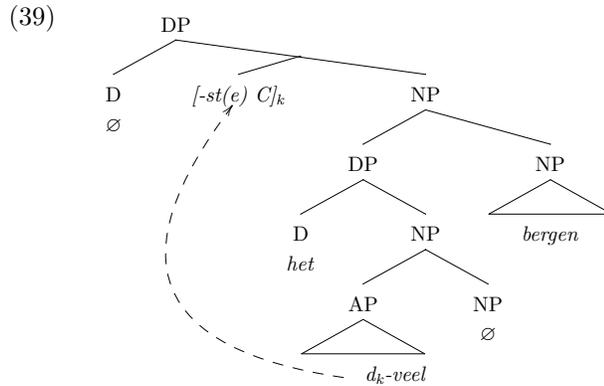
- (37) a. *Er zijn de bergen.
 there are the mountains
- b. Er zijn ∅ bergen.
 there are ∅ mountains
 ‘There are mountains.’

Secondly, there is no agreement between *het* and *bergen* since *het* is not the head of the DP containing the head noun.

Because of the position of *het meeste* inside the DP, the proportional reading is not available. The superlative morpheme [-st(e) C] moves up inside the DP, but it can only have scope over the null head noun and not over *bergen* (38).



The superlative morpheme could also move to the higher DP (39), but then it is no longer dominated by a definite determiner.



The proportional reading is thus blocked and the only option left for $[-st(e) C]$ is to move out to $[SPEC, VP]$, which produces the comparative reading. This explains why *AGR structures only have comparative interpretations in Flemish Dutch (15).

6 Future Research

In Hackl's analysis, the definite determiner was undefined in the case of *most* and indefinite in the case of *the most*. My discussion of Flemish *de/het meeste* has shown that the analysis should be more fine-grained to account for the Flemish data. Firstly, *de meeste*, the Dutch equivalent of *most*, is always definite. *Het meeste*, on the other hand, is indefinite in *AGR structures. Secondly, the proportional reading is associated with definite DPs, whereas the comparative reading is associated with non-specific indefinite DPs. In the previous section, I presented an analysis for the Dutch data. However, some issues remain.

Firstly, the structures proposed in examples (34) and (38) explain the (in)definiteness of *de meeste* and *het meeste* but not their (non-)specificity. The implementation of specificity in the grammar is no easy matter and remains the subject of debate (cf. von Heusinger [2011]). The Flemish data, however, add quantifiers such as *de/het meeste* to this debate and may contribute to the discussion on the internal structure of (non-)specific DPs.

Secondly, the analysis is based on the account for *most* in Hackl [2009], which in turn builds on the theory for superlatives in Heim [1999]. In these theories, the determiner is definite in proportional readings, which creates an island and prevents the superlative morpheme from moving. In comparative readings, the determiner is indefinite and can move to [SPEC,VP]. It remains unclear how and why the definite determiner *the* can be indefinite. My analysis of Dutch has the same issue. Moreover, the problem has become more pressing: if *de meeste* is indeed non-specific indefinite in comparative readings, then we would expect *de meeste* to appear in sentences with existential *there*. Example (18b) shows that this is not the case. The status of the definite determiner in superlative constructions and *de/het meeste* thus remains a matter for future research.

Thirdly, I did not show how feminine/masculine mass nouns behave in sentences with *het meeste* and existential *there*, DP-internal focus or scrambling. It is possible that these structures influence the analysis presented in Sect. 5, but they will be dealt with in future research.

7 Conclusion

The analysis of *most* in Hackl [2009] claims that the definite determiner is undefined in *most* and indefinite in *the most*. Moreover, the presence or absence of the definite determiner triggers the proportional and comparative readings: sentences with *most* always have a proportional reading and sentences with *the most* always have a comparative reading.

The Flemish data presented in this paper show that *de meeste* is always definite, but that it can have both proportional and comparative readings. *Het meeste* is always indefinite when combined with plural count nouns, but the comparative reading is only available in positions associated with non-specific indefinite DPs.

The analysis of the Flemish data shows that Hackl's analysis is compatible with *de meeste*. However, I propose a more complex syntactic structure for *het meeste* to account for its indefiniteness and the comparative reading it produces.

Some issues have to be dealt with in future research. Firstly, specificity has not been included in the analysis. Secondly, it remains unclear how definite *de meeste* can have a comparative reading. Thirdly, feminine and masculine mass nouns have to be included in the data. Finally, the relation between definiteness, specificity and the semantics of proportional/comparative readings remains an interesting area for future research.

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