NP Ellipsis without Focus movement/projections: the role of Classifiers

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1. Introduction

- Ellipsis has often been argued to be closely related to concepts generally ascribed to the domain of information structure, notably the notion of Focus.

- An isomorphic mapping is supposed to exist between the interpretation of the focused element in ellipsis and syntactic positions licensing the ellipsis site. To this end information-structural positions have been proposed to be an integral part of the syntactic structure (as in e.g. Corver & van Koppen (2006), Eguren (2007) and Ntelitheos (2004) especially for NP Ellipsis).

Our contribution:

- In this paper we provide arguments against accounts of ellipsis in terms of focus, drawing on evidence from NP Ellipsis (NPE). We put forward an analysis in which the derivation of Ellipsis does not rely on a designated information-structural projection in the syntax.

- Instead, we propose that NPE in a number of languages is licensed by the presence of classifiers in the nominal structure (cf. Bernstein 1993). The morpho-syntactic properties of classifiers constitute the crucial factor in the licensing of ellipsis. This line of approach thus revives an account of NPE in terms of inflection (cf. Bernstein 1993 among others).

- We show that discourse-related concepts such as focus cannot obliterate the morpho-syntactic requirements of the structure; this weakens an account of the NPE in particular solely in terms of focus. We argue that focus, if present at all, arises as a by-product of the ellipsis licensing process and is not the primary licensing factor.

- The proposed analysis thus casts doubts on the assumption that information-structural positions are required in the syntax, and encourages an approach where the pragmatic interpretation of the phenomenon under discussion is not tied to a specific syntactic position.

2. The Focus Approach to NPE

The NPE construction is illustrated below with data from Dutch (1) (from Corver & van Koppen 2006), German (2) (from Lobeck 1995), Italian (3) and Spanish (4) (both examples taken from Bernstein 1993), and English in (5) (from Barbiers 2005, slightly modified).

(1) *Over konijnen gesproken... (Talking about rabbits...)*
Ik heb gisteren een zwart-e _ zien lopen.
'I have seen a black one (walk) yesterday.'

(2) Peter hat viele gebrauchte Autos angesehen und schließlich ein neu-es [e]
Peter has many used   cars looked-at and finally   a new$_{NEUT-SG}$
gekauft.
bought
'Peter has looked at many used cars and finally bought a new one.'

(3) a. Un libro grande è sulla tavola.
   a book big   is on-the table
  'a big book is on the table'
 b. Uno grande è sulla tavola.
   'a big (one) is on the table'

(4) a. Un libro grande está encima de la mesa.
   a book big   is   on   the table
   'a big book is on the table'
 b. Uno grande está encima de la mesa.
   'a big (one) is on the table'

(5) a. Talking about cars, I prefer a red one.
  b. (Talking about new books,) I have two.
  c. (Talking about books,) I have two new ones.

Corver & van Koppen 2006, Eguren 2007, Ntelitheos 2004, among others: NPE should be analysed in terms of focus related movement. The crucial licensing factor for NPE is the presence of FocusP within nominal structure.

2.1. Focus in Dutch NPE

Corver & van Koppen (2006) note that there exist two different variants of NPE with adjectives in Dutch, one with the adjectival ending –e (schwa) (as in (6)), and one without the adjectival ending, but with contrastive focus on the adjective (7).
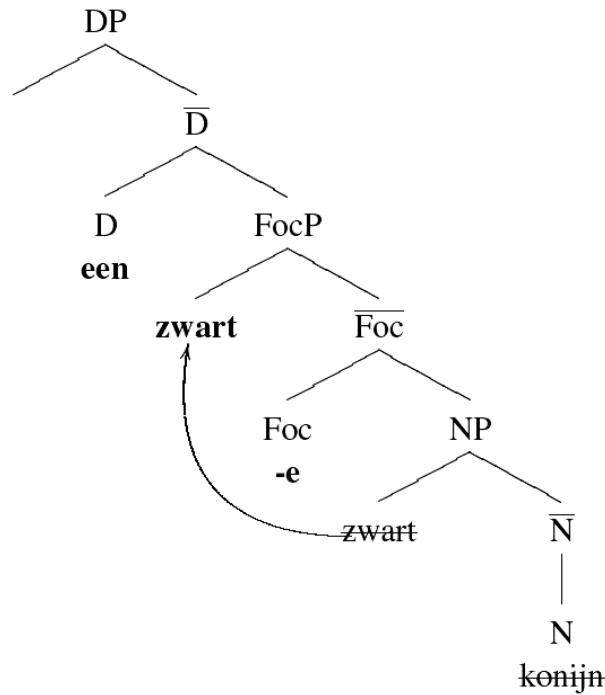
(6) *Over konijnen gesproken... (Talking about rabbits...)*
Ik heb gisteren een zwart-e _ zien lopen.
'I have seen a black one (walk) yesterday.'
(7) Jij heb een ZWART konijn, maar ik heb een WIT _ .
you have a black$_{FOC}$ rabbit, but I have a white$_{FOC}$
'You have got a black rabbit, but I have got a white one.'

Corver & van Koppen (2006) propose that the adjectival ending in (6) and the contrastive focus in (7) license NPE. They assume a structural derivation of NPE as in (8).[1,2]

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[1] The structure in (8) is somewhat simplified: Corver & van Koppen (2006) assume that the adjective is base-generated in the specifier of an FP position above the NP.
[2] For the example in (7), the same structural configuration without overt focus marker (schwa) in the Foc head may be assumed.

(8)

```
                    DP
                   ╱ ╲
                    D̄
                  ╱   ╲
                 D     FocP
                een   ╱    ╲
                   zwart   F̄oc
                      ↑   ╱   ╲
                         Foc    NP
                         -e    ╱  ╲
                            zwart   N̄
                                    │
                                    N
                                  konijn
```
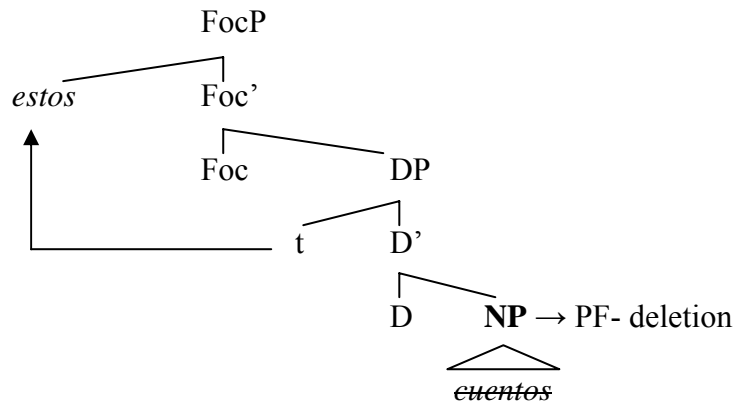
2.2. Focus in Spanish NPE

Eguren (2007) provides an account for Spanish NPE in terms of focus, following Corver & van Koppen's (2006) analysis. He assumes two Focus projections: one DP-external, and one DP-internal FocP. For demonstratives, as in (9), the DP-external focus position serves as landing site for the focused remnant *estos* (10). For NPE with a prepositional remnant, as in (11), the landing site in (12) is the DP-internal focus position.[3]

(9) Juan ha leído [esos]$_F$ cuentos y yo he leído [estos]$_F$ _ .
     'John has read those stories and I have read these _ .'

(10)

```
            FocP
          ╱     ╲
      estos      Foc'
        ↑       ╱    ╲
            Foc       DP
                     ╱  ╲
                   t     D'
                        ╱  ╲
                       D    NP → PF- deletion
                            ╱╲
                          cuentos
```
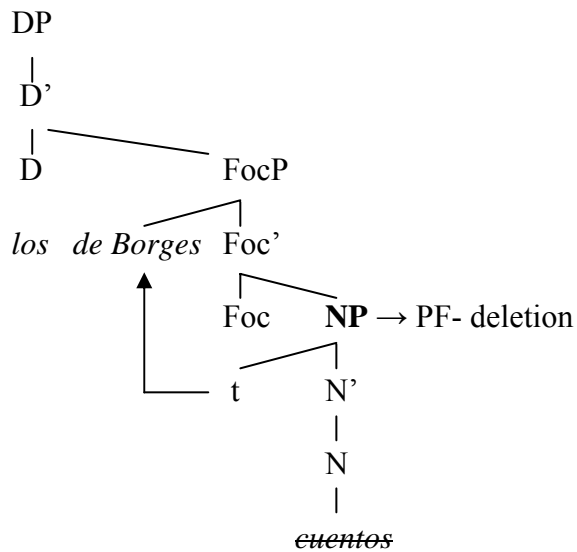
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[3] In Eguren's (2007) account, the focus phrases may co-occur (i.e. the DP-internal position and the DP-external position), as would be the case in (i), or may also be stacked, as for the sentences in (ii).

    (i)   Juan ha leído [esos]$_F$ cuentos [de Cortázar]$_F$ y yo he leído [estos]$_F$ _ [de Borges]$_F$.
                'John has read those stories by Cortázar and I have read these _ by Borges'.
    (ii)   a. Juan ha leído esos dos cuentos y yo he leído *estos tres* _ .
                 'John has read those two stories and I have read these three _ .'
            b. Juan ha leído los cuentos largos de Borges y yo he leído los _ *cortos de Cortázar*.
                 'John has read the long stories by B. and I have read the short ones by C.'.

(11) Juan ha leído los cuentos [de Cortázar]$_F$ y yo he leído los _ [de Borges]$_F$.
  'John has read the stories by Cortázar and I have read the ones by Borges.'

(12)

```
                              DP
                              |
                              D'
                              |
                         D         FocP
                              
                    los  de Borges  Foc'
                              ↑
                          Foc     NP → PF- deletion
                              
                          └── t     N'
                                    |
                                    N
                                    |
                                  cuentos
```

3. Against the Focus Approach: Agreement in Dutch and German
3.1. Agreement in Dutch NPE

- ▪ In Dutch, adjectives agree for number, gender and definiteness, cf. (13) (taken from Corver & van Koppen 2006). Crucially, the adjective in the indefinite singular neuter case bears no overt inflection – all other adjectives contain a schwa.

(13)

	definite	indefinite
non-neuter – sg	de klein-e goochelaar the small-e magician	een klein-e goochelaar a small-e magician
non-neuter – pl	de klein-e goochelaars the small-e magicians	klein-e goochelaars small-e magicians
neuter – sg	het witt-e konijn the white-e rabbit	een wit konijn a white-ø rabbit
neuter – pl	de witt-e konijnen the white-e rabbits	witt-e konijnen white-e rabbits

The data from Dutch in (14) to (16) suggest that there is a choice between either (i) the adjectival ending or (ii) contrastive focus as licensor of ellipsis.[4]

(14) *Over konijnen gesproken... (Talking about rabbits...)*
  Ik heb gisteren een zwart-e _ zien lopen.
  'I have seen a black one (walk) yesterday.'
(15) *Over konijnen gesproken... (Talking about rabbits...)*
  *Ik heb laatst nog een wit _ gezien.
  I have recently PRT a white seen
  'I saw a white one recently.'

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[4] Given this similarity in function, Corver & van Koppen (2006) assume that the adjectival ending in this case is not an inflectional ending, but rather a marker providing 'emphatic force' (following Corver 2004).

(16) Jij heb een ZWART konijn, maar ik heb een WIT _ .
you have a black$_{FOC}$ rabbit, but I have a white$_{FOC}$
'You have got a black rabbit, but I have got a white one.'

- **Problem:** with adjectives relating to nouns that are *not* indefinite neuter singular, the schwa ending is (unexpectedly) obligatory, regardless of focus (cf. (17) and (18), taken from Corver & van Koppen 2006).[5]

(17) Jij hebt een zwart-e kat en ik heb een *CYPERS / CYPERS-E.
You have a black$_{INFL}$ cat and I have a   tabby-ϕ / tabby$_{INFL}$
'You have a black cat and I have a tabby.'
(18) *Over goochelars gesproken... (Talking about magicians...)*
Ik heb laatst nog een goed-e _ gezien.
I have recently PRT a good-$_{INFL}$ seen
'I saw a good one recently.'

- However, if the schwa as adjectival agreement rather than focus in this instance in fact licenses ellipsis, the role of focus is diminished. Even if one were to assume an overlap between adjectival agreement and focus marker at this point, contrastive focus alone cannot overrule inflection, i.e. inflection can only be missing in NPE contexts if it can be missing in non-ellipsis contexts. Thus, the obligatory inflection in NPE without focus (in the non-neuter cases) cannot be accounted for in terms of focus-licensing alone.

- Thus, the cases of non-neuter nouns cast doubt on whether it is indeed focus that plays the major role in the licensing of NPE. Rather, they suggest that inflection has to be present in NPE (cf. the analysis in Kester 1996, among others).

3.2. Agreement in German NPE

In German, as in Dutch, adjectives are inflected for number, gender and definiteness. Definite and indefinite determiners (in the singular) are specified for gender (masculine, feminine, and neuter), number and case.[6,7]

In order to license NPE, at least one of the elements in the DP, i.e. either the determiner or the adjective, has to bear strong inflection. In (19) (Lobeck 1995: 117), the adjective bears strong endings, realizing both gender and case (it is specified for neuter and singular). In (20) (Lobeck 1995: 114, slightly modified), the indefinite determiner has to bear strong endings in order to license NP Ellipsis.[8]

(19) Peter hat viele gebrauchte Autos angesehen und schließlich ein neu-es [e] gekauft.
Peter has many used   cars looked-at and finally   a new$_{NEUT-SG}$ bought
'Peter has looked at many used cars and finally bought a new one.'

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[5] Corver & van Koppen (2006) account for this observation as follows: in these instances of NPEs, the schwa is actually the adjectival agreement (and not a focus marker).
[6] Note the similarity to the Romance languages in this respect.
[7] As a detailed overview and discussion of the inflectional patterns in German is not crucial in view of the overall aim of the paper, we will limit ourselves to a small number of examples illustrating that overt inflection is needed in German NPE, regardless of the nature or pattern of the inflectional ending in question.
[8] Note here that the indefinite article in German is able to license NPE, unlike its English counterpart.

(20) a. Peter hat ein altes Auto gekauft. *Hat Maria auch ein-ø [e] gekauft?
  Peter has an old car bought. Has Maria also a bought?
  b. ….. ✓ Hat Maria auch ein-es gekauft?
   Has Maria also a$_{NEUT-SG}$ bought?
  'Peter has bought an old car. Did Mary also buy one?'

The example in (21) (Sleeman 1996) shows that while inflection may be absent in non-ellipsis contexts such as the one in the (a) example, it is absolutely required in the elliptical counterpart (b).[9]

(21) a. ein lila/ lilanes Kleid
   a lilac/lilac-agr dress
  b. *ein lila/ ✓ein lilanes
   a lilac/ a lilac-agr (one)
  'a purple dress'

(21) is reminiscent of the Dutch neuter indefinite singular case (without inflection in the non-ellipsis context), but the influence of focus is different, since NPE without inflection remains ungrammatical regardless of focus (22). With adjectives without zero inflection in the non-ellipsis contexts, lack of inflection is always ungrammatical, cf. (23) and (24).

(22) *? ... ich habe das LILA-ø gekauft
   I have the purple-ø bought
  '(Speaking of dresses – I have bought the purple one)'
(23) a. *ein weiß/ rot Kleid
   a white-ø/ red-ø dress
  b. ein weißes/ rotes Kleid
   a white$_{INFL}$/ red$_{INFL}$ dress
(24) *ich habe das weiß-ø gekauft
   I have the white-ø bought
  '(Speaking of dresses – I have bought the white one)'

Again, focus does not have any influence on grammaticality, as shown in (25).

(25) a. *ich habe das WEISS-ø gekauft
   I have the white-ø bought

- German thus crucially differs from Dutch in that it must have inflection on the adjective in NPE, regardless of the amount of stress placed on the adjective.

- **Conclusion**: In German NPE, focus and inflection have to co-exist, with inflection being the non-violable requirement. If anything, then, focus is the secondary requirement, rather than being the sole licensing factor of NPE.

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[9] The adjective *lila* (purple) is somewhat peculiar in its inflection in that it allows zero inflection in the non-ellipsis context, along with a few other colour adjectives (not denoting primary colours). Both *lilanes Kleid* (purple-infl.) and *lilafarbenes Kleid* (purple-colored-infl.) are possible forms (the latter being the more formal, prescriptive variant), with both forms crucially having an inflectional ending.

3.3. Summary and interim Conclusions

▪ In Dutch NPE, the adjectival ending can only be missing if it is missing in the non-ellipsis cases too (i.e. the neuter indefinite singular case). If it is missing in the NPE construction, the sentence becomes grammatical only if there is strong contrastive focus on the adjective.

▪ For Dutch NPE with adjectives that bear obligatory inflection in the ellipsis construction, Focus cannot license the omission of the inflection on those adjectives.[10]

▪ In German NPE, the effect of focus is negligible, since (i) inflection is always obligatory in NPE for all adjectives (including those with zero inflection in the non-elliptical counterparts), and (ii) focus does not render uninflected forms grammatical (unlike in Dutch).

▪ The above data thus suggest that focus may not be the primary licensing factor of ellipsis, contra Corver & van Koppen (2006), Eguren (2007), and Ntelitheos (2004), and others. If focus is indeed not the licensing element, then the stipulation of a focus projection in the syntactic derivation of NPE is not required.

▪ We propose an alternative: an analysis of NPE in terms of morphosyntactic licensing, by the presence of classifiers.

4. Classifiers as NPE Licensers
4.1. Proposal

Combining ideas from Bernstein (1993), who claimed that ellipsis is licensed by the presence of word-markers, and Lobeck (1995), Kester (1996), among others, who suggested that NPE is licensed by the presence of (strong) agreement, we propose that

▪ in all contexts of NPE, a classifier is present, which takes different forms in the different languages: (i) it is realized as the final vowel on the indefinite determiner in the Romance languages (cf. Bernstein 1993), (ii) it is *one* in English with inflection in NPE (cf. e.g. Barbiers 2005, Borer 2005), and (iii) it is the inflection on the adjective in Dutch (and German, cf. Lobeck 1995).

4.2. Classifiers in Romance NPE

In both Spanish and Italian indefinite determiners in NPE need a final vowel, marking overt gender on the determiner. Crucially, this marking of gender does not necessarily appear on the determiner in non-ellipsis contexts. Consider the Italian example in (26) (taken from Bernstein 1993).[11]

> (26) a. Un/*Uno libro grande è sulla tavola.
> *a   book big   is on-the table*
> 'a big book is on the table'

---

[10] It even seems from the examples given in Corver & van Koppen (2006) that overt focus may not be a requirement in the NPE cases with inflectional endings.

[11] In Italian, NPE with the indefinite determiner, as in (26), is grammatical – however, its counterpart with the definite determiner is not productive (Bernstein 1993: 111). This observation provides us with an argument that analyses of NPE in terms of 'rich agreement' or 'strong agreement' (cf. Lobeck 1995) may not be adequate.
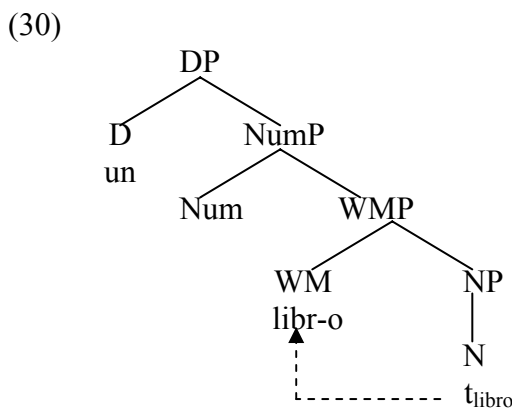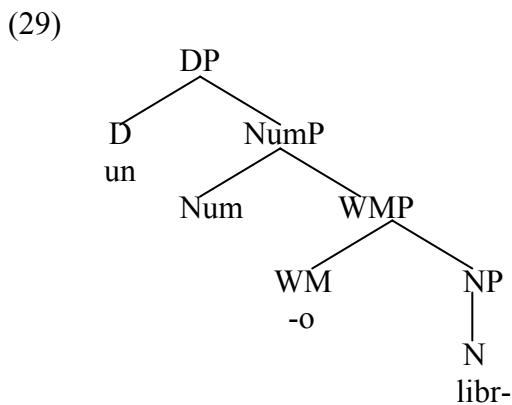
b. Un**o** grande è sulla tavola.
      'a big (one) is on the table'

A pattern similar to Italian is found in Spanish, cf. (27) below (Bernstein 1993: 112):

   (27) a. Un/*Uno libro grande está encima de la mesa.
         a   book big   is   on   the table
         'a big book is on the table'
       b. Un**o** grande está encima de la mesa.
         'a big (one) is on the table'

Bernstein (1993) claims that the –*o/-a* endings on the indefinite determiners are word markers (in Harris's (1991) terminology) which influence the syntactic derivation (cf. Bernstein 1993: 117). Word-markers head the functional projection WMP (word marker phrase). From the base structure of the DP (29) for the Spanish example (28), the noun raises from N to the WM head, where it is merged with the word marker –*o*, to yield the final *libro* (30).
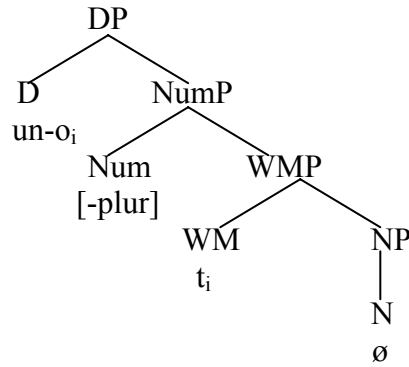
   (28) un libro
         'a book'
   (29)

```
                    DP
                   /  \
                  D    NumP
                  un   /  \
                    Num    WMP
                          /   \
                        WM     NP
                        -o      |
                                N
                               libr-
```

   (30)

```
                    DP
                   /  \
                  D    NumP
                  un   /  \
                    Num    WMP
                          /   \
                        WM     NP
                       libr-o   |
                          ▲     N
                          ┆   t_libro
                          └ - - - - -
```

According to Bernstein (1993), in NPE the noun is not generated, and the independently generated word-marker (as bound morpheme) head-moves to D (31) (Bernstein 1993: 125).[12]
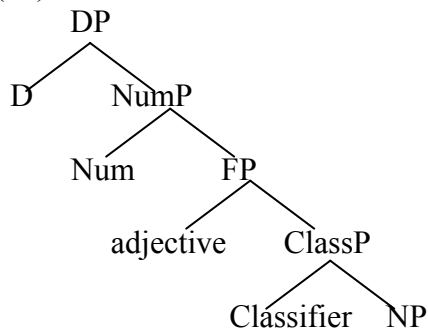
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[12] More specifically, Bernstein (1993) assumes that the newly derived X^0 (= [N+WM]) moves up to Num^0 to incorporate with the number specification, from whence it moves up to D.

(31)

```
              DP
          ／      ＼
        D            NumP
      un-oᵢ        ／      ＼
               Num          WMP
              [-plur]     ／      ＼
                        WM          NP
                        tᵢ           |
                                     N
                                     ø
```

- Bernstein's insights that the final vowel (i) marks form class and (ii) is related to gender in Spanish and Italian can be captured in terms of Classifiers heading a classifier phrase ClassP (Picallo 2006, and others) above NP and below NumP, cf. (32) (contra Alexiadou & Müller 2008). The interpretable content of the classifier is a function that applies to nouns. In many Indo-European languages, the presence of [CLASS] is manifested as formal gender on the noun but in other language families, this grammatical entity may surface with other linguistic tools. In Italian and Spanish the [CLASS] feature is manifested as formal gender on the noun.[13]

(32)

```
          DP
       ／     ＼
      D         NumP
            ／       ＼
          Num          FP
                    ／     ＼
              adjective      ClassP
                          ／      ＼
                     Classifier     NP
```

Whatever form or denotation noun classifiers or noun classes may have, they are linguistic objects that, like formal gender, grammatically classify nouns.

Once the noun is deleted in NPE, the [CLASS] feature cannot occur on the noun itself. The syntactic derivation we propose differs from Bernstein's analysis in the following:
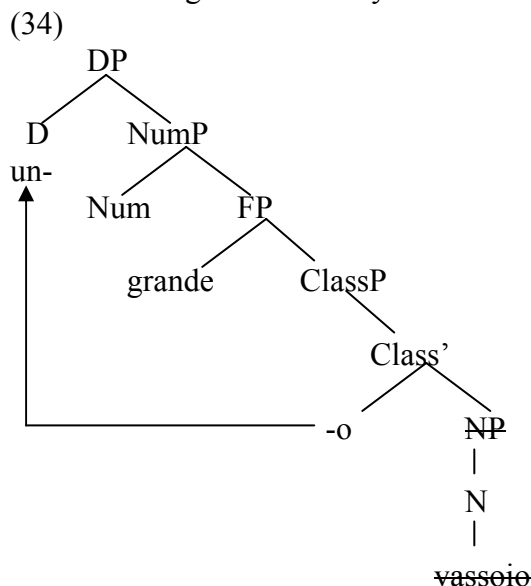
(i)   the noun is overtly base-generated in N in the ellipsis construction, which explains the overt ClassP (which would not be required if the noun were not present)

(ii)   the noun is subsequently deleted at the PF level (e.g. following accounts of ellipsis in terms of an E-feature, cf. Merchant (2001), Gengel (2007) among others.)[14]

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[13] The actual manifestation of the [CLASS] feature varies across languages – English, for instance, does not mark gender on the noun at all, but marks number.

[14] Given that we propose a functional projection hosting the licensor of NP Ellipsis, the Classifier, the NP as a separate projection can be deleted as such. As this deletion process conceivably does not affect the Classifier Phrase, the exact implementation of the deletion of the NP at PF is secondary for our analysis.

- The indefinite determiner and the adjective agree in gender and number in NPE – as the classifier on the noun is moved to the determiner (following Bernstein 1993), as shown in the derivation that we suggest for the Italian example (33) in (34).[15]

(33) a. Un grande vassoio è già in tavola.
a   big   tray   is already in table
'A big tray is already on the table.'
b. Un**o** grande _ è già in tavola.
'A big one is already on the table.'

(34)

```
              DP
            /    \
          D       NumP
        un-      /    \
          ↑    Num      FP
               |       /   \
             grande  ClassP
                      /   
                   Class'
                   /    \
                 -o      NP
                         |
                         N
                         |
                      vassoio
```

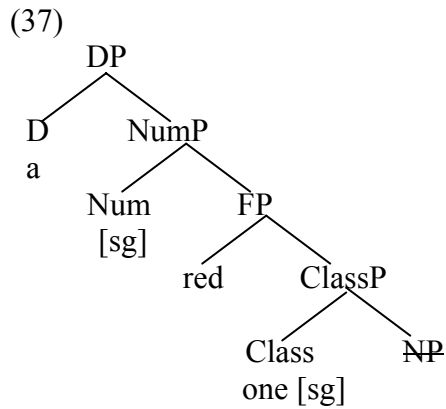## 4.3. English *one* as a Classifier

English only marks [number] on the noun (and has no specification whatsoever on the determiner or the adjective).

In the context of ellipsis, however, Lobeck (1995) notes that most elements that are able to license NP ellipsis are actually specified for plural, as illustrated by the contrast in (35). In the examples in (36), (36)b shows that the insertion of *one* is not necessary once there is an element specified for plural in the sentence, i.e. *two*. In NPE with *one*-insertion, number must be marked on *one* (cf. (36)c, Barbiers 2005).
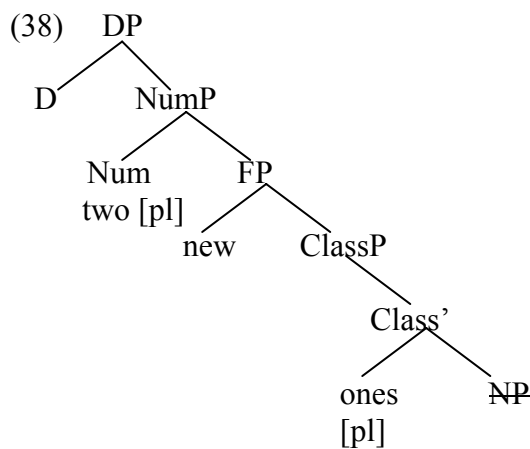
(35) a. I'll have these
b. I'll have this *(one)
(36) a. Talking about cars, I prefer a red *(one).
b. (Talking about new books,) I have two (*ones)
c. (Talking about books,) I have two new *(ones)

- Borer (2005): English has a classifier phrase, which also hosts *one*. Consequence: English NPE can also be licensed by means of classifiers. *One* is inserted directly into the classifier phrase (as in (37) and (38)), and not in NumP, since *one* bears number marking, and can also co-occur with numerals (e.g. *two* in (36)c).

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[15] Thanks to V. Samek-Lodovici for this example.

(37)
```
            DP
          /    \
        D       NumP
        a      /    \
            Num       FP
            [sg]     /  \
                  red    ClassP
                        /     \
                    Class      N̶P̶
                    one [sg]
```
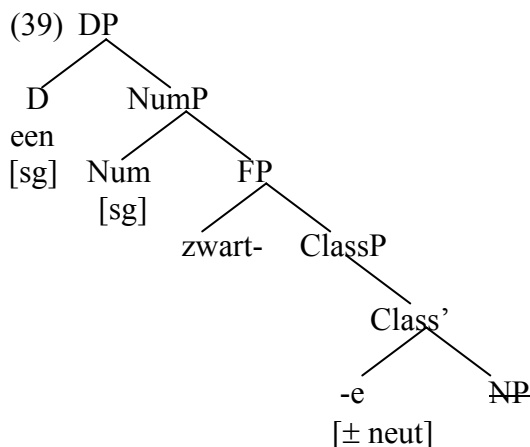
For the plural structure (38), *one* remains in the head of ClassP and Agrees with the plural in the head of NumP, and takes over the plural marking of the noun.

(38)
```
          DP
        /    \
       D      NumP
            /      \
         Num         FP
         two [pl]   /  \
                 new    ClassP
                          \
                          Class'
                         /     \
                      ones      N̶P̶
                      [pl]
```

4.3. Classifiers in Dutch and German NPE?

In German, Dutch and West Flemish (for the latter see Haegeman 2001), with a few exceptions inflection is always present in NPE. Can we extend the hypothesis that classifiers license NPE to cover the German and Dutch data as well?

- Dutch: [masculine/feminine] = non-neuter vs. [neuter] distinction, signalled by the presence of schwa.
- Following Haegeman (2001), we analyse *-e* as the realization of feminine gender, which heads a ClassP.

(39)
```
       DP
     /    \
    D      NumP
    een   /    \
    [sg] Num     FP
         [sg]   /  \
            zwart-   ClassP
                       \
                       Class'
                      /     \
                    -e       N̶P̶
                 [± neut]
```

11

(40) *Over konijnen gesproken... (Talking about rabbits...)*
Ik heb gisteren een zwart-e _ zien lopen.
'I have seen a black one (walk) yesterday.'

▪ For the Dutch indefinite neuter singulars without adjectival ending but with focus, as in (41) (from Corver & van Koppen (2006)), we propose that the ClassP has a ø realization, but is nevertheless present in the structure. To account for the strong contrastive focus, we suggest that the lack of overt marker in connection with a missing noun diminishes the referentiability of the adjective, which is then remedied by a clear intonational connection to the corresponding element in the antecedent (cf. section 6 for further discussion). The structure we propose to account for this case in (42) thus does not differ substantially from the one given in (39), except for the assumption that the Classifier is phonologically null.

(41) Jij heb een ZWART konijn, maar ik heb een WIT _ .
you have a black$_{FOC}$ rabbit, but I have a white$_{FOC}$
'You have got a black rabbit, but I have got a white one.'

(42)
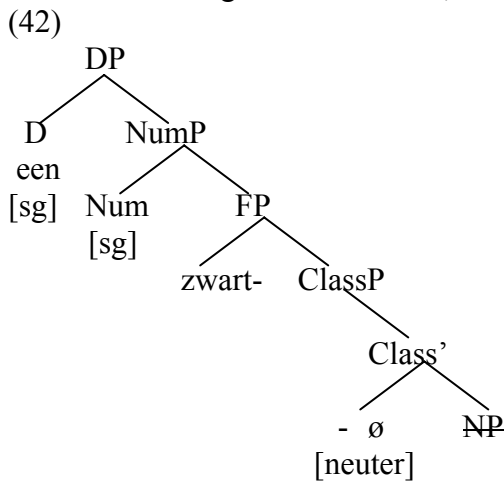
▪ German: [gender] specification on the noun and adjective (at least, in the singular).

▪ In German the inflection on the adjective is determined by the article, unlike in Spanish/Italian, where the class marker attaches to N and its features are copied onto the article. It is assumed that nouns are inherently specified for [gender] and the determiner, the adjective and the noun Agree in phi-features.

▪ It has been argued that in German the definite determiner and the strong adjectival agreement compete for the same position (Milner & Milner 1972, Leu 2008). Borer (2005) argues that in the case of singulars, the definite determiner must assign range to ClassP. Putting these two suggestions together we could argue that even in German ClassP is present and licenses ellipsis, pretty much like in the other languages.[16]

5. The Link between Classifiers and Partitivity
5.1. NP Ellipsis and Partitivity

▪ There is a strong link between NP Ellipsis and partitivity, see Sleeman (1996).

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[16] On this view, weak adjectival agreement would be the default realization of ClassP. In case the DP contains more than one adjective, we assume a feature copying operation yielding agreement.

- Specifically, Sleeman (1996: 33) argues that in French and other languages, the elements allowing NPE have a partitive interpretation. They may occur with a partitive PP, as in (43), but need not do so, as in (44) (from Sleeman 1996: 33).[17]

(43) a. J'ai lu trois de vos livres.
 I have read three of your books
 b. C'est le plus intéressant de vos livres.
 This is the most interesting of your books

(44) Tu as lu tous ses livres? Non, je n'ai lu que le troisième.
 You have read all his books? No, I not have read [only] the third
 'Have you read all his books? No, I have only read the third.'

- Partitivity can be defined as in (45) (Sleeman 1996: 34).

(45) *Partitivity*
 (i) *Partitive* means 'properly or improperly included within' [a set].
 (ii) *Partitive* also means 'potentially but not necessarily specific'.

5.2. Classifiers in the partitive construction

- Spanish/Italian: classifier on the indefinite determiner encodes partitivity, since *uno* also occurs in partitive constructions, cf. (46) (Martí 2003)

(46) a. un problema grave
 'a serious problem'
 b. uno [e] grave   (*NP Ellipsis*)
 'a serious one'
 c. uno de tus problemas   (*partitive construction*)
 'one of your problems'

- The observation that both NPE and partitive constructions employ the classifier encourages the following hypotheses supporting our analysis:

 (i) the two constructions are related, i.e. partitivity is indeed a necessary requirement for NPE, as suggested by Sleeman (1996), and,
 (ii) if the classifier licenses partitive constructions, and if partitivity licenses NPE, the classifier may also license NPE.

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[17] Note here that Italian displays a subject-object asymmetry with respect to *ne*-cliticization as overt marking of partititivity (thanks to V. Samek-Lodovici for pointing us to this asymmetry and for providing the examples in (i) and (ii) below). Whereas NPE with elided subject NPs is fine without *ne*, as in (i), NPE of the object NP in the example in (ii) is not, and must overtly license partitivity.
 (i) a. Un grande vassoio è già in tavola.
  'A big tray is already on the table.'
  b. Un**o** grande _ è già in tavola.
  'A big one is already on the table.'
 (ii) a. Produciamo un vino favoloso.
  '(We) produce a fantastic wine.'
  b. Ne produciamo uno fantastico.
  c. *Produciamo uno fantastico.

5.3. Partitivity and English 'one'-insertion
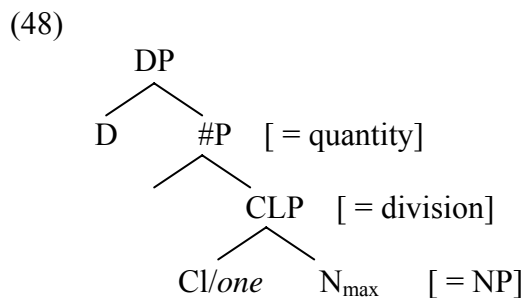*5.3.1. Barbiers (2006): one encodes partitivity*

Barbiers (2006) claims that *one* in English is specified for [atom/partitivity]. Thus, *one* patterns exactly like the classifiers in Romance NPE. In his analysis (which we adopt with respect to this point) the insertion of *one*, i.e. the encoding of partitivity, is the crucial licensing factor for NPE in English, as stated in (47) below (Barbiers 2006, his (53)).

(47) *Condition on noun ellipsis in English*:
local identification of [+atom/partitivity] => noun ellipsis impossible with AP
[i.e. AP without *one* – A&G]

5.3.2. Borer (2005): one (as classifier) individuates

In Borer's (2005) framework (cf. the structure in (48)), the Number Phrase (#P in her system) and the Classifier Phrase (CLP in her system) have different functions:

- the #P denotes quantity
- the CLP introduces division (i.e. the function of dividing something)[18]
- the classifier has an individuating function (which can be paraphrased as e.g. *"one big of the type car"* for *a big car*)

(48)

```
              DP
            /    \
          D       #P   [ = quantity]
                 /  \
                    CLP   [ = division]
                   /   \
               Cl/one   Nmax   [ = NP]
```

- *one* as a classifier thus gives the division function, which is similar in function to Barbiers' (2006) account in terms of atomicity and partitivity.

5.3.3. Type reading and one-insertion

Consider the two examples in (49), both of which contain adjectives but differ with respect to *one*-insertion (data from Barbiers (2005)).

(49) a. As for wine, I prefer Australian (*one).
b. Talking about cars, I prefer a red *(one).

- This apparent mismatch can be explained with Borer's (2005) approach in terms of classifiers.
- The noun *wine* in (49)a is a bare mass noun, which does not require a classifier phrase in Borer's system. The interpretation emerging from the lack of classifiers is the type

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[18] The structure in Borer (2005) differs slightly from the structure proposed in Picallo (2006) concerning the locus of the generation of the type vs. token reading. As Borer's (2005) account can accommodate the status of *one* in NP Ellipsis slightly better than the structure proposed in Picallo (2006), we adopt her structure for the time being.

reading (vs. token reading), which is given in (49)a. As a consequence, *one* as head of the classifier phrase should be missing from the NPE construction, which is borne out.

- In (49)b, on the other hand, the noun in question is a count noun, which, according to Borer's system, is determined by having a #P (i.e. a quantity phrase which makes it available for counting). As the presence of a #P in the structure requires the prior existence of a functional projection that individuates, the presence of CLP is also required for count nouns. As a result, *one* should be inserted as classifier, which is borne out in (49)b.

- The same reasoning applies to the sentence in (50): again, the noun in question is a count noun, which requires the presence of a classifier, and thus necessitates *one-*insertion.[19]

(50) (Talking about books,) I have two new *(ones).

6. Classifiers, Partitivity and Focus

- The classifier encoding the process of individuation and partitivity and thereby overtly licensing ellipsis has no immediate relationship to the concept of focus. However, we suggest that individuation and partitivity are both prerequisites for contrastiveness, which, in the ellipsis constructions, is optionally expressed via contrastive focus.

- Partitivity, as defined in Sleeman (1996), refers to the requirement that an element be included within a particular set. As such, the reference to a set is already included in the concept of partitivity.

- Focus, in turn, as paraphrased in Eguren (2007),

 'identifies a relevant alternative or subset in a set of alternatives (cf. Alternative Semantics; Rooth 1992, 1996)'.

Comparing the concepts of partitivity and focus in this respect reveals that an element specified for [+partitive] or for [+focus] identifies an element that is included within a set. As such, the [+partitive] and the [+focus] feature may be considered to fulfil a similar role in the identifying of elements, since in both cases, reference is made to a set.

- The process of individuation and the partitivity requirement may thus be conceived as feeding into the process of focus. Focus seems to differ from partitivity (in the respects that are relevant for our analysis) in that it adds two further processes to the mere process of identifying an element in a set:

 1- it indicates that there are alternatives in the set other than the selected element itself
 2- it establishes a clear contrast between the selected element and a given alternative

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[19] As for sentences without adjectives but with numerals, such as the sentence in (i) below (taken from Barbiers 2005), we assume that the numeral itself, being inherently specified for plural, makes the overt realisation of the classifier obsolete. Once there is an adjective present which modifies the empty noun, the specification of the entire noun phrase is required again, which leads to the overt realisation of the classifier in (50) above. Alternatively, the noun with the modifier, the complex *new books*, may be regarded as a type of books, which, in the NP Ellipsis, does not need to be individuated, hence requires no classifier phrase.

 (i) (Talking about new books,) I have two (*ones).

- Given the ongoing debate in the literature about whether focus always needs to involve clear, contextually salient alternatives in the case of contrastive focus, or whether those alternatives may be implicit, the first point above can be potentially related to the process of identifying, i.e. individuating and marking an element as [+partitive], as well (since the choice of one element necessarily entails the exclusion of other elements). The second point, however, constitutes a clear difference between the two concepts.

- The relevance of the second point for the derivation of NPE is called into question by the data provided in this paper. If we take the contrastive accent as an indicator of marking contrastive focus, the German and Dutch data suggest that the overt marking of contrast may not be necessary to license NP Ellipsis.

- If we view the requirement of partitivity, as encoded by the classifier, as the crucial semantic licensing, the focus that we optionally find in NPE contexts may be conceived of as a by-product of partitivity rather than being an indispensable requirement for the licensing of NPE. The strong contrastive accent only arises if the contrast to the element in the antecedent is emphasised.

- This optionality with respect to a clear marking of that contrast, however, does not warrant the assumption of focus movement as the licensing process for NPE, which is why we assume that the presence of the classifier, encoding partitivity, is the crucial factor for the licensing of NP Ellipsis in the languages discussed above.

- In conclusion, then, the two properties that are necessary for the licensing of NPE in the languages discussed above, (i) partitivity, and (ii) inflection, can be captured with the presence of classifiers in the DP structure.

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