

## NPE, gender and the countable/mass distinction

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### Abstract

The main purpose of this paper is to present arguments for the existence of a certain relation between formal gender features and the semantic notions ‘count noun’ and ‘mass noun’. In particular, facts relating to how NP ellipsis operates in indefinite DPs in Dutch and Afrikaans are taken to provide evidence for the proposed relation.

**Keywords:** NP ellipsis, gender, countability, Dutch, Afrikaans

### 1. Introduction

This article explores a certain way of understanding the patterns emerging in Dutch and Afrikaans when NP ellipsis (NPE) applies in an indefinite singular noun phrase. NPE in definite and plural noun phrases will be left completely out of the picture here.

The motivation for concentrating on indefinite singular noun phrases is that the outcome of applying NPE in such phrases is determined by an interplay between grammatical gender and countability, suggesting a certain relation between gender and countability.

### 2. The issues

I begin by giving an outline of the issues I’ll focus on. I will also identify some criteria that any successful analysis should meet.

#### 2.1. Issue 1: NPE and gender change

In Dutch, adjectives modifying a singular common gender (C.SG) noun in an indefinite noun phrase have the agreement marker *-e* (a schwa):

- (1) Dutch C.SG N:  
*een A-e N*

NPE may wipe out the noun leaving *een A-e N̄* (where N̄ represents an N that NPE has applied to):

- (2) Dutch common gender singular under NPE:  
*een A-e N* → *een A-e N*

The example in (3) from Corver and van Koppen (2011) illustrates this:

- (3) *Jan heeft een witt- e hond gekocht en Marie heeft een zwart-e gekocht.*  
 Jan has a white-E dog bought and Marie has a black-E bought  
 “Jan has bought a white dog, and Marie bought a black one.”

An adjective modifying a singular neuter gender (N.SG) noun, has no ending in indefinite noun phrases:

- (4) Dutch N.SG N:  
*een A-Ø N*

But when a N.SG noun is elided in an indefinite noun phrase, most speakers only accept the outcome, if the adjective has *-e* attached to it:<sup>1</sup>

- (5) Dutch neuter singular under NPE:  
*een A-Ø N* → *een A-e N* with *N* = N.SG

This is seen in another example from Corver and van Koppen:

- (6) *Jan heeft een wit konijn gekocht en Marie heeft een zwart-e gekocht.*  
 Jan has a white rabbit bought and Marie has a black-E bought  
 “Jan has bought a white rabbit, and Marie bought a black one.”

The unexpected *-e* in (5) cannot occur without a preceding adjective, and it spreads to higher adjectives, just like the regular c.sg *-e*, which gives it the appearance of a reflex of gender change:

- (7) Dutch neuter singular under NPE:  
*een A-Ø A-Ø N* → *een A-e A-e N*

(8) illustrates this:

- (8) *Jan heeft een groot wit konijn gekocht en Marie heeft een klein-e zwart-e gekocht.*  
 Jan has a big white rabbit bought and Marie has a small-E black-E bought  
 “Jan has bought a big white rabbit, and Marie bought a small black one.”

Afrikaans does not have grammatical gender, and whether or not a modifying adjective has the suffix *-e* generally depends only on phonological properties of the adjective like those in (9):<sup>2</sup>

<sup>1</sup> Corver and van Koppen (2006) observe that strong contrastive focus on the A in (4) allows the *-e* not to appear. I will not try to account for this here.

<sup>2</sup> But this *-e* only occurs on adjectives modifying a noun. This suggests that the *-e* in (7) and (8) actually spells out a head on the nominal extended projection line, e.g. the X in whose Spec the AP is merged on the analysis of adnominal adjectives in Cinque (1994).

- (9) A-*e* licensed by phonology:  
 (a) the A ends in *d, g, f, s*: *droog* “dry” → *dro-ë*  
 (b) the A is polysyllabic: *ewig* “eternal” → *ewig-e*

In addition, there is also an “emotiewe (emotional) -*e*” imposing a high degree reading on the adjective:<sup>3</sup>

- (10) A-*e* licensed by a high degree reading:  
*‘n lang vergadering* “a long meeting” → *‘n lang-e vergadering* “a very long meeting”  
 (see Combrink 1990: chapter 17; Donaldson 1993)

But when NPE applies, the lowest adjective must have the suffix -*e*, even when it wouldn’t have it when followed by an overt noun:

- (11) a. *‘n groot hond*  
 a big dog  
 “a big dog”  
 . b. *‘n grot-e*  
 a big-E  
 “a big one”

But this -*e* doesn’t spread to higher adjectives:

- (12) NPE in Afrikaans with As that don’t have -*e* when followed by an overt N:  
 a. *‘n A-Ø N* → *‘n A-e N*  
 . b. *‘n A-Ø A-Ø N* → *‘n A-Ø A-e N*

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<sup>3</sup> In the Norwegian dialect spoken in Senja, a high degree reading of the adjective also licenses -*e* in indefinite singular noun phrases where -*e* otherwise never occurs on adjectives:

- (i) a. *ei snill jenta* (Senja Norwegian)  
 a.F nice girl  
 “a nice girl”  
 b. *ei snill-e jenta*  
 a.F nice-E girl  
 “a very nice girl”

When the modified noun has neuter gender, -*t* is always suffixed to the adjective in indefinite singular noun phrases, and this -*t* cannot co-occur with the “high degree -*e*” suggesting that both this -*e* and the neuter -*t* may spell out the X whose Spec hosts the AP:

- (ii) a. *et stort hus* (Senja Norwegian)  
 a.N big-T house  
 b. *\*et storte/ storet hus*  
 a.N big-T-E/big-E-T house  
 intended: “a very big house”

This *-e* also doesn't co-occur with a following *een*, although the *-e* of (9)-(10) does:

- (13) *een*-substitution in Afrikaans:  
'n A-Ø *een*, except when the A requires *-e* by (9)-(10)

An account of the apparent gender change under NPE in Dutch must achieve the following:

- (14) Success criteria for an account of Dutch gender change:
- a. prevent gender change from occurring when an adjective precedes an overt N.SG noun or *een* "one" "substituting" for a N.SG noun
  - b. make gender change necessary when NPE applies to a N.SG noun in an indefinite noun phrase

An account of the unexpected *-e* emerging under NPE in Afrikaans must meet similar criteria:

- (15) Success criteria for an account of the unexpected *-e* in Afrikaans :
- a. prevent this *-e* from occurring when an adjective precedes an overt noun or *een* "one" "substituting" for a noun
  - b. make the *-e* necessary when NPE applies to a noun following an adjective

In addition, a successful analysis should arguably identify the force driving gender change with NPE in Dutch with the force imposing the unexpected *-e* on the adjective preceding the elided noun in in gender-less Afrikaans, since the unexpected *-e* in Afrikaans and the Dutch *-e* emerging under gender change have similar distributional properties: both must be directly adjacent to an adjective and only occur in conjunction with NPE. We note at the outset that the similarity between the unexpected *-e* in Dutch and its counterpart in Afrikaans indicates that a unified analysis is unlikely to involve actual gender change precisely because Afrikaans is gender-less.<sup>4</sup>

## 2.2. Issue 2: NPE and the count/mass distinction

In Dutch, eliding an indefinite common gender mass noun gives a result that seems perfectly fine to most speakers, i.e. A-*e* \_\_\_:

- (16) *Jan heeft rode wijn gekocht en Marie heeft witt- e gekocht.*  
Jan has red wine bought and Marie has white-E bought  
"Jan has bought red wine, and Marie bought white."
- (17) Dutch common gender mass noun under NPE:  
A-*e* N → A-*e* N

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<sup>4</sup> The following account of the unexpected *-e* in Afrikaans will also fail to provide a unified analysis: suppose adnominal adjectives are always followed by *-e* (in the head whose Spec hosts the AP), but this *-e* is eventually erased when followed by an overt AP or NP except when the conditions described in (9) and (10) are satisfied. Then, *-e* would automatically surface on the final adjective under NPE. But this account cannot easily be extended to adjectives modifying neuter nouns in Dutch, since the unexpected *-e* in Dutch spreads to higher adjectives. Also, it doesn't capture the count/mass distinction described in the following section.

But a neuter mass noun cannot be elided, i.e. both A-*e* N and A-∅ N are ungrammatical in this case:

- (18) \**Jan heeft koud water gedronken en Marie heeft warm(-e) gedronken.*  
 Jan has cold water drunk and Marie has warm -E drunk  
 “Jan has drunk cold water, and Marie drank warm.”
- (19) Dutch neuter mass noun under NPE: no grammatical outcome:  
 \*A-∅ N, \*A-*e* N-with N = neuter mass

In Afrikaans, no mass noun can be elided. Both A-*e* N and A-∅ N are ungrammatical in this case:<sup>5</sup>

- (20) \**Jan het rooi wyn gekoop en Marie het wit(-e) gekoop.*  
 Jan has red wine bought and Marie has white bought  
 “Jan has bought red wine, and Marie bought white.”
- (21) Mass nouns under NPE in Afrikaans: no grammatical outcome:  
 \*A-∅ N, \*A-*e* N with N = mass

An account of this count/mass contrast in Dutch must achieve the following:

- (22) Success criteria for an account of the count/mass contrast:
- a. explain why NPE cannot apply to indefinite neuter mass nouns in Dutch, although it can apply to common gender mass nouns
  - b. explain why NPE cannot apply to any mass nouns in Afrikaans
  - c. identify a property shared by mass nouns in Afrikaans and neuter mass nouns in Dutch that NPE is sensitive to.

### 3. Gender and the count/mass distinction

The following outlines the analysis I will pursue. Several important questions will be left open until the following sections, including exactly how the -*e* on the A is involved in licensing NPE, an issue I essentially sidestep in this section.

#### 3.1. The core of a proposal

Suppose that NPE (without post-adjectival *een*) in an indefinite singular noun phrase in both Dutch and Afrikaans requires the lowest adjective to be associated with Agr holding a certain feature F (spelled out by -*e*):<sup>6</sup>

- (23) ... [ AP [ [Agr F ] NP

<sup>5</sup> This contrast between count nouns and mass nouns seems quite unexpected if the -*e* licensing NPE is a focus head as in Corver and van Koppen (2006).

<sup>6</sup> This assumption is made here for ease of exposition and will be radically modified in the next section.

This would be similar to Kester's (1996) proposal that English *a big \*(one)* is due to English lacking adjectival inflection.

In Dutch, this feature F is licensed either when the elided noun is classified as common gender or when it is countable, i.e. the features [common gender] and [count] are equivalent with respect to licensing of Agr = F = -e. "Gender change" reflects this, as does the impossibility of applying NPE to neuter mass nouns.

(24) Dutch common gender nouns under NPE:

- a. N is a count noun: [Agr F] [~~N-common~~]
- b. N is a mass noun: [Agr F] [~~N-common~~]

(25) Dutch neuter nouns under NPE:

- a. N is a count noun: [Agr F] [~~N-count~~]
- b. N is a mass noun: \* [Agr F] [~~N-mass~~]

Afrikaans doesn't have grammatical gender, and therefore adjectival Agr with the feature F can only be licensed by [count], i.e. countable singular nouns can be elided, but not mass nouns:<sup>7</sup>

(26) Afrikaans nouns under NPE:

- a. N is a count noun: [Agr F] [~~N-count~~]
- b. N is a mass noun: \* [Agr F] [~~N-mass~~]

From this point of view, the semantic feature [count] comes out as an interpretable counterpart of the grammatical gender feature [common gender] in a way similar to the relation between referential number and gender in Harbour's (2007) treatment of noun classes in Kiowa:<sup>8</sup>

<sup>7</sup> Taking NPE to be licensed by [count] on F is similar to Alexiadou and Gengel's (2012) proposal that NPE is licensed by classifiers, assuming classifiers to be [count]. However, as argued in the text, this is compatible with NPE applying to common gender mass nouns only if we also assume a degree of equivalence between [count] and the gender feature [common].

<sup>8</sup> In Kiowa, the appearance of inverse marking on nouns and agreement inflection is conditioned by two factors: noun class and whether the noun is interpreted as a singular, a dual or a plural. Harbour accounts for this by associating the noun classes with different number features such as [+singular], [-augmented] etc. When associated with nouns (by appearing on Class, a nominal functional head), these features are uninterpretable in the sense that a noun in the class associated with [+singular] can perfectly well be interpreted as a dual or a plural. The interpretation is uniquely determined by interpretable number features on the node Num. But the distribution of inverse marking is captured by a feature matching algorithm that doesn't distinguish between interpretable and uninterpretable number features.

- (27) The NPE-licensing F on adjectival Agr:
- a. In Dutch, F = uninterpretable [count] = [common gender] and is licensed both by uninterpretable [count] and by interpretable [count]
  - b. In Afrikaans, F = interpretable [count]

In the next two subsections, I provide evidence from two other Germanic languages supporting the contention that common gender should be viewed as uninterpretable [count].<sup>9</sup>

### 3.2. Gender and count/mass in West Jutlandic

The West Jutlandic variety of Danish, like Afrikaans, doesn't have grammatical gender. But the inanimate demonstrative pronoun has two different singular forms: *den* "it", which matches the Standard Danish common gender form, is only used with a [count] denotation in West Jutlandic, while *det* "it", which matches the Standard Danish neuter, is only used with a mass denotation (Delsing 1993: 7):

- |                                  |                                     |
|----------------------------------|-------------------------------------|
| (28) Danish:                     | West Jutlandic                      |
| a. <i>d-en</i> N <sub>c.sg</sub> | a. <i>d-en</i> N <sub>[count]</sub> |
| b. <i>d-et</i> N <sub>n.sg</sub> | b. <i>d-et</i> N <sub>[mass]</sub>  |

We can view the correspondences between Danish and West Jutlandic as the result of uninterpretable [count] (= common gender) forms being reinterpreted as interpretable [count] when West Jutlandic lost grammatical gender.

In the transition from Dutch to Afrikaans, Afrikaans lost uninterpretable [count] (= common gender) and only interpretable [count] remains:

- |                                    |                                    |
|------------------------------------|------------------------------------|
| (29) Dutch:                        | Afrikaans:                         |
| a. <i>A-e</i> N <sub>c.sg</sub>    | a. <i>A-e</i> N <sub>[count]</sub> |
| b. <i>A-e</i> N <sub>[count]</sub> |                                    |

### 3.3. Gender and count/mass in Norwegian

In Norwegian, *noen* and *noe*, both roughly "some", only combine with plurals and mass nouns outside NPI contexts. *Noen* combines with plurals of any gender, and *noe* combines with mass nouns of any gender. But the inflection *-en* of *noen* matches the C.SG suffixed article on nouns, while the *-e* of *noe* corresponds to the suffixed N.SG definite article (written *-et*, but pronounced *-e*):

<sup>9</sup> The relation between grammatical gender and semantic properties like countability is also explored in Audring (2006, 2009) and elsewhere in the literature.

- (30) Norwegian:
- |                      |                     |                    |                      |
|----------------------|---------------------|--------------------|----------------------|
| <u>plural nouns:</u> |                     | <u>mass nouns:</u> |                      |
| definite sg:         | <i>noen/noe</i>     | definite sg:       | <i>noen/noe</i>      |
| <i>hus-e/*en</i>     | <i>no-en/*e hus</i> | <i>grøt-en/*-e</i> | <i>no-e/*en grøt</i> |
| house-N.SG/*C.SG     | some-C.SG/*N.SG     | porridge-C.SG/N.SG | some-N.SG/*C.SG      |
|                      |                     | porridge           | porridge             |
| “the house”          | “some houses”       | “the porridge”     | “some porridge”      |

In other words, the inflection of *noen* and *noe* is not determined by gender/number agreement with the accompanying noun, but rather by the countable/mass distinction:

- (31) Norwegian:
- |                          |                                      |
|--------------------------|--------------------------------------|
| definite nouns:          | <i>noen/noe:</i>                     |
| a. N <sub>c.sg</sub> -en | a. <i>no-en</i> N <sub>[count]</sub> |
| b. N <sub>n.sg</sub> -e  | b. <i>no-e</i> N <sub>[mass]</sub>   |

Although *noen* by itself can denote a single individual, it cannot combine with a singular count noun except in NPI environments:<sup>10</sup>

- (32) Norwegian “pronominal” *noen*:
- Noen banker på døren.*  
 somebody knocks on door.the  
 “Someone knocks on the door.”
- (33) Norwegian: *noen* outside NPI environments:
- a. *Hun spiste noe grøt.*  
 she ate some porridge  
 “She ate some porridge.”
- b. *Hun kjøpte noen bøker.*  
 she bought some books  
 “She bought some books.”
- c. \**Hun kjøpte noen/noe bok*  
 she bought some book

This would follow if *noen/noe* must modify a silent NUMBER or silent AMOUNT outside of NPI contexts:

- (34) a. *She ate an amount of porridge.*  
 b. *She bought a number of books.*  
 c. \**She bought a number/amount of book.*

<sup>10</sup> Rather, *noen* by itself may denote both singularities and pluralities, as the “indefinite plural” in the Italian *Bussano alla porta* “They are/Someone is knocking on the door.” (see Cinque 1988), but can only range over human beings.



This would also account for the fact that *-en* and *-e* are the singular forms of the article, and that the article doesn't agree in gender with the overt noun. Saying instead that *-en/-e* reflects agreement with the grammatical gender of the silent noun, however, runs up against the objection that the overt counterpart of NUMBER is in fact neuter and the overt counterpart of AMOUNT is common gender:

(35) Norwegian: the gender of overt *amount* and *number*:

- a. *Hun spiste en/ \*et mengde grøt.*  
 she ate a-C/\*N amount porridge  
 "She ate some porridge."
- b. *Hun kjøpte et/ \*en antall bøker.*  
 she bought a-N/\*C number books  
 "She bought a number of books."

This suggests that the silent nouns modified by *noen/noen* are not exactly silent counterparts of *amount* or *number*, but gender-less classifier-like nouns X and Y with meanings similar to *number* and *amount* such that X shares the interpretable feature [count] with *number*, but Y doesn't have this feature:

(36) Norwegian: *noen/noe* outside NPI environments:

- a. *no-en* [ X [NP *bøker*]] "some books"  
 | |  
 C.SG [+count]
- b. *no-e* [ Y [NP *grøt*]] "some porridge"  
 | |  
 N.SG [-count]

Since *noen/noe* combines with singular count nouns in NPI environments, there must be no X and Y in this case, and *noen/noe* modifies the overt noun directly:

(37) Norwegian: *noen/noe* in NPI environments:  
*no-en/e* NP

This correctly predicts that the alternation between *noen* and *noe* is controlled by the grammatical gender of the overt noun in NPI environments:<sup>11</sup>

(38) Norwegian: *noen/noe* with singular count nouns in NPI environments:

- a. *Hun kjøpte ikke noen bok.*  
 she bought not some book (C.SG)  
 "She didn't buy any book."

<sup>11</sup> The forms in (30) are the ones found in varieties with only two genders. In varieties with separate feminine gender forms, *no-* will combine with the feminine form of the suffixed article when combining with a feminine noun in NPI environments, e.g. *bok* 'book' in (38)a.

- b. *Hun kjøpte ikke noe hus.*  
 she bought not some house (N.SG)  
 “She didn’t buy any house.”

So, Norwegian *-en* = uninterpretable [count] = [common gender] licensed both by N = [common gender] and by N = interpretable [count] like the Dutch adjectival *-e*:

- |           |   |   |
|-----------|---|---|
| (39)      | Norwegian:                                  | Dutch:                                    |
| a. count: | <i>noen bok</i> <sub>common</sub>           | <i>een A-e N</i> <sub>common</sub>        |
| mass:     | <i>noen grøt</i> <sub>common</sub>          | <i>A-e N</i> <sub>common</sub>            |
| b. count: | <i>noen X</i> <sub>count</sub> <i>bøker</i> | <i>een A-e N</i> <sub>neuter, count</sub> |

#### 4. “Gender change” and NPE

The analysis sketched in the preceding section does not yet meet all the success criteria set up in section 2. In this section, I take a first step towards remedying this defect.

##### 4.1. Unexpected *-e* and its connection to NPE

The unresolved issue I need to address is this: Why does the apparent gender change seen in (5) only happen in conjunction with NPE?:

- (5) Dutch neuter singular under NPE:  
*een A-Ø N* → *een A-e N* with *N* = N.SG

That is, why is *-e* impossible in (40)?:

- (40) Dutch neuter singular with the N intact:  
*een A(\*-e) N* with *N* = N.SG

Similarly, why can a count noun not trigger the *-e* not licensed by phonology or a high degree reading in Afrikaans, except when it undergoes NPE?:

- (12) NPE in Afrikaans with As that don’t have *-e* when followed by an overt N:  
 a. ‘*n A-Ø N* → ‘*n A-e N*  
 b. ‘*n A-Ø A-Ø N* → ‘*n A-Ø A-e N*

- (13) *een*-substitution in Afrikaans:  
 ‘*n A-Ø een* except when the A requires *-e* by (9)-(10)

I’ll start by looking more closely at Afrikaans.

##### 4.2. Afrikaans *ene*

Afrikaans can have *ene* instead of *een* “one”, both when there is a preceding A and when there is none:

- (41) a. *'n groot en- e*  
a big one-E  
“a big one”
- b. *Piet het 'n hond gekoop en ek gaan ook en- e koop.*  
Piet has a dog bought and I go also one-E buy  
“Piet has bought a dog and I am going to buy one too.”

Elsewhere, *ene* looks like a determiner:

- (42) *en- e Jenny van Rooyen*  
one-E Jenny van Rooyen  
“one Jenny van Rooyen (i.e. someone called Jenny van Rooyen)”

Significantly, there is a property shared by *ene* and A-*e*. They can both host the diminutive suffix:

- (43) a. *'n mooi en- e- tjie*  
a pretty one-E-DIM  
“a pretty little one”
- b. *'n mooi-e- tjie*  
a pretty-E- DIM  
“a pretty one”
- c. \**'n mooi-e- tjie een*  
a pretty-E- DIM one

Notice that the ungrammaticality of (43c) tells us that the *-e* in (43a-b) isn't just an epenthetic vowel inserted for morpho-phonological reasons, but must be the same unexpected *-e* that emerges under NPE and therefore cannot be followed by *een*.

Notice also that diminutives cannot be formed from *een*. Compare (44a) and (44b):

- (44) a. \**'n mooi een-tjie*  
a pretty one- DIM
- b. *'n been -tjie*  
a leg/bone -DIM  
“a little leg/bone”

Since the phonological properties of *een* relevant to diminutive formation are the same as those of *been* “leg” (Donaldson 1993: 87), (44a) (and not (43a)) would be the expected form, if *een* could combine with the diminutive suffix at all. Thus, I conclude that there is a special morphosyntactic element *-e* which licenses diminutive formation both in (43a) and (43b). That is, the unexpected *-e* that appears on adjectives in conjunction with NPE in Afrikaans is the same *-e* as the final vowel of *ene*.

#### 4.4. Afrikaans *ene* formed by movement

To arrive at an analysis that identifies the final *-e* of Afrikaans *ene* with the unexpected *-e* on adjectives in Afrikaans, I suggest that both *een* and *ene* are composed of two distinct heads, as in (45), adapting a proposal by Corver and van Koppen (2011):

- (45) a. *een* = [ *e* [ *en*  
 b. *ene* = [ *en* [ *e* [ ~~*en*~~

Compare Kayne (2016: 4; emphasis mine):

*One* is to be understood as bimorphemic and in particular as ‘*wa+n*’, *wa* is the classifier and *-n* an indefinite article [footnote omitted]. The necessary pronunciation of the *n* of *one* even before a consonant, as opposed to the necessary dropping of the *n* of *an* before a consonant, might just be phonology. Or it might also be related to syntax, especially **if the order ‘classifier - indefinite article’ (*w + n*) [footnote omitted] is produced by leftward movement from a structure in which the indefinite article precedes the classifier.**

Endorsing the boldfaced suggestion at the end of this quote, I take *en* to be a classifier, but, like Corver and van Koppen (2011: 390), I diverge from Kayne by not analyzing *-e* as an indefinite article.<sup>12</sup> Remaining agnostic as to its exact nature, I will label it ‘*v*’ to indicate a functional head in the nominal spine obligatorily merged on top of the classifier *en*. As indicated in (45b), *ene* is formed by raising *en*, the classifier, to the Specifier-position of *-e*.

I also assume that the two heads *-e* and *en* are on the main extended projection line of the noun (deviating in this respect from the treatment of the *one* of *a black one* in Kayne 2015):

- (46) [<sub>VP</sub> *e* [<sub>CIP</sub> *en* [<sub>NP</sub> N ]]]

If head-movement inside an extended N-projection is excluded, as in Cinque’s (2005) account of Greenberg’s Universal 20, the movement that brings the classifier *en* to Spec-*e* must therefore carry N along. I will take it that the first step in the derivation has NP raising to Spec-*en*, and then either NP or [<sub>CIP</sub> NP [<sub>CIP</sub> *en* <NP>]] raises to Spec-*vP*, yielding (47a-b) (with traces/copies not shown):

- (47) a. [<sub>VP</sub> NP [<sub>VP</sub> *e* [<sub>CIP</sub> *en* ]]]  
 b. [<sub>VP</sub> [<sub>CIP</sub> NP [<sub>CIP</sub> *en* ]]] [<sub>VP</sub> *e* ]]

I will also assume that NP in Spec-CIP or Spec-*vP* cannot be pronounced, much as in a proposal by Kayne (2015: 10) for *a blue one*:

<sup>12</sup> One reason for this is that the diminutive suffix *-tjie* does not attach to indefinite articles, but does attach to *-e* as shown above. Since *een* as analyzed in (48a) also contains *e = n*, we must then assume that *-tjie* needs to be adjacent to the morpheme spelling out *v*, but cannot go inside the structure in (48a). In *beentjie* ‘small leg/bone’ *-tjie* is adjacent to the morpheme spelling out *v*, if the root *been* also spells out *v*, as will be suggested at the end of section 5.1.

- (48) a.  $een = [_{VP} \mathbf{NP} [_{VP} e [_{CIP} en ]]]$   
 b.  $ene = [_{VP} [_{CIP} \mathbf{NP} [_{CIP} en ]][_{VP} e ]]$

This is consistent with a more general hypothesis laid out in the following section: NPE is always the result of raising the NP to the Specifier position of a phase head.<sup>13</sup> At this point, I would only like to point out that in any analysis, NPE must be prevented from eliding the entire extended N-projection in Dutch, Afrikaans and English, e.g. *pancakes* cannot be elided in *I made pancakes*. On the proposal adopted here, this is because NPE can only occur if the N is moved to some Spec-X within the extended N- projection in these languages. But then the head X itself will be an overt residue if syntactic constituents can only remain unpronounced in a Spec-position. Notice, though, that this does not exclude the possibility that other languages have the option of “eliding” the entire N-projection by moving it to the Spec of a phase head on the verbal spine (an option even available in Germanic in so-called “topic drop” constructions).

#### 4.5. Movement across adjectives from Spec-*e*

On the assumptions just adopted, the fact that the presence of an adjective allows NPE to apply without *een* or *ene*, leads to the conclusion that adjectives make accessible a higher Spec-X and that movement to this position leads to NPE. I take this Spec-X to be higher than all adjectives. To answer the question how the unexpected *-e* following the adjective is related to the *e* of *ene*, I now propose that  $[_{CIP} \mathbf{NP} [_{CIP} en ]]$  subextracts from  $[_{VP}[_{CIP} \mathbf{NP} [_{CIP} en ]][_{VP} e ]]$  to reach the high Spec-X above the adjectives:

- (49)  $[ X [ A [_{VP}[_{CIP} \mathbf{NP} [_{CIP} en ]][_{VP} e ]]] ] \rightarrow [_{XP} [_{CIP} \mathbf{NP} [_{CIP} en-]] [_{XP} X [ A [_{VP} e ]]] ]$

Since a phrase in the relevant Spec-X is silent (just like a phrase in Spec-CIP), *en* will now be silent too, but the stranded *-e* will not be, and we can identify it with the unexpected *-e* that follows the last adjective under NPE in Afrikaans.

Taking the *-e* following the A in Afrikaans ‘*n A-e N*’ to arise this way immediately accounts for (13):

- (13) *een*-substitution in Afrikaans:  
 ‘*n A-Ø een* except when the A requires *-e* by (9)-(10)

Since *en* moves only as part of a constituent containing N, (50) is accounted for too:

- (50) no *-e* when the N remains intact:  
 \*‘*n A-e N* except when licensed by (9)-(10)

Thus, we both have a link between (43a) and (43b), and we can exclude (43c):

<sup>13</sup> On this more general hypothesis, it will remain puzzling that *en* is not also silent in (48b). I cannot avoid this problem by taking only *en* to be a phase head and replacing (48a) with  $[_{VP} e [_{CIP} \mathbf{NP} [_{CIP} en ]]]$ , since the account of Dutch gender change in section 5.2 will need *e* to be a phase head.

- (43) a. 'n *mooi ene-tjie*  
 b. 'n *mooi-e-tjie*  
 c. \*'n *mooi-e-tjie een*

In addition, we can account for the fact that adding the diminutive suffix imposes a [count] interpretation on mass nouns, by saying that *e* can only merge on top of the classifier *en*, noticing, however, that this makes it somewhat puzzling from the perspective of section 3 that the diminutive suffix also imposes neuter gender on the noun in Dutch and German.

But we still need to answer the following questions:

- (51) a. Why must *-e* be stranded when [  $\aleph$  [ *en* ] ] moves to Spec-X, i.e. why \*'n A- $\emptyset$  \_\_?  
 b. Why can a noun not move to Spec-XP above the adjectives without first combining with *en* and *-e*, again yielding \*'n A- $\emptyset$ \_\_?

## 5. Movement and NPE at phase edges

I will now explore a way of providing a common answer to the questions in (51), based on a specific assumption about the high Spec-XP above the adjectives. The emerging analysis will then provide a link back to the discussion in section 3, which led to equating common gender with uninterpretable [count].

### 5.1. Afrikaans

As already hinted, I follow Corver and van Koppen (2011) in adopting a proposal by Kayne (2006: 295):

- (52) a. At a given phase level, only the head and material in the c-command domain of the head can (and must) be spelled out.  
 b. At a given phase level, no material within (or adjoined to) a lower phase can be spelled out.
- (53) (52) is the only source of non-pronunciation (at least of elements that have a potential pronunciation). (see also Rizzi 2005, Cinque 2012).

In what follows, (53) will be as important as (52). This presupposes that *-e* and *en* are phase heads in (48):

- (48) a. *een* = [<sub>VP</sub>  $\aleph$  [<sub>VP</sub> *e* [<sub>CIP</sub> *en* ]]]  
 b. *ene* = [<sub>VP</sub> [<sub>CIP</sub>  $\aleph$  [<sub>CIP</sub> *en* ]]] [<sub>VP</sub> *e* ]]

It also presupposes that the movement in (49) takes [  $\aleph$  [ *en* ] ] to a phase edge, i.e. to a Spec-XP with X a phase head:

- (49) [<sub>XP</sub> X [ A [<sub>VP</sub> [<sub>CIP</sub>  $\aleph$  [<sub>CIP</sub> *en* ] ] [<sub>VP</sub> *e* ]]]] → [<sub>XP</sub> [<sub>CIP</sub>  $\aleph$  [<sub>CIP</sub> *en* ]]] [<sub>XP</sub> X [ A [<sub>VP</sub> *e* ]]]]

The question now is what licenses this movement. Suppose this movement is triggered by a feature [count] associated with X attracting a phrase endowed with same feature. Then, question (51a) may be answered as follows: [count] is associated with *en*, but not with *-e*:

$$(54) \quad \begin{array}{c} \text{[XP X [ A [vP [CIP NP [CIP en ] ] [vP e ] ] ] ]} \\ | \qquad \qquad \qquad | \\ \text{[count]} \qquad \qquad \text{[count]} \end{array}$$

If nouns are not associated with [count], i.e. if [count] is only associated with classifiers, it also follows that (55) is illicit, and we also have an answer to question (51b):

$$(55) \quad *[\text{XP X [ A [NP N ] ]}] \rightarrow [\text{XP NP [XP X [ A ] ]}]$$

That is, \*'n A-Ø \_\_, provided the CIP headed by *en* needs to start out as the complement of the *v e*.

The fact that no mass noun undergoes NPE in Afrikaans now follows from the fact that mass nouns cannot combine with the classifier *en* - or rather, cease being interpreted as mass nouns, if they do.

The proposal that the feature [count] on the X above the adjectives may induce movement should not entail that it forces movement, unless either this X itself can fail to be present or X need not have the feature [count]. Otherwise, Afrikaans could not have both (56a) and (56b), analyzed as in (57):

- (56) a. 'n A-*e* \_\_  
b. 'n A *en-e*

- (57) a. 'n [XP [~~CIP NP [CIP *en* ] ] X [ A [vP *e* ] ] ] (= (56)a)  
b. 'n [XP X [ A [vP [CIP NP [CIP *en* ] ] [vP *e* ] ] ] (= (56)b)~~

Presumably, there also cannot be an X needing a phrase with the feature [count] as its Specifier in noun phrases with an overt noun following the adjective.

Instead of saying that [count] on X triggers movement, we might even say that movement to Spec-XP need not be triggered, but since movement to Spec-XP involves merging a phrase with another phrase, labeling the outcome requires that the head of the phrase merged to XP shares some feature with X, as in Chomsky (2013); and [count] might be the only option, e.g. there might not be a feature [mass] or [-count]. Correspondingly, when this account is extended to Dutch in the next subsection, there should be no feature [neuter] (seen as uninterpretable [mass] or [-count]).

The question remains why *-e* only occurs with a preceding adjective, i.e. why (58), with the derivation in (59), is ungrammatical (with the intended meaning "... I shall buy one too"):<sup>14</sup>

<sup>14</sup> This is also a problem for Corver and van Koppen (2011), who analyze the *-e* as a clitic pronoun, an analysis which leaves unexplained why *-e* can only cliticize onto an A.

- (58) \**Piet het 'n hond gekoop en ek sal e ook koop.* (Afrikaans)  
 Piet has a dog bought and I shall e also buy

- (59)  $[_{XP} X [_{VP} [_{CIP} \mathbf{NP} [_{CIP} en ] ] [_{VP} e ] ] \rightarrow [_{XP} [_{CIP} \mathbf{NP} [_{CIP} en ] ] X [_{VP} e ] ]$

Either X selects for a ZP with an AP in its Spec, or anti-locality blocks the derivation in (59). That is, both the complement of X and the Spec of the complement of X might be too close to Spec-XP (as in Cinque 2005: 326).<sup>15</sup> On the first option, X may be related to the head whose Spec the NP moves to across, as in Romance and other languages according to Cinque (2005).

Returning to the claim that derivations like (55) are excluded because the interpretable feature [count] can only be associated with the classifier *en*, never with N itself, we must also face the consequence that every noun interpreted as a countable noun must start out embedded under *en*, even when the noun does not undergo NPE. As already hinted in footnote 12, I will take it that when the NP in  $[_{VP} v [_{CIP} Cl [_{NP} N ] ] ]$  does not raise as in the derivations leading to NPE, a noun lexicalizes the whole structure in accordance with Starke (2009) and subsequent work in Nanosyntax. That is, every noun has a lexical entry of the form  $N \leftrightarrow [_{VP} v [_{CIP} Cl [_{NP} N ] ] ]$ , which allows it to replace any constituent of  $[_{VP} v [_{CIP} Cl [_{NP} N ] ] ]$ , in accordance with the Superset Principle. When the NP raises, however, the resultant structure has no constituent containing *v* and *Cl* that matches a constituent of  $[_{VP} v [_{CIP} Cl [_{NP} N ] ] ]$ .

## 5.2. Dutch

In Dutch, a neuter singular noun seems to undergo gender change when NPE applies to it in an indefinite DP (see section 1.1):

- (5) Dutch neuter singular under NPE:  
*een A-Ø N* → *een A-e N* with  $N = N.SG$

But gender change only occurs in conjunction with NPE:

- (40) Dutch neuter singular with the N intact:  
*een A(\*-e) N* with  $N = N.SG$

This question can most easily be answered the same way as the question why Afrikaans disallows *A-e* preceding *een* or an undeleted N. That is, (5) has the same derivation as '*n A-e N*' in Afrikaans:<sup>16</sup>

- (49)  $[_{XP} X [ A [_{VP} [_{CIP} \mathbf{NP} [_{CIP} en ] ] [_{VP} e ] ] ] ] \rightarrow [_{XP} [_{CIP} \mathbf{NP} [_{CIP} en ] ] [_{XP} X [ A [_{VP} e ] ] ] ] ]$

<sup>15</sup> If so, however, the movement of NP to Spec-CIP and of  $[_{CIP} \mathbf{NP} [_{CIP} en ] ]$  to Spec-□P will presuppose covert heads between *e* and *en* and between *en* and N necessitating a weakening of the claim that silent elements must be in a Spec-position.

<sup>16</sup> As pointed out to me by Marjo van Koppen and a reviewer, Standard Dutch disallows *een A(-e) een*. The claim that (40) nevertheless is derived as in (49) then calls for an explanation why *een* cannot be left intact when there is a preceding A. This issue will be left unexplored here. Barbiers (2005) proposes an account for \**een A(-e) een* in Standard Dutch, but his proposal seems inconsistent with the fact that "*een*-substitution" is fine in Standard Dutch when there is no preceding A.





(64) No *ene* in Dutch:

\**een A-e ene* with  $\mathfrak{N} = \text{C.SG}$  or  $\text{N.SG}$

That is,  $[_{\text{CIP}} \mathfrak{NP} [_{\text{CIP}} \textit{en} ]]$  can move to Spec-vP in Dutch, but not stay there.<sup>19</sup>

### 5.3. Mass nouns, Interpretable [count] and uninterpretable [count]

In Dutch, a common gender mass noun can undergo NPE:

(65) *A-e N* with  $\mathfrak{N} = \text{c.mass}$

This, too, must reflect movement to the phase edge Spec-XP triggered by [count] associated with X, but then [count] must be uninterpretable on X in Dutch, i.e. equivalent to [common], since NPE doesn't shift the reading of a common gender mass noun to countable:

(66)  $[_{\text{XP}} \text{X} [_{\text{A}} [_{\text{NP}} \quad \rightarrow \quad [_{\text{XP}} \mathfrak{NP} [_{\text{XP}} \text{X} [_{\text{A}} ]]]]$   
           |          |  
       [common] [common]

Here, uninterpretable [count] on X attracts another instance of uninterpretable [count]. Since it also attracts interpretable [count], e.g. in (49), the cases where a C.SG count NP undergoes NPE would a priori be derivable in two ways:

(67) *een A-e N* with  $\mathfrak{N} = \text{C.SG}$

One derivation would run like (68), i.e. without the aid of *en* = interpretable [count]:

                  by agreement  
                   |  
 (68)  $[_{\text{XP}} \text{X} [_{\text{A-e}} [_{\text{NP}} \quad \rightarrow \quad [_{\text{XP}} \mathfrak{NP} [_{\text{XP}} \text{X} [_{\text{A-e}} ]]]]$   
           |          |  
       [common] [common]

The other derivation is shared with neuter count Ns, i.e. with the aid of *en* = interpretable [count]:

                  by agreement  
                   |  
 (69)  $[_{\text{XP}} \text{X} [_{\text{A-e}} [_{\text{VP}} [_{\text{CIP}} \mathfrak{NP} [_{\text{CIP}} \textit{en} ]]] [_{\text{VP}} \textit{e} ]]]] \rightarrow [_{\text{XP}} [_{\text{CIP}} \mathfrak{NP} [_{\text{CIP}} \textit{en} ]]] [_{\text{XP}} \text{X} [_{\text{A-e}} [_{\text{VP}} \textit{e} ]]]]$   
           |                                  |  
       [common]                          [count]  
           |                                  |  
       uninterpretable                  interpretable

<sup>19</sup> If Dutch allowed *ene* following an adjective, the analysis of gender shift proposed here would predict *-e* on the adjective by agreement with *en* in  $[_{\text{VP}} [_{\text{CIP}} \mathfrak{NP} [_{\text{CIP}} \textit{en} ]]] [_{\text{VP}} \textit{e} ]]$  with  $\mathfrak{N} = \text{N.SG}$ .

But if a N is interpreted as a count N only if it combines with the classifier *en* (the only element that bears the interpretable feature [count]) as suggested at the end of section 5.1, (68) is not available even with common gender count nouns.

Assuming that there is no interpretable or uninterpretable feature [mass] or [-count] that could appear on X, derivations like (68) and (69) are not available to neuter mass nouns, and (2) and (19) remain accounted for:

- (2) Dutch common gender singular under NPE:  
*een A-e N* → *een A-e N*
- (19) Dutch neuter mass noun under NPE: no grammatical outcome:  
 \*A-∅ N, \*A-e N-with N = neuter mass

From this point of view, the ∅ on adjectives modifying an indefinite N.SG noun in Dutch does not reflect gender agreement, but rather absence of agreement.

#### 5.4. Summary

Here is how the NPE patterns in indefinite singular noun phrases in Dutch and Afrikaans arise according to the analysis developed here:

(70) Dutch	Afrikaans
(I) <u>NPE licensed by N = [common]:</u>	
common gender mass nouns:	none
[ <sub>XP</sub> <del>NP</del> [ <sub>XP</sub> X [ A-e ]]	
(II) <u>NPE licensed by en = interpretable [count]:</u>	
N.SG and C.SG count nouns:	count nouns:
<i>een</i> [ <sub>XP</sub> [ <sub>CIP</sub> <del>NP</del> [ <sub>CIP</sub> <i>en</i> ]]] [ A-e [ <sub>VP</sub> <i>e</i> ]]	<i>'n</i> [ <sub>XP</sub> [ <sub>CIP</sub> <del>NP</del> [ <sub>CIP</sub> <i>en</i> ]]] [ A [ <sub>VP</sub> <i>e</i> ]]
(III) <u>no derivation leading to NPE:</u>	
neuter mass nouns	mass nouns

#### 6. Conclusion

The main point that I have tried to make, is that the gender feature [common] in Dutch must be seen as the uninterpretable counterpart of the semantic feature [count]. The advantage of this assumption is perhaps best illustrated by a comparison with Corver and van Koppen's (2011) proposal about the nature of the unexpected *-e* appearing on As modifying an elided N.SG N in Standard Dutch. Since an elided N must be licensed by overt gender/number inflection on the preceding A, and the preceding A has no overt gender/number inflection in indefinite singular

noun phrases with a neuter N, Corver and van Koppen take this *-e* to be a pronoun, and to account for the fact that the *-e* spreads to all As, they add that it must be a C.SG pronoun. But this raises two questions: Why should *-e* necessarily be a C.SG pronoun, even when it replaces a N.SG noun and has a N.SG antecedent? In effect, this looks essentially like real gender change. By contrast, the assumption that [common] is uninterpretable [count] avoids assuming gender change as shown in section 5.2., allowing us instead to take advantage of the fact that neuter nouns too may be countable.

Nor is the unexpected *-e* a pronoun in the analysis proposed here. Rather, it is a functional head in the nominal spine left behind when [<sub>ClP</sub> NP [<sub>Cl P</sub> en ]] moves to Spec-XP above all As, as in section 4.5. The assumption that the X providing this Spec-position can only be merged on top of As, then accounts for the fact that *-e* must be preceded by an A, a fact that seems problematic for Corver and van Koppen's analysis even if *-e* is analyzed as a clitic pronoun, as pointed out in footnote 14. Admittedly, though, the claim that X can only merge on top of As also needs to be anchored to general principles, perhaps along the lines suggested at the end of section 5.1.

Finally, Corver and van Koppen's analysis of the unexpected *-e* as a C.SG pronoun doesn't explain why it cannot appear when the elided N is a neutral gender mass noun except by way of stipulating that the pronoun *-e* also must have the interpretable feature [count]. But on the analysis proposed here, it follows automatically that *-e* will only emerge if merged above the classifier *en*, which has the interpretable feature [count] as an inherent property.

Needless to say, the rather sketchy analysis offered here comes with some loose ends which I can only hope can ultimately be tied up in a way consistent with the central ideas put forth in this article.

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