

Degree modification across categories in Afrikaans

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The paper presents an analysis of the Afrikaans degree modifier *baie* ‘very/much/many’. *Baie* appears to be a single lexical item with a wide distribution in terms of the categories of gradable predicate with which it can combine. However, the paper shows that two syntactically distinct instances of *baie* should be distinguished. These instances of *baie* portion out the modification of different grammatical categories between them: one, a head, exclusively modifies gradable adjectives, and the other, an adjunct, modifies the remaining categories of gradable predicate.

Keywords: degree modification, gradability, Afrikaans

1. Introduction

Gradable predicates are those predicates with a semantics such that their domains can be partially ordered with reference to a property that permits grading (cf. Kennedy 1999). The gradability of a predicate allows it (i) to occur in degree constructions, e.g. comparatives and equatives; and (ii) to be modified by degree expressions such as the English *very*, *mostly*, and *somewhat*.

Degree expressions, in turn, can be distinguished in terms of the lexical categories of the gradable predicates with which they combine. Some have narrow distributions, and can only combine with one category of gradable predicate. English *very* (distribution illustrated in (1)) and French *très* ‘very’ are examples of such limited-distribution degree expressions.¹ The existence of numerous modifiers like *very* that can only modify gradable adjectives has been taken as support

1. This sets aside ‘non-standard-boosting’ uses of *very* as in e.g. *For the very first time, It was this very book that I was reading*, and *I became the very person I hated in my youth* (cf. Bylinina & Sudo 2015 for discussion of uses like these).

for the hypothesis that the gradability of adjectives is fundamentally different from the gradability of other predicates (cf. e.g. Jackendoff 1977).

- (1) a. I am **very hungry**. (Gradable adjective)
 b. *I **appreciate him very**. (Gradable verb)
 c. *She **travels very**. (Eventive verb)
 d. *Mary is **very smarter** than Jane. (Comparative)
 e. *Donald Trump has **very money**. (Mass noun)
 f. *I have **very books**. (Plural noun)

However, along this line of reasoning, one could also argue that all gradable predicates are of the same semantic and syntactic type, based on the occurrence of modifiers that can combine with all categories of gradable predicate. Afrikaans *baie* ‘very/much/many’ is an example of such a modifier. The distribution of this item is illustrated in (2).² Note that *baie* is glossed throughout as HIGH-DEG, in accordance with its function as a high-degree modifier.³

- (2) a. *Jan is baie snaaks.* (Gradable adjective)
 Jan is HIGH-DEG funny
 ‘Jan is very funny.’
 b. *Ek waardeer hom baie.* (Gradable verb)
 I appreciate him HIGH-DEG
 ‘I appreciate him a lot.’
 c. *Sy reis baie.* (Eventive verb)
 she travels HIGH-DEG
 ‘She travels a lot.’

2. The paper refers throughout to the seven categories of gradable predicate featured in (2): gradable adjectives, gradable verbs, eventive verbs, the comparative, eventive adjectives, and mass and plural nouns. Eventive adjectives and eventive verbs are stage-level predicates. In the discussion to follow, they are identified by their ability to occur with an event modifier such as *every Tuesday* or *lately*. Individual-level predicates are incompatible with such modifiers. The contrast is illustrated in (i) below.

- (i) a. John washed his car every Tuesday. (Eventive verb)
 b. *John knew French every Tuesday. (Non-eventive verb)
 c. John has been frustrated lately. (Eventive adjective)
 d. *John has been tall lately. (Non-eventive adjective)

Gradable verbs (what Bolinger 1972 calls “degree verbs”) are argued by Tsujimura (2001) to include psych verbs (e.g. *love*, *appreciate*, and *admire*) and inchoative change of state verbs (e.g. *age*). Some adjectives and verbs are both gradable and eventive; e.g. the adjective *sick* in English and the verb *hoesten* in Dutch: both items can combine with event modifiers as well as degree modifiers such as English *very* and Dutch *erg* ‘very’.

3. All judgements have been checked with native speakers of Afrikaans (the first author is a second-language speaker).

- d. *Gys is baie slimmer as Piet.* (Comparative)
 Gys is HIGH-DEG smarter than Piet
 ‘Gys is much smarter than Piet.’
- e. *Jan is baie op Dinsdae siek.*⁴ (Eventive adjective)
 Jan is HIGH-DEG on Tuesdays sick
 ‘Jan is sick on Tuesdays a lot/often.’
- f. *Sol Kerzner het baie geld.* (Mass noun)
 Sol Kerzner have HIGH-DEG money
 ‘Sol Kerzner has a lot of money.’
- g. *Ek het baie Afrikaanse vriende.* (Plural noun)
 I have HIGH-DEG Afrikaans friends
 ‘I have many Afrikaans friends.’

Baie is what Doetjes (2008) terms a “type C modifier”: a modifier that can combine with all the categories of gradable predicate identified in (2). This paper presents an analysis of *baie*. Specifically, we show that this item, contrary to first impressions, does not have a uniform syntax, and thus does not fit into the “type C modifier” category. Rather, *baie* is a functional head when it combines with gradable adjectives, and an adjunct when it modifies the remaining gradable categories.

The paper proceeds as follows: Section 2 presents Doetjes’ (2008) table of degree modifiers, which organises a selection of these items in various European languages according to their distributions. It also provides the theoretical background for the analysis, focusing on theta theory. Section 3 provides an overview of *baie* and presents evidence ruling out a treatment of *baie* as an item with uniform syntax. We show that *baie* is a functional head in combination with gradable adjectives and an adjunct in combination with other categories of gradable predicate. Section 4 extrapolates from the data in Section 3, showing that certain wide-

4. *Baie* is taken to be a modifier of *siek* rather than of *op Dinsdae*. The first point in this regard is that fronting *baie* + a prepositional phrase (PP) is out:

- (i) a. **Baie op Dinsdae is Jan siek.*
 HIGH-DEG on Tuesday is Jan sick

The above example contrasts with one where the adjective is fronted with *baie* and the PP:

- b. *Baie op Dinsdae siek is Jan*
 HIGH-DEG on Tuesdays sick is Jan
 ‘Often sick on Tuesdays, John is.’

It also contrasts with a construction where *baie* + adjective is fronted:

- c. *Baie siek is Jan op Dinsdae.*
 HIGH-DEG sick is Jan on Tuesdays
 ‘Very/sick is Jan on Tuesdays.’

distribution degree expressions in Portuguese and Dutch are seemingly, like *baie*, functional heads in combination with gradable adjectives. Section 5 concludes.

2. Theoretical background: Types of degree expressions and scalar theta positions

Doetjes (2008) considers the distributions of a selection of degree modifiers in English, French, and Dutch and groups these items based on how restricted their distributions are. Focusing on high-degree expressions, Table 1 presents this organization. The superscripts “E”, “D”, “P” and “F” denote “English”, “Dutch”, “Portuguese”, and “French”, respectively.

Table 1. Organisation of gradable predicates and degree modifiers in English, Dutch, French and Portuguese; adapted from Doetjes (2008)

	French	Dutch	Portuguese		
Gradable adjectives	type A <i>très</i> ^F	type B <i>erg</i> ^D	type C <i>muito</i> ^P		
Gradable verbs	type D <i>beaucoup</i> ^F				type o –
Eventive verbs		type E <i>veel</i> ^D			
Eventive adjectives					
Comparative morpheme					
Mass nouns				type F a mountain ^E	type o –
Plural nouns					type G many ^E

In Table 1, certain distributional patterns arise – for example, we find degree modifiers that occur only with gradable adjectives and some that occur only with nouns, but none that occur with gradable adjectives and nouns whilst being incompatible with verbs, eventive adjectives, and the comparative morpheme. Based on these observed distributional patterns, Doetjes organises the categories of gradable predicate in such a way that if a degree modifier is compatible with multiple categories, these categories are necessarily adjacent to one another. That is, if a degree modifier is compatible with two categories, one of which is category (a), it will also be compatible with those in category (b), which is adjacent to (a) on this continuum (cf. the type B modifier *erg*). However, it will not be compatible with expressions in category (e), which is not adjacent to (a), unless it is compatible with all of the categories between (b) and (e). Thus, the compatibility of a

modifier with two categories removed from each other entails compatibility with all the categories in between.

In light of the observed distributional patterns formalised in Table 1, a modifier like type 0 in the table, which only modifies the non-adjacent categories of gradable verbs and mass nouns, is predicted not to occur. Table 1 shows that so-called “type C” modifiers such as Portuguese *muito* ‘very/much/many’ modify the entire range of gradable predicates. The table shows two additional ways of dividing up this range of predicates: French has the type A modifier *très* ‘very’, which only modifies gradable adjectives, and the type D modifier *beaucoup* ‘a lot’, which combines with the remaining gradable categories. Dutch, on the other hand, has the type B modifier *erg* ‘very’, which combines with gradable adjectives and gradable verbs, and the type E modifier *veel* ‘much/many/a lot’, which modifies eventive verbs, eventive adjectives, the comparative morpheme, and mass and plural nouns.

In addition to the differences in the modifiers with which they combine, there also seems to be a distinction between the semantic effect of the modification of the various gradable predicates. With gradable adjectives and gradable verbs, the degree to which a predicate applies is modified (e.g. the degree of height or the degree to which an individual appreciates something). When eventive verbs, eventive adjectives, and nouns are modified, on the other hand, this modification is understood as applying either to the frequency with which the activity denoted by the verb occurs, or to the quantity of the substance/entity denoted by the noun. Interpretation of the modification of the comparative is somewhat tricky. However, we argue, based on the degree modifiers with which it can combine, that modification of the comparative should be taken as a modification of quantity.

An examination of type B and E modifiers illustrates this distinction in meaning. The Dutch type B modifier *erg* ‘very’ seems to modify the degree to which a predicate applies. (Note that *erg* ‘very’ in (3d) can modify *ziek* ‘sick’, but the latter is then interpreted as a gradable rather than eventive adjective.) In (3e), *veel*’s ‘much/many/a lot’ modification of the comparative morpheme is taken to be a modification of quantity. The quantity-/frequency-modifying reading is also obtained in (3f–g).

- (3) a. *Hij is erg/*veel gelukkig.* (Gradable adjective)
 He is very/much happy
 ‘He is very happy.’
- b. *We gaan jou erg/*veel missen.* (Gradable verb)
 we go you very/much miss
 ‘We are going to miss you very much.’

- c. *Hij wandelt *erg/veel.* (Eventive verb)
 he walks very/much
 ‘He walks a lot.’
- d. *Jan is erg/veel ziek* (Eventive adjective)
 Jan is very/much sick
 ‘Jan is very sick’ or ‘Jan is sick a lot.’
- e. *Trump is een *erg/veel groter gevaar dan Brexit.* (Comp.)
 Trump is a very/much bigger danger than Brexit
 ‘Trump is a much bigger danger than Brexit.’
- f. **Erg/veel wijn voor weinig geld.* (Mass noun)
 very/much wine for little money
 ‘Much wine for little money.’
- g. *Het weer lokt *erg/veel mensen naar het strand.* (Plural noun)
 the weather attracts very/much people to the beach
 ‘The weather attracts many people to the beach.’

Interpretively, and following Zwarts (1992, 2000) and Doetjes (1997), these two kinds of gradability can be differentiated by distinguishing two types of theta position that degree modifiers target. Theta positions, according to theta theory, form part of the theta grid of a lexical item, which determines its referential properties. Doetjes posits one type of scalar thematic position linked to quantity/frequency (a so-called “*q*-position”), and one that correlates with degree/intensity (a *g*-position, where “*g*” stands for grade). Given the observed differences in meaning of the various instances of degree modification in (3), the former is taken to occur in (3c–g), and the latter in (3a,b).

Adopting this distinction between *g*- and *q*-positions, we interpret the data in (3) as indicating that, while all these constructions are gradable, they involve different kinds of theta positions. This distinction between *g*- and *q*-positions, by determining the reference of a gradable predicate, plays a role in determining with which degree expressions the predicate can combine, and in turn plays a role in the interpretation of these degree expressions: whether they are interpreted as modifying quantity/frequency or degree/intensity.

An examination of gradable predicates’ compatibility with degree expressions indicates that the distribution of *g*- and *q*-positions is evidently not determined along the lines of grammatical categories. Intuitively, some verbs can be modified in terms of intensity, and some in terms of quantity; cf. *Jan waardeerde de film erg* ‘Jan appreciated the film a lot’ and *Jan wandelt veel* ‘Jan walks a lot’, where the former makes a statement about the intensity of Jan’s appreciation, and the latter about how often he walks. Some adjectives can be modified both in terms of quantity and intensity: *Jan is veel ziek* ‘Jan is sick a lot’ indicates the frequency of Jan’s illnesses, whereas *Jan is erg ziek* ‘Jan is very sick’ describes the intensity of his illness.

Furthermore, whilst plural and mass nouns are generally modifiable in terms of quantity, as in *Mary has many books/much wine*, some singular count nouns are modifiable in terms of intensity, where the modifier targets e.g. the degree to which ‘idiocy’ holds of a subject, as in *He is a big idiot* or *He is more of a man than Bill*.⁵

A more fine-grained explanation is thus necessary to account for the distribution of *g*- and *q*-positions. *G*-positions, which are argument positions over degrees, are taken to occur with gradable adjectives – not non-gradable ones, thus accounting for the contrast between e.g. *too tall* and **too next* – and with gradable verbs, both of which are individual-level predicates. In light of (3), in Dutch we can say that *erg* combines with these *g*-type predicates, whereas *veel* does not.

Doetjes (1997) associates the *q*-position with the presence of an event position or “*e*-position” in the verb or the adjective. The *e*-position, posited in Davidson (1967), allows for an event argument to be incorporated into the denotation of stage-level predicates to account for the fact that these predicates describe events or states. Modifiers are associated with this *e*-position. We follow Doetjes (1997) and Kratzer (1989) in assuming that individual-level predicates do not contain an *e*-position. Thus, linking the *q*-position to the presence of an *e*-position explains why the *q*-position is present in stage-level predicates but absent in gradable verbs, which are individual-level predicates. Having noted that certain stage-level predicates are amenable to both intensity- and quantity-/frequency modification (e.g. *erg ziek* ‘very sick’ vs *veel ziek* ‘sick a lot’), we stress again here the difference in interpretation that results when either *erg* or *veel* is used, and take this as supporting evidence for distinguishing between two kinds of scalar theta positions that are targeted.

In the nominal domain, the *q*-position is argued to be associated with the *r*-position of the noun. Originally introduced by Williams (1981), this *r*-position, similarly to the *e*-position, is incorporated into the denotation of the noun to account for the fact that nouns have reference. With regard to the comparative, we can use its compatibility with a modifier of *g*-type predicates as a diagnostic. *Erg* ‘very’ cannot be used in comparative constructions; *veel* ‘much’ must be used instead, cf. *veel langer/veel meer* ‘much taller’/‘much more’ vs **erg langer/*erg meer* ‘very taller’/‘very more’. Given the analysis of *erg* as a modifier of *g*-type predicates, the comparative is thus taken to incorporate a *q*-position.

5. In what follows we consider nouns as typically modifiable in terms of quantity. We treat instances where nouns are modified in terms of degree/intensity as involving so-called “scalar coercion”, where the degree modifier coerces a gradable reading of a seemingly non-gradable predicate, as in e.g. *She is very pregnant* or *He is so Italian!* Further consideration of scalar coercion falls outside of the scope of this paper. The reader is referred to Matushansky (2002) for discussion of the matter.

The *q*-position can be either scalar or non-scalar. Scalar *q*-positions can be targeted by degree expressions, whereas non-scalar *q*-positions cannot. Singular nouns, which are unable to combine with degree expressions (cf. **John has many/a lot cat*), are however still said to possess a *q*-position, which is targeted by the addition of a plural morpheme, thereby making it scalar (Doetjes 1997: 43).⁶ The scalarity of a *q*-position depends on the cumulative reference properties of the predicate.

A predicate is described as having cumulative reference iff for every *x* and *y* with the property *P*, the join of *x* and *y* also has the property *P* (Doetjes 1997: 40). For mass nouns, the applicability of this definition can be shown as follows: if there are two measures of coffee, then the combination of those measures will still be coffee. Similarly for plural count nouns: if there are (an unspecified plurality of) ostriches in two separate fields, all the birds placed in one field can still be referred to as *ostriches*. However, with reference to singular nouns: if two individual cats are placed next to each other, the pair cannot be referred to as (*a*) *cat*. Singular count nouns therefore do not have cumulative reference, which makes their *q*-position non-scalar. Mass and plural nouns, on the other hand, have scalar *q*-positions, and are thus able to combine with degree expressions like *a lot*.

Doetjes (1997) observes that cumulative reference is also relevant in the verbal domain: eventive verbs and gradable verbs show the same cumulative reference property that plural and mass nouns do, and therefore pattern with these items in their accessibility to degree modification (cf. also Jackendoff 1991 in this regard). Accomplishment verbs and achievement verbs (see Vendler 1957 for details of these distinctions between verb classes) do not have cumulative reference, and therefore pattern with singular nouns in being non-gradable. The compatibility of eventive and gradable verbs with degree modifiers is shown in (4) below.

- (4) a. John ran a lot. (Eventive verb)
 b. John hated more than he loved. (Gradable verb)
 c. *John wrote a book a lot/more. (Non-gradable verb)
 d. *John identified the suspect a lot/more. (Non-gradable verb)

The distribution of *g*- and *q*-positions is summarised in Table 2 below.

6. A reviewer also points out that *John has many a cat* is possible. This is an example of a degree modifier combining with a singular noun. Such examples are not considered within the remainder of the paper.

Table 2. Distribution of *g*- and *q*-positions

Gradable predicate	Thematic position targeted by degree modifier
Gradable adjective	<i>g</i>
Gradable verb	<i>g</i>
Eventive adjective	<i>q</i>
Eventive verb	<i>q</i>
Comparative	<i>q</i>
Mass noun	<i>q</i>
Plural noun	<i>q</i>

Referring back to Table 2, we can now partially account for the distribution of degree modifiers by dividing them up into three classes; one whose members target *g*-positions, one whose members target either *g*- or *q*-positions, and one whose members only target *q*-positions. Type A and type B modifiers only target *g*-positions, types E, F, and G only target *q*-positions, and types C and D target both *g*- and *q*-positions.

Based on the above, we take type C and D modifiers to be insensitive to the distinction between *g*- and *q*-positions. Focusing particularly now on type C modifiers, their distribution seems not to be subject to any restrictions, in that these items can combine with gradable predicates of any grammatical category, incorporating either a *g*- or a *q*-position. In the case of the Afrikaans modifier *baie*, however, further investigation refutes the conjecture that the modifier is insensitive to the category of the gradable predicate it modifies, as Section 3 shows.

3. *Baie* is not a type C modifier

Baie, as shown in (2) above, apparently has the distribution of a type C modifier. Type C modifiers, which can modify all the categories of gradable predicate in Table 1, are found in a number of languages; including Turkish (*çok* ‘very/much/many’; cf. Özyıldız in press), Italian (*molto* ‘very/much/many’), Portuguese (*muito* ‘very/much/many’), so-called “Multicultural London English” (*bare* ‘very/much/many’; cf. Cheshire 2013),⁷ Afrikaans (*baie* ‘very/much/many’; cf. Berghoff 2016), and (Levantine) Arabic (*ktiir* ‘very/much/many’; cf. McNabb 2012). Examples of

7. Multicultural London English (MLE) is a variety spoken in multiethnic areas in London. A number of distinctive features of the variety have been identified, including the use of *man* as an indefinite pronoun (cf. Cheshire 2013) and the use of *was* across the past tense paradigm, with both first-person and third person subjects (cf. Cheshire et al. 2011). *Bare* in MLE acts as both

Portuguese *muito* ‘very/much/many’ (from Hutchinson & Lloyd 2003) are provided in (5).

- (5) a. *O Gustavo é muito engraçado.* (Gradable adjective)
 the Gustavo is MUITO funny
 ‘Gustavo is very funny.’
- b. *Titio, nós gostávamos muito que o senhor e Titia*
 uncle we like.1PL.IPFV MUITO that you and Auntie
viesses jantar em nossa casa. (Gradable verb)
 come.3PL.SBJV.IPFV dine in our house
 ‘Uncle, we would really like you and Auntie to come and have dinner at our house.’
- c. *Ela viaja muito.* (Eventive verb)
 she travel.3SG MUITO
 ‘She travels a lot.’
- d. *O João é muito mais atlético do que a Catarina.* (Comparative)
 the João is MUITO more athletic than the Catarina
 ‘João is much more athletic than Catarina.’
- e. *Se eu tivesse muito dinheiro, comprava um iate.*
 if I have.1SG.SBJV.IPFV MUITO money buy.1PL.IMPV a yacht
 ‘If I had a lot of money, I would buy a yacht.’ (Mass noun)
- f. *Tenho muitos amigos portugueses.* (Count noun)
 have.1SG MUITO friends Portuguese
 ‘I have many Portuguese friends.’

The wide distribution of these type C modifiers suggests that they are insensitive to the category of the predicates they modify. However, although *baie* shows the same wide distribution as *muito*, a closer look at this item reveals that it is in fact sensitive to distinctions in grammatical category. Crucially, *baie* in combination with gradable adjectives occasionally shows syntactic behaviour opposite to that of *baie* in combination with other gradable predicates.

The relevant observation is that *baie*’s structural positioning is restricted when it modifies a gradable adjective. This is initially indicated by constructions

an intensifier equivalent to *very* and a quantifier equivalent to *many/much/a lot*. Examples are provided in (i) below.

- (i) a. *and I ended up hanging around with bare bare man*
 ‘and I ended up hanging around with many people’
- b. *He’s bare annoying!*
 ‘He’s very annoying!’
- c. *I’ve got bare money.*
 ‘I’ve got a lot of money.’

containing *baie*, an adjective that can be either gradable or eventive such as *siek* ‘sick’, *laat* ‘late’, or *gefrustreerd* ‘frustrated’, and an event modifier such as *op Dinsdae* ‘on Tuesdays’ or *by die huis* ‘at home’. In such constructions, *baie* can occur in two positions: directly before the adjective, and separated from the adjective by the event modifier.

- (6) a. *Sy is baie siek op Dinsdae, maar nie gereeld nie.*
 she is HIGH-DEG sick on Tuesdays but NEG often NEG
 ‘She is very sick on Tuesdays, but not often.’
 b. **Sy is baie op Dinsdae siek, maar nie gereeld nie.*
 she is HIGH-DEG ON Tuesdays sick but NEG often NEG
 ‘She is often sick on Tuesdays, but not often.’
- (7) a. *Sy is baie laat op Dinsdae, maar nie gereeld nie.*
 she is HIGH-DEG late on Tuesdays but NEG often NEG
 ‘She is very late on Tuesdays, but not often.’
 b. **Sy is baie op Dinsdae laat, maar nie gereeld nie.*
 she is HIGH-DEG ON Tuesdays late but NEG often NEG
 ‘She is often late on Tuesdays, but not often.’
- (8) a. *Sy word baie gefrustreerd by die huis, maar nie gereeld nie.*
 she gets HIGH-DEG frustrated at the house but NEG often NEG
 ‘She gets very frustrated at home, but not often.’
 b. **Sy word baie by die huis gefrustreerd, maar nie gereeld nie.*
 she gets HIGH-DEG at the house frustrated but NEG often NEG
 ‘She often gets frustrated at home, but not often.’

The addition of the phrase *maar nie gereeld nie* ‘but not often’ in (6)–(8) serves to illustrate the change in meaning that arises when *baie* is not adjacent to the gradable predicate that it modifies. In (6a)–(8a), the addition of *maar nie gereeld nie* is acceptable, because the intensity-modifying reading of *baie* is available. Thus, in these sentences, the only felicitous reading is one where *baie* modifies the degree to which the property of ‘sickness’, ‘lateness’ or ‘frustratedness’ applies. In (6b)–(8b), however, the addition of *maar nie gereeld nie* renders the sentence contradictory and thus semantically infelicitous, because *baie* in this sentence can only be interpreted as indicating that the event of being sick is a high-frequency event.

What this shows is that *baie* in (6)–(8b), the frequency-modifying *baie*, is more flexible in its syntactic positioning, whereas if *baie* is to modify intensity, it must be adjacent to the gradable predicate. The semantic contrast between the (a) and (b) sentences in (6)–(8) resulting from the positioning of *baie* echoes observations made in Neeleman et al. (2004) (cf. also Corver 1997a, esp. Section 2.2;

Doetjes et al. 1998) that certain degree expressions behave like functional heads, whereas others behave like adjuncts.

At this point we should clarify the relevant understandings of heads and adjuncts. The paper adopts a view of adjuncts in line with that of Ernst (2001): we assume that they can adjoin freely to any projection, so long as they can receive a proper semantic interpretation. Adjunct modifiers can therefore combine with a wide range of lexical categories. In the case of degree modification, the condition for adjunction is that the XP adjoined to must contain a predicate with a degree variable in its semantics. Only in this way can the modifier's degree variable be saturated and interpretation be successful. On the other hand, the type of functional head relevant to this paper, namely the Degree head, is understood as imposing selectional restrictions on its complement – it can only combine with gradable predicates of a specific type (in this case, gradable adjectives). Gradable adjectives incorporate a specific kind of degree variable in their semantics, namely a *g*-position. General restrictions also apply to the positioning of the Degree head and its complement. Firstly, the Head Movement Constraint (Travis 1984) only allows a head to move into the immediately *c*-commanding head. Because heads are not proper governors, the gradable predicate is also prohibited from being fronted, as it would leave behind an ungoverned trace (cf. Doetjes et al. 1998:12). Essentially, for our purposes, these constraints prevent the Degree head being separated from its complement by movement (cf. also Corver 1997a, esp. Section 3.1; Doetjes 1997; and Neeleman et al. 1998, 2004).

Following Neeleman et al. (2004), we take the constraints on the positioning of *baie* in (6)–(8a) to indicate that *baie* is a functional head when it modifies a gradable adjective. *Baie* in (6)–(8b), on the other hand, is more flexible in terms of its syntactic position – it can be separated from the adjective by means of an event modifier – and is thus taken to be an adjunct (cf. Doetjes 1997; Neeleman et al. 2004).

Two further tests, taken from Neeleman et al. (2004) and stemming from the constraints preventing a Degree head from being separated from its complement by movement, serve to demonstrate more clearly the head and adjunct statuses of these two occurrences of *baie*. Consider the data in (9).

- (9) a. *Ek moet baie* [v_P *vleis eet.*]⁸
 I must HIGH-DEG meat eat
 ‘I have to eat a lot of meat.’ / ‘I have to eat meat often.’
Vleis_i moet ek baie [v_P *t_i eet.*]
 meat must I HIGH-DEG eat
 ‘MEAT I often have to eat’ (with emphasis on “meat”).⁹
- b. *Jy moet [baie [AP *slank*]] wees om deur die venster te kom.*
 you must HIGH-DEG thin be INF through the window to come
 ‘You must be very thin to get through the window.’
 **Slank_i moet jy [baie [t_i]] wees om deur die venster te kom.*
 thin must you HIGH-DEG be INF through the window to come
 [*Baie [AP *slank*]]_i moet jy t_i wees om deur die venster te kom.*
 HIGH-DEG thin must you be INF through the window to come
 ‘VERY THIN is what you have to be to get through the window’
 (with emphasis on “very thin”).¹⁰

The most accessible interpretation of the first line in (9a) is a degree-modifying reading, although a frequency-modifying reading can also be obtained given

8. The account of Afrikaans clause structure that is adopted in this paper assumes that the language is underlyingly SVO in structure, in keeping with Kayne’s (1994) Universal Base Hypothesis. The SOV word order is derived as a consequence of feature-driven movement; specifically, the internal object is merged as a complement to the lexical verb, and then raised to a higher position (say, Spec,v) as a consequence of that position’s strong D-feature. The reader is referred to Biberauer (2002) for a more detailed discussion.

9. A reviewer asks why it is not possible to preserve the quantity reading – i.e. ‘I have to eat a lot of meat’ – when *vleis* is fronted. This reading is available in constructions like those below:

- (i) *Vleis eet ek baie van.*
 Meat eat I HIGH-DEG of
 ‘Meat I eat a lot of.’
- (ii) *Van vleis eet ek baie.*
 of meat eat I HIGH-DEG
 ‘Of meat, I eat a lot.’

It is again clear here that *baie* and the gradable predicate *vleis* can be separated, and so *baie* here is an adjunct rather than a head.

10. It seems marginally possible to front an adjective with an eventive reading, given the right context and appropriate prosody: cf.

- (i) ²*Rook laat hulle nie toe nie, maar AFWESIG_i moet jy BAIE t_i wees voordat*
 smoking let them NEG PRT NEG but absent must you HIGH-DEG be before
hulle jou sal afdank
 they you will fire
 ‘Smoking they don’t allow, but you have to be absent A LOT before they’ll fire you.’

appropriate prosody, i.e. a pause between *baie* and *vleis*. However, when the NP *vleis* is fronted, only the latter reading is available. (9b) shows that the gradable predicate – an AP – modified by *baie* cannot be topicalised on its own: the entire XP must be fronted. This makes it clear that this instantiation of *baie* cannot be separated from its modifiee, thus adhering to the constraint preventing the complement of a Degree head from being fronted (presumably because here it would leave the trace of *slank* ungoverned).

Next, we consider whether the modifier may be separated from its modifiee by being topicalised itself in (10).

- (10) a. *Sy het die foto's [baie [VP geniet]].*¹¹
 she have the photos HIGH-DEG enjoyed
 'She enjoyed the photos a lot.'
Kyk net hoe baie_i het sy die foto's [t_i [VP geniet]].
 look just how HIGH-DEG have she the photos enjoy
 'Just look how much she enjoyed the photos!'
- b. *Sy het die hulp [baie [VP waardeer]].*
 she has the help HIGH-DEG appreciated
 'She appreciated the help a lot.'
Kyk net hoe baie_i het sy die hulp [t_i [VP waardeer]].
 look just how HIGH-DEG have she the help appreciated
 'Just look how much she appreciated the help!'
- c. *Sy is [baie [AP op Dinsdae siek]].*
 she is HIGH-DEG on Tuesdays sick
 'She is often sick on Tuesdays.'
Kyk net hoe baie_i is sy [t_i [AP op Dinsdae siek]].
 look just how HIGH-DEG is she on Tuesdays sick
 'Just look how often she is sick on Tuesdays!'
- d. *Sy is nou [baie [AP lank]].*
 she is now HIGH-DEG tall
 'She is now very tall.'
 **Kyk net hoe baie_i is sy nou [t_i [AP lank]].*
 look just how HIGH-DEG is she now tall
Kyk net hoe [baie [AP lank] is sy nou t_i!
 look just how HIGH-DEG tall is she now
 'Just look how very tall she is now!'

11. Referring back to footnote 8: we assume the direct objects in these examples obtain their position in the middle field of the clause following movement to Spec,v.

(10a–c) show that *baie* in combination with a verb or an eventive adjective can be fronted alone. (10d) shows that *baie* in combination with a gradable adjective cannot be fronted alone – it must move together with the AP it modifies, again indicating that these two cannot be separated, and suggesting that *baie* is a Deg-head here. Note that *hoe* in (10) is analysed as a Deg-head (cf. Doetjes et al. 1998). In (10a–c), *hoe baie* forms a constituent that can be extracted. In (10d), however, *baie lank* forms a constituent that *hoe* takes as its complement, forming the XP *hoe baie lank*. *Hoe* therefore cannot be separated from *baie lank*.

Another point, in line with a test in Corver (1997a), arises when considering *baie* in combination with deverbal adjectives such as *verslaaf* ‘addicted’ and *afhanklik* ‘dependent’. The relevant examples are in (11)–(12) below:

- (11) a. *Jan is [baie verslaaf aan slaappille].*
 Jan is HIGH-DEG addicted to sleeping.pills
 ‘Jan is very addicted to sleeping pills.’
 b. *#Hoe baie_i is Jan [t_i verslaaf aan slaappille]?*
 how HIGH-DEG is Jan addicted to sleeping.pills
 ‘How often is Jan addicted to sleeping pills?’
- (12) a. *Jan is [baie afhanklik van sy ma].*
 Jan is HIGH-DEG dependent of his mother
 ‘Jan is very dependent on his mother.’
 b. *#Hoe baie_i is Jan [t_i afhanklik van sy ma]?*
 how HIGH-DEG is Jan dependent of his mother
 ‘How often is Jan dependent on his mother?’

In (11)–(12), subextraction of *hoe baie* is permitted, suggesting that *baie* is adjoined to the adjectival phrase. However, the resulting (b) sentences are nonsensical, as they treat a stative non-eventive adjective as eventive. This is a further indication that the adjunct *baie* is a modifier of quantity/frequency rather than intensity.

The data in (13) and (14), following arguments in Doetjes et al. (1998) and Neeleman et al. (2004), present further tests that highlight restrictions on the distribution of intensity-modifying *baie*.

- (13) a. *Jan is intelligent. Eintlik is hy baie so.*
 Jan is intelligent actually is he HIGH-DEG so
 ‘Jan is intelligent. Actually, he’s often so’, not ‘Actually, he’s very so.’
 b. **Jan is intelligent. Eintlik is hy te so.*
 Jan is intelligent actually is he too so
 ‘Jan is intelligent. Actually, he’s too so.’
 c. *Jan is intelligent. Eintlik is hy meer so as Marie.*
 Jan is intelligent actually is he more so than Marie
 ‘Jan is intelligent. Actually, he’s more so than Mary.’

- (14) a. *Baie is dalk onakkuraat.*
 HIGH-DEG is perhaps inaccurate
 ‘Often/a lot might be inaccurate,’ not ‘Very might be inaccurate.’
- b. **Te is nie aanbeveel nie.*
 too is NEG recommended NEG
 ‘Too is not recommended.’
- c. *Meer is dalk beter.*
 more is perhaps better
 ‘More is perhaps better.’

So in (13) is analysed as a categorially underspecified pro-form, given that it can substitute for constituents of various grammatical categories (e.g. for the VP in *John loves Mary and Peter does so too* and for the PP in *That wine is above my pay-grade, and this one is so too*). Accordingly, if intensity-modifying *baie* can only modify APs, we would expect it to be unable to occur in (13a). This prediction is borne out – the available reading is not one of intensity modification, but of frequency modification. In (14a), intensity-modifying *baie* has been shown to be unable to be separated from its gradable adjective complement. Thus, it is expected to be unable to occur in this construction, where its modifiee is absent. Again, the reading that is available in (14a) is one of frequency/quantity modification and not of intensity modification. It is then concluded that intensity-modifying *baie* is barred from construction like (13a) and (14a). The *baie* in these examples is thus analyzed as an adjunct modifier, like *meer* in (13c) and (14c), which can occur in these constructions.

The above tests, taken together, indicate that *baie* in combination with eventive adjectives, gradable and eventive verbs, and nouns is an adjunct, whereas *baie* in combination with gradable adjectives is a functional head.

We note at this point that *baie* in combination with the comparative is not amenable to the tests above: it cannot be separated from e.g. *meer* ‘more’ or *minder* ‘less’ in a combination such as *baie minder/meer*. Consider the example in (15):

- (15) *Sy is [baie meer [AP op Dinsdae siek]].*
 she is HIGH-DEG more on Tuesdays sick
 ‘She is much more often sick on Tuesdays.’
- *Kyk net hoe baie_i is sy [t_imeer [AP op Dinsdae siek]]!*
 look just how HIGH-DEG is she more on Tuesdays sick
- Kyk net hoe [baie meer]_i is sy [t_i[AP op Dinsdae siek]]!*
 look just how HIGH-DEG more is she on Tuesdays sick
 ‘Just look how much more often she is sick on Tuesdays.’

Two points about the modification of *meer/minder* are notable. Firstly, other Afrikaans head modifiers cannot occur with these items, cf. **heel/te/so meer/*

minder mense ‘very/too/so more/fewer people’. Secondly, adverbial modifiers that only combine with *g*-type predicates (i.e. gradable adjectives and gradable verbs) cannot combine with the comparative, cf. **verskriklik meer/minder mense* ‘terribly more/fewer people’. Adjunct modifiers such as *veel* that can combine with *q*-type predicates do modify the comparative, cf. *veel meer mense* ‘many more people’. These facts strongly suggest that the *baie* in (15) is an adjunct modifier that is insensitive to the *g*-/*q*-position distinction. We thus suggest that in the data in (15) *baie* adjoins to *meer* and these two adjuncts form a single constituent.

Given this caveat regarding the comparative, we note that placed in the context of Table 3, Doetjes’ (2008) prediction is borne out in the case of *baie*: if a degree modifier is compatible with multiple categories, these categories are necessarily adjacent to one another.

Table 3. Distribution of type A and type D *baie*

Gradable adjectives	type A <i>baie</i> _A
Gradable verbs	type D <i>baie</i> _D
Eventive verbs	
Eventive adjectives	
Comparative	
Mass nouns	
Plural nouns	

Let us now look at the analyses of type A and type D *baie* in turn.

Baie as a functional head is a type A modifier, equivalent to *too*, *so*, and *very* in English, and *très* in French. It heads a DegP, selects only APs as its complement, and requires these APs to have a *g*-position in their thematic grid. The structure of type A *baie* is in (16) (illustrated with the adjective *gelukkig* ‘happy’).

(16) [_{DegP} [_{Deg°} *baie*] [_{AP} [_{A°} *gelukkig*]]]

Given the analysis of type A *baie* as a head, it is not predicted to be able to be modified by other degree modifiers. Accordingly, type A *baie* is odd in combination with adverbial modifiers like *verskriklik* or *ontsettend*, both meaning ‘terribly’, as illustrated in the examples in (17).

(17) a. ??*Hierdie afkondiging is verskriklik/ontsettend baie belangrik.*
 this announcement is terribly HIGH-DEG important
 ‘This announcement is terribly very important.’ (G. *adj*)

- b. ??*Hierdie woonstel is verskriklik/ontsettend baie netjies.* (G. adj)
 this apartment is terribly HIGH-DEG neat
 ‘This apartment is terribly very neat.’

In addition, type A *baie* does not seem modifiable by other type A modifiers like *heel* ‘very’; cf. the impossibility of **heel baie lank* ‘very very tall’.¹² However, recall that in (10d) – repeated below as (18) for convenience – *baie* + adjective can combine with *hoe* ‘how’.

- (18) d. *Kyk net hoe [baie [AP lank]] is sy nou t₁!*
 look just how HIGH-DEG tall is she now
 ‘Just look how very tall she is now!’

The fact that type A *baie* can combine with *hoe* in examples like (10d) and not with *heel* and other type A modifiers is plausibly related to *hoe*’s function as a wh-exclamative: it conveys surprise regarding a high degree. This is a characteristic that distinguishes *hoe* from other type A modifiers such as *heel* ‘very’ and *te* ‘too’. Further discussion of this issue falls outside of the scope of the present paper, and the reader is referred to Rett (2008) for further discussion.

The distribution of type A *baie* is identical to that of the Afrikaans type A modifier *heel* ‘very’, whose distribution is shown in (19) below.

- (19) a. *Hierdie afkondiging is heel belangrik.* (Gradable adjective)
 this announcement is very important
 ‘This announcement is very important.’
 b. *Hierdie woonstel is heel netjies.* (Gradable adjective)
 this apartment is very neat
 ‘This apartment is very neat.’
 c. **Enige hulp sal heel waardeer word.* (Gradable verb)
 any help will very appreciated be
 ‘Any help will be very appreciated.’
 d. **Ons verlang heel na julle.* (Gradable verb)
 we miss very to you.PL
 ‘We miss you very.’

12. A reviewer points out that if there are indeed two instances of *baie*, it is expected to be possible for them to occur simultaneously. Consider (i) below:

- (i) *Sy is baie baie siek.*
 She is HIGH-DEG HIGH-DEG sick

The default interpretation of (i) is one of additional intensification, i.e. meaning *She is very very sick*. However, given appropriate prosody – a pause between the two *baies*, with emphasis placed on the first *baie* – (i) seems able to mean *She is often very sick*.

- e. #*Hy was heel siek in daardie tyd.* (Only gradable adjective reading)
 he was very sick in that time
 ‘He was very sick in that time.’ (not ‘He was sick terribly often in that time.’)
- f. **want hulle het nog nie heel gespeel nie.* (Eventive verb)
 because they have yet NEG very played NEG
 ‘Because they have not yet played very.’
- g. **Jan het heel meer as Piet gedrink.* (Comparative)
 Jan have very more than Piet drank
 ‘Jan drank very more than Piet.’
- h. **en heel onkruid tussen die suiwer koring sien.* (Mass noun)
 and very weeds between the pure corn see
 ‘And see very weeds amongst the pure corn.’
- i. **Heel aktiwiteite het plaasgevind.* (Plural noun)
 very activities have place.taken
 ‘Very activities have taken place.’
- j. **Julle, hier is nou vir jou heel Lego-blokkies.* (Plural noun)
 you.PL, here is now for you very Lego-blocks
 ‘You guys, here are now very Lego blocks for you.’

Turning now to *baie* as an adjunct: this item is a Type D modifier, equivalent to *beaucoup* in French. Type D *baie* is insensitive to the grammatical category of the predicates it modifies and also to the *g-/q-*position distinction. In line with Doetjes’ (1997) analysis of *much*, *veel* and similar items, we class *baie* as an “adjectival degree quantifier”. The “adjectival” part is important because type D *baie* is able to be modified by type A modifiers that categorially select for adjectival complements. This is illustrated in (20) below with reference to *heel* ‘very’.

- (20) a. *Enige hulp sal heel baie waardeer word.* (Gradable verb)
 any help will very HIGH-DEG appreciated be
 ‘Any help will be very much appreciated.’
- b. *Ons verlang heel baie na julle.* (Gradable verb)
 we miss very HIGH-DEG to you.PL
 ‘We miss you very much.’
- c. *Hy was heel baie siek in daardie tyd.* (Eventive adjective)
 he was very HIGH-DEG sick in that time
 ‘He was sick very often in that time.’ (not ‘He was very sick in that time.’)
- d. *want hulle het nog nie heel baie gespeel nie.* (Eventive verb)
 because they have yet NEG very HIGH-DEG played NEG
 ‘Because they have not yet played very much.’

- e. *Jan het heel baie meer as Piet gedrink.* (Comp.)
 Jan have very HIGH-DEG more than Piet drank
 'Jan drank very much more than Piet.'
- f. *en heel baie onkruid tussen die suiwer koring sien.* (Mass noun)
 and very HIGH-DEG weeds between the pure corn see
 'And see very many weeds amongst the pure corn.'
- g. *Heel baie aktiwiteite het plaasgevind.* (Plural noun)
 very HIGH-DEG activities have place.taken
 'Very many activities have taken place.'
- h. *Julle, hier is nou vir jou heel baie Lego-blokkies.* (Plural noun)
 you.PL, here is now for you very HIGH-DEG Lego-blocks
 'You guys, here are now very many Lego blocks for you.'

The fact that type D *baie* and other adjectival degree quantifiers are able to be modified by type A modifiers leads Doetjes (1997) to propose that they contain a DegP whose head position is optionally filled. The structure of this item is shown in (21).

(21) [_{DegP} [_{Deg°}] [_{QP} [_{Q°} *baie*]]]

Type D *baie*'s distribution is identical to that of the Afrikaans modifier *veel* 'much/many/a lot', shown in (22). Note that the examples in (22) have been changed into negative sentences, to control for the occasional infelicity of unmodified *veel* in positive constructions.¹³

- (22) a. **Hierdie afkondiging is nie veel belangrik nie.* (Gradable adjective)
 this announcement is NEG much important NEG
 'This announcement is not much important.'
- b. **Hierdie woonstel is nie veel netjies nie.* (Gradable adjective)
 this apartment is NEG much neat NEG
 'This apartment is not much neat.'
- c. *Enige hulp sal nie veel waardeer word nie.* (Gradable verb)
 any help will NEG much appreciated be NEG
 'Any help will not be much appreciated.'
- d. *Ons verlang nie veel na julle nie.* (Gradable verb)
 we miss NEG much to you.PL NEG
 'We don't miss you much.'

13. This is a property that it shares with *much* in English: as both Zwicky (2006a, 2006b) and Solt (2010) point out, unmodified *much* is largely infelicitous outside of non-veridical contexts (e.g. negative sentences, questions, and conditionals); cf. the contrast in acceptability between the markedly odd ?? *I have much rice* and the perfectly acceptable *I don't have much rice*.

- e. *Hy was nie veel siek in daardie tyd nie.* (Eventive adjective)
 he was NEG much sick in that time NEG
 ‘He was not sick much in that time.’
- f. *want hulle het nog nie veel gespeel nie.* (Eventive verb)
 because they have yet NEG much played NEG
 ‘Because they have not yet played much.’
- g. *Jan het nie veel meer as Piet gedrink nie.* (Comp.)
 Jan have NEG much more than Piet drank NEG
 ‘Jan did not drink much more than Piet.’
- h. *en nie veel onkruid tussen die suiwer koring sien nie.* (Mass noun)
 and NEG much weeds between the pure corn see NEG
 ‘And see not many weeds amongst the pure corn.’
- i. *Nie veel aktiwiteite het plaasgevind nie.* (Plural noun)
 NEG much activities have place.taken NEG
 ‘Not many activities have taken place.’
- j. *Julle, hier is nou vir jou nie veel Lego-blokkies nie.* (Plural noun)
 you.PL, here is now for you NEG much Lego-blocks NEG
 ‘You guys, here are now not many Lego blocks for you.’

Having dealt with the structure of these items, we now consider how their head vs. adjunct categorisation relates to their semantics. As outlined in Section 2, gradable adjectives are taken to incorporate a *g*-position in their semantics. Gradable adjectives combine with type A *baie* in a head-complement configuration. Abney (1987), Zwarts (1992) and Doetjes (1997) argue that the operation of theta-binding occurs in a such a configuration: here, the Deg-head binds the open *g*-position in the gradable adjective and the latter is thereby saturated. In this configuration, the degree modifier only scopes over the adjective; e.g. in a sentence like *Jan werk baie hard in die tuin* ‘Jan works very hard in the garden’, only the degree of ‘hardness’ of Jan’s working is modified. The relevant structure is shown in Figure 1. Open theta positions are placed between angled brackets, an asterisk marks a saturated theta position.

In cases of modification through adjunction, rather than modification in a head-complement configuration, we follow Doetjes (1997) in assuming that the operation of saturation through identification takes place. In this process, described by Doetjes (1997:19), the degree variable of the adjunct modifier is saturated by the (optionally empty) Deg-head. The saturated degree variable of the adjunct then identifies with the open position in its host projection. As a result, the open position is saturated.¹⁴

14. Doetjes (1997:19ff) provides various motivations for this operation. One is the possibility of structures such as *how badly ill*. In such a structure, the degree variable of *badly* is saturated

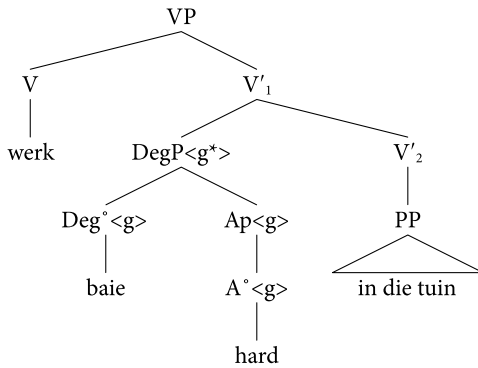


Figure 1. *Baie* + gradable adjective

Figure 2 illustrates this process using as an example the modification of a gradable verb:

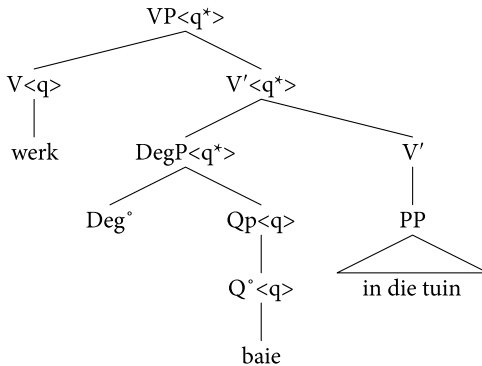


Figure 2. *Baie* + eventive verb

In Figure 2, the open theta position of *baie* is saturated by the (in this case empty) Deg-head. The saturated position in the adjunct then identifies with the open position in the verb *werk* 'work' and thereby this open position is saturated.¹⁵ The degree modifier then has scope over the entire maximal projection; e.g. in a sentence like *Jan werk baie in die tuin*, 'Jan works a lot in the garden', the quantity/

by *how*. This leaves *ill* with an unsaturated degree variable, which would cause the derivation to crash. If the adjunct *how badly*'s saturated degree variable can identify with the unsaturated position of *ill* and thereby saturate it, the derivation is saved.

15. Note that the DegP in Figure 1 cannot identify with the open theta-position introduced by the verb *werk* because the *g*-position is saturated exclusively in a head-complement configuration.

frequency of *Jan's working in the garden* is modified; the sentence cannot mean simply that *Jan works a lot*.

Finally, based on the above discussion, Table 4 presents the distribution of a selection of degree modifiers in Afrikaans.

Table 4. Distribution of select degree modifiers in Afrikaans

Gradable adjectives	type A <i>baie_A</i> <i>heel</i>	type B <i>verskriklik</i> ¹⁶
Gradable verbs	type D <i>baie_D</i> <i>veel</i>	
Eventive verbs		
Eventive adjectives		
Comparative morpheme		
Mass nouns		
Plural nouns		

Section 4 discusses the seeming structural uniqueness of the degree modification of gradable adjectives. It focuses first on the development of new exclusively adjectival modifiers, and then draws parallels between *baie* and similar items found in Portuguese and Dutch.

16. A reviewer points out that the head vs. adjunct status of adverbial modifiers like *verskriklik* is somewhat unclear. In combination with gradable verbs, it seems the modifier can be separated from its modifiee, e.g.

- (i) a. *Hoe verskriklik_i verlang ons t_i na julle!*
 how terribly miss us to you
 'How terribly we miss you!'

However, with a gradable adjective, this is impossible:

- b. **Hoe verskriklik_i is die nuus t_i belangrik!*
 how terribly is the news important

A similar contrast obtains in English, as indicated by the translations in (i), and reportedly in Dutch as well. This suggests that these modifiers may also be heads in combination with gradable adjectives. This question is set aside for further research.

4. The uniqueness of adjectival degree modification

We assume an account of degree modifiers of gradable adjectives in which the Deg-head takes an AP as its complement (cf. Abney 1987; Corver 1990, 1997a,b; Zwarts 1992, 2000; Svenonius 2008). Thus far, we have distinguished *baie* as a modifier of gradable adjectives from *baie* in combination with other gradable predicates, where this item is an adjunct.

Two diachronic phenomena lend support to the proposed difference of functional head *baie*, the modifier of gradable adjectives, from adjunct *baie*. These are (i) the development of new exclusively adjectival modifiers that behave like the Deg-head *baie* in the tests for headship used above, and (ii) the syntactic reanalysis accompanying the domain-widening that allows initially nominal modifiers to combine with adjectives as well.

Beginning with (i): the class of high-degree adjectival modifiers is open and highly subject to lexical and semantic change (Quirk 1985). Items are frequently added to this class and remain modifiers of adjectives only. Examples in Afrikaans are certain taboo words, e.g. *kak*, which literally means ‘shit’ but in youth colloquial varieties is used as a degree modifier with the meaning of ‘very’. The distribution of the Afrikaans taboo modifier is shown in (23).

- (23) a. *Sy is kak mooi.*¹⁷ (Gradable adjective)
 she is shit beautiful
 ‘She is very beautiful.’
- b. **Ek waardeer dit kak.* (Gradable verb)
 I appreciate it shit
 ‘I appreciate it very.’
- c. **Hy is kak op Dinsdae siek.* (Eventive adjective)
 he is shit on Tuesdays sick
 ‘He is very on Tuesdays sick’ (intended meaning ‘He is often sick on Tuesdays’).
- d. **Sy reis kak.* (Eventive verb)
 she travels shit
 ‘She travels very’ (intended meaning ‘She travels a lot’).
- e. **Jannie is kak meer intelligent as Sarie.* (Comparative)
 Jannie is shit more intelligent than Sarie
 ‘Jannie is very more intelligent than Sarie.’
- f. **Hy het kak geld.* (Mass noun)
 he has shit money
 ‘He has very money’ (intended meaning ‘He has a lot of money’).

- g. #*Ek het kak boeke.* (Plural noun)
 I have shit books
 'I have very books' (intended meaning 'I have many books'; the meaning of 'I have rubbish books' is available).

Kak patterns distributionally with the *baie* that can only modify gradable adjectives. The former item also behaves like a head when we repeat the movement test in (10). The relevant example is in (24).

- (24) *Sy is [kak [AP mooi]].*
 she is shit pretty
 'She is very pretty.'
 **Kyk net hoe kak_i is sy [t_i [AP mooi]].*
 look just how shit is she pretty
Kyk net hoe [kak [AP mooi]] is sy t_i!
 look just how shit pretty is she
 'Just look how very pretty she is!'

(24) shows that *kak*, like adjective-modifying *baie*, cannot move away and strand its gradable adjective complement. Recall also that Deg-heads cannot modify pro-forms, as they select for an adjectival complement. This fact also prevents them from occurring in the absence of an AP. (25) and (26) compare the behaviour of the taboo modifier in these environments to that of the exclusively adjectival modifier *te* 'too' and the adjunct modifier *meer* 'more'.

- (25) a. **Jan is intelligent. Eintlik is hy kak so.*
 Jan is intelligent actually is he shit so
 'Jan is intelligent. Actually, he's very so.'
 b. **Jan is intelligent. Eintlik is hy te so.*
 Jan is intelligent actually is he too so
 'Jan is intelligent. Actually, he's too so.'
 c. *Jan is intelligent. Eintlik is hy meer so as Marie.*
 Jan is intelligent actually is he more so than Marie
 'Jan is intelligent. Actually, he's more so than Mary.'

17. Other naturally occurring examples of *kak* as a degree modifier include *Ek is jammer maar hierdie Vernon video is kak snaaks* 'I'm sorry but this Vernon video is very funny' (<http://www.watkykky.co.za/2008/04/ek-is-jammer-maar-hierdie-vernon-video-is-kak-snaaks/>), *Want dis kak cool* 'Because it's very cool' (<http://www.watkykky.co.za/2012/12/afrikaanse-popkultuur-ontleed-yup-dis-kak/>), and *Hoe oud? Kak oud!* 'How old? Very old!' (<https://gevaalik.com/hoe-oud-kak-oud>).

- (26) a. **Kak is dalk onakkuraat.*
 shit is perhaps inaccurate
 'Very might be inaccurate.'
- b. **Te is nie aanbeveel nie.*
 too is NEG recommended NEG
 'Too is not recommended.'
- c. *Meer is dalk beter.*
 more is perhaps better
 'More is perhaps better.'

Kak is incompatible with the categorially underspecified pro-form *so*, as in (25a). (25b), with the exclusively adjectival modifier *te* 'too', is also ungrammatical, whereas (25c), with the adjunct modifier *meer* 'more', is fine. In (26a), *kak* is unable to occur in the absence of an adjectival complement, as is the case with *te* in (26b). *Meer*, in contrast, an adjunct modifier, can occur without a modifiee, as in (26c). The fact that *kak* and *te* pattern together in this regard suggests that *kak*, like *te*, is a Deg-head that selects for an adjectival complement and cannot be separated from this complement.

Turning now to the second diachronic phenomenon to be discussed: cases in which these exclusively adjectival modifiers widen their distributions to be able to modify other lexical categories seem infrequent, if they occur at all. In contrast, there are a number of documented cases where items that start out as nominal modifiers widen their distributions until they are compatible with gradable adjectives as well. This widening in distribution has been proposed to entail a syntactic reanalysis.

Such a process may well have occurred in the development of *baie*, which is derived from the Malay nominal modifier *banyak*, meaning 'an abundance', 'many', 'numerous', or 'plenty' (Raidt 1982; cf. also Davids 1990 and Bauermeester 2007). An examination of the development of modifiers similar to *baie* provides a possible explanation of why adjectival modifiers differ structurally from their adjunct counterparts in cases where the two kinds of modifiers share a form. Two relevant cases are found in older stages of Portuguese and in modern Dutch, respectively.

Portuguese *muito* 'very/much/many', as shown previously in (5), appears to be a type C modifier that can occur with all categories of gradable predicate. However, this item did not always have this distribution: in older stages of Portuguese, *muito* was in complementary distribution with *mui* 'very'. The latter only modified gradable adjectives, whilst the former modified the remaining gradable predicates. *Mui* is said to have become obsolete, whilst *muito* widened its distribution to modify gradable adjectives as well (Doetjes 2008).

Suggestively, however, *muito*, like *kak* discussed above, cannot be moved away from its adjectival complement, as shown in (27). Although we do not have data on the full paradigm, (27) contrasts with the examples of non-adjectival modification in (28) (João Costa, p.c.):

- (27) a. *O Gustavo é muito engraçado.* (Gradable adjective)
 the Gustavo is MUITO funny
 ‘Gustavo is very funny.’
- b. **Muito é o Gustavo engraçado.*
 MUITO is the Gustavo funny
- c. **Engraçado é o Gustavo muito.*
 funny is the Gustavo MUITO
- d. *Muito engraçado é o Gustavo.*
 MUITO funny is the Gustavo
 ‘Very funny is Gustavo.’
- (28) a. *Basta ver o muito que ela viaja num ano!* (Eventive verb)
 just look how MUITO that she travel.3SG in.a year
 ‘Just look how much she travels in a year!’
- b. *Muito não os vemos.* (Eventive verb)
 MUITO NEG them see
 ‘We do not see them much.’
- c. *Carne tenho eu de comer muito.* (Mass noun)
 meat have I to eat MUITO
 ‘Meat I have to eat often.’

In (27b), *muito* cannot be fronted. In (27c), *engraçado* cannot be fronted, thereby stranding *muito*. (27d) shows that only the entire AP *muito engraçado* can be fronted. In (28a–b), *muito* can be moved away from the gradable verbs it modifies, namely *viaja* ‘travels’ and *vemos* ‘see’. In (28c), *carne* ‘meat’ can be fronted, leaving *muito* behind. Thus, *muito* in combination with gradable adjectives aligns with *baie* in combination with gradable adjectives, and *muito* in combination with other gradable predicates seems to pattern like adjunct *baie*.

Secondly, with respect to certain non-standard varieties of Dutch,¹⁸ Norde (2006) and Norde, Clerck and Coleman (2014) discuss a number of recently developed modifiers with trajectories similar to that of *muito*. These expressions, which include *massa*’s ‘masses’, *duizend* ‘thousand’, *een partij* ‘a set, a batch, a lot’,

18. The data in (29) are taken from discussion forums of 15–20 Ghent University student organisations, and are thus examples of “highly informal language” (Norde et al. 2014: 209).

and *tig* ‘umpteen’,¹⁹ began as quantifiers in the nominal domain, and have since widened their distribution to be used in comparative constructions, with verbs, and eventually with gradable adjectives (i.e. to have the distribution of a type C modifier). The distribution of *massa’s* is illustrated in (29) (examples taken from Norde et al. 2014).

- (29) a. *Die dudes die gewonnen hebben waren massa’s cool.*
 those dudes who won have were MASSA’S cool
 ‘Those dudes that won were really cool.’ (Gradable adjective)
- b. *We knuffelen toch al massa’s.* (Eventive verb)
 we hug PRT already MASSA’S
 ‘We do hug loads, don’t you think?’
- c. *Toen ik extra uitleg vroeg, kreeg ik enkel als antwoord dat iedereen massa’s meer moest betalen.* (Comparative)
 when I extra explanation asked got I only as answer that everyone
 MASSA’S more must pay
 ‘When I asked for further explanation, the only answer I got was that everyone had to pay loads more.’
- d. *De periode 1874–1914 kende massa’s aanslagen (ook in België)*
 the period 1874–1914 knew MASSA’S attacks also in Belgium
 ‘The 1874–1914 period witnessed loads of attacks (also in Belgium).’ (Plural noun)
- e. *[...] en heb ik wraak genomen door het laatste uur massa’s drank weg te geven en mensen gelukkig te maken.* (Mass noun)
 and have I revenge taken by the last hour MASSA’S liquor
 away to give and people happy to make
 ‘[...] and I took revenge by giving away loads of free booze during the last hour and making people happy.’

Norde (2006) argues that this process of distribution-widening that is observed with the Dutch expressions involves syntactic reanalysis. She considers the high-degree modifier *tig*, derived from the Dutch numeral suffix *-tig* (as in *twintig* ‘twenty’), which is typically used as an extremely high degree modifier of plural nouns, as in e.g. *tig boeken* ‘very many books’. *Tig* is also frequently used to modify comparatives (e.g. *tig sneller* ‘a whole lot faster’), and has more recently begun to be used to modify gradable adjectives (e.g. *tig leuk* ‘extremely nice’).

19. Similar items exist in Swedish, where *massor* ‘masses’ and *tusen* ‘thousands’ correspond to Dutch *massa’s* and *duizend*, respectively; and German, which has *tausend* ‘thousand’ and *zig* ‘umpteen’ corresponding to Dutch *duizend* and *tig*, respectively (Norde et al. 2014).

Working within a diachronic construction grammar approach, Norde (2006) and Norde et al. (2014) argue that an analogy was originally drawn between *veel* ‘a lot’ and *tig*, as both are high-degree modifiers of plural nouns and can thus be used interchangeably in constructions of the form [*veel/tig* [N]], e.g. *veel/tig films* ‘very many films’.

The key context is one in which the noun is preceded by an adjective, i.e. [*veel/tig* [[AD]_{COMP}][N]], or *veel betere films* ‘many/much better films’. As indicated by the translation, *veel* is ambiguous here, as it can act both as a quantifier of the films and as a modifier of degree/intensity of the comparative adjective *betere* ‘better’. If *tig*’s functions were modelled on those of *veel* in these contexts, then *tig* would also be taken to be able to modify either the entire noun phrase or only the adjective. This would lead to a categorial reanalysis of *tig*, allowing it to modify both nouns and adjectives. The relevant structures are shown in (30):

- (30) a. [*veel* [_{NP} *betere films*]] (*Veel* has scope over NP in comparative)
 ‘many better films’
 b. [*tig* [_{NP} *betere films*]] (Analogy of *tig* and *veel* in comparative)
 ‘many better films’
 c. [_{NP} [*veel betere*] *films*] (*Veel* has scope over AP)
 ‘much better films’
 d. [_{NP} [*tig betere*] *films*] (Analogy results in *tig* having scope over AP)
 ‘much better films’

Norde et al. (2014: 236) state that “It seems likely that, once reanalysed as a degree modifier [in constructions such as (30d)], *tig* spread to comparative constructions with singular noun phrases”. This involves a process of abstraction from [[*tig* [[AD]_{COMP}]][N_{PLURAL}]] to [[*tig* [[AD]_{COMP}]][N_{SING}]]. In such constructions, e.g. *een tig betere film* ‘a much better film’, there is no ambiguity between a quantificational and a degree-modifying reading; only the latter is possible. The final step remaining is moving from use of *tig* only with comparative adjectives to allow it to combine with adjectives in the positive form. This involves a further step of abstraction from [[*tig* [[AD]_{COMP}]][N]] to [[*tig* [[AD]]][N]].

In the structure [_{NP} [*tig betere*] *films*], *tig* is an adjunct, as the comparative morpheme itself, in Doetjes’ (1997) framework, is taken to be a Deg-head that selects for the AP *goed* (cf. Corver 1997a,b, who treats the comparative morpheme as a Q-head). However, once speakers progressed from the use of *tig* with comparative adjectives to using *tig* with adjectives in the positive form, thereby equating it with other Type A modifiers such as *heel* ‘very’ which are functional heads, *tig* too would be reanalysed structurally as such.

This assertion is supported by the fact that again, like *kak* and *muito*, *tig* in the adjectival domain is unable to be moved away from its complement. The contrast is shown in (31) (Norde, p.c.):

- (31) a. *Die dudes die gewonnen hebben waren tig cool.*
 the dudes who won have were TIG cool
 ‘The dudes that won were really cool.’
- b. **Tig waren die dudes die gewonnnen hebben cool.*
 TIG were the dudes who won have cool
- c. **Cool waren die dudes die gewonnen hebben tig.*
 cool were the dudes who won have TIG
- d. *Tig cool waren die dudes die gewonnen hebben.*
 TIG cool were the dudes who won have
 ‘Really cool were the dudes who won.’

However, the data regarding *tig* in combination with other types of gradable predicate is less clear-cut. Examples are provided in (32):

- (32) a. **Tig/massa’s zien we ze niet.*
 TIG/MASSA’S see we them not
 ‘We don’t see them very much.’
- b. **Water moet ik tig/massa’s drinken.*
 water must I TIG/MASSA’S drink
 ‘I have to drink loads of water.’
- c. [?]*Aanvallen waren er tig/massa’s van.*
 attacks were there TIG/MASSA’S of
 ‘There were masses of attacks.’

According to Norde (p.c.), (32a) in which an eventive verb is modified and (32b) in which a mass noun is modified are ungrammatical, whilst (32c), where the countable noun *aanvallen* ‘attacks’ is modified, is marginally possible. We conclude that the data regarding *tig* do not offer much in the way of clarity, whilst those regarding *muito* are more enlightening. In any case, further attention should be directed towards determining the similarities between these items and *baie*. This project is set aside for future work.

5. Conclusion

This paper presented an analysis of the Afrikaans high-degree modifier *baie* ‘very/much/many’. At first glance, *baie* appears to be an item like *more* or *less*, which can combine with gradable predicates of all types. However, contrary to what may

be assumed as a null hypothesis – that *baie* is a single item with a wide distribution, insensitive to the grammatical categories of the predicates with which it combines – we showed that *baie* does not have a uniform syntax. Rather, it heads a DegP in combination with gradable adjectives, and it is an adjunct in combination with other categories of gradable predicate. This sets it apart from *more* and its counterparts, which Doetjes (1997, 2008) and Neeleman et al. (2004) treat as adjuncts regardless of the item with which they combine.

In order to account for this finding, we referred to the scalar theta positions incorporated by gradable predicates, distinguishing between the *g*-position incorporated by gradable adjectives and gradable verbs, and the *q*-position found in eventive adjectives, eventive verbs, and nouns. *Baie* as a functional head selects only adjectives incorporating a *g*-position as its complement. *Baie* as an adjunct is insensitive to the *g*-/*q*-position distinction.

Given this account, a prediction of Doetjes (2008) is borne out: “one expects type C expressions to have a different syntax depending on whether they combine with an adjective or not”. As is the case with *baie*, it also seems that although Portuguese *muito* appears to be a type C modifier, it too takes a different structural form depending on whether it combines with a gradable adjective or another gradable predicate.

Further research into other wide-distribution modifiers similar to *baie*, for example Turkish *çok*, Italian *molto*, and Levantine Arabic *ktiir*, should be conducted to serve as points of comparison for the data presented here.

Acknowledgements

The authors would like to thank the reviewers and the editor for helpful comments on an earlier version of the manuscript. We are also grateful to João Costa and Muriel Norde for their assistance with the Portuguese and Dutch data, respectively, as well as to the Afrikaans speakers who acted as consultants.

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