Syntax of Dutch

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Introduction

This chapter will focus on the pre-determiners *al* ‘all’ and *heel* ‘all/whole’ as shown in the primeless examples of (1). They will be discussed in relation to their “inflected” counterparts *alle* and *hele* in the nearly equivalent constructions shown in the primed examples.

(1)  a.  Al de boeken zijn verkocht.  a’. Alle boeken zijn verkocht.
    all the books have.been sold    all books have.been sold
    ‘All books are sold.’

  b.  Ze kletsen heel de dag
      b’. Ze kletsen de hele dag.
      they chatter whole the day    they chatter the whole day
      ‘They chatter all day.’

Before discussing *al* and *heel* in detail, we will give a very brief indication of some similarities and differences between these two pre-determiners. The two (and their alternants in the primed examples of (1)) have in common that, in a somewhat extended sense, they act as universal quantifiers. One property of universal quantifiers is that they can be modified by approximative modifiers like *bijna* ‘nearly’ and *vrijwel* ‘virtually’. This is illustrated in (2) for the universal quantifier *alles* ‘everything’, and the negative existential quantifier *niets*, which can be also be represented as a universal quantifier followed by negation; cf. the equivalence rule $\neg \exists x \varphi \leftrightarrow \forall x \neg \varphi$.

(2)  a.  Jan heeft bijna/vrijwel alles verkocht.
      Jan has nearly/virtually everything sold

  b.  Jan heeft bijna/vrijwel niets verkocht.
      Jan has nearly/virtually nothing sold

The primeless examples in (3) show that the pre-determiners *al* and *heel* have the same modification possibilities, and in the primed examples we give similar examples for inflected *alle* and *hele*. There are some subtle meaning differences between the two sets of examples. Example (3a), for example, refers to a contextually determined set of books, whereas (3a’) may also refer to the set of books in the speaker’s conception of the universe, that is, to all existing books. Example (3b) refers to the parts that make up a house (living, bedrooms, kitchen, bathroom, attic, etc.), whereas (3b’) may also refer to the house as a unit, e.g., the house as seen from the exterior.

(3)  a.  Jan heeft bijna/vrijwel al de boeken gelezen.
      Jan has nearly/virtually all the books read

  a’. Jan heeft bijna/vrijwel alle boeken gelezen.
      Jan has nearly/virtually all books read

  b.  Jan heeft bijna/vrijwel heel het huis schoongemaakt.
      Jan has nearly/virtually whole the house clean.made

  b’. Jan heeft bijna/vrijwel het hele huis schoongemaakt.
      Jan has nearly/virtually the whole house clean.made
That *all* ‘all’ is a universal quantifier is of course also clear from its meaning: in terms of Figure 1 from Section 1.1.2.2.1, it indicates that all members in denotation set A of the noun phrase are properly included in denotation set B of the verb phrase, that is, that $A - (A \cap B) = \emptyset$; cf. the discussion in Section 6.2.1.

Figure 1: Set-theoretic representation of the subject-predicate relation

The semantics of *heel*, which will be discussed more extensively in Section 7.2.1, is somewhat different; as was already mentioned, the noun phrase in (3b) refers to the parts that make up the house in question, and the pre-determiner *heel* indicates that the predicate *schoonmaken* applies to all parts of this house. Now if we take set A in Figure 1 to refer to the relevant parts of the house, it will be clear that *heel* also expresses that $A - (A \cap B) = \emptyset$.

Related to the fact that *al* and *heel* quantify over a different kind of set is that the two pre-determiners are generally in complementary distribution, which we will illustrate here for count nouns: since the pre-determiner *al* quantifies over a set of entities with a cardinality higher than one, the head noun of the noun phrase it quantifies is normally plural; since the pre-determiner *heel* quantifies over the parts of some entity, the head noun of the noun phrase it modifies is typically singular.

(4)  

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Jan heeft <em>al</em> de koeken/<em>koek</em> opgegeten.</td>
<td>Jan has all the cookies/cookie prt.-eaten</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Jan heeft <em>heel</em> de taart/<em>taarten</em> opgegeten.</td>
<td>Jan has whole the cake/cakes prt.-eaten</td>
</tr>
</tbody>
</table>

With the brief discussion above, we have set the stage for the more exhaustive discussion of *al* and *heel* in, respectively, Section 7.1 and Section 7.2. We will conclude in Section 7.3 with a brief note on focus particles, which may also occur in pre-determiner position.

7.1. **The universal quantifier *al* ‘all’ and its alternants**

This section is mainly concerned with the syntax and semantics of the universal quantifier *al* ‘all’ and its alternant *alle* in (5): we will refer to the former as **PRE-DETERMINER BARE AL** because it always precedes a definite determiner and never has the “inflectional” schwa ending; the latter will be called **INFLECTED ALLE**.
7.1.1. Semantics of al and alle ‘all’

This section discusses the meaning contribution of al/alle ‘all’. Subsection I will show that the core semantics involves universal quantification. Since the core semantics of pre-determiner bare al and inflected alle is the same, it has been suggested by, e.g., Verkuyl (1981), Paardekooper (1986), De Jong (1991), Coppen (1991), and Haeseryn et al. (1997) that alle is actually a “fused” form of pre-determiner bare al and the definite determiner; see Perridon (1997) for an opposing view. Under this view the invariant schwa ending on alle could be seen as the remaining part of the definite article de after its “fusion” with al. This approach to the final schwa of alle does not carry over, however, to attested cases with singular neuter nouns like alle geknoei, given that the neuter definite article het, with which al has putatively fused, does not end in a schwa. Subsections II and III will provide more arguments against the “fusion” approach to inflected alle: these subsections discuss, respectively, the specific and generic uses of al/alle and the fact that alle, but not al, can be used to express high degree quantification. Subsection IV concludes by showing that the universal and the high degree quantifiers differ in that noun phrases modified by the former are strong whereas noun phrases modified by the latter quantifier are weak.

I. Core semantics: universal quantification

As was discussed in the introduction to this chapter, the core meaning of al/alle involves universal quantification: it indicates that all members of the denotation set of the noun phrase are part of the denotation set of the predicate. When combined with count nouns, al/alle applies to sets, not to structured units. The difference between these two notions can be clarified by means of the pairs in (7). While, at a certain level of abstraction, the noun phrases de bomen ‘the trees’ and het bos ‘the forest’ can refer to the same entity in the extra-linguistic universe, they are linguistically distinct in that the former refers to a set of entities while the latter

(7) • Pre-determiner bare al • Inflected alle
   a. al de mensen a’. alle mensen
      all the people all people
   b. al de boeken b’. alle boeken
      all the books all books

Section 7.1.1 will start with an overview of the semantic properties of noun phrases containing al and alle, which is followed in 7.1.2 and 7.1.3 by a discussion of, respectively, their syntactic behavior and syntactic distribution. Section 7.1.4 discusses the independent uses of al/alle as, e.g., a pronominal argument or a floating quantifier; some examples of these uses are given in (6). Section 7.1.5 concludes with a discussion of the somewhat special form allemaal.
refers to a unit, which is structured in the sense that it happens to consist of a set of entities. The primeless examples in (7) show that *all/alle* can be used in noun phrases that refer to sets but not in noun phrases that refer to structured units. The primed examples show that *al* is fundamentally different in this regard from the pre-determiner *heel* ‘all/whole’: cf. Section 7.2.1.1 for more discussion.

(7)  

| All/Alle can also precede non-count nouns. This holds both for concrete, substance nouns like *wijn* ‘wine’ and for abstract, psychological predicates like *ellende* ‘sorrow’. In these cases *al* indicates that the full contextually determined quantity of the entity denoted by the noun is intended. |

| (8)  |  
| --- | --- |
| a. *al de/alle* wijn | all the/all wine |
| b. *al de/alle* ellende | all the/all sorrow |

**II. Specificity/genericity**

An important difference between pre-determiner bare *al* and inflected *alle* concerns the generic interpretations of noun phrases. It comes to the fore most clearly with nouns like *zebra* that may refer to a species. As is discussed in 5.1.1.5, a bare plural like *zebra’s* in (9a) can have either a non-generic reading, in which case it refers to a certain set of zebras, or a generic reading, in which case it refers to typical members of the species. A definite noun phrase like *de zebra’s*, on the other hand, can normally only be used in specific statements; (9b) is ungrammatical as a generic statement about zebras and, since zebras happen to all be striped, it is also awkward as a statement about a specific set of zebras.

(9)  

| (10)  |  
| --- | --- |
| a. Zebra’s zijn gestreept. | zebras are striped |
| b. De zebra’s zijn gestreept. | the zebras are striped |

When we now turn to examples featuring the universal quantifiers *alle* and *al*, we find that noun phrases involving inflected *alle* behave like bare plurals, and that noun phrases involving pre-determiner bare *al* behave like definite noun phrases. That is, the universally quantified noun phrase *alle zebra’s* in (10) is ambiguous between a specific and a generic interpretation, whereas the noun phrase *al de zebra’s* in (11) normally has a specific reading.

(10)  

| (11)  |  
| --- | --- |
| a. Alle zebra’s kwamen plotseling op ons af. | all zebras came suddenly at us prt. |
| b. Alle zebra’s zijn gestreept. | all zebras are striped |
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(11) a. Al de zebra’s kwamen plotseling op ons af. [specific]
    all the zebras came suddenly at us prt.
    ‘All the zebras suddenly came running towards us.’

b. #Al de zebra’s zijn gestreep. [generic]
    all the zebras are striped

Another way to describe these data is by saying that the noun phrase alle zebra’s can be used either to refer to the set of zebras in the domain of discourse (domain D), or simply to all zebras in the speaker’s conception of the universe. The noun phrase al de zebra’s, on the other hand, can only be used to refer to the zebras in domain D. This means that the meaning of this noun phrase is strictly compositional: the noun phrase de zebra’s refers to the zebras in domain D and the pre-determiner al emphasizes that literally all the entities in domain D that satisfy the description of the NP zebra’s are included in the set referred to by the definite noun phrase. The fact that alle and al de differ in this way suggests that a “fusion” approach to alle, according to which alle is a contracted form of the pre-determiner al and the definite determiner, cannot be upheld.

III. High degree quantification

That a fusion “approach” to alle is not feasible is also suggested by the fact that alle, but not al de, can be used to express high degree quantification. Examples of this use are given in (12): that the semantic contribution of alle in (12a) is not universal quantification but degree modification is clear from the fact that alle tijd does not mean “all time(s)” but “lots of time”. This example also shows that the pre-determiner al cannot be used in this way. Other examples of the same type are given in (12b&c). Note in passing, that using all in the English translation of (12a) is impossible (although it does occur in the translation of the saying Ik heb alle tijd in de wereld ‘I have all the time in the world’); examples (12b&c), however, can be rendered in English with the aid of the quantifier every.

(12) a. Ik heb alle/*al de tijd.
    I have all/all the time
    ‘I have lots of time.’

b. Er is alle/*al de reden tot klagen.
    there is all/all the reason to complaining
    ‘There is every reason to complain.’

c. Er was alle/*al de gelegenheid tot het stellen van vragen.
    there was all/all the opportunity to the posing of questions
    ‘There was every opportunity to ask questions.’

The high degree reading is frequently found in noun phrases with alle headed by abstract non-count nouns, especially when these noun phrases are embedded in PPs headed by in ‘in’ or voor ‘for’. Some examples are given in (13). Note that the semantics of in alle eerlijkheid/redelijkheid in (13a) is accurately rendered in English with the aid of all (in all honesty/fairness), which suggests that high degree quantification is possible with English all as well. Dutch uses alle in this high degree meaning rather more profusely than English, though.
(13) a. in alle helderheid/eerlijkheid/redelijkheid/rust
in all clarity/honesty/fairness/rest
b. voor alle duidelijkheid/zekerheid
for all clarity/security

IV. Weak and strong quantifiers

Noun phrases quantified by high-degree *alle* in (12) behave like "weak noun phrases in the sense of Section 6.2.1, sub II: as a subject they typically appear in "expletive er constructions like (12b&c), and they may also occur as the object in existential possessive sentences like (12a). In this respect, these noun phrases are fundamentally different from the noun phrases headed by the universal quantifier *alle*, discussed in sub I, which is a strong quantifier: the examples in (14) show that a noun phrase modified by the universal quantifier *alle* cannot occur in the expletive er construction.

(14) a. Alle/*∅* mannen zijn in de kamer.
all/∅ men are in the room
b. Er zijn ∅/*alle* mannen in de kamer.
there are ∅/all men in the room

A similar argument cannot be reproduced for the pre-determiner *al* given that it never combines with bare plurals (cf. Section 7.1.2.1); the contrast between the examples in (15) can therefore be attributed to the presence of the definite article. Nevertheless, the fact that Subsection I has shown that *al* expresses universal quantification combined with the fact that universal quantifier *alle* is strong makes it reasonable to assume that pre-determiner bare *al* is also a strong quantifier, although the point is difficult to prove.

(15) a. (Al) de mannen zijn in de kamer.
all the men are in the room
b. *Er zijn (al) de mannen in de kamer.
there are all the men in the room

7.1.2. Distribution of *al* and *alle* inside the noun phrase

This section will discuss the restrictions on the use of the quantifiers *al* and *alle* within the noun phrase. We will focus on the types of nouns that license the presence of these quantifiers and the co-occurrence restrictions of the quantifier and other determiners.

7.1.2.1. Pre-determiner bare *al* ‘all’

This section presents a survey of the distribution of pre-determiner bare *al* inside the noun phrase. Subsection I will first discuss the noun phrase types that may contain this pre-determiner. This is followed in Subsection II by a discussion of the restrictions *al* imposes on other elements within the noun phrase.
I. Bare al and noun phrase types

Pre-determiner bare al cannot occur in singular count noun phrases, regardless of the grammatical gender of the noun, but does readily occur in plural noun phrases headed by definite determiners like the plural article de ‘the’, the plural demonstratives die/deze ‘these/those’ and the definite possessive pronouns; see Subsection II for a discussion of bare plurals.

Table 1: Pre-determiner bare al in noun phrases headed by a count noun

<table>
<thead>
<tr>
<th></th>
<th>SINGULAR [±NEUTER]</th>
<th>PLURAL [±NEUTER]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEFINITE ARTICLES</strong></td>
<td>*al de stad/het huis</td>
<td>*al de steden/huizen</td>
</tr>
<tr>
<td></td>
<td>all the town/the house</td>
<td>all the towns/houses</td>
</tr>
<tr>
<td><strong>DEMONSTRATIVE PRONOUNS</strong></td>
<td>*al die stad/dat huis</td>
<td>*al die steden/huizen</td>
</tr>
<tr>
<td></td>
<td>all that town/that house</td>
<td>all those towns/houses</td>
</tr>
<tr>
<td></td>
<td>*al deze stad/dit huis</td>
<td>*al deze steden/huizen</td>
</tr>
<tr>
<td></td>
<td>all this town/this house</td>
<td>all these towns/houses</td>
</tr>
<tr>
<td><strong>POSSESSIVE PRONOUNS</strong></td>
<td>*al mijn stad/huis</td>
<td>*al mijn steden/huizen</td>
</tr>
<tr>
<td></td>
<td>all my town/house</td>
<td>all my towns/houses</td>
</tr>
</tbody>
</table>

In passing note that in older stages of the language, pre-determiner al could modify singular nouns; cf. Woordenboek der Nederlandsche Taal, lemma al. Some relics can still be found in Van Dale’s dictionary of Dutch: *al de stad ‘the whole city’, *al de vloot ‘the whole fleet’ and *al de wereld ‘the whole world’, but in present-day Dutch heel ‘all/whole’ is normally used in this context; cf. Section 7.2.2.1, sub I.

Although pre-determiner bare al normally precedes plural noun phrases, it cannot be combined with pluralia tantum like (16a), or with formal plurals like (16b-d) that denote a conventionally fixed unit. Note that (16d) can be used when the individual islands of the Antillean archipelago are quantified by al, not on the intended reading in which the Antilles is seen as a unit. Section 7.2.2.1, sub I, will show that in this respect al is the exact opposite of the pre-determiner heel.

(16)  a. *al de hersenen/tropen
       all the brains/tropics
b. *al de kerstdagen (zat hij te zeuren)
       all the Christmas days sat he to nag
c. *al de Verenigde Staten
       all the United States
d. #al de Antillen
       all the Antilles
       ‘all the individual islands of the Antilles’

Pre-determiner bare al also occurs in non-count noun phrases, in a position linearly preceding the definite article, the demonstrative or the possessive pronoun. Substance nouns and mass nouns behave the same way, as the examples in Table 2 show. Note that the judgments are not affected by the gender of the noun. This is only shown for the substance nouns.
Syntax of Dutch: nouns and noun phrases

Table 2: Pre-determiner bare al in noun phrases headed by a non-count noun

<table>
<thead>
<tr>
<th></th>
<th>Substance Nouns [±Neuter]</th>
<th>Mass Nouns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definite Articles</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Al de wijn/het water</td>
<td>all the wine/the water</td>
<td>al het vee</td>
</tr>
<tr>
<td>Al die wijn/dat water</td>
<td>all that wine/that water</td>
<td>al dat vee</td>
</tr>
<tr>
<td>Al deze wijn/dit water</td>
<td>all this wine/this water</td>
<td>al dit vee</td>
</tr>
<tr>
<td><strong>Demonstrative Pronouns</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Al deze wijn/dit water</td>
<td>all this wine/this water</td>
<td>al dit vee</td>
</tr>
<tr>
<td>Al mijn wijn/water</td>
<td>all my wine/water</td>
<td>al mijn vee</td>
</tr>
</tbody>
</table>

The examples in (17) show that pre-determiner bare *al* can also be used with abstract nouns like *ellende* ‘misery/trouble’ and *verdriet* ‘sorrow’.

(17) a. Al (?) de/die/deze/zijn ellende
     all the/that/this/his misery
b. Al (?) het/die/deze/zijn verdriet
     all the/that/this/his sorrow

The examples with the definite articles *de/het* given above are somewhat marked, but become perfectly acceptable when the noun phrase contains a restrictive modifier: cf. the examples in (18). A similar modifier effect does not show up in the other examples in Table 2, or, for that matter, in the examples to follow.

(18) a. Al de rode wijn
     all the red wine
b. Al het vee in de stal
     ‘all the cattle in the stable’
c. Al de ellende die ik heb meegemaakt
     all the misery that I have prt.-made
     ‘all the misery that I have been through’

Pre-determiner bare *al* can also precede projections of deverbal nouns of the type in Table 3. These bare stem, infinitival and GE-nominalizations are systematically [±Neuter].

Table 3: Pre-determiner bare al in noun phrases headed by a deverbal noun

<table>
<thead>
<tr>
<th></th>
<th>Bare Stem</th>
<th>Inf-Nominalization</th>
<th>Ge-Nominalization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definite Articles</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Al het werk</td>
<td>all the work</td>
<td>al het werken</td>
<td>al het gewerk</td>
</tr>
<tr>
<td>Al dat werk</td>
<td>all that work</td>
<td>al dat werken</td>
<td>al dat gewerk</td>
</tr>
<tr>
<td>Al dit werk</td>
<td>all this work</td>
<td>al dit werken</td>
<td>al dit gewerk</td>
</tr>
<tr>
<td><strong>Demonstrative Pronouns</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Al deze werk</td>
<td>all this work</td>
<td>al dit werken</td>
<td>al dit gewerk</td>
</tr>
<tr>
<td>Al mijn werk</td>
<td>all my work</td>
<td>al mijn werken</td>
<td>al mijn gewerk</td>
</tr>
<tr>
<td><strong>Possessive Pronouns</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Al mijn werk</td>
<td>all my work</td>
<td>al mijn werken</td>
<td>al mijn gewerk</td>
</tr>
</tbody>
</table>
It is impossible, however, for *al to be construed with result nominalizations instantiated by non-neuter nouns like *aankomst ‘arrival’ or *aanvang ‘beginning’, or neuter nouns like *begin ‘beginning’ or *vertrek ‘departure’.

(19) • [-NEUTER] • [+NEUTER]
   a. *al de aanvang/aankomst all the beginning/arrival
      a’. *al het begin/vertrek all the beginning/departure
   b. *al die aanvang/aankomst all that beginning/arrival
      b’. *al dat begin/vertrek all that beginning/departure
   c. *al deze aanvang/aankomst all this beginning/arrival
      c’. *al dit begin/vertrek all this beginning/departure

It is difficult to sharply distinguish the set of deverbal nouns that do not allow pre-determiner bare *al from those that do. The unacceptability of the examples in (19) might be related to the fact that they all involve result nominals that denote a punctual event, that is, an event without a temporal extension. This tallies with the fact that pre-determiner bare *al cannot be used with punctual non-deverbal nouns like *einde ‘end’ in (20) either.

(20) *al het/dat/dit einde
     all the/that/this end

We add, however, that the context may force an eventive interpretation upon nouns of the type in (19) and (20), but the examples in (21) show that it is nonetheless impossible to use the pre-determiner *al in such cases; Section 7.2.2.1, sub I, will show that in contexts like these, the pre-determiner *heel ‘all/whole’ is used.

(21) a. (*Al) het begin van de film was erg saai.
     all the beginning of the movie was very boring
   b. (*Al) het einde van de film was erg saai.
     all the end of the movie was very boring

II. Restrictions on accompanying determiners and quantificational elements

This section investigates the restrictions that the pre-determiner *al poses on the presence of determiners and quantificational elements. As an initial observation, note that the syntax of the constituents following *al largely mirrors that of the same constituents lacking *al: (22), for instance, shows that adjectival modification of the noun is not affected by the presence of *al. The examples in (23) show that *al does not affect the behavior of attributive modifiers with regard to inflection either.

(22) a. (al) de/deze/die eenzame mensen
     all/the/these/those lonely people
   b. (al) het/dit/dat heerlijke water
     all/the/this/that delicious water

(23) a. (al) dat/dit soort groot/*grote verdriet
     all/this sort big sadness
   b. (al) dat grote/*groot verdriet
     all/this big sadness
Syntax of Dutch: nouns and noun phrases

A. Determiners

Table 2 in Subsection I has shown that pre-determiner bare *al* can precede all definite determiners with equal ease. We illustrate this again in (24).

(24) a. al de mannen [article] all the men
   b. al die/deze mannen [demonstrative pronoun] all those/these men
   c. al mijn boeken [possessive pronoun] all my books

The (a)-examples in (25) and (26) show that the demonstrative and possessive pronouns can be assigned contrastive accent, and the (b)-examples that the acceptability of examples of this type is preserved under Backward °Conjunction Reduction. NP-ellipsis in the second conjunct, as in the (c)-examples, is at least degraded in comparison with the cases involving Backward Conjunction Reduction.

In this regard, pre-determiner bare *al* differs markedly from other quantificational pre-determiner elements like *alle* + Num, *allebei* and *heel*; see Sections 7.1.2.2.1, sub II, and Section 7.2.2.1, sub II, for illustration.

(25) a. Ik ken wel al DEZE mannen, maar niet al DIE mannen. I know AFF all these men but not all those [men]
   b. Ik ken wel al DEZE Ø, maar niet al DIE mannen. [RNR]
   c. *Ik ken wel al DEZE mannen, maar niet al DIE Ø. [NP-ellipsis]

(26) b. Ik ken wel al ZIJN vrienden, maar niet al HAAR vrienden. I know AFF all his friends but not all her [friends]
   b. Ik ken wel al ZIJN Ø, maar niet al HAAR vrienden. [RNR]
   c. *Ik ken wel al ZIJN vrienden, maar niet al HAAR Ø. [NP-ellipsis]

For completeness’ sake, it can be noted that pre-determiner bare *al* can also be inserted to the left of possessive noun phrases, as in (27), although the semigenitival construction is perhaps somewhat marked, which may be due to the heaviness of the overall construction. According to Van der Lubbe (1978: 133), pre-determiner bare *al* sometimes also occurs between the noun phrase and the functional possessive pronoun, as in %*vader al z’n sigaren* (lit.: father all his cigars), but he adds immediately that this will probably not be approved by many speakers; we have not been able to find similar examples. The examples in (27b) show that pre-determiner bare *al* can also precede nominalized possessive pronouns.

(27) a. al mijn mans/ al mijn man z’n boeken all my husband’s/all my husband his books
   b. al de/het mijne/jouwe/zijne/hare/onze/hunne all the mine/yours sg/his/hers/ours/ theirs

Pre-determiner bare *al* cannot be construed with noun phrases like (28a&b) containing the indefinite article *een*. This is not even possible in the exclamative construction in (28c), where we are dealing with the spurious article *een* and a plural noun; cf. 5.1.4.2. Pre-determiner bare *al* cannot combine with bare noun
phrases either, which is illustrated in the primed examples for, respectively, bare non-count nouns and bare plurals.

(28) a. (*al) een ellende  a’. (*al) ∅ ellende/wijn
    all a misery    all misery/wine
b. (*al) een gedoe   b’. (*al) ∅ verdriet/water
    all a fuss      all sorrow/water
  c. (*al) een boeken dat hij heeft!   c’. (*al) ∅ steden/huizen
    all a books     all towns/houses

An example like één en al ellende ‘nothing but misery’ may look deceptively similar to the non-count singular in (28a), but the complex modifier één en al (lit.: one and all) differs from the pre-determiner al in that the noun is always singular. Eén en al also differs from al in making an entirely different semantic contribution, which is comparable to that of modifiers like volledig ‘complete(ly)’, alleen maar ‘only’ or niets dan ‘nothing but’, not to that of a universal quantifier like al.

B. Indefinite determiner-like elements

The indefinite determiner-like elements dat/dit soort ‘such’ (lit.: that/this kind), which were discussed in Section 4.1.2, are compatible with al to their left. The demonstrative modifiers zulk/dergelijk ‘such’ exhibit essentially the same behavior as dat/dit soort, but because most speakers find constructions of the type ?al zulke/dergelijke boeken ‘all such books’ somewhat archaic, we will not illustrate such examples in the remainder of this subsection.

(29) a. (al) dat/dit soort ellende  a’. (al) dat/dit soort verdriet
    all that/this sort misery    all that/this sort sorrow
b. (al) dat/dit soort wijn       b’. (al) dat/dit soort fruit
    all that/this sort wine      all that/this sort fruit
  c. (al) dat/dit soort boeken   
    all that/this sort books

It is likely that in constructions of the type in (29), al is not construed with the larger noun phrase directly, but forms a constituent with dat/dit soort. Pre-determiner bare al phrases generally pattern with strong noun phrases, which was supported in Section 7.1.1, sub IV, by showing that these noun phrases cannot occur as the associate of er ‘there’ in expletive constructions like (30a). Adding al to dat/dit soort N, which is itself a weak noun phrase, does not result in a strong noun phrase, however, which leads to the conclusion that al is only construed with the smaller definite noun phrase dat/dit soort.

(30) a. *Er komt daar (al) de ellende voor.
    there comes there all the misery prt.
  b. Er komt daar (al) dat/dit soort ellende voor.
    there comes there all that/this sort misery prt.
      ‘All such misery is found there.’

The indefinite determiner-like element van die ‘such’ in pseudo-partitive constructions, which was discussed in Section 4.1.1.6.1, does not allow bare al to its
left, which is not really surprising since these spurious PPs actually act as indefinite noun phrases.

(31)    Hij verkoopt (*al) van die lekkere wijn/koekjes.

    he  sells   all    such those tasty wine/cookies

‘He sells such tasty wine/cookies.’

C. Quantifiers and numerals

Neither weak quantifiers like enig(e) ‘some’ and enkele ‘some’, nor strong quantifiers like sommige ‘some’, elk ‘each’ and ieder ‘every’ can be preceded by pre-determiner bare al.

(32)    a. (*al) enige ellende/wijn
        all    some misery/wine

    b. (*al) enig verdriet/fruit
        all    some sorrow/fruit

    c. (*al) enkele/sommige boeken
        all    some            books

The quantifiers veel ‘much/many’ and weinig ‘little/few’ need some more discussion. When they are used in their bare form, they cannot be preceded by al, which is not surprising since in this form they have the same function as the quantifiers in (32).

(33)    a. (*al) elk/iedere stad
        all each/every        town

    b. (*al) elk/ieder huis
        all each/every house

However, pre-determiner bare al can at least marginally precede the inflected quantifiers veel ‘much/many’ or weinige ‘little/few’, provided at least that the construction without al is acceptable as well; examples like (35) are substantially better than the examples of quantified phrases with alle, alle + Num, allebei, beide and allemaal that will be discussed in Section 7.1.2.2. Note that the PP-modifier must be present in these examples, regardless of whether al is present or absent.

(34)    a. (*al) veel ellende
        all much misery

    b. (*al) veel fruit
        all much fruit

    c. (*al) veel boeken
        all many books

(35)    a.    al de ?vele/?weinige mensen in de zaal
        all the many/few   people  in the room

    b.    al het ?vele/?weinige water in de vijver
        all the much/little  water in the pond

Note in passing that the examples in (34) contrast sharply with al te veel N. In this construction al is not a pre-determiner but a modifier of te veel, which is clear from
the fact that noun phrases quantified by veel/weinig are indefinites and can accordingly occur in expletive *er ‘there’ constructions. Since (36) shows that noun phrases modified by *al te veel pattern with noun phrases quantified by te veel in this respect, the assumption that *al acts as a modifier of te veel seems reasonable. It is also plausible from a semantic point of view; besides a too-degree interpretation, *al te veel can also receive a high degree paraphrase with heel erg veel ‘very much’, where heel erg premodifies veel as well.

(36) Er is (al) te veel ellende op de wereld.
there is all too much misery on the world
‘There is too much misery in the world.’

The pre-determiner *al can also be used when the noun phrase contains a numeral, although we find a split in the set of determiners: whereas the demonstratives and possessives in (37b-d) can be preceded by *al, the definite article *de in (37a) cannot.

(37) a. *al de (*drie) boeken
    all the three books
b. *al deze/die (drie) boeken
    all these/those three books
c. *al mijn (drie) boeken
    all my three books
d. *al mijn vaders/mijn vader z’n (drie) boeken
    all my father’s/my father his three books

We have marked example (37a) as unacceptable with a numeral, despite the fact that Haeseryn et al. (1997) mention *al de tien leerlingen ‘all the ten pupils’ as a case on which speakers have varying judgments; we have found that speakers as a rule reject noun phrases of this type, although we must add that we did find a small number of examples on the internet. Note that the intended meaning of example (37a) can be expressed by means of alle drie de boeken ‘all three the books’ (similar alternants exist for (37b&c): alle drie die/mijn boeken); see Section 7.1.2.2.1 for discussion and comparison.

D. Personal pronouns and proper nouns

It is impossible for pre-determiner bare *al to be construed with pronouns. Since *al requires a plural noun phrase (when headed by a count noun), this is illustrated in (38) for the plural pronouns only. These examples are all ungrammatical with *al added, regardless of the order of *al and the pronoun.

(38) a. *al wij/ons
    all we/us
b. *al jullie
    all you,pl
    all they/them/them
c. *al zij/hen/hun
    all you,pl

The examples in (39) show that pre-determiner bare *al cannot occur with proper nouns either, which may be surprising given that English *all or French tout can be used in contexts like (39a). Section 7.2.2.1, sub IID, will show that Dutch uses heel ‘all/whole’ in contexts of this kind.
Perhaps it should be mentioned here that *al may also directly precede the pronouns wat and wie in free relatives like in (40), but it is not clear whether we are dealing with pre-determiner bare *al here; it may also be the case that *al acts as the antecedent of the relative clause. Since we have no conclusive evidence in support of one of the two analyses, we will leave the decision to future research.

(41)  a.  al wat ik hoor
      all what I hear

    b.  al wie ik zag, geen Peter
        all who I saw no Peter

      ‘I saw lots of people but not Peter’

7.1.2.2. Inflected alle ‘all’

This section presents a survey of the distribution of inflected alle inside the noun phrase. We will distinguish two cases: alle followed by a numeral, and “simplex” alle, that is, alle without a numeral. Since alle followed by a numeral is close in behavior to pre-determiner bare *al discussed in Section 7.1.2.1, we will start with this case.

7.1.2.2.1. Inflected alle + numeral

This section discusses instances of alle that occur as a subpart of the quantificational pre-determiners in (42). The second part of these pre-determiners consists of a numeral greater than one or the morpheme –bei, which can perhaps be considered a short form of beide ‘both’.

(42)  a.  alle + Numeral: alle twee ‘all two’, alle drie ‘all three’, etc.

    b.  allebei ‘both’ (lit.: all-both)

Before we start our survey, we want to make a note on the spelling of the forms in (42a). Though spelling alle and the numeral as two separate words is the norm, it is also possible to spell alle + Num as one single word, especially when the numeral denotes a very small quantity: alletwee ‘all-two’ alongside alle twee, alledrie ‘all-three’ alongside alle drie. However, a survey on the internet shows that starting from alle vier ‘all four’ the frequency of writing the sequence as a single word rapidly decreases: allezes ‘all-six’ is already rare, alleacht is virtually non-existent, and allenegen ‘all-nine’ does not occur at all. Allebei is always spelled as one single word. The form allemaal ‘all’ (lit.: all-together) partially patterns with the forms in (42), but it will not be discussed here because its exceptional properties would blur the picture to be sketched for alle + Num and allebei; we therefore refer the reader to Section 7.1.5 for a discussion of this form.

I. Pre-determiner alle and noun phrase types

Like bare *al, the forms in (42) can only occur in plural noun phrases; this is illustrated for alle twee in Table 4, but the judgments remain the same if this modifier is replaced by allebei. The ill-formedness of the singular nouns in Table 4
is due to the fact that the pre-determiners in (42) are built up of \textit{alle} and a numeral of a cardinality greater than 1; for the same reason, pre-determiner \textit{alle} cannot precede noun phrases headed by non-count nouns. Note further that the plural examples with the proximate demonstrative \textit{deze} ‘these’ are marked.

\textit{Table 4: Pre-determiner \textit{alle} in noun phrases headed by a count noun}

<table>
<thead>
<tr>
<th></th>
<th>SINGULAR [-NEUTER]/[+NEUTER]</th>
<th>PLURAL [-NEUTER]/[+NEUTER]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEFINITE ARTICLES</strong></td>
<td>*\textit{alle twee de man}/\textit{het huis} all two the man/the house</td>
<td>\textit{alle twee de mannen}/\textit{huizen} all two the men/houses</td>
</tr>
<tr>
<td><strong>DEMONSTRATIVE PRONOUNS</strong></td>
<td>*\textit{alle twee die man}/\textit{dat huis} all two that man/that house</td>
<td>\textit{alle twee die mannen}/\textit{huizen} all two those men/houses</td>
</tr>
<tr>
<td></td>
<td>*\textit{alle twee deze man}/\textit{dit huis} all two this man/this house</td>
<td>?\textit{alle twee deze mannen}/\textit{huizen} all two these men/houses</td>
</tr>
<tr>
<td><strong>POSSESSIVE PRONOUNS</strong></td>
<td>*\textit{alle twee m’n man}/\textit{huis} all two my man/house</td>
<td>\textit{alle twee m’n mannen}/\textit{huizen} all two my men/houses</td>
</tr>
</tbody>
</table>

As with bare \textit{al}, it is not possible for pre-determiner \textit{alle} to be combined with the pluralia tantum in (43a) or with plurals which denote a conventionally fixed unit, like \textit{Verenigde Staten} ‘US’ in (43b).

(43)  a. *\textit{alle} + Num/\textit{allebei} de hersenen/tropen all + Num/all-both the brains/tropics  
b. *\textit{alle} + Num/\textit{allebei} de Verenigde Staten all + Num/all-both the United States

\textit{II. Restrictions on accompanying determiners and quantificational elements}

This section investigates the restrictions that \textit{alle} + Num and \textit{allebei} pose on the presence of determiners and quantificational elements. As in the case of bare \textit{al}, the syntax of the constituents following \textit{alle} + Num or \textit{allebei} largely mirrors that of the same constituents lacking these quantifiers. For example, adjectival modification of the noun is not affected by the presence of these quantifiers, as is illustrated in (44); the attributive modifiers, of course, always carry an inflectional schwa, due to the fact that noun phrases like these are plural.

(44) \textit{alle tien/allebei de/die/\textit{deze} eenzame mensen all/both the/those/these lonely people}

\textit{A. Determiners}

Table 4 has already shown that pre-determiner \textit{alle} + Num can precede the definite article \textit{de} and the distal demonstrative \textit{die} with equal ease; the relevant examples are repeated here as (45a&b), and supplemented with the corresponding \textit{allebei} ‘both’ examples. The proximate demonstrative \textit{deze} in (45c), however, is rather marked in a position linearly following the pre-determiner \textit{alle} + Num and \textit{allebei}, and sequences like these are also relatively rare on the internet. In this regard pre-determiner \textit{alle} differs from \textit{al}, which is perfect to the left of the proximate demonstrative, and instead resembles pre-determiner \textit{heel} ‘all/whole’; cf. Section 7.2.2.1, sub I.
The marked proximate demonstrative cases improve to a certain degree in contexts of the type in (46), where the demonstrative receives contrastive accent. The acceptability of examples of this type improves further under Backward °Conjunction Reduction, as in the primed examples. By contrast, NP-ellipsis in the second conjunct leads to ungrammaticality, as is shown in the doubly-primed examples. The ungrammaticality of these examples is due entirely to the presence of the pre-determiners alle tien and allebei; with these quantifier elements removed, the sentences are perfect. Replacing these pre-determiners with bare al also leads to a somewhat better result, as can be seen in Section 7.1.2.1, sub IIA.

Possessive pronouns can be placed between alle + Num/allebei and the projection of the noun, provided that they are prosodically weak: the reduced forms of the pronouns in (47a) are fine, whereas the full forms in (47b) are marked to varying degrees — in particular onze ‘our’ and hun ‘their’, which do not have a weak form, are relatively acceptable, but jullie, which can only be reduced under the strict conditions discussed in Section 5.2.2.3, seems completely unacceptable. Example (47c) shows that stressed possessive pronouns are impossible. The (semi-)genitival possessors in (47d) are acceptable in this position roughly to the same marginal degree as full possessive pronouns, but, for some unclear reason, proper nouns like those in (47e) give rise to an unacceptable result.

(47) a. alle tien/allebei m’n/ji/z’n/d’r boeken
all ten/all-both my/your/his/her books
b. alle tien/allebei ??mijn/*jouw/?zijn/?haar/?onze/*jullie/?hun boeken
all ten/all-both my/your sg/his/her/our/yourpl/their books
c. *alle tien/allebei MIJN boeken
all ten/all-both my books
d. ??alle tien/allebei m’n vaders/m’n vader z’n boeken
all ten/all-both my father’s/my father his books
e. *alle tien/allebei Jans/Jan z’n boeken
all ten/all-both Jan’s/Jan his books
The *alle* + Num examples in (47) alternate with constructions in which bare *al* precedes and the numeral follows the possessor of the noun: *al m’n tien boeken* ‘al my ten books’; cf. Section 7.1.2.1, sub IIC. This syntactic alternation does not seem semantically innocuous, though judgments are subtle. Consider the pair in (48), used in a context in which a selection committee is finalizing a short list, and each of the committee members has drawn up a list of his three top candidates. In this context, *alle drie onze kandidaten* primes a reading in which all committee members selected the same three candidates (hence the total number of candidates figuring on the committee members’ lists is exactly three), while *al onze drie kandidaten* seems more felicitously used in a situation in which not all committee members selected the same three candidates (hence the total number of candidates figuring on the committee members’ lists exceeds three).

(48) a. Alle drie onze kandidaten (*vormen samen een groep van zeven man*).
   all three our candidates form together a group of seven people

b. Al onze drie kandidaten (*vormen samen een groep van zeven man*).
   all our three candidates form together a group of seven people

For completeness’ sake, it should be noted that *alle* + Num and *allebei* can also be used with nominalized possessive pronouns. The article preceding the noun must be *de*, because *alle* + Num and *allebei* do not combine with singular noun phrases; this excludes the article *het*, which is only found in singular noun phrases.

(49) a. alle twee/allebei de mijne/jouwe/zijne/hare/onze/hunne
    all two/both the mine/yours sg/his/hers/ours/theirs

b. *alle twee/allebei het mijne/jouwe/zijne/hare/onze/hunne
    all two/both the mine/yours sg/his/hers/ours/theirs

Pre-determiner *alle* + Num cannot be construed with noun phrases containing the indefinite article *een*, not even in contexts in which, in the absence of the pre-determiner, the indefinite article can combine with a plural noun phrase.

(50) a. Een boeken dat hij heeft!
    a books that he has
    ‘He has a lot of books/very nice books!’

b. *Alle tien/allebei een boeken dat hij heeft!
    all ten/both a books that he has

As is shown in (51a), the pre-determiner *allebei* cannot combine with bare plurals either. *Alle* + Num, on the other hand, can be construed with bare plurals, although this depends on the numeral in question. The empirical generalization seems to be that with “high” numerals, like *vijfentwintig* in (51d), the determiner *de* is preferably dropped (although some speakers find (51d) with the determiner *de* perfectly acceptable), whereas with “low” numerals the pattern without the determiner *de* is awkward, to a degree which varies somewhat from speaker to speaker and from case to case (Perridon 1997: 184). A rough search on the internet has shown that in examples like (51a&b), with *allebei* and *alle twee/drie/vier*, use of the article *de* is clearly preferred. In cases like (51c), with *alle vijf/zes* both options have about the same frequency. In examples like (51d) with high numbers,
dropping the article seems obligatory: the string [*alle vijfentwintig de*] resulted in no relevant hits, whereas the string [*alle vijfentwintig*] provided many cases of the relevant construction; see also http://taaladvies.net/taal/advies/vraag/48.

(51) a. allebei/alle twee de/*∅ boeken
c. alle vijf/zes/... de/∅ boeken
   all-both/all two the books all five/six/... the books
b. alle drie/vier de/*∅ boeken
d. alle vijfentwintig ∅/*de boeken
   all three/four the books all twenty five ∅/the books

When the numeral is modified by an adverb, construing *alle* + Num with a bare plural is the only possibility; adding the article *de* gives rise to an unacceptable result, even with relatively “low” numerals like *vijf*.

(52) alle ongeveer/bijna/ruim honderd/vijf (*de) deelnemers
   all approximately/almost/well over hundred/five the participants

B. Indefinite determiner-like elements

Example (53a) shows that the indefinite determiner-like elements *dat/dit soort* ‘such’, discussed in Section 4.1.2, are not compatible with *alle* + Num/allebei to their left. Example (53b) shows that the same thing holds for pseudo-partitive noun phrases, discussed in Section 4.1.1.6.1, with the indefinite determiner-like element *van die* ‘such’.

(53) a. *alle tien/allebei dat/dit soort boeken
   all ten/all-both that/this sort books
b. *alle tien/allebei van die boeken
   all ten/all-both of such books

C. Quantifiers and numerals

Since the pre-determiners *allebei* and *alle* + Num already contain a cardinal number, the addition of other quantificational elements to the noun phrase is impossible; the examples below are all ungrammatical. Numerals are, of course, excluded since this would either result in unwanted redundancy or in a contradiction: *alle vier de drie/vier boeken* ‘all four the three/four books’.

(54) a. *alle tien/allebei enige/sommige boeken
   all ten/all-both some books
b. *alle tien/allebei veel boeken
   all ten/all-both many books
c. *alle tien/allebei de vele/weinige mensen in de zaal
   all ten/all-both the many/few people in the room
d. *alle twee/allebei de twee/beide boeken
   all two/all-both the two/both books

D. Personal pronouns and proper nouns

*Alle* + Num and *allebei* can form a constituent with a plural personal pronoun, provided that the pronoun is realized in its strong, unreduced form and that it precedes the quantifier. That the string *zij alle tien/allebei* in (55) is a constituent is clear from the fact that it can precede the finite verb *zijn* in the main clauses (the...
Note, though, that (55b), in which the pronoun has an inanimate referent, is much worse than (55a), in which the pronoun is animate. This may be related to the fact that strong pronouns are normally interpreted as [+HUMAN]; cf. Section 5.2.1.1.5.

(55) a. (Wat die kinderen betreft,) zij/*ze alle tien/allebei zijn zeer slim.
    ‘As far as those children are concerned, they are all ten/both very smart.’

b. (Wat die problemen betreft,) ??zij/*ze alle tien/allebei zijn zeer ernstig.
    ‘As far as those problems are concerned, they are all ten/both very serious.’

It must also be noted that, while grammatical, example (55a) is marked compared to the variants in (56), in which the pronoun and the quantifier do not form a constituent; this use as ‘floating quantifier is more extensively discussed in Section 7.1.4.

(56) • Discourse topic: a number of children
    a. Zij/Ze zijn alle tien/allebei zeer slim.
       ‘They are all ten/both very smart.’

b. Alle tien/allebei zijn zij/ze zeer slim.
   ‘They are all ten/both very smart.’

Since proper nouns are normally uniquely referring singular expressions, it is correctly predicted that they do not co-occur with pre-determiner alle + Num, as shown by (57a). The exceptional case in (57b) is not a counter-example; here the plural proper noun is preceded by the definite article de, and therefore behaves as a count noun.

(57) a. *alle tien Jan/Jannen

b. alle tien de Jannen

7.1.2.2.2. Inflected simplex alle

The construction with pre-determiner al in (58a), discussed in Section 7.1.2.1, is semantically roughly on a par with the alle N construction in (58b), and the two constructions are therefore often considered to be surface variants, alle being assumed to be a fusion of bare al and the definite determiner. The investigation of the meaning contribution of alle and al de in Section 7.1.1 has already shown that there are semantic reasons to not follow this “fusion” approach, and the discussion below will show that there are also distributional differences between them that make such an approach less plausible.

(58) a. al de mannen

b. alle mannen

This section will discuss the properties of alle inside the noun phrase. In conjunction with alle we will consider beide ‘both’, which is syntactically virtually identical with alle except where noted otherwise.
I. Simplex alle and noun phrase types

Table 5 shows that *alle and *beide cannot occur in singular count noun phrases, regardless of the grammatical gender of the noun. They do readily occur in plural noun phrases, which must be determinerless; see Subsection II for more discussion.

Table 5: Inflected alle ‘all’ and beide ‘both’ in noun phrases headed by a count noun

<table>
<thead>
<tr>
<th>INFLECTED ALLE</th>
<th>[-NEUTER]</th>
<th>[+NEUTER]</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>alle stad</td>
<td>*alle stad</td>
<td>*alle huis</td>
<td>alle steden/huizen</td>
</tr>
<tr>
<td>all town</td>
<td>all town</td>
<td>all house</td>
<td>all towns/houses</td>
</tr>
<tr>
<td>beide stad</td>
<td>*beide stad</td>
<td>*beide huis</td>
<td>alle/beide steden/huizen</td>
</tr>
<tr>
<td>both town</td>
<td>both town</td>
<td>both house</td>
<td>all/both towns/houses</td>
</tr>
</tbody>
</table>

It must be noted, however, that in older stages of the language *alle was possible with singular count nouns denoting a temporal interval like alle maand ‘each month’, even when the noun was preceded by a numeral, as in alle vier maand (lit.: all four month) cf. Woordenboek der Nederlandsche Taal, lemma al. In present-day Dutch, elk(e) is used instead (elke maand), although there are still some formal, idiomatic cases like in alle geval ‘in any case’ and te allen tijde ‘at all times’. Finally, it should be noted that the form alleman with singular man exists as a compound, found in the fixed expression Jan en alleman ‘everybody’ (lit.: Jan and everyman), and as the left-hand member of the larger compound allemansvriend ‘everyman’s friend’.

Though *alle and *beide precede plural noun phrases, they cannot be combined with the pluralia tantum in (59a) or with plurals like (59b) that denote a conventionally fixed unit.

(59) a. *alle/beide hersenen/tropen b. *alle/beide Verenigde Staten
   all/both brains/tropics all/both United States

Inflected alle can also be combined with non-count nouns, although there are many restrictions that are not well understood. Furthermore, the data are not always as clear as one would like. Let us start with mass nouns like vee ‘cattle’ or meubilair ‘furniture’. Although many cases can be found on the internet, we have the impression that alle does not readily combine with such nouns: our feeling is that al het vee/meubilair ‘all the cattle/furniture’ is much preferred to alle vee/meubilair.

(60) a. al het/*alle vee          b. al het/*alle meubilair
    all the/all cattle          all the/all furniture

It might be the case that the two forms differ in meaning and that the form with al het is °D-linked, that is, refers to a contextually defined set of entities, whereas the form with alle is non-D-linked, but we leave this to future research to decide. Furthermore, there are more or less idiomatic examples involving alle + mass noun: example (61a) provides one involving the mass noun verkeer ‘traffic’. That noun phrases like these are not productively used outside their formulaic syntactic contexts is shown by the fact that, to our ear, (61b) seems pretty awkward with inflected alle.
(61) a. gesloten voor alle verkeer
   closed for all traffic

b. Al het/All verkeer op de snelweg stond vast.
   all the/all traffic on the highway stood fast
   ‘All traffic on the highway was jammed.’

With abstract non-count nouns gender may play a role: neuter nouns like verdriet ‘sorrow’ and geluk ‘happiness’ seem marked, whereas non-neuter nouns like moeite ‘trouble’ and hoop ‘hope’ seem completely acceptable with inflected alle. Our impression seems supported by a Google search performed in July 2008 on the nouns mentioned: the neuter nouns are more often preceded by al het ‘all the’ than by alle ‘all’, al de moeite ‘all the trouble’ was about as frequent as alle moeite ‘all trouble’, and alle hoop ‘all hope’ far outnumbered al de hoop ‘all the hope’. It must be noted, however, that the results may not reflect that actual productive use of the sequence alle + abstract noun, given that abstract non-count nouns frequently occur in frozen expressions like those given in (62).

(62) a. Straks komt er een eind aan alle verdriet.
   soon comes there an end to all sorrow
   ‘Soon, there will come an end to all sorrow.’

b. Alle moeite is voor niets geweest.
   all trouble is for nothing been
   ‘All efforts were to no avail.’

c. Hij had alle hoop al opgegeven.
   he had all hope already given up

d. Alle begin is moeilijk.
   all beginning is difficult

With substance nouns, gender may again play a role. Neuter nouns like water and gebak ‘confectionery’ seem marked, whereas non-neuter nouns like wijn ‘wine’ and kaas ‘cheese’ are completely acceptable with inflected alle. Our impression again seems to be confirmed by a Google search performed in July 2008 on the nouns mentioned: the neuter nouns are more often preceded by al het ‘all the’ than by alle ‘all’, whereas the non-neuter nouns are more often preceded by alle ‘all’ than by al de ‘all the’. Nevertheless, it might be the case that judgments differ from case to case, and from person to person. Although future research is needed to see whether this is justified, we will assume for the moment that the general pattern is that substance nouns can be preceded both by alle ‘all’ and by al de/het ‘all the’.

Table 6 aims at summarizing the findings above, and also shows that beide differs from inflected alle in that it never co-occurs with non-count nouns.
Section 7.1.1 has shown that inflected *alle* need not express universal quantification, but may also have a high degree reading; the examples in (63a&b), illustrate again that *alle* phrases headed by an abstract non-count noun are quite common on this reading. Another context in which *alle* can combine with an abstract non-count noun is given in (63c); the adjective *mogelijke* seems to be the licenser of *alle* here; possibly, *alle mogelijke* should be analyzed as a constituent.

(63)

- High degree *alle*
  a. *alle* lof  
     all laudation
  a'. *alle* reden  
     all reason (every reason)
  b. *alle* ernst  
     in all seriousness
  b'. *alle* zekerheid
     for all security
  c. *alle* mogelijke moeite/onzin/pracht/...  
     all possible trouble/nonsense/beauty/...

The universal quantifier *alle* gives rise to unacceptable or highly marked results when combined with a deverbal noun. A systematic class of exceptions to this rule is formed by GE-nominalizations, which can be construed relatively freely with *alle* (though the results may vary from case to case). This is shown in Table 7, which also shows that *beide* is never possible in this context.

Table 7: Inflected *alle* and *beide* in noun phrases headed by a deverbal noun

<table>
<thead>
<tr>
<th>Bare Stem</th>
<th>Inflected <em>alle</em></th>
<th><em>beide</em></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>alle</em> werk (van deze week)</td>
<td><em>beide</em> werk (van deze week)</td>
</tr>
<tr>
<td></td>
<td>all work of this week</td>
<td>both work of this week</td>
</tr>
<tr>
<td>Nominal Infinitive</td>
<td><em>alle</em> werken</td>
<td><em>beide</em> werken</td>
</tr>
<tr>
<td></td>
<td>all work</td>
<td>both work</td>
</tr>
<tr>
<td>GE-Nominalization</td>
<td><em>alle</em> gedoe/gezeur/gewerk</td>
<td><em>beide</em> gedoe/gezeur/gewerk</td>
</tr>
<tr>
<td></td>
<td>all fuss/nagging/working</td>
<td>both fuss/nagging/working</td>
</tr>
</tbody>
</table>

This subsection has shown that there are various restrictions on the use of *alle* in combination with non-count nouns; cf. Table 6 and Table 7. Although the nature of these restrictions is far from clear, it is useful to point out that these restrictions are completely lacking in the case of pre-determiner bare *al*; cf. Table 2 and Table 3. This is unexpected on, and can therefore be seen as a problem for, the “fusion” approach, which considers *alle* a contracted form of pre-determiner bare *al* and the determiner following it.
II. Restrictions on accompanying determiners and quantificational elements

This subsection investigates the restrictions that *alle* ‘all’ and *beide* ‘both’ pose on the presence of co-occurring determiners and quantificational elements. As in the case of bare *al* and the pre-determiner *alle* + Num, the syntax of the constituents modified by *alle* and *beide* largely mirrors that of the same constituents lacking these quantifiers. We will see later in this section that this fact provides a nice testing ground for the “fusion” approach, according to which *alle* is a contracted form of *al* and a definite determiner; cf. the discussion of example (71).

A. Determiners

In the present-day vernacular, simplex *alle* cannot be combined with the definite article *de* or the demonstratives *die/deze* ‘those/these’ (although the sequence *alle de/die/deze* can still be found in archaic and very formal language). *Beide* differs from *alle* in that it can be used to the right, though not to the left, of these determiners. Note that the fact that *beide* is not in complementary distribution with the definite article indicates that *beide* cannot be treated as the result of “fusion” of the morpheme *bei*, also found in the pre-determiner *allebei* (see Section 7.1.2.2), and the definite article.

(64)  a. *alle/beide  de/die/deze  mannen*  
     all/both  the/those/these  men

b.  *de/die/deze  beide/*alle  mannen*  
     the/those/these  both/all  men

There is no way of salvaging the ungrammatical examples in (64a) with the aid of contrastive accent; the bad cases are bad, no matter what context they are inserted into. On the other hand, the contrastive example in (65a), a contextualized variant of grammatical (64b) with *beide*, is somewhat awkward but structurally well-formed. Backward Conjunction Reduction is marginally possible in (65b) when applied to *beide mannen*, but highly awkward when applied to *mannen* alone. NP-ellipsis in the second conjunct strengthens this distinction; (65c) show that it is fine with *beide mannens* elided but unacceptable with just *mannen* undergoing ellipsis.

(65)  a.  *Ik ken wel déze beide mannen, maar niet dié beide mannen.*  

b.  *Ik ken wel déze *(?beide) Ø, maar niet dié beide mannen.*  
     [RNR]

c.  *Ik ken wel déze beide mannen, maar niet dié (*beide) Ø.*  
     [NP-ellipsis]
     I know AFF these both men but not those both [men]

*Alle* does not occur in noun phrases that contain a possessive pronoun. *Beide*, on the other hand, is again possible if it appears to the right of the possessor, as is shown by (66b). The acceptability of these examples is unaffected by the complexity of the possessor; all variants of (66b) with *beide* in the right-hand slot are perfect, while all their counterparts with *alle* are unacceptable.

(66)  a.  *alle/beide  mijn/mijn vaders/mijn vader z’n  auto’s*  
     all/both  my/my father’s/my father his  cars

b.  *mijn/mijn vaders/mijn vader z’n  beide/*alle  auto’s*  
     my/my father’s/my father his  both/all  cars
The examples in (67a) show that neither *alle* nor *beide* combine with nominalized possessive pronouns. The ungrammaticality of (67a) is striking in the light of the impeccability of (67b), involving the pre-determiner counterparts of *alle* and *beide*. This contrast between (67a&b) is a further indication that *alle/beide* are not the result of “fusion” of the pre-determiners in (67b) with the definite article following them. The difference between *al* and *beide* in (67b’) is due to the fact that only the former can be combined with non-count nouns; the fact that *het mijne* is necessarily singular therefore excludes *allebei*; cf. the earlier discussion of example (49).

(67)  a. *alle/beide  mijn/jouwe/zijne/hare/once/hunne  
   all/both    mine/yours_sg/his/hers/ours/theirs
   
   b.  al/allebei de  mijne/jouwe/zijne/hare/once/hunne  
   all/both  the mine/yours_sg/his/hers/ours/theirs
   
   b’.  al/*allebei het  mijne/jouwe/zijne/hare/once/hunne  
   all/both  the mine/yours_sg/his/hers/ours/theirs

*Alle* and *beide* cannot be construed with noun phrases containing the indefinite article *een*, not even in the exclamative context in (68b), in which, in the absence of the pre-determiner, the indefinite article can combine with a plural noun phrase.

(68)  a. *<alle/beide>  een <alle/beide>  ellende  
   all/both    a  misery
   
   b. *<Alle/Beide>  een <alle/beide>  boeken  dat hij heeft!  
   all/both    a  books  that he has

Earlier we saw that, next to *beide mannen* ‘both men’, *de beide mannen* ‘the both men’ is also grammatical. It must be noted, however, that the interpretation and concomitant syntactic distribution of the two forms are not identical. It seems to be the case that *beide* used without a determiner is semantically on a par with *allebei* + Det: *allebei de mannen* ‘both the men’. Post-determiner *beide*, on the other hand, is semantically distinct and behaves more like the numeral *twee*: *de beide/twee mannen* ‘the two men’. This difference between pre- and post determiner *beide* can be brought out by means of the examples in (69). While (69a) is preferably interpreted such that the two Koreas have made a joint decision, the interpretation for (69b) is one in which each of the two Koreas has reached a decision on its own. In this regard (69b) seems to be on a par with (69b’), which, however, also allows an interpretation according to which there is one joint decision taken.

(69)  a.  De beide/twee Korea’s hebben besloten de grenzen te openen.  
   the both/two Koreas have decided the borders to open
   ‘The two Koreas have decided to open the borders.’
   
   b.  Allebei de Korea’s hebben besloten de grenzen te openen.  
   all-both the Koreas have decided the borders to open
   ‘Both Koreas have decided to open the borders.’
   
   b’.  Beide Korea’s hebben besloten de grenzen te openen.  
   both Koreas have decided the borders to open
That (69b&b') pattern together and are distinct from the pair in (69a) seems confirmed by (70): whereas the two examples in (70a) are fully acceptable, those in (70b) are anomalous.

(70)  a.  Het overleg tussen de beide/twee Korea’s was vruchteloos.
   the consultation between the both/two Koreas was fruitless
   b.  *Het overleg tussen allebei de/beide Korea’s was vruchteloos.
   the consultation between both the/both Koreas was fruitless

To conclude this subsection on determiners, we want to pay some more attention to the “fusion” approach to alle, according to which it is a fused form of al and the definite determiner. The overall conclusion from the discussion above is that simplex alle combines only with plural bare noun phrases. The complementary distribution of alle and the determiners makes it possible to hypothesize that the former occurs in the determiner position, which would of course support the “fusion” approach to alle. The examples in (71), however, provide evidence against this approach, since they show that alle does not behave like a definite determiner when it comes to the determination of adjectival inflection. While the definite article in (71c) triggers the inflectional -e ending in the attributive modifier of the noun, the attributive modifier in the alle phrase in (71a), taken from Perridon (1997), inflects as in the indefinite noun phrase in (71b).

(71)  a.  alle ?slim/*slimme geknoei in de handel
   all clever fiddling in the commerce
   b.  slim/*slimme geknoei
clever fiddling
   c.  het slimme/*slim geknoei
   the clever fiddling

Although noun phrase internal alle does not qualify as a definite determiner (which in turn may indicate that it does not occupy the determiner position in the DP), the noun phrase in (71a) has the outward appearance of a definite/strong noun phrase in the sense that it cannot be used as the associate of expletive er in existential or presentational constructions. Note that this holds for all alle phrases except for those in which alle has a high degree reading; cf. Section 7.1.1.

(72)  a.  Er was slim geknoei in de handel.
   there was clever fiddling in the commerce
   b.  *Er was alle slim geknoei in de handel.
   there was all clever fiddling in the commerce

Though the adjectival inflection suggests that the noun phrase alle slim geknoei is internally indefinite, the same noun phrase behaves like a definite/strong noun phrase in its external syntactic distribution. This paradox has received little or no attention in the literature to date; we will not try to resolve the tension between these apparently irreconcilable characteristics of alle phrases here, but do repeat our earlier conclusion that alle does not behave as a contraction of al and the definite article.
B. Indefinite determiner-like elements

The indefinite determiner-like elements *dat/dit soort* ‘such’, discussed in Section 4.1.2, are not compatible with *alle/beide*, regardless of their position relative to the quantifiers. The same thing holds for the indefinite determiner-like element *van die* ‘such’ (lit.: of those) in the pseudo-partitive construction.

(73)  a. *<alle/beide>  dat/dit soort <alle/beide>  boeken
     all/both     that/this sort     books
b. *<alle/beide>  van die <alle/beide>  boeken
     all/both      of those     books
     ‘all such books’

C. Quantifiers and numerals

Simplex *alle* and *beide* cannot co-occur with other quantifiers in a noun phrase. The examples in (74) are all ungrammatical. Word order patterns like *alle honderd boeken* ‘all hundred books’ do yield a grammatical result with higher numerals, but *alle* does not directly quantify the noun phrase in such constructions, arguably forming a constituent together with the numeral; cf. the discussion in Section 7.1.2.2.1, sub II.

(74)  a. *alle/beide  enige/sommige  boeken
     all/both     some     books
b. *alle/beide  veel/vele  mensen in de zaal
     all/both     many     people in the room
c. *alle/beide  weinig/weinige  mensen in de zaal
     all/both     few     people in the room

D. Pronouns

Another consideration concerning *alle/beide* that casts doubt on a “fusion” approach is the fact illustrated in the primeless examples in (75) that, in contradistinction to the pre-determiners *al* and *allebei*, *alle* and *beide* can be combined with animate personal pronouns into a single constituent, where the quantifier is obligatorily adorned with a mute, orthographic -n. As in the case of *alle + Num*, the pronoun must be realized in its strong form and precede the quantifier, which may account for the fact that the examples in (75a’) are not acceptable, given that pronouns referring to non-human entities normally have the weak form; cf. Section 5.2.1.1.5.

(75)  a. *(Wat die kinderen betreft,)   zij/*ze  allen/beiden  zijn  erg slim.
     what those children concerns     they   all/both     are     very smart
     a’. *(Wat die problemen betreft,)   zij alle/beide  zijn  zeer ernstig.
     what those problems concerns     they all/both     are     very serious
b. *(Wat die kinderen betreft,)   God zij met   hen/*ze  allen/beiden.
     what those children concerns     God be  with     them   all/both

The examples in (75a) are marked compared to their variants in (76). These so-called °floating quantifier constructions, which allow both the strong and the weak form of the pronoun (which can therefore also refer to non-human entities), are discussed in Section 7.1.4. Note further that the forms *allen/beiden* belong to the
formal lexicon: in everyday spoken language, these forms are typically replaced by
the invariant forms *allemaal* and *allebei*, as in the primed examples of (76).

(76) ● Discourse topic: a number of children
   a. Zij/Ze zijn allen/beiden erg slim.
      they are all/both very smart
   a’. Zij/Ze zijn allemaal/allebei erg slim.
      they are all/both very smart
   b. Allen/Beiden zijn zij/ze erg slim.
      all/both are they very smart
   b’. Allemaal/Allebei zijn zij/ze erg slim.
      all/both are they very smart

Although the pronouns and the floating quantifiers do not form a single constituent
in (76), they do in the examples in (75). In (75a), this is evident from the fact that
the string *zij allen/beiden* occupies the position to the left of the finite verb (the
*constituency test). The single-constituent status of *hen allen/beiden* in (75b) is also
undisputed, given that it functions as the complement of a preposition. The same
thing holds for the quantified possessive pronouns in (77), where the quantifier
takes the genitival case-form *aller/beider*.

(77) a. Ons aller/beider vriend Jan is gisteren overleden.
      our all/both gen friend Jan is yesterday died
      ‘Jan, a friend of all/both of us, died yesterday.’
   b. U aller/beider medewerking wordt zeer op prijs gesteld.
      you polite all/both gen cooperation is very on price put
      ‘The cooperation of all/both of you will be greatly appreciated.’
   c. Dit is het feest van de heilige Hubertus, hun aller/beider schutspatroon.
      this is the feast of the holy Hubertus their all/both gen patron saint
      ‘This is the feast of Saint Hubert, the patron saint of all/both of them.’

The fact that *aller* and *beider* are marked with genitive case again shows that we are
dealing with constructions that are not part of the present-day vernacular but with
relics of older stages of the language. Note in passing that the fact that (77b) has the
form *u* instead of the possessive pronoun *uw* suggests that the pronouns in these
examples are not (or, rather, no longer) genitival forms; the fact that *hun* is used in
(77c), and not *hen*, further suggests that we are dealing with *dative* forms. If so, this
would also account for the fact that the pronoun *ons* in (77a) is always uninflected
(*onze aller vriend): unlike the genitival/possessive pronoun, the object pronoun
*ons* has no schwa-inflected form; for more information on this genitival
construction see www.onzetaal.nl/taaladvies/advies/uw-u-beider-aanwezigheid.

That it is possible for *allen/beiden* to quantify and form a single constituent
with pronouns provides evidence that *allen/beiden* is not the result of contraction of
*al/bei* and a definite article, since pronouns never combine with articles in Dutch
(*de zij/hen/hun ‘the they/them/their’). For completeness’ sake, it can be added that
the independently used neuter singular demonstratives *dit* and *dat* can be combined
with *al* into a single constituent; the form used then is *alles*. 
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(78) Dit/Dat alles zou onnodig zijn geweest, als ...
this/that all would unnecessary have been if
‘This/That would all have been unnecessary if ...’

7.1.3. Distribution of noun phrases modified by al and alle

This section discusses the syntactic distribution of noun phrases containing pre-determiners bare al, alle + Num and simplex alle described in Section 7.1.2. We will consider whether they occur as arguments (subject, direct object, indirect object, complement of a preposition), as predicates and/or as ‘adjuncts. In addition, we will discuss the distribution of noun phrases containing the forms allebei and beide ‘both’.

7.1.3.1. Distribution as arguments

Noun phrases containing pre-determiner bare al, alle + Num/allebei, or simplex alle/beide all occur in argument positions, and there are no restrictions on the argument functions these phrases may have. Table 8 summarizes the distribution of the relevant noun phrases.

Table 8: Distribution of al and its alternants as arguments

<table>
<thead>
<tr>
<th></th>
<th>bare al</th>
<th>alle + Num</th>
<th>allebei</th>
<th>alle</th>
<th>beide</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject (79a)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>derived subject (79a’)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>direct object (79b)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>indirect object (79c)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>object of preposition (79d)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

The examples in (79) illustrate the contexts in which the forms listed in the table can be inserted; note that, contrary to our usual convention, the parentheses around the article do not indicate that de is optional: it is obligatory with bare al, alle + Num and allebei, but it cannot be realized with alle and beide. In the (a)-examples in (79), we are dealing with subjects; in the first example the phrase within square brackets is an underlying subject, and in the second (passive) example it is a derived one. Examples (79b&c) illustrate the use of this phrase as a direct and an indirect object, respectively, and (79d) illustrates its use as the object of a preposition.

(79)  a. [___ (de) beurspromovendi] werkten hard aan hun proefschrift.
the bursary.students worked hard on their dissertation

a’. [___ (de) beurspromovendi] werden door de commissie ondervraagd.
the bursary.students were by the committee interrogated

b. De commissie ondervroeg [___ (de) beurspromovendi].
the committee interrogated the bursary.students

c. De commissie stelde [___ (de) beurspromovendi] een vraag.
the committee posed the bursary.students a question

d. De commissie luisterde aandachtig naar [___ (de) beurspromovendi].
the committee listened attentively to the bursary.students
7.1.3.2. Distribution as predicates

The distribution of *al* and its alternants is rather restricted within predicative noun phrases. It seems that nominal predicates containing a form of *al* are more or less restricted to identificational copular constructions, with the singular demonstrative *dit/dat* ‘this/that’ or the singular neuter personal pronoun *het* ‘it’ as subject. Note that replacing the demonstrative in the primeless examples in (80) with the personal pronoun *zij* ‘they’, which is expected to be acceptable since it agrees in number with the predicative noun phrase, gives rise to systematically more degraded results. This is shown by the primed examples. Example (80b) shows that, even with the demonstrative pronoun as the subject of the copular construction, it is difficult to construct pragmatically felicitous examples for *allebei*. This is presumably unrelated to syntax, given that noun phrases quantified by means of the otherwise identical *alle* + Num quantifier can be used as predicates, and that replacing *alle drie* with *alle twee* also gives rise to a marked result.

(80)  a. Dat zijn al de beurspromovendi van onze vakgroep.
     that are all the bursary.students of our department
   a’. ??Zij zijn al de beurspromovendi van onze vakgroep.
     they are all the bursary.students of our department
   b. Dat zijn alle drie/allebei de beurspromovendi van onze vakgroep.
     that are all three/all-both the bursary.students of our department
   b’. *?Zij zijn alle drie/allebei de beurspromovendi van onze vakgroep.
     they are all three/all-both the bursary.students of our department
   c. Dat zijn alle/*beide beurspromovendi van onze vakgroep.
     that are all/both bursary.students of our department
   c’. Zij zijn *alle/*beide beurspromovendi van onze vakgroep.
     they are all/both bursary.students of our department

Two remarks are needed regarding (80c&c’) with *beide*. First, these examples show that *beide* is impossible as a quantifier of a predicate nominal. Instead, *de beide* must be used in contexts of this type: *Dat/Zij zijn de beide beurspromovendi van onze vakgroep*. This shows that, in contrast to what is the case in the templates in (79), *beide* and *de beide* do not freely alternate when they are construed as quantifiers of a predicative noun phrase. Second, example (80c) with *beide* must not be confused with (81), where *beiden* is construed as a °floating quantifier of the pronominal subject.

(81)    Dat/Zij zijn beiden beurspromovendi van onze vakgroep.
     they are both bursary.students of our department
     ‘They are both bursary students of our department.’

The two examples differ in intonation pattern: whereas *beide beurspromovendi* in (80c) forms a single intonation phrase, *beiden* in (81) is followed by a brief intonation break. Further, since the associate of the floating quantifier is [+HUMAN], the rules of orthography demand that an -n be added to *beide* in (81); cf. the introduction to Section 7.1.4.
7.1.3.3. Distribution as adjuncts

The distribution of al phrases in adjunct positions is restricted to phrases that function as temporal modifiers. In the case of bare al, the adverbial phrases in question can be headed by the singular noun tijd ‘time’ (82a) or by the plural nouns shown in (82b). The determiner used is preferably the distal demonstrative die; although the proximate demonstrative deze and the definite article de also occur, they sound marked, although the definite article is pretty common when the noun phrase is modified by, e.g., a relative clause, as in al de keren dat hij hier was ‘all the times that he was here”; see 3.3.2.2.5 for the use of singular relative pronoun dat in this example instead of the plural relative pronoun die.

(82) a. Hij zat al die/??deze/??de tijd niks te doen.
   he sat all that/this/the time nothing to do
   ‘He was doing nothing all that time.’

   b. Hij zat al die/??deze/??de keren/uren/dagen/jaren niks te doen.
   he sat all those/these/the times/hours/days/years nothing to do
   ‘He was doing nothing during all those occasions/hours/days/years.’

For the other forms only the plural nouns are possible, if any are possible at all. The acceptability of adjunct construal varies substantially from case to case; simplex alle in (83b) is fine with all plural nouns listed, but other alternants pick out only one or two. In (83a), the determiner used is normally also the distal demonstrative die, although proper contextualization may render alle twee/allebei de keren felicitous.

(83) a. Hij zat alle twee/allebei die keren/uren/dagen/jaren niks te doen.
   he sat all two/all-both those times/hours/days/years nothing to do

   b. Hij zat alle keren/uren/dagen/jaren niks te doen.
   he sat all times/hours/days/years nothing to do

   c. Hij zat beide keren/uren/dagen/jaren niks te doen.
   he sat both times/hours/days/years nothing to do

The examples in (84) show that, even though alle does combine with singular tijd in on the high degree reading “lots of time” (cf. 7.1.1, sub III), it cannot be construed with tijd as a temporal adjunct. To express what the English prose translation of (84b) expresses, Dutch resorts to al die tijd in (82b). Alternatively, the constructions heel de/die tijd or de/die hele tijd ‘the whole time’ can be used; these are discussed in Section 7.2.

(84) a. Ik heb alle tijd.
   I have all time
   ‘I have lots of time.’

   b. *Ik heb alle tijd niks zitten doen.
   I have all time nothing sit do
   ‘I was doing nothing all [of] the time.’
7.1.4. Distribution of al and alle as independent constituents

The previous sections mainly concentrated on the uses of al, alle + Num/allebei and alle/beide internal to the noun phrase. This section examines the independent uses of these forms as arguments, predicates and adjuncts, as well as their use as floating quantifiers. Before we start the discussion, we want to point out that there are two spellings for the independent occurrences of alle (and related forms like beide ‘both’). Unlike the modifier alle, independent alle can be written with a word final –n, which is mute in spoken Dutch. The distribution of the forms with and without -n depends on the feature [±HUMAN] of the referent or the associate. The examples in (85a&b) illustrate this for the use of alle(n) as a floating quantifier: alle is used with [-HUMAN] noun phrases and allen with [+HUMAN] noun phrases. Alle lacks the orthographic –n, however, when it is followed by a numeral, as in (85b’), which is related to the fact that alle modifies the numeral in this case and that it is the resulting complex phrase that is associated with the noun phrase; cf. the introduction to 7.1.2.2.

(85)  a.  Ik heb die koekjes alle/*allen opgegeten.
      I have those cookies all          ‘I have eaten those cookies all.’
      I have eaten those cookies all.’

      b.  Die jongens zijn allen/*alle uitgenodigd.
          those boys are all            ‘Those boys are all invited.’
          those boys are all two
      b’. Die jongens zijn alle/*allen twee uitgenodigd.
          those boys are all two

Note that, in the above, [+HUMAN] should be understood as “consistently human”: conjunctions like mannen en hun auto’s ‘men and their cars’ take alle, not allen, as their independent/floating quantifier.

7.1.4.1. Distribution as arguments

The distribution of bare al as an independent argument is extremely limited. Alle and alle + Num are more flexible in their independent uses, but here as well we find restrictions and surprising gaps in the paradigm. We will confine ourselves to giving a concise overview of the relevant data. This section concludes with some remarks on alles ‘everything’, which can only be used independently.

I. Subject

Bare al does not occur independently as a subject; (86) show that it occurs neither with count nor with non-count nouns.

(86)  a.  *Wat die mensen betreft, al zijn reeds uitgenodigd.
      what those people concerns all are already invited
      what those people concerns all are already invited
      what those people concerns all are already invited

      b.  *Wat die artikelen betreft, al zijn net geplaatst.
          what those articles concerns all are just placed

      c.  *Wat die wijn betreft, al is reeds geprijsd.
          what that wine concerns all is already priced
The (a)-examples in (87) and (88), featuring alle + Num/allebei, are grammatical, though not particularly good. Example (87b) shows that (87a) improves significantly when a pronoun is added to the left of the quantifier; cf. also Section 7.1.2.2.1, sub II. Example (88b) is still marked due to the fact that strong pronouns cannot readily be used to refer to [-HUMAN] entities; cf. Section 5.2.1.1.5. The (c)-examples, in which a plural pronoun is inserted to the right of the finite auxiliary, are fully acceptable; cf. Section 7.1.4.3 on floating quantifiers for more discussion.

(87) Discourse topic: two favorite friends
   a. ??Alle twee/Allebei zijn reeds uitgenodigd.
      all two/all-both are already prt.-invited
   b. Zij alle twee/allebei zijn reeds uitgenodigd.
      they all two/all-both are already prt.-invited
   c. Alle twee/Allebei zijn ze reeds uitgenodigd.
      all two/all-both are they already prt.-invited

(88) Discourse topic: two articles on determiners
   a. ??Alle twee/Allebei zijn net geplaatst.
      all two/all-both are just placed
   b. ??Zij alle twee/allebei zijn net geplaatst.
      they all two/all-both are just placed
   c. Alle twee/Allebei zijn ze net geplaatst.
      all two/all-both are they just placed

The examples in (89) show that alle(n) and beide(n) with [+HUMAN] and [-HUMAN] antecedents do not just differ in orthography but also in syntactic distribution; whereas (89a) is formal but grammatical, (89b) is awkward. The contrast between (89b) and (89c) further shows that within the class of non-human referents a distinction should be made between plural count and substance nouns; when alle takes a substance noun as its referent, the result is entirely unacceptable.

(89) a. Wat die mensen betreft, allen/beiden zijn reeds uitgenodigd.
      what those people concerns all/both are already prt.-invited
   b. ??Wat die artikelen betreft, alle/beide zijn reeds geplaatst.
      what those articles concerns all/both are already placed
   c. *Wat die wijn betreft, alle is reeds geprijsd.
      what that wine concerns all is already priced

The split between allen/beiden and alle/beide in (89) resembles the one found between the same elements used as quantifiers of pronominal noun phrases; cf. Section 7.1.2.2.2, sub IID. Note that primeless (89b) improves considerably when a plural pronoun is placed to the right of the finite auxiliary; see Section 7.1.4.3 on floating quantifiers for discussion.

II. Direct/indirect object

Bare al does not occur independently as a direct or indirect object, as shown by the primeless and primed examples of (90), respectively.
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(90) a. *Wat die mensen betreft, ik heb al reeds uitgenodigd.  
    what those people concerns I have all already prt.-invited

a’. *Wat die mensen betreft, ik heb al reeds een uitnodiging gestuurd.  
    what those people concerns I have all already an invitation sent

b. *Wat die artikelen betreft, ik heb al net geplaatst.  
    what those articles concerns I have all just placed

b’. *Wat die artikelen betreft, ik heb al net een plaats gegeven.  
    what those articles concerns I have all just a place given

c. *Wat die wijn betreft, ik heb al reeds geprijsd.  
    what that wine concerns I have all already priced

c’. *Wat die wijn betreft, ik heb al reeds een prijskaartje gegeven.  
    what that wine concerns I have all already a price.tag given

Comparable examples with alle + Num and allebei seem marked but grammatical; 
furthermore, there appears to be a slight contrast between the direct and indirect 
object examples for some speakers, the former being somewhat worse than the latter 
as is shown by the contrast between, respectively, the (a)- and (b)-examples in (91) 
and (92). Once again, examples like these become fully acceptable when a pronoun 
or noun phrase is added to the left of the quantifier; cf. Section 7.1.4.3 on floating 
quantifiers for discussion.

(91) • Discourse topic: two favorite friends

a. ??Ik heb alle twee/allebei reeds uitgenodigd.  
    I have all two/all-both already prt.-invited

b. ??Ik heb alle twee/allebei reeds een uitnodiging gestuurd.  
    I have all two/all-both already an invitation sent

(92) • Discourse topic: two articles on determiners

a. ??Ik heb alle twee/allebei net geplaatst.  
    I have all two/all-both just placed

b. ??Ik heb alle twee/allebei net een plaats gegeven.  
    I have all two/all-both just a place given

The [+HUMAN] contrast, which we have already signaled in connection with the 
data in (89), re-emerges in the alle(n) and beide(n) cases in (93) and (94): the 
[-HUMAN] examples in (94) are systematically worse than the [+HUMAN] ones in 
(93). As in the subject examples, the use of substance nouns in (94b&b’) is entirely 
impossible. These cannot be saved by adding a pronoun, unlike the count noun 
examples in the (a)-examples in (94), which become fully acceptable when a plural 
pronoun is added to the left of the quantifier; cf. Section 7.1.4.3. on floating 
quantifiers.

(93) • Discourse topic: a certain number of friends

a. Ik heb allen/beiden reeds uitgenodigd.  
    I have all/both already prt.-invited

b. Ik heb allen/beiden reeds een uitnodiging gestuurd.  
    I have all/both already an invitation sent
(94)  a. ??Wat die artikelen betreft, ik heb alle/beide net geplaatst.
    what those articles concerns I have all/both just placed

   a’. ??Wat die artikelen betreft, ik heb alle/beide net een plaats gegeven.
    what those articles concerns I have all/both just a place given

   b. *Wat die wijn betreft, ik heb alle reeds geprijsd.
    what that wine concerns I have all already priced

       b’. *Wat die wijn betreft, ik heb alle reeds een prijskaartje gegeven.
    what that wine concerns I have all already a price.tag given

III. Object of preposition

It is impossible for bare al to be used in the examples in (95), the prepositional counterparts of the double object constructions in the primed examples in (90), where al is the object of the preposition aan.

(95)  a. *Ik heb reeds een uitnodiging aan al gestuurd.    [+HUMAN]
    I have already an invitation to all sent

   b. *Ik heb net een plaats aan al gegeven.    [-HUMAN]
    I have just a place to all given

   c. *Ik heb reeds een prijskaartje aan al gegeven.    [-HUMAN]
    I have already a price.tag to all given

Bare al normally does not occur as the object of other prepositions either. An idiomatic example which basically exhausts the possibilities is het ergst van al ‘the worst of all’. This example has a more or less productive paradigm in the sense that the superlative adjective can in principle be replaced with any other superlative (cf. English worst/best/most/... of all). We can also mention the fixed expressions al met al ‘all in all’, bovenal ‘above all’ and vooral ‘particularly/especially’.

alle + Num and allebei, grammatical variants of the examples in (95) can be constructed, although some speakers consider the examples in (96) less felicitous than their double object counterparts in (91b) and (92b).

(96)  a. *Ik heb reeds een uitnodiging aan alle twee/allebei gestuurd.    [+HUMAN]
    I have already an invitation to all two/all-both sent

   b. *Ik heb net een plaats aan alle twee/allebei gegeven.    [-HUMAN]
    I have just a place to all two/all-both given

The examples in (97) show that alle(n) and beide(n) can occur as the complement of aan when they have a [+HUMAN] referent, but that the result is somewhat marginal when they have a plural [-HUMAN] referent; as before, it is impossible for independent alle to be associated with a substance noun. There is no discernible contrast between the examples in (97) and their double object counterparts in (93b) and the primed examples in (94). The judgments are more or less the same, when alle(n) and beide(n) function as the complement of some other preposition.

(97)  a. Ik heb reeds een uitnodiging aan allen/beiden gestuurd.
    I have already an invitation to all/both sent

   b. ??Wat die artikelen betreft, ik heb net een plaats aan alle/beide gegeven.
    what those articles concerns I have just a place to all/both given
c. *Wat die wijn betreft, ik heb reeds een prijskaartje aan alle gegeven.
what that wine concerns I have already a price.tag to all given

While the result of independent forms in subject, direct object and indirect object positions can systematically be improved by insertion of a plural pronoun to the left of the quantifiers, a more complex picture emerges when they function as the complement of a PP. The (a)-examples in (98) show that the [+HUMAN] examples in (96a) and (97a) become perfectly grammatical by inserting the strong pronoun *hen*, but not when we insert the weak pronoun *ze*. This peculiar fact that the weak pronoun cannot be used when the quantifier is the complement of a preposition probably also accounts for the fact, illustrated in the (b)-examples in (98), that insertion of a plural pronoun does not improve the [-HUMAN] cases in (96b) and (97b), given that strong pronouns cannot be used to refer to [-HUMAN] entities; cf. Section 5.2.1.1.5, as well as Sections 7.1.2.2.1, sub II, and 7.1.2.2.2, sub II).

(98)  a. Ik heb reeds een uitnodiging aan *hen/ze* alle twee/allebei gestuurd.
I have already an invitation to them all two/all-both sent
  a’. Ik heb reeds een uitnodiging aan *hen/ze* allen/beiden gestuurd.
I have already an invitation to them all/both sent
b. *Ik heb net een plaats aan *hen/ze* alle twee/allebei gegeven.
I have just a place to them all two/all-both given
  b’. *Ik heb net een plaats aan *hen/ze* alle/beide gegeven.
I have just a place to them all/both given

The contrast in acceptability between the strong and weak form of the pronoun in the (a)-examples suggests that the modifier must form a constituent with the pronoun when it functions as the complement of a PP; cf. Section 7.1.2.2.2, sub II.D. This seems to be confirmed by the fact that scrambling or topicalization of the PP must pied pipe the quantifier. This is illustrated in (99) for (98a) with *allen*.

(99)  a. Ik heb aan hen <*allen*> reeds een uitnodiging <*allen*> gestuurd.
I have to them all already an invitation sent
  Aan hen <*allen*> heb ik reeds een uitnodiging <*allen*> gestuurd.
to them all have I already an invitation sent

From this we can safely conclude that the modifier and the pronoun form a constituent. This may also account for the fact that examples like (100) featuring the pronominal PP *waar ... aan* as indirect object are ungrammatical when the quantifier is present.

(100)  a. mijn vrienden waar ik een uitnodiging aan (*allen) gestuurd heb
my friends where I an invitation to all sent have
  ‘my friends to whom I have sent an invitation’
  b. de artikelen waar ik net een plaats aan (*alle) gegeven heb
the articles where I just a place to all given have
  ‘the article to which I have just given a place’

The reason for the ungrammaticality is that R-pronominalization is excluded when the pronoun is part of a larger phrase. This is illustrated for the existentially
quantified [-HUMAN] pronoun *iets* by the examples in (101). The (a)-examples show that when *iets* is the complement of a preposition, R-pronominalization is preferred. The (b)-examples, on the other hand, show that pronominalization is impossible when the pronoun *iets* is part of the so-called partitive genitive construction *iets hards* ‘something hard’: R-pronominalization and °R-extraction are excluded both with and without pied piping of the genitival adjective *hards*. This suggests that the examples in (100) are excluded because the quantifier *alle(n)* and the R-pronoun *waar* also form a single phrase that functions as the complement of a PP.

(101) a.  'Hij liep tegen *iets* aan.
   he walked against something prt.
   ‘He walked against something.’
   a'.  Hij liep ergens tegen aan.
   he walked somewhere against prt.
   
   b.  Hij liep tegen *iets hards* aan.
   he walked against something hard prt.
   ‘He walked into something hard.’
   b'. *Hij liep ergens <hards> tegen <hards> aan.
   he walked somewhere hard against prt.

IV. A remark on *alles* ‘everything’

At the end of this overview of the use of *al, alle* + Num and simplex *alle* as arguments, we want to draw attention to one form of *al* which has not figured in the discussion so far, because it does not occur as a modifier of the noun phrase: the quantifier *alles* ‘everything’, which can only be used independently. The examples in (102) show that, like its English counterpart *everything*, *alles* can occur in all regular argument positions (despite the fact that, historically seen, *alles* is a genitival, neuter form of the quantifier *al*, whence the -es ending).

(102) a.  *Alles is geprijsd.*
   all is priced
   
   b.  *Ik heb alles geprijsd.*
   I have all priced
   
   c.  *Ik heb alles een prijskaartje gegeven.*
   I have all a price.tag given
   
   d.  *Ik heb aan alles een prijskaartje gegeven.*
   I have to all a price.tag given

The phrase *van alles* ‘all kinds of things’ can be also used as a nominal argument, and it is plausible to assume that this phrase is related to the pseudo-partitive construction *van die N* ‘such N’, which can likewise be used as a nominal argument; cf. Section 4.1.1.6.1. The two constructions are at least similar in that they are both indefinite, which is clear from the fact, illustrated in (103a&’a’), that they may occur as the subject in an expletive er construction. Note that, like *alles* in (102a), the phrase *van alles* triggers singular agreement on the verb. The examples in (103b-d) finally show that, just like the pseudo-partitive construction, the *van alles* phrase occurs in all regular argument positions. This is shown in (103b-d).
7.1.4.2. Distribution as predicates and adjuncts

In present-day Dutch, *al* does not occur independently as a predicate nominal; the only exception is the poetic register, where *al* preceded by a possessive pronoun can be used as a predicate nominal: *Jij bent mijn al* ‘You are my everything’. The forms *alle + Num/allebei* and *alle(n)/beide(n)* do not occur as predicates either. The only form of *al* that can be used as a predicate nominal is the quantifier *alles*, whose argument functions are illustrated in (102). Note that in (104b) *alles* cannot be replaced with spurious PP *van alles*: *Dat is van alles.

(104) a. *Dat is/zijn al/alle twee/allebei/alle(n)/beide(n).
    that is/are all/all two/all-both/all/both
    *Dat is/*zijn alles.
    that is/are all
    ‘That is all.’

Used as a nominal predicate, *alles* in (104b) is restricted to singular subjects. This is not surprising given the singularity of the form *alles*, which is also evident from the fact that it triggers singular verb agreement in example (102a): cf. *Alles is/*zijn geprijsd ‘All is/are priced’. An exception to this restriction is an example like (105) where an evaluative *voor-PP* is added: in this case, the verb agrees with the plural subject of the construction.

(105) Mijn kinderen zijn alles voor mij.
    my children are all to me
    ‘My children are everything to me.’

Though bare *al* does show up as an adjunct in (106), there is no transparent link between the use of *al* in this example (where it means “already”) and that of the quantifier *al* in the examples discussed so far. The adverb *al* ‘already’ is an abbreviated form of *alreeds* ‘already’. Another complex adverbial form, in which *al* seems to act as a kind of premodifier, is *alsmaar* ‘constantly’.

(106) Het is al laat.
    it is already late
7.1.4.3. Distribution as floating quantifiers

Floating quantifier are quantifiers that are associated to noun phrases occurring elsewhere in the sentence, and with which they do not form a syntactic constituent. The notion of a floating quantifier suggests an analysis according to which the quantifier and its noun phrase associate underlyingly form a constituent, which is split up in the course of the syntactic derivation. Here, however, the notion of floating quantifier will be used as a pre-theoretical notion. In fact, we will come across several indications that at least in Dutch, floating quantifiers should not be analyzed in terms of movement.

I. Al

In present-day Dutch it is next to impossible to use bare *al* as a floating quantifier (although it is used like this in at least some Flemish dialects). In idioms one can find relics of this pattern: in (107) *al* is a floating quantifier associated to the third singular neuter pronoun in the surface subject position. The pattern cannot be productively extended beyond these idiomatic expressions.

(107) a. Het is niet *al/alles* goud wat er blinkt.
    it is not all gold what there glimmers
    b. Het is mij *al* gelijk.
    it is me all the same

Note that in the idiom in (107a), *al* alternates with the quantifier *alles*. This is, however, the only context in which *alles* is found as a floating quantifier in present-day Dutch. As is shown by (108), *alles* may combine with the singular demonstrative pronouns *dit/dat* to form the noun phrase *dit/dat alles* (cf. example (78)), but it cannot be used as a floating quantifier associated with such pronouns.

(108) a. *Dit/Dat* <alles> is <*alles*> overbodig.
    this/that all is superfluous
    b. Hij heeft *dit/dat* <alles> gisteren <*alles*> gezien.
    he has this/that all yesterday seen

II. Alle + Num and allebei

*Alle + Num* and *allebei* are felicitous floating quantifiers with both animate and inanimate a noun phrase associates. As is shown in (109) and (110), the associate of the floating quantifier can be either a complex noun phrase or a pronoun. The primed examples show, however, that the two types of associate differ in that the noun phrase must precede the floating quantifier, whereas the pronoun may also follow it when the floating quantifier is placed in clause-initial position. Note in passing that, while *alle + Num* within the noun phrase can be spelled either as one single word or as two separate words (see the introduction to Section 7.1.2.2), there seems to be a tendency to spell the two elements as a single word when it is used as a floating quantifier.

(109) a. Die mensen/Ze zijn gisteren alletwee/allebei uitgenodigd.
    those people/they are yesterday all-two/all-both prt.-invited
    a’. Alletwee/Allebei zijn ze/*die mensen gisteren uitgenodigd.
b. Ik heb die mensen/ze gisteren alletwee/allebei uitgenodigd.
I have those people/them yesterday all-two/all-both prt.-invited
b′. Alletwee/Allebei heb ik ze/*die mensen gisteren uitgenodigd.

(110) a. Die artikelen/Ze zijn gisteren alletwee/allebei geplaatst.
those articles/they are yesterday all-two/all-both placed
a′. Alletwee/Allebei zijn ze/*die artikelen gisteren geplaatst.
b. Ik heb die artikelen/ze gisteren alletwee/allebei geplaatst.
I have those articles/them yesterday all-two/all-both placed
b′. Alletwee/Allebei heb ik ze/*die artikelen geplaatst.

As floating quantifiers Alle + Num and allebei can be easily distinguished from their use as noun-phrase-internal modifying forms. As noun phrase modifiers they must be left-adjacent to the determiner, as illustrated for alletwee in (111) and (112), whereas as floating quantifiers they normally follow their associate, as in the primeless examples above.

(111) a. <Alletwee/bei> die mensen <*alletwee/bei> heb ik gisteren uitgenodigd.
    all-two/-both those people have I yesterday prt.-invited
b. Ik heb <alletwee/bei> die mensen <*alletwee/bei> gisteren uitgenodigd.
    I have all-two/-both those people yesterday prt.-invited
(112) a. <Alletwee/bei> die artikelen <*alletwee/bei> heb ik gisteren geplaatst.
    all-two/-both those articles have I yesterday placed
b. Ik heb <alletwee/bei> die artikelen <*alletwee/bei> gisteren geplaatst.
    I have all-two/-both those articles yesterday placed

The examples in (111b) and (112b) cannot be interpreted as containing floating quantifiers: the acceptable orders involve modification of the noun phrase, which is also clear from the fact that the quantifier must be left-adjacent to the determiner, that is, cannot be separated from it by, e.g., an adverbial phrase. This shows that the floating quantifier cannot be scrambled across certain adverbs, such as modal and time adverbs. This does not mean, however, that floating quantifiers can never precede adverbs, since they certainly can (or actually must) precede °VP adverbs like vriendelijk ‘kindly’ and zorgvuldig ‘meticulously’ in (113).

(113) a. Jan heeft die mensen gisteren alletwee/allebei vriendelijk begroet.
    Jan has those people yesterday all-two/all-both kindly greeted
b. Jan heeft die artikelen gisteren alletwee/allebei zorgvuldig gelezen.
    Jan has those articles yesterday all-two/all-both meticulously read

As illustrated in the primeless examples of (114), the floating quantifiers alle + Num and allebei can take as their associates independently quantified noun phrases, both animate and inanimate. The judgments on the primed examples seem to vary from speaker to speaker; the fact that many speakers consider these examples marked is probably due to the fact that vele denotes an indeterminate amount, which conflicts with the precision expressed by the numeral dertig ‘thirty’.
(114) a. Ik heb die twee mensen alletwee/allebei uitgenodigd.
    I have those two people all-two/all-both prt.-invited

a’. %Ik heb die vele mensen allledertig uitgenodigd.
    I have those many people all-thirty prt.-invited

b. Ik heb die twee artikelen alletwee/allebei gelezen.
    I have those two articles all-two/all-both read

b’. %Ik heb die vele artikelen allledertig gelezen.
    I have those many articles all-thirty read

Note that the floating quantifiers differ markedly in this respect from the modifiers alle + Num and allebei, since the examples in (115) show that it is impossible for the latter to form a constituent with independently quantified noun phrases; cf. Section 7.1.2.2.1, sub II.

(115) a. *alletwee die twee mensen/artikelen
    all-two those two people/articles

b. *alledertig die vele mensen/artikelen
    all-thirty those many people/articles

The contrast between (114) and (115) therefore suggests that floating quantifier constructions are not derived from some underlying structure in which the floating quantifier and its associate form as a single constituent. Of course, this argument is not decisive but in the next subsection, we will see how alle(n) and beide(n) provide additional, more robust evidence against such a “floating” approach.

III. Alle(n) and beide(n)

When alle(n) and beide(n) are used as floating quantifiers, the orthographic -n forms allen and beiden go together with [+HUMAN] noun phrases, as in (116), and the “plain” forms with [-HUMAN] noun phrases, as in (117). The use of alle(n) and beide(n) as floating quantifiers is restricted to the more formal registers of the language; the spoken language typically prefers allemaal and allebei. The forms alle(n) and beide(n) behave just like the floating quantifiers alle + Num and allebei: as is shown by (116) and (117), the associate of the floating quantifier can be either a complex noun phrase or a pronoun, but the two types of associate differ in that the former must precede the floating quantifier, whereas the latter may follow it when the floating quantifier is placed in clause-initial position.

(116) a. Die mensen/Ze zijn gisteren allen/beiden uitgenodigd.
    those people/they are yesterday all/both prt.-invited

a’. Allen/Beiden zijn ze/*die mensen gisteren uitgenodigd.

b. Ik heb die mensen/ze gisteren allen/beiden uitgenodigd.
    I have those people/them yesterday all/both prt.-invited

b’. Allen/Beiden heb ik ze/*die mensen gisteren uitgenodigd.

(117) a. Die artikelen/Ze zijn alle/beide gisteren geplaatst.
    those articles/they are all/both yesterday placed

a’. Alle/Beide zijn ze/*die artikelen gisteren geplaatst.
b. Ik heb die artikelen/ze gisteren alle/beide geplaatst.
   I have those articles/them yesterday all/both placed

b′. Alle/Beide heb ik ze/die artikelen gisteren geplaatst.

The use of alle(n) and beide(n) as floating quantifiers can be readily distinguished from their use as noun-phrase-internal modifying forms. First, the examples in (118) show that a determiner is incompatible with these quantifiers used as modifiers, in contrast to what is the case with the floating quantifiers in (116) and (117). Second, the modifier must be left-adjacent to the determiner, whereas the floating quantifiers in (116) and (117) normally follow their associate. Third, in the case of [+HUMAN] noun phrases in (118a&a′), the orthographic -n cannot occur on the noun phrase internal modifiers, whereas it must be expressed on the floating quantifiers in (116).

(118) a. Alle/Beide (*die) mensen zijn uitgenodigd.
   all/both those people are prt.-invited
   a′. Ik heb alle/beide (*die) mensen uitgenodigd.
   I have all/both those people prt.-invited
b. Alle/Beide (*die) artikelen zijn geplaatst.
   all/both those articles are placed
b′. Ik heb alle/beide (*die) artikelen gisteren geplaatst.
   I have all/both those articles yesterday placed

The fact that alle(n) and beide(n) can be associated as floating quantifiers to noun phrases that they cannot form a syntactic constituent with casts more doubt on the “floating” analysis according to which floating quantifiers are base-generated inside the quantified nominal and split from it in the course of the derivation. This approach to floating quantifiers is also difficult to reconcile with the observation that the floating quantifiers alle(n)/beide(n) can be associated with independently quantified noun phrases. As was the case for alle + Num and allebei in (114), examples like (119) are acceptable, although the judgments on the primed examples may vary from person to person.

(119) a. Ik heb die twee mensen allen/beiden uitgenodigd.
   I have those two people all/both invited
   a′. Ik heb die vele mensen allen uitgenodigd.
   I have those many people all invited
b. Ik heb die twee artikelen alle/beide gelezen.
   I have those two articles all/both read
b′. Ik heb die vele artikelen alle gelezen.
   I have those many articles all read

The fact illustrated in (120) that it is impossible for the modifiers alle and beide to form a constituent with a numerically quantified noun phrase is therefore again a problem for the “floating” approach.
(120) a. *alle/beide die twee mensen/artikelen
    all/both those two people/articles
b. *alle/beide die vele mensen/artikelen
    all/both those many people/articles

7.1.5. A special case: Allemaal ‘all’

We conclude the discussion of al/alle with a description of the behavior of the form allemaal. Historically, allemaal is composed of the morphemes al, te and maal; te and maal together are semantically equivalent to tezamen and mean “together”. In the glosses we therefore render allemaal as “altogether” reflecting its historical origin. The form allemaal is assigned its own separate section because its properties diverge in several ways from those of the forms al and alle (+ Num). We will start the discussion in Section 7.1.5.1 with the use of allemaal as a modifier within the noun phrase. Section 7.1.5.2 will discuss the independent uses of allemaal.

7.1.5.1. The use of allemaal as a modifier of a noun phrase

The section discusses the use of allemaal as a modifier of the noun phrase. We will start by showing that this use is limited in the sense that it is only possible in bare (determiner-less) indefinite noun phrases. Subsection II will show that the modifier allemaal does not contribute universal quantification; this interpretation of allemaal is only found in its prototypical use as a floating quantifier, which will be discussed in Section 7.1.5.2.2. Subsection III will conclude with a discussion of the restrictions allemaal imposes on accompanying determiners and quantificational elements.

I. Distribution of allemaal inside the noun phrase

The use of allemaal as a modifier of the noun phrase is limited in the sense that it is only possible in bare (determiner-less) indefinite noun phrases: Table 9 shows that allemaal combines neither with singular count noun phrases, nor with plural noun phrases headed by a definite determiner (which is possible in, e.g., West-Flemish).

Table 9: Allemaal in noun phrases headed by a count noun

<table>
<thead>
<tr>
<th></th>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFINITE</td>
<td>*allemaal het boek</td>
<td>*allemaal de boeken</td>
</tr>
<tr>
<td></td>
<td>altogether the book</td>
<td>altogether the books</td>
</tr>
<tr>
<td>INDEFINITE</td>
<td>*allemaal een boek</td>
<td>allemaal Ø boeken</td>
</tr>
<tr>
<td></td>
<td>altogether a book</td>
<td>altogether books</td>
</tr>
<tr>
<td></td>
<td>‘all kinds of books’</td>
<td>‘all kinds of books’</td>
</tr>
</tbody>
</table>

Allemaal is also prohibited in noun phrases headed by pluralia tantum, like (121a), and in noun phrases headed by plurals that denote a conventionally fixed unit, like (121b).

(121) a. *allemaal tropen
        altogether tropics
b. *allemaal Verenigde Staten
    altogether United States
The examples in (122) show that *allemaal* readily allows construal with the bare non-count nouns in (122), and the same thing holds for the deverbal nouns in (123), with the exception of the nominal infinitive. Note that adding a definite or indefinite article to these examples will result in ungrammaticality.

(122) *Allemaal* in noun phrases headed by a non-count noun

a. allemaal *wijn/fruit/suiker/vlees* altogether wine/fruit/sugar/meat

b. allemaal *vee/gevogelte* altogether cattle/fowl

c. allemaal *ellende/verdriet/onzin* altogether misery/sorrow/nonsense

(123) *Allemaal* in noun phrases headed by a deverbal noun

a. allemaal *werk* altogether work

b. allemaal *gedoe/gezeur/?gewerk* altogether fuss/nagging/work

c. *allemaal* *werken* altogether work

Noun phrases modified by *allemaal* are typically weak, which is clear from the fact illustrated in (124) that, when used as a subject, they normally require the expletive *er* to be present. The primed examples of (124), in which the modified noun phrase is topicalized across the expletive, clearly show that *allemaal* forms a constituent with the noun following it (the °constituency test).

(124) a. Er liggen allemaal boeken in de gang.
    there lie altogether books in the hall

    a’. Allemaal boeken liggen *(er) in de gang.
        altogether books lie there in the hall

b. Er valt allemaal stof op de grond.
    there falls altogether dust on the floor

    b’. Allemaal stof valt *(er) op de grond.
        altogether dust falls there on the floor

Having established that the only types of noun phrases that *allemaal* can form a constituent with are bare plurals and bare non-count nouns, we will move on to discuss the meaning of *allemaal* as a modifier of the noun phrase and the restrictions it imposes on other elements with the noun phrase.

II. Semantics

Though *allemaal* can be used as a modifier in noun phrases headed by a plural count noun or a non-count noun, it must be noted that it does not contribute universal quantification in this case: an example like *allemaal boeken* cannot be rendered by means of “all books” in English. In this respect the dependent use of *allemaal* differs from its prototypical use as a floating quantifier, which is discussed in 7.1.5.2.2. Below, we will discuss the semantic contributions that dependent *allemaal* can make.
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A. Sorting (“all kinds/sorts of”)

Examples like *allemaal boeken* with count nouns typically receive a “sorting” interpretation: “all kinds of books”; this reading is sometimes also available for the non-count nouns in (122), depending on context. Haeseryn et al. (1997) qualifies this usage of *allemaal* as typical for the informal register; it is indeed extremely widespread in spoken Dutch, and exceedingly rare in formal written language. On this “sorting” reading, *allemaal* can often be replaced with *allerlei* (or archaic *allerhande*), although the resulting examples involving a substance noun seem somewhat degraded.

(125)  
\[
\begin{align*}
\text{(125) a.} & \quad \text{allerlei} \ O \ \text{boeken} \\
& \quad \text{all-sorts [of] books} \\
\text{b.} & \quad \text{allerlei} \ ?\text{wijn}/*\text{fruit}/*\text{suiker}/*\text{vlees} \\
& \quad \text{all-sorts [of] wine/fruit/sugar/meat} \\
\text{b’.} & \quad \text{allerlei} \ \text{vee/gevogelte} \\
& \quad \text{all-sorts [of] cattle/fowl} \\
\text{b”’.} & \quad \text{allerlei} \ \text{ellende/verdriet/onzin} \\
& \quad \text{all-sorts [of] misery/sorrow/nonsense}
\end{align*}
\]

B. High degree quantification (“lots of”)

Just like *alle* (cf. Section 7.1.1, sub III), *allemaal* may receive a high degree interpretation. This is often the more natural interpretation for the substance nouns in (122). It seems that pragmatics and grammatical/semantic context may both affect the choice between the two readings in (126). For example, it seems that the expletive *er* construction favors the high degree interpretation.

(126)  
\[
\begin{align*}
\text{(126) a.} & \quad \text{Ik heb allemaal fruit gekocht.} \\
& \quad \text{I have altogether fruit bought} \\
& \quad \text{Possible reading: ‘I have bought all kinds/sorts of fruits.’} \\
& \quad \text{Possible reading: ‘I have bought lots of fruits.’} \\
\text{b.} & \quad \text{Er ligt allemaal suiker op tafel.} \\
& \quad \text{There lies altogether sugar on the table} \\
& \quad \text{Possible reading: ‘There’s lots of sugar lying on the table.’} \\
& \quad \text{Impossible reading: ‘There are all sorts/kinds of sugar lying on the table.’}
\end{align*}
\]

The high degree interpretation of *allemaal* is available for bare plurals as well, especially when used in existential/presentational *er* constructions; to obtain the “all kinds/sorts of” reading in (127b), *allerlei* will normally be used instead.

(127)  
\[
\begin{align*}
\text{(127) a.} & \quad \text{Ik heb allemaal fouten gemaakt.} \\
& \quad \text{I have altogether mistakes made} \\
& \quad \text{Possible reading: ‘I have made all sorts of mistakes.’} \\
& \quad \text{Marginally possible reading: ‘I have made lots of mistakes.’} \\
\text{b.} & \quad \text{Er zitten allemaal fouten in de tekst.} \\
& \quad \text{There sit altogether mistakes in the text} \\
& \quad \text{Possible reading: ‘There are lots of mistakes in the text.’} \\
& \quad \text{Impossible reading: ‘There are all sorts of mistakes in the text.’}
\end{align*}
\]
C. Very high degree quantification ("nothing but")

The very high degree interpretation of allemaal can be paraphrased with the aid of niets dan ‘nothing but’. In Standard Dutch (but not in, e.g., West-Flemish), this reading is restricted to predicatively used abstract non-count nouns like ellende ‘misery’ and onzin ‘nonsense’; the examples in (128a) are typical cases of this interpretation of allemaal. It is not entirely clear, however, whether allemaal ellende/onzin must be construed as a constituent or not, or whether allemaal is a floating quantifier associated with the demonstrative dat. Topicalization, as in (128b&b′), does not give a robust result; neither example is particularly felicitous, but neither seems ungrammatical either. We will see in Section 7.1.5.2.2, however, that the nominal predicate can be replaced by an adjectival one (e.g., Dat is allemaal erg raar ‘That is all very strange’), which suggests that it is at least possible to interpret allemaal as a floating quantifier associated with dat.

(128) a. Dat is allemaal ellende/onzin!
   that is altogether misery/nonsense
   ‘That is nothing but misery/nonsense!’
   b. ?Allemaal ellende/onzin is dat!
   b′. ??Ellende/Onzin is dat allemaal!

III. Restrictions on accompanying determiners and quantificational elements

The introduction to this section has shown that allemaal can only be construed with bare noun phrases in Standard Dutch. This was demonstrated only for articles, but it holds also for demonstratives and possessives. Occasionally, examples like (129a) can be found in which allemaal seems to form a constituent with a [+HUMAN] personal pronoun. It must be noted, however, that, insofar as (129a) is acceptable, it involves universal quantification: since this is the reading typically found with the floating quantifier allemaal in the primed examples in (129), this casts doubt on the assumption that we are dealing with a modifier; see Section 7.1.5.2.2 for more on the floating quantifier use of allemaal.

(129) a. *(Wat die kinderen betreft,) zij allemaal zijn erg slim.
   what those children concerns they altogether are very smart
   a′. Zij/Ze zijn allemaal erg slim.
   they are altogether very smart
   ‘They are all very smart.’
   b. *(Wat die problemen betreft,) zij allemaal zijn zeer ernstig.
   what those problems concerns they altogether are very serious
   b′. Ze zijn allemaal erg ernstig.
   they are altogether very serious
   ‘They are all very serious.’

When we assume that we may dismiss examples like (129a) as irrelevant, we can maintain that allemaal can only form a constituent with bare plurals and bare non-count nouns. It must be noted, however, that these categories allow the insertion of the indefinite determiner-like elements dat/dit/zulk soort ‘such’ between allemaal and the noun phrase, albeit that for the majority of speakers these elements must be preceded by van in constructions like (130).
(130) a. Ze kraamt allemaal %(van) dat/dit/zulk soort onzin uit.
   she screams altogether of that/this/such sort nonsense prt.
   ‘She is uttering lots of/nothing but such nonsense.’
   b. Er zitten allemaal %(van) dat/dit/zulk soort fouten in deze tekst.
   there sit altogether of that/this/such sort mistakes in this text
   ‘This text is full of such mistakes.’

The question that arises with respect to the examples with van is whether we are dealing with a partitive construction here. This question is difficult to answer with certainty, but if these are partitive constructions, they are anomalous in the sense that the felicity of van depends entirely on the presence of the indefinite determiner-like elements dat/dit/zulk soort; in the absence of these, the examples in (130) are ungrammatical.

(131) a. *allemaal van onzin
   altogether of nonsense
   b. *allemaal van fouten
   altogether of mistakes

The ungrammatical examples in (131) can be salvaged by placing die between van and the noun, as shown in (132). These noun phrases instantiate the pseudo-partitive van die N construction discussed in Section 5.2.3.2.2, sub V, whose semantics is close to that of zulke N and can best be rendered in English as “such Ns”.

(132) a. allemaal van die onzin
   altogether of such nonsense
   b. allemaal van die fouten
   all-sorts of those (= such) mistakes

Allemaal thus differs from the other al-quantifiers in being the only one that can precede pseudo-partitive phrases, where it receives the “sorting” interpretation discussed in Section 7.1.5.1, sub IIA. Given that we have seen there that on this reading allemaal generally alternates with allerlei, it does not come as a surprise that examples (130b) and (132b) have grammatical counterparts featuring allerlei, as shown in (133); although some speakers may object to these examples, they occur frequently on the internet.

(133) a. allerlei %(van) dat/dit/zulk soort fouten
   all-sorts of that/this/such sort mistakes
   b. allerlei van die fouten
   all-sorts of those (= such) mistakes

Finally, it can be noted that it is impossible for allemaal to be used as a modifier with noun phrases that are independently quantified, as shown in (134).

(134) a. (*allemaal) enige/sommige boeken
   altogether some books
   b. (*allemaal) veel/weinig boeken
   altogether many/few books
c. (*allemaal) tien boeken
   altogether ten books

d. (*allemaal) elke/iedere wijn
   altogether every wine

IV. Allemaal, definiteness and inflection

Example (135) shows that the modifier allemaal does not behave like a definite determiner when it comes to the determination of adjectival inflection; the attributively used adjective slim cannot be inflected. In this respect allemaal exhibits the same behavior as the quantifier alle in the somewhat marginal example (71a) in Section 7.1.2.2.2, sub II, although the two cannot serve as each other’s paraphrase; while alle in (71a) expresses universal quantification, allemaal in (135) has the “sorting” interpretation mentioned in Section 7.1.5.1, sub IIA.

(135)    Allemaal   slim/*slimme geknoei in de handel.
   altogether clever fiddling in the commerce
   ‘all sorts of clever fiddling in commerce’

Externally, noun phrases modified by allemaal also behave like weak noun phrases, which is evident from the fact that they can occur as the subject in expletive er constructions; cf. (126b) and (127b), repeated here as (136).

(136)  a.  Er    ligt   allemaal suiker  op tafel.
   there lies altogether sugar on the table
   ‘There’s lots of sugar lying on the table.’

b.  Er    zitten  allemaal   fouten    in de tekst.
   there sit altogether mistakes in the text
   ‘There are lots of mistakes in the text.’

7.1.5.2. The use of allemaal as an independent constituent

This section discusses the use of allemaal external to the noun phrase. We consider allemaal used as an independent syntactic constituent (argument, predicate and adjunct) as well as its prototypical use as a floating quantifier.

7.1.5.2.1. Distribution as argument and predicate

Allemaal cannot readily appear as an argument on its own. It is unacceptable as an argument of the verb, although it can marginally be used as the complement of a preposition provided that its implicit antecedent is animate (preferably human); see the contrast between (137d) and (138d).

(137)    • Discourse Topic: a number of friends
   a. *Allemaal   zijn uitgenodigd.
      altogether are invited
   b. *Hij heeft allemaal uitgenodigd.
      he has altogether invited
   c. *Hij heeft allemaal een uitnodiging gestuurd.
      he has altogether an invitation sent
   d. ?Hij heeft een uitnodiging aan allemaal gestuurd.
      he has an invitation to altogether sent
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(138) • Discourse Topic: a number of research proposals
a. *Allemaal zijn gefiatteerd.
   altogether are okayed
b. *Hij heeft allemaal gefiatteerd.
   he has altogether okayed
c. *Hij heeft allemaal zijn fiat gegeven.
   he has altogether his okay given
d. *Hij heeft zijn fiat aan allemaal gegeven.
   he has his okay to altogether given

The animacy contrast between (137d) and (138d) is perhaps somewhat delicate, but
seems real; further illustration is offered by the minimal pair in (139). We are not
aware of specific proposals in the literature that seek to accommodate the restricted
behavior of *allemaal in comparison with the *al-quantifiers that can be used as
independent arguments.

(139) a. ??Wat die mensen betreft, ik heb over allemaal gesproken.
   what those people concerns I have about altogether spoken
b. *Wat die voorstellen betreft, ik heb over allemaal nagedacht.
   what those proposals concerns I have about altogether thought

The form *allemaal cannot be used as a predicate either, regardless of the properties
of the putative subject. The deviance of the examples in (140) bears this out.

(140) a. *Dat is allemaal.
   that is altogether
b. *Dat/Zij zijn allemaal.
   that/they are altogether

7.1.5.2.2. Distribution as modifier and floating quantifier

This section will show that *allemaal can readily be used a floating quantifier, but
only marginally as a modifier. We will divide this section into three parts:
Subsection I starts with cases in which the modified phrase/associate is a subject or
an object, Subsection II with cases in which it is the complement of a PP, and
Subsection III with cases in which it is a predicate.

I. Subject and object
The ungrammatical examples in (137a-c) and (138a-c) become grammatical if an
associate for the quantifier is added in the form of a complex noun phrase or a
pronoun.

(141) a. Die mensen/Zij zijn gisteren allemaal uitgenodigd.
   these people/they are yesterday altogether invited
b. Hij heeft die mensen/hen/ze gisteren allemaal uitgenodigd.
   he has those people/them yesterday altogether invited
c. Hij heeft die mensen/hun/ze gisteren allemaal een uitnodiging gestuurd.
   he has those people/them yesterday altogether an invitation sent
(142) a. Die boeken/Ze zijn gisteren allemaal verkocht.
   those books/they are yesterday altogether sold
   
   b. Hij heeft die boeken/ze gisteren allemaal verkocht.
   he has those books/them yesterday altogether sold
   
   c. Hij heeft die boeken/ze gisteren allemaal zijn fiat gegeven.
   he has those books/them yesterday altogether his okay given

As with the other floating quantifiers, *allemaal* must follow its associate, unless it is placed in sentence-initial position and its associate is a weak pronoun; the examples in (143) and (144) are all degraded with the noun phrase *die mensen/boeken* ‘these people/books’.

(143) a. Allemaal zijn ze/*die mensen gisteren uitgenodigd.
   b. Allemaal heeft hij ze/*hen/*die mensen gisteren uitgenodigd.
   c. Allemaal heeft hij ze/*hun/*die mensen gisteren een uitnodiging gestuurd.

(144) a. Allemaal zijn ze/*die boeken gisteren verkocht.
   b. Allemaal heeft hij ze/*die boeken gisteren verkocht.
   c. Allemaal heeft hij ze/*die boeken gisteren zijn fiat gegeven.

That we are dealing with floating quantifiers in (143) and (144) is clear from the fact that the quantifier and its associate are not adjacent. Actually there is not much chance to mistake the floating quantifier *allemaal* as a modifier, since the latter use is not possible for *allemaal* when the noun phrase contains a determiner; cf. Table 9. This is demonstrated again by the examples in (145): since the noun phrase and the quantifier cannot simultaneously occupy the clause-initial position, we can safely conclude that they do not form a constituent. This shows again that the “quantifier float” terminology should be interpreted strictly metaphorically.

(145) a. *<Allemaal> die mensen <allemaal> zijn gisteren uitgenodigd.
   b. *<Allemaal> die boeken <allemaal> zijn gisteren verkocht.

   However, recall from the discussion of the examples in (129) that the data are not so clear for pronouns. Although marked, example (146a) suggests that it is at least marginally possible for *allemaal* to function as a modifier of a strong pronoun: *allemaal* and the pronoun can be placed together in clause-initial position (the °constituency test). The examples in (146b&c) show the same point as (146a) given that floating quantifiers normally cannot be scrambled across the adverb *gisteren*; cf. the discussion of the examples in (111) and (112).

(146) a. Zij <??allemaal> zijn gisteren <allemaal> uitgenodigd.
   they all are yesterday prt.-invited
   
   b. Hij heeft hen <??allemaal> gisteren <allemaal> uitgenodigd.
   he has them all yesterday prt.-invited
   
   c. Hij heeft hun <??allemaal> gisteren <allemaal> een uitnodiging gestuurd.
   he has them all yesterday an invitation sent
Of course, the quantifier *allemaal* is not able to form a constituent with a weak pronoun. We have seen in our discussion of *alle* in Section 7.1.2.2.2, sub IID, that this requires the pronoun to be strong.

(147)  a. Ze <*allemaal> zijn gisteren <*allemaal> uitgenodigd.
    they all are yesterday prt.-invited
    b. Hij heeft ze <*allemaal> gisteren <*allemaal> uitgenodigd.
    he has them all yesterday prt.-invited
    c. Hij heeft ze <*allemaal> gisteren <*allemaal> een uitnodiging gestuurd.
    he has them all yesterday an invitation sent

As in the case of all other *al*-quantifiers, the associate of the floating quantifier *allemaal* can be independently quantified, although some people may object to the primed examples for pragmatic reasons.

(148)  a. Ik heb die dertig mensen gisteren allemaal ontmoet.
    I have those thirty people yesterday altogether met
    b. %Ik heb die vele mensen gisteren allemaal ontmoet.
    I have those many books yesterday altogether met

(149)  a. Ik heb die dertig boeken gisteren allemaal afgestoft.
    I have those thirty books yesterday altogether dusted
    b. %Ik heb die vele boeken gisteren allemaal afgestoft.
    I have those many books yesterday altogether dusted

In this case, however, this fact cannot be used to argue against the “floating” approach, given that the examples in (150) are unacceptable for independent reasons; cf. the discussion of (145). Note in passing that our judgment on (150b) diverges from the one given in Coppen (1991: 133), who assigns it a mere question mark; our informants, however, rejected the two examples in (150) categorically.

(150)  a. *allemaal die dertig mensen/boeken
    altogether those thirty people/books
    b. *allemaal die vele mensen/boeken
    altogether those many people/books

As is shown in (151), the floating quantifier *allemaal* seems freer than the other types of *al*-quantifiers in being able to take the neuter pronoun *het* ‘it’, the singular demonstratives *dit/dat* ‘this/that’, and the interrogative pronoun *wat* ‘what’ as its associate.

(151)  a. Het/Dit is *allemaal/*alle/*allebei/*beide verkocht.
    it/this has been altogether/all/all-both/both sold
    ‘It has all been sold.’
    b. Wat heb je *allemaal/*alle/*allebei/*beide gelezen?
    what have you altogether/all/all-both/both read
    ‘What sort of things did you read?’

Note that, unlike the personal pronouns in (146), these pronouns certainly cannot be combined with the modifier *allemaal*: *Het allemaal is verkocht; *Wat allemaal
heb je gelezen? At first sight this seems to constitute an argument against the “floating” approach, although it must be pointed out that there are reasons to assume that the function of *allemaal* in these examples differs from that in the examples discussed earlier. First, it seems that *allemaal* can be used with an adverbial function: example (152a) seems to favor a reading in which *het/dit* refers to a set of entities which are all read, but it may also refer to a single entity which is fully read, a reading which is the only possible one for example (152b), featuring the adverbial *helemaal*.

(152) a. Ik heb *het/dit* gisteren *allemaal* gelezen.  
I have *it/this* yesterday altogether read  
b. Ik heb *het/dit* gisteren *helemaal* gelezen.  
I have *it/this* yesterday completely read

Second, the semantic contribution made by *allemaal* in the *wh*-constructions in (151) differs from ordinary universal quantification, and it can be replaced with preservation of meaning by *zoal* ‘(what) for instance/among other things’ (lit.: *so-all*). This suggests that we can classify the use of *allemaal* in (151) as adverbial. If this is indeed the case, *allemaal* is the only *al* form that can be construed both as an adverb and as a floating quantifier.

**II. Complement of PP**

Example (153a) shows that adding an associate to the marginal example (137d) gives rise to a more or less acceptable result when the associate is a complex noun phrase or a strong pronoun, but completely unacceptable when it is a weak pronoun. Adding an associate to the ungrammatical example in (138d), on the other hand, does not improve the result.

(153) a. Hij heeft een uitnodiging aan ?die mensen/hen/*ze *allemaal* gestuurd.  
he has an invitation to those people/them/them altogether sent  
b. *Hij heeft aan die boeken/ze *allemaal* zijn fiat gegeven.  
he has to those books/them altogether his okay given

The examples in (153) show that there exists a contrast between [+HUMAN] and [-HUMAN] associates of *allemaal*. A similar contrast was observed for *al* in (98b&b’). There we took the fact that the weak pronoun *ze* could not be used as evidence for the claim that the pronoun and the quantifier must form a constituent. This claim was further supported by the fact that scrambling and topicalization of the PP required pied piping of the quantifier. The examples in (153) seem to give a similar result with scrambling, as shown in (154a), but not with topicalization, as is shown in (154b); the quantifier *allemaal* can only be pied piped in the former case. But, actually, the situation is more complex: (154c) shows that the scrambled PP need not be adjacent to the quantifier, and (154d) shows that the PP can be topicalized provided that the quantifier occupies the same position as in (154c).

(154) a. Hij heeft aan ?die mensen/hen <allemaal> een uitnodiging <*allemaal*> gestuurd.  
b. *Aan die mensen/hen <allemaal> heeft hij een uitnodiging <*allemaal*> gestuurd.  
c. *(?)Hij heeft aan ?die mensen/hen gisteren allemaal een uitnodiging gestuurd.  
d. *(?)Aan die mensen/hen heeft hij gisteren allemaal een uitnodiging gestuurd.
The data in (154) therefore suggest that *allemaal* can be generated either as part of the noun phrase or independently to the left of the base position of the PP; in the latter case the PP must be moved into some position to the left of the quantifier. Given this we may expect that °R-pronominalization will give rise to an acceptable result as well, provided that the R-pronoun is moved into a position to the left of the independent quantifier. Although the examples are marked, the results in (155) seem indeed acceptable.

(155)  a. (?)de mensen waar hij gisteren allemaal een uitnodiging aan stuurde
   the people where he yesterday altogether an invitation to sent
   ‘the people to whom he sent an invitation yesterday’
   b. ?de voorstellen waar hij gisteren allemaal zijn fiat aan gaf
   the proposal where he yesterday altogether his okay to gave
   ‘the proposals to which he gave his okay yesterday’

Given that (155a) with an indirect object sounds relatively marked, we provide two more natural examples in (156) involving PP-complements, which seem to be impeccable.

(156)  a. de dingen waar een manager allemaal aan moet denken
      the things where a manager altogether of must think
      ‘all the things that a manager has to think of’
   b. de instrumenten waar hij allemaal op kan spelen
      the instruments where he altogether on can play
      ‘the instruments that he can play (on)’

III. Predicate

In examples like (157a), taken from Perridon (1997: 185), it is not immediately clear whether *allemaal* is a floating quantifier belonging to the subject *wat je over mij vertelt* or a modifier belonging to the predicate nominal *leugens*.

(157)    Wat je over mij vertelt zijn allemaal leugens.
   what you about me tell are altogether lies

Semantically, (157) is not on a par with (158a), in which the quantifier clearly modifies the noun phrase, and in which *allemaal* can best be rendered as “all sorts of”. It instead patterns with (158b), in which *allemaal* has a very high degree reading; it is nothing but lies that you have been telling about me.

(158) a. Je vertelt allemaal leugens over mij.
      you tell altogether lies about me
   b. Het/Dit zijn allemaal leugens die je over mij vertelt.
      it/this are altogether lies that you about me tell

However, as was discussed in Section 7.1.5.1, sub IIC, it is not clear that the very high degree quantifier is part of the noun phrase. Evidence that *allemaal* in (157) and (158b) can be construed as a floating quantifier with the pronominal subject as its associate is given in (159), in which the nominal predicate is replaced by an
adjectival one, which is, of course, not eligible for modification by allemaal; in these examples, at least, allemaal must be construed as a floating quantifier.

(159) a. Wat je over mij vertelt, is allemaal erg raar.  
what you about me tell is altogether very strange

b. Het/Dit is allemaal erg raar.  
it is altogether very strange

7.1.5.2.3. The distribution of allemaal and allerlei contrasted

One last point to add in connection with the independent and floating uses of allemaal is the fact that, in these uses, allemaal does not alternate with allerlei. All of the grammatical examples given in Section 7.1.5.2.2 with allemaal become unacceptable when allerlei replaces allemaal. In (160), we illustrate this with the aid of a number of concrete examples.

(160) a. *Wat die mensen betreft, hij heeft aan allerlei een uitnodiging gestuurd.  
what those people concerns he has to all-sorts an invitation sent

b. *Ik heb die boeken gisteren allerlei verkocht.  
I have those books yesterday all-sorts sold

c. *Ik heb het gisteren allerlei gelezen.  
I have it yesterday all-sorts read

In this regard, independent and floating allemaal differ from allemaal in bare plural noun phrases, which can readily be replaced with allerlei, usually with preservation of meaning: allemaal/allerlei boeken ‘all kinds of books’. See also example (125) in Section 7.1.5.1, sub IIA.

7.2. The pre-determiner heel ‘all/whole’

This section is concerned with the forms and distribution of the modifier heel. This modifier can be found in the two word-order patterns in (161). The modifier heel in (161a) will be referred to as PRE-DETERMINER BARE HEEL since it is systematically uninflected and linearly precedes the determiner. The use of pre-determiner bare heel does not seem very common in everyday spoken Dutch; witness the fact that the Woordenboek der Nederlandsche Taal mentions that, even at the time when the lemma heel was written (1901-1912), the construction was found only in somewhat elevated and poetic registers. The modifier heel in (161b) will be referred to as POST-DETERMINER INFLECTIBLE HEEL, since it is inflected as an attributive adjective (cf. 3.2.1), and always follows the determiner.

(161) a. heel de taart  
all the cake  

b. de hele taart  
the whole cake

The two cases in (161) differ in that, in present-day Dutch, only the post-determiner heel alternates with the morphological alternant geheel. This is shown in (162); cf. also Section 7.2.2.3. Furthermore, we will show later that post-determiner heel is ambiguous, and may receive a purely adjectival or a quantificational interpretation.
(162) a. *geheel de taart  
b.  de gehele taart

For completeness’ sake, note that _heel_ can also be used in other syntactic functions, for instance, as an “amplifier of an adjective, as in _een heel/hele lekkere taart_ ‘a very tasty cake’, where _heel_ is optionally adorned with the inflectional schwa typical of adjectival attributive modifiers. Examples like these will not be discussed here; see Section A3.1.2 for discussion of this use.

In (161), we glossed pre-determiner bare _heel_ as “all” in order to distinguish it from post-determiner _heel_ and to give recognition to the fact that there are syntactic and interpretative parallels between pre-determiner bare _heel_ and pre-determiner bare _al_. Post-determiner inflectible _heel_ will be systematically glossed as “whole” even where this gloss is semantically inappropriate, that is, both on its adjectival and its quantificational reading; when necessary, English prose translations will be provided to bring out the semantics of _heel_ in the constructions under discussion.

Section 7.2.1 will start by addressing the semantics of _heel_, with the two syntactic patterns in (161) being discussed in separate sections. Section 7.2.2 will discuss the syntactic distribution of _heel_ and its alternants within the noun phrase, and Section 7.2.3 the distribution of noun phrases modified by _heel_ as a whole. Section 7.2.4 will conclude with a discussion of the independent uses of _heel_.

7.2.1. Semantics of _heel_ ‘all/whole’

This section discusses the semantics of _heel_. Section 7.2.1.1 will start by discussing pre-determiner bare _heel_. This is followed in Section 7.2.1.2 by a discussion of post-determiner inflectible _heel_, for which a further distinction must be made between the quantificational and the purely adjectival uses of _heel_. Since purely adjectival _heel_ “whole/intact” behaves like a common attributive adjective, the focus will be on the quantificational type.

7.2.1.1. Pre-determiner bare _heel_

This section discusses the meaning of pre-determiner bare _heel_. In Subsection I, we start with its core semantics, which is quantificational in nature. Subsection II will show, however, that pre-determiner _heel_ can also be used to express condescension in clauses that contain implicit or explicit negation.

I. Core semantics: exhaustive partitioning of structured units

The core semantics of noun phrases with pre-determiner bare _heel_ is quantificational in nature and can best be captured under the rubric of _exhaustive partitioning of structured units_; cf. Zwarts (1992: Ch. 7). What we mean by this is that _heel_ gives an instruction to the addressee to partition the unit denoted by the head noun into all of its relevant subparts, and to select the sum total of these subparts as the reference of the noun phrase. The semantic characterization of _heel_ just given can be decomposed into three elementary building blocks: it involves (i) a structured unit, (ii) a partitioning, and (iii) exhaustivity. Each of these aspects will be addressed below.
A. Structured unit

The notion of structured unit itself consists of two subparts, viz. being structured and being a unit. The claim that the referent of the noun phrase must be “structured” can be illustrated with reference to the contrast between the examples in (163) involving proper nouns. A proper noun like Europa can readily be preceded by pre-determiner heel, because the geographical entity “Europe” is normally construed as constituting a structured set of basically equivalent objects, viz. member states. A proper noun like Jan, on the other hand, cannot be combined with heel, because a person is normally not seen as a structured homogeneous set of objects such as cells, organs or limbs.

(163)  a.  heel Europa/Duitsland/Hongarije/Italië/Amsterdam
       all   Europe/Germany/Hungary/Italy/Amsterdam
 b.  $heel Jan
       all Jan

Example (164a) shows that the same thing is normally true for a noun phrase headed by a [+ANIMATE] common noun phrase like de man ‘the man’. However, once a context is provided which allows the animate noun phrase de man to refer to the set of a person’s limbs, as in (164b), a grammatical, though slightly marked, result arises. The examples in (164a&b) also show that a similar but somewhat stronger contrast can be found in [-ANIMATE] noun phrases like zijn arm ‘his arm’.

(164)  a.  $heel de man/zijn arm
       all the man/his arm
 b.  Heel ’de man/zijn arm zat onder de schrammen.
       all the man/his arm sat under the scratches
       ‘The man/His arm was profusely covered with scratches.’

Note that examples like (164b) alternate with sentences in which the semantics of heel is contributed by the adverb helemaal ‘altogether’: cf. De man/Zijn arm/Jan zat helemaal onder de schrammen ‘The man/his arm/Jan was completely covered with scratches’. Helemaal can also be used with proper nouns, which, even in the contexts given in (164b), give rise to a marginal result at best with heel, as will be clear from the contrast between (165a&b). The syntax of helemaal is discussed in Section 7.2.4.

(165)  a.  *Heel Jan zat onder de schrammen.
       all Jan sat under the scratches
 b.  Jan zat helemaal onder de schrammen.
       Jans sat altogether under the scratches
       ‘Jan was completely covered with scratches’

The fact that some noun phrases readily allow an interpretation as a structured unit with heel, whereas other noun phrases require a special context for this interpretation to become available suggests that it is the speaker’s conceptualization of the material world that is responsible for the difference: a proper noun like Europa is simply stored in the mental lexicon as a structured unit consisting of
member states, whereas a proper noun like Jan is stored as an atomic unit referring to some individual.

So far, we have focused on the requirement that the referent of the noun phrase must be structured, that is, be construed as consisting of several subparts. That the referent of the noun phrase must be a unit is highlighted by the interpretation of example (166a); the indirect object is conceived of as a unit, all of whose parts are affected equally and collectively by the event expressed by the verb phrase. The unit reading expressed by (166a) can be primed by means of the paraphrase in (166a’). In (166b), we find a similar example taken from the internet that involves a PP-complement; again it is possible to provide a paraphrase with in z’n geheel.

(166)  a. Ik heb heel het huis een opknapbeurt gegeven.
      I have all the house a cleaning given
   ‘I gave the entire house a cleaning.’
  a’. Ik heb het huis in z’n geheel een opknapbeurt gegeven.
      I have the house in its whole a cleaning given
   ‘I gave the house in its entirety a cleaning.’

  b. We bieden integrale zorg, die kijkt naar heel de mens en niet alleen naar lever, hart of nieren ...
      we offer complete care that looks at all the person and not only at liver, heart or kidneys
  b’. We bieden integrale zorg, die kijkt naar de mens in z’n geheel (en niet ...)
      we offer complete care that looks at the person in its whole and not

The primeless examples in (166) contrast with the examples in (167), in spite of the fact that the syntactic function of the heel phrases in these examples is the same, viz. indirect object and complement of a PP-complement of the verb,

(167)  a. ??Ik heb heel de film mijn volle aandacht gegeven.
      I have all the movie my full attention given
   ‘I gave the entire movie my full attention.’
  b. *?Ik heb aandachtig naar heel de film zitten kijken.
      I have attentively to all the movie sit look
   ‘I watched the entire movie attentively.’

The difference in acceptability between (166) and (167) therefore seems to be of a semantico-pragmatic nature. Insofar as the latter examples are acceptable, the objects receive an intrinsically distributive interpretation (with attentiveness being distributed equally across the object), and it is apparently difficult for bare heel phrases to receive such a distributive interpretation. This seems to lend further confirmation to the importance of the unit part of the semantic characterization of pre-determiner bare heel; while the house in (166) is conceived of as a unit whose parts are collectively affected by the event expressed by the verb phrase, the verbal events in (167) affect the subparts of the movie not as a group or a unit but only in a distributive fashion.

The structured unit requirement is also reflected by the fact illustrated in (168a) that plural noun phrases normally cannot be combined with pre-determiner bare heel; in the general case, plurals do not constitute a unit but a set of units.
Systematic exceptions to the ban on pre-determiner *heel* construed with plural noun phrases are pluralia tantum, like *de tropen* in (168b), and formal plurals that denote a conventionally fixed unit, like *de Antillen* in (168c).

(168) a. *heel* de/die/deze/∅ steden
   all the/those/these/∅ towns

   b. El Niño heeft het klimaat in *heel* de tropen aangetast.
      El Niño has the climate in all the tropics affected

   c. Hij is de bekendste politicus van *heel* de Antillen.
      he is the best-known politician of all the Antilles

Though the plurals in (168b&c) behave like regular plurals in their external syntactic distribution in, e.g., triggering plural agreement on the finite verb, their denotation is that of a UNIT. The fact that pre-determiner bare *heel* can quantify pluralia tantum and plurals that denote a single unit confirms the STRUCTURED UNIT ingredient of its semantics.

**B. Partitioning**

The partitioning part of the semantics of *heel* can be illustrated with reference to example (169), which seems to imply that *all of the* rooms (and other relevant subparts) of the house have been cleaned, that is, all of the constituent parts that together make up the house have been affected.

(169) Heel het huis is schoongemaakt.
     all the house is clean.made

Since *heel* partitions the entity denoted by the noun phrase it quantifies into its constituent parts, we expect an anomalous output to arise when these parts cannot be individually affected by the event denoted by the verb phrase. This seems to be confirmed by (170): (170a) is unacceptable because it is only the motorboat as a unit that can be rocking, that is, the parts of the motorboat cannot be individually affected; (170b) is awkward since mud typically covers the house as a unit, not all of its constituent parts (i.e., the individual rooms) separately. Some caution is needed here, however, since not all speakers agree that (170b) is indeed anomalous.

(170) a. *?Heel de motorboot gaat heen en weer.
     all the motorboat goes to and fro (= is rocking)

   b. %Heel het huis is bedolven onder de modder.
      all the house is buried under the mud

**C. Exhaustivity**

Exhaustivity, the third ingredient of the meaning of pre-determiner bare *heel*, is illustrated in (171). In (171a), *heel* prompts a reading in which all of the individual office spaces comprising the office block have been rented out. Although judgments are somewhat delicate, it seems that addition of an “except”-clause, which overrules the interpretation “in all of its constituent parts” assigned by *heel*, leads to a somewhat awkward result. Example (171b&c) illustrates the same point; again, addition of the “except”-clause gives a marked result.
The exhaustivity part of the meaning of pre-determiner bare *heel* is eminently present in the Dutch rendering of the introduction to *Asterix the Gaul* by Goscinny and Uderzo, given in (172). The part that is interesting for our current discussion is given in italics: the claim that the whole of Gallia (*heel Gallië*) is occupied is refuted by pointing at a small settlement, which continues to offer resistance.

In agreement with the characterization of the semantics of pre-determiner bare *heel* in terms of exhaustive partitioning of structured units, we find that bare *heel* normally does not alternate with *half* “half”. This is especially the case when the noun phrase hosting *heel/half* is “totally affected” by the event denoted by the verb phrase, as in (173): *bezaaid liggen met* means “to be totally covered with” and *leegroven* means “to rob empty”, that is, to rob in such a way that the entire object is emptied as a result. Such “totally affecting” verbal predicates only allow partitioning of their surface subject when the partitioning is exhaustive: substituting *half* for *heel* yields an anomalous result since *half* differs from *heel* precisely in not being exhaustive.

The verb phrases in (174), on the other hand, are not “totally affecting” in the sense that they apply to the inhabitants of the island/village only, and now the modifier *heel* does alternate with *half*. The reason for this is that these verbal predicates allow but do not demand exhaustive partitioning of the surface subject.
Note that the percentage sign in (174) indicates that some speakers find half categorically impossible in pre-determiner position; examples like (174) can be readily found on the internet, however. It must further be noted that we have seen several other cases with half on the internet that seem to be of some different nature than the examples in (174), so that further investigation of the alternation between heel and half would certainly be welcome.

II. Negative polarity

Alongside its core use as a quantifier, discussed in Subsection I, pre-determiner bare heel can also be used in a rather different fashion. We will show below that the semantic contribution of heel in examples of the type in (175) seems best described in terms of a combination of negative polarity and condescension. The examples in (175) are fully acceptable but are given a question mark within parentheses, since they are somewhat marked compared to similar constructions featuring post-determiner inflectible heel, which will be discussed in Section 7.2.1.2.2, sub III.

(175) a. (?)Ik ken heel die vent niet.
   I know all that guy not
   ‘I don’t know that guy at all.’

b. (?)Ik was heel die toestand alweer vergeten.
   I was all that situation again forgotten
   ‘I had forgotten about this whole affair.’

The sentences in (175) are negative, with negation being expressed syntactically by the negative adverb niet in (175a), and lexically by the verb vergeten ‘to forget/to not know anymore’ in (175b). The examples in (176) show that counterparts of (175) in which negation is absent are unacceptable. This suggests that heel is a negative polarity item.

(176) a. *Ik ken heel die vent.
   I know all that guy

b. *Ik heb heel die toestand altijd onthouden.
   I have all that situation always remembered

It must be noted, however, that if heel is indeed a negative polarity item in these examples, its licensing must be less strict than for other negative polarity items. In particular, ordinary negative polarity items like ook maar iemand ‘anyone’ do not occur in the position occupied by heel die toestand in (175b) as the negative component of the verb vergeten will not suffice to license them; see Den Dikken (2002) for discussion.

Examples like (175) are typically used as statements revealing the speaker’s lack of appreciation or interest in the entity referred to by the heel phrase. Consistent with this is that the distal demonstrative in (175), which can be used to express a negative evaluation on the part of the speaker (cf. 5.2.3.2.2, sub IV), cannot readily be replaced by other determiners, as is shown by the awkwardness of (177).
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(177) a. Ik ken heel *de/deze vent niet.
    I know all the/this guy not

b. Ik was heel *de/deze toestand allang weer vergeten.
    I was all the/this situation already.long again forgotten

Our judgments on the examples in (175) and (177) seem confirmed by a Google search performed in December 2008 on the strings [heel DET vent] and [heel DET vent], with DET ranging over die, de and deze. For die, we found 38 relevant examples, for de only two, and for deze only three.

7.2.1.2. Post-determiner inflectible heel

The semantics of post-determiner inflectible heel is not homogeneous; a distinction must be made between purely adjectival and quantificational uses of heel. In Section 7.2.1.2.1, we will start with a brief discussion of the former, which expresses the meaning “whole/intact”. This is followed in 7.2.1.2.2 by a more extensive discussion of the quantificational uses.

7.2.1.2.1. Adjectival heel

We can be brief about purely adjectival heel. The semantics of adjectival heel is rather varied. Depending on the entity it modifies, it can be translated by English adjectives like whole, intact, complete, not broken, or full. Some examples are given in (178).

(178) a. een hele taart/appel
    a whole cake/apple
    ‘a cake/apple that has not been (partially) eaten or cut into slices’

b. een hele baan
    a whole job
    ‘a full-time job’

c. een hele radio
    a whole radio
    ‘a radio that is not broken’

Since adjectival heel attributes a property to the noun it modifies, it can best be considered a set-denoting adjective. If this is indeed the case, we would expect that it could be used in a predicative function as well. As can be seen in (179), however, this prediction is only partially borne out. Of the three examples, only (179c) seems to be fully acceptable.

(179) a. ??De taart/appel is heel.
    the cake/apple is whole

b. *De baan is heel.
    the job is whole

c. De radio is (weer) heel.
    the radio is again intact
    ‘The radio is intact (again).’

Purely adjectival heel makes no quantificational contribution. There are three ways in which this can be demonstrated.
I. Adjectival *heel* can be combined with pre-determiner bare *heel*

The first indication that adjectival *heel* is non-quantificational in nature comes from the fact that it combines with quantificational pre-determiner *heel*, as illustrated in the examples in (180).

(180) a. Heel deze hele taart is beschimmeld (maar die is nog goed).
   all this whole cake is moldy but that one is still fine
   ‘This complete cake is moldy in its entirety, but that one is still fine.’
   b. Heel mijn hele baan wordt wegbezuinigd.
   all my whole job is economized away
   ‘My full-time job is being cut in its entirety.’

II. Adjectival *heel* can be combined with *niet helemaal*

Another indication comes from example (181). The first conjunct *Hij at de hele taart* is ambiguous between a quantificational and an adjectival interpretation for *heel*, that is, between “He ate the entire cake” and “He ate (of) the cake that was complete/had no slice missing”. The second conjunct disambiguates the example, since it contradicts the first conjunct under the quantificational reading: He ate the entire cake but not entirely.

(181)   Hij at de hele taart, maar niet helemaal.
   he ate the whole cake but not entirely
   ‘He ate [of] the cake that was complete, but he did not finish it.’

III. Adjectival *heel* alternates with the adjective *half ‘half’*

Adjectival *heel* alternates with *half ‘half’*, which can also receive a purely adjectival interpretation and which, like adjectival *heel* in (180), can be combined with pre-determiner bare *heel* into a single noun phrase.

(182) a. Heel deze halve taart is beschimmeld.
   all this half cake is moldy
   ‘This complete half cake is moldy in its entirety.’
   b. Heel mijn halve baan wordt wegbezuinigd.
   all my half job is economized away
   ‘My half-time job is being cut in its entirety.’

For completeness’ sake, note that predicative use of *half* results in a severely degraded result, just like the predicative use of *heel* in (179a&b).

(183) a. *De cake is half.
   the cake is half
   b. *Mijn baan is half.
   the cake is half

Example (184) shows that adjectival *heel/half* can be immediately preceded by post-determiner quantificational *heel/half*: although they need highly specialized contexts to be usable, these examples seem perfectly grammatical. This option unambiguously shows that a distinction should be made between adjectival and quantificational instantiations of inflectible *heel* (and *half*). Note that quantifica-
tional heel/half is always the first in sequence, the second being the purely adjectival form, which is, of course, in full conformity with the fact that post-determiner quantifiers precede attributive adjectives in Dutch.

(184) a. Hij at de hele/halve hele taart.
   he ate the whole/half whole cake
   ‘He ate all/half of the cake that was complete.’

   b. Hij at de hele/halve halve taart.
   he ate the whole/half half cake
   ‘He ate all/half of the cake that was half.’

7.2.1.2.2. Post-determiner quantificational heel

With adjectival heel properly set apart from the other occurrences of heel, in what follows we will concentrate on the quantificational readings of post-determiner heel. Post-determiner quantificational heel can be divided into three subtypes, which respectively express TOTALITY, DEGREE and POLARITY.

I. Totality

By far the most common quantificational contribution made by post-determiner inflectible heel is that of “totality”. An example like de stad differs semantically from de hele stad ‘the whole city’ in the same way that their English translations “the city” and “the whole/entire city” differ: de hele stad denotes the totality of the town, the town in its entirety. That heel in its totality sense is quantificational is evident from the fact that it does not combine with helemaal, as seen in (185).

(185) a. De hele zon is van gas.
   the whole sun is of gas

   b. De zon is helemaal van gas.
   the sun is entirely of gas

   c. *De hele zon is helemaal van gas.
   the whole sun is entirely of gas

The totality sense of inflectible heel comes close to that of pre-determiner bare heel discussed in Section 7.2.1.1, which is clear from the fact that it is impossible to combine the two varieties of heel within a single noun phrase.

(186) a. heel mijn bezit
   all my estate

   b. mijn hele bezit
   my whole estate

   c. *heel mijn hele bezit
   all my whole estate

But despite the close semantic relationship between pre-determiner bare heel and post-determiner heel, there is an important difference between the two. Whereas pre-determiner bare heel forces an exhaustive partitioning of the whole into all of its relevant subparts, no such partitioning is necessarily implied by post-determiner heel (though a partitioning reading seems compatible with post-determiner heel in
many cases). As a consequence, some of the semantic anomalies that we found with bare *heel* dissolve when pre-determiner bare *heel* is replaced by post-determiner inflectible *heel*. We illustrate this in the examples below, referring the reader back to the more detailed discussion in Section 7.2.1.

Consider the examples in (187). What (187a) means is that the entire house has been cleaned *from top to bottom*, not necessarily that all the individual rooms of the house have been cleaned. As a reflex of this, the cleaning in (187a) need not be directed towards the interior of the house but can also involve the exterior of the house, which would be distinctly odd in the case of *Heel het huis is schoongemaakt* ‘All the house has been cleaned’ in (169). Similarly, the noun phrases in (187b&c) simply refer to the entire motorboat/house, and, as a result, these examples are perfectly acceptable in contrast to those in (170), where reference is made to all the relevant subparts of the motorboat/house.

(187)  

a.  Het hele huis is schoongemaakt.  
   the whole house is clean.made  

b.  De hele motorboot gaat heen en weer.  
   the whole motorboat goes to and fro (= is rocking)  

c.  Het hele huis is bedolven onder de modder.  
   the whole house is buried under the mud

The examples in (167) in Section 7.2.1 have shown that pre-determiner *heel*, as a consequence of the unit feature of its semantics, bars the noun phrases which it quantifies from occurring in distributive contexts. Post-determiner *heel* does not turn out to be sensitive to this distributivity effect: the examples in (188) are perfectly acceptable due to the fact that *heel* simply expresses that the predicate affects the referent of the noun phrase in its entirety.

(188)  

a.  Ik heb de hele film mijn volle aandacht gegeven.  
   I have the whole movie my full attention given  
   ‘I gave the entire movie my full attention.’  

b.  Ik heb aandachtig naar de hele film zitten kijken.  
   I have attentively to the whole movie sit look  
   ‘I watched the entire movie attentively.’

The examples in (171) have shown that modifiers expressing an exception give rise to a marked result in noun phrases featuring pre-determiner bare *heel*. Again, we find that post-determiner *heel* behaves differently: the sentences in (189a&b) are perfectly acceptable with the “except”-clause present. This will be clear from the fact that a Google search on the strings *[heel de serie behalve]* and *[de hele serie behalve]* performed in July 2008 resulted in, respectively, 1 and 18 hits.

(189)  

a.  Het hele kantoorgebouw (behalve de begane grond) is verhuurd.  
   the whole office block except the ground floor is rented.out  

b.  De hele Veiligheidsraad (behalve China) stemde voor de resolutie.  
   the whole Security Council except China voted for the resolution  

c.  Ik heb de hele serie (behalve deel 28).  
   I have the whole series except volume 28
Since post-determiner *heel* and *half* do not force a partitioning of the object denoted by the noun they combine with, the friction between “totally affecting” predicates and the pre-determiner *half* in (173) is lacking in the case of post-determiner *half* in (190). The examples in (190) simply contend that the predicate expressed by the verb phrase holds for, respectively, a hundred or fifty per cent of the island/village.

(190) a. Het hele/halve eiland lag bezaaid met bloemen.  
the whole/half island lay BE-seeded with flowers  
b. Het hele/halve dorp werd leeggeroofd.  
the whole/half village was robbed.empty

II. Degree

The quantificational interpretations in which *heel* means “total” and *half* means “fifty per cent of” compete with an alternative reading of these sentences in which *heel* and *half* express degree. This reading is discussed in this subsection.

A. Metaphor (high/moderate degree)

The modifiers *heel* and *half* in the examples of the type in (191) typically contribute the semantics of “(moderately) high degree”; the examples receive an interpretation according to which the verbal proposition is predicated to a substantial degree of the noun phrase containing *heel/half*. Metaphorical examples of the type in (191) are particularly common in the context of (more or less fixed expressions of) exaggeration. Although the degree modifiers *heel* and *half* are equally possible in (191), the two differ in that the degree to which the verbal proposition holds is understood to be stronger when *heel* is used than when *half* is used. This difference is not very robust, though.

(191) a. Komt er ineens een hele/halve volksverhuizing op me af!  
comes there suddenly a whole/half mass migration at me prt.  
‘All of a sudden a load of people comes running towards me!’  
b. Hij kreeg een hele/halve zondvloed op z’n dak.  
he got a whole/half deluge on his roof  
‘He got drenched.’

The degree reading is also obtainable in the examples in (190), repeated here as (192). In these examples, however, this is easiest with the modifier *halve*, which on its degree reading expresses that there were quite a lot of flowers spread out across the island, and that quite a few objects in the village were stolen in the robbery. Degree readings of this type with *heel* are only readily available in metaphorical cases like the ones in (191); in examples like (192) they seem harder to get.

(192) a. Het hele/halve eiland lag bezaaid met bloemen.  
the whole/half island lay BE-seeded with flowers  
b. Het hele/halve dorp werd leeggeroofd.  
the whole/half village was robbed.empty

Noun phrases containing the degree modifiers *heel/half* require that main accent be on the noun: *een hele/halve VOLKSVERHUIZING* in (191a) and *het halve DORP* in (192b). Noun phrases containing the quantifiers *heel/half* meaning “100/50%”, on
the other hand, require that main accent be placed on the quantifier: (190b) will be realized as _het HALve dorp._

**B. The “quite” degree reading**

In sentences of the type in (193), the semantics of inflectible _heel_ is also one of degree modification, which is best rendered by means of English _quite_. In contrast to the metaphorical high degree cases in (191), inflectible _heel_ in (193) does not alternate with _half_, but with adjectival “intensifiers like _behoorlijk_, _flink_ ‘quite’, generally with little or no difference in meaning.

193
   a. Dat is een _heel/behoorlijk_ gedoe.
      that is a whole/quite hassle
      ‘That is quite a hassle.’
   b. Dat is een _hele/behoorlijke_ toer/toestand.
      that is a whole/quite tour de force/situation
      ‘That is quite a tour de force.’
   c. Ze maakten een _hele/flinke_ scène.
      they made a whole/quite scene
      ‘They made quite a scene.’
   d. Dat was een _hele/flinke_ opluchting.
      that was a whole/quite relief
      ‘That was quite a relief.’

The “quite” degree reading is impossible to obtain in definite noun phrases; examples like (194a) are only acceptable on the totality interpretation of _heel_. But indefinite noun phrases with determiners other than the article _een_ do not allow the “quite” degree reading either, as shown by the unacceptability of (194b&c). We therefore conclude that the “quite” degree reading of inflectible _heel_ is contingent on the presence of the indefinite article _een_.

194
   a. #Ik ben _het/dat/dit_ (hele) gedoe moe.
      I am the/that/this whole hassle weary
      ‘I am weary of the/that/this whole hassle.’
   b. Dat is zo’n (*heel) gedoe.
      that is so a whole hassle
   c. Dat is _van dat_ (*hele) gedoe.
      that is such whole hassle

Finally, note that inflectible _heel_ may also modify the pronoun _wat_ in (195a). Example (195b) shows that in this case _heel_ also alternates with adjectival intensifiers like _behoorlijk_ and _flink_ ‘quite’. However, as is indicated by the English translations, one of the possible interpretations of _heel wat_ is lacking in the constructions with adjectival intensifiers.

195
   a. Dat is _heel_ wat.
      that is quite what
      ‘That is quite something/a lot.’
   b. Dat is _behoorlijk/flink_ wat.
      that is quite what
      ‘That is quite a lot.’
C. Binominal constructions: alternation between high and “quite” degree

The interpretation of *heel* in binominal noun phrases of the type in (196) is varied, in a rather subtle way. Three interpretations are available for examples of this type. The high and “quite” degree interpretations of *heel* arise when the noun *verzameling/lading* is quantificational, whereas the adjectival meaning “complete” requires that the noun *verzameling/lading* is referential, that is, assigned its literal meaning “collection/load”; see Section 7.2.1.2.1 for discussion.

(196) a. Ik heb een hele verzameling boeken gekocht.
    I have a whole collection books bought

b. Ik heb een hele lading boeken gekocht.
    I have a whole load books bought

Example (197) aims at bringing out the prosodic differences between the three interpretations of *heel*. The representations show that the two types of degree reading with the quantificational construal of *verzameling* require a single stress peak on the noun *verzameling*. The high degree reading “a very large amount/number” in (197a) furthermore requires lengthening of the vowel, and the “quite” degree reading “quite a few” in (197b) requires an additional stress peak on the degree modifier *heel*. On the referential reading of *verzameling*, which can be easily be distinguished from the other uses by adding, e.g., a possessive pronoun, the adjective *heel* receives main stress.

(197) a. een hele verZA—mel ing boeken                      [high degree]
    b. een HEle verZAm el ing boeken                      [“quite” degree]
    c. een/zijn HEle verzameling boeken                 [purely adjectival: “complete”]

Note that the properties of the high degree reading of inflectible *heel* in (197a) are also salient in metaphorical “high degree” examples like those in (191): *Hele geneRA—ties hebben dit lied meegezongen* ‘Whole generations have sung along with this song’. Note further that the prosodic properties of the constructions in (197b&c) are preserved when we replace *heel* by, respectively, a degree modifier like *behoorlijk* or an adjective like *volledig* ‘complete’, but there is nothing that can replace *heel* on its high degree reading with preservation of the intonation contour in (197a).

Examples of the type in (196) can be pluralized, but this seems to result in the loss of two of the readings: it is only the high degree interpretation that seems to survive in (198), which is also clear from the fact that the typical intonational pattern for sentences of this type involves main accent on the noun: the stressed vowels of *verzamelingen* and *ladingen* receives a prolonged duration. That the adjectival interpretation for *heel* in (198) is hard to get is also clear from the fact that addition of, e.g., a possessive pronoun to *hele verzamelingen* is pragmatically odd: #Ik heb mijn hele verzamelingen verkocht ‘I sold my whole collections’.

(198) a. Ik heb hele verZA—mel ing boeken verkocht.
    I have whole collections books sold

b. Ik heb hele LA—dingen boeken verkocht.
    I have whole loads books sold
The core lexical semantics of *heel*, viz. totality, may not be entirely absent in these “high degree” examples, as is suggested by the fact that *heel* can be rendered in English with “whole” or “entire”. For the “quite” degree reading of *heel*, on the other hand, no translation with English *whole* or *entire* is possible in the general case; cf. example (193). This interpretation of *heel* hence seems far removed from the core quantificational semantics of this element.

**D. Adverbial *heel* and degree readings**

As is illustrated in (199), a degree interpretation is also possible in the case of adverbial *heel*, that is, in cases where *heel* modifies an attributive or a predicative adjective; cf. Section A3.1.2. Whether *heel* receives a high or a “quite” degree reading seems to depend on the nature of the adjective with which it is construed. Note that *heel* cannot be replaced with *half* in (199); degree modification of adjectives by *half* is possible only if *half* and the adjective form a compound (cf. *halfzachte/*halve zachte drop ‘half-soft licorice’) and this is not possible with the adjectives in (199).

(199)  

<table>
<thead>
<tr>
<th>Example</th>
<th>Translation</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Dat is een heel/hele goede prestatie.</td>
<td>that is a very smart accomplishment</td>
<td>[high degree]</td>
</tr>
<tr>
<td>b. Dat is een heel/hele redelijke prestatie.</td>
<td>that is a quite reasonable accomplishment</td>
<td>[“quite” degree]</td>
</tr>
</tbody>
</table>

We want to stress that the degree readings of *heel* are not contingent on its construal as an adverb. That *heel* is not an adverb in the examples discussed up to (198) is evident from the fact illustrated in (200) that it must inflect in accordance with the gender and number features of the head noun, whereas schwa-inflection is always optional with the adverbial phrases in (199).

(200)  

<table>
<thead>
<tr>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dat is een hele/*heel prestatie.</td>
<td>that is a whole accomplishment</td>
</tr>
<tr>
<td>‘That is quite an accomplishment.’</td>
<td></td>
</tr>
</tbody>
</table>

**E. Degree modification of predicative noun phrases**

At the end of this discussion of the degree readings of *heel*, we address some additional types of examples classifiable under the “degree” header that involve predicatively used noun phrases. We start with “quite” degree readings in clauses containing *al* ‘already’ and *nog (best)* ‘actually’. Consider the examples in (201), which differ from the examples discussed so far in that the adverb *al* ‘already’ must be present.

(201)  

<table>
<thead>
<tr>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Jij bent ??(al) een hele vent/heer/bink!</td>
<td>you are already a whole guy/gentleman/tough.guy</td>
</tr>
<tr>
<td>‘You’re quite a guy/gentleman/tough guy already!’</td>
<td></td>
</tr>
<tr>
<td>b. Jij bent ??(al) een hele meid/dame!</td>
<td>you are already a whole girl/lady</td>
</tr>
<tr>
<td>‘You’re quite a girl/lady already!’</td>
<td></td>
</tr>
<tr>
<td>c. Jij bent ??(al) een hele computerexpert!</td>
<td>you are already a whole computer.expert</td>
</tr>
<tr>
<td>‘You are quite a computer expert already!’</td>
<td></td>
</tr>
</tbody>
</table>
Examples like (201a&b) are typically addressed to little boys or girls who are assumed to take pride in looking older and wiser; the “quite” degree resides in the extent to which adulthood has already been “reached” or mimicked by the child in question. Especially in mildly ironic contexts, this type can also be used with nouns other than the ones illustrated in (201a&b), as shown by a sentence like (201c).

Since sentences of the type in (201) are typically used as statements directed towards an addressee (little children in particular), they usually have second person pronouns as their subjects. They are most common as exclamations (as will be clear from the punctuation used), but constructions of a similar type are also found in (tagged) rhetorical questions. An example is given in (202); notice that in this context the adverb *al*, which is required in (201), is typically absent.

(202)    Jij   vindt  jezelf   zeker ("al)     een hele vent, hè?
           you find yourself sure already a whole guy right
‘You think you’re quite a guy, don’t you?’

In (203) we find a dependency between *heel* qua degree item and the adverbial *nog* ‘still/yet’ similar to the kind found in (201) between the *heel* degree phrases and the adverb *al* ‘already’. *Nog* is often preceded or followed by the form *best*, which is difficult to render in English; the closest English paraphrase is probably something like “actually”. The two word orders seem semantically equivalent.

(203)  a.  Dat  is <best>  nog <best>  een heel karwei.
           that  is   BEST still        a whole job
‘That’s (actually) quite a job.’

b.  Dat  was <best>  nog <best>  een hele wandeling.
           that  was   BEST still        a whole walk
‘That was (actually) quite a walk.’

c.  Dat  was <best>  nog <best>  een heel gedoe.
           that  was   BEST still        a whole hassle
‘That was (actually) quite a hassle.’

One may wonder what the structural position is of the adverbial elements found in (201) and (203). To investigate this question, we will consider the topicalization constructions in (204). It must be noted, however, that judgments for these examples are difficult and will probably vary among speakers. As the primeless examples in (204) show, it seems difficult to leave the adverbs *al* and *nog best/best nog* behind under topicalization of the *heel* phrases, which may indicate that they are subparts of the *heel* noun phrases.

(204) a.  ??Een hele vent  ben  jij   al!
           a whole guy  are  you  already
b.  *Een heel karwei  is dat  nog best!
           a whole job  is that   still best

c.  ??Een heel karwei  is dat  best nog!
           a whole job  is that  best still

The observed degradation induced by stranding of these adverbs might be taken to shed light on the dependency relation observed between *heel* and these adverbs in
the examples under discussion. However, it should be pointed out that topicalization of the heel phrases together with the adverbs al and (part of) nog best/best nog does not yield a very felicitous result either.

(205) a. ??Al een hele vent ben jij!
b. ??Best een heel karwei is dat nog!
c. *?Nog een heel karwei is dat best!
c′. ??Best nog een heel karwei is dat!

An alternative approach would be to assume that al and nog best/best nog are independent constituents, which would account for the degraded status of the pied piping cases in (205), and to say that the dependency of heel on the adverbs al and nog best/best nog is similar to that between negative polarity items and their licensors; the deviance of stranding al and nog best/best nog in (204) might then follow from the fact that the topicalized heel phrase is outside the licensing domain of the adverb. We leave it to future research to decide whether this suggestion holds water.

The set of examples in (206) are syntactically similar to those in (201), and partially overlaps in the lexical nouns heading the heel phrases (vent, heer, dame), but they differ in that in (206) no adverb like al is found. Furthermore, the degree reading introduced by heel is that of high degree, which is directed towards the implicit qualities of the head noun; een hele vent/kerel predicates a high degree of excellence of the subject. Note that, although vent and kerel often carry negative evaluative connotations, in the context in (206 a) they are used to give expression to a highly positive quality.

(206) a. Hij is een hele vent/kerel/heer.
   he  is a whole guy/fellow/gentleman
   ‘He is an excellent man/a man of status, social significance.’
b. Zij is een hele dame.
   she is a whole lady
   ‘She is a real lady.’

Finally note that the connotation of excellence, implicit in the nouns used in the examples in (206), is apparently lacking in others: examples like ??Hij is een hele jongen/man/vrouw ‘a whole boy/man/woman’ do not yield the qualitative high degree interpretation of the examples in (206).

III. Negative polarity

The negative polarity reading of inflectible heel is comparable to that of English at all, with the added semantic aspect of condescension; cf. Section 7.2.1.1, sub II. This function of heel is fairly widespread, and some illustrations of it are given in (207). The head noun of the construction can be either a common noun or a proper noun, as in, respectively, (207a-c) and (207d).
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(207) a. Ik had het hele mens niet gezien.
I had the whole person not seen
‘I didn’t even see the person/woman at all.’

b. Ik zou die hele jongen nog niet eens een hand willen geven.
I would that whole boy yet not even a hand want give
‘I wouldn’t even want to shake hands with that boy.’

c. Ik had in geen jaren meer over dat hele idee nagedacht.
I had in no years anymore about that whole idea thought
‘I hadn’t thought about that idea in years.’

d. Ik was die hele Bert Mulder al lang weer vergeten.
I was that whole Bert Mulder already long again forgotten
‘I had long forgotten about this Bert Mulder.’

A. D-linking

Negative polar heel phrases in (207) are typically D-linked, that is, they cannot be uttered out of the blue, but must refer to some active discourse topic. Example (207a), for instance, would be typically used in a context like (208).

(208) Mijn buurvrouw was erg beledigd omdat ik haar niet gegroet had,
my neighbor was very offended because I her not greeted had
maar ik had het hele mens niet gezien.
but I had the whole person not seen
‘My neighbor was very offended because I didn’t greet her, but I hadn’t seen the woman at all.’

That D-linking is required is also suggested by the fact illustrated by (216) that, unlike definite noun phrases, negative polar heel phrases obligatorily scramble across adverbial phrases like nog nooit; see Section 8.1.3 for a discussion of the restrictions on scrambling.

(209) a. Ik heb <mijn buurvrouw> nog nooit <mijn buurvrouw> gezien.
I have my neighbor yet never seen
‘I have never seen my neighbor so far.’

b. Ik had <het hele mens> nog nooit <*het hele mens> gezien.
I had the whole person yet not seen
‘I didn’t ever see the person/woman at all so far.’

B. The licensing of negative polar heel

The fact that (207d) is grammatical raises a question concerning the licensing of negative polar heel. When we restrict ourselves to negative contexts, run-of-the-mill negative polarity items like ook maar iemand ‘anyone’ are normally licensed by means of a syntactically expressed negation: this negation can be expressed on some other c-commanding argument in the sentence, as illustrated in (210a&a’), or by the negative adverb niet provided that it is part of some higher clause, as is illustrated by the contrast between (210b) and (210b’).
(210) a. Niemand heeft ook maar iemand gezien.
   nobody is OOK MAAR someone seen
   ‘Nobody has seen anybody.’
   a’. Niemand denkt dat Peter ook maar iemand gezien heeft.
   nobody thinks that Peter OOK MAAR someone seen has
   ‘Nobody thinks that Peter has seen anybody.’
   b. *Peter heeft <niet> ook maar iemand <niet> gezien.
   Peter has not OOK MAAR someone seen
   b’. Ik denk niet dat Peter ook maar iemand gezien heeft.
   I think not that Peter OOK MAAR someone seen has
   ‘I do not think that Peter has seen anybody.’

When we compare the primeless examples of (210) to those in (211), we see
that the pattern with negative polar heel is in fact the reverse: polar heel can be
licensed by the negative adverb niet, but not by a c-commanding argument.
Negative polar heel also behaves differently when it comes to licensing by negation
in some higher clause: the counterparts of the primed examples in (210) with
negative polar heel are unacceptable.

(211) a. *?Niemand heeft het hele mens gezien.
    nobody has the whole person seen
    a’. *Niemand denkt dat Peter het hele mens gezien heeft.
    nobody thinks that Peter the whole person seen has
    b. Peter heeft het hele mens niet gezien.
    Peter has the whole person not seen
    b’. *Ik denk niet dat Peter het hele mens gezien heeft.
    I think not that Peter the whole person seen has
    ‘I do not think that the person/woman has seen Peter.’

In the primed examples in (210) and (211) the polarity items function as objects, but
we find the same contrast when the polarity items function as a subject. This is
shown in (212) by means of examples in which negation is expressed by the
negative adverb niet, but similar judgments are obtained when we use examples
with the negative phrase niemand ‘nobody’ as the subject of the matrix clause.

(212) a. Ik denk niet dat ook maar iemand Peter gezien heeft.
    I think not that OOK MAAR someone Peter seen has
    ‘I do not think that anybody has seen Peter.’
    b. *Ik denk niet dat het hele mens Peter gezien heeft.
    I think not that the whole person Peter seen has
    ‘I do not think that the person/woman has seen Peter.’

Note, however, that it has been claimed that examples like (212b) improve when the
embedded clause contains another polarity item, as shown in (213); in other words,
the negative polar phrase het hele mens is licensed by the negative polarity items
ooit ‘ever’ and ook maar iemand ‘anybody’ in, respectively, (213a) and (213b),
which are licensed in turn by the negation in the matrix clause. Note that the use of
the percentage mark indicates that some speakers do not readily accept examples of
this sort (which may simply be due to the complexity of the examples).
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(213) a. %Ik denk niet dat het hele mens Peter ooit gezien heeft.
    I think not that the whole person Peter ever seen has
    ‘I do not think that the person/woman has ever seen Peter.’
b. %Ik denk niet dat het hele mens ook maar iemand gezien heeft.
    I think not that the whole person OOK MAAR someone seen has
    ‘I do not think that the person/woman has seen anybody.’

The contrast between example (213b) above and (214a) below shows that the phrase *het hele mens* must c-command the negative polarity item that licenses it. Example (214b) shows something similar for a negative polar *heel* phrase that functions as a direct object. In the latter case, this c-command restriction may of course follow from the D-linking requirement, which forces scrambling, but this requirement has nothing to say about the contrast between (213b) and (214a); cf. Section 7.2.1.2.2, sub III. We refer the reader to Den Dikken (2002) and Hoeksema (2007) for a more detailed discussion and alternative approaches to this c-command restriction.

(214) a. *Ik denk niet dat ook maar iemand het hele mens gezien heeft.
    I think not that OOK MAAR someone the whole person seen has
    ‘I do not think that anybody has seen the person/woman.’
b. Ik *denk* niet dat ik < %het hele mens> ooit <*het hele mens> gezien heb.
    I think not that I the whole person ever seen has

A final difference between the licensing restrictions on ordinary negative polarity items and negative polar *heel* is that the latter can be licensed by implicitly negative verbs like *vergeten* ‘to forget/to not know anymore’, whereas the former cannot (although there are more negative polarity items that resemble *heel* in this respect; cf. Klooster 1993).

(215) a. *Ik was ook maar iemand vergeten.
    I was OOK MAAR someone forgotten
b. Ik was die hele Bert Mulder allang weer vergeten.
    I was that whole Bert Mulder already.long again forgotten
    ‘I had long forgotten about this Bert Mulder.’

Note that the relevance of implicit negation for licensing can also be seen by comparing the examples in (216): while the verb *passeren* ‘to pass’ plausibly features implicit negation in its lexical semantics (“to not be behind anymore”), this is certainly not the case with the verbs in (216b).

(216) a. Ik was die hele Bert Mulder allang gepasseerd/voorbijgereden.
    I was that whole Bert Mulder already.long passed/driven.past
    ‘I had long passed this Bert Mulder.’
b. *Ik had die hele Bert Mulder allang gezien/ontmoet/begroet.
    I had that whole Bert Mulder already.long seen/met/greeted

Now that we have discussed the differences between run-of-the-mill negative polarity items like *ook maar iemand* ‘anybody’ and negative polar *heel* phrases, we can discuss the syntactic functions the latter can perform. In (207a&b), negative polar
heel phrases are used, respectively, as a direct and an indirect object, and in (207c) one is used as the complement of a preposition. Under certain conditions, negative polar heel phrases may also occur as a subject. We illustrate this in (217) by means of a proper noun, which cannot be combined with heel on any of its other uses.

\[(217)\quad (^{c})\text{Die hele Bert Mulder was door iedereen allang weer vergeten.} \]
\[\quad \text{that whole Bert Mulder was by everyone already long again forgotten} \]

Example (217) is the passive counterpart of (207d/210), so we may conclude that a °DO-subject behaves more or less on a par with the direct object (the passive construction is perhaps slightly marked, but certainly acceptable). This leads us to expect that the subjects of °unaccusative verbs can also appear as a negative polar heel phrase. This expectation is indeed borne out, as is shown in (218) for the unaccusative verb vertrekken ‘to leave’ and the NOM-DAT verb bekoren ‘to please’.

\[(218)\quad a.\quad (^{c})\text{Gisteren was die hele Bert Mulder nog niet eens vertrokken.} \]
\[\quad \text{yesterday was that whole Bert Mulder yet not even left} \]
\[\quad \text{‘Yesterday, this whole Bert Mulder had not even left.’} \]
\[\quad b.\quad (^{c})\text{Dat hele Macbeth kan me echt niet bekoren.} \]
\[\quad \text{that whole Macbeth can me really not please} \]
\[\quad \text{‘This Macbeth cannot please me.’} \]

However, when we are dealing with an underlying subject, as in (219), the result is clearly ungrammatical (the only exception being cases such as given in (213), in which negative polar heel is licensed by another negative polarity item).

\[(219)\quad *\text{Die hele Bert Mulder was zijn wachtwoord vergeten.} \]
\[\quad \text{that whole Bert Mulder was his password forgotten} \]

From the assumption that heel is a negative polarity item, the ungrammaticality of (219) follows straightforwardly: negative polarity items never occur as underlying subjects of main clauses. However, the acceptability of (217) and (218) shows again that the licensing conditions on negative polar heel phrases are different from those on negative polarity items like ook maar iemand ‘anyone’; in main clauses, the latter can never be used as the subject of passive constructions or of unaccusative verbs.

C. The determiner preceding negative polar heel

An important interpretative property of the negative polar heel construction is that of condescension; Bert Mulder, for example, is clearly not held in great esteem by the speaker of (207d). Consistent with this is the fact that these constructions are typically used in combination with the distal demonstratives die/dat, which can themselves be used to express a negative evaluation on the part of the speaker; cf. Section 5.2.3.2.2, sub IV. More examples are given in (220a). The proximate demonstratives deze/dit, on the other hand, typically give rise to an awkward result in this context, and are altogether ruled out when the head noun is a proper noun, as is shown in (220b). Note, however, that (220c) shows that the negative polar heel construction is possible with the definite article, provided that the head noun is inherently evaluative.
(220) a. Ik ken dat hele mens/wijf/vrouwtje/meisje/Marietje niet.  
I know that whole woman/bitch/little.lady/girl/Marietje not  
b. Ik ken dit hele ‘mens/wijf/vrouwtje/meisje/Marietje niet.  
I know this whole woman/bitch/little.lady/girl/Marietje not  
c. Ik ken het hele mens/wijf/vrouwtje/meisje/Marietje niet.  
I know the whole woman/bitch/little.lady/girl/Marietje not

The examples in (221) show that use of the indefinite article *een* ‘a’ also leads to ungrammaticality. The unacceptability of these examples need not be related to the presence of negative polar *heel*, however, given that the direct object has been scrambled to the left of negation and we know independently that scrambling of nonspecific, indefinite noun phrases is impossible, as will also be clear from the fact that the examples in (221) are equally unacceptable without *heel*; cf. Section 8.1.3.

(221) a. *Ik had een (heel) mens niet gezien.  
I had a whole person not seen  
b. *Ik ken een (hele) vent niet.  
I know a whole guy not

To control for the scrambling effect with preservation of the licensing environment for the negative polar *heel*, the direct object would have to follow *niet*. However, as is discussed in Section 5.1.5, linear sequences of sentential *niet* and the indefinite article *een* are typically avoided, the determiner *geen* ‘no’ being used instead, as in (222). These examples, to the extent that they are acceptable in any context at all, certainly lack the specialized semantics of *heel* that we saw in the examples in (207).

(222) a. *Ik had geen heel mens gezien.  
I had no whole person seen  
b. *Ik ken geen hele vent.  
I know no whole guy

We may conclude from this that negative polar *heel* cannot be used in indefinite noun phrases headed by the articles *een* and *geen*, but it is still not clear whether this is due to a co-occurrence restriction between these determiners and negative polar *heel*, or to some other reason: we have already seen that the unacceptability of the examples in (221) is probably due to the ban on scrambling of nonspecific, indefinite noun phrases, and the unacceptability of the examples in (222) may be due to the restriction, discussed in the previous subsection, that negative polar *heel* phrases c-command their licenser. That we are dealing with a co-occurrence restriction is, however, suggested by the fact that negative polar *heel* is also blocked in indefinite phrases with the determiner *zo’n* ‘such a’: the examples in (223) show that such phrases may be scrambled, whereas negative polar *heel* is excluded in both the base and the derived position of such phrases.

(223) a. *Ik had <zo’n mens> nog nooit eerder <zo’n mens> gezien.  
I have never seen such a person before  
   ‘I have never seen such a person before.’  
a’. *Ik had <zo’n heel mens> nog nooit <zo’n heel mens> gezien.
b. dat ik <zo’n vent> nog nooit eerder <zo’n hele vent> ontmoet heb.

that I such a guy yet never before met have

‘that I have never met such a guy before.’

b’. *dat ik <zo’n hele vent> nog nooit <zo’n hele vent> ontmoet heb.

The primeless examples in (224), finally, show that combining the negative polarity use of *heel with prenominal possessors gives rise to a marked result; grammatical possessive examples can be obtained by placing the possessor in postnominal position, as in the primed examples.

(224)  a. ??Ik had zijn hele auto niet gezien.

I had his whole car not seen

a’. Ik had die hele auto van ’m niet gezien.

I had that whole car of him not seen

b. ??Ik ken zijn hele vader niet.

I know his whole father not

b’. Ik ken die hele vader van ’m niet.

I know that whole father of him not

D. Comparing negative polar and quantificational heel

This section investigates whether the notion of totality, that is, the core meaning of post-determiner *heel, is also relevant for the use of *heel as a negative polar element; cf. the Woordenboek der Nederlandsche Taal, lemma *heel, for an earlier discussion of this possibility. If so, examples of the type in (207) can be taken to express that the speaker’s unfamiliarity with, indifference towards, or negative judgment about the entity denoted by the *heel phrase extends to the entire entity, nothing being exempted. What may plead for such an approach is that negative polar *heel cannot be combined with quantificational (pre- or post-determiner) *heel. Consider the examples in (225), which are ambiguous between a quantificational and a negative polar interpretation of *heel: on the latter reading *niet is required, whereas on the former reading it is omissible (structurally speaking).

(225)  a. Ik ken heel die geschiedenis niet.

I know all that history not

b. Ik ken die hele geschiedenis niet.

I know that whole history not

When we now turn to the examples in (226) we see that the forms of *heel found in (225) cannot be combined with negative polarity item *heel into a single noun phrase. For the negative polarity readings of *heel in (225) this is of course straightforward, but on a quantificational interpretation of pre-determiner *heel in (226a) and one of the two tokens of *heel in (226b) it is not immediately obvious why these examples should be ill-formed. However, when we also treat negative polarity *heel as a quantificational element, this may provide an explanation for the deviance of (226) given that double quantification is normally excluded.
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(226) a. *Ik ken heel die hele geschiedenis niet.
I know all that whole history not
b. *Ik ken die hele hele geschiedenis niet.
I know that whole whole history not

There is a reason, however, that the semantics of totality associated with negative polar heel should be attributed to the verb phrase containing the heel phrase, and not to the noun phrase. Heel, though syntactically construed with the noun phrase that contains it, seems semantically construed with the verb phrase, and teams up with the negation to express the notion of totality. This is clear from the fact that the function of heel in (227a) is more or less equivalent to that of the adverb helemaal in (227b). In other words, negative polar heel may °scope out of its noun phrase in a way similar to the determiner geen; cf. Section 5.1.5.1.1, sub I.

(227) a. Ik ken die hele vent niet.
I know that whole guy not
b. Ik ken die vent helemaal niet.
I know that guy at all not

The particular form of helemaal used in (227b) is the one that bears no accent. There is an alternative form helemáál, with accent on the second syllable, which means “absolutely” (and alternates with volstrek, absoluut ‘absolutely’), and it is interesting to note that it is only this form that can co-occur with negative polar heel; the unstressed form helemaal is incompatible with heel in its intended sense.

(228) Ik ken die hele vent helemáál/*helemaal niet.
I know that whole guy absolutely/at all not

The complementary distribution of negative polar heel and unstressed helemaal confirms their parallel functions, and supports our earlier conclusion that heel found in examples like (227a) and (228) is interpreted as a modifier of the VP in the sense that it has scope over the VP rather than over the noun phrase that includes it. It is therefore not evident whether the notion of totality is related to negative polar heel itself or is of a more compositional nature.

7.2.2. Distribution of heel and its alternants inside the noun phrase

This section discusses the noun-phrase internal syntactic distribution of heel. We start with an investigation of the properties of the bare form heel preceding determiners in Section 7.2.2.1, which is followed by a discussion of post-determiner inflectible heel in Section 7.2.2.2. Section 7.2.2.3 concludes with a brief comparison between heel and its variant geheel prefixed by ge-. Quantificational heel sometimes alternates with the form gans, but this will not be discussed here since it is an archaic form, not found in the present-day vernacular. It is essentially obsolete, living on in the frozen phrase van ganser harte ‘wholeheartedly’ (where it, in fact, does not alternate with heel).
7.2.2.1. Pre-determiner bare heel

This section presents a survey of the distribution of pre-determiner bare *heel* inside the noun phrase. We first discuss in Subsection I the noun phrase types that may contain this pre-determiner. This is followed in Subsection II by a discussion of the restrictions *heel* imposes on other elements within the noun phrase.

I. Bare heel and noun phrase types

Pre-determiner bare *heel* occurs in singular neuter and non-neuter, but not in plural count noun phrases. When we compare the distribution of bare *heel*, shown in Table 10, to that of bare *al*, given in Table 1 in Section 7.1.2.1, we observe that the two are each other’s opposites in this respect.

*Table 10: Bare *heel* in noun phrases headed by a count noun*

<table>
<thead>
<tr>
<th></th>
<th>SINGULAR [±NEUTER]</th>
<th>PLURAL [±NEUTER]</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFINITE ARTICLES</td>
<td><em>heel de stad/het huis</em></td>
<td><em>heel de steden/huizen</em></td>
</tr>
<tr>
<td></td>
<td>all the town/the house</td>
<td>all the towns/houses</td>
</tr>
<tr>
<td>DEMONSTRATIVE PRONOUNS</td>
<td>1*/heel die stad/dat huis*</td>
<td>1*/heel die steden/huizen*</td>
</tr>
<tr>
<td></td>
<td>all that town/that house</td>
<td>all those towns/houses</td>
</tr>
<tr>
<td></td>
<td>1*/heel deze stad/dit huis*</td>
<td>1*/heel deze steden/huizen*</td>
</tr>
<tr>
<td></td>
<td>all this town/this house</td>
<td>all these towns/houses</td>
</tr>
<tr>
<td>POSSESSIVE PRONOUNS</td>
<td><em>heel mijn stad/huis</em></td>
<td><em>heel mijn steden/huizen</em></td>
</tr>
<tr>
<td></td>
<td>all my town/house</td>
<td>all my towns/houses</td>
</tr>
</tbody>
</table>

Systematic exceptions to the ban on pre-determiner *heel* construed with plural noun phrases are formed by pluralia tantum and formal plurals that denote a conventionally fixed unit; cf. the examples in (229), two of which were given earlier as (168b&c) in Section 7.2.1.1. Despite the fact that the plurals in (229) behave syntactically like regular plurals (they trigger plural finite verb agreement, for example), they are compatible with pre-determiner bare *heel* because they denote single structured units, which are moreover exhaustively partitionable; cf. the discussion of the core meaning of bare *heel* in Section 7.2.1.1, sub I.

(229) a. Heel de hersenen zijn aangetast door de tumor.
    all the brains are affected by the tumor
b. El Niño heeft het klimaat in heel de tropen aangetast.
    El Niño has the climate in all the tropics affected
c. Ik heb heel de Verenigde Staten doorgereisd.
    I have all the United States traveled through
d. Hij is de bekendste politicus van heel de Antillen.
    he is the best-known politician of all the Antilles

To a certain extent, the complementary distribution of *heel* and *al* also holds for their distribution in noun phrases headed by a non-count noun, as will become clear by comparing Table 11 with Table 2 in Section 7.1.2.1.
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Table 11: Bare heel in noun phrases headed by a non-count noun

<table>
<thead>
<tr>
<th></th>
<th>SUBSTANCE NOUNS [±NEUTER]</th>
<th>MASS NOUNS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFINITE ARTICLES</td>
<td>*heel de wijn/het water</td>
<td>&quot;heel het vee</td>
</tr>
<tr>
<td></td>
<td>all the wine/the water</td>
<td>all the cattle</td>
</tr>
<tr>
<td>DEMONSTRATIVE PRONOUNS</td>
<td>*heel die wijn/dat water</td>
<td>&quot;heel dat vee</td>
</tr>
<tr>
<td></td>
<td>all that wine/that water</td>
<td>all that cattle</td>
</tr>
<tr>
<td></td>
<td>*heel deze wijn/dit water</td>
<td>&quot;heel dit vee</td>
</tr>
<tr>
<td></td>
<td>all this wine/this water</td>
<td>all this cattle</td>
</tr>
<tr>
<td>POSSESSIVE PRONOUNS</td>
<td>*heel mijn wijn/water</td>
<td>&quot;heel mijn vee</td>
</tr>
<tr>
<td></td>
<td>all my wine/water</td>
<td>all my cattle</td>
</tr>
</tbody>
</table>

Table 11 shows that, unlike pre-determiner *al, heel normally cannot occur in noun phrases headed by substance nouns. Examples like *heel de wijn/het water become marginally acceptable, however, in contexts in which *wijn and water are conceived of as countable bodies/units of liquid. An example like (230a) is marginally acceptable with an interpretation of rode wijn as a fixed quantity of red wine, for example, a collection of bottles in the cellar. Similarly, example (230b), found on the internet, refers to a contextually determined body of water, which is apparently divided into a number of subparts, that each hosts a number of the people referred to by the pronoun we. The fact that the examples in (230) trigger an interpretation that involves structured units follows naturally from the semantic characterization of the quantificational semantics of pre-determiner bare *heal given in 7.2.1.1, sub I.

(230)  a. "?Heel de rode wijn is op.
       all the red wine is up
       ‘All the red wine is finished.’

       b. We vissen [...] verspreid over heel het water.
       we fish scattered over all the water
       ‘We are fishing scattered across the water.’

With noun phrases headed by a mass noun, the complementarity in distribution between *heal and *al also seems to hold; the examples in (231a&b) are at best marginally possible. In (231c), *al and *heal seem to be equally acceptable, although a Google search revealed that the string [al het verkeer] occurs more than a hundred times as often as the string [heel het verkeer].

(231)  a. Al/*"Heel het vee van boer Harms leed aan BSE.
       all the cattle of farmer Harms suffered from BSE

       b. Al/*"Heel het fruit in de krat was beschimmeld.
       all the fruit in the crate was moldy

       c. Al/Heel het verkeer stond vast.
       all the traffic stood fast
       ‘All the traffic was jammed.’

The complementary distribution between *heal and *al also seems to break down in noun phrases headed by abstract non-count nouns; both *al and *heal seem to be possible in this case, with *heal preceding noun phrases headed by a neuter noun being somewhat marked. As in the case of *al, the constructions in (232) seem to
prefer a postnominal modifier or relative clause to be present. There is essentially no difference in meaning between the constructions with *heel* and *al*; example (232a), for instance, is semantically near-equivalent to *al de ellende van de wereld*.

(232) a.  *heel de ellende *\(^2\)(van de wereld)
    all the misery of the world
    ‘all the misery in the world’
    b.  *heel het verdriet dat ik heb meegemaakt
    all the sorrow that I have prt.-made
    ‘all the sorrow that I have been through’

It must be noted, however, that the constructions with *al* are again much more frequent than those with *heel*, which is clear from a Google search performed in July 2008: the string [*al de ellende*] resulted in over 400 hits, whereas [*heel de ellende*] resulted in no more than 18 cases. The contrast was even bigger with [*al het verdriet*] and [*heel het verdriet*], which resulted in, respectively, 10,000 and 2 hits.

In the case of deverbal nouns, the complementarity in distribution again seems to break down. Table 12 shows that, although *heel* can at best marginally be combined with noun phrases headed by a nominal infinitive or GE-nominalization, *heel* can be combined with noun phrases headed by a bare stem; see Table 3 in Section 7.1.2.1 for the corresponding examples with *al*.

<table>
<thead>
<tr>
<th>Table 12: Bare <em>heel</em> in noun phrases headed by a deverbal noun</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BARE STEM</strong></td>
</tr>
<tr>
<td><strong>DEFINITE ARTICLES</strong></td>
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<tr>
<td><strong>DEMONSTRATIVE PRONOUNS</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>POSSESSIVE PRONOUNS</strong></td>
</tr>
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<td></td>
</tr>
</tbody>
</table>

It must be noted, that, just as in the cases with *al*, bare stems with *heel* only give rise to an acceptable result when they receive an eventive interpretation (and not when they have a result reading). Consider the contrast between the primeless and primed examples in (233).

(233) a.  *’heel de aankomst/aanvang*  [cf. *’al de aankomst/aanvang*]
    all the arrival/beginning
    a’. *heel de aankomst van Sinterklaas*
    all the arrival of Santa Claus
    b.  *’heel het begin/vertrek*  [cf. *’al het begin/vertrek*]
    all the beginning/departure
    b’. *heel het begin van de film*
    all the beginning of the movie
This contrast is one of result versus state-of-affairs nouns, that is, one of the absence or presence of temporal extension. While an arrival is normally conceived of as momentaneous or punctual, in a context like that given in (233a’) it is not: the arrival of Sinterklaas (a benefactor of children who, in accordance with the Dutch tradition, arrives by boat from Spain around a fortnight before his birthday on the 5th of December) is an event with significant temporal extension. Similarly, while a beginning of something is usually a momentary, point-like event on a temporal scale, the beginning of a movie (that is, the set of scenes which together constitute the opening of the movie) has a temporal extension. This temporal extension is responsible for the acceptability of heel in the primed examples. Note that the role played by temporal extension in deverbal noun phrases headed by nouns like aankomst ‘arrival’ or begin ‘beginning’ confirms the characterization of the semantics of pre-determiner bare heel as an exhaustive partitioner. While point-like events are not partitionable on a temporal scale, events that have temporal extension are; hence the latter are compatible with bare heel whereas the former are not.

II. Restrictions on accompanying determiners and quantificational elements

This subsection investigates the restrictions that pre-determiner bare heel poses on the presence of determiners and other quantificational elements. A preliminary observation to be made is that the noun phrase following heel are more limited syntactically than the corresponding constructions without heel; with the former, attributive modifiers seem to be restricted to cases where the adjective and the noun form more or less fixed collocations. The examples in (234) present three minimal pairs (judgments are ours, but confirmed by a small number of informants).

(234) a. heel die grote, boze/??prachtige wereld
    all that big angry/beautiful world

b. heel de grote/”drukke stad
    all the big/busy town

c. heel dat ‘ondraaglijke/”uitputtende lijden
    all that unbearable/exhausting suffering

The acceptable examples all seem to involve a close semantic coherence between the adjective and the noun: de grote, boze wereld is an idiom (“the wretched world”), de grote stad almost functions like a compound (cf. German Großstadt ‘big-town’), and ondraaglijk is a stereotypical modifier of lijden. The markedness of non-collocational attributive modifiers in bare heel constructions could perhaps be related to the “exhaustive partitioning” semantics of bare heel; the presence of a regular, attributive modifier possibly obstructs the partitioning necessary for the interpretation of pre-determiner bare heel.

A. Determiners

Table 10 has shown that pre-determiner bare heel can be used with all types of determiners, although it is not fully compatible with the distal and, especially, the proximate demonstrative pronouns. The relevant examples are repeated here as (235).
(235) a. heel de(∅)/die/dezemijn stad
   all the/that/this/my town
b. heel het(∅)/dat/dit/mijn huis
   all the/that/this/my house

The proximate demonstrative examples improve up to the point of full acceptability, however, in contrastive contexts of the type in (236). Constructions of the type in (236a) can be normally be “simplified” by Backward Conjunction Reduction and NP-ellipsis, but they deliver robustly different results in the context of pre-determiner heel. While Backward Conjunction Reduction in the primed examples gives rise to a perfectly grammatical result, the NP-ellipsis cases in the doubly-primed examples are unacceptable (and certainly considerably worse than the corresponding examples with pre-determiner bare al given in Section 7.1.2.1, sub II).

(236) a. Ik ken wel heel deze stad, maar niet heel die stad.
   I know AFF all this town but not all that town
   a’. Ik ken wel heel deze Ø, maar niet heel die Ø. [RNR]
   a”. *Ik ken wel heel diese Ø, maar niet heel die Ø. [NP-ellipsis]
   b. Ik ken wel heel dit huis, maar niet heel dat huis.
   b’. Ik ken wel heel dit Ø, maar niet heel dat Ø. [RNR]
   b”. *Ik ken wel heel dit Ø, maar niet heel dat Ø. [NP-ellipsis]

The examples in (237a-c) show that bare heel can precede not only possessive pronouns, but also (semi-)genitival possessive phrases. The somewhat marked status of (237c) is probably due to the heaviness of the overall construction.

(237) a. heel mijn wereld
   all my world
b. heel mijn vaders wereld
   all my father’s world
c. heel mijn vader z’n wereld
   all my father his world

Example (238b) shows that bare heel may also precede nominalized possessive pronouns. This supports the suggestion made in Section 5.2.2.5.2 that noun phrases like de jouwe do not involve ellipsis, since otherwise we would expect examples with strings heel de jouwe to be as bad as the doubly-primed examples in (236).

(238) a. Heel mijn fiets glimt, maar heel jouw fiets is roestig.
   all my bike shines but all your bike is rusty
b. Heel mijn fiets glimt, maar heel de jouwe is roestig.
   all my bike shines but all yours is rusty

Pre-determiner bare heel cannot be construed with noun phrases containing the indefinite article een: this is shown in (239a&b) for, respectively, [+COUNT] and [-COUNT] nouns. Pre-determiner bare heel cannot combine with bare noun phrases either: (239b&c) illustrate this for, respectively, bare singulars and bare pluralia
tantum. Note that we diverge here from Zwarts (1992: 156), who assigns *heel een ijsje ‘all an ice-cream’ a mere question mark; our informants generally agree that examples of this type are unacceptable.

(239) a. *heel een stad/huis
   all  a town/house
b. *heel een/∅ ellende
   all  a/∅ misery
c. Die jongen heeft (*heel) ∅ hersens!
   that boy  has  all  brains

An exception to this ban on heel preceding indefinite determiners is when the latter combines with zo to form the indefinite demonstrative zo’n ‘such a’; cf. Section 5.2.3.1.1. In order for heel to be acceptable, however, the head noun must be a count noun. Recall that the count/non-count distinction does not have the same influence on the distribution of pre-determiner heel in the case of a definite demonstrative; both heel die stad and heel die ellende are acceptable.

(240) a. heel zo’n stad/huis
   all such a town/house
b. *heel zo’n ellende
   all such sorrow

B. Indefinite determiner-like elements

Although pre-determiner bare heel can precede the indefinite demonstrative zo’n ‘such a’ in (240a), it cannot precede the indefinite determiner-like elements zulk/dergelijk/van die ‘such’. No doubt, this is related to the fact that these determiners are normally followed by plural count nouns, which are banned from this construction anyway. The fact that the constructions in (241), which involve non-count nouns, are also unacceptable patterns nicely with the fact that such examples are also impossible with zo’n.

(241) a. *heel zulke/dergelijke/van die ellende
   all  such  misery
b. *heel zulke/dergelijke/van die wijn
   all  such  wine

We may conclude from the data so far that heel must be linearly followed by a definite determiner or by zo’n. We phrase this statement in linear terms in order to capture the difference in acceptability between zulk/dergelijk soort and their semantic equivalents dit/dat soort; (242a) shows that the latter are grammatical, which, we claim, is due to the fact that they themselves are introduced by a demonstrative which linearly follows heel in the output string. Example (242b) shows that the contrast in (242a) does not show up with pre-determiner bare al.

(242) a. heel dat/dit/zulk soort gedoe
   all that/this/such sort fuss
b. al dat/dit/zulk soort gedoe
   all that/this/such sort fuss
Section 7.1.2.1, sub IIB, concluded that *al in (242b) forms a constituent with *dat/dit/zulk soort, on the basis of the fact that *al *dat/dit/zulk soort N may appear as a subject in existential er constructions. For *heel, such a case cannot be made since it is impossible to establish on independent grounds whether *heel is a strong or weak quantifier: addition of *heel to a noun phrase does not affect the weak/strong status of that noun phrase. Nevertheless, a possible way of eliminating the reference to linearity in the characterization of the relationship between *heel and the determiner following it is by analyzing *heel dat/dit soort in (242a) as a constituent as well. Although this analysis seems structurally plausible, a potential semantic problem for it is that *heel is construed with *gedoe rather than with soort.

C. Quantifiers and numerals

Pre-determiner bare *heel cannot precede quantifiers like enige/sommige ‘some’ and elk/ieder ‘every’.

(243) a. *heel enige ellende/verdriet
   all some misery/sorrow
b. *heel elke/iedere stad
   all every town
b’.*heel elk/ieder huis
   all every house

Since Table 10 has shown that bare *heel does not combine with plural noun phrases, it will not come as a surprise that adding a numeral to the noun phrase to the right of *heel is normally impossible. It seems, however, that example (244a) is acceptable (though marked) on the negative polarity reading of *heel described in Section 7.2.1.1, sub II.

(244) #*heel die twee steden
   all those two towns

   In the discussion of bare *al in Section 7.1.2.1, sub IIC, it was pointed out that adding an inflected quantifier like vele ‘much/many’ or weinige ‘little/few’ to the noun phrase following *al is possible for some speakers, though always rather marginal. The relevant examples are reproduced here in (245a&a’). Examples (245b&b’) show that adding pre-determiner bare *heel to such constructions is impossible with weinige and gives rise to, at best, a degraded result with vele.

(245) a. de (vele/weinige) mensen in de zaal
   the many/few people in the room
a’. al de *(vele/*weinige) mensen in de zaal
   all the many/few people in the room
b. het (vele/weinige) lijden in de wereld
   the much/little suffering in the world
b’. heel het *(vele/*weinige) lijden in de wereld
   all the much/little suffering in the world

   For completeness’ sake, note that *heel can precede the quantifiers veel and weinig, when it acts as a modifier of the quantifiers; cf. Section 6.2.5. That *heel in
(246) is a premodifier of the quantifier, and not of the noun phrase as a whole (as a pre-determiner of the zero indefinite article), is evident from the fact that the plural count nouns and substance noun wijn normally cannot co-occur with pre-determiner bare heel; cf. Table 10 and Table 11.

(246) a. [(heel) veel] boeken 
    b. [(heel) weinig] wijn
    very many books 
    very little 
    wine

D. Personal pronouns and proper nouns

We can be brief about the combination of pre-determiner bare heel and personal pronouns; heel is unable to combine with pronouns, regardless of whether it is placed to the left or to the right of the pronoun. Example (247) only shows this for heel preceding the pronoun.

(247) Bare heel and personal pronouns

<table>
<thead>
<tr>
<th></th>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1ST PERSON</td>
<td>*heel ik/me/mij</td>
<td>*heel wij/ons *heel</td>
</tr>
<tr>
<td>2ND PERSON</td>
<td>REGULAR</td>
<td>*heel jij/je/jou</td>
</tr>
<tr>
<td></td>
<td>POLITE</td>
<td></td>
</tr>
<tr>
<td>3RD PERSON</td>
<td>MASCULINE</td>
<td>*heel hij’/m/hem</td>
</tr>
<tr>
<td></td>
<td>FEMININE</td>
<td>*heel zij’/r/haar</td>
</tr>
<tr>
<td></td>
<td>NEUTER</td>
<td>*heel het’/t</td>
</tr>
</tbody>
</table>

As was pointed out in Section 7.2.1.1, bare heel can combine with proper nouns that comply with the semantic constraint imposed by heel that the noun phrase it is construed with denotes a structured unit. We refer the reader to Section 7.2.1.1, sub I, for a more extensive discussion, and to Section 7.1.2.1, sub IID, for comparison with similar examples with al.

(248) a. heel Europa/Duitsland/Hongarije/Italië/Amsterdam
        all Europe/Germany/Hungary/Italy/Amsterdam

b. *heel Jan
    all Jan

Finally, we can note that, unlike bare al (cf. 7.1.2.1, sub IID), heel cannot precede the wh-word wat in free relatives, but it can form a constituent with wat in the guise of a quantified pronoun. Note that, while indefinite wat normally alternates with iets ‘something’, replacement of wat by iets is impossible in (249b).

(249) a. al/*heel wat ik hoor
        all what I hear

b. Ik heb heel/*al wat gehoord.
   I have all what heard
   ‘I have heard quite a lot.’

7.2.2.2. Post-determiner inflectible heel

This section will discuss the properties of inflectible heel. Again, a distinction has to be made between purely adjectival and quantificational uses of heel. Section
7.2.2.2.1 will start with a discussion of adjectival *heel*, and show that it behaves like an ordinary attributive adjective in its syntactic distribution. Section 7.2.2.2 subsequently focuses exclusively on quantificational *heel*. Whereas bare *heel* was seen to correspond closely to bare *al*, the schwa-inflected form *hele* is different from both bare *heel* and schwa-inflected *alle*. From the former it differs in being capable of combining with plural noun phrases on its adjectival use; from the latter it is different in not being in complementary distribution with the determiners.

7.2.2.2.1. Adjectival *heel*

Adjectival *heel* ‘whole’ occurs in singular and plural count noun phrases, as illustrated in Table 13. This form of post-determiner *heel* often alternates with adjectives denoting completeness/totality; examples include *compleet* ‘completely’, *totaal* ‘totally’, and *geheel* ‘completely’. The adjective *geheel* (which is derived from *heel* by means of the prefix *ge*) is discussed in Section 7.2.2.3.

Table 13: Adjectival *heel* in noun phrases headed by a count noun

<table>
<thead>
<tr>
<th></th>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[-NEUTER]</td>
<td>[+NEUTER]</td>
</tr>
<tr>
<td>DEFINITE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARTICLES</td>
<td><em>de hele taart</em></td>
<td><em>het hele glas</em></td>
</tr>
<tr>
<td></td>
<td>the whole cake</td>
<td>the whole glass</td>
</tr>
<tr>
<td>DEMONSTRATIVE</td>
<td><em>die hele taart</em></td>
<td><em>dat hele glas</em></td>
</tr>
<tr>
<td>PRONOUNS</td>
<td>that whole cake</td>
<td>that whole glass</td>
</tr>
<tr>
<td></td>
<td><em>deze hele taart</em></td>
<td><em>dit hele glas</em></td>
</tr>
<tr>
<td></td>
<td>this whole cake</td>
<td>this whole glass</td>
</tr>
<tr>
<td>POSSESSIVE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRONOUNS</td>
<td><em>mijn hele taart</em></td>
<td><em>mijn hele glas</em></td>
</tr>
<tr>
<td></td>
<td>my whole cake</td>
<td>my whole glass</td>
</tr>
</tbody>
</table>

Although adjectival *heel* can readily be combined with plural count nouns, it is difficult to find pragmatically felicitous examples with pluralia tantum; example (250a) may work reasonably well on an interpretation of *heel* as *gaaf* ‘unscathed/intact/unaffected’; the status of (250a) is the same as that of the relative clause paraphrase in (250b), where *heel* is a predicate.

(250)  a. # *de hele hersenen*
      the whole brains
      ‘the whole/intact brain’

      b. # *de hersenen, [die, (nog) heel zijn]*
      the brains that still whole are
      ‘the brain that is (still) intact’

For formal plurals that denote a conventionally fixed unit, no context can be found in which adjectival *heel* can plausibly be used as a modifier meaning ‘whole, intact’; the next section will show that *heel* receives a quantificational reading in this context. The lexical semantics of adjectival *heel* also makes it impossible for it to be combined with non-count nouns.
Since adjectival *heel* is a regular adjective, its distribution in the noun phrase is identical to that of other adjectives of the same semantic type (that is, the non-gradable adjectives). The reader is referred to Broekhuis (to appear) for discussion of the adjectival phrase. In what follows the discussion of post-determiner inflectible *heel* will focus on its quantificational uses.

### 7.2.2.2. Quantificational *heel*

This section presents a survey of the distribution of post-determiner inflectible *heel* inside the noun phrase. We first discuss in Subsection I the noun phrase types that may contain this post-determiner. This is followed in Subsection II by a discussion of the restrictions *heel* imposes on other elements within the noun phrase.

#### I. Quantificational inflectible *heel* and noun phrase types

Table 14 shows that quantificational *heel* can be placed to the right of a determiner in neuter and non-neuter singular count noun phrases. It is difficult, however, to add quantificational *heel* to the right of a determiner in plural noun phrases.

<table>
<thead>
<tr>
<th></th>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEFINITE ARTICLES</strong></td>
<td><img src="image" alt="Image" /></td>
<td><img src="image" alt="Image" /></td>
</tr>
<tr>
<td>de hele stad</td>
<td>the whole town</td>
<td>*de hele steden/huizen</td>
</tr>
<tr>
<td>het hele huis</td>
<td>the whole house</td>
<td></td>
</tr>
<tr>
<td><strong>DEMONSTRATIVE PRONOUNS</strong></td>
<td><img src="image" alt="Image" /></td>
<td><img src="image" alt="Image" /></td>
</tr>
<tr>
<td>die hele stad</td>
<td>that whole town</td>
<td>*die hele steden/huizen</td>
</tr>
<tr>
<td>dat hele huis</td>
<td>that whole house</td>
<td></td>
</tr>
<tr>
<td>deze hele stad</td>
<td>this whole town</td>
<td>*deze hele steden/huizen</td>
</tr>
<tr>
<td>dit hele huis</td>
<td>this whole house</td>
<td></td>
</tr>
<tr>
<td><strong>POSSESSIVE PRONOUNS</strong></td>
<td><img src="image" alt="Image" /></td>
<td><img src="image" alt="Image" /></td>
</tr>
<tr>
<td>mijn hele stad</td>
<td>my whole town</td>
<td>*mijn hele steden/huizen</td>
</tr>
<tr>
<td>mijn hele huis</td>
<td>my whole house</td>
<td></td>
</tr>
</tbody>
</table>

The grammaticality judgments on the plural noun phrases seem determined by the semantics of *heel*. Section 7.2.1.2.2 has shown that post-determiner *heel* has a variety of quantificational interpretations; totality, degree and negative polarity are the three main instantiations. The core quantificational semantics of totality is the most salient component of the interpretation of singular examples. In the plural examples, on the other hand, the totality reading is unavailable, or at least very hard to get, which accounts for the unacceptability of most of these cases. The plural examples involving the distal demonstrative *die* (and perhaps to a lesser degree also those with the proximate demonstrative *deze*) are reasonably felicitous due to the fact that they allow a negative polarity reading. Degree interpretations are typically reserved for determiner-less plurals like (251).

(251) Ø Hele steden/huizen werden verwoest.
Ø entire towns were destroyed

Since pluralia tantum and group-denoting plurals preceded by the definite article refer to a unit, they are eligible for a totality interpretation of *hele*, in contrast to the regular plurals in Table 14.
(252) a. de hele hersenen c. de hele Verenigde Staten
   the whole brains the whole United States
b. de hele tropen d. de hele Antillen
   the whole tropics the whole Antilles

Quantificational hele can also be construed with abstract non-count nouns, although adding hele to a substance noun is difficult if at all possible: in Table 15, we only show this for [-NEUTER] nouns. Adding post-determiner heel to noun phrases headed by mass nouns gives rise to a degraded result. Post-determiner heel matches pre-determiner bare heel perfectly in this regard. Note that the examples with the distal demonstratives die/dat are perfectly acceptable on a negative polarity reading.

Table 15: Post-determiner [+Q] heel in noun phrases headed by a non-count noun

<table>
<thead>
<tr>
<th></th>
<th>SUBSTANCE NOUNS</th>
<th>ABSTRACT NOUNS</th>
<th>MASS NOUNS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFINITE ARTICLES</td>
<td>*de hele wijn</td>
<td>de hele ellende</td>
<td>??het hele vee</td>
</tr>
<tr>
<td></td>
<td>the whole wine</td>
<td>the whole misery</td>
<td>the whole cattle</td>
</tr>
<tr>
<td>DEMONSTRATIVE PRONOUNS</td>
<td>*die hele wijn</td>
<td>die hele ellende</td>
<td>??dat hele vee</td>
</tr>
<tr>
<td></td>
<td>that whole wine</td>
<td>that whole misery</td>
<td>that whole cattle</td>
</tr>
<tr>
<td></td>
<td>*deze hele wijn</td>
<td>deze hele ellende</td>
<td>??dit hele vee</td>
</tr>
<tr>
<td></td>
<td>this whole wine</td>
<td>this whole misery</td>
<td>this whole cattle</td>
</tr>
<tr>
<td>POSSESSIVE PRONOUNS</td>
<td>*mijn hele wijn</td>
<td>zijn hele ellende</td>
<td>??mijn hele vee</td>
</tr>
<tr>
<td></td>
<td>my whole wine</td>
<td>his whole misery</td>
<td>my whole cattle</td>
</tr>
</tbody>
</table>

The parallel between hele and heel extends further. The examples in (253) show that, as in the case of bare pre-determiner heel in (230), contexts in which wijn and water are conceived of units/bodies of liquid are at least marginally possible; example (253b) is again taken from the internet. Furthermore, as in the case of pre-determiner heel in (231), examples like (254c) are well-formed. The totality semantics of post-determiner heel is responsible for this contrast; the discussion in Section 7.2.2.1, sub I, therefore largely carries over to the present examples.

(253) a. ’De hele rode wijn is op.
   ‘The whole red wine is up
   Scatter the red wine as much across the water.’

(254) a. ??Het hele vee van boer Harms leed aan BSE.
   the whole cattle of farmer Harms suffered from BSE
b. ??Het hele fruit in de krat was beschimmeld.
   the whole fruit in the crate was moldy
   The whole traffic stood fast [≈ was jammed]

Post-determiner heel is also possible with deverbal bare stem nouns, just like pre-determiner heel in Table 12. The examples involving nominal infinitives and
GE-nominalizations are perhaps somewhat better than in the case of pre-determiner heel, but still distinctly odd.

Table 16: Post-determiner [+Q] heel in noun phrases headed by a deverbal noun

<table>
<thead>
<tr>
<th>BARE STEM</th>
<th>NOMINAL INFINITIVE</th>
<th>GE-NOMINALIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEFINITE ARTICLES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>het hele werk</td>
<td>*het hele werken</td>
<td>*het hele gewerk</td>
</tr>
<tr>
<td>the whole work</td>
<td>the whole working</td>
<td>the whole working</td>
</tr>
<tr>
<td><strong>DEMONSTRATIVE PRONOUNS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>dat hele werk</td>
<td>??dat hele werken</td>
<td>??dat hele gewerk</td>
</tr>
<tr>
<td>that whole work</td>
<td>that whole working</td>
<td>that whole working</td>
</tr>
<tr>
<td>dit hele werk</td>
<td>??dit hele werken</td>
<td>??dit hele gewerk</td>
</tr>
<tr>
<td>this whole work</td>
<td>this whole working</td>
<td>this whole working</td>
</tr>
<tr>
<td><strong>POSSESSIVE PRONOUNS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mijn hele werk</td>
<td>??mijn hele werken</td>
<td>??mijn hele gewerk</td>
</tr>
<tr>
<td>this whole work</td>
<td>this whole working</td>
<td>this whole working</td>
</tr>
</tbody>
</table>

It must be noted, however, that hele felicitously combines with a nominal infinitive in the idiom in (255a). That we are dealing with a nominal infinitive here is evident from the fact that eten takes an NP-complement to its left; see Section 2.2.3.2 for the structure of such nominal infinitives. As is shown in (255b), the GE-nominalization gedoe ‘fuss’ can also be preceded by hele.

(255)  a.  Dat is het hele eieren eten.
        that is the whole eggs eat
        ‘That is all there is to it.’

        b.  Ik ben het/dat hele gedoe zat.
        I am the/that whole fuss fed.up
        ‘I am fed up with the/that whole fuss.’

The extent to which deverbal nouns like [-NEUTER] aankomst ‘arrival’ and aanvang ‘beginning’ or [+NEUTER] begin ‘beginning’ and vertrek ‘departure’ are compatible with post-determiner heel depends on the interpretation of the nominalization; the examples in (256) have more or less the same status as examples with pre-determiner bare heel in (233), and the discussion of the latter examples in Section 7.2.2.1, sub I, carries over seamlessly to the present examples with post-determiner heel.

(256)  a.  #de hele aankomst/aanvang a’. de hele aankomst van Sinterklaas
        the whole arrival/beginning the whole arrival of Santa Claus

        b.  #het hele begin/vertrek b’. het hele begin van de film
        the whole beginning/departure the whole beginning of the movie

The primeless examples in (256) are marked with a number sign because, although they are unacceptable on the intended quantificational reading of totality, they are possible with a negative polarity interpretation. This reading is brought to the fore by the context given in (257).

(257)    Toen ging ineens de hele aankomst/het hele vertrek niet door.
        then went suddenly the whole arrival/the whole departure not through
        ‘Then all of a sudden the whole arrival/departure was cancelled.’
II. Restrictions on accompanying determiners and quantificational elements

This section investigates the restrictions that heel poses on the presence of determiners and quantificational elements. The internal syntax of noun phrases is not affected by the presence of post-determiner inflectible heel: whereas Section 7.2.2.1, sub II, found that the extent to which noun phrases are fit to be quantified by pre-determiner bare heel is in part determined by the presence or absence of attributive modifiers of the head noun, there are no such interrelations between inflectible heel and attributive adjectives. Post-determiner heel readily combines with noun phrases containing attributively used adjectives.

Example (258) illustrates that heel surfaces to the left of the attributive adjective on its quantificational interpretations (totality, degree or negative polarity). On its purely adjectival reading in (258b), on the other hand, heel can be placed on either side of attributive adjectives, the choice depending on contextualization; see Section A5.5.3 for the relative ordering of stacked adjectives. Note in passing that in (258b) hele can also be interpreted as an °intensifier of the adjective lekkere when it precedes it.

A. Determiners

Table 14 has shown that the distribution of post-determiner quantificational heel is tightly connected to the nature of the definite determiner that heads the noun phrase in which heel occurs. Here, we repeat the main findings. First, the determiners of the singular noun phrases in Table 14 deliver a totality reading of heel. Second, the determiners of the plural noun phrases obstruct a totality reading of heel, and, as a result, plural examples like de hele steden are not well-formed. Finally, the distal demonstrative die ‘that/those’ can give rise to a negative polarity interpretation of post-determiner heel, which accounts for the fact that the plural noun phrase die hele steden is more or less well-formed.

The distal and proximate demonstratives can receive contrastive accent in the presence of post-determiner heel, as illustrated by (259). Backward °Conjunction Reduction and NP-ellipsis are possible in these examples, but only when hele is stripped along with the rest of the noun phrase; leaving hele behind in these examples is very marginal in the RNR cases and quite impossible in the NP-ellipsis ones. In this regard, post-determiner hele behaves like beide, as discussed in Section 7.1.2.2.1, sub II.

(259) a. Ik ken wel deze hele stad, maar niet die hele stad.
   a′. Ik ken wel deze (°hele) Ø, maar niet die hele stad. [RNR]
   a″. Ik ken wel deze hele stad, maar niet die (*hele) Ø. [NP-ellipsis]
   b. Ik ken wel deze hele stad, maar niet die hele stad.

I know AFF this whole town but not that whole town
b. Ik ken wel DIT hele huis, maar niet DAT hele huis.  
b′. Ik ken wel DIT (’hele) Ø, maar niet DAT hele huis.  [RNR]  
b″. Ik ken wel DIT hele huis, maar niet DAT (*hele) Ø.  [NP-ellipsis]  
I know AFF this whole house but not that whole house

In singular noun phrases, post-determiner inflectible heel readily follows possessives of all kinds, pronominal, genitive and semi-genitival possessives alike. In all examples in (260), heel has the quantificational semantics of totality; no degree or negative polarity readings are available for heel embedded in possessed noun phrases.

(260)  a. mijn hele vermogen/bezit  
my whole fortune/estate  
b. mijn vaders hele vermogen/bezit  
my father’s whole fortune/estate  
c. mijn vader z’n hele vermogen/bezit  
my father his whole fortune/estate  

Table 17 shows that post-determiner heel may also occur in indefinite singular noun phrases, provided that a determiner is present: the ungrammaticality of the determiner-less examples indicates that, unlike quantifiers like elk ‘every’ or ieder ‘each’ (cf. Section 6.2), heel cannot perform the role of a determiner or determiner-substitute of singular noun phrases. Table 17 also shows that heel inflects with schwa depending on the gender of the head noun, just like attributive adjectives in noun phrases with the singular, indefinite article een (cf. Section 3.2.1); neutral head nouns feature heel, non-neutral ones hele.

Table 17: Post-determiner [+]Q heel in noun phrases headed by indefinite count nouns

<table>
<thead>
<tr>
<th>COUNT NOUNS</th>
<th>NON-COUNT NOUNS</th>
</tr>
</thead>
<tbody>
<tr>
<td>[-NEUTER]</td>
<td>[+NEUTER]</td>
</tr>
<tr>
<td>INDEFINITE</td>
<td></td>
</tr>
<tr>
<td>ARTICLE EEN</td>
<td>een hele stad</td>
</tr>
<tr>
<td></td>
<td>a whole town</td>
</tr>
<tr>
<td>INDEFINITE</td>
<td>*Ø hele stad</td>
</tr>
<tr>
<td>ARTICLE Ø</td>
<td>Ø whole town</td>
</tr>
</tbody>
</table>

Although the non-count and count noun examples are syntactically similar, they are semantically distinct. With the count nouns, post-determiner heel contributes a totality interpretation whereas with the non-count nouns heel receives a degree reading; an example like een hele ellende is best rendered as quite a misery. Finally, note that post-determiner heel is excluded in plural noun phrases containing exclamatives of the type een (*hele) boeken dat hij heeft!

B. Indefinite determiner-like elements

The examples in (261a&b) show that post-determiner heel can follow not only the indefinite article een but also indefinite determiners like zo’n ‘such a’ in (261), where heel receives a totality interpretation. Note that (261c) is ungrammatical; hele apparently cannot express a “quite” degree when it is preceded by zo’n.
Pre-determiners

(261) a. zo’n hele stad
   such a whole town
b. zo’n heel dorp
   such a whole village
c. *zo’n hele ellende
   such a whole misery

It is impossible for post-determiner heel to combine with een dergelijk(e) ‘such a’ with heel standing to the left of dergelijk(e). With heel to the right of dergelijk(e) the result is grammatical, but only on the adjectival reading “whole, intact”. Since this reading is not compatible with the nouns stad and ellende, the examples in (262c&d) are degraded under all readings.

(262) a. een <*hele> dergelijke <#hele> taart
   a whole such cake
b. een <*hele> dergelijke <#hele> appel
   a whole such apple
c. *een <hele> dergelijke <hele> stad
   a whole such town
d. *een <hele> dergelijke <hele> ellende
   a whole such misery

The examples in (263) also show that inflectible heel cannot precede the indefinite determiner-like elements dat/dit/zulk soort and zulke/dergelijke/van die ‘such’ either. The unacceptability of the examples in (263a&b) on the intended reading is, of course, not surprising given that quantificational heel normally cannot be used in plural noun phrases; these examples allow only adjectival heel. The unacceptability of (263c&d) with heel shows, however, that the indefinite determiner-like elements under discussion are not compatible with quantificational heel; the adjectival interpretation of post-determiner is also excluded due to the previously mentioned incompatibility of the meaning of adjectival heel and the noun ellende.

(263) a. <*hele> dat/dit/zulk soort <*hele> taarten
   whole that/this/such sort cakes
b. <*hele> zulke/dergelijke/van die <*hele> taarten
   whole such cakes
c. <*hele> dat/dit/zulk soort <*hele> ellende
   whole that/this/such sort whole misery
d. <*hele> zulke/dergelijke/van die <*hele> ellende
   whole such whole misery

C. Quantifiers and numerals

It seems that post-determiner inflectible heel cannot be combined with other quantifiers on its quantificational reading. It is possible for heel to follow the quantifiers enige and sommige, but then it will be construed as purely adjectival, meaning “whole, intact”. The same thing holds when heel follows the quantifiers veel and weinig.
(264) a. enige/sommige (*hele) appels    a'. veel/weinig (*hele) appels
    some whole apples    many/few whole apples
b. *enige/sommige (hele) ellende    b'. veel/weinig (*hele) ellende
    some whole misery    much/little whole misery

Of course, three of the four examples in (264) are excluded for independent reasons: the (a)-examples are excluded because quantificational *hele* normally cannot be used in plural noun phrases, and (264b) is excluded because *enige* and *sommige* must be followed by a count noun. This leaves (264b′) as evidence for the claim that quantificational *hele* cannot be combined with other quantifiers. However, this claim is also supported by the fact that the syntactically singular noun phrases in (265) give rise to a degraded result on the intended reading: these examples are only acceptable with a purely adjectival interpretation of *hele*.

(265) a. elke/iedere (*hele) appel
    every whole apple
b. elk/ieder (*heel) huis
    every whole house
c. elke/iedere (*hele) stad
    every whole town

Quantificational post-determiner *hele* is not compatible with attributively used quantifiers either; example (266a), in which *heel* occurs to the right of the quantifiers in question, is only acceptable on the adjectival reading of *hele*; the noun *lijden* in (266b) does not readily allow the adjectival reading, and its unacceptability therefore shows that a totality reading is unavailable in such cases. The examples in (267) show that a negative polarity reading for *heel* is also impossible in this context. For completeness’ sake, note that (266b) and (267a) do allow an interpretation in which *hele vele* is construed as a phrase meaning “very much/many”.

(266) a. die <*hele> vele/weinige/twee <hele> appels
    those whole many/few/two apples
b. *het <hele> vele/weinige <hele> lijden dat zij gedragen heeft
    the whole much/little suffering that she borne has

(267) a. *Ik ken die <hele> vele/weinige/twee <hele> mensen niet.
    I know those whole many/few/two people not
b. *Ik ken die <hele> ene <hele> vent niet.
    I know that whole one guy not

D. Personal pronouns and proper nouns

Like bare *heel*, inflectible *heel* is unable to combine with pronouns, regardless of whether it is placed to their left or their right; Example (268) only illustrates this for the former case. Apparent exceptions are cases like *mijn hele ik* ‘my whole self’ where the proper noun *ik* ‘I’ is used as a common noun.
Generally speaking, inflectible *heel cannot be combined with proper nouns either. However, when the proper noun is modified, as in (269a’), and can hence be preceded by a determiner, inflectible *heel becomes possible. *Heel as a negative polarity item contributing condescension on the part of the speaker, as in (269b’), is possible also; in that case the distal demonstrative *die is also present.

(269) a. *hele Europa
whole Europe
a’. het (hele) Europa *(van voor de Tweede Wereldoorlog)
the whole Europe from before the Second World War
b. *hele Jan
whole Jan
b’. Ik ken die hele Jan niet.
I know that whole Jan not

Another exception involves proper nouns preceded by a definite determiner. Some examples are given in (270).

(270) a. Ik ben de hele Antillen doorgereisd.
I am the whole Antilles traveled through
‘I have traveled through all the Antilles.’
b. Ze hebben de hele Westertoren gerestaureerd.
they have the complete Westertoren restored
‘They have restored the complete Westertoren.’

7.2.2.3. Heel/hele versus geheel/gehele

We close this discussion of the noun phrase internal distribution of *heel/hele with a note about its morphological form. While post-determiner *heel often alternates with *geheel, as seen in (271a), pre-determiner bare *heel never alternates with *geheel in the present-day vernacular; (271b) is unacceptable. (The *Woordenboek der Nederlandsche Taal lists a variety of examples in which bare *geheel linearly precedes the determiner, but these all sound archaic and/or awkward, and we will not include them here.)

(271) a. de hele/geheel wereld
the whole world
b. *heel/*geheel de wereld
all the world
Of the four different readings we have discerned for post-determiner *heel* (cf. Section 7.2.1.2), only one is readily available for *geheel*; the phrase *de gehele taart* in (272) strongly prefers a totality reading for *gehele*, although a purely adjectival interpretation may be marginally available as well.

(272) A semantic comparison between post-determiner *heel* and *geheel*

<table>
<thead>
<tr>
<th></th>
<th><em>de hele taart</em></th>
<th><em>de gehele taart</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>adjective</td>
<td>cake that has no slice missing</td>
<td>+</td>
</tr>
<tr>
<td>totality</td>
<td>cake in its totality</td>
<td>+</td>
</tr>
<tr>
<td>degree</td>
<td>quite a cake</td>
<td>+</td>
</tr>
<tr>
<td>negative polarity</td>
<td>that (blasted) cake ... at all</td>
<td>+</td>
</tr>
</tbody>
</table>

That *gehele* can sometimes have a purely adjectival reading is clear from a fixed collocation like *gehele getallen* ‘numerals that are not fractions’. That we are dealing with purely adjectival *geheel* in this case is clear from the fact that *geheel* combines with the plural count noun *getallen*: just like quantificational *heel*, quantificational *geheel* normally cannot combine with plural count nouns.

In what follows we will illustrate the ban on degree and negative polarity readings for post-determiner *geheel* with reference to the types of examples used in our discussion of the semantics of post-determiner *heel* in Section 7.2.1.2. The discussion will show that the semantic contribution of *geheel* is mainly that of totality quantification; replacing *heel* by *geheel* in contexts where it does not have the core semantics of totality yields ungrammatical outputs.

For degree-*heel*, the difference with *geheel* can best be illustrated with reference to the triplet in (197), repeated here as (273) with *gehele* given as an alternant for *heel*. We see that only the third intonation contour, corresponding to the adjectival “complete/total” interpretation, is acceptable with *geheel*; the two other degree contours are impossible with *geheel*.

(273) a.  een hele/*gehele verstoring — m eling                     [high degree]
   b.  een HEle/*geHEle verstoring                               [“quite” degree]
   c.  een HEle/geHEle verZAm eling                               [adjectival: “complete”]

Accordingly, in examples of the type in (193), repeated as (274), *heel* does not alternate with *geheel*. Note that (274c) is marginally possible with *geheel* when it contributes totality quantification; the intended reading here is that of high degree.

(274) a.  Dat is een heel/*geheel gedoe.
         that is a whole hassle
   b.  Dat is een hele/*gehele toer.
         that is a whole tour de force
   c.  Ze maakten een hele/*gehele scène.
         they made a whole scene
   d.  Dat was een hele/*gehele opluchting.
         that was a whole relief
         ‘That was quite a relief.’
The semantic difference between *een heel/hele N* and *een geheel/gehele N* can also be held responsible for the contrast in (275). The nouns immediately following *(ge)hele* in this example are used quantificationally, and not referentially; cf. Section 4.1.1. Since the nouns are quantificational, degree modification is possible, but because they are non-referential, they cannot be the target of “totality” quantification by *geheel/gehele*.

(275) Er stond een hele/*gehele* hoop/stoet toeristen voor de deur.
    ‘There were loads of tourists in front of the door.’

The (a)-examples in (276) show that degree-like readings of *hele* in the examples in (201) and (206) are also unavailable for *gehele*, and the (b)-examples show that the same thing holds for the negative polarity reading of *heel* in (207).

(276) a. *Jij bent al een gehele vent/heer/meid/dame/bink!*
you are already a whole guy/gentleman/girl/lady/tough guy
     a’. *Hij is een gehele vent/kerel.*
     he is a whole guy/fellow
     b. *Ik had het gehele mens niet gezien.*
     I had the whole person not seen
     b’. *Ik was die gehele Bert Mulder allang weer vergeten.*
     I was that whole Bert Mulder already long again forgotten

_Geheel* and _heel* are different not only with respect to their noun phrase internal distribution but also with respect to their external syntactic distribution. We will see this in the next section, in which the external behavior of the constituents containing _heel* and its alternants is discussed.

**7.2.3. Distribution of noun phrases quantified by heel and its alternants**

This section discusses the syntactic distribution of noun phrases containing one of the variants of _heel* examined in Section 7.2.2. For each of the uses of _heel* we will consider whether the relevant noun phrases occur as arguments (subject, direct object, indirect object, complement of a preposition), as predicates and/or as adjuncts.

**7.2.3.1. Distribution as arguments**

In the discussion of the external syntactic distribution of _heel* phrases, a distinction must be made between the various semantic readings of _heel*. It turns out that _heel* phrases normally readily appear in all argument positions, although we will show that a special proviso is needed in the case of the negative polarity reading. _Heel* phrases, with the notable exception of negative polar _heel* ones, can normally also be used as predicates or adjuncts. The possibilities are given in the table in (277); the numbers refer to the examples to be discussed below. Negative polarity readings of pre- and post-determiner _heel* will be treated on a par in what follows, although the former is clearly preferred in this function, hence the distinction made in the final column in the table.
(277) Distribution of *heel* phrases as arguments, predicates and adjuncts

<table>
<thead>
<tr>
<th></th>
<th>PRE-D <em>HEEL</em></th>
<th>POST-D <em>HEEL</em></th>
<th><em>HEEL</em>/<em>HELE</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Q READING)</td>
<td>ADJECTIVAL</td>
<td>TOTALITY</td>
<td>DEGREE</td>
</tr>
<tr>
<td>SUBJECT</td>
<td>✓ (278a)</td>
<td>✓ (278b) ✓ (278c) ✓ (278d) ✓ (278e)</td>
<td>✓ (279c-e)</td>
</tr>
<tr>
<td>DIRECT OBJECT</td>
<td>✓ (280a)</td>
<td>✓ (280b) ✓ (280c) ✓ (280d) ✓ (280e)</td>
<td>✓ (280c)</td>
</tr>
<tr>
<td>INDIRECT OBJECT</td>
<td>✓ (281a)</td>
<td>✓ (281b) ✓ (281c) ✓ (281d) ✓ (281e)</td>
<td>✓ (281e)</td>
</tr>
<tr>
<td>COMPLEMENT OF PP</td>
<td>✓ (282a)</td>
<td>✓ (282b) ✓ (282c) ✓ (282d) ✓ (282e)</td>
<td>✓ (282c)</td>
</tr>
<tr>
<td>PREDICATE</td>
<td>✓ (283a)</td>
<td>✓ (283b) ✓ (283c) ✓ (283d) ✓ (283e)</td>
<td>✓ (283e)</td>
</tr>
<tr>
<td>ADJUNCT</td>
<td>✓ (284a)</td>
<td>✓ (285a) ✓ (284b) ✓ (284c)</td>
<td>✓ (284c) ✓ (288)</td>
</tr>
</tbody>
</table>

I. Subject

Example (278a) shows that the core reading of bare *heel* phrases (“exhaustive partitioning of structured units”) is readily available in subject position. The adjectival, totality and degree readings of post-determiner inflectible *heel* are also readily available for *heel* phrases in subject position.

(278) a. Heel de appel zit vol wormen. [Q reading]
   all the apple sits full [of] worms
   ‘The entire apple is full of worms.’

   b. Een hele appel is beter dan een halve. [adjectival reading]
   a whole apple is better than a half
   ‘A whole apple is better than a half one.’

   c. De hele appel zit vol wormen. [totality reading]
   the whole apple sits full [of] worms
   ‘The entire apple is full of worms.’

   d. Er lag een hele berg appels op de tafel. [degree reading]
   there lay a whole mountain [of] apples on the table
   ‘There was quite a pile of apples lying on the table.’

The availability of the negative polarity interpretation depends on the type of verb involved. When the verb is intransitive or transitive, that is, when the phrase with *heel* is an underlying subject, this reading is not available, as is shown by (279a&b). However, when we are dealing with a passive or an unaccusative verb, that is when we are dealing with a °DO-subject, as in (279c-e), the negative polarity interpretation is readily possible; see also the discussion in Section 7.2.1.2.2, sub III. The question mark preceding pre-determiner bare *heel* is to indicate that it is less preferred on the negative polarity reading than post-determiner inflectible *heel*.

(279) a. *Heel die/Die hele vent werkt niet.
   all that/that whole guy works not

c. Dat hele/deel dat artikel is door iedereen al vergeten.
   that whole/all that article is by everyone already forgotten
We will see in the following subsection that DO-subjects behave just like objects. This means that, in technical terms, the contrast between (279a&b) and (279c-e) can be accounted for by assuming that the negative polarity item heel must be \(^c\)-commanded by its licenser (the negation) at some stage in the derivation.

**II. Direct and indirect object**

For direct and indirect objects, grammatical examples can be constructed for all the various uses of heel. This is illustrated for direct objects in (280). The question mark preceding pre-determiner bare heel in (280) again indicates that the example with post-determiner inflectible heel is preferred on the negative polarity reading.

(280) a. Ik heb heel de appel opgegeten. [Q reading]
    I have all the apple prt.-eaten
    ‘I ate up the entire apple.’

b. Ik wil graag een hele appel. [adjectival reading]
    I want please a whole apple
    ‘I would like to have a whole apple, please.’

c. Ik heb de hele appel opgegeten. [totality reading]
    I have the whole apple prt.-eaten
    ‘I ate the entire apple up.’

d. Ik heb een hele berg appels gegeten. [degree reading]
    I have a whole mountain [of] apples eaten
    ‘I ate a whole pile of apples.’

e. Ik ken die hele/heel die vent niet. [NPI]
    I know that whole/all that guy not
    ‘I don’t know that guy at all.’

The examples in (281) give comparable sentences with heel phrases functioning as indirect objects. Example (281a), which was given earlier as (166a), should be seen in the light of the discussion of the role of distributivity in Section 7.2.1.1; see also the discussion of the contrast between the examples in (167a) and (188a).

(281) a. Ik heb heel het huis een opknapbeurt gegeven. [Q reading]
    I have all the house a cleaning given
    ‘I gave the entire house a cleaning.’

b. Ik geef een hele appel de voorkeur boven een halve. [adjectival reading]
    I give a whole apple the preference over a half
    ‘I prefer a whole apple to a half one.’

c. Ik heb het hele huis een opknapbeurt gegeven. [totality reading]
    I have the whole house a cleaning given
    ‘I gave the entire house a cleaning.’

d. Ik heb hele horden mensen een hand gegeven. [degree reading]
    I have whole hordes [of] people a hand given
    ‘I shook hands with immense hordes of people.’

e. Ik zou die hele/heel die vent niet eens een hand willen geven. [NPI]
    I would that whole/all that guy not even a hand want give
    ‘I wouldn’t even want to shake hands with that guy.’
III. Complement of preposition

For the complement of a preposition, grammatical examples can again readily be constructed for all the various uses of *heel*. The negative polarity reading in (282e) is less felicitous than those in (280e) and (281e), but this might be a more general property of (some) Dutch negative polarity items. Example (282a), given earlier as (166b), again ties in with the discussion of the role of distributivity in Section 7.2.1.1; see also the discussion of the contrast between the examples in (167b) and (188b).

(282) a. We kijken naar heel de mens.  
   ‘I took a view of the entire person.’
   [Q reading]
   we look at all the person
b. Ik geef aan een hele appel de voorkeur.  
   ‘I prefer a whole apple.’
   [adjectival reading]
   I give to a whole apple the preference
c. Holistische geneeskunde kijkt naar de hele mens.  
   ‘Holistic healing looks at the whole person’
   [totality reading]
d. Ik heb met hele horden mensen staan praten.  
   ‘I stood talking to whole hordes of people.’
   [degree reading]
e. *Ik zou met die hele/heel die vent nog geen seconde willen praten.  
   ‘I wouldn’t even want to talk to that guy for a second.’
   [NPI]

7.2.3.2. Distribution as predicates

The examples in (283) show that all *heel* phrases can be used as nominal predicates except for those involving *heel* used as a negative polarity item contributing condescension.

(283) a. Wij zijn samen heel de vakgroep.  
   ‘we are together all the department’
   [Q reading]
   we are together all the department
b. Deze appel is een hele appel.  
   ‘this apple is a whole apple’
   [adjectival reading]
c. Wij zijn samen de hele vakgroep.  
   ‘we are together the whole department’
   [totality reading]
d. Wij zijn samen een hele horde mensen.  
   ‘we are together a whole horde of people’
   [degree reading]
e. *Hij is toch niet heel die/die hele vent van hiernaast, hè?  
   ‘he is PRT not all that/that whole guy of next door’
   [NPI]

The ungrammaticality of (283e) is entirely due to the presence of *heel/hele*; without it, the sentence is perfect. Since the problem with this example is clearly not due to the lack of a c-commanding licenser (which was the case with the subject cases in 279a&b), we must find some other reason for the unacceptability of (283e). One option that comes to mind is that this is due to the fact that predicates normally provide new information, so the *heel*-phrase does not satisfy the D-linking requirement imposed on the negative polarity reading, which was discussed in Section 7.2.1.2.2, sub III.
7.2.3.3. Distribution as adjuncts

Both pre-determiner bare heel and post-determiner inflectible hele show up in noun phrases that function as adverbial phrases. In (284a&b), heel and hele contribute their core quantificational semantics of exhaustivity/totality. In (284c), by contrast, the semantics of hele is that of (very) high degree; she was crying for a very long time. This difference between (284a&b) and (284c) is confirmed by the different intonation patterns they exhibit; cf. the discussion in Section 7.2.1.2.2.

(284)  a.  Heel de dag/tijd zat ze te huilen.      a’. [HEEL de dag]/*[heel de DAG]
    all the day/time sat she to cry

  b.  De hele dag/tijd zat ze te huilen.   b’. [de HEle dag]/*[de hele DAG]
    the whole day/time sat she to cry
    ‘She was crying all day/all the time.’

  c.  Hele dagen zat ze te huilen.           c’. [hele DAgen]/*[HEle dagen]
    whole days sat she to cry
    ‘She was crying for days.’

The unacceptable intonation pattern of (284c) is not categorically impossible for hele dagen, however. The minimal pair in (285a&b) is illustrative in this connection. While in the (a)-example the adjunct hele dagen specifies the extent of the entire duration of her working on her dissertation, in the (b)-example hele dagen says that she worked on her dissertation for an unspecified number of whole days (that is, it specifies the amount of time per day that she worked on her dissertation). In its stressed form hele is adjectival, as is clear from the fact that hele dagen alternates with halve dagen, as is shown in (285c).

(285)  a.  Ze werkte hele Dagen aan haar proefschrift.
       she worked whole days on her dissertation
       ‘She was working on her dissertation for days (at a stretch).’

  b.  Ze werkte HEle dagen aan haar proefschrift.
       she worked whole days on her dissertation
       ‘She worked full-time (whole days) on her dissertation.’

  c.  Ik werk HEle dagen, maar hij werkt HALve dagen.
       I work whole days but he works half days
       ‘I work full-time, but he works part-time.’

In (284a&b), the adjunct reading of the heel phrases is available for both pre- and post-determiner heel. In these examples, the syntax of the overall construction makes adjunct construal the only possibility for the heel phrases. In examples of the type in (286), however, the noun phrase following the verb in principle has two construal possibilities; it can be interpreted either as the object of the verb, in which case the verb fluiten means “to play the flute”, or as an adjunct, in which case fluiten means “whistle”; see Section 8.3 for more discussion. It may be the case that adjunct construal is not equally felicitous in the two examples in (286); some (but not all) speakers find that the object reading is strongly preferred in the case of (286a), while (286b) is ambiguous. This suggests that, at least for a subset of speakers, the adverbial reading of heel phrases with pre-determiner bare heel is restricted.
The discussion above has focused on the construal of *heel* phrases as temporal adverbial phrases. This is indeed by far the most frequent way in which *heel* phrases are used as adjuncts; the examples in (287) show that even *heel* phrases headed by a noun that can otherwise be used as a measure phrase for distance can receive a temporal interpretation.

(287) a. Zij zat heel de afstand van Amsterdam naar Tilburg te fluiten.
  she sat all the distance from Amsterdam to Tilburg to whistle
  ‘All the way from Amsterdam to Tilburg she was whistling.’

b. Zij zat de hele afstand van Amsterdam naar Tilburg te fluiten.
  she sat the whole distance from Amsterdam to Tilburg to whistle
  ‘All the way from Amsterdam to Tilburg she was whistling.’

So far we have seen that in adjuncts *heel* can receive a core quantificational interpretation, a degree interpretation and a reading which is presumably to be classified as adjectival (the “full-time” interpretation of *hele dagen* illustrated in (285b&c)). What is impossible is for *heel* to be interpreted as a negative polarity item contributing condescension; while example (288) is certainly grammatical, both with and without *heel/hele*, the negative polarity interpretation is not available; the reading assigned to *heel/hele* is the core interpretation of exhaustivity/totality.

(288)    Ik werkte (heel) die/die (hele) dag niet eens!
    I worked all that/that whole day not even
    ‘I didn’t even work that day!’

7.2.4. Distribution of *heel* and its alternants as independent constituents

This section discusses the syntactic distribution of the various forms of *heel* examined in Section 7.2.2 as independent syntactic constituents (arguments, predicates and adjuncts), as well as their use as so-called °floating quantifiers.

7.2.4.1. Distribution as arguments

This section briefly discusses the use of pre-determiner bare *heel*, post-determiner inflectible *heel* and *geheel* as independent arguments. The conclusion we may draw from the discussion below is that the possibilities for independent uses of these elements are quite limited.

I. Bare *heel*

The bare form *heel* does not readily occur in argument position. Examples of the type in (289a), where *een heel* is a noun phrase denoting a whole loaf of bread, do occur, but it is doubtful that *heel* functions as an argument here; *een heel* is optionally accompanied by *wit/volkoren*, which can function as nouns themselves, so that when *een heel* occurs on its own, one may assume there to be a null noun present in the structure. Note that the bare form *half* occurs in the same syntactic
context; it can also be affixed with the diminutive suffix -je here (which would be awkward for heel: *een heeltje (wit)).

(289) a. Ik wil graag een heel (wit/volkoren).
    I want please a whole white/whole-wheat
    ‘I would like to have one loaf of (white/whole-wheat) bread, please.’

b. Ik wil graag een half/halfje (wit/volkoren).
    I want please a half/halfje white/whole-wheat
    ‘I would like to have half a loaf of white/whole-wheat bread, please.’

II. Inflected hele

The schwa-inflected form hele sporadically shows up in argument positions, as in (290), but for such cases, it can again plausibly be argued that there is a null noun in the noun phrase containing hele.

(290) a. Dit is een hele, en dat is een halve.
    this is a whole and that is a half

b. Hij speelde de bal over de hele.
    he played the ball over the whole
    ‘He played a passing shot which crossed the full width of the soccer field.’

III. Geheel

The variant of heel prefixed with ge- also shows up independently in noun phrases, in which case it arguably functions as the head of the noun phrase. Examples are given in (291). That geheel is a noun is especially clear from (291a), taken from the internet, where it is contrasted with the noun delen ‘parts’.

(291) Wat is de relatie tussen het geheel/*heel en zijn delen?
    what is the relation between the whole/whole and its parts
    ‘the whole and its parts’
In clause-adverbs like in z’n geheel in (292a), geheel only shows up in possessed noun phrases; z’n ‘its’ does not alternate with het. By contrast, when the PP in question functions as an adverbial intensifier of negation, as in (292b&c), it is only het that is possible. The distribution of z’n and het seems to correlate with the fact that in z’n geheel always has an antecedent in the clause (the noun phrases het huis in (292a)), while in het geheel does not.

(292) a. Ik heb het huis in z’n geheel een opknapbeurt gegeven.
    I have the house in its entirety a cleaning given
    ‘I gave the house in its entirety a cleaning.’

    that have I in the whole not said
    ‘I didn’t say that at all/I didn’t say any such thing.’

    I have in the whole no trust in him
    ‘I don’t trust him at all.’
7.2.4.2. Distribution as predicates

As already pointed out in the discussion of the semantics of *heel*, purely adjectival *heel* occurs as a predicate; in example (293a) *heel* functions as the predicate of a copular construction, and in (293b) as a "supplementive. In contexts like these, *heel* does not alternate with *hele* or *geheel*.

(293) a. Die vaas is gebroken, maar deze is nog *heel*.

that vase is broken but this one is still whole
‘That vase is broken but this one is still unscathed.’

b. De archeoloog had de vaas graag *heel* gevonden.

the archeologist would have the vase PRT whole found
‘The archeologist would have liked to have found the vase in an unbroken state.’

7.2.4.3. Distribution as adjuncts and floating quantifiers

One respect in which *heel* and *hele* differ robustly from *geheel* is the fact that *heel/hele* cannot be construed as a floating quantifier at all. That is, sentences of the type in (294a) are entirely impossible. The grammaticality of (294b), on the other hand, may seem to suggest that *geheel* can be a floating quantifier, but claims to this effect are immediately refuted by the fact that *geheel* (in contradistinction to *heel/hele*) cannot be construed with noun phrases; cf. *geheel dat boek* ‘whole that book’. Rather than functioning as a floating quantifier, *geheel* in (294b) is an adjunct, replaceable with the PP *in z’n geheel* (discussed at the end of Section 7.2.4.1) or the adverb helemaal. From (294b) we conclude, then, that *geheel* can occur on its own as an adjunct, and differs in this regard from *heel* and *hele*.

(294) a. *Ik heb dat boek gisteren heel/hele gelezen.

I have that book yesterday all/whole read

b. Ik heb dat boek gisteren geheel gelezen.

I have that book yesterday whole read

b’. Ik heb dat boek gisteren *in z’n geheel/helemaal* gelezen.

I have that book yesterday in its whole/altogether read

The form *geheel* and the adverb *helemaal* also show up in a number of other adverbial contexts of a highly idiomatic character. Some examples are given in (295). It is difficult to tell whether *geheel/helemaal* in (295) are constituents of the noun phrases/PPs with which they combine, or whether they are constituents of the VP or clause in which these expressions occur; the examples in (296) show that topicalizing the noun phrase/PP and pied piping *geheel/helemaal* is not very felicitous, although stranding *geheel/helemaal* under topicalization is appreciably worse.

(295) a. Ik ben *geheel/helemaal/*heel de Uwe.

I am whole/altogether/whole the yours
‘I am entirely/all yours.’

b. Ik ben *geheel/helemaal/*heel in de war.

I am whole/altogether/whole confused
‘I am entirely completely confused.’
To conclude this discussion of adverbially construed \textit{heel} forms, we return to an observation made in the discussion of the semantics of \textit{heel} in Section 7.2.1. We observed there that adnominal \textit{heel} sometimes seems to quantify a constituent larger than the noun phrase that it is syntactically construed with, and contributes a semantics which is essentially the same as that of adverbial \textit{helemaal}. Examples of the type in (297) illustrate this. The interpretation of \textit{helemaal} in (297c) is that of a VP-level adverb; the semantic contribution of \textit{heel} and \textit{hele} in (297a&b) seems to be completely on a par with that of \textit{helemaal}.

(297) a.  Heel de tafel zit onder de vlekken.  
\hspace*{1.5em} all the table sits under the stains  
\hspace*{1.5em} ‘The whole table is stained.’

b.  De hele tafel zit onder de vlekken.  
\hspace*{1.5em} the whole table sits under the stains  
\hspace*{1.5em} ‘The whole table is stained.’

c.  De tafel zit helemaal onder de vlekken.  
\hspace*{1.5em} the table sits altogether under the stains  
\hspace*{1.5em} ‘The table is profusely covered with stains.’

In (298c), on the other hand, \textit{helemaal} is not interpreted as a VP-level adverb but as a modifier of \textit{in de hoek} ‘in the corner’; \textit{helemaal in de hoek} can be translated as \textit{all the way in the corner}. Correlated with the fact that \textit{helemaal} is a PP-modifier rather than a VP-level adverb is the fact that (298c) has no counterparts with adnominal \textit{heel/hele}: the examples in (298a&b) are entirely unacceptable.

(298) a. *Heel de tafel staat in de hoek.  
\hspace*{1.5em} all the table stands in the corner

b. *De hele tafel staat in de hoek.  
\hspace*{1.5em} the whole table stands in the corner

c.  De tafel staat helemaal in de hoek.  
\hspace*{1.5em} the table stands altogether in the corner  
\hspace*{1.5em} ‘The table is standing all the way in the corner.’

That \textit{helemaal} and adnominal \textit{heel/hele} cannot always be used interchangeably can also be shown in the other direction by means of the examples in (299).

(299) a.  Heel de stad ontwaakte.  
\hspace*{1.5em} all the town woke up

b.  De hele stad ontwaakte.  
\hspace*{1.5em} the whole town woke up

c. *De stad ontwaakte helemaal.  
\hspace*{1.5em} the town woke up altogether
For completeness’ sake note that we analyzed helemaal as a VP-modifier, while allemaal has been analyzed in Section 7.1.5 as a floating quantifier (with ‘scope over the antecedent noun phrase only). There are a number of syntactic and semantic differences between these two elements that justify this difference in analysis. First of all, allemaal can only be used with a plural antecedent, whereas helemaal can be used with both plural and singular count-nouns, as illustrated in example (300).

(300) a. Ik heb de boeken/*het boek allemaal gelezen.
     I have the books/the book all read
b. Ik heb de boeken/het boek helemaal gelezen.
     I have the books/the book completely read

Second, helemaal readily combines with substance nouns, whereas allemaal seems to give rise to a degraded result in such constructions (although judgments differ; Haeseryn et al. (1997: 350) give (301a) with allemaal as fully acceptable).

(301) a. De alcohol was helemaal/*allemaal verdampt.
     the alcohol was completely/all evaporated
     ‘The alcohol had completely/all evaporated.’
     b. De boter was helemaal/*allemaal gesmolten.
     the butter was completely/all melted

These differences can, of course, easily be accounted for: if helemaal has scope over the entire VP, it is unlikely to impose constraints on any noun phrase within that VP, while allemaal obviously does impose constraints on its antecedent. We may therefore conclude that helemaal and allemaal differ both in scope and in meaning. This conclusion leads to the expectation that it should be possible for the two elements to occur in one and the same construction. As shown in example (302a) this expectation is indeed borne out. Note, finally, that the two quantifiers cannot appear in the order given in example (302b), which suggests that helemaal does indeed have scope over the entire VP.

(302) a. Ik heb de boeken allemaal helemaal gelezen.
     I have the books all completely read
b. *Ik heb de boeken helemaal allemaal gelezen.

7.3. A note on focus particles

In the previous sections we have discussed the pre-determiners al and heel and their alternants. However, this does not exhaust the possibilities; the examples in (303) show that focus particles like zelfs ‘even’, ook ‘also’ and alleen ‘only’ and may also precede the determiner. That the focus particle and the noun phrase form a constituent is strongly suggested by the fact that they occur in clause-initial position; cf. the ‘constituency test.

(303) a. Zelfs de BUURman heb ik niets verteld.
     even the neighbor have I nothing told
     ‘Even the neighbor, I didn’t tell anything.’
b. Ook de **BUUR**man vindt dat het huis geschilderd moet worden. 
also the neighbor finds that the house painted must be
‘The neighbor is also of the opinion that the house must be painted.’
c. Alleen de **BUUR**man heb ik nog niets verteld. 
only the neighbor have I yet nothing told
‘Only the neighbor I have told nothing yet.’

The examples in (304), on the other hand, show that at least some of the focus particles need not be part of the noun phrase but can also be used independently in the clause.

(304) a. De **BUUR**man heb ik zelfs niets verteld. 
the neighbor have I even nothing told
‘I didn’t even tell the neighbor anything.’
b. De **BUUR**man vindt ook dat het huis geschilderd moet worden. 
the neighbor finds also that the house painted must be
‘The neighbor is also of the opinion that the house must be painted.’
c. ?De **BUUR**man heb ik alleen nog niets verteld. 
the neighbor have I only yet nothing told

Despite the fact that the examples in (303) and (304) resemble the behavior of *al* and *heel* and their alternants in various respects, we will not discuss the behavior of these focus particles here. The reason for this is that the focus particles may also combine with other types of phrases. The examples in (305) illustrate this for PPs.

(305) a. Zelfs/Ook met de **BUUR**man heb ik nog niet gesproken. 
even/also with the neighbor have I not yet spoken
‘Even/Also with the neighbor, I haven’t spoken yet.’
b. Met de buurman heb ik zelfs/ook nog niet gesproken. 
with the neighbor have I even/also yet not spoken
‘With the neighbor, I haven’t even/also spoken yet.’

We therefore postpone the discussion of these focus elements to some other occasion, where we can give a more comprehensive discussion of them; for the moment, we refer the reader to Barbiers (1995), and references cited there, for relevant discussion.

7.4. Bibliographical notes

Although we have already referred to most studies on pre-determiner *al* and *heel* and their variants during our discussion, we want to highlight some of the more important ones here: apart from grammars like Paardekooper (1986) and Haeseryn et al. (1997) and the *Woordenboek der Nederlandsche Taal*, interesting discussions can be found in Verkuyl (1981), De Jong (1991), Coppen (1991), Zwarts (1992), Perridon (1997), Den Dikken (2002) and Hoeksema (2007).