
The Ellipsis of “Ellipsis”. A Reanalysis of “Elided” Noun Phrase Structures in German

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31 October 2011

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Abstract

This thesis deals with the explanation of so-called “NP-ellipsis” (NPE) in German – a linguistic phenomenon that can be regarded as the omission of the noun in (full) DPs; the remnant (usually a determiner or an adjective) has to show strong morphological agreement by way of an agreement suffix in order to license the elided noun. There are two strategies that seek to explain NPE, as reported in the literature: elision (which can be dependent on the presence of strong inflectional morphology/agreement (on the D- or adjectival remnant), Focus, or the presence of a so-called “classifier phrase”) and pronominalization (used when there is no inflectional morphology on the adjectival remnant). The aim of the thesis is to show that these NPE strategies work well for some languages, but not for German (they thus seem to be too language-specific by nature). Therefore, it is proposed that NPE in German should be captured in another way, i.e., by analyzing NPE constructions as DPs and APs without an NP-complement projection (which, in previous accounts, is incorrectly filled by a null noun (“ e_N ”) or an agreement suffix that acts as a replacement for the “elided” noun). It will also be shown that the new proposal extends to Dutch, English and Frisian as well: an outcome that would point in the direction of a truly cross-linguistic account of the phenomenon in question.

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Acknowledgement

I would like to sincerely thank my supervisor, dr. Stefan Sudhoff, for all the tremendous work and helpful support during the whole writing process of this thesis.

1 Introduction

Abney (1986, 1987) was one of the first linguists who proposed that the noun phrase is headed by a functional element D(eterminer) and, in such a way, parallels that of the sentence, which is headed by I(inflection). Since a language like German has a rich system of morphological inflection (making case, number and gender features visible), the DP in this language must have a so-called “agreement chain” (cf. Bhatt 1990 and Olsen 1991): functional selection demands that there is an agreement relation between the determiner, adjective and noun (in this way, grammatical features will be phonologically overt). However, a problem is so-called “noun phrase ellipsis” (NPE) as in (1b) and (c) below, where the noun has been omitted (without problems at first sight), but the remnant (*dein* ‘your’) has to be an element with strong morphological inflection (it should be noted that, with the noun present, the element *dein* has weak morphological inflection (“visible” through its “null” ending), since *Buch* ‘book’, in German, is neuter):

- (1) a. Ich habe dein Buch gelesen.
I have your book read
‘I have read your book.’
b. *Ich habe **dein** [e] gelesen.
I have your read
‘I have read yours.’
c. Ich habe **dein(e)s** [e] gelesen.
I have yours read

A similar problem can be found in (standard) Dutch, where, in (2b), the adjective *zwart* ‘black’ must show strong morphological inflection when used in an NPE construction, but it is uninflected when used in a full DP, as in (2a) (note that *konijn* ‘rabbit’ is neuter in Dutch, which causes the adjective, in a full [NEUTER,–DEFINITE] DP, to appear without the *e*-suffix/schwa) (example, in (2), adopted from Corver & Van Koppen 2009: 8, 4):

- (2) a. Ik heb gisteren een zwart(*-e) konijn zien lopen. [standard Dutch]
I have yesterday a black-e rabbit see walk
‘I have seen a black rabbit yesterday.’
b. *Ik heb een wit konijn en jij **een zwart** [e].
I have a white rabbit and you a black-ø
‘I have a white rabbit and you have a black one.’

In general, the aim of this thesis is to provide a profound explanation of this remarkable phenomenon.

The first part of the thesis deals with the so-called “distribution” of the inflections in the German DP. As NPE, in German, is marked by inflectional agreement as shown in (1), this first part (consisting of the chapters 2 and 3) can be regarded as an introduction to the phenomenon of NPE in the second part, laying the ground for it. In chapter 2, the distribution of inflectional agreement in the German DP will be discussed, focusing on the inventory of adjectival paradigms and general approaches to distinguish the types of adjectival inflections (the so-called “bipartite” and “tripartite” systems). In chapter 3, the explanation of this distribution of the inflections in the German DP will be provided, making use of Abney’s “DP-hypothesis”. Two major accounts with respect to the German DP will be discussed. The first account is Olsen (1991), as this important monograph, constituting the leading proposal within “old” GB-theory, also forms the basis of the profound contributions of Bhatt (1990), Wegener (1995) and Demske (2001). The second account is Roehrs (2002, 2006), forming one of the first approaches of the phenomenon within a purely minimalistic framework.

The second part of the thesis (consisting of the chapters 4, 5 and 6) is entirely devoted to the discussion and explanation of NPE in German (but also in English, Dutch, Romance and Frisian). In chapter 4 and 5, two previous accounts of NPE will be explored, i.e., the elision strategy (chapter 4) and the pronominalization strategy (chapter 5). Elision can be regarded as the licensing of an elided noun and can be explained either by (i) the presence of inflectional morphology, i.e., the strong endings of the adjective and/or determiner in German (cf. Lobeck 1995), (ii) information-structural features, i.e., the claim that in Dutch, ellipsis can only take place when the remnant (the adjective) is contrastively focused (cf. Corver & Van Koppen 2009) or (iii) the postulation of so-called “classifiers” in Romance, i.e., the analysis of the strong inflectional suffix in Romance NPE as the head of a separate classifier phrase (above the NP and below the number phrase), marking [GENDER] and [NUMBER] (cf. Alexiadou & Gengel 2008 in line with Barbiers 2005). The pronominalization strategy, an analysis put forth by Corver & Van Koppen (2011), is used when there is no morphological inflection on the adjectival remnant, as in the English example *a black one* (the latter element, acting as a replacement for the elided noun, is called a “*pro*-noun”). However, since such *pro*-nouns appear to have a composite structure, Corver & Van Koppen’s theory in fact unifies both the elision and pronominalization strategy. It will also appear to be the case that some languages (such as Frisian) may even make use of more than one NPE strategy.

It will also be shown in these chapters that both strategies, together with Roehrs’ (2006) account of so-called “split DPs” (which are closely related to the phenomenon of NPE), unfortunately don’t work well for German. My hypothesis therefore is that NPE in German, but also in other languages, can best be accounted for without ellipsis, i.e., “NPE” constructions as the one in (1) are to be analyzed independently, without an NP-complement position (filled either by an empty noun position (“[e]”) or by a *pro*-noun), making use of Olsen’s (1991) insights with respect to agreement

and the (in)transitivity of D. The hypothesis will be discussed and tested in chapter 6, which also deals with the question as to how the following sentences – that may falsify the hypothesis since they seem to be in favor of an “ellipsis” analysis – can properly be accounted for (examples, in (3), (4) and (5), taken from Corver & Van Koppen 2009: 18, Lobeck 1995: 85 and Barbiers 2005: 161 respectively):

- (3) Ik heb een ZWART konijn en jij hebt een WIT [e]. [standard Dutch]
I have a black_{STRESS} rabbit and you have a white_{STRESS}
'I have a black rabbit and you have a white one.'
- (4) Mary likes those books but I like [_{DP} these [e]].
- (5) (Talking about wine,) I prefer Australian (*one).

As a side-effect of the new analysis, it will appear to be the case that the implementation of a separate Focus projection in the line of Corver & Van Koppen (2009), though justified in its own right, will seem to be unnecessary in the explanation of “NPE”, as the “Focus” in “NPE” constructions can be shown to be deduced from central claims within standard metrical phonology (cf. Chomsky & Halle 1968, Liberman & Prince 1979, Reinhart 1995, 2006, Neeleman & Reinhart 1998 and Szendrői 2001).

At the end, it will be shown as well that the new proposal does not only work well for German and Dutch, but also for English and Frisian.

PART I: THE DISTRIBUTION OF THE INFLECTIONS IN THE GERMAN DP

2 Agreement in the German DP: Strong and Weak Inflection

2.1. Introduction

This chapter deals with the distribution of inflectional agreement in the German DP, as outlined in Roehrs (2006). In the first part of the chapter, the inventory of adjectival paradigms will be discussed, i.e., the question will be addressed as to how many and what kind of paradigms are best to be distinguished. The second part of the chapter will shed light on two general approaches to distinguish the types of adjectival inflections: the so-called “bipartite” (Duden 1995) and “tripartite” systems (Eisenberg 1998, 1999). These approaches normally have the goal to reduce the number of distinctions. The findings and modifications of these insights, as put forth by Roehrs (2002, 2006), will form the basis of the explanation of the distribution of adjectival inflections in chapter 3.

In general, DPs mark grammatical categories as case, gender and number. Whereas in German, case and gender are marked by inflections on determiners and adjectives, number is usually marked on nouns (cf. Wurzel 1984, 1989). The inflections on the determiners and adjectives can either be “strong” or “weak”¹. As Roehrs (2006) correctly points out, there is only one strong inflection suffix in the German DP (either on the determiner or on the adjective). This “rule” is reflected by the so-called “Principle of Monoinflection” (cf. Helbig & Buscha 2001, Eisenberg 1998, Wegener 1995 and Darski 1979):

- (1) *Principle of Monoinflection (first version)* (Roehrs 2006: 162)
The first element within a noun phrase carries the strong and the second one the weak ending.

However, in German DPs with structural or inherent case, the above principle doesn’t always hold. It will therefore have to be revised in the course of the discussion.

2.2. The Inventory of Adjectival Paradigms

In the traditional literature (e.g. Duden 1995), three different paradigms of the German adjective are distinguished: weak, strong and so-called “mixed”:

Table 1. Weak paradigm (“weak” referring to the adjectival inflections).

case \ gender	masculine	neuter	feminine	plural
nominative	de-r gut-e Mann ‘the good man’	da-s gut-e Kind ‘the good child’	di-e gut-e Frau ‘the good woman’	di-e gut-e-n Männer ‘the good men’
accusative	de-n gut-e-n Mann	da-s gut-e Kind	di-e gut-e Frau	di-e gut-e-n Männer
dative	de-m gut-e-n Mann	de-m gut-e-n Kind	de-r gut-e-n Frau	de-n gut-e-n Männern
genitive	de-s gut-e-n Mannes ‘of the good man’	de-s gut-e-n Kindes ‘of the good child’	de-r gut-e-n Frau ‘of the good woman’	de-r gut-e-n Männer ‘of the good men’

Table 2. Strong paradigm.

case \ gender	masculine	neuter	feminine	plural
nominative	gut-e-r Mann ‘good man’	gut-e-s Kind ‘good child’	gut-e Frau ‘good woman’	gut-e Männer ‘good men’
accusative	gut-e-n Mann	gut-e-s Kind	gut-e Frau	gut-e Männer
dative	gut-e-m Mann	gut-e-m Kind	gut-e-r Frau	gut-e-n Männern
genitive	gut-e-n Mannes ‘of good man’	gut-e-n Kindes ‘of good child’	gut-e-r Frau ‘of good woman’	gut-e-r Männer ‘of good men’

Table 3. Mixed paradigm (“mixed” referring to the article and adjectival inflections).

case \ gender	masculine	neuter	feminine	plural
nominative	mein-/Ø gut-e-r Mann ‘my good husband’	mein-/Ø gut-e-s Kind ‘my good child’	mein-e gut-e Frau ‘my good wife’	mein-e gut-e-n Männer ‘my good husbands’
accusative	mein-e-n gut-e-n Mann	mein-/Ø gut-e-s Kind	mein-e gut-e Frau	mein-e gut-e-n Männer
dative	mein-e-m gut-e-n Mann	mein-e-m gut-e-n Kind	mein-e-r gut-e-n Frau	mein-e-n gut-e-n Männern
genitive	mein-e-s gut-e-n Mannes ‘of my good husband’	mein-e-s gut-e-n Kindes ‘of my good child’	mein-e-r gut-e-n Frau ‘of my good wife’	mein-e-r gut-e-n Männer ‘of my good husbands’

In the weak paradigm, the adjective is preceded by a definite determiner². As is required by (1), Roehrs shows that the determiner (the first element) in the sentences below has indeed strong inflection while the adjective (the second element) has weak inflection (examples taken from Roehrs 2006: 163):

- (2) a. der gute Wein
 the(NOM.STRONG) good(WEAK) wine(M)
 ‘the good wine’
- b. dem guten Wein
 the(DAT.STRONG) good(WEAK) wine(M)

In the strong paradigm, the first element is the adjective, since there is no determiner. By (1), the adjective carries indeed strong inflection (examples from Roehrs 2006: 163):

- | | | | |
|-----|----|--|-----------------|
| (3) | a. | guter
good(NOM.STRONG)
'good wine' | Wein
wine(M) |
| | b. | gutem
good(DAT.STRONG) | Wein
wine(M) |

According to Roehrs, the story is quite different and more complex with respect to the mixed paradigm. The first element can carry either a strong or a weak ending as does the adjective (when the determiner has a weak ending the adjective has strong inflection and vice versa) (examples from Roehrs 2006: 164):

- | | | | | |
|-----|----|---------------------------------|---------------------------|-----------------|
| (4) | a. | ein
a(WEAK)
'a good wine' | guter
good(NOM.STRONG) | Wein
wine(M) |
| | b. | einem
a(DAT.STRONG) | guten
good(WEAK) | Wein
wine(M) |

However, as Roehrs notices, example (4a) poses rather a problem for the generalization in (1) since the first element (the determiner) does not carry a weak ending, but the ending is actually absent (Roehrs assumes this to be a weak “null” ending): the strong ending seems to have switched onto the adjective.

With this in mind, Roehrs assumes that it seems necessary and useful to have a closer look at the basic alternation of the strong and weak inflections with respect to the inventory of adjectival paradigms first (in this chapter), in order to be able to discuss any explanatory proposal(s) to the distribution of the adjectival inflections (in chapter 3). The following section is concerned with the number and types of different paradigms as they can be extracted from the traditional descriptive literature (Duden 1995 and Eisenberg 1998, 1999).

2.3. Discussions of the Inventory of Adjectival Paradigms

According to Roehrs (2006), there are two general approaches to distinguish the types of adjectival inflections, both of which normally have the goal to find regularities and reduce the number of distinctions inner- and intraparadigmatically: so-called “tripartite” and “bipartite” systems. In the tripartite system, three types of adjectival inflections are distinguished, as already mentioned above: weak, strong and mixed (see, e.g., Helbig & Buscha 2001, Eisenberg 1998, Duden 1995, Engel 1988 and Erben 1980). In the bipartite system, only two distinctions are made: strong and weak (see, e.g., Eisenberg 1999, Weinrich 1993, Jung 1990, Heidolph et al. 1981 and Wurzel 1984). The mixed adjectival inflections are solved in “another way”, to be discussed below.

The next sections will shed light on the main relevant insights of the most representative approaches and their findings, but, first, the basic (i.e., tripartite) paradigm will be presented since it is typically discussed in German textbooks.

To put it very basically: if the adjective is preceded by a definite determiner, the adjective has weak inflection; if the adjective is not preceded by a determiner, the adjective has strong inflection. This is schematized in (5), taken from Roehrs (2006: 167):

- (5) a. [definite determine(STRONG) adjective(WEAK) noun]
 b. [adjective(STRONG) noun]

Starting with (5a), these are the forms of the definite article (their forms depend on the case, gender and number of the noun phrase):

Table 4. Inflections of the definite article (Roehrs 2006: 167).

case \ gender	masculine	neuter	feminine	plural
nominative	de-r	da-s	di-e	di-e
accusative	de-n	da-s	di-e	di-e
dative	de-m	de-m	de-r	de-n
genitive	de-s	de-s	de-r	de-r

Apart from the definite article, there are other (similar) items (together they are called *der*-words) that take a weak adjective (cf. Roehrs 2006: 167):

- (6) *der* ‘the’ » *dieser* ‘this’, *jeder* ‘every’, *jener* ‘that’

The adjectives that follow the *der*-words can either have the ending *-e* (as is the case in nominative masculine, nominative/accusative neuter and nominative/accusative feminine) or *-en* (“elsewhere”):

Table 5. Weak adjectival inflections (the “weak” paradigm) (Roehrs 2006: 168).

case \ gender	masculine	neuter	feminine	plural
nominative	gut-e	gut-e	gut-e	gut-e-n
accusative	gut-e-n	gut-e	gut-e	gut-e-n
dative	gut-e-n	gut-e-n	gut-e-n	gut-e-n
genitive	gut-e-n	gut-e-n	gut-e-n	gut-e-n

Concerning (5b), adjectives that are not preceded by a determiner have the following inflections (their forms, again, depend on the case, gender and number of the noun phrase):

Table 6. Strong adjectival inflections (**the “strong” paradigm**) (Roehrs 2006: 168).

case \ gender	masculine	neuter	feminine	plural
nominative	gut-e-r	gut-e-s	gut-e	gut-e
accusative	gut-e-n	gut-e-s	gut-e	gut-e
dative	gut-e-m	gut-e-m	gut-e-r	gut-e-n
genitive	gut-e-n	gut-e-n	gut-e-r	gut-e-r

A striking fact is that the inflections on these determiner-less adjectives are exactly the same as the endings on the *der*-words, except for genitive masculine/neuter (these forms are bold printed in Table 6). The explanation of these exceptions is the fact that the strong ending in these cases is carried by the noun: *(des) guten Mannes* [MASC,GEN] ‘(of) the good man’ and *(des) guten Weines* [NEUT,GEN] ‘(of) the good wine’.

Roehrs divides the paradigm that is traditionally called ‘mixed’ into two subparadigms: the *ein*-words paradigm (referring to the inflections of the article word) and the mixed paradigm (referring to the inflections of the adjective).

The paradigm involving *ein* ‘a’ (in this paradigm, *mein* is used as *ein* ‘a’ has no plural form) is shown in Table 7 below (the forms with no or a weak null ending are bold printed in shaded cells):

Table 7. Paradigm of the possessive determiner *mein* ‘my’ (**the “ein-words” paradigm**) (Roehrs 2006: 170).

case \ gender	masculine	neuter	feminine	plural
nominative	mein-/Ø	mein-/Ø	mein-e	mein-e
accusative	mein-e-n	mein-/Ø	mein-e	mein-e
dative	mein-e-m	mein-e-m	mein-e-r	mein-e-n
genitive	mein-e-s	mein-e-s	mein-e-r	mein-e-r

Apart from the three indicated forms, the inflections of the *ein*-words match the ones of the *der*-words and those of the strong adjectival paradigm completely.

Adjectives that are preceded by *ein*-words have either strong or weak endings of which the latter are either *-e* or *-en* (the strong endings are marked in bold print in shaded cells):

Table 8. Mixed adjectival inflections (**the “mixed” paradigm**) (Roehrs 2006: 171).

case \ gender	masculine	neuter	feminine	plural
nominative	gut-e-r	gut-e-s	gut-e	gut-e-n
accusative	gut-e-n	gut-e-s	gut-e	gut-e-n
dative	gut-e-n	gut-e-n	gut-e-n	gut-e-n
genitive	gut-e-n	gut-e-n	gut-e-n	gut-e-n

It should be noted that, if *ein* has no or a weak null ending, the adjective is strong, as illustrated in Table 8.

As can be seen above, the mixed adjectival paradigm rather poses a problem for the generalization in (1). This is illustrated by Roehrs (2006: 169) in (7a), where the first element has

weak while the second element has strong inflection. This is not expected by the Principle of Monoinflection:

- (7) a. [indefinite determiner(–/WEAK) adjective(STRONG) noun]
b. [indefinite determiner(STRONG) adjective(WEAK) noun]

The adjectival pattern in (7a) can be found in three cases only: nominative masculine singular and nominative/accusative neuter singular. According to Roehrs, this ending should be called a weak null one, as was shown in section 2.2. He assumes that this would add a better account of the facts within the debate about whether *ein* ‘a’ should be called a null ending (as in Duden 1995, Wegener 1995 and Darski 1979) or whether it does not have an ending at all (as in Demske 2001, Eisenberg 1999, Olsen 1991 and Bhatt 1990).

There are more elements (like *mein* above) that behave in a parallel way as *ein* and that are therefore referred to as *ein*-words (cf. Roehrs 2006: 169):

- (8) *ein* ‘a’ » possessive determiners (e.g. *mein* ‘my’, *ihr* ‘her’ etc.), negative *kein* ‘no’

However, not all these elements seem to form a natural semantic group (as clearly noted by Roehrs), although they seem to be brought about by so-called Distributed Morphology (DM). This is the case with the elements of the *der*-words as well³.

At this point, some conclusions can be made. First, as pointed out by Roehrs, it is possible to collapse the inflection of the definite determiner and the strong adjectival paradigm into one set of endings (since they are exactly the same): “the strong inflections”. Second, four sets of endings were discussed: the strong, weak, *ein*-words and mixed paradigms. According to Roehrs, it is quite obvious that these four can easily be reduced, at least to two: the strong and weak inflections.

After briefly discussing the tripartite (Duden 1995) and bipartite approaches (Eisenberg 1998 & 1999) and their relevant insights, the goal in this paper will be to show the possibility of reducing the number of paradigms with the help of these insights. It will also be put forth that the two remaining paradigms are category-independent, since they represent the inflections of both determiners and adjectives.

2.3.1. Duden (1995)

In Duden (1995), the tripartite system is used in order to describe the adjectival paradigms. It is marked as noticeable that the mixed and strong inflections, apart from accusative masculine, are identical in the nominative/accusative singular, as in Table 9 and 6, which is repeated below (the relevant inflections are in bold print in shaded cells):

Table 9. Mixed adjectival inflections (**the “mixed” paradigm**) (Roehrs 2006: 172).

case \ gender	masculine	neuter	feminine	plural
nominative	gut-e-r	gut-e-s	gut-e	gut-e-n
accusative	gut-e-n	gut-e-s	gut-e	gut-e-n
dative	gut-e-n	gut-e-n	gut-e-n	gut-e-n
genitive	gut-e-n	gut-e-n	gut-e-n	gut-e-n

Table 6. Strong adjectival inflections (**the “strong” paradigm**) (Roehrs 2006: 172).

case \ gender	masculine	neuter	feminine	plural
nominative	gut-e-r	gut-e-s	gut-e	gut-e
accusative	gut-e-n	gut-e-s	gut-e	gut-e
dative	gut-e-m	gut-e-m	gut-e-r	gut-e-n
genitive	gut-e-n	gut-e-n	gut-e-r	gut-e-r

This observation led Roehrs (2006) conclude that the endings in the shaded cells in Table 9 above are in fact all strong ones, contrary to what has been claimed in the traditional literature (note that accusative masculine and nominative/accusative feminine are traditionally regarded as being weak inflections, but according to Roehrs it is better to analyze them as strong ones; see also chapter 3).

2.3.2. Eisenberg (1998, 1999)

The bipartite system is used in Eisenberg (1998, 1999).

With respect to the strong paradigm, Eisenberg (1999) claims that it is “head noun oriented”, i.e., if the head noun has no inflection, as in (9a), the adjective is strong; if the head noun is inflected (i.e. for Case), as in (9b), the adjective has weak inflection (examples adopted from Roehrs 2006: 177 in his discussion of Eisenberg 1999):

- (9) a. kalter Tee
Cold(NOM.STRONG) tea(M)
'cold tea'
- b. kalten Tee-s
cold(WEAK) tea(M.GEN)
'cold tea'

However, in some cases (e.g. when there is optional inflection on the head), the adjective needs to have strong inflection, despite the overt Case marking on the head noun (cf. Gallmann 1996) (examples from Roehrs 2006: 178):

- (10) a. aus hartem Holz(e)
from hard(DAT.STRONG) wood(N.DAT)
'made of hard wood'
- b. *aus harten Holz(e)
from hard(WEAK) wood(N.DAT)
'made of hard wood'

There are in fact two major problems with Eisenberg’s account, as noticed correctly by Roehrs (2006).

First, as already shown above, it is better to regard the weak adjectival ending in genitive masculine/neuter as an exception rather than explaining it in relation to the overt marking of the noun (cf. also Müller 2002).

Second, Eisenberg claims a bi-directionality of the government of inflection in the noun phrase, since both the determiner and the head noun contribute some features. This would mean that they provide the same (which is not very likely) and that, similar to the noun, as in (11a), the determiner would also show loss of inflection in some cases, presented by the schwa in (11b) (examples from Roehrs 2006: 179):

- (11) a. d-es Barock
 the(GEN.STRONG) baroque(M/N)
 ‘the baroque’
 b. *d[ə] Wein-s
 the(WEAK) wine(N.GEN)
 ‘the wine’

It should be clear that this is not the case. If we regard the weak adjectival ending in genitive masculine/neuter as an exception, this problem doesn’t arise.

With respect to the weak paradigm, Eisenberg (1998) observes a clear distinction between the singular structurally case-marked endings and the plural and/or inherently case-marked ones (note that nominative and accusative are structural cases whereas dative and genitive are inherent cases): the first class carries the ending *-e*, the second class the ending *-en* (however, accusative masculine forms an exception). In such a way, the weak adjectival paradigm in Table 5 can be reduced to the four forms in Table 10, in which the singular structurally case-marked inflections represent the unmarked instances:

Table 5. Weak adjectival inflections (the “weak” paradigm) (Roehrs 2006: 174).

case \ gender	masculine	neuter	feminine	plural
nominative	gut-e	gut-e	gut-e	gut-e-n
accusative	gut-e-n	gut-e	gut-e	gut-e-n
dative	gut-e-n	gut-e-n	gut-e-n	gut-e-n
genitive	gut-e-n	gut-e-n	gut-e-n	gut-e-n

Table 10. Simplified weak adjectival inflections (Roehrs 2006: 174).

	(singular)	plural
(structural)	-e	-en
inherent	-en	-en

Eisenberg (1998) claims that, with respect to substance and function, both types of weak inflections are the “weakest” suffixes in German. The ending *-e* (the weakest of the two) is used following a determiner that already fully distinguishes the gender of the noun phrase (*de-r* for masculine, *da-s* for

neuter and *di-e* for feminine). The remaining determiners do not unambiguously distinguish gender, as illustrated in Table 4 (accusative masculine forming an exception, as already seen above). The distribution of the *-e*-ending thus seems to lie in the fact that this ending comprises a particular “natural” group (i.e., singular structurally case-marked elements), and doesn’t seem to be related to gender (Roehrs clearly agrees with Eisenberg at this point).

2.3.3. Extending Eisenberg’s (1998) Proposal

As already shown in Table 7, repeated below, there are three “exceptions”⁴ in the paradigm of *ein*-words, i.e. nominative masculine and nominative/accusative neuter:

Table 7. Paradigm of the possessive determiner *mein* ‘my’ (the “*ein*-words” paradigm) (Roehrs 2006: 192).

case \ gender	masculine	neuter	feminine	plural
nominative	mein-/∅	mein-/∅	mein-e	mein-e
accusative	mein-e-n	mein-/∅	mein-e	mein-e
dative	mein-e-m	mein-e-m	mein-e-r	mein-e-n
genitive	mein-e-s	mein-e-s	mein-e-r	mein-e-r

These exceptions, which are followed by strong adjectives, are assumed to have a weak null ending (examples from Roehrs 2006: 193):

- (12) a. mein guter Wein (nom masc)
 my(WEAK) good(NOM.STRONG) wine(M)
 ‘my good wine’
- b. mein gutes Bier (nom neut)
 my(WEAK) good(NOM.STRONG) beer(N)
- c. mein gutes Bier (acc neut)
 my(WEAK) good(ACC.STRONG) beer(N)
- ‘my good beer’

Roehrs (2006), at this point, proposes that there are in fact not three, but six exceptions with respect to the *ein*-words: these are all singular structurally case-marked *ein*-words (note that Eisenberg (1998) already noticed that all weak *-e*-endings show up on singular structurally case-marked elements, and that Duden (1995) “discovered” that the structurally case-marked endings in the mixed paradigm are identical to the ones in the strong paradigm). The advantage of such an approach is the ability to postulate a natural class. These are the new exceptions in Roehrs’ rearrangement (examples from Roehrs 2006: 194):

(13)	a.	mein-en	gut-en	Wein	(acc masc)
		my	good	wine(M)	
	b.	mein-e	gut-e	Limo	(nom fem)
		my	good	soda(F)	
	c.	mein-e	gut-e	Limo	(acc fem)
		my	good	soda(F)	

In (12), the strong inflections are on the adjective whereas in (13), they are traditionally claimed to be on the article word. If, as Roehrs shows, we regard the endings on the adjective in (13) as strong ones (notice that, in (13), all the endings are linearly the same)⁵, the natural group will consist of six identically marked cases: all singular structurally case-marked *ein*-words will have a weak ending, as shown in Table 11 below⁶:

Table 11. Natural grouping of weak endings (Roehrs 2006: 195).

case \ gender	masculine	neuter	feminine
nominative	mein-/gut-e	mein-/gut-e	mein-e/gut-e
accusative	mein-en/gut-en	mein-/gut-e	mein-e/gut-e

In Table 11, there are in fact not two, but three endings: the zero-ending on *mein* and the *-e-* and *-en-* endings on *gut*.

It is not only the postulation of a natural group that seems to be an advantage, the former four paradigms (strong, weak, *ein*-words and mixed) can now be reduced to two (weak and strong) which can be accounted for in a more principled way. A side-effect of this proposal, however, will be that the two “new” paradigms have a more abstract character, since they will not be tied to one specific category (determiner or adjective): they will each be applicable to determiners and adjectives alike.

2.4. Conclusion

In this chapter, the idea was put forth that the four paradigms of inflections in the German DP can be reduced to two (at least): the strong and the weak paradigm. This has been possible since the inflection of the definite determiner and the strong adjectival paradigm can easily be collapsed; a similarity that was already noticed by Duden (1995). With the help of the insights of Eisenberg (1998, 1999), it has been possible to set the singular structurally case-marked endings and the plural and/or inherently case-marked ones apart. Regarding explanatory force, the first group seems to be a natural one, which has theoretical advantages.

If there are only two paradigms of endings within the German DP, and only one strong ending should be licensed, there must be a principle that rules the distribution in question. This principle is the Principle of Monoinflection, which states that the first element within the DP should carry the strong and the second one the weak ending.

After having discussed the tripartite and bipartite approaches (proposals with respect to the number and type of the different paradigms) in this chapter, the next chapter will deal with analyses that seek to explain the distributions of the adjectival endings. The first part of the chapter is devoted to Abney's (1986, 1987) so-called "DP-hypothesis" which can be regarded as the stimulating start of all major research on the DP. In the second part of the chapter, the focus will be on the distribution of adjectival inflections within DP, as the insights of Eisenberg's (1998) analysis of the singular structurally case-marked endings as a natural group will lead to Roehrs' reanalysis of the inflections of the *ein*-words – a purely minimalistic contribution to the field.

Notes

1. For the aim of clarity and convenience, traditional terminology is used here.
2. It should be noted that the term "definite" is used here also traditionally.
3. The *ein*-words are traditionally called indefinite article words. Not all the items of the *ein*-words seem to be indefinite in their interpretation however (e.g., *mein* 'my' restricts the interpretation of deixis to one particular object: *mein Haus* 'my house'). Also, not all the items of the *der*-words have a definite interpretation (*manch* 'some', e.g., denotes rather indefiniteness).
4. The term "exceptions" is used here for ease of exposition.
5. However, with respect to strong plural and/or inherently case-marked *ein*-words, the endings on the article word and the adjective are not the same.
6. Roehrs (2006) notes that accusative masculine behaves "somewhat differently" at this point.

3 Explaining the Distribution of the Inflections in the German DP

3.1. Introduction

In chapter 2, the distribution of inflectional agreement in the German DP was discussed. In the first part of this chapter, Abney's (1986, 1987) DP-hypothesis will be elaborated, a hypothesis that will form the basis of the second part of the chapter, which seeks to explain the distribution of inflectional agreement in German.

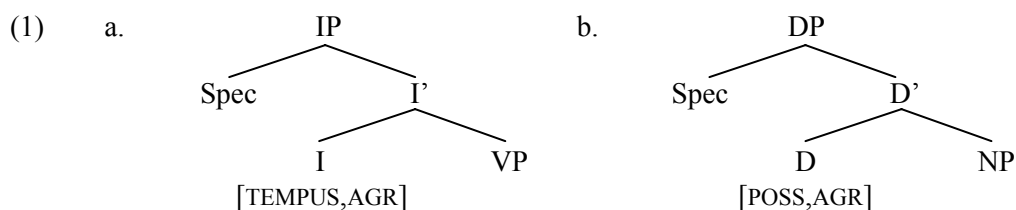
Abney, at the time being in an "old" GB-framework, stimulated much important research on the DP. It is therefore remarkable that there are put forth only a few analyses that seek to explain adjectival inflection in the German DP. One of the most important accounts, in a GB-framework, is Olsen (1991). However, since her theory is not without problems at certain points, as to be outlined in section 3.3.1, this was the reason for Roehrs (2002, 2006) to provide a new and profound account of the phenomenon in question, being one of the firsts to do so in a purely minimalistic framework.

3.2. The Functional Category D

Abney (1986, 1987) was the first linguist who postulated a third functional category, thus complementing the existing functional categories I(nflection) and C(omplementizer): D(eterminer)¹. Assuming a clear structural parallel between nominal and verbal phrases, Abney analyzes the DP as headed by D, a functional element (i.e., "non-lexical" category). In such a way, the structure of the so-called DP is similar to its sentential counterpart, the IP (which is headed by I), and so the DP now has a more sentence-like structure than the NP in pre-Abney days. Abney further assumes that, very parallel to IP, nouns show agreement with their possessors, which would support his analysis of the DP headed by an element similar to I (note also that both D and I – which provide a position for AGR – belong to the class of functional categories).

It is in line with this assumption (i.e., the analogy of determiners with modals ('I') and complementizers) that determiners in DPs and adjectives² in APs are analogously analyzed as heads of full phrases: determiners and adjectives head DPs and APs respectively. To put it in other words: determiners are lexical instantiations of D in a way similar to the idea that modals are lexical instantiations of I.

This assumption provides conceptual and empirical advantages. Conceptually, it is much more appealing to be able to assign both DPs and IPs a parallel structure than to assign these phrases a different structure. Empirically, Abney's theory provides a better description and analysis of the facts, since many languages show characteristic inflection not only on the verb, but also on the noun: I transmits its grammatical features onto the verb, in the same way as D transmits its grammatical features (= AGR) onto the noun. This is exemplified in the following structures, adopted from Abney (1987: 19):



In similarity with IP, DP also has a Specifier position which is assigned Case (e.g. genitive) by a possessive feature in D°. Just as verbal AGR is realized phonologically on V, nominal AGR is realized phonologically on N (e.g. in Hungarian, but also in many other languages).

The empirical advantages, which were already mentioned briefly above, are exemplified by Abney's analysis of the Gerund ("nominalized infinitive"), which has nominal as well as verbal characteristics. Gerunds do have the same structural position as normal DPs (postverbal), but they take adverbs and assign accusative ("objective") case to their complements, in contrary to normal DPs (examples taken from Bhatt 1990: 18, 19, in her discussion of Abney 1986, 1987):

- (2) a. We remember [smoking a cigarette].
 b. We remember [the great evening].
- (3) We remember often smoking [a cigarette]_{OBJECTIVE}.

In the so-called "NP-hypothesis", in pre-Abney days, Gerunds did have the structure as in (4), from Bhatt 1990: 19):

- (4) [_{NP} [_{Det} the] [_{VP} hitting the ball]]³

It was, however, very problematic that a maximal head, in this structure, is the head of another maximal head which is specified by other features (this contradicts the endocentric phrase structure within X-bar theory). Abney's theory provides a solution for this problem. If the determiner *the* is the head of the phrase and selects a VP (which transmits its descriptive content via D° onto the maximal projection DP), a much more appealing structure, adopted from Abney (1987: 199), arises:

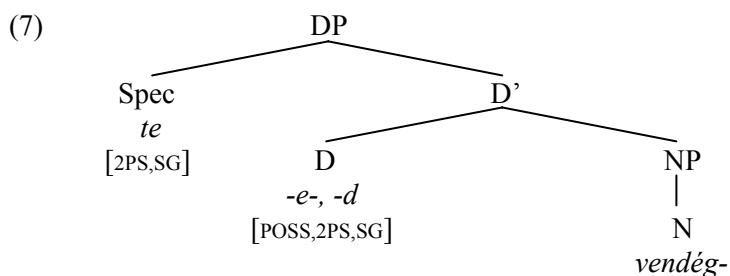
(5) [DP [D the] [VP [V' [V hitting] [DP the ball]]]]

3.2.1. The Advantages of the DP-Hypothesis

According to Abney (1986, 1987), the advantages of the unitary structures in (1) are (i) the licensing (by I and D) of a subject and complement, and (ii) the licensing of the Specifier position by certain features in I and D (through Case assignment). These features are [+FIN,+AGR] in I and [POSS,AGR] in D (POSS = possession). In many languages, there is a clear parallel realization of these features. Just as there is subject-verb agreement (realized by an inflection suffix on the head of the VP-complement, which is V), in some languages, “subject-noun agreement” can also be found. In these languages, the latter is realized by an inflection suffix on the head of the NP-complement, which is N. One such language is, again, Hungarian (examples taken from Szabolcsi 1983: 89):

- | | | | | |
|-----|----|-----|----------------|----------------|
| (6) | a. | az | én-Ø | vendég-e-m |
| | | the | I-NOM | guest-POSS-1SG |
| | | | ‘my guest’ | |
| | b. | a | te-Ø | vendég-e-d |
| | | the | you-NOM | guest-POSS-2SG |
| | | | ‘your guest’ | |
| | c. | a | Mari-Ø | vendég-e-Ø |
| | | the | Mary-NOM | guest-POSS-3SG |
| | | | ‘Mary’s guest’ | |

In (6), the noun *vendég* ‘guest’ has the affix *-e* which is the realization of the grammatical feature [POSS]. Agreement of the noun with its subject is realized by *-m* ([1PS,SG]), *-d* ([2PS,SG]) or *-Ø* ([3PS,SG]). In Hungarian, the possessor, in [Spec,DP], is assigned nominative case (this is of course different from the genitive case assignment of the Specifier position in German) (tree taken from Olsen 1991: 55):



Abney (1986) assumes that there is also a parallel semantic function of both D and I (cf. Higginbotham 1985): “The noun provides a predicate and the determiner picks out a particular member of that predicate’s extension. The same function is performed in the verbal system by tense, or inflection. The VP provides a predicate, that is, a class of events, and tense locates a particular event in time” (Abney 1986: 8).

According to Abney, a major improvement of the DP as compared to its predecessor NP is the postulation of two separate positions: the [Spec,DP] position and the D°-position. Within the NP-hypothesis, D, POSS and prenominal GEN were base-generated in the same position and, therefore, they could not be overtly present at the same time. As shown by the Hungarian example (6b), where prenominal GEN *te* ‘you’ is in [Spec,DP], this can indeed be the case (here, the AGR-features in D are realized together with a prenominal GEN).

How can D be characterized, compared to the other lexical and functional categories?

In order to be able to answer this question, Abney (1987) postulates the features [\pm N] and [\pm F], where N stands for ‘nominal’ and F for ‘functional’. The four possible combinations of these two features are illustrated in the overview below (note that conjunctions and prepositions are unspecified for [\pm N] and [\pm F] respectively):

Table 1. The four major classes of syntactic categories (Abney 1987: 63).

	[-F]	[+F]
[-N]	V, Aux, P (?)	I, C
[+N]	N, A, Q, Adv	D

The symmetry of functional categories can be summarized as follows:

- Only **functional** categories such as C, I and D have (overt) subjects.
- Only **Specifier** positions provide landing sites for movement.
- The function of the determiner is the specification of the reference denoted in the DP. Just as the determiner selects a particular member of the predicate’s extension within DP, inflection (or tense) in the verbal system picks out a particular event in time.

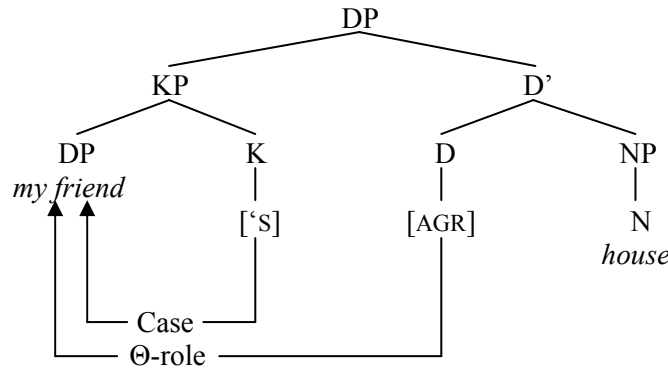
3.2.2. Case and Θ -Roles

Focusing now on Case and Θ -roles, with regard to D, consider the examples in (8), provided by Bhatt (1990: 24) in her discussion of Abney (1987):

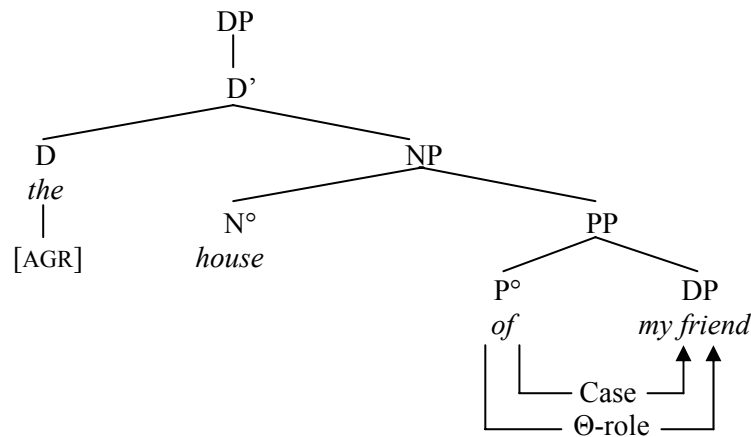
- (8)
- a. my friend’s house
 - b. the house of my friend
 - c. *Peter’s house of my friend

The sentences above have the structures as in (9), taken from Bhatt (1990: 23, 24):

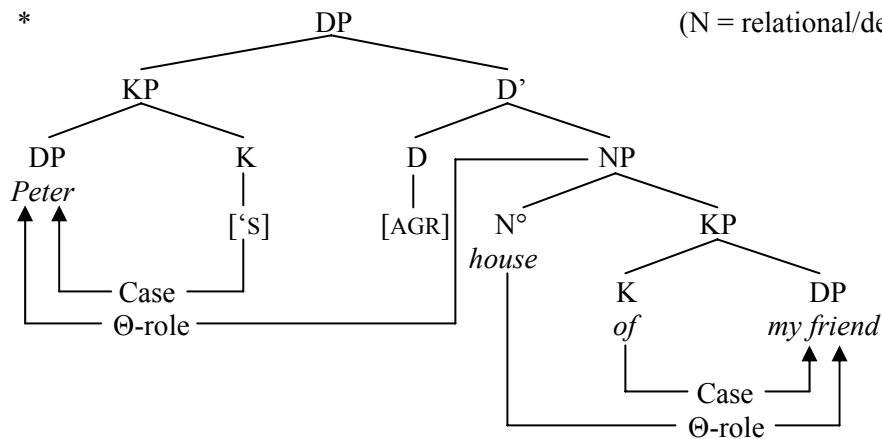
(9) a. (N = absolute noun)



b. (N = absolute noun)



c. * (N = relational/deverbal noun)



With respect to **absolute** nouns like *house* only one possessive Θ -role can be assigned. As a consequence, the structures (9a) and (9b) are possible, whereas (9c) is impossible. This concretely means that *house* can have but one possessor (either *Peter* or *my friend*). The Θ -role POSSESSION, in DPs, is not assigned by the noun itself, but, remarkably, by D onto the prenominal DP, as in (8a), and by the preposition *of* onto the postnominal DP, as in (8b). In the latter example, the preposition *of* also assigns Case to the DP *my friend*, whereas in (8a), the DP *my friend* is assigned Case by the element 'K' (which is a functional Case marker).

If both assigned Θ -roles are distinct, the structure in (9c) is fully grammatical, as shown in (10a), from Bhatt (1990: 24) (note that *description* is a **deverbal** noun, not an absolute one):

- (10) a. grandpa's description of the War
 b. the description of the War
 c. his description of the War
 d. the War_i's description t_i

The internal Θ -role of the deverbal noun is assigned to the DP (complement-KP) by the deverbal noun N°. Since Case cannot be assigned by nouns themselves, the element K assigns Case to its DP-complement in the postnominal KP. The external Θ -role of the deverbal N° is assigned by NP – through predication – to the DP in the pronominal KP, cf. example (10a). Here, again, K (which is the element –'s) is the Case assigner, similar to *of* in the postnominal domain.

It should be noted that, according to Abney, [Spec,DP] need not be filled when D is overtly occupied by a lexical determiner like *the* or *his*, as in (10b) and (10c) respectively. However, if –'s is generated, the Specifier position must be filled – either by an external argument (if available) or by an internal argument via movement, as illustrated in (10d) (although I happen to believe that such movement is only grammatical if the noun has a feature [+ANIMATE]). The Specifier position, as proposed by Abney, makes certain ungrammatical patterns automatically impossible: the subject will not be there in the structure as postnominal GEN, and subject and object will never be found in pronominal position at the same time (as there is only one pronominal X^{max}-position, i.e. [Spec,DP]). Only when there is no subject, the object is able to leave its position in DP and move to [Spec,DP].

3.3. Explaining the Distribution of the Adjectival Inflections in German

The above analysis of the noun phrase as a DP will form the basis of the discussion in this section. Focusing now more language-specifically on German, the aim is to provide an explanation of the phenomenon of adjectival inflection in this language, based on the work of Olsen (1991) and Roehrs (2002, 2006). It has appeared to be the case that such an explanation can best be provided if the German noun phrase is being regarded as a DP in the sense of Abney (1986, 1987).

Olsen (1991), in a traditional GB-framework, is one of the most important contributions to the explanation of the distribution of the adjectival inflections in German. It is discussed in at least three major monographs on the DP: Bhatt (1990), Wegener (1995) and Demske (2001).

Roehrs (2002, 2006) is one of the first linguists who provided a thorough account of the phenomenon in a purely minimalist framework, trying to explain the distribution of the German adjectival inflections in a most coherent way.

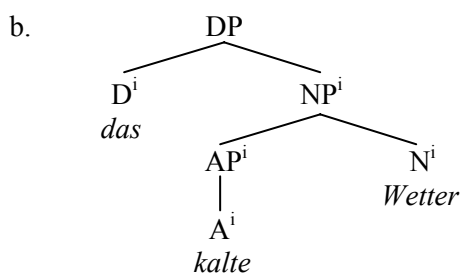
3.3.1. Olsen (1991)

Olsen (1991) discusses inflection within the German DP, assuming Abney's DP-hypothesis. She proposes that the so-called phi-features (person, number, gender and case) (= AGR) are located under D. AGR should be made phonologically visible. The functional head D selects an NP-complement, and the identical superscripts (which show that there is an agreement chain) percolate from NP "down the tree". These are the relevant definitions (translations by Roehrs 2006):

- (11) a. *Principle of morphological realization* (Olsen 1991: 40)
Grammatical features are rendered phonologically visible.
- b. *Agreement chain* (Olsen 1991: 38)
An agreement chain consists of an uninterrupted sequence of identical indices which are brought about by functional selection, which holds between an AGR-category and its complement.

The following examples, with a simplified tree diagram, illustrate the principles above (examples taken from Roehrs 2006: 181):

- (12) a. das kalte Wetter
 the(NOM.STRONG) cold(WEAK) weather(N)
 'the cold weather'



By this, AGR is overtly realized by the definite article (*das*) under D, which has strong inflection. The NP gets its identical superscript ("i") by functional selection, while N and A get their identical superscript by percolation. Olsen assumes Emonds' (1987) Invisible Category Principle as well, since there should be one unique realization of the grammatical feature:

- (13) *Invisible Category Principle* (Emonds 1987: 615)
A closed category B with positively specified features C_i may remain empty throughout a syntactic derivation if the features $C_i \dots$ are all alternatively realized in a phrasal sister of B.

The same phenomenon can be found in the English comparative construction which shows that the Invisible Category Principle restricts the realization of this construction to just one overt marker (examples adopted from Olsen 1991: 43):

- (14) a. [_{DEG} more] bright-Ø
 b. [_{DEG} Ø] bright-er

This is also the reason for the fact that the Invisible Category Principle, though allowing the realization of AGR on the adjective (a sister node) in (15b), rules out double strong marking in (15c) (examples taken from Roehrs 2006: 182, 183):

- | | | | | |
|------|----|---------------------------|--------------|------------|
| (15) | a. | das | kalte-Ø | Wetter |
| | | the(NOM.STRONG) | cold(WEAK) | weather(N) |
| | | ‘the cold weather’ | | |
| | b. | [_D Ø] kalte-s | | Wetter |
| | | cold(NOM.STRONG) | | weather(N) |
| | | ‘cold weather’ | | |
| | c. | *da-s | kalte-s | Wetter |
| | | the(NOM.STRONG) | cold(STRONG) | weather(N) |
| | | ‘the cold weather’ | | |

As shown in (15a), *kalte-Ø* has a weak inflection. This can be regarded as the unmarked inflection of the adjective. A striking fact is that the strong ending can only be made visible on the sister node (i.e. the adjective), not on the noun. In order to rule out constructions as **ein-es kalte Wetter* ‘a cold weather’, where there is strong inflection on the determiner, but weak inflection on the adjective, Olsen stipulates that *ein* ‘a’ doesn’t have an inflection in the nominative masculine and the nominative/accusative neuter. The Invisible Category Principle then “causes” the sister node to have strong inflection, by absence of inflection on D.

There are also clear cases where AGR seems to be totally absent, as in mass nouns like *Bier* ‘beer’. In order to be able to explain the difference in grammaticality between countable nouns (e.g. **Witz* ‘joke’) and mass nouns in argument position, Olsen argues that both DPs and NPs can be arguments (see also Haider 1988). She argues that count nouns have to project a DP, but mass nouns, as *Humor* ‘humour’ in (16), from Olsen (1991: 46), do not (and therefore don’t have AGR):

- (16) Humor ist fehl am Platz.
 ‘Humour is not in the right place.’

This however leads to the problem that mass nouns have to enter (noun-external) agreement relations without AGR (cf. also discussions on this by Bhatt 1990, Löbel 1990 and Vater 1991). According to Roehrs (2006), Olsen’s proposal is clearly incompatible with the NP/DP-hypothesis, since her hypothesis claims that predicates are NPs and arguments are DPs (see also Roehrs 2002). If you add Olsen’s stipulation about the absence of inflection on the D *ein*, Roehrs is understandably forced to reject Olsen’s proposal.

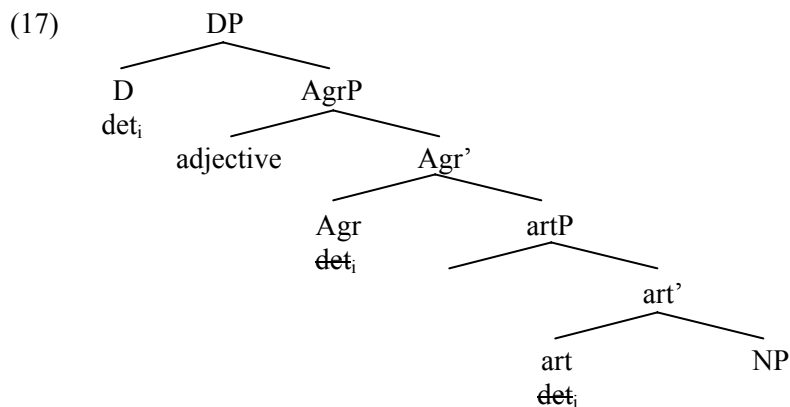
3.3.2. Roehrs (2002, 2006)

Based on Abney's (1986, 1987) DP-hypothesis, Roehrs' (2002, 2006) major claim is the assumption that all determiners are merged below the adjective, but that they move into the DP at different times. It is the point in the derivation where they move (and as such precede the adjective) that determines whether they will get a strong ending, or a weak one (by default).

3.3.2.1. Movement of the Determiner

So far, the Principle of Monoinflection seems to be violated by the fact that the new natural group has a strong ending on the adjective (the second element) and a weak one on the determiner (the first element); this looks like a true positional "switch" of endings, as noticed by Roehrs (2006).

It is shown by Roehrs that this problem can easily be solved. He proposes the following. First, Roehrs analyzes noun phrases as DPs, in line with Abney (1986, 1987). Second, Roehrs claims that there is not only movement of demonstratives into the DP, but also movement of determiners (cf. Brugè 1996, 2002). Roehrs therefore postulates two determiner positions: the null determiner D and so-called "art", which is lower in the structure (the home of the actual overt determiner). The adjective resides in [Spec,AgrP] (note that AgrP is a recursive projection) and acts as an intervener. In order to check the uninterpretable [DEFINITE] feature on D, the overt determiner moves from art to D. Third, Roehrs follows Longobardi (1994) in stating that "[...] the definite determiner in DP brings about referentiality of the DP [...]" (Roehrs 2006: 200). The whole movement operation is shown in (17), an example taken from Roehrs (2006: 200):



3.3.2.2. Two Phases

As Roehrs (2006) assumes, the derivation consists of two phases, assembled separately (for phase theory, cf. Chomsky 2000, 2001): a DP-phase (cf. Svenonius 2004 and Bošković 2005), and a clausal phase. Roehrs further assumes two additional syntactic relations with regard to the operation above: an external "agreement" relation, reflected by the Principle of Monoinflection, and an internal "concord" relation which involves the checking of features within the DP (pursued by the movement of the overt

determiner into DP). The simplified structure before D-movement (in line with Chomsky 1995) is as in (18), from Roehrs (2006: 201):

(18) $[_{DP} D [_{AgrP} (\mathbf{adjective}) [_{artP} \mathbf{determiner} [_{NP} \mathbf{noun}]]]]]$

The uninterpretable [DEFINITE] feature on D, in (18), has to be checked by the determiner and, therefore, the determiner has to move to DP (either overtly or covertly, depending on the point in the derivation where it moves). According to Roehrs, in syntax, definite determiners and plural and/or inherently case-marked indefinite determiners move overtly, whereas singular structurally case-marked indefinite determiners move covertly. The latter group not only moves to D in syntax (i.e. covertly), but also moves in PF (i.e. overtly), since *ein* should be regarded as a supporting element: “[...] the null D-head in German needs to be supported in PF” (Roehrs 2006: 203). The above leads to the following derivations of the *der*-words, in (19), and plural and/or inherently case-marked *ein*-words, in (20) (both examples adopted from Roehrs 2006: 203):

(19) a. *der* *gute* *Wein*
 The(NOM.STRONG) good(WEAK) wine(M)
 ‘the good wine’
 b. $[_{DP} \mathbf{der}_i + D [_{AgrP} \mathbf{gute} [_{artP} \mathbf{der}_i [_{NP} \mathbf{Wein}]]]]]$

(20) a. *einem* *guten* *Wein*
 A(DAT.STRONG) good(WEAK) wine(M)
 ‘a good wine’
 b. $[_{DP} \mathbf{einem}_i + D [_{AgrP} \mathbf{guten} [_{artP} \mathbf{einem}_i [_{NP} \mathbf{Wein}]]]]]$

Whereas in (19) and (20), the *der*-words precede the adjective (evoked by movement), the singular structurally case-marked *ein*-words remain in situ (i.e., in artP), as in (21), from Roehrs (2006: 204):

(21) a. *ein* *guter* *Wein*
 A(NOM.WEAK) good(STRONG) wine(M)
 ‘a good wine’
 b. $[_{DP} D [_{AgrP} \mathbf{guter} [_{artP} \mathbf{ein} [_{NP} \mathbf{Wein}]]]]]$

In the three derivations above, the strong inflection is on the first element (weak inflection on the second) and, as such, the DP can now be merged into the clause.

Roehrs assumes that, when a DP is merged into the clause, the strong ending can only be licensed⁴ on an element in a particular position: a so-called “L-marked” position. There is also a difference in licensing between lexical and functional elements:

- (22) *L-marking* (Roehrs 2006: 205)
- a. Lexical elements such as verbal predicates and prepositions L-mark the Specifier position and the head of their argument.
 - b. Functional elements such as D and overt determiners only L-mark the Specifier position of their argument.

(22) results in the following L-marked positions:

- (23) *L-marked Positions* (Roehrs 2006: 205)
- a. [Spec,DP] – demonstratives (after movement)
 - b. D – articles (after movement)
 - c. [Spec,AgrP] – adjectives
 - d. lower Specs – empty or irrelevant

As a consequence, the overt article in art and the noun in N are not L-marked and thus can't get a strong ending. A moved determiner (and the following adjective) are in L-marked positions and can both get a strong ending. In order to rule out the inconvenience of double strong marking, the Principle of Monoinflection needs to be modified into a more language-specific rule, capturing what occurs in German:

- (24) *Rule of Monoinflection (first version)* (Roehrs 2006: 206)
License the strong morphological inflection on the first overt element at the point where the DP is merged into the clause.

The derivation of Merge with respect to (19b), in the weak paradigm, is shown in (25). The definite determiner is in an L-marked position, "D", and is consequently strongly marked (example from Roehrs 2006: 207):

- (25) $[_{VP} [_{DP} \mathbf{der}_i + D [_{AgrP} \mathbf{gute} [_{artP} \mathbf{der}_i [_{NP} \mathbf{Wein}]]]]] \nu [_{VP} \dots]]$

Rule (24) now prohibits the licensing of strong inflection on the adjective (although it is also in an L-marked position: [Spec,AgrP]). The whole DP finally moves to [Spec,IP] in order to value the abstract nominative case on the null D.

Considering the following example, in the strong paradigm, it is a null determiner which moves in order to support D (note that a zero element is merged with a mass noun in art). The exact moment of movement is irrelevant, since the adjective will remain the first overt element in an L-marked position and hence will be licensed a strong ending (example adopted from Roehrs 2006: 207):

- (26) $[_{VP} [_{DP} \emptyset_i + D [_{AgrP} \mathbf{guter} [_{artP} \emptyset_i [_{NP} \mathbf{Wein}]]]]] \nu [_{VP} \dots]]$

In the mixed paradigm, dative case can only be valued by a predicate (e.g. with the preposition *mit* ‘with’) that takes dative case; again, the adjective will get a strong ending as it is the first overt item (example from Roehrs 2006: 207):

(27) $[_{PP} \text{ mit } [_{DP} \text{ einem}_i + D [_{AgrP} \text{ guten } [_{artP} \text{ einem}_i [_{NP} \text{ Wein}]]]]]$

As a last example, consider (28) in the paradigm of *ein*-words, from Roehrs (2006: 208). Recall that the determiner (a singular structurally case-marked *ein*-word in the nominative) stays *in situ*:

(28) $[_{DP} D [_{AgrP} \text{ guter } [_{artP} \text{ ein } [_{NP} \text{ Wein}]]]]]$

The DP will be merged in $[_{Spec, \nu P}]$ of the clausal phase, and the adjective (in an L-marked position) will be licensed strong inflection by the predicate ν (example from Roehrs 2006: 208):

(29) $[_{\nu P} [_{DP} D [_{AgrP} \text{ guter } [_{artP} \text{ ein } [_{NP} \text{ Wein}]]]]] \nu [_{\nu P} \dots]]]$

The entire DP can now move to $[_{Spec, IP}]$ for valuing the (abstract) nominative feature on D.

3.3.2.3. Movement in PF

In order to finalize the derivation of the exceptional *ein*-words, cf. the example in (30) from Roehrs (2006: 209), Roehrs proposes a head movement operation in PF (see also Chomsky 2000, Lasnik 2001, Embick & Noyer 2001, Sauerland & Elbourne 2002 and Boeckx & Stjepanović 2001), therefore assuming that phrase and head movement not only occur in syntax, but also in PF. This head movement is not needed to license or value features, but to support D:

(30) $[_{DP} \text{ ein}_i + D [_{AgrP} \text{ guter } [_{artP} \text{ ein}_i [_{NP} \text{ Wein}]]]]]^5$

The question now is: How can the weak endings be explained? Roehrs claims that the singular structurally case-marked *ein*-words and adjectives that follow a determiner get inflection by default in PF. This is in line with Eisenberg (1998) who already noticed that the *-e-* and *-en-* endings, with respect to substance and function, are the least specific endings.

The main steps of the derivation within Roehrs’ analysis are summarized below:

- (A) There is movement of *der*-words and plural and/or inherently case-marked *ein*-words to D within the DP-phase (for valuing D). After having been merged into the clausal phase, the *der-*, *ein*-word or adjective will get strong morphological case (in the case of the adjective: if “nothing precedes it”).

- (B) The whole DP stays *in situ* or moves before Spell-Out (e.g. to get structural case).
- (C) After Spell-Out, there is movement of *ein*-words to D (for supporting it). These *ein*-words as well as the remaining caseless adjectives then get weak morphological case by default.

In the following section, it will be shown that the Rule of Monoinflection doesn't always hold and, therefore, needs to be reformulated.

3.3.2.4. Reformulating the Rule of Monoinflection

Consider the following example, from Roehrs (2006: 216):

- | | | | | |
|------|----|----------------------|------------------|---------|
| (31) | a. | Vaters | guter | Wein |
| | | father(GEN) | good(NOM.STRONG) | wine(M) |
| | | 'father's good wine' | | |
| | b. | Vaters | gutem | Wein |
| | | father(GEN) | good(DAT.STRONG) | wine(M) |

In (31), the first overt element of the DP is *Vaters* 'father's'. Since the adjective is strong (although there is another overt element preceding it) this forces the Rule of Monoinflection to be modified:

(32) *Rule of Monoinflection (second version)* (Roehrs 2006: 217)

At the point where the DP is merged into the (partially assembled) clause, license the strong morphological inflection on the first overt element that the head noun can establish an agreement relation with. There are two relevant subcases: elements are

- (i) "agreeable" in general
- (ii) "agreeing", depending on the analysis assigned by the speaker.

It should be obvious that *Vaters*, in (31), is not an "agreeable" element, since it does not enter into an agreement relation with the head noun, but it isn't an "agreeing" item either, since it also can't establish a potential relation with the noun (note that potential agreement depends on the analysis of a lexical item in a specific context, as assigned by the speaker).

An example of an agreeing element, from Roehrs (2006: 219), is given in (33):

- | | | | | |
|------|----|--------------------|------------------|-----------|
| (33) | a. | mancher | gute | Freund |
| | | some(NOM.STRONG) | good(WEAK) | friend(M) |
| | | 'some good friend' | | |
| | b. | manch | guter | Freund |
| | | some | good(NOM.STRONG) | friend(M) |
| | | 'some good friend' | | |

A speaker uttering (33) may analyze the first element either as non-agreeing or agreeing. In the former case, the adjective (being the first item that can establish an agreement relation) will get strong inflection; in the latter case, the adjective will get weak inflection.

As pointed out by Van Riemsdijk (1998) as well, there are some cases where it is not the head that gets inflection, but another element (cf. that, in (34), *schnell* ‘quick’ and *brauner* ‘browner’ are heads of the AP in [Spec,AgrP]) (example taken from Roehrs 2006: 222):

- (34) a. das [so schnell wie möglich-e] Aufräumen
the so quick as possible straightening out
b. ein [brauner als braun-es] Auto
a browner than brown car

Note that a morphological solution (Stefan Sudhoff, p.c.) would also be possible, as the following example shows:

- (35) a. das [so schnell wie möglich]-e Aufräumen
the so quick as possible straightening out
b. ein [brauner als braun]-es Auto
a browner than brown car

It seems to be the rightmost element of the phrase in [Spec,AgrP] that is inflected, but (36), from Roehrs (2006: 222), clearly shows that this assumption is incorrect:

- (36) a. Das Auto ist schön genug.
the car is nice enough
b. *das [schön(e) genug-e] Auto
the nice enough car

The difference between (34) and (36) lies in the fact that the rightmost element in (34) is an adjective, whereas in (36), it is an adverb (note that adverbs can’t get inflection) (example adopted by Roehrs 2006: 222, 223):

- (37) a. das mögliche Aufräumen
the possible straightening out
b. ein braunes Auto
a brown car
c. *das genuge Wasser
the enough water

As a consequence, Roehrs is forced to **reformulate** the Rule of Monoinflection: “I tentatively propose that adjectival inflection is a kind of “phrasal” suffix that must attach to an adjectival element on the very right periphery of the phrase in [Spec,AgrP] [...]. At a more general level, this discussion implies that, at the time the inflection is licensed [...] the syntactic structure of the phrase has to be still available. Finally, if adjectival inflections are “phrasal” suffixes, then their licensing by a predicate can be formulated in terms of c-command such that the left-to-right asymmetry follows from that” (Roehrs 2006: 223). The reformulated Rule of Monoinflection is given in (38):

(38) *Rule of Monoinflection (final version)*⁶ (Roehrs 2006: 224)

At the point where the DP is merged into the (partially assembled) clause, license the strong morphological inflection on the “closest”⁷ overt element (with respect to the clausal predicate) that the head noun can establish an agreement relation with. There are two subcases: the elements are

- (i) “agreeable” in general
- (ii) “agreeing”, depending on the analysis assigned by the speaker.

The huge advantage of the revised Rule of Monoinflection is the fact that the highest element will get strong inflection, which is licensed by the predicate under Agree.

3.4. Conclusion

The distribution of the adjectival inflection in German can best be explained – as was the aim in this chapter – by Roehrs’ (2002, 2006) analysis. Acknowledging Abney’s (1986, 1987) DP-hypothesis, the postulation of the singular structurally case-marked indefinite determiners as a natural group has huge theoretical advantages. By assuming that, in this group, determiners move covertly (in PF) whereas definite determiners and plural and/or inherently case-marked indefinite determiners move overtly (in syntax), the distribution of the adjectival inflections in German can convincingly be accounted for (it should be noted that weak morphological case is licensed by default).

In order to exclude some presumed counterexamples (such as those where the “first” element is strong or where the “rightmost” element can’t get inflection) the Rule of Monoinflection (a language-specific rule that is responsible for the inflectional distribution when the DP is merged into the clause) has to be reformulated, covering only the licensing of morphological inflection on the “closest” overt element (with respect to the clausal predicate). This element should either be “agreeable” or “agreeing”. The huge advantage of this new Rule of Monoinflection is the fact that the highest element now gets the strong inflection, which provides a better account of the phenomenon than the linear terms “first” and “rightmost”.

Notes

1. Abney (1986, 1987) uses the old terminology for inflection (“Infl”), complementizer (“Comp”) and determiner (“Det”). I will use modern terminology (“I”, “C” and “D”) throughout the paper to avoid redundant terminological complexity (for one exception, see note 3).
2. Abney (1987) calls these “degree words”.
3. In this example, old terminology (“Det”) is used.

4. Roehrs uses the term “valuing” for the checking of abstract features (involving the entire DP when it is merged into the clausal phase) and “licensing” for the checking of morphological features (concerning the movement of overt determiners within the DP). Both types are independent of one another.
5. With regard to the deletion of the lower copy in this and the other examples, Roehrs assumes the so-called “Copy & Merge” theory (cf. Nunes 2001). The deletion completes the derivations of the weak and mixed paradigms. In the strong paradigm, there is no movement of overt elements and, consequently, no deletion.
6. There seem to be two violations of this rule: DPs that do not show strong inflection at all and DPs with two or more strong inflections. An example of the former are so-called “split DPs” with non-agreeable elements (see also chapter 6) (examples from Roehrs 2006: 285, 286):

- (i)
- a. Hemden habe ich immer nur Peters e_N getragen.
shirts have I always only Peter’s worn
‘I have always only worn Peter’s shirts.’
 - b. Hemden habe ich in meinem Leben genug e_N getragen.
shirts have I in my life enough worn
‘I have worn enough shirts in my life.’
 - c. Hemden habe ich gestern sieben e_N getragen.
shirts have I yesterday seven worn
‘I wore seven shirts yesterday.’

An example of the latter are DPs with several adjectives (examples taken from Roehrs 2006: 226):

- (ii)
- | | | | |
|----|--|----------------------------|-----------------|
| a. | guter
good(NOM.STRONG)
‘good sweet wine’ | süßer
sweet(NOM.STRONG) | Wein
wine(M) |
| b. | gutem
good(DAT.STRONG) | süßem
sweet(DAT.STRONG) | Wein
wine(M) |

This problemacy can be “solved” by implementing the notion of recursion. Other examples, from Roehrs (2006: 229), are in (iii) where there is strong inflection on an element of a different category:

- (iii)
- | | | | |
|----|---|---------------------|-----------------------|
| a. | de-s
the(GEN.STRONG)
‘the good wine’ | guten
good(WEAK) | Wein-s
wine(M.GEN) |
| b. | de-n
the(DAT.STRONG)
‘the good wines’ | guten
good(WEAK) | Weine-n
wines(DAT) |

It should however be noted that such “extra” inflection can sometimes already be left out (“loss of inflection”), cf. *des Barock* ‘of the baroque’ vs. *des Barocks* (see also Wegener 1995 and Gallmann 1996).

7. This term is based on the assumption that Y is closer to X than Z if X asymmetrically c-commands Y, and Y asymmetrically c-commands Z.

PART II: NP-ELLIPSIS

4 The Elision Strategy of Explaining NPE

4.1. Introduction

In this chapter, the first NPE strategy, elision, will be discussed. Elision can be regarded as the licensing of an elided noun by the presence of inflectional morphology (i.e., the inflectional agreement suffix on the adjectival remnant), cf. Lobeck (1995), or by Focus (in a separate Focus projection), cf. Corver & Van Koppen (2009). A third account of elision is the postulation of so-called “classifiers” (in a separate ClassP projection), cf. Alexiadou & Gengel (2008). The morphosyntactic properties of these classifiers then make NP-ellipsis possible (inflection again thus plays a crucial role here).

The aim of the investigation in the chapter will be to check whether these three accounts – which discuss English (“morphology”), Dutch (“Focus”) and Romance (“classifiers”) – work for German as well.

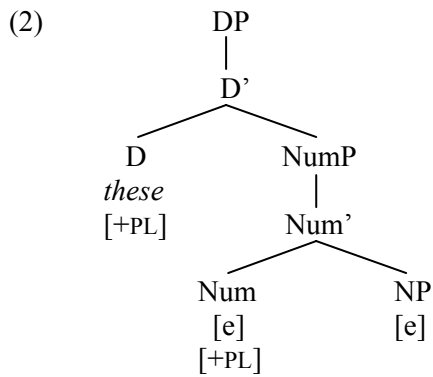
4.2. The Licensing of NPE by Morphological Features

In this section, I will discuss the licensing of NPE by morphological features, i.e., the strong endings on the adjective and/or the determiner. The discussion is based on the insights of Lobeck (1995) who analyzed both English and German.

4.2.1. The Licensing of NPE by Morphological Features in English

In line with Rothstein (1988) and Ritter (1991), Lobeck (1995) assumes two functional heads in the English DP: D and Num (both dominated by DP). The definite determiner resides in D, whereas NUM is the position for indefinite determiners and numerals. Lobeck needs the postulation of these two heads in order to be able to explain noun phrase ellipsis. An example is the sentence in (1), with the element *these* in D. (1) has the phrase structure in (2) (both examples taken from Lobeck 1995: 85):

- (1) Mary likes those books but I like [_{DP} these [e]].¹



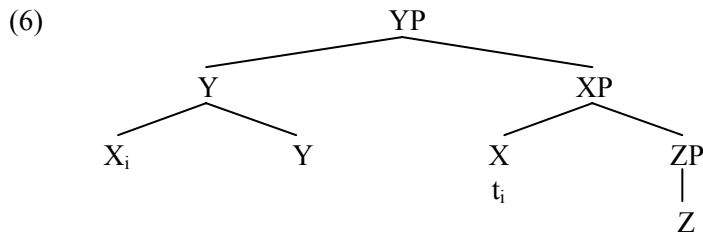
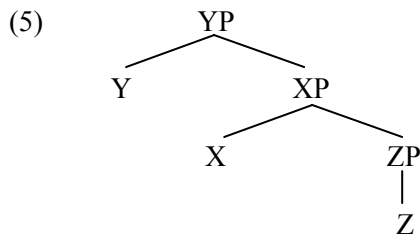
In (1), D is filled, but Num is not morphologically expressed. It is important to know that, according to Lobeck, an empty NP is only licensed and identified (i.e., interpreted under identity with an antecedent) by a D that is specified for strong agreement (the strong agreement feature is “checked” then at some point in the derivation):

- (3) *Licensing and Identification of “pro”* (Lobeck 1995: 71)
 An empty, non-arbitrary pronominal must be properly head-governed, and governed by an X° specified for strong agreement.

In (1), only the determiner has strong agreement specification, since it morphologically realizes the agreement feature [+PL]. Num is specified for agreement (“[+PL]”) and it head-governs and licenses an empty NP, but it does not identify one. The problem is that, for a determiner to identify an empty NP, as in (2), it must also govern NP. However, there is an intervener (Num) which blocks government of the NP by D (a case of “Relativized Minimality”, cf. Rizzi 1990). According to Lobeck, this can be solved by assuming that D licenses and identifies an empty NumP instead of NP. This would mean that there are two strategies at this point: when Num is filled, the NP is empty, but when Num is empty, NumP is also empty. As Lobeck shows, the advantage of such an analysis is the fact that, with respect to an empty NP, structural parallelism is derived between ellipsis in DP and ellipsis in NumP. The D in (2) now licenses and identifies an empty NP, and this is in line with Baker’s (1988) Government Transparency Corollary:

- (4) *The Government Transparency Corollary (GTC)* (Baker 1988: 64)
 A lexical category which has an item incorporated into it governs everything which the incorporated item governed in its original structural position.

The “physical” incorporating operation has the structures as in (5) and (6), taken from Lobeck (1995: 86):



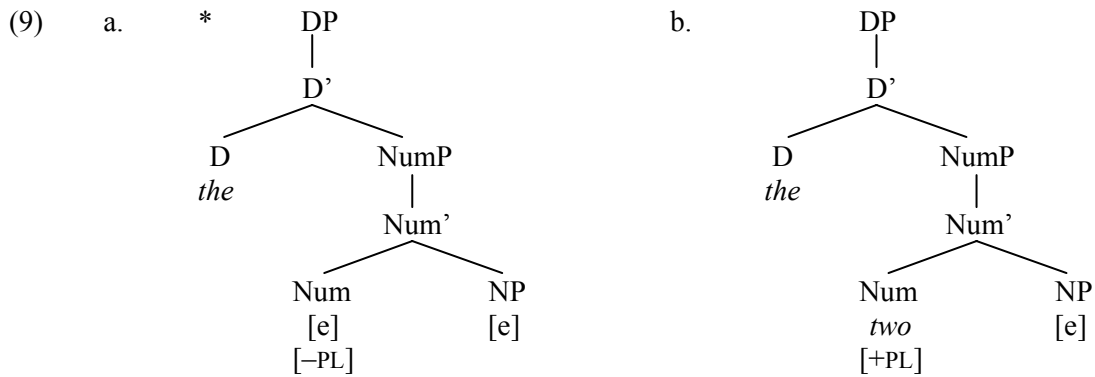
In (6), X° incorporates with a head that governs it, leaving a trace. Under the GTC, which allows a head to govern the complement of an empty head that it governs, Y now governs ZP, the complement of X. However, in order to make the GTC also applicable for the example in (1), the GTC, as assumed by Lobeck, needs to be revised so that it also applies to empty heads:

- (7) *The Generalized Government Transparency Corollary (GGTC)* (Lobeck 1995: 87)
 An X° which is coindexed with and governs an empty head governs everything that head would govern.

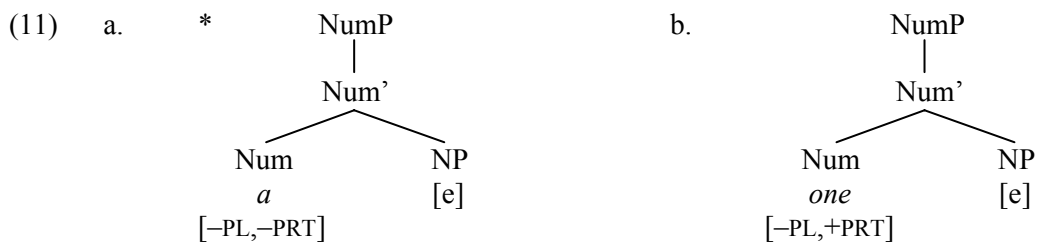
By (7), V (head-)governs the complement of an empty N in noun incorporation constructions as D (head-)governs the complement of an empty Num in NPE constructions (since D and NP are contained in the same intermediate D'-projection). It should be noted that "empty" means "lack of phonological content", but not necessarily "lack of features" (hence the coindexation).

In English, which is a language with few strong agreement features in DPs, the specification of a single feature in X° is enough to license an empty NP. This feature can either be [\pm PLURAL], [\pm PARTITIVITY] or [\pm POSSESSION], as seen in the following examples respectively (adopted from Lobeck 1995: 88, 89, 92, 94, 90, 91):

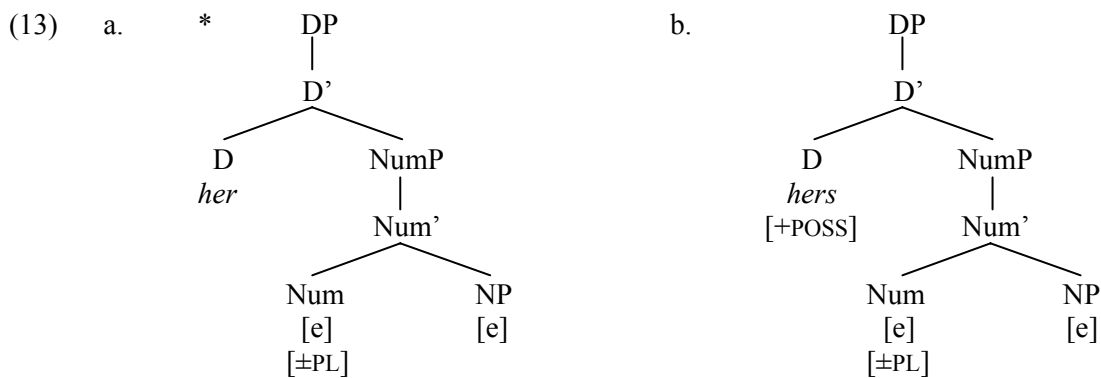
- (8) a. A single protester attended the rally, because * $[_{DP} \text{ the } [e]]$ apparently felt it was important.
 b. Both students attended the rally, and $[_{DP} \text{ the two } [e]]$ felt it was important.



- (10) a. Though $[_{NumP} *a [e]]$ would certainly be nice, a vacation at this time is unthinkable.
 b. Though $[_{NumP} one [e]]$ would certainly be nice, a vacation at this time is unthinkable².



- (12) a. Mary likes your book, but Bill likes their/her/our book(s)/*[e].
 b. Mary likes your book, but Bill likes theirs/hers/ours *book(s)/[e].



The (un)grammaticality of all these examples can be explained by the lack or presence of a strong agreement feature: in the (a) examples, this strong agreement feature is absent, as opposed to the (b) examples (in (9b) this is [+PL], in (11b) [+PRT] and in (13b) [+POSS]). (Note that the ungrammatical (9a) could also have been “saved” by *one*-insertion (plus dependent clause), since *one* comprises the strong agreement feature [+PRT].)

4.2.2. The Licensing of NPE by Morphological Features in German

German is a language with a much richer agreement system in DP and NumP and, therefore, differs considerably from English. As proposed by Lobeck (1995), this difference can be explained by the following parameter:

- (14) *The Ellipsis Identification Parameter (EIP)* (Lobeck 1995: 102)

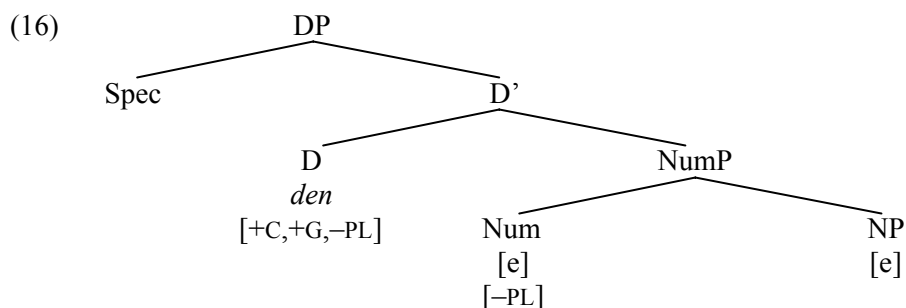
The number of strong agreement features in D or NUM that is required to identify an empty, pronominal NP is proportional to the number of possible strong agreement features in the agreement system of noun phrases in the language.

Whereas in English, an empty NP will be identified by an X° that has only one single strong agreement feature, in German, X° needs to be specified for three features: case, gender and number. The licensing and identification conditions on ellipsis in noun phrases is therefore cross-linguistic and universal, though the agreement systems are language-specific with respect to the number of features to be specified for strong agreement.

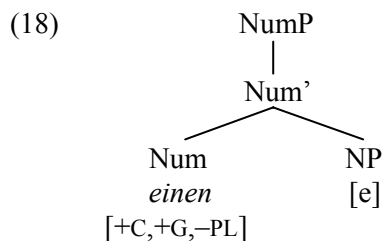
Lobeck distinguishes the same two functional heads D and Num for German. As in English, definite noun phrases are analyzed as DPs and indefinite noun phrases and numerals as NumPs. However, German adjectives, unlike their English counterparts, e.g. *the red* **(one(s))*, can express agreement features also overtly marked on D and Num.

Starting with some German NPE examples that contain only an overt determiner, consider (15) and (17), which are structurally represented in (16) and (18) respectively (all examples taken from Lobeck 1995: 112, 113):

- (15) Hans sagt, der Mann war gestern nicht hier, aber den [e] habe ich gestern gesehen.
 Hans said the man was yesterday not here, but the [e] have I yesterday seen
 ‘Hans said the man wasn’t here yesterday, but I saw him yesterday.’



- (17) Peter und ich haben die Männer gesehen, und ich habe einen [e] sogar fotografiert.
 Peter and I have the men seen, and I have a [e] even photographed
 ‘Peter and I have seen the men, and I have even photographed one.’



In both sentences, the empty NP is licensed and identified under the generalized GTC. Although English singular (in)definite determiners do not allow empty NP-complements, German singular (in)definite determiners are also specified for the morphologically realized agreement features case and gender (two strong agreement features). German D and Num, in these cases, thus license and identify an empty NP, and ellipsis is fully grammatical.

Since German, contra English, can show strong agreement on single determiners as well, (19), taken from Lobeck (1995: 114), is only grammatical if *ein* (= Num) has a strong ending (note that, if *ein* is nominative neuter, it typically takes no ending in attributive contexts, as shown in chapter 2)³:

- (19) Peter hat ein altes Auto gekauft. Hat Maria auch *ein [e] gekauft?
 Peter has a old car bought. Has Maria also a [e] bought
 Peter had bought an old car. Has Maria also bought one?'

The same applies to (20), adopted from Lobeck (1995: 114):

- (20) Marias Autos und Peters Autos sind in der Werkstatt. Der Mechaniker hat ihre [e] schon
 Maria's cars and Peter's cars are in the garage. The mechanic has hers [e] already
 repariert.
 repaired
 'Maria's cars and Peter's cars are in the garage. The mechanic has already repaired hers.'

Lobeck assumes that *ihre*, the form of the possessive determiner in (20), remains the same whether N is empty or filled, and that "possessive determiners in German thus do not appear to express a strong agreement feature comparable to English -'s" (Lobeck 1995: 115). This is, however, incorrect. The two strong endings are structurally different, but overlap phonologically, so that we can claim that *ihre* has the same underlying structure as *ein-es* (note that singular possessive determiners in German are specified for strong agreement features of case and gender whereas plural possessive determiners are specified for strong features of number and case).

Turning finally to some German NPE examples that contain an overt determiner as well as an overt adjective, Lobeck assumes that also adjectives with either a weak or strong ending (as long as they both show strong agreement features) can perfectly license and identify empty NPs, as the following examples (from Lobeck 1995: 116, 117) show:

- (21) Ich traf einige Studenten, und die jungen [e] wollen mit mir sprechen. (NOM,PL)
 I met some students, and the young [e] wanted with me to speak
 'I met some students, and the young ones wanted to speak with me.'
- (22) Peter hat sich viele gebrauchte Autos angesehen und schliesslich ein neues [e] gekauft.
 Peter has SE many used cars looked at and finally a new [e] bought
 'Peter has looked at many used cars and finally bought a new one.'

In (21), the pronominal adjective, which has a weak ending, is specified as being [+PL] and [+C] (= Case) and thus would license and identify an empty NP (recall that for adjectives to be able to be proper head-governors they need to be analyzed as X°s, in line with Travis 1988). In (22), the pronominal adjective, which has a strong ending, realizes the features [+G] (= gender) and [+C]. As this can be taken as strong agreement specification, the adjective licenses and identifies an empty NP. According to Lobeck, it appears to be the case that, in German, both “strong” and “weak” endings can be analyzed as strong agreement features, a requirement for elided NP identification.

There is a problem with this line of argumentation, however. I assume that only the strong endings in (21) and (22) license and identify an empty NP, which are the endings on *die* ‘the’, in (21), and *neues* ‘new’ in (22). That the weak ending on *jungen* ‘young (ones)’ in (21) doesn’t license/identify anything is shown by the fact that, when this adjective is being omitted, the sentence remains perfectly grammatical:

- (23) Ich traf einige Studenten, und die [e] wollen mit mir sprechen. (NOM,PL)
 I met some students, and the [e] wanted with me to speak
 ‘I met some students, and they wanted to speak with me.’

This provides evidence for the assumption that only true strong endings license and identify an empty NP.

As a concluding remark, Lobeck proposes correctly that the empty, non-DP pronominal must be identified by strong agreement in order to be visible for reconstruction. Only through overtly realized strong agreement the content of the empty category can be recovered within the process of reconstruction.

Although Lobeck’s account is plausible and points in the right direction, it does not explain as to why there should be strong agreement inflection on one of the preceding elements of an “elided” noun in order to make NPE possible. Especially regarding the postulated features [±POSS] and [±PRT] it looks as if their justification is doubtful (one could truly question if they are the convincing trigger in these configurations or only underlyingly present “to save the structure”). The strong agreement feature [±PL] seems to be useful in a great deal of her examples, but (24b) poses rather a problem for her theory:

- (24) a. Mary likes these books, but I like these (*ones).
 b. Mary likes these books, but I like these new *(ones).

In (25b), there is an intervening adjective between D and the empty noun which forces the element *ones* to be overtly present, as is also the case in (11):

- (25) a. Mary likes that book, but I like this *(one).
 b. Mary likes that book, but I like this new *(one).

The obligatory presence of *ones* is not expected by Lobeck's analysis, since the overt realization of *these* should be enough to license and identify an empty N in NPE structures.

To sum up, Lobeck's proposal points in the right direction, but her analysis is unfortunately not explanatory and clear enough.

4.3. The Licensing of NPE by Information-Structural Features

In this section, the licensing of NPE by information-structural features will be discussed, i.e., the licensing of NPE by Focus. This will be exemplified by adjectival inflection in Dutch, since NPE in Dutch is usually licensed by strong adjectival inflection and seldom by single determiners (only the determiners *deze* 'this one/these' and *die* 'that one/those' seem to be able to license NPE on their own). Dutch therefore falls between English (which can never license NPE through adjectival inflection) and German (where inflection on many (if not all) determiners as well as adjectives can license NPE all along).

Since there are instances of NPE that are not licensed by agreement or, put in another way, by inflection on the remnant, as shown in the examples below from standard and northern colloquial Dutch respectively (so-called "*wat voor*-ellipsis"), Corver & Van Koppen (2009) argue that NPE in this construction is not only licensed by Focus on the remnant, but rather that it is always licensed by Focus and not by agreement (as it must be licensed by something else than agreement) (examples from Corver & Van Koppen 2009: 5):

- (26) **Wat voor schoenen** heb jij gekocht? [standard Dutch]
what for shoes have you bought
'What kind of shoes did you buy?'
- (27) *Over schoenen gesproken... (Talking about shoes...)* [northern colloquial Dutch]
Wat voor [e] heb jij (er) gekocht?
what for have you (R-pron) bought
'What kind (of shoes) did you buy?'

In order to theoretically implement the suggested link between NPE and Focus, Corver & Van Koppen propose that NPE should receive an analysis comparable to ellipsis in the verbal domain (cf., among others, Merchant 2001) and that the DP must contain a focus projection which attracts the remnant of NPE to its Specifier position (the complement of this Focus projection is deleted in PF). The exact nature of the focus in NPE is that of contrastive focus (similar to so-called "sluicing" in the verbal domain).

In Dutch, the DP containing the focus projection (on a par with that of CP, cf. Rizzi 1997) has the structure as in (28), adopted from Corver & Van Koppen (2009: 3):

(28) [DP [FocP [NumP [NP]]]]

One of the arguments in favor of a focus analysis, put forth by Corver & Van Koppen, comes from adjective ordering. In Dutch, less inherent adjectives must strictly precede more inherent ones, as shown in (29), adopted from Corver & Van Koppen (2009: 3):

- (29) a. de roze Amerikaanse auto's [standard Dutch]
 'the pink American cars'
 b. *de Amerikaanse roze auto's
 'the American pink cars'

This rule can be got round when the more inherent adjective, *Amerikaanse*, receives contrastive and focal stress⁴, as illustrated in (30) (example from Corver & Van Koppen 2009: 4):

- (30) de AMERIKAANSE roze auto's [standard Dutch]
 the American_{STRESS} pink cars
 'the American pink cars'

It can then undergo movement to the left periphery of DP, i.e., into the Specifier position of a focus projection in the noun phrase (cf. also Scott 1998 who has analyzed English AP orderings in a similar way) (structure, in (31), adopted from Corver & Van Koppen 2009: 4):

(31) [DP de [FocP AMERIKAANSE_i [Foc' Foc [Y_P roze [Y' Y [Z_P t_i [Z' Z [NP auto's]]]]]]]]]

4.3.1. The Basic Pattern of NPE with Adjectival Remnants in Dutch

Adjectives in Dutch show agreement for number, gender and definiteness. In Table 1, a schematic overview of all the inflectional suffixes of Dutch attributive adjectives is provided:

Table 1. Overview of the inflections on the attributive adjective in Dutch (Corver & Van Koppen 2009: 8).

	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- \emptyset rabbit
NEUTER, PL	de witt- e konijnen the white- e rabbits	witt- e konijnen white- e rabbits

As shown in the overview above, Dutch attributive adjectives are always followed by a schwa (\emptyset), however, not in one particular case: when the following noun is [INDEFINITE], [NEUTER] and

[SINGULAR]. Since NPE is assumed to be only possible following an adjective with strong overt inflection (cf. Lobeck's 1995 proposal in section 4.2), adjectives preceding elided indefinite neuter singular nouns (as, e.g., *konijn* 'rabbit') should carry inflection, overtly marked by a schwa. As such, the schwa could be regarded as evidence in favor of an analysis of NPE conditioned by adjectival agreement (examples taken from Corver & Van Koppen 2009: 8):

(32) *Over goochelaars gesproken... (Talking about magicians...)* [northern standard Dutch]
 Ik heb laatst nog een goed-**e** [e] gezien.
 I have recently PRT a good-_{INFL} seen
 'I saw a good one recently.'

(33) *Over konijnen gesproken... (Talking about rabbits...)* [colloquial Dutch]
 #Ik heb gisteren een zwart-**e** [e] zien lopen.⁵
 I have yesterday a black-**e** seen walk
 'I have seen a black one yesterday.'

However, it is remarkable that the schwa in (33), from Corver & Van Koppen (2009: 8), can only appear in NPE constructions and not on attributive adjectives that precede non-omitted nouns:

(34) Ik heb gisteren een zwart(*-**e**) konijn zien lopen. [colloquial Dutch]
 I have yesterday a black-**e** rabbit see walk
 'I have seen a black rabbit yesterday.'

Corver & Van Koppen (2009), on the basis of example (33), conclude that the *e*-affix cannot simply be dubbed adjectival agreement.

There are two other contexts in which a similar dichotomy between strongly inflected adjectives (in NPE constructions) and bare adjectives (in attributive contexts) can be found. First, in (35), the adjective can appear with or without inflection (covering a semantic difference); if the adjective *groot* 'big' is bare, its meaning is *great*, but when the adjective is inflected, its meaning is *big* (example from Corver & Van Koppen 2009: 8):

(35) Ik heb gisteren een groot / grot-**e** pianist horen spelen. [colloquial Dutch]
 I have yesterday a big / big-**e** pianist hear play
 'I have heard a great / big pianist yesterday.'

In ellipsis contexts, the adjective must be inflected, independent of its meaning (example from Corver & Van Koppen 2009: 9):

(36) Ik heb gisteren een echt grot-**e** [e] horen spelen. [colloquial Dutch]
 I have yesterday a real big-**e** hear play
 'I have heard a truly great / big one yesterday.'

adjectival agreement suffix. Since the morphological realization of the two markers are exactly the same (i.e., *-e*), a so-called unified spell-out is possible.

There are some additional examples that are in favor of the assumption that NPE in colloquial Dutch is closely related to focus; they all show that in NPE, a noun cannot be elided without the addition of a focus suffix to the adjectival remnant (i.e., morphological focus) or without stress on the remnant (i.e., phonological focus). The latter is exemplified in (41), where the remnant is contrastively focused, and (42), where NPE is only possible with stress on *wat* ‘what’ or *voor* ‘for’ (all examples adopted from Corver & Van Koppen 2009: 11):

- (41) a. *Over konijnen gesproken... (Talking about rabbits...)* [colloquial Dutch]
 *Ik heb gisteren een wit [e] zien lopen.
 I have yesterday a white see walk
 ‘I have seen a white one yesterday.’
 b. Jij hebt een ZWART-Ø konijn, maar ik heb een WIT [e].
 you have a black_{STRESS} rabbit, but I have a white_{STRESS}
 ‘You have got a black rabbit, but I have got a white one.’
- (42) I have bought two books, but I do not know... [colloquial Dutch]
 a. wat voor *(boeken) ik heb gekocht.
 what for books I have bought
 ‘what kind of books I have bought.’
 b. wat **VOOR** (??boeken) ik heb gekocht.
 what for_{STRESS} books I have bought
 c. **WAT** voor (boeken) ik heb gekocht.
 Wat_{STRESS} for books I have bought

4.3.3. Focus in the Nominal Domain

In this section, a short interlude on Focus is provided.

There are generally two types of focus that can be distinguished: information (or “presentational”) focus and contrastive (or “identificational”) focus (cf., e.g., Kiss 1998, Drubig 2003 and Winkler 2005). Whereas information focus concerns new, non-presupposed information (cf. Kiss 1998), contrastive focus involves the emphatic evoking of a suitable “subset of the set of contextually or situationally given elements for which the predicate phrase can potentially hold; it is identified as the exhaustive subset of this set for which the predicate phrase actually holds” (Kiss 1998: 245) (examples taken from Corver & Van Koppen 2009: 13):

- (43) A: Wat is er aan de hand? (‘What’s going on?’) (information focus)
 A’: Wat heeft Jan gedaan? (‘What did Jan do?’)
 A’’: Wat heeft Jan ingeslikt? (‘What did Jan swallow?’)
 B: Jan heeft een WORM ingeslikt.
 Jan has a worm swallowed
 ‘Jan swallowed a worm.’

- (44) Jan heeft een WORM ingeslikt, niet een VLIEG. (contrastive focus)
 Jan has a worm swallowed, not a fly
 ‘Jan swallowed a worm, not a fly.’

It should be clear from the examples above that the focus in (43B) differs from that in (44): the focus on the DP *een WORM* ‘a worm’ (the entity to which the predicate applies) is realized in contrast/opposition to the DP *een VLIEG* ‘a fly’ in (44).

Returning now to NPE, Corver & Van Koppen (2009) assume that in elided structures, the type of focus involved is contrastive focus (rather than information focus), since this accentuation pattern is exactly the one that can be found in cases of NPE, as seen in (45) and (46), taken from Corver & Van Koppen (2009: 14) (however, this is not completely correct, since focus on the adjective is not necessarily contrastive):

- (45) Jan heeft [een BRUINE worm] ingeslikt, niet [een WITTE worm].
 Jan has a brown worm swallowed, not a white worm
 ‘Jan swallowed a brown worm, not a white worm.’

- (46) Jan heeft [een BRUINE worm] ingeslikt, niet [een WITTE ~~worm~~].

A problem that arises now is the suggestion that information focus would never apply at the level of the noun phrase (but, instead, always at the level of sentence structure), as is the case in (43B), where the whole clause (‘Jan swallowed x’) constitutes the syntactic unit of which the information structure is specified (not only the DP *een WORM*). In order to check this assumption and to exclude the idea that the noun phrase can never be regarded as an autonomous unit with its own information structure, Corver & Van Koppen (2009) provide us with some examples of so-called “root” nominal constructions, i.e., independent constructions that lack any sentential or propositional form. Two of those constructions are titles (of, e.g., books), as in (47), and vocatives, as in (48) (examples from Corver & Van Koppen 2009: 14):

- (47) a. Aspects of the Theory of SYNTAX (books by Noam Chomsky)
 b. The Logical Structure of Linguistic THEORY
- (48) a. Dear friends of HOLLAND! (vocatives)
 b. Hi, little friend of WILL’S!

Since these “isolated” root nominal constructions above are normally pronounced correctly with a pitch accent on the rightmost (i.e., most embedded) constituent, they bear information focus (the relevant constituents are not assumed to be in opposition to other entities) and, consequently, represent new information entirely, as in (49a) (painting by Rembrandt). On the other hand, root nominals can

also bear contrastive focus when, e.g., the titles of two paintings (by Rembrandt) are being compared, as in (49b) (examples from Corver & Van Koppen 2009: 14, 15):

- (49) a. Portrait of an old MAN (painting by Rembrandt)
 b. Portrait of an OLD man and portrait of a YOUNG man

To sum up, the noun phrase can bear both types of foci and can therefore doubtlessly be regarded as a domain of information packaging (see also Drubig 2003). This makes the appearance of NPE in root nominal constructions less surprising as well, as Corver & Van Koppen (2009: 15) show:

- (50) a. Hé, [stoere JONGEN], ga eens gauw weg!
 hey, sturdy guy, go PRT quickly away
 ‘Hey, you sturdy guy, go away!’
 b. Hé, [STOERE [e]], ga eens gauw weg!
 c. Hé, [kale VENT], loop eens door!
 Hey, bold guy, walk PRT PRT
 ‘Hey, you bold guy, walk on!’
 d. Hé, [KALE [e]], loop eens door!

Since new information must carry pitch accent, the only element in the vocative expressions above that can carry such emphasis is the adjectival remnant by which the new information is provided. According to Corver & Van Koppen (2009) this cannot only be regarded as information focus marking, but also as contrastive focus marking: the person denoted by *kale* ‘bold one’, in (50d), is in his particularity of being bold contrasted with persons who do not have this characteristic. However, a problem is that the focus on *kale*, and also *stoere* in (50b), is (again) not necessarily contrastive, as this kind of “focus” can be found in all vocatives (also the ones that are not related to any contrastivity).

The following examples by Corver & Van Koppen do not, at first rate, seem to involve their notion of contrastive focus (examples adopted from Corver & Van Koppen 2009: 16):

- (51) a. Jan heeft [een bruine worm] ingeslikt en Kees heeft ook [een bruine [e]] ingeslikt.
 Jan has a brown worm swallowed and Kees has also a brown swallowed
 ‘Jan swallowed a brown worm and Kees also swallowed a brown one.’
 b. Kijk, [een bruine worm]. En nog [een bruine [e]], en daar ook nog [een bruine [e]].
 look, a brown worm. And yet a brown – and there also yet a brown
 ‘Look, a brown worm! And another brown one, and there again another brown one.’

However, Corver & Van Koppen argue that the contrastive focus is inherent here, since the appearing brown worms are inherently contrasted with other (non-brown) members of the set of (colored) worms (e.g. white and black ones), and so these elided noun phrases do carry contrastive focus as well.

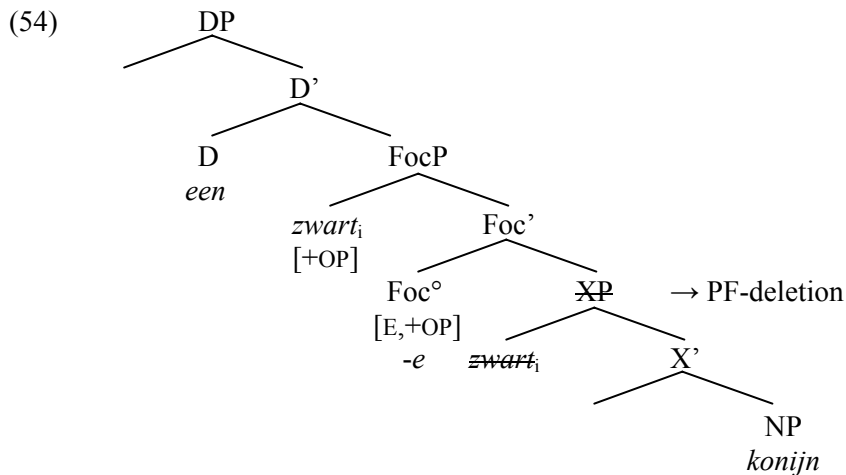
4.3.4. A Focus Analysis for NPE

With respect to the final analysis of NPE based on (contrastive) focus, as outlined in section 4.3.3, Corver & Van Koppen (2009) show that insights from the connection of contrastive focus and ellipsis in the sentential domain (cf. Rooth 1992, Johnson 2001, López & Winkler 2000 and Merchant 2001), with some minor modifications, can be applied to NPE patterns as well (see also Van Craenenbroeck & Lipták 2006). Both instances of ellipsis, NP- and IP-ellipsis (i.e., sluicing), involve a so-called [E]-feature which is added to a head with an elided complement. The very complement of this feature should be recoverable, i.e., there must be an appropriate antecedent, evoked by so-called “e-GIVENness” (a semantic/pragmatic notion). The [E]-feature has two other properties. The first are the grammatical features [+WH,+Q] which are uninterpretable and strong: after Wh-movement, “Q” has to be checked in a local Spec-head relationship. The second property of the [E]-feature is phonological in its character. It represents “the requirement that [the] complement of the null C be elided at PF (i.e., it instructs not to phonologically parse the complement of C)” (Corver & Van Koppen 2009: 16, 17). This is illustrated in (52), adopted from Corver & Van Koppen (2009: 17):

(52) I know Pete stole something, but I don't know [_{CP} what_i [_C [E] [_{IP} ~~Pete stole what_i~~]]].

In (52), the complement of the [E]-feature (i.e., the IP *Peter stole what*) is recoverable, since it can be identified by its antecedent *I knew Peter stole something*. If *what* moves to [Spec,CP], the [+WH,+Q]-feature on [E] will be checked and its complement can be elided at PF (the resulting configuration allows it to be elided). The analysis in NPE structures can now be made similarly, assuming that the remnant is not a Wh-phrase but a constituent (see also Van Craenenbroeck & Lipták 2006). When a constituent is involved, as in NPE, the [E]-feature is specified for [+OP] which attracts an operator to its Specifier position. The remnant, which carries contrastive focus, can then be regarded as an operator (cf. Kiss 1998) and moves to [Spec,FocP] (an instance of A'-movement) in order to check the [+OP] feature in Foc° (the home of the *-e*-affix) (examples from Corver & Van Koppen 2009: 18):

(53) *Over konijnen gesproken... (Talking about rabbits...)* [colloquial Dutch]
 Ik heb gisteren een zwart-**e** zien lopen.
 I have yesterday a black-**e** see walk
 'I have seen a black one yesterday.'



According to Corver & Van Koppen, the examples with phonological stress should be analyzed parallel to (46), through a focus feature expressed by accent.

Apart from the fact that the postulation of a separate Focus projection seems to be unnecessary with respect to the explanation of the phenomenon of NPE (and the adding of extra projections in the DP might not be “the nicest thing to do”), there is a major problem concerning German. In Dutch, Foc° will always be overtly filled by *-e*, but in German, this can be *-er*, *-en*, *-em*, *-es* and *-e*. How do we know which one has to be inserted? This cannot be explained here since FocP establishes a separate projection in the structure. Therefore, Corver & Van Koppen’s account seems to be too language-specific, covering only Dutch.

4.4. The Licensing of NPE by Classifiers

As a reply to Corver & Van Koppen’s (2009) assumptions, Alexiadou & Gengel (2008) provide arguments against an account of noun phrase ellipsis in terms of focus, and propose an analysis that doesn’t draw on a stipulated information-structural projection (i.e., FocP). They base their analysis on evidence from Romance (Spanish and Italian), but also evidence from Dutch, English and German. According to Alexiadou & Gengel, NPE, in a great number of languages, is licensed by so-called “classifiers” in the nominal structure (cf. Bernstein 1993). Ellipsis is then triggered by the morpho-syntactic properties of these classifiers, and inflection thus plays a crucial role (cf., among others, Bernstein 1993).

Alexiadou & Gengel argue that, since “focus cannot obliterate the morpho-syntactic requirements of the structure” (Alexiadou & Gengel 2008: 1), focus alone cannot be the licensing factor and consequently arises only as a mere by-product of the ellipsis licensing process. Alexiadou & Gengel also argue against the assumption that the pragmatic interpretation of an NPE pattern would be tied to a specific syntactic position (“is it really there at all?”).

One of the main arguments, put forth to provide evidence for their account, is the fact that on adjectives preceding nouns that are not indefinite neuter singular, the *e*-affix is obligatory, and focus alone cannot render them grammatical (examples taken from Corver & Van Koppen 2006: 10 (“aside”), 8):

- (56) Jij hebt een zwart-*e* kat en ik heb een *CYPERS [e]/ CYPERS-E [e] [colloquial Dutch]
 you have a black-_{INFL} cat and I have a tabby- \emptyset / tabby-_{INFL}
 ‘You have a black cat and I have a tabby.’
- (57) *Over goochelaars gesproken... (Talking about magicians...)* [colloquial Dutch]
 Ik heb laatst nog een goed-*e* [e] gezien.
 I have recently PRT a good-_{INFL} seen
 ‘I saw a good one recently.’

According to Alexiadou & Gengel, the schwa ending in (56) and (57) does not represent focus but rather adjectival agreement. However, if that is the case, the role of focus is much smaller than assumed by Corver & Van Koppen: “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” (Alexiadou & Gengel 2008: 5). (56) and (57) therefore seem to be more in favor of a licensing analysis of NPE by inflection (cf., among others, Kester 1996), but different from Lobeck’s (1995) analysis, since inflection in Alexiadou & Gengel’s account is arranged via a “separate” projection.

4.4.1. Evidence from German

Further evidence for Alexiadou & Gengel’s (2008) assumption is provided by (strong) agreement licensing in German. There are some (though not very customary) adjectives in German whose inflection is optional in attributive position, as in (58a). However, in NPE structures, as in (58b) (strong) inflection is absolutely required (examples from Sleeman 1996: 18):

- (58) a. ein lila/lilanes Kleid
 a lilac/lilac-_{AGR} dress
 ‘a purple dress’
 b. ein *lila/lilanes [e]
 a lilac/lilac-_{AGR}
 ‘a purple one’

Even in focused form, adjectives without inflection in NPE constructions remain ungrammatical, as seen in (59), while “common” uninflected adjectives in non-ellipsis contexts are always out of the question, as shown in (60) and (61), taken from Alexiadou & Gengel (2008: 6):

(59) *Was die Kleider betrifft... (Speaking of dresses...)*
 *Ich habe das LILA- \emptyset [e] gekauft.
 I have the purple- \emptyset bought
 ‘I have bought the purple one.’

(60) a. *ein weiß/rot Kleid
 a white- \emptyset /red- \emptyset dress
 b. ein weißes/rotes Kleid
 a white-_{INFL}/rot-_{INFL} dress

(61) *Was die Kleider betrifft... (Speaking of dresses...)*
 *Ich habe das weiß- \emptyset [e] gekauft.
 I have the white- \emptyset bought
 ‘I have bought the white one.’

As the example in (62) shows, focus does not have any effect on grammaticality with respect to common adjectives in NPE structures (example adopted from Alexiadou & Gengel 2008: 6):

(62) *Was die Kleider betrifft... (Speaking of dresses...)*
 *Ich habe das WEISS- \emptyset [e] gekauft.
 I have the white- \emptyset bought
 ‘I have bought the white one.’

Apparently, as Alexiadou & Gengel conclude, focus and inflection co-exist in German, and inflection is the primary (“non-violable”) and focus the secondary requirement. German differs from Dutch in the requirement that all adjectives have to be strongly inflected in NPE patterns.

4.4.2. Classifiers as NPE Licensers

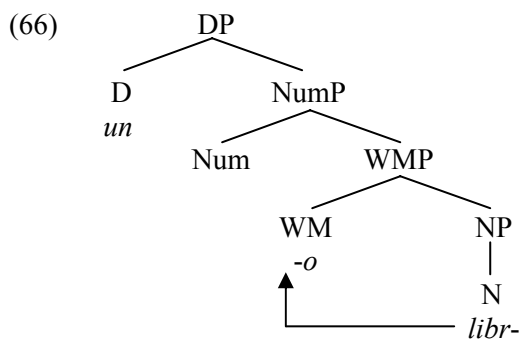
In their own proposal, Alexiadou & Gengel (2008) claim that a classifier is present in all contexts of NPE. In Romance languages, the final vowel of the indefinite determiner in NPE structures can be regarded as such a classifier. This final vowel is needed in order to mark overt gender specification, whereas it should not be there in attributive contexts (examples, from Italian and Spanish, taken from Bernstein 1993: 113, 112):

(63) a. Un/*uno libro grande è sulla tavola. [Italian]
 a book big is on-the table
 ‘A big book is on the table.’
 b. Uno [e] grande è sulla tavola.
 a big is on-the table
 ‘A big one is on the table.’

- (64) a. Un/*uno libro grande está encima de la mesa. [Spanish]
 a book big is on the table
 ‘A big book is on the table.’
 b. Uno [e] grande está encima de la mesa.
 a big is on the table
 ‘A big one is on the table.’

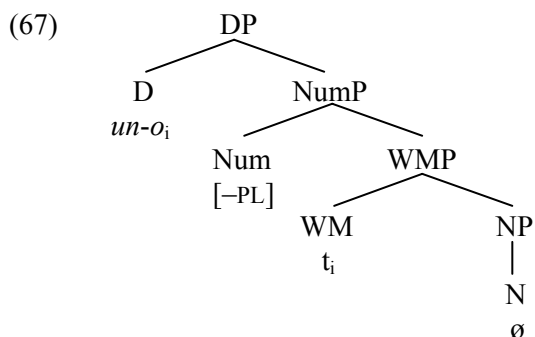
Structurally, the *-o/-a*-ending on the indefinite determiner can be analyzed as word markers that head the functional projection WMP (word marker phrase). It is the noun (e.g. *libr-*) that moves to WM° in order to be merged with *-o* (cf. Bernstein 1993 and Harris 1991) (examples (65) and (66) from Bernstein (1993: 114) and Alexiadou & Gengel (2008: 8) respectively):

- (65) un libro [Spanish]
 ‘a book’



A potential problem is that the analysis of DPs in this way seems to work only for masculine nouns that have an *-o*-ending; a pattern like the Italian *una mano* ‘a hand’, which also has an *-o*-ending but is feminine, raises a problem for Alexiadou & Gengel’s proposal.

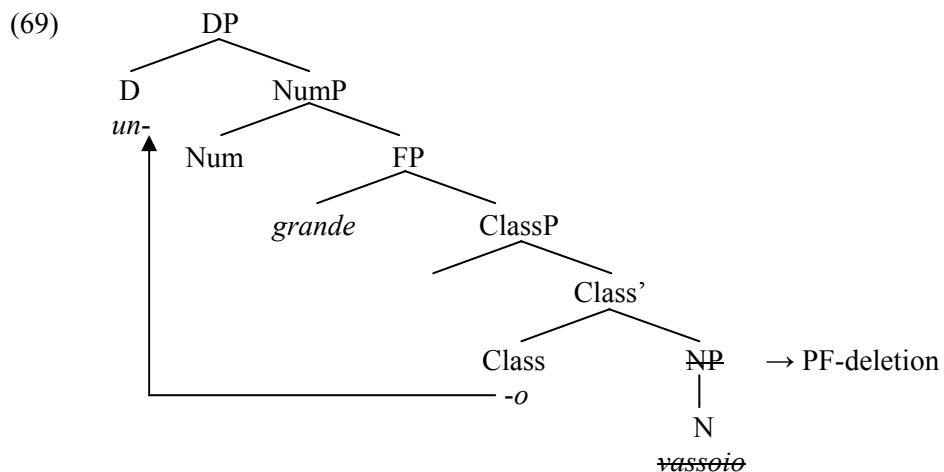
According to Alexiadou & Gengel, the word marker in NPE constructions independently (head-)moves to D while the noun is not generated (example taken from Bernstein 1993: 125):



The WM° can easily be considered as a classifier (a linguistic object) that heads a classifier phrase ClassP and that grammatically classifies nouns. In many languages (e.g. Italian and Spanish) the so-called “[CLASS]-feature is manifested as formal gender on the noun” (Alexiadou & Gengel 2008: 9). In

order to justify the existence of a ClassP, the noun has to be base-generated in NPE constructions (examples (68) and (69) from Vieri Samek-Lodovici (p.c.) and Alexiadou & Gengel (2008: 10) respectively):

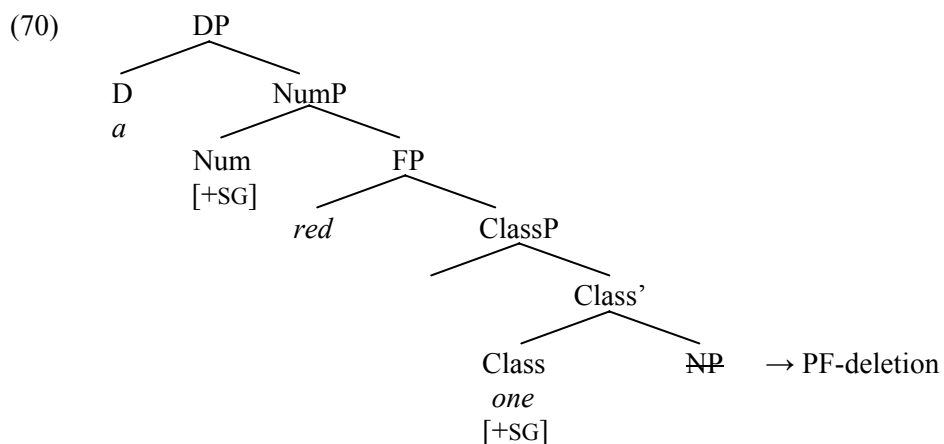
- (68) a. Un grande vassoio è già in tavola. [Italian]
 a big tray is already in table
 ‘A big tray is already on the table.’
 b. Uno grande [e] è già in tavola.
 a big is already in table
 ‘A big one is already on the table.’



4.4.3. Classifiers in English, Dutch and German

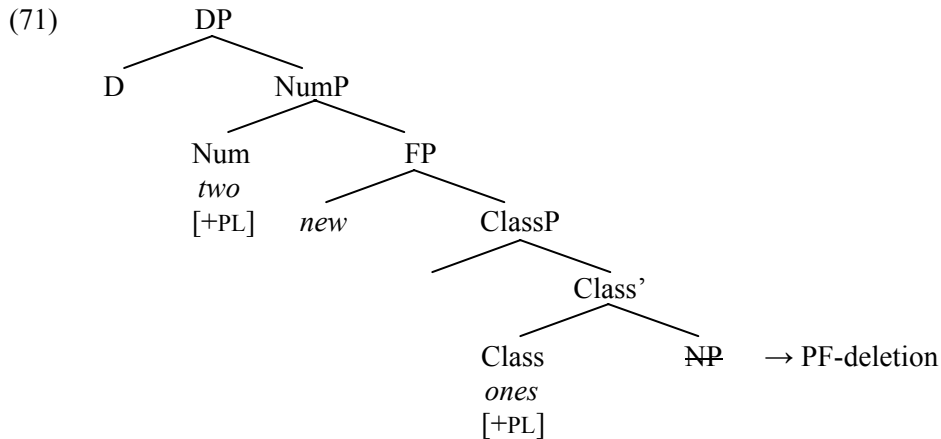
Alexiadou & Gengel’s classifier analysis can also be extended to English, Dutch and German.

Consider the structure in (70), from Alexiadou & Gengel (2008: 11). *One* is inserted directly into the ClassP (it is not in NumP since it can co-occur with numerals as *two*) (cf. Borer 2005):



In the structure of *two new ones*, *ones* remains in its base position, taking over the [PL]-feature of the NP (note also that there is agreement between Class° and Num°), but it is not clear at all in this

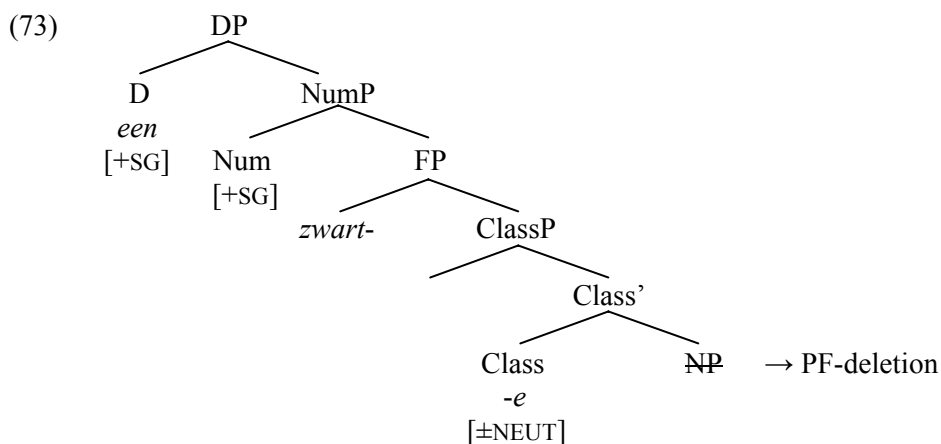
structure why *ones* should remain in the head of ClassP nor does this plural construction explain why a similar structure, without the adjective, is ungrammatical, cf. *two* (**ones*) and, also (with a [+PL] determiner), *these* (**ones*) (tree taken from Alexiadou & Gengel 2008: 11):



As already shown, in these languages, inflection should normally always be present (apart from a few exceptions).

Since the schwa in Dutch marks the [NON-NEUTER] (= [MASCULINE/FEMININE]) vs. [NEUTER] distinction, Alexiadou & Gengel analyze *-e* as the realization of feminine gender (cf. Haegeman 2001), although – very remarkably – the elided noun is neuter (if this is true, why should a neuter noun be overtly marked by a feminine feature?) (example (72) taken from Corver & Van Koppen 2006: 8, example (73) adopted from Alexiadou & Gengel 2008: 11):

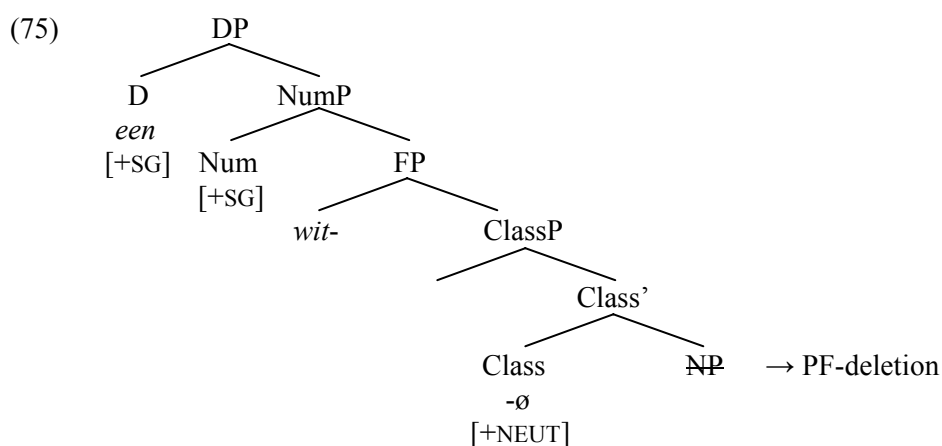
- (72) *Over konijnen gesproken... (Talking about rabbits...)* [colloquial Dutch]
 Ik heb gisteren een zwart-e [e] zien lopen.
 I have yesterday a black-_{INFL} see walk
 'I have seen a black one (walk) yesterday.'



The NPE examples without schwa, as in (74) and (75), are then to be analyzed as having a ClassP with a \emptyset -realization, in which Class^o is phonologically null. It is Focus again that remedies the lack of overt

marking: “To account for the strong contrastive focus, we suggest that the lack of [an] 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 [...]” (Alexiadou & Gengel 2008: 12) (example (74) taken from Corver & Van Koppen 2006: 8, example (75) adopted from Alexiadou & Gengel 2008: 12):

- (74) Jij hebt een ZWART konijn, maar ik heb een WIT [e]. [colloquial Dutch]
 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.’



Although the notion of focus was theoretically considered a by-product at first, it apparently seems to play quite a significant role in Alexiadou & Gengel’s analysis. If they argue that, in Corver & Van Koppen’s (2009) account, the postulation of a FocP is a mere stipulation, the postulation of a similar FP in Alexiadou & Gengel’s own analysis is nothing else than exactly the same (in their line of argumentation).

Alexiadou & Gengel argue that in German, the definite determiner and the strong adjectival agreement seem to both play the role of classifier (cf. also Milner & Milner 1972 & Leu 2008), whereas Borer (2005) assumes that “the definite determiner must assign range to ClassP” (Alexiadou & Gengel 2008: 12). These two assumptions would show that even in German DPs a ClassP is contained, although it is not clear at all how exactly the licensing is arranged.

4.4.4. Classifiers, NPE and Partitivity

Alexiadou & Gengel (2008), following Sleeman (1996), argue that there is a strong link between classifiers and partitivity, since classifiers on the definite determiner in NPE constructions also occur in partitive constructions, cf. Martí (2003) (note that this was already noticed by Lobeck (1995) with respect to *a* vs. *one* and *every* vs. *each*). Consider (76), an example taken from Alexiadou & Gengel (2008: 13):

- (76) a. un problema grave [Spanish]
 ‘a serious problem’
 b. uno [e] grave (NP-“ellipsis”)
 ‘a serious one’
 c. uno de tus problemas (partitive construction)
 ‘one of your problems’

The elements allowing NPE can indeed have a partitive interpretation as in the French example in (77), from Sleeman (1996: 33), where partitive means “(im)properly included within a set”⁶:

- (77) a. J’ai lu trois de vos livres. [French]
 ‘I have read three of your books.’
 b. C’est le plus intéressant de vos livres.
 ‘This is the most interesting of your books.’

If these constructions (NPE and partitives) are truly related, the observation that classifiers play a leading role here is seen as support for Alexiadou & Gengel’s hypothesis: “(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” (Alexiadou & Gengel 2008: 13).

Barbiers (2006) shows that *one* in English is also specified for [ATOM/PARTITIVITY]⁷: if there is no local identification of this feature, noun ellipsis is impossible with an AP without *one* (this is thus a condition on noun ellipsis in English). Borer (2005) assumes a similar analysis in arguing that *one* (as a classifier) individuates (i.e., it signals division (the function of dividing something), as in *one big of the type car* instead of *a big car*).

According to Alexiadou & Gengel, the following examples can perfectly be explained by Borer’s (2005) theory (examples adopted from Barbiers 2005: 160, 161):

- (78) a. (Talking about wine,) I prefer Australian (*one).
 b. (Talking about cars,) I prefer a red *(one).

Since *wine* in (78) is a mass noun, there is no requirement of a classifier phrase. If such a phrase is lacking in the structure, a so-called “type” reading (as opposed to a “token” reading) emerges, as in (78a). Therefore, *one* cannot be inserted in the structure. The configuration in (78b) is exactly the opposite: since a count noun (*cars*) is involved here, the presence of a ClassP (which is called a “CLP” in Borer’s system) is required, and *one* has to be inserted. The same counts for (79), from Barbiers (2005: 161), in which, again, the noun in question is a count noun:

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

To sum up, Alexiadou & Gengel argue that individuation and partitivity (as the crucial semantic licensing) render the concept of (contrastive) focus in NPE contexts only a by-product of partitivity: “the strong contrastive accent only arises if the contrast to the element in the antecedent is emphasized” (Alexiadou & Gengel 2008: 16). Individuation and partitivity are prerequisites for contrastiveness, and in NPE constructions they are optionally expressed by contrastive focus (both concepts thus seem to “feed” into the process of focus). Even if focus is not the primary licensing factor, it can add some more info by establishing a clear contrast between a selected item and its alternative(s). However, focus does not need to identify an element (or a subset of elements) that is included within a particular set of alternatives, since that role – the reference to a set – is already fulfilled by the [+PARTITIVE] feature on the classifier: “the choice of one element necessarily entails the exclusion of other elements” (Alexiadou & Gengel 2008: 16). The above therefore renders only partitivity (and inflection) as the licensing factors of NPE in the languages discussed so far.

4.5. Conclusion

Of all the elision substrategies discussed in this chapter (elision licensed by morphological features, by focus and by classifiers) only the first one (as assumed by Lobeck 1995) seems to be quite useful for German. Lobeck’s proposal points in the right direction, yet, she is not able to explain the need of strong inflection on the adjectival remnant in a profound way. Therefore, the use of morphological features has to be different, which will be shown in my own proposal in chapter 6.

The second substrategy, Focus (as assumed by Corver & Van Koppen 2009), works well for Dutch. Regarding NPE in German, the story is quite different. Apart from the fact that Focus, in the whole process of the licensing of NPE, seems to be a by-product (and not the primary licensing factor), German Foc^o is filled by *-er*, *-en*, *-em*, *-es* and *-e*, whereas in Dutch, this is one and the same element: *-e*. Since it is not clear which of these elements should be inserted in German (as FocP establishes a separate projection in the structure), Corver & Van Koppen’s proposal is too language-specific (covering only Dutch) and, as a consequence, it has to be rejected with respect to German.

The latter was also shown within the account of NPE by means of classifiers (Alexiadou & Gengel 2008). However, a potential problem with respect to their account is the fact that it is not clear as to how the distribution of the inflectional agreement in German should be arranged. Alexiadou & Gengel argue that the definite determiner and strong adjectival agreement both play the role of classifier, whereas Borer (2005) claims that the definite determiner must assign so-called “range” to ClassP.

I therefore have to conclude that only Lobeck’s account is (partially) useful, and that the accounts by means of Focus and/or classifiers need to be rejected regarding the NPE phenomenon in German, based on argumentation provided above.

Notes

1. There are several ways to represent an “elided” noun in “NPE” constructions (e.g. “[*pro*]” and “___”). I use “[*e*]” in all cases throughout the whole chapter in order to avoid redundant complexity with respect to the examples.
2. *A* and *one* differ with respect to the fact that only *one* can occur in partitive constructions (examples taken from Lobeck 1995: 94):

- (i) a. one of the women
b. *a of the women

In a very similar way, *each* has a strong [+PARTITIVE] feature, as opposed to *every*, which is [-PARTITIVE] (examples from Lobeck 1995: 93):

- (ii) a. each of the women
b. *every of the women

Therefore, (iiia) is grammatical, whereas (iiib) is ungrammatical (both examples adopted from Lobeck 1995: 93):

- (iii) a. The women came in and [_{DP} each [*e*]] sat down.
b. The women came in and [_{DP} *every [*e*]] sat down.

3. Note that a null ending can be regarded as a weak ending.
4. Although there is a difference between Focus and stress, these terms are used by Corver & Van Koppen (2009) as covering one and the same phenomenon.
5. Although this example is not accepted by all native speakers of Dutch, there is a large amount of speakers that find it grammatical.
6. This counts for the German as well, as the following example shows:

- (i) Er ist ein*(er) meiner Freunde.
He is one of my friends.

7. In a previous account (Barbiers 2005), Barbiers argues that *one*-insertion in English is obligatory since the feature [COUNT] must be made visible. This means that [COUNT] must be expressed morphophonologically (example taken from Barbiers 2005: 160):

- (i) (Talking about cars,) I prefer a red *(one).

As a consequence, *one* cannot co-occur with mass nouns as *wine*, since these are specified [-COUNT] (example from Barbiers 2005: 161):

- (ii) (Talking about wine,) I prefer Australian *(one).

5 The Pronominalization Strategy of Explaining NPE

5.1. Introduction

In the previous chapter, the elision strategy was discussed, which (apart from Focus) is argued to be dependent mostly on inflectional morphology/agreement on the adjectival remnant. The other NPE strategy is pronominalization, which is assumed to be used when there is no morphological inflection on the adjectival remnant, as in English. Corver & Van Koppen (2011) argue in favor of such a pronominalization strategy, with evidence from English, French, Afrikaans, Frisian, (standard) Dutch and dialectal variants of Dutch. However, since so-called *pro*-nouns within pronominalization have a composite structure, their theory unifies the elision and pronominalization strategies. As a significant outcome, languages may even make use of more than one NPE strategy.

The pronominalization strategy and its unification with the elision strategy works best in full DP constructions of the form D-A-n. An example is *een zwart-(e)* ‘a black (one)’, which contains an indefinite determiner, an adjective and a (*pro*-)noun “n”, substituting for N (this n is either filled by a suffix (e.g. *-e*) or \emptyset).

In sections 4.2 and 4.3, I will first explore pronominalization in English, French, Frisian and Dutch (cf. Corver & Van Koppen 2011) and then, in section 4.4, discuss whether Corver & Van Koppen’s proposal works for German as well.

5.2. “*e* = n”

Pronominalization can be defined as the replacement of some part of the noun phrase by an overt (i.e., lexical) *pro*-form. This differs considerably from the elision strategy, in which some part of the noun phrase is deleted so that that part is (partially) phonologically empty. Both strategies (elision and pronominalization) are illustrated, in “simplified form”, in (1b) and (c) (from Corver & Van Koppen 2011: 374) respectively:

- (1) a. Jan heeft [een *wit* konijn] gekocht en Marie heeft [een *zwarte*] gekocht.
 Jan has a white rabbit bought and Marie has a black-e bought
 ‘Jan bought a white rabbit and Marie bought a black one.’
- b. [DP een [NP *zwarte* [NP ONE¹]]] (elision strategy)
 a black-*en*_{NON-NEUTER} one
- c. [DP een [NP *zwart* [NP *e*]]] (pronominalization strategy)
 a black *e*

Although one could argue that the NPE strategy in (1a) is actually elision, since it seems to be perfectly licensed by strong inflectional morphology on the adjectival remnant (see, among others, Lobeck 1995), Corver & Van Koppen (2011) analyze the *-e*-suffix appearing on *zwart* as a phonologically weak *pro*-form, which is similar to the English weak (i.e., non-focused) *pro*-noun *ONE* (note that, consequently, English *one* can be regarded as a core example of the pronominalization strategy). This *pro*-noun consists of two parts: a functional head *n*^o (“little *n*”) and a(n anaphoric) root. According to Corver & Van Koppen, *n*^o is a phase noun which determines the nominal character of its category-neutral root-complement (i.e., *n* “nominalizes” R). This means that, if the root (in the complement position of *n*) occupies the Specifier position of *n*^o (by movement into it), the root will be invisible for Spell-out at PF (as non-pronunciation of linguistic material is restricted to certain syntactic positions; see Kayne 2005) and, therefore, remain silent. This silent root is depicted by *ONE* (example adopted from Corver & Van Koppen 2011: 375):

- (2) [DP een [NP *zwart* [NP ONE_i [n^o [n *e*] t_i]]]]
 a black one *e*

In this way, the two NPE strategies can be unified and even co-exist within one and the same language, depending on the properties of *n*.

5.3. English and French

As for English, the pattern *a black one* can be schematized in the new proposal as follows (example from Corver & Van Koppen 2011: 393):

- (3) a. a black one
 b. [DP a [NP black [NP [n [one]_j] n (= \emptyset)] t_j]]]

In (3), *one* head-moves to *n*^o and is therefore visible for Spell-out at PF.

In French, the derivation is different. Consider, e.g., (4) (from Corver & Van Koppen 2011: 393):

- (4) a. J'ai acheté une voiture blanche et Marie a acheté une verte.
 I have bought a_{FEM.SG.} car white_{FEM.SG.} and Marie has bought a_{FEM.SG.} green_{FEM.SG.}
 'I bought a white car and Marie bought a green one.'
 b. [une [_{nP} verte [_{nP} [ONE]_j [_n n (= ø) t_j]]]]
 a_{FEM.SG.} green_{FEM.SG.} one

In (4), the root has been moved to [Spec,nP] and is thus invisible for Spell-out at PF. As a consequence, it remains silent and is represented by *ONE*.

So, whereas English exemplifies a manifestation of the pronominalization strategy (as shown by movement of *one* to n°), in French, the NPE elision strategy is manifested (as shown by the nominal agreement features on the adjectival remnant).

5.4. Frisian and Dutch

Corver & Van Koppen (2011) discuss Afrikaans, Frisian, (standard) Dutch and dialectal variants of Dutch. Due to lack of space I will focus on Frisian and (standard) Dutch with respect to their proposal.

They show that Frisian has even three NPE patterns (two pronominalization patterns and one elision pattern) which can all be derived from the same underlying structure, displayed in (5) (from Corver & Van Koppen 2011: 395):

- (5) [_{DP} D [_{nP} AP [_{nP} Spec [_n n° RP²]]]]

The first pattern involves *in swarten* 'a black one' (example from Corver & Van Koppen 2011: 395):

- (6) Jan hie in witte auto en Geart *in swarten*.
 Jan has a white-e car and Geart a black-en
 'Jan has a white car and Geart a black one.'

Corver & Van Koppen argue that the *-en*-suffix in (6) is not an adjectival inflection, but rather an instance of the functional category n° (a *pro*-form substituting for N). It should therefore receive a pronominalization analysis as in (7) (from Corver & Van Koppen 2011: 398), where the root *IEN* has been moved to [Spec,nP] and, in this position, can be left unpronounced (cf. Kayne 2005):

- (7) [_{DP} in [_{nP} swart [_{nP} [IEN]_j [_n [n° (= en)] t_j]]]] (*in swarten*)

Evidence for this analysis comes from NPE examples that contain more than one adjective. It appears to be impossible to have more than one A + *-en* combination ("*A-en A-en") (example taken from Corver & Van Koppen 2011: 396):

- (8) a. Jan hie [in grut wyt skrift] kocht en Geart hie [in (*grutten) swarten] kocht.
 Jan has a big white notebook_{NEUTER} bought and Geart has a big-*en* black-*en* bought
 ‘Jan bought a big white notebook and Geart bought a big black one.’
 b. Jan hie [in grutte wite auto] kocht en Geart hie [in (*grutten) swarten] kocht.
 Jan has a big-*e* white-*e* car_{COMMON} bought and Geart has a big-*en* black-*en* bought
 ‘Jan bought a big white car and Geart bought a big black one.’

According to Corver & Van Koppen, this clearly shows that *-en* must be a weak *pro*-form, since it can appear on a single instance of A+*-en* (the second one) only.

The second pattern is *in swarten ien* (example from Corver & Van Koppen 2011: 395):

- (9) Jan hie in witte auto en Geart *in swarten*/**swarte ien*.
 Jan has a white-*e* and Geart a black-*en*/black-*e* one
 ‘Jan has a white car and Geart a black one.’

Corver & Van Koppen propose that, in (9), the “base pattern” (i.e., pronominalization) is manifested; this is the structure where no displacements have taken place (example adopted from Corver & Van Koppen 2011: 398):

- (10) [DP in [_{nP} swart [_{nP} [_n n° (= en)] ien]]] (in *swarten ien*)

Note that, under an analysis of *-en* as an adjectival inflection, the appearance of *ien* (the equivalent of English *one*) cannot be explained, since *one* normally does not co-occur with inflection on the adjectival remnant, as in English. Again, NPE patterns containing a sequence of adjectives show that *-en* should not be considered an adjectival inflection; the sequence A-*en* A-*en* is, once more, ruled out (example from Corver & Van Koppen 2011: 398):

- (11) a. Jan hie [in grut wyt skrift] kocht en Geart hie [in (*grutten) swarten *ien*] kocht.
 Jan has a big white notebook bought and Geart has a big-*en* black-*en* one bought
 ‘Jan bought a big white notebook and Geart bought a big black one.’
 b. Jan hie [in grutte wite auto] kocht en Geart hie [in (*grutten) swarten *ien*] kocht.
 Jan has a big-*e* white-*e* car bought and Geart has a big-*en* black-*en* one bought
 ‘Jan bought a big white car and Geart bought a big black one.’

The third and last pattern is *in swarte* (example from Corver & Van Koppen 2011: 400):

- (12) Jan hie in witte auto en Geart *in swarte*. (common gender noun)
 Jan has a white-*e* car and Geart a black-*e*
 ‘Jan has a white car and Geart a black one.’

This should receive a true elision analysis as in (13) (from Corver & Van Koppen 2011: 401), as assumed by Corver & Van Koppen:

- (13) [DP in [_{NP} swarte [_{NP} [IEN]_j [_N [n°] t_j]]]] (in swarte)

As Corver & Van Koppen suggest, the *-e*-suffix on *swart* is clearly an inflectional suffix that makes the nominal nature of the ellipsis site recoverable. It cannot appear on the adjective when the latter substitutes for a neuter noun (instead of a common noun) (note that *hûs* ‘house’, in (14) (from Corver & Van Koppen 2011: 400), is neuter):

- (14) Jan hie in lyts hûs en Geart **/?in grut/*in grutte*. (neuter noun)
 Jan has a small house and Geart a big-*e*
 ‘Jan has a small house and Geart a big one.’

It is remarkable that this is the only pattern in which a sequence of adjectives – A + *-en* A + *-en* – is allowed; a fact that can be regarded as support for the treatment of *-e* as an adjectival inflection (example from Corver & Van Koppen 2011: 401):

- (15) Jan had [in grutte wite auto] en Gaert [in lytse swarte].
 Jan had a big-*e* white-*e* car and Geart a small-*e* black-*e*
 ‘Jan had a big white car and Geart a small black one.’

In sum, Frisian appears to display an example of a language that has available more than one NPE strategy. As such, it can be used to present the unification of the two NPE strategies in a model way.

The question now is: Can the analysis of Frisian be extended to (standard) Dutch? The answer to this question is positive. The *-e*-suffix in *een zwart-e*, in (1a) – repeated here in (16) (from Corver & Van Koppen 2011: 405) – should, according to Corver & Van Koppen, indeed not be analyzed as an adjectival inflection but as a phonologically weak *pro*-form (an instance of n°), similar to Frisian *-en*:

- (16) Jan heeft [een wit konijn] gekocht en Marie heeft [een zwarte] gekocht.
 Jan has a white rabbit bought and Marie has a black-*e* bought
 ‘Jan bought a white rabbit and Marie bought a black one.’

However, as already shown in chapter 3, some speakers of Dutch accept the elided pattern *een zwart* next to *een zwarte*. This can be regarded as evidence for the elision strategy (example taken from Corver & Van Koppen 2011: 414):

- (17) Jan heeft [een wit konijn] en Marie heeft [een zwarte]/%[een zwart].
 Jan has a white rabbit_{[+NEUTER]}} and Marie has a black-*e*/a black
 ‘Jan has a white rabbit and Marie has a black one.’

Corver & Van Koppen therefore propose that Dutch behaves like Frisian: both strategies are available. The only difference is that in Frisian, the inflectional *-e* and the *pro*-form *-en* are

distinguishably pronounced, whereas in Dutch, they have one and the same form (“-e”). The two strategies are presented in (18) (from Corver & Van Koppen 2011: 416):

- (18) a. [DP een [nP zwart-*e*/∅ [nP [ONE]_j [n' n° (= ∅) t_j]]]] (elision strategy)
 b. [DP een [nP zwart [nP [ONE]_j [n' n° (= e) t_j]]]] (pronominalization strategy)

The main argumentation for such a bipartite analysis is provided by instances in which the adjectival remnant consists of more than one adjective, as in (19) (from Corver & Van Koppen 2011: 416):

- (19) Jan heeft [een groot wit konijn] en Marie heeft [een kleine zwarte]. [standard Dutch]
 Jan has a big white rabbit_[+NEUTER] and Marie has a small-*e* black-*e*
 ‘Jan has a big white rabbit and Marie has a small black one.’

If we unify both analyses (18a) and (18b), it is possible to structurally represent the more complex example (19) as in (20) (from Corver & Van Koppen 2011: 416). In (20), the adjectival *-e* and the *-e* in n° are linearly adjacent and identical. They are consequently pronounced as a single schwa at PF by so-called “haplology” (“adjacent identical inflections on different elements are pronounced as a single inflection”). In this example, the haplology is presented as deletion of the adjectival *-e*-suffix (note that the same is true for adjacency of *-e* and *-en*; this leads to the form *-en*, containing a single *e* only):

- (20) a. [een [NP kleine [NP zwarte [NP e]]]] (simplex analysis)
 b. [een [nP kleine [nP zwarte [nP [ONE]_j [n' n° (= e) t_j]]]] (decompositional analysis)

As Corver & Van Koppen argue for an analysis of the ending of the second adjective in (20b) as a weak *pro*-form (rather than an adjectival inflection), this can (again) be tested by some special NPE cases with more than one adjective. To avoid instances in which the *pro*-form is homophonous to the adjectival inflection, Corver & Van Koppen provide us with adjectives derived from past participles, since these derived forms lack an ending in attributive position, as seen in (21) (from Corver & Van Koppen 2011: 418):

- (21) a. het gezouten(**e*) visje
 the salted-*e* fish_{DIM}
 ‘the salted fish’
 b. het gebakken(**e*) visje
 the fried-*e* fish_{DIM}
 ‘the fried fish’
 c. het gezouten gebakken visje
 the salted fried fish_{DIM}
 ‘the salted fried fish’

With double adjectives we expect only the last one to have an *-e*-ending, and this must be the weak *pro*-form. A prediction that is indeed borne out, as illustrated in (22) (from Corver & Van Koppen 2011: 418):

- (22) a. het gezouten gebakken*(*e*)
 the salted-*e* fried-*e*
 ‘the salted fried one’
 b. het gezouten(**e*) gebakkene
 the salted-*e* fried-*e*

5.5. And German(?)

In order to check whether Corver & Van Koppen’s (2011) proposal also works for German, consider (23):

- (23) a. (Was die Kaninchen betrifft,) ich habe gerade ein schwarzes gesehen.
 what the rabbits concerns I have just a black-*es* seen
 ‘(Concerning the rabbits,) I just saw a black one.’
 b. [_{DP} ein [_{nP} schwarz-*es* [_{nP} [ONE]_j [_n n° (= ∅) t_j]]]] (elision strategy)
 c. [_{DP} ein [_{nP} schwarz [_{nP} [ONE]_j [_n n° (= es) t_j]]]] (pronominalization strategy)

The analysis in (23b) and (c) seems to be convincing. However, the movement of silent *ONE* to the Specifier position of nP in German is actually quite redundant: the structure remains grammatical even without the whole movement operation (perhaps even without the nP projection?). The postulation of such an analysis thus seems to be only justified in comparison to Frisian and English, languages that both have an overt *ONE*-element. In accounting mainly for Frisian and English, the proposal is too narrow (i.e., too language-specific) to capture German as well (note that this also counts for Dutch and French).

A German example of the “unified” decompositional analysis, concerning a sequence of adjectives, is given in (24):

- (24) a. (Was die Kaninchen betrifft,) ich habe gerade [ein kleines schwarzes] gesehen.
 what the rabbits concerns I have just a little-*es* black-*es* seen
 ‘(Concerning the rabbits,) I just saw a little black one.’
 b. [ein [_{nP} kleines [_{NP} schwarzes [_{nP} [ONE]_j [_n n° (= es) t_j]]]]] (decompositional analysis)

(24b) clearly shows that the unified analysis is impossible in German (this consequently weakens the elision and pronominalization strategies as well as the decompositional analysis is based on them). Here, haplogogy – understood as the single pronunciation of adjacent identical inflections, i.e., mostly the collapson of two identical vowels (e.g. “e –e”) – cannot apply: since the *-s* of the *-es*-suffix on

schwarz and the *e-* of the *pro*-form *-es* in *n*° are not identical, haplology doesn't apply and, consequently, their concatenation will lead to the pronunciation of both elements: **ein kleines schwarzeses*. I don't think haplology, in this case, can apply to the whole ending (which would mean that one of the two endings gets deleted), since it normally applies to concatenations of single vowels only (I doubt haplology is "able" to recognize identical endings of a more complex nature, i.e., consisting of more than one single element).

5.6. Conclusion

Although the pronominalization strategy (Corver & Van Koppen 2011) seems to work fine for NPE constructions of the form D-A-n in English (a core example of pronominalization) and Frisian (which has not less than three NPE strategies), it was shown that this strategy and its unification with the elision strategy pose several problems for German (as well as some for French and Dutch).

The main difficulty lies in the fact that, in English and Frisian, an overt *ONE*-element is (or can be) present. This is considerably different from German, in which an overt *ONE* is truly absent (this also counts for French and Dutch). Instead, German, French and Dutch have an unpronounced *ONE*. This means that, if there is lack of the overt alternative (the pronounced *ONE*), a constellation such as the one proposed by Corver & Van Koppen loses its justification cross-linguistically. Moreover, a unified "decompositional" analysis of the phenomenon seems to be impossible in German, as the relevant collapsing endings in German consist of two elements (as opposed to the single *e*-suffix in Dutch), and haplology cannot apply and thus "rescue" the structure.

As Corver & Van Koppen's proposal appears to be too language-specific, I am forced to reject it, having shown that their analysis is plausible with respect to English and Frisian (and also Afrikaans, which was not discussed here), yet implausible regarding German (and, subsequently, French and Dutch). I will therefore propose an alternative analysis (not based on elision nor on pronominalization) in the next chapter.

Notes

1. *ONE* represents the elided noun in the same way "[e]" does. Although I used "[e]" in chapter 4, I won't do so in this chapter, since, in the examples given, covert *ONE* alternates with overt *one*.
2. RP stands for "root phrase".

6 The Analysis of “NPE” without Ellipsis

6.1. Introduction

In this chapter, a new analysis of NPE constructions without an NP-complement position (filled either by e_N or by a *pro*-form) will be provided, making use of Olsen’s (1991) account. Before outlaying this new proposal, “ellipsis” as accounted for by Roehrs (2006) will be discussed, as his analysis is the most recent in a minimalistic framework and complements the elaboration of his account in chapter 3. It will also be shown that Focus is not the primary licensing condition in “NPE”, but – as a “side-effect” – can be deduced from central claims within metrical phonology in a clear way (cf. Chomsky & Halle 1968, Liberman & Prince 1977, Liberman 1979, Reinhart 1995, 2006, Neeleman & Reinhart 1998 and Szendrői 2001). Finally, it is interesting to find out whether the new proposal extends to English and Frisian as well. This is indeed the case, as will be made clear in supplement section 5.5.

6.2. “Ellipsis” as Accounted for by Roehrs (2006)

Before putting forth my own proposal, I turn to Roehrs (2006) again. He analyzed the distribution of the adjectival inflections in German in a clear way, as was shown in chapter 2 (and introduced in chapter 1). Roehrs doesn’t analyze “noun phrase ellipsis”, but he discusses a phenomenon which is, in the standard literature, supposed to be related to “NPE”: “split DPs”¹ These are discontinuous DPs of which one part (the “source”) stays in situ while the other part (the “split-off”) is moved to the left of the former part (this means that the source is “stranded”) (example taken from Roehrs 2006: 263):

- (1) a. [Hemden] habe ich [keine] getragen.
shirts have I none worn
b. [Brot] habe ich [ein*(es)].
bread have I one(STRONG/*WEAK)

When the source is stranded, it has to get strong inflection, just as in “NPE”. The appearance of strong inflection on the relevant element is called “reemergence” by Roehrs. As the following example shows, stranded adjectives² must show reemergence as well, which is, in its comparison to “NPE”, another similarity (examples (2a) and (b) are adopted from Fanselow 1988: 101):

- (2) a. Ich habe lila(ne) Bücher.
I have purple books
b. [Bücher] habe ich [lila*(ne)].
books have I purple

In line with Rizzi (1986) and Grewendorf (1991), Roehrs assumes an empty noun, “ e_N ”, which has to be licensed syntactically³ (example from Roehrs 2006: 285):

- (3) a. Hemd habe ich [eins e_N] getragen.⁴
shirt I have one(STRONG) worn
b. Hemd habe ich [ein schönes e_N] getragen.
shirt have I a(WEAK) nice(STRONG) worn
c. Hemden habe ich immer nur [diese e_N] getragen.
shirts have I always only these(STRONG) worn

Striking fact is that all the licensers in (3) are in L-marked positions: the article in (3a) is in D, the adjective in (3b) is in [Spec,AgrP], and the demonstrative in (3c) is in [Spec,DP]. These are all elements that can have a strong ending, but the presence of such a strong ending does not appear to be a necessary condition, as Roehrs shows; the non-agreeable elements in (4), adopted from Roehrs (2006: 286), can license an e_N as well:

- (4) Hemden habe ich in meinem Leben [genug e_N] getragen.
shirts have I in my life enough worn

If non-agreeable items can also license an empty noun (despite the fact that they can't show strong agreement), the conclusion, as assumed by Roehrs, must be that it is the L-marked position that is relevant here: it is not necessary for e_N to be licensed by an element with a strong ending, but to be licensed by an element in an L-marked position (i.e., [Spec,DP], D or [Spec,AgrP]). These are the conditions of the licensing of e_N :

- (5) *Licensing of e_N* (Roehrs 2006: 286)
The licenser must:
(i) be overt (i.e., must have a phonological matrix to be filled in)
(ii) c-command e_N from an L-marked position
(iii) agree (if possible).

With regard to the first two conditions, (i) implies that condition in (5) holds between the Numeration and PF (note that the phonological matrices are “stripped off” at Spell-out), whereas (ii) implies that the condition holds in syntax. To intersect these two domains, the condition in (5) must hold when the DP is merged with the clause (i.e., derived between Numeration and Spell-out).

The derivation in (6b) is predicted by (5i). Only this derivation (i.e. movement of the object-DP to [Spec,DP]) is the correct one (example from Roehrs 2006: 287):

- (6) a. Hemden habe ich getragen.
 shirts have I worn
 b. [_{DP} Ø Hemden]_i habe ich t_i getragen.
 c. (*)[_{DP} Hemden]_i habe ich [_{DP} Ø e_N] t_i getragen.

In (6b), it is clear that the licenser must be overt and cannot be a null determiner, as in (6c).

Subcondition (5ii) rules out sentences where there is no c-command from an L-marked position, as in (7b), adopted from Roehrs (2006: 288):

- (7) a. Ich habe immer nur Hemden meines Vaters getragen.
 I have always only shirts of my father worn
 b. ??Hemden habe ich immer nur [_{DP} Ø e_N meines Vaters] getragen.⁵
 shirts have I always only of my father worn

With respect to subcondition (5iii), it was already shown in example (2) above that, if possible, licensers must agree. In (2b), the licenser *lila* has the possibility to agree and by subcondition (5iii) it must.

Turning to Roehrs' derivation of the inflectional alternation of *ein*, recall from chapter 3 that (i) the strong ending is licensed when the DP is merged with a clausal phase, (ii) that strong inflection can only be licensed from an L-marked position, (iii) that the determiner can only get strong inflection if it is contained within the DP at the moment of merging with the predicate, and (iv) that the Rule of Monoinflection, repeated in (8), holds in such a way that the licensing of a strong ending on both the determiner and the adjective at the same time is impossible:

- (8) *Rule of Monoinflection (final version)* (Roehrs 2006: 292)
 At the point where the DP is merged into the (partially assembled) clause, license the strong morphological inflection on the "closest" overt element (with respect to the clausal predicate) that the head noun can establish an agreement relation with. There are two subcases: the elements are
 (iii) "agreeable" in general
 (iv) "agreeing", depending on the analysis assigned by the speaker.

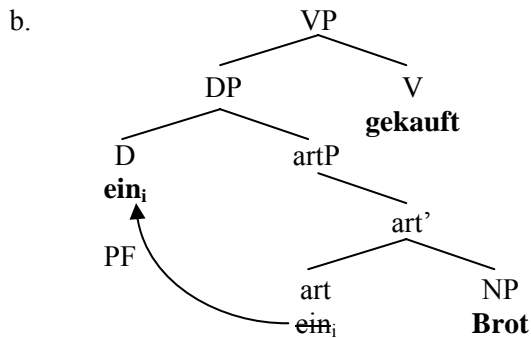
As outlined in chapter 3 as well, Roehrs assumed that there is movement of *ein* to support D in PF and to value its [DEFINITE] feature in LF. This assumption has to be much stronger, in order to be able to claim that *ein* doesn't move unless demanded by other principles or conditions (cf. Chomsky 2000):

- (9) *Least Effort* (cf. Chomsky 2000: 99)
 There are no superfluous steps in the derivation unless forced by Last Resort.

This means that the derivations of split and non-split DPs are different. In non-split DPs, there is an overt noun (i.e., no e_N). The licensing of the strong ending succeeds in the way as discussed in chapter

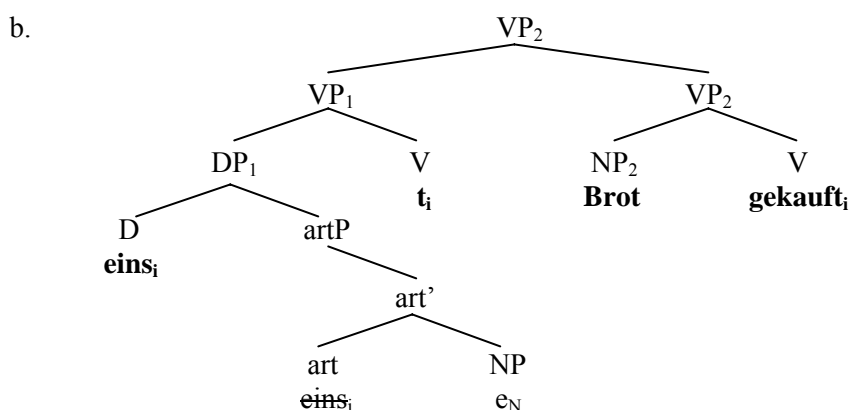
3. Since the strong ending on *ein* (in art) cannot be licensed by the functional head D (this head doesn't L-mark art), it has to move to D in PF. As the default case, *ein* will get a weak ending (example from Roehrs 2006: 293):

- (10) a. Ich habe ein Brot gekauft.
I have a(WEAK) bread bought



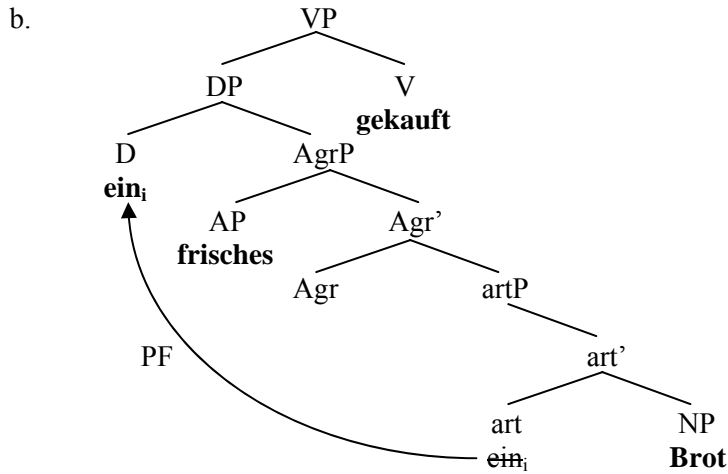
Split DPs, however, contain the element *eins* and an empty null noun. Condition (5) now demands that, before the DP is merged with a clausal phase, *eins* has to move to D in order to be able to license e_N (recall that if an element can agree, it must, and *eins* is clearly able to agree). Since *eins* is in D now, it is in an L-marked position and, as a consequence, it gets a strong ending. The verb is then copied and merged with *Brot* 'bread' ("sideward" movement), and the NP₂ containing *Brot* moves to [Spec,CP], which is not shown here (example adopted from Roehrs 2006: 294):

- (11) a. Brot habe ich eins gekauft.
bread have I one(STRONG) bought



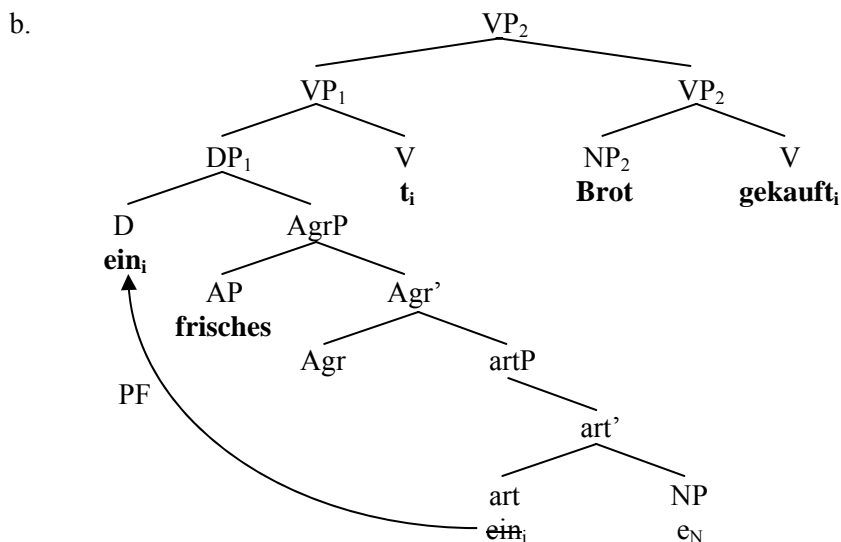
Considering DPs with adjectives (Roehrs calls these "modified noun phrases"), the derivation in non-split DPs is as was discussed in chapter 3 (the adjective gets its strong ending, since [Spec,AgrP] is (always) an L-marked position; *ein* will get its weak ending after moving to D in PF) (example from Roehrs 2006: 295):

- (12) a. Ich habe ein frisches Brot gekauft.
I have(WEAK) fresh(STRONG) bread bought



In split DPs with a stranded adjective, the presence of an overt adjective causes fulfillment of condition (5). This means that *ein* does not have to move to D (cf. the Least Effort condition). The adjective (in first position) will get a strong ending when the DP is merged with the predicate. The verb is copied and merged with *Brot* (sideward movement), and the NP containing *Brot* moves to [Spec,CP]. Finally, *ein* moves to D in PF in order to get a weak ending by default (example taken from Roehrs 2006: 296):

- (13) a. Brot habe ich ein frisches gekauft.
bread have I a(WEAK) fresh(STRONG) bought



Apart from the conceptual advantages, as assumed by Roehrs, there is an empirical argument in favor of the above analysis which proposes the existence of only one lexical entry for *ein*. The example in (4) shows that there is no need to assume two different kinds of *ein* (i.e., two lexical

entries): an indeclinable one (as in *ein(*er) Wagen*) and a declinable⁶ one (as in split DPs, but also in “NPE”): “[...] as seen in [(4)], e_N can also occur without elements showing a strong ending. This makes the assumption of a second entry for *ein* implausible, since the indeclinable three instances of *ein* [(nominative masculine and nominative/accusative neuter)] should be as capable of licensing e_N as the other indeclinable elements are” (Roehrs 2006: 298). Since *ein* without overt inflection is agreeable by subcondition (5iii) (as in, e.g., *ein lilanes e_N*), we can do without an extra lexical entry of *ein*: “[...] the different endings [can be derived] from the varying time *ein* moves to D forced by the independently motivated condition [(5)] [...]” (Roehrs 2006: 298).

Roehrs’ account thus explains the strong/weak alternation of *ein* by assuming that *ein* moves from a lower position, at different times and under different conditions (especially the assumption that *ein* can move at different times is important here).

Although Roehrs’ account of split DPs is in itself quite convincing, there is also a problem. Apart from the fact that he has to postulate three subconditions in (5), Roehrs doesn’t explain why elements that can show strong inflection should agree in the licensing of e_N (instead, he has to postulate a condition). This is rather strange since Roehrs himself assumes that elements that can’t show agreement, do not need to do so (this doesn’t explain why the other elements must show agreement and, as a consequence, are “treated” differently). It will be shown in section 6.3 that one can do without the complexity of the postulation of several subconditions: the strong ending is not a condition within the whole licensing process, but appears on determiners and adjectives in “NPE” as a consequence of the claim that these are DPs and APs without an NP-complement (neither overt nor “null”) (one might even call them “nominalized”, but that is incorrect, regarding there is no category change). Just as *Buch* ‘book’ is, e.g., specified [SINGULAR,NEUTER,NOMINATIVE], *eins* ‘one’ has identical phi-features and, if possible, must make them visible. This is different from *Buch*, whose features are inherent (i.e., invisible).

6.3. A New Proposal

In this section I would like to show that Olsen’s (1991) account of DPs appears to be fruitful for the new proposal concerning the analysis of “NPE” constructions without NP-complement. As evidence I will provide some examples from (standard) Dutch and German that are in favor of such a new analysis.

6.3.1. General Assumptions

Since none of the proposals with respect to “NPE”, as discussed in this and the previous chapter, appear to be satisfactory, I argue that “NPE” has to be explained in another way, i.e. without an NP-complement. I therefore assume that:

- (A) there is no ellipsis in “NPE” (I thus reject the correctness of the term): the NP-position in these constructions is not generated and, therefore, DPs and APs can constitute independent forms
- (B) lexical items come fully inflected from the Lexicon, and syntactic variation can be reduced to variation in the Lexicon (cf. Chomsky 1995)
- (C) in line with assumption (C), “nominal” adjectives, just as nouns do so inherently, show inflection in order to make certain phi-features (case, number and/or gender) visible if that is needed in a particular language (cf. Dutch where it is not always needed to make all these features visible)
- (D) Focus is not the primary licensing factor (cf. Alexiadou & Gengel 2008), but it follows, also in “NPE” constructions, directly from central claims within metrical phonology (cf. Liberman 1979, Liberman & Prince 1977, Neeleman & Reinhart 1998, Reinhart 1995, 2006 and Szendrői 2007) (see section 6.4).

6.3.2. Evidence from (Standard) Dutch and German

There are several cases in which there does not seem to be an NP-complement in “NPE” constructions.

Consider the Dutch example in (14):

- (14) A: Ik heb hier twee boeken. Welk boek kies je? [standard Dutch]
 I have here two books. Which book choose you
 ‘I have got two books here. Which one do you choose?’
 B: (Pointing at a particular book:) Ik kies DEZE / *DEZE [e] / ??DIT / ??DIT [e].
 I choose this (PRONOUN) / this (DETERMINER) [e] / this (PRONOUN) / this (DETERMINER) [e]
 ‘I choose this one.’

The example in (14) shows the use of *deze* instead of *dit* (this is unexpected, since *dit* is, just as the noun *boek*, a singular *het*-word). As *deze* differs structurally considerably from *dit* and can’t be compositionally analyzed as **dez-e* in a Focus/classifier account nor in a pronominalization account, it seems that *deze* is an independent form, disconnected from any NP-position. It should also be noted that *deze* must be used as a replacement for all noun classes, including plurality:

- (15) A: Ik heb hier vier boeken. Welke twee kies je? [standard Dutch]
 I have here four books. Which two do you choose?
 ‘I have got four books here. Which two do you choose?’
 B: (Pointing at two particular books:) Ik kies DEZE.
 ‘I choose these.’

I therefore assume that the following example, adopted from Corver & Van Koppen (2009: 18) and slightly modified, is only grammatical in its general form, i.e., with an *-e*-suffix (note that, even with Focus, the bare form is out):

(16) Jij hebt een ZWART konijn, maar ik heb een *WIT / WITte. [standard Dutch]

It is not a coincidence that the only correct form in (16), *witte*, must be used for all noun classes (including plural), which shows that the form operates independently, irreferable to specific phi-features:

(17) Jij hebt een ZWART konijn, maar ik heb twee WITte. [standard Dutch]

There are even cases in which there is no explicit noun in the context to refer to (cf. Hubert Haider, p.c.). Consider the German example in (18):

- (18) a. In dieser Diskussion möchte ich gerne [folgendes] darüber sagen: ...
in this discussion would I like following to-that say
'In this discussion I would like to say the following to that: ...'
b. Du kannst entweder zu Hause bleiben oder zur Schule gehen. [Beides] ist möglich.
you can either at home stay or to school go. Both is possible
'You can either stay at home or go to school. It is both possible.'

In (18a) and (b), there is no noun (not in the sentence itself, nor in the context) that can refer to the [SINGULAR,NEUTER] specified adjectives *folgendes* and *beides*. In (18b), this is even complicated by the fact that *beides* refers to two entities at the same time.

On the basis of the evidence provided in this section, I conclude that “NPE” should be accounted for by not base-generating the NP-complement projection, the derivation of which I will show in the next section.

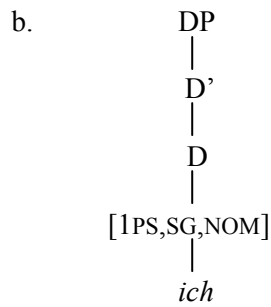
6.3.3. The Analysis of “NPE” without Ellipsis in German and (Standard) Dutch

6.3.3.1. Olsen (1991)

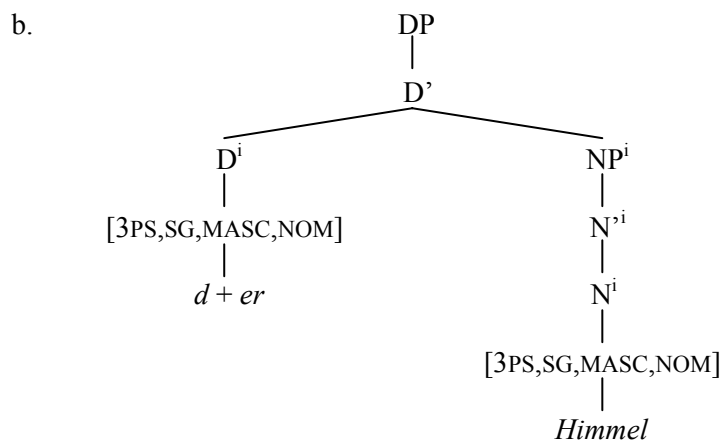
In chapter 3, Olsen’s (1991) theory was discussed. She proposed that AGR, as located under D, must be made visible in German. The AGR-category (D) and its NP-complement are in an agreement relation, which is indicated by superscripts (“agreement chain”).

She further argued that pronouns are intransitive Ds (and therefore realize AGR unrestrictedly), whereas determiners are transitive Ds that have to agree with their NP-complement (and are therefore restricted in their AGR realization) (examples taken from Olsen 1991: 38):

- (19) a. ich
'I'



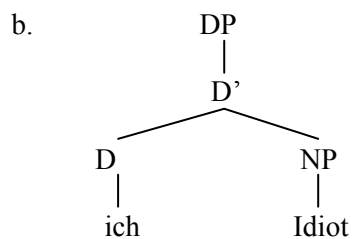
- (20) a. der Himmel
the heaven
'heaven'



In (20b), there is agreement between the AGR-bundle in D and the inherent features of N in the NP-complement, as shown by the superscripts of the established agreement chain.

Evidence for the assumption that determiners are transitive elements that take an NP-complement is provided by the following example, taken from Olsen (1991: 37). Although pronouns like *ich* 'I' are normally intransitive, they can be used transitively as well ("transitive use of an intransitive D-element") and thus take an NP-complement:

- (21) a. *ich* Idiot
I idiot



6.3.3.2. The Ellipsis of “Ellipsis”

If we analyze German “NPE” constructions as independent forms, the structure of an “NPE” construction with a determiner only is as in (22b’):

- (22) a. dein Buch
your(SG) book
‘your book’
- a’. deines
yours(SG)
‘yours’ [German]
- b.
- ```

 DP
 |
 D'
 / \
 D NP
 | |
 [-PL,+C,+G] N'
 | |
 dein + Ø N
 |
 [-PL,+C,+G]
 |
 Buch + INH

```
- b’.
- ```

      DP
      |
      D'
      |
      D
      |
    [-PL,+C,+G]
      |
    dein + es
      |
    [2PS,-PL]
  
```

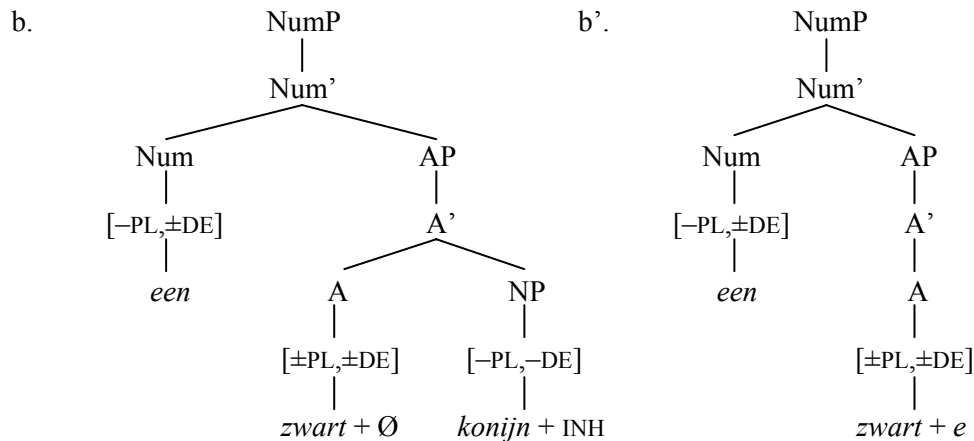
In (22b), the phi-features [-PLURAL,+CASE,+GENDER] are inherently (“+ INH”) represented in the noun *Buch* itself. Adopting Olsen’s (1991) notion of an agreement chain, AGR on D is restricted to [-PL,+C,+G] since the features on D (as a transitive element) have to agree with the features of N (note that the feature specification of N is in the lexicon). In (22b’), the phi-features of an implicit noun *Buch* (in the first part of an “NPE” construction) can only be expressed by D (an intransitive element) itself. Since in German, phi-features should be made visible if possible (and this is the only element present as a replacement for the whole DP *dein Buch*), these features are made visible through the *-es*-ending, which has the same phi-features as *Buch*: [-PL,+C,+G].

Consider now (23a’), a German “NPE” example consisting of a numeral and an adjective:

- (23) a. ein lila Buch
‘a purple book’
- a’. ein lilanes
a purple
‘a purple one’ [German]

The same is true for seemingly NPE constructions in Dutch, consisting of a numeral and an adjective:

- (25) a. een zwart konijn 'a black rabbit' a'. een zwarte 'a black-e' [Dutch]
'a black one'



Een zwarte, in (25b'), can be used as replacement for (25b), but since its *-e*-suffix shows feature specification for $[\pm PL, \pm DE]$, (25b') can be used as replacement for all noun classes, including plural:

- (26) *Over konijnen gesproken... (Talking about rabbits...)* [standard Dutch]
Ik heb een paar zwarte gezien.⁷
I have a few black-e seen
'I saw a few black ones.'

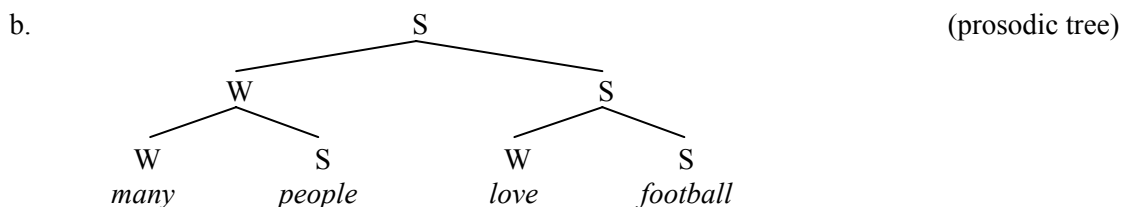
The difference between *deze*, in (24b'), and *zwarte*, in (25b'), is the fact that the two phi-features on *zwarte* are not inherently but visibly marked (though not positively nor negatively) due to the requirement in Dutch that, just as in German, independent forms must show agreement if possible. In German, however, there is a wider range of agreement suffixes (and the number of features to be specified) than in Dutch (cf. the EIP in chapter 4).

6.4. Focus Revisited

In this section, I would like to show that, in the new analysis outlined above, "NPE" can be explained without the implementation of a separate Focus projection (as assumed by Corver & Van Koppen 2009 in an as such convincing and justified way), and that the prosodic structure with respect to "NPE" can easily and clearly be deduced from central claims within metrical phonology. The latter was originally developed by Liberman (1979) and Liberman & Prince (1977), following Chomsky &

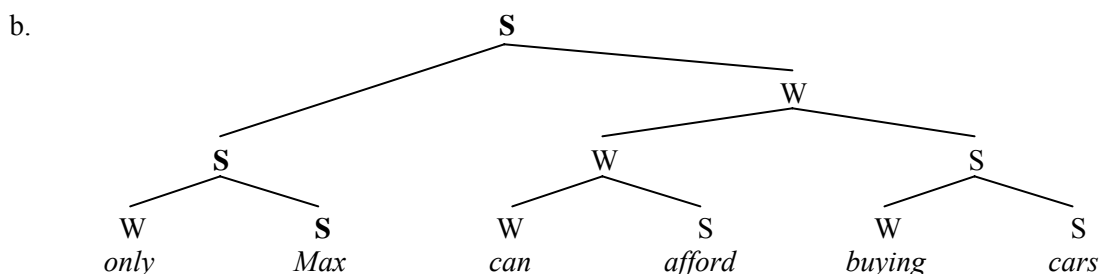
Halle (1968). The most relevant claim for this paper is the idea that prosodic structure should be presented as a binary branching tree.⁸ In such a tree, every pair of nodes has one strong node and one weak one. Consider (27), adopted from Slioussar (2007: 62, 63):

(27) a. Many people love FOOTBALL.



In (27b), it is assumed that the main stress is on the node that is dominated by strong nodes only, i.e., on *football* (indicated in (27a) by big capitals). (27b) exemplifies the so-called “neutral” stress pattern which is defined by the neutral stress rule (NSR). According to this rule, the default stress is on the rightmost or most embedded constituent (since *football*, in (27b), is the rightmost and the most embedded constituent, the example constitutes the uncontroversial case). As (27b) is an example of default stress, there are also examples showing a marked stress pattern (sentence in (28) taken from Neeleman & Reinhart 1998: 335 fn. 60a):

(28) a. Only MAX can afford buying CARS.



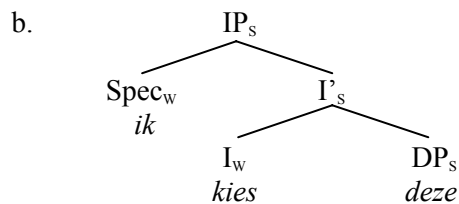
In (28b), the main stress doesn't fall on *cars*, but on *Max*, whereas the rightmost or most embedded element, *cars*, receives secondary stress (note that, in (28a), main stress is indicated by big capitals and secondary stress by small capitals). This example contains stress strengthening, which means that the interpretation of the subject will be in focus (and the original main stress becomes secondary). However, an operation such as stress strengthening is uneconomical from the viewpoint of interface economy and should therefore be used only if necessary (i.e., if the operation has to inevitably satisfy a certain interface condition). As a result, (28a) is only applicable in the marked context (29a), and not in the zero context (29b) (both examples adopted from Szendrői 2001: 20 fn. 16a/b):

- (29) a. Who can afford buying cars?
 b. #What's the situation?

As Slioussar (2007) notices, several authors incorrectly analyze the marked stress pattern as contrastive focus, a special type of focus that does not project. She adopts Reinhart's (1995, 2006) analysis. Reinhart argues that stress and focus are exactly the same, and that markedness (as well as its effects such as the lack of focus projection) "[...] should be defined through the presence of an uneconomical operation" (Slioussar 2007: 67).

The insights above can now be used to account for the stress patterns in "NPE" constructions as well, and the latter can even appear to constitute exemplifications of the neutral stress pattern. Consider first "NPE" with only a determiner (I use Dutch examples, but the phenomenon in German is exactly the same):

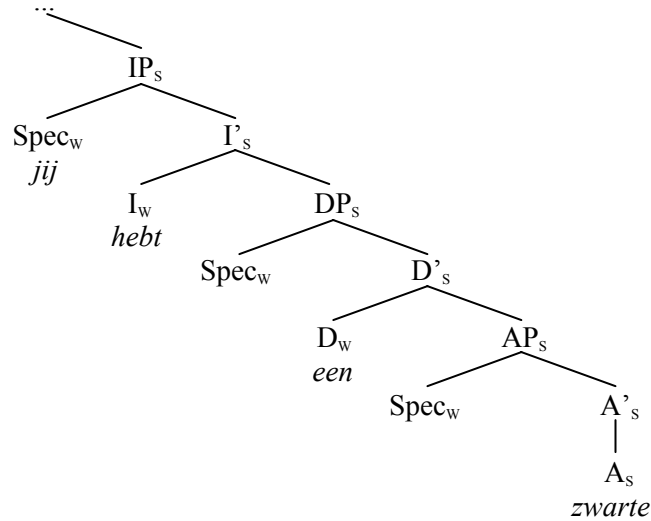
- (30) a. A: Ik heb hier twee boeken. Welk boek kies je? [standard Dutch]
 I have here two books. Which book choose you
 'I have got two books here. Which one do you choose?'
 B: Ik kies DEZE.
 I choose this
 'I choose this one.'



As shown in (30b), the prosodic tree is perfectly neutral, as the rightmost and the most embedded constituent, *deze*, has default stress. Consider now "NPE" with a numeral and an adjective (example taken from Corver & Van Koppen (2009: 4) and slightly modified):

- (31) a. Ik heb een WIT konijn en jij hebt een ZWARTE. [standard Dutch]
 I have a white rabbit and you have a black-e
 'I have a white rabbit and you have a black one.'

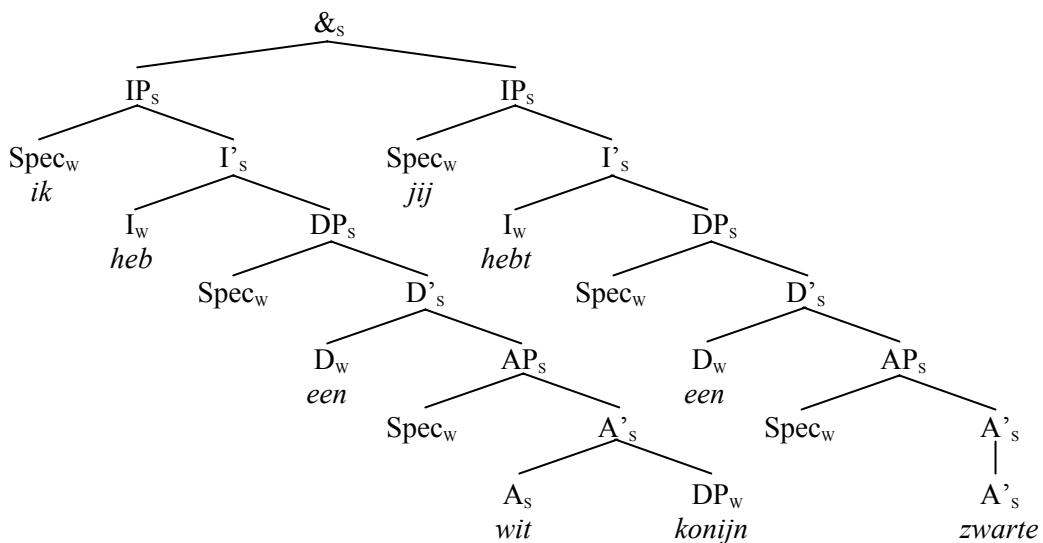
b.



Again, the prosodic tree in (31b) is an example of the neutral stress pattern: *zwarte* is the rightmost and most embedded constituent and by the NSR default stress goes to it.

Corver & Van Koppen's (2009) postulation of a Focus projection in their explanation of the licensing of "NPE" is as such convincing and justified (as in many other analyses that make use of Focus projections). However, one can also convincingly show that "NPE" can be explained without such an implementation (which might be more "economical"). As discussed in this section, a Focus projection within "NPE" doesn't seem to be necessary as the main focus on *zwarte* can be read off from the structure directly. (It might therefore not be coincidental that none of the authors Reinhart (1995, 2006), Neeleman & Reinhart (1998) and Szendrői (2001), who modified and extended Neeleman & Reinhart's analysis, assume a distinction between different kinds of focus, as, e.g., contrastive focus can be analyzed as the concatenation of main stress.) An account of the prosody within "NPE" can then be provided. In (32), the main stress (stress strengthening) in the first sentence is on *wit*, whereas the main stress (default stress) in the second sentence is on *zwarte*:

(32)



The prosodic structure above would then be in line with the nuclear stress rule.

6.5. English and Frisian

In this supplement section, it will be shown that the above proposal extends to English and Frisian as well.

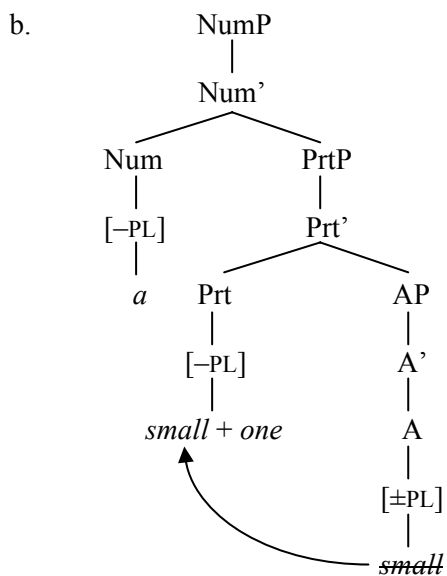
With respect to English, *one*, as in illustrated in (33), denotes indeed atom/partitivity in line with Barbiers (2006), but the presence of this element is not a necessary condition for the licensing of an elided noun, as seen in (34) (examples (33) and (34) adopted here from Corver & Van Koppen (2011: 372) and Barbiers (2005: 161) respectively):

(33) John bought a big car and Mary bought a small *(one).

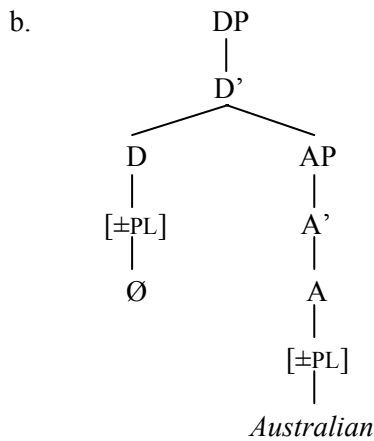
(34) (Talking about wine,) I prefer Australian (*one).

The structure of *a small one*, in (33), should therefore be as in (35b), while the structure of *Australian*, in (34), should be as in (36b):

(35) a. a small one



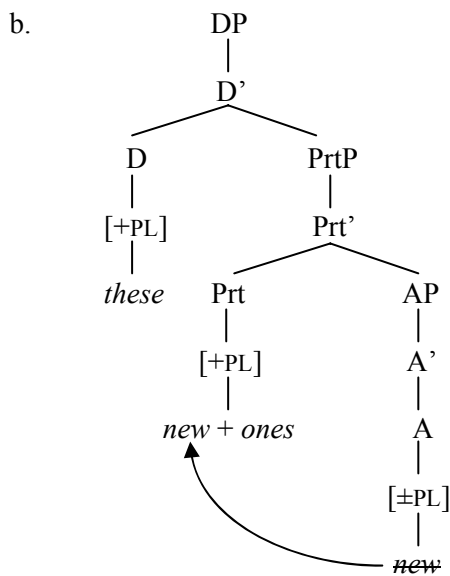
(36) a. Australian



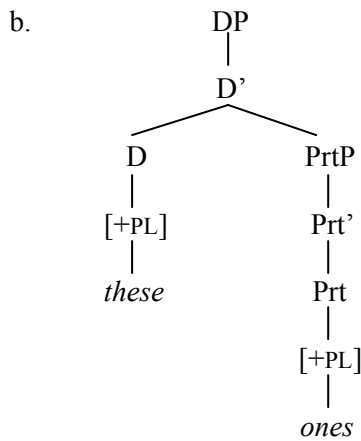
In (35), *one* is in Prt° (“partitivity”) and there is movement of *small* to Prt° in order to be merged with *one*. In (36), there is no PrtP since the elided noun, *wine*, is a mass noun (partitivity is only possible in combination with count nouns). As a consequence, there is also no NumP since this is also not combinable with mass nouns either. For the licensing of elided noun structures this does not seem to be a problem though: even if Num° and Prt° cannot be overtly expressed, the elided noun can be licensed (and this is, in the lack of NumP and PrtP , the only possibility to do so).

After having consulted several native speakers of (British) English, the constructions *these ones* and *those ones* seem to be fully grammatical, at least in British English (but also in Canada and Australia). It should be noted that this argues against Barbiers’ (2005) judgments. Therefore, the structures of (37a) and (38a) should be as in (37b) and (38b) respectively:

(37) a. these new ones



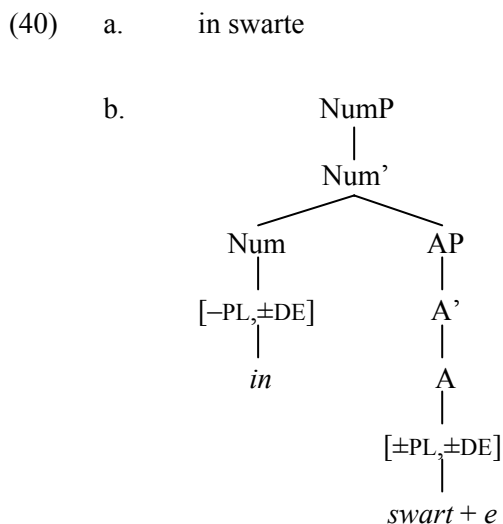
(38) a. these ones



In Frisian, the situation is more complex, since there are actually three possible forms, as already discussed in chapter 5 with respect to Corver & Van Koppen's (2011) account:

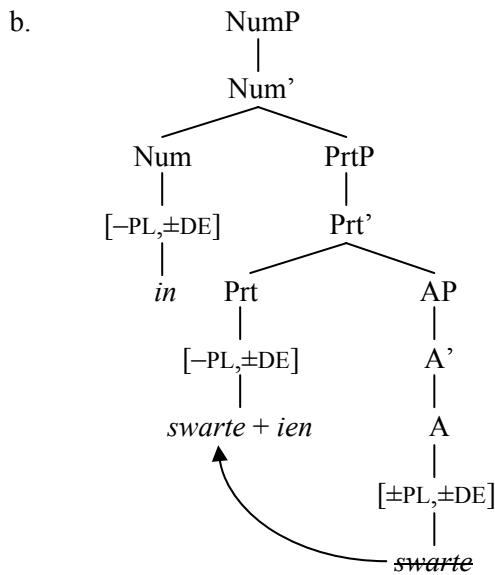
- (39) a. in swarte
 a black-e
 'a black one'
 b. in swarten
 a black-en
 c. in swarten ien
 a black-en one

As the Frisian "NPE" system falls between that of Dutch and English, the proposal seems to be justified that Frisian can make use of both the Dutch and English system, as in (39a) and (c) respectively. The structure of (39a) would then be as in (40), in line with (25b'):



The structure of (39c) would be as in (41), in line with (25a'):

- (41) a. in swarten ien



The pattern that emerges is *in swarte ien*. This is the point where phonology comes into play, as the insertion of *-n* after *swarte* makes the construction better pronounceable: *in swarten ien* (note that in English, this problem does not exist since *one* is pronounced as [wʌn] and, as a consequence, there is no clash of vowel sounds).

Although I do not have a profound solution for the construction in (39b), leaving room for future research, I think the optionality of *ien* in Frisian has to do with the fact that this language also has the Dutch variant to its disposal: *in swarte*. As *in swarte* can perfectly license an elided noun (as in Dutch *een zwarte*), *ien* can be deleted after movement of *swarte* to Prt° . The *-n* after *swarte* would then be stranded.

6.6. Conclusion

In this chapter, it was shown that the new proposal, i.e. the analysis of “NPE” without an NP-complement, accounts for German and Dutch in a proper way, but also extends to English and Frisian, although in English, atom/partitivity should be made visible (if possible), whereas in Frisian, there appear to be two possible constructions (the Dutch variant and the English alternative). With respect to the new proposal, Olsen’s (1991) account seems to work best, since Roehrs (2006) doesn’t explain as to why elements that can show strong endings should agree in the licensing of e_N .

Olsen’s notion of phi-features and agreement is very helpful with respect to the assumption that in German, D has to agree visibly with its NP-complement (e.g. *dein Buch* ‘your book’) and the DP that replaces the whole latter construction (*deines* ‘yours’) has to agree visibly as well (this also counts for APs). In Dutch, only D and NP have to agree (partly inherently) (e.g. *dit boek* ‘this book’), whereas the replacement DP (*deze* ‘this (one)’) is fully autonomous and can replace all “elided” nouns.

That does even count for the autonomous AP *zwarte* ‘black (one)’. The above follows directly from the fact that agreement should always be made visible in German and that in this language, there is a wider range of agreement suffixes (and the number of features to be specified) than in Dutch.

Finally, it was shown in this chapter that the implementation of a Focus projection in the explanation of the licensing of “NPE”, as in Corver & Van Koppen’s (2009) proposal, would not seem to be necessary (“NPE” can convincingly be explained without a separate Focus projection). Within “NPE”, Focus can in fact be read off from the structure directly, as seen in the analyses of prosodic tree structure in Reinhart (1995, 2006), Neeleman & Reinhart (1998), Szendrői (2001) and Slioussar (2007). These proposals all show that the prosodic structure in “NPE” is in line with the NSR in a very clear way.

Notes

1. There are also other names for these split DPs: “split topicalization” (cf. Van Riemsdijk 1989) and “split topic” (cf. Diesing 1992).
2. Even numerals like *vier* ‘four’ can show reemergence, but, unlike *ein*-words and adjectives, they have an optional (dialectal) ending when stranded (examples taken from Roehrs 2006: 265):
 - (i) a. Es sind vier(*e) Studenten gekommen.
there are four students come
‘Four students have come.’
 - b. Studenten sind nur vier(e) gekommen.
students are only four come
3. e_N has to be licensed semantically as well. If one argues that determiner is of the type $\langle\langle e, t \rangle, e \rangle$ in the line of Heim & Kratzer (1998) (“a function that takes a predicate as its argument and returns an entity”) and e_N is an empty predicate of the type $\langle e, t \rangle$, as Roehrs (2006) assumes, then the predicative NP *Hemd* ‘shirt’ and e_N are of the same semantic type: $\langle e, t \rangle$. In such a way, a semantic anaphoric relation holds between e_N and its antecedent. This preceding element then identifies the content of e_N (leading to interpretability of e_N).
4. Although Roehrs (2006) assumes the sentences (3a) and (b) to be fully grammatical, they are not acceptable for all native speakers of German. The examples become more convincing when a genuine mass noun like *Brot* ‘bread’ is being used.
5. It should be noted that the example in (7b) is grammatical when it contains an overt element (example from Roehrs 2006: 288 fn. 21):
 - (i) a. Hemden habe ich immer nur [_{DP} **die** e_N meines Vaters] getragen.
shirts have I always only the (one) of my father worn
 - b. Hemden habe ich immer nur [**die bunten** e_N meines Vaters] getragen.
shirts have I always only the colored (ones) of my father worn
6. A declinable entry is a lexical entry that is fully declinable in case, number and gender.
7. If the [+PLURAL] adjective in Dutch refers to a [+PLURAL,+HUMAN] entity which has not been introduced in the context before, the adjective should receive an (exceptional) *en*-suffix (instead of an *e*-suffix), as in the example below. However, I regard this as a matter within the domain of orthography:

- (i) De *meeste/meesten weten niets van filosofie. [standard Dutch]
the most-*e*/most-*en* know nothing from philosophy
'Most people don't know anything about philosophy.'

8. It is important to note that these labels do not imply any degree of prosodic prominence nor any reference to phonetic interpretation *per se*; only the structure as a whole does.

7 Conclusion

The aim of the investigation in this thesis was to provide a profound explanatory analysis of NPE in German.

Previous accounts of NPE are elision and pronominalization. The first elision substrategy (elision licensed by morphological features) appeared to be the only quite useful strategy in explaining NPE in German; the other two elision strategies (elision licensed by information-structural features and by classifiers) don't work well for German as they are too language-specific: with respect to Focus it isn't clear by which of the many German agreement suffixes Foc° should be filled; with respect to classifiers it is not at all clear how the distribution of the inflectional agreement in German should be arranged. The pronominalization strategy appeared to be without problems neither. As in German, an overt *one*-element is absent, a pronominalization account as the one proposed by Corver & Van Koppen (2011) loses its justification in being too language-specific (covering English and Frisian only). The decompositional (or "complex") analysis, which unifies the elision and pronominalization strategy, seems to be even impossible as the haplology their proposal is based on cannot apply to German (this lies in the fact that in Dutch, agreement suffixes consist of a single element/vowel, whereas in German, they consist of two elements and are thus more complex).

Since all these previous accounts don't seem to be (very) explanatory regarding German, I have to reject them either completely (which counts for the elision substrategies 2 and 3, and the pronominalization strategy) or partially (which counts for elision substrategy 1).

It was hypothesized, with respect to NPE in German, that remnants can best be analyzed as DPs and APs without an NP-complement position, making use of Olsen's (1991) account (i.e., her notion of phi-features and agreement) as Roehrs (2006), in his discussion of the NPE related split DPs, doesn't explain why elements that can show strong morphology should agree in the licensing of NPE. It was shown in chapter 6 that it is indeed the case that remnants (determiners and adjectives) must be accounted for as independent forms, showing morphological agreement if that is needed in a particular language (it was noted that German differs from Dutch at this point). Concretely, the above means that in German, D has to agree visibly with its relevant NP-complement and the DP that replaces the whole construction also has to agree visibly (this counts for APs as well). In Dutch, the licensing of "NPE" is different as only D and NP have to agree in full DPs (partly inherently), while the replacement DP appears to be fully autonomous and can replace all nouns (even plural ones). The same applies also to APs. It can therefore be concluded that agreement should be made visible in German as much as

possible and that this language has a wider range of agreement suffixes and visible features than Dutch. The use of the bare (i.e., “uninflected”) adjective in combination with contrastive focus seemed to be problematic, but this difficulty can be “solved” quite easily if one assumes that in Dutch, the use of bare adjectives with respect to “NPE” is ungrammatical.

As Focus plays a rather significant role in some of the previous accounts of NPE in the literature (cf. Corver & Van Koppen’s 2006, 2009 and Alexiadou & Gengel’s 2008 accounts in chapter 4), it was included in the new proposal in such a way that the postulation of a(n) (extra) FocP projection turned out to be unnecessary (although it should be noted that such a postulation can be completely justified in other structures, rendering Corver & Van Koppen’s (2009) account plausible for Dutch). If “NPE” constructions are analyzed as independent forms without an NP-complement projection, Focus can be deduced from central claims within metrical phonology, i.e., it can be read off from the prosodic structure directly (cf. Chomsky & Hale 1968, Liberman & Prince 1979, Reinhart 1995, 2006, Neeleman & Reinhart 1998 and Szendrői 2001). Its basic idea lies in the alternation of strong and weak branching nodes.

A convenient outcome of the new proposal is the insight that the analysis of “NPE” constructions without an NP-complement extends to English and Frisian as well.

In English, the feature [ATOM/PARTITIVITY] (cf. Barbiers 2006) needs to be made visible (if possible). With respect to mass nouns, there is no PrtP or NumP in the structure (as mass nouns aren’t countable and, as a consequence, not combinable with indefinite articles), yet the relevant “elided” noun can perfectly be licensed, since atom/partitivity is not a necessary condition for the licensing of “NPE” in English (generating the whole “NPE” structure without *one* seems to be the only remaining possibility). In such a way, the “NPE” constructions containing mass nouns can be accounted for in the new analysis, although they seemed to falsify the hypothesis at first. Two other problematic constructions, *these ones* and *those ones*, can be “solved” as well, as they are assumed to be fully grammatical (at least in British, Canadian and Australian English), contra Barbiers’ (2005) judgments.

In Frisian, two possible “NPE” constructions appear to be available: the Dutch variant and the English variant. Especially the optionality of the overt *ien*-element in the English variant (which is similar to the element *one*) remains problematic as optionality, from a linguistic point of view, is explanatorily difficult. (It might be so that *ien*, after movement to Prt can be omitted (the phonological *n* being stranded) as Frisian has also the Dutch “NPE” variant to its disposal.)

There are some cases of “NPE” in English which, due to lack of space, are left for future research. They fall apart in (i) instantiations with optional *one*, comparable to Frisian, as in the examples (1), (2) and (3) below (taken from Corver & Van Koppen (2009: 5), Sleeman (1996: 51) and Kayne (2003: 222) respectively) and (ii) instantiations without *one*, as in the vocative examples in (4) (adopted from Corver & Van Koppen 2009: 15 fn. 15):

- (1) a. You will get the smallest (one). (e.g. the smallest car) (use of optional *one(s)*)
 b. You will get the small *(one). (e.g. the small car)
- (2) (Of these boys,) I prefer the eldest (one). (use of optional *one(s)*)
- (3) a. big cars; big ones; *big
 b. other cars; other ones; others (use of optional *one(s)*)
- (4) a. Hey, gorgeous (*one!) (improper use of *one(s)*)
 b. Hey, pretty (*one!)
 c. Hey, handsome (*one!)
 d. Hey, stupid (*one!)

These sentences might not be easy to capture since they don't seem to be related to atom/partitivity in the sense of Barbiers (2006): in all the examples above, the relevant "elided" nouns refer to countable entities (either persons or objects) and, therefore, the "solution", as it seems to be, has to be found within subsequent investigation of the phenomenon in question (recalling that, in "NPE" constructions, countable entities are usually accompanied by the element *one(s)*).

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