

# Direct partitive constructions

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## 0. Introduction

In this paper I want to discuss Direct Partitive Constructions (DPC) in Dutch.<sup>1</sup> DPCs are characterized by the fact that they consist of two adjacent noun phrases (N1 and N2), forming one constituent, as in (1).

- (1)        een    aantal    studenten  
             a     number   students  
             'A number of students'

In (1) N1 *aantal* 'number' is a quantifier-like noun, which is in a part-whole relation with N2 *studenten* 'students': there has been an undefined number of individuals selected out of the set of all the students. I will call the nouns that are quantifier-like 'Quantifier Nouns' (QN). There is another N1 N2 combination which I present below in (2), where N1 is ambiguous between two readings: in one case *zak* 'bag' refers to a physical object, indicating a specific bag that contains *goud* 'gold' or *knikkers* 'marbles'. In the other reading *zak* 'bag' is more like a QN and is interpreted as a part of the total amount of gold or of marbles (cf. Putter 1976, Bennis 1978). I will call nouns with this property 'Container Nouns' (CN).

- (2)        een    zak    goud/een    zak    knikkers  
             a     bag    gold/a     bag    marbles  
             'a bag of gold/a bag of marbles'

In this article I want to focus on the internal structure of DPCs, and I will show that in Dutch two DPCs should be distinguished: 1) DPCs of which N1 is a QN and 2) DPCs of which N1 is a CN. In section 1 I will discuss some syntactic and semantic properties of DPCs and in section 2 I will discuss Delsing's (1991) analysis and we will see that it cannot be adopted as is for Dutch. Some QNs have an ambiguous status: they can be used as quantifiers as well as referential

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nouns. We can account for this semantic difference if we generate noun phrases like *een aantal* 'a number' in [Spec,NP] when *aantal* 'number' is QN and in N when *aantal* 'number' is referential. At the same time we have an account for the agreement facts: the QP agrees with N2 when *een aantal* 'a number' is generated in [Spec,NP] and with N1 when *aantal* 'number' is generated in N. But base-generation of *een aantal* 'a number' in [Spec,NP] is problematic for the fact that it licenses quantitive *er* 'of-them'. Therefore I propose to generate QP not in [Spec,NP] but in [Spec,QP].

### 1. Some Properties of DPCs

In this section I want to discuss some of the restrictions on the relation between N1 and N2 and on prenominal elements in DPCs. N1s cannot be combined with an arbitrary N2. There are several restrictions which force N1 on N2. A first restriction concerns the number feature of the selected noun. QNs like *een heleboel* 'a lot' only combine with plural N2s, whereas nouns that are ambiguous between a quantifier and a real object take a plural N2 or a mass N2.<sup>2</sup>

- (3) a *een aantal* \*student/studenten/\*goud  
       a number student(sg)/students(pl)/gold  
       'a number of student; a number of students; a number of gold'  
       b *een zak* \*knikker/knikkers/goud  
       a bag marble(sg)/marbles(pl)/gold  
       'a bag of marble; a bag of marbles; a bag of gold'

Second, QNs and CNs differ with respect to the prenominal elements that are allowed. When we compare the elements that may precede QN and CN we see that some QNs have a determiner of their own and that they only occur with the indefinite *een* 'a' e.g. *een heleboel* 'much/many'. Others also have definite determiners. Note, however, that the meaning of the quantifier changes if it is preceded by the definite determiner. In (4a) *een paar* 'a few' means a low but unspecified number (cf. De Rooy 1970, Putter 1976) when the verb is plural. In

<sup>2</sup> There is an additional condition on CN, as is shown in (i). If we use a 'neutral' noun like *kom* (bowl) the N1 N2 combination is correct, but if we have a CN like *aquarium* 'aquarium' the N1 N2 combination is odd (cf. Paardekooper 1952). We prefer to put the preposition *met* 'with' between N1 and N2 or *vol* 'full' (*een aquarium met/vol vissen*). Another way to make the example with *aquarium* more acceptable is to modify it by means of the adjective *heel* 'whole' (*een heel aquarium vissen*).

(i) *een kom vissen/#een aquarium vissen*  
       a *bowl fishes/an aquarium fishes*  
       'a bowl of fishes/an aquarium of fishes'

the same example *een paar* 'a pair' indicates exactly two shoes when the verb is singular, as does *het paar* 'the pair' in (4b).<sup>3</sup> CNs allow both a definite and an indefinite determiner.

- (4) a Een paar schoenen staat/staan in de hoek.  
       a pair shoes stands/stand in the corner  
       'there is a pair of shoes in the corner; there are a few shoes in the corner'  
       b Het paar schoenen staat/\*staan in de hoek.  
       the pair shoes stands/stand in the corner  
       'the pair of shoes is in the corner'

There are some more tests to distinguish QN and the more referential CNs (cf. Delsing 1991). QNs do not allow an (indefinite) numeral, a genitive NP or a possessive pronoun, as (5a) shows. All these prenominal elements are allowed with CNs like *zak* 'bag' in (5b) or collective nouns like *kudde* 'herd' in (5c).

- (5) a \*veel/\*drie/\*Jans/\*mijn aantallen boeken  
       many/three/Jans/my numbers books  
       b veel/drie/Jans/mijn zakken goud  
       many/three/Jans/my bags gold  
       c veel/drie/Jans/mijn kuddes schapen  
       many/three/Jans/my herds sheep

As we saw above *aantal* 'number' is ambiguous between a QN and a referential noun. (5a) shows that QN *aantal* does not allow a genitive NP nor a possessive pronoun. However, if *aantal* is referential both genitives are allowed (6).

- (6) ??Jans/??mijn aantal boeken is groter dan het jouwe.  
       Jans/my number books is bigger than the yours

<sup>3</sup> The (in)definite article influences agreement. With an indefinite article both singular and plural agreement are possible (ia). A definite article only triggers singular agreement (ib) (cf. Van Gestel 1986).

(i) a een aantal mensen protesteerde(sg)/protesteerden (pl)  
       a number people protested  
       b de massa mensen protesteerde(sg)/\*protesteerden(pl)

If *massa* 'mass' in (ib) is modified it becomes more acceptable. Van Gestel (1986) also assumes that *aantal* 'number' is ambiguous between a quantifier and a real noun. He claims that *aantal* lacks its quantifier-properties if true nouniness-requiring ingredients (e.g. a definite determiner) are added. I assume that the definite determiner makes the embedded phrase referential, which influences the internal structure of the whole phrase. Similar facts occur in Swedish; see Delsing (1991), who proposes a different structure for definite DPCs.

Third, QNs can function as the head of an Indirect Partitive (IPC), where N1 and N2 are separated by the preposition *van* 'of', as in (7a). CNs and collective nouns normally do not appear as heads of an IPC (7b,c).<sup>4</sup> <sup>5</sup>

- (7) a een aantal van de studenten  
       a number of the students  
       b \*een vaas van de bloemen  
           a vase of the flowers  
       c \*een kudde van de schapen  
           a herd of the sheep

Fourth, a well-known property of Dutch quantifying elements is that they license quantitative *er* 'of-them'(8a). If we compare QNs with CNs and collective nouns we see that QNs pattern with other quantifying elements, because they also license *er* (cf. Blom 1976). The more referential nouns differ with respect to *er*. If a CN or a collective noun cooccurs with *er*, *er* cannot be interpreted as quantitative *er*, but only as locative *er* 'there' (8b).

- (8) a Ik had er gisteren drie/een aantal/een paar (knikkers).  
       I had *er* yesterday three/a number/a few marbles  
       'I had three/a number/a few of-them yesterday'  
       b \*Ik had er gisteren een zak (knikkers)/een kudde (schapen).  
       I had *er* yesterday a bag marbles/a herd sheep  
       \*'I had a bag of-them /a herd of-them yesterday'  
       ok 'I had a bag/a herd there yesterday'

A fifth restriction refers to selection of N2 by QN and CN. Above we saw that CNs take plural nouns or mass nouns (cf. (2)). A closer look at collective nouns reveals that we have to distinguish different types (cf. Van der Wouden 1992). Some of them show a strong semantic selection, they only select a restricted class of N2s. A noun like *kudde* 'herd' can take an N2 belonging to a

<sup>4</sup> The facts are a little more complicated. If the CN is preceded by a numeral like *één* 'one' (ia) or if the determiner of N2 is changed to a demonstrative like *deze* 'these' (ib), the examples become acceptable. Another possibility to make (ib) grammatical is to add a Relative Clause (ic). It is not clear to me why the examples become grammatical if N1 or N2 is more restrictive.

(i) a één vaas van de bloemen  
       b een vaas van deze bloemen  
       c een vaas van de bloemen die Jan mij gegeven heeft  
           a vase of the flowers that Jan me given has

Barwise and Cooper (1981), Hoeksema (1983), and De Jong (1987) discuss other restrictions on the embedded determiner in IPCs.

<sup>5</sup> IPCs with container nouns as heads behave differently from IPCs with numerals and superlatives as heads (cf. Jacobs 1986).

class of Ns referring roughly to animals that live in groups, so (9) is correct when N1 *kudde* 'herd' selects an N2 like *olifanten* 'elephants', but not when it selects *vlinders* 'butterflies' or *studenten* 'students' as N2. In the last cases the DPC receives a funny interpretation (cf. Barbiers 1990). QNs only require that N2 is plural, they do not impose semantic restrictions on N2.

- (9)        een    kudde    olifanten/#vlinders/#studenten  
              a        herd     elephants/butterflies/students  
              'a herd of elephants/butterflies/students'

The last property of DPCs I want to discuss is recursion of N1s. We will first look at QNs and turn to CNs below. If QNs select other QNs, we see that such a combination gives an ungrammatical result (10), when *massa* 'mass' is interpreted as a referential noun (10) becomes more acceptable.

- (10)        [\*een    aantal/\*een heleboel/\*een paar]    massa's    mensen  
              a        number/a lot/a few                        masses    people

The QNs in (10) indicate an unspecified amount, and they cannot combine with other unspecified QNs nor with numerals; (cf. (5)).<sup>6</sup>

How about CNs? Do they allow recursion? If we look at (11a) we see that a CN *krat* 'box' selects the mass noun *bier* 'beer'. The CN *kratten* can be selected by a CN like *vrachtwagen* 'truck', yielding (11b). The CN *vrachtwagen*, on its turn, can be selected by a CN like *rij* 'row' (11c). If we choose the right CNs we can have as many CNs as we want (cf. Van Gestel 1986).

- (11) a    een    krat    bier  
              a        box    beer  
       b    een    vrachtwagen    kratten    bier  
              a        truck                boxes    beer  
       c    een    rij    vrachtwagens    kratten    bier  
              a        row    trucks                boxes    beer

The further the CNs are embedded, the harder it is to interpret the whole noun phrase, although semantic and pragmatic factors seem to play a role, too.

Collective noun phrases like *kudde* 'herd' select a subclass of nouns as we saw above. Therefore we do not expect that collective nouns select other

<sup>6</sup> This does not mean that they cannot be modified. They can only be modified by means of adjectival phrases that indicate a relative amount like *groot* 'big', etc. *grote aantallen studenten* 'big numbers students'. It depends upon the QN whether it takes an adjective and if so, which adjective it takes.

collective nouns (cf. (12)). Collective nouns can be selected by QNs like *aantal* 'number' and by more 'neutral' collective nouns like *verzameling* 'collection'.

- (12)        een aantal/een verzameling/\*een zwerm    kudden    olifanten  
               a number/a collection/a swarm               herds       elephants

Summarizing, QNs and CNs have different properties. They can be preceded by different prenominal elements. QNs require a plural complement and CNs a mass complement or a plural complement. QNs imposes no semantic restrictions on N2, whereas some CNs do. Recursion of QNs generally is not allowed, but CNs may select other CNs.

## 2. An Analysis

In section 1 I discussed various syntactic and semantic properties of DPCs with QNs and with CNs. Now we will see how these differences relate to the position a QN or a CN occupy in QP. Above I discussed the internal properties of DPCs, but if we look at their external behaviour we see that there is another difference. When we take a look at their behaviour with respect to verbal agreement, we see that in some cases agreement occurs with N1 (13a,b) and in other cases with the quantified noun N2 (13a).

- (13) a    Een    aantal(sg)    mensen(pl)    komt(sg)/komen(pl)    altijd    te    laat.  
               a        number        people        comes/come                always too    late  
       b    Een    zak(sg)    knikkers(pl)    lag(sg)/\*lagen(pl)    op    de    tafel.  
               a        bag        marbles        lay/lay                    on    the    table

First we will see whether it is possible to apply Delsing's (1991) analysis to Dutch to account for the agreement facts. Delsing builds on work by Bhatt (1990), who adopts a QP-analysis, in which Q is selected by D. I will adopt the DP analysis, too.

Delsing uses both the syntactic and the semantic differences to explain that quantifier nouns and referential nouns must be generated in different positions at D-structure. Plural agreement of the verb in (13a) corresponds to a quantifier interpretation of *een aantal* 'a number', whereas singular agreement means that *aantal* 'number' is interpreted as a referential. The noun phrase *een zak* 'a bag' in (13b) can be interpreted both as a QN and as a referential noun. Looking at the agreement facts, we see in (13a), where the noun phrase *een aantal mensen* 'a number of people' is the subject, that it triggers singular or plural agreement on the verb. However, the subject of (13b) *een zak knikkers* 'a bag of marbles' only triggers singular agreement, although *zak* 'bag' can be interpreted as a QN and as a referential noun. If we assume with Delsing that the lexical head (N) of a

DP/QP triggers verbal agreement when DP/QP functions as a subject, we expect that in (13a), when the verb shows singular agreement, *aantal* 'number' is generated in N. When the verb shows plural agreement, *aantal* 'number' should be in a different position. Therefore, Delsing proposes to generate QNs in [Spec,NP] or in N, depending on their semantic and syntactic properties. A QN base-generated in [Spec,NP] is an argument of N and it is in a Spec-Head relation with N. QN cannot stay in that position and it has to move to [Spec,QP] to receive case. It ends up in [Spec,QP], being in a Spec-Head relation with Q and binding the [+/-count] feature of Q. There are two other means of licensing Q. Q can be licensed by instantiation of a numeral or of an indefinite article. Q can also be licensed by movement of N to Q, but this does not occur in Swedish nor in Dutch. Consider (14a,b,c), representing the structures of (13a,b).<sup>7</sup>

- (14) a  $[_{QP} [_{een} \text{aantal}_i] \quad [_Q [_Q] \quad [_{NP} [t_i] \quad [_N \text{mensen}]]]]]$   
       b  $[_{QP} [ \quad [_Q [_Q \text{een}] \quad [_{NP} [_N \text{aantal}] \quad [_{NP} [_N \text{mensen}]]]]]]]$   
       c  $[_{QP} [ \quad [_Q [_Q \text{een}] \quad [_{NP} [_N \text{zak}] \quad [_{NP} [_N \text{knikkers}]]]]]]]$

In Delsing's analysis *een aantal* 'a number' in (14a) is a QN and it is base-generated in [Spec,NP]. It cannot stay there and has to move from [Spec,NP] to [Spec,QP], in order to bind the [+/-count] feature. If a QN starts out in [Spec,NP], N is the lexical head of the construction and the verb agrees with the quantified noun, as in (13a), structurally represented in (14a). In (14b) *aantal* 'number' is referential and it is the lexical head of the QP. The verb agrees with the N *aantal*. The indefinite determiner *een* 'a' is generated in Q, licensing Q and *mensen* 'people' is generated as complement of *aantal*. For (13b) we propose the same analysis as for the referential *aantal* 'number' in (13a): the CN *zak* 'bag' is the lexical head of the QP and triggers singular agreement on the verb. The same analysis holds for a DPC with a collective N1 as *een kudde olifanten* 'a herd elephants', where *een* 'a' is in Q, *kudde* 'herd' is in N and *olifanten* 'elephants' an NP complement of N.

In order to account for the data in (13a,b), when the verb is singular, we can apply Delsing's analysis, but there are several problems with this analysis if we want to account for (13a) with plural agreement.

Firstly, and this is a general problem, it is not clear what kind of argument a QN like *een aantal* 'a number' is, nor why it must be generated in [Spec,NP]. Delsing suggests that it is possible to base-generate QN in [Spec,QP], but he does not choose this option, because he considers QN as an argument and arguments

<sup>7</sup> I am not adopting the Delsing's position for APs in Dutch. I assume that they are adjoined to NP (cf. Barbiers 1992). We cannot use the position of adjectives as a test for movement of a quantifying element to [Spec,QP] or to Q in Dutch, because in Dutch restrictive adjectives are always prenominal.

have to be generated in the lexical part of a projection. He assumes that possessive elements are generated in this position, too. But QNs and possessive phrases have a different relation with N, therefore it does not seem appropriate to generate both elements in [Spec,NP]. Besides, Dutch has two options to realize possessives. A possessive can be prenominal as in (15a), where it bears genitive morphology, or postnominal (15b), where the noun phrase is preceded by the preposition *van* 'of'. The second option is barred for *een aantal* 'a number' in (15b) and it is not clear why, if both possessives and QNs are generated as external arguments of N.

- (15) a Jans boeken  
       Jans books  
       b de boeken van Jan/\*van een aantal  
           the books of Jan/of a number

There is an additional problem for Dutch if we generate QN in [Spec,NP]. Above we saw that both numerals like *drie* 'three' and QNs like *een aantal* 'a number' and *een paar* 'a few' license quantitative *er* 'of-them' (16a=8a).

- (16) a Ik had er gisteren drie/een aantal/een paar (knikkers).  
       I had *er* yesterday three/a number/a few marbles  
       'I had three/a number/a few of-them yesterday'  
       b Er zijn/\*is er een aantal.<sup>8</sup>  
       There are/is *er* a number

Let us see why the data with Dutch *er* are problematic for Delsing's analysis when we have a QN like *een aantal* 'a number'. (16a) shows that quantitative *er* 'of-them' is e.g. licensed by *een aantal* 'a number'. According to Delsing QNs like *een aantal* 'a number' have to be generated in [Spec,NP] when they have a quantifier interpretation and when there is agreement with N2 as in (16b). This means that in (16) *een aantal* 'a number' has to be generated in the specifier position of NP. The QN cannot stay there and it has to move to [Spec,QP] to license Q binding its [+/-count] features. The moved QN leaves a trace in [Spec,NP].

Further, suppose that quantitative *er* always is a maximal projection, generated as a complement of Q and that it is licensed by elements that contain Q-features. In addition to that, the element licensing *er* has to belong to the functional part of the projection. Elements that are generated in the lexical part of the projection do not license quantitative *er*. So if a noun like *aantal* 'number' or a CN is generated in N it does not license quantitative *er* (cf. (8)). *er* cannot stay

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<sup>8</sup> I would like to thank the reviewer for these examples.



inside QP because of its clitic-like properties and it moves out of QP to [Spec,VP] or it adjoins to VP. This movement is obligatory: (16) is ungrammatical if quantitative *er* is not present or if it stays inside QP. Movement of *er* in (16) means that an NP containing a trace has been moved. The landing site of QN is [Spec,QP] and the position of *er* is now in VP, which means that QN does not c-command its trace anymore, unless we allow layered traces. In order to eliminate the inconsistency, I propose the structure in (17), where *een aantal* 'a number' is base-generated in [Spec,QP] and where it is licensed by Spec,Head agreement with Q. It binds the Q-features. Q binds an empty position in NP, just as a determiner does (cf. Higginbotham 1983).<sup>9 10</sup>

- (17) [QP [een aantal] [Q' [Q ] [NP [N mensen]]]]

Now we account for the ungrammatical examples containing quantifying elements in (5a), repeated here as (18a), in the following way. I assume that *veel* 'many' and *drie* 'three' are generated in Q. But the proposed structure allows for two positions of *veel/drie* 'many/three': in QP, as the head instantiating Q in (18b), or as the head of the QP that is base-generated in [Spec,QP], as in (18c).

- (18) a \**veel*/\**drie* aantallen mensen  
       many/three numbers people  
       b [QP [ ] [Q' [Q *veel/drie*] [NP [N aantallen] [NP mensen]]]]  
       c [QP [QP [Q *veel/drie*] [NP aantallen]] [Q' [Q ] [NP mensen]]]]

As we saw above *aantal* 'number' is ambiguous between a QN and a referential noun. Example (18a) is only ungrammatical if *aantal* 'number' is a QN. I assume that QNs are [-count] nouns. The word *veel* 'many/much' selects a complement that has to be [+mass] or [+count], whereas complements of *drie* 'three' have to be [+count]. The word *aantal* 'number' is, however, a [-count] noun when it functions as a QN and that is what makes (18a=18c) unacceptable. Strings like *een aantal veel mensen* 'a number many people' or *een aantal drie mensen* 'a number three people' (19) are ungrammatical, too. *een aantal* 'a number' is generated in [Spec,QP] if it is a QN, and Q is filled by *veel* 'many' or by *drie*

<sup>9</sup> According to the proposed structure *mensen* 'people' could also be in [Spec,QP] as a complement of *aantal* 'number'. This is, however, not likely, because we would have to assume that the Q, that is in a Spec,Head relation with *een aantal* 'a number', contains an empty NP complement, which has to be identified with *mensen* 'people', or that Q selects no NP complement at all.

<sup>10</sup> However, base-generation of *een aantal* (a number) in [Spec,QP] creates a new problem for a movement analysis of *er*. Movement of *er* will now cause a Minimality Violation (cf. Rizzi 1990). Therefore I propose to base-generate *er* as is proposed for French quantitative *en* 'of-them' by Hulk (1982). *Er* is coindexed with a *pro* to license its *phi*-features. This analysis also bears problems which, however, I have to leave to future work.

'three', respectively. The Q-features are bound by two licensing elements at the same time, which is not allowed.

- (19) [<sub>QP</sub> [een aantal] [<sub>Q</sub> [drie] [<sub>NP</sub> mensen]]]

There seems to be another structure available for *een aantal veel mensen* 'a number many people'. When *aantal* 'number' is referential it is generated in N and *veel* 'many' or *drie* have to appear in Q. In this case, however, the complement of *aantal* 'number' is an NP and NPs do not contain a Q-position, nor a D-position (cf. Delsing 1991, Barbiers 1990). That is why *een aantal de mensen* 'a number the people' is excluded, too.

An explanation for the ungrammaticality of *een aantal massa's mensen* 'a number masses people' and the other examples of (10), is that *een aantal* 'a number', *heleboel* 'a lot', *paar* 'a few' and *massa's* 'masses' are QNs and therefore they are generated in [Spec,QP]. It is however not allowed to generate two QNs in [Spec,QP]. If *aantal* 'number', *paar* 'pair' or *massa's* 'masses' are referential we should expect that they may cooccur with a numeral or a QN, because they are generated in N, and this seems to be true.

How can we account for the ungrammatical examples of (5a=20) that contain a possessive NP or a possessive pronoun?

- (20) \*Jans/\*mijn aantal boeken  
Jans/my number books

I assume that D optionally f-selects a QP and that *Jans* and *mijn* 'my' are generated in [Spec,NP]. *Jans* and *mijn* 'my' have to move to [Spec,DP] to receive case and they have to go through [Spec,QP] but this position is filled by *aantal* 'number'. Movement through [Spec,QP] yields a Minimality Violation (cf. Rizzi 1990). That is what causes the ungrammaticality of (20).<sup>11</sup> There is another structure available for (20), in which *aantal* 'number' is generated in N. D selects an NP in this case and there is no intervening QP projection and movement of possessive NPs like *Jan* or a possessive pronoun like *mijn* 'my' is not problematic.

The string *Jans/mijn drie boeken* 'Jans/my three books' contrasts with (20), being grammatical. When Q is filled by a numeral, the numeral binds the Q-features and the [Spec,QP] is empty. In this case *Jans/mijn* 'Jans/my' can use this position as an intermediate landing site on their way to [Spec,DP]. If *aantal*

<sup>11</sup> Delsing (1991) suggests this solution, too, but he rejects it because he argues that QN is an argument of N and arguments have to be generated in the lexical part of a projection. His account for the ungrammaticality of examples like (20) is that both a possessor and a QN are base-generated in [Spec,NP] and that they cannot be generated there at the same time.

'number' is referential, it is generated as the lexical head of the nominal projection and cooccurrence of possessive elements in D is no problem (cf.(6)).<sup>12</sup>

The structure of the DP allows for strings like (21a,b), where we see a difference between the quantifier phrase *een aantal* 'a number' and the numeral *vier* 'four'.

- (21) a \**de een aantal boeken*  
           the a number books  
       b *de vier boeken*  
           the four books

I assume that the features of the elements that are in the functional domain have to be compatible. In (21a) *de* 'the' is in D and it controls the features of QP and also the features of elements that are in [Spec,QP]. *de* 'the' and *een aantal* 'a number' differ in their specificity feature: *de* 'the' is specific but *een aantal* 'a number' is non-specific. Numerals are ambiguous between a non-specific and a specific reading. In (21b) the numeral *vier* 'four' refers to something that has been mentioned before. So (21b) is correct, because *de* 'the' and *vier* 'four' are both specific. (21a) stays ungrammatical if we generate *een* 'a' in Q and *aantal* 'number' in N. There will be a feature clash in the functional domain, although *de* 'the' and *een* 'a' both can be specific, they do not have the same definiteness feature.

When we adopt this analysis and base-generate QNs in [Spec,QP], we are not able to account for the fact that container nouns like *zak* 'bag' are ambiguous between a referential noun and a quantifier noun. Dutch DPCs that contain CNs always trigger agreement with the CN and never with N2. We cannot assume that they are generated in [Spec,QP], because they do not license quantitative *er*. So syntactically they do not behave like quantifiers. I assume that CNs receive their quantifier interpretation at LF.

#### 4. Conclusion

In this article I discussed several properties of the DPC. The nouns that appear as N1 impose restrictions upon the N2. Some N1s are unambiguously quantifiers, they are generated in [Spec,QP], others are ambiguous: they may be generated in [Spec,QP] and in N. The third group of N1s are always generated in N.

<sup>12</sup> It is not clear to me why Dutch uninflected *veel* 'many' is not allowed after a determiner or a possessive NP as in \**de/Jans veel boeken* 'the/Jans many books', but inflected *vele* 'many' is *de/Jans vele boeken* 'the/Jans many books'.

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