Pronominal inflection and NP ellipsis in German

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Abstract

Indefinite and posessive pronouns in German such as *ein-es* ('one') and *mein-er* ('mine') differ from their determiner counterparts in that they bear strong inflectional endings. Following Saab & Lipták (2016), I argue that this difference in inflection is due to NP ellipsis, which creates a 'stranded' affix that subsequently docks onto the determiner. Assuming that adjectives are re-attached by Local Dislocation allows us to account for the descriptive observation that the determiner and prominimal paradigms differ only in the three exceptional cases where determiners do not bear overt inflection. Furthermore, this analysis can also explain the similar emergence of strong inflection in German split-NP constructions as a standed affix configuration created by movement. Thus, we see that 'strong inflection' on determiners emerges a direct result of ellipsis, rather than constituting part of the licensing conditions on ellipsis (Lobeck 1995).

1 Introduction

Traditional grammars of German describe the fact that the inflectional forms of indefinite and possessive pronouns differ from the corresponding determiners. For example, indefinite articles do not inflect in three exceptional cases: masculine nominative (1a) and neuter nominative and accusative (1b, c).

(1)   a.   *Ein* Brief   ist für dich angekommen
               a-Ø letter.MASC is for you arrived
               'A letter arrived for you.'
    b.   Hans hat *ein* Pferd   bekommen
               Hans has a-Ø horse.NEUT received
               'Hans got a horse.'
    c.   Das ist *ein-Ø* Gebot
               that is a-Ø   commandment.NEUT
               'That is a commandment.'

However, the continuations of the above examples given in (2) show that pronominal forms of the relevant DPs differ from the determiners in that they must bear an overt inflectional ending.

(2)   a.   … und *ein-er*   für mich auch.
               and one-MASC.NOM for me   too
               '… and one for me too.'
    b.   … und Maria will   nun auch *ein-es*.
               and Maria wants now also one-NEUT.ACC
               '… and now Maria wants one too.'

    c.   … und zwar *ein-es*   der   wichtig-st-en.
        and in.fact one-NEUT.NOM the.GEN.PL important-SPRL-GEN.PL
        '… in fact one of the most important ones.'

One way to deal with this fact is to simply assume that pronominal forms are distinct elements which inflect following a different paradigm. The alternative view, taken by Lobeck (1995), is to analyze 'pronouns' such as the one in (2b) as a case of NP ellipsis (also cf. Roehrs 2006, Lechner 2014, Leu 2015:54, fn.19):

(3)   und Maria will nun ein*(-es) ⟨Pferd⟩

An obvious challenge for the ellipsis account is why the putative determiner is forced to surface with an inflectional ending that is impossible if the noun is present (4).

(4)   Ich habe ein(*-es)   Pferd
        I   have a-NEUT.ACC horse.NEUT

Lobeck takes this as evidence for the assumption that this inflection is actually required in order to license ellipsis of the noun (also see Bernstein 1993, Kester 1996*a*,*b*). In this paper, I pursue a different approach. Rather than view a certain kind of (strong) inflection as a pre-requisite for ellipsis, I follow Saab & Lipták (2016) in arguing that the emergence of this non-canonical inflection on determiners is a direct result of the interaction of ellipsis with other operations in the post-syntactic component.
In particular, I show that the pronominal paradigm differs from the relevant determiner paradigm with regard to three cells, the contexts without endings in (1). These three exceptional forms can be derived by adding the affix that would ordinarily surface on a following adjective to these three cells. Thus, the intuition behind the analysis is that the special inflection we find in NP ellipsis contexts is actually displaced adjectival inflection:

(5)   Ich habe ein neu-es   Auto und du hast auch ein-es   ⟨neu- Auto⟩.
        I   have a   new-ACC.NEUT car and you have also a-ACC.NEUT new car
        'I have a new car and you also have one.'

More concretely, I assume that adjectival inflection originates on a ϕP projection and this node is postsyntactically fused with either the adjective (6a) (resulting in inflectional morphology), or the *n* head if no adjective is present (6b) (resulting in null Spell-Out).

(6)   a.   [$_{\text{DP}}$ ein [$_{\phi\text{P}}$ [$_{\phi}$] [$_{n\text{P}}$ neu-es [$_{n\text{P}}$ *n* Auto]]]]

        b.   [$_{\text{DP}}$ ein [$_{\phi\text{P}}$ [$_{n\text{P}}$ *n*+ϕ Auto]]]

In ellipsis contexts, however, I assume that ellipsis can bleed this postsyntactic Lowering (Saab & Lipták 2016). Ellipsis applies early in the PF derivation (7a) and renders the *n*P inaccessible for further postsyntactic operations. As a result, Lowering of the ϕ node is blocked (7b). In order to deal with the ϕ head, the later operation of Local Dislocation applies to attach the suffix to the nearest, adjacent host (7c).

(7)   a.   [$_{\text{DP}}$ ein [$_{\phi\text{P}}$ [$_{\phi}$ -es] ⟨ [$_{n\text{P}}$ neu [$_{n\text{P}}$ *n* Auto]] ⟩]]   *(NP ellipsis)*
        b.   [$_{\text{DP}}$ ein [$_{\phi\text{P}}$ [$_{\phi}$ -es] ⟨ [$_{n\text{P}}$ neu-   [$_{n\text{P}}$ *n* Auto]] ⟩]]   *(Lowering)*

        c.   [$_{\text{DP}}$ ein-es [$_{\phi\text{P}}$ [$_{\phi}$] ⟨ [$_{n\text{P}}$ neu- [$_{n\text{P}}$ *n* Auto]] ⟩]]   *(Local Dislocation)*

Like the cases discussed by Saab & Lipták (2016), the exceptional morphology we find on determiners under NP ellipsis is the result of a 'stray affix filter' violation (Lasnik 1981, 1995). There are of course clear parallels to *do*-support here. In particular, we find the same emergence of strong inflection in 'split topicalization' (e.g. Fanselow 1988; Ott 2012). If the NP is fronted as in (8b), we observe that inflection on the determiner becomes obligatory, as with NP ellipsis. Analogous to *do*-support in English, the relevant stray affix configuration in the DP domain can be created by either movement or ellipsis.

(8)   a.   Ich habe k-ein(*-es)   Geld   mehr
                 I   have NEG-a-NEUT.ACC money.NEUT more
                 'I don't have any money left.'
      b.   Geld   habe ich k-ein*(-es)   __ mehr
                 money.NEUT have I   NEG-a-NEUT.ACC   more
                 'As for money, I don't have any left.'

The paper is structured as follows: Section 2 presents the core facts surrounding pronominal inflection in German. Section 3 presents the case for analyzing pronominal forms as instances of NP ellipsis and presents additional evidence for this claim based on relative clause selection (Brandt & Fuß 2014). Furthermore, the classic approach by Lobeck (1995), who assumes that strong agreement licenses ellipsis, is introduced. This is followed by discussion of the recent alternative proposal by Saab & Lipták (2016), who show that strong inflection can instead be viewed as a result of NP ellipsis, rather than a licensing factor. Section 4 demonstrates how an approach along the lines of Saab & Lipták's can derive the German facts, and Section 5 shows how this approach extends to similar NP ellipsis facts in Dutch, as well as to split topicalization in German. Finally, Section 6 concludes.

2   Nominal inflection in German

2.1   Strong vs. weak inflection

Broadly speaking, nominal inflection in German makes a distinction between so-called 'strong' and 'weak' inflectional endings (e.g. Milner & Milner 1972; Zwicky 1986; Gallmann 1996; Eisenberg 2000; Helbig & Buscha 2001; Müller 2002; Roehrs 2006, 2009, 2015; Corbett 2006; Roehrs & Julien 2012):

(9)   *Strong inflection (I):*

	MASC	FEM	NEUT	PL
NOM	-er	-e	-es	-e
ACC	-en	-e	-es	-e
DAT	-em	-er	-em	-er
GEN	-es	-er	-es	-er

(10)   *Weak inflection (II):*

	MASC	FEM	NEUT	PL
NOM	-e	-e	-e	-en
ACC	-e	-e	-e	-en
DAT	-en	-en	-en	-en
GEN	-en	-en	-en	-en

Bear adjectives are marked with strong endings as can be seen in (11).

(11)   a.   gut-er   Wein
                 good-MASC.NOM.I wine.MASC
                 'good wine'
      b.   Mit   gut-em   Wein
                 with good-MASC.DAT.I wine.MASC
                 'with good wine'

Furthermore, a class of determiners (including definite determiners such as *dies-* 'this', *jed-* 'every') also take strong endings.

(12)   *Definite determiner inflection*:

	Masc	Fem	Neut	Pl
Nom	dieser	diese	dieses	diese
Acc	diesen	diese	dieses	diese
Dat	diesem	dieser	diesem	diesen
Gen	dieses	dieser	dieses	diesen

Adjectives following this kind of determiner inflect according to the weak paradigm (13).

(13)   a.   d-er   gut-e   Wein
            the-MASC.NOM.I good-MASC.NOM.II wine.MASC
       b.   Mit dies-em   gut-en   Wein
            with this-MASC.DAT.I good-MASC.DAT.II wine.MASC
            'with this good wine'

There is another class of determiners that inflect differently, however. These are typically referred to as '*ein*-words' and include the indefinite article *ein-* and its negative counterpart *kein-*, as well as possessive determiners such as *mein-* 'my', *dein-* 'your' and *sein-* 'his' (the latter two cases seem to be morphologically derives from the former, see Roehrs 2009:148, fn.27). These do not bear an overt inflectional marker in three exceptional cases: masculine nominative and neuter nominative and accusative, as can be seen in (14) and (15) (cf. Durrell 1979:67, Lobeck 1995:103, Gallmann 2004:152, Leu 2008:58, Roehrs 2009:125).[1]

(14)   *Indefinite determiner inflection*:

	Masc	Fem	Neut
Nom	**ein**	eine	**ein**
Acc	einen	eine	**ein**
Dat	einem	einer	einem
Gen	eines	einer	eines

(15)   *Possessive determiner inflection*:

	Masc	Fem	Neut
Nom	**mein**	meine	**mein**
Acc	meinen	meine	**mein**
Dat	meinem	meiner	meinem
Gen	meines	meiner	meines

Furthermore, adjectives following this kind of determiner inflect following the so-called 'mixed' paradigm in (16).

(16)   *Mixed inflection (III)*:

	Masc	Fem	Neut	Pl
Nom	**-er**	-e	**-es**	-en
Acc	**-en**	-e	**-es**	-en
Dat	-en	-en	-en	-en
Gen	-en	-en	-en	-en

(17)   a.   Ein gut-er   Wein
            a-Ø good-NOM.MASC.III wine.MASC
       b.   Ein-e   schön-e   Frau
            a-NOM.FEM good-NOM.FEM.III wine.MASC

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[1] It still remains a controversial issue whether these three exceptional cases constitute a null weak inflection, or simply the lack of inflection altogether (see Roehrs 2009:138,fn.9 for references and discussion).

    c.   Ein brav-es   Mädchen
         a-Ø well.behaved-NOM.NEUT.III girl.NEUT

The mixed paradigm is essentially the weak paradigm with four cells from the strong paradigm added to it. Furthermore, notice that the exceptional cases in the mixed paradigm in (16) and the '*ein*-word' paradigm in (14) and (15) overlap.

2.2 Pronominal inflection

The pronominal forms for indefinites and possessives inflect according to different paradigms to their determiner equivalents (cf. Durrell 2002:90, Helbig & Buscha 2001:235, Duden 2009:950). Considering (19), it becomes clear that the indefinite pronoun forms differ from those for the indefinite article (18) with regard to three paradigm cells.

(18) *Indefinite article inflection*:

	MASC	FEM	NEUT
NOM	**ein**	eine	**ein**
ACC	einen	eine	**ein**
DAT	einem	einer	einem
GEN	eines	einer	eines

(19) *Indefinite pronoun inflection*:

	MASC	FEM	NEUT
NOM	**einer**	eine	**eines**
ACC	einen	eine	**eines**
DAT	einem	einer	einem
GEN	eines	einer	eines

This can be seen more clearer in the following examples:

(20)   Peter hat *ein* schön-es   Haus. Ich will auch so   *ein-es*.
       Peter has a-Ø beautiful-ACC.NEUT house I   want also such a-ACC.NEUT
       'Peter has a beautiful house. I want one like it.'

(21)   Ich dachte, dass ein Hund das Geräusch gemacht hat, aber da   war
       I   thought that a-Ø dog   the noise   made   has but there was
       k-ein-er.
       NEG-a-NOM.MASC
       'I thought that a dog made the noise, but there wasn't one there.'

The same is true for possessive pronouns (23), which have a different form to the corresponding possessive determiners (22). This is illustrated for first person possessives below.

(22) *Possessive determiner inflection*:

	MASC	FEM	NEUT
NOM	**mein**	meine	**mein**
ACC	meinen	meine	**mein**
DAT	meinem	meiner	meinem
GEN	meines	meiner	meines

(23) *Possessive pronoun inflection*:

	MASC	FEM	NEUT
NOM	**meiner**	meine	**meines**
ACC	meinen	meine	**meines**
DAT	meinem	meiner	meinem
GEN	meines	meiner	meines

(24)   a.   Das ist nicht dein   Buch, sondern mein Buch.
           that is not   your-Ø book but   my-Ø book
       b.   Das ist nicht dein   Buch, sondern mein-es.
           that is not   your-Ø book but   my-ACC.NEUT
           'That is not your book, it's mine.'   (Duden 2009:950)

(25)   *Ihr*   Freund ist verreist, *mein-er*   bleibt hier.
       her-Ø friend is left   my-NOM.MASC stays here
       'Her friend has left, mine is staying here.'   (Eisenberg 2000:163)

These exceptional prominal forms are also found in possessive constructions corresponding to the English *one of …*-construction:

(26) a. Das ist *ein-es*   von mein-en   Büch-ern.
         that is a-NOM.NEUT of   my-DAT.PL book-DAT.PL
         'That is one of my books.'
     b. Das ist *ein-er*   mein-er   Freund-e.
         that is a-NOM.MASC my-GEN.PL friend-PL
         'That is one of my friends.'   (Durrell 2002:91)

The question now is whether one can derive the relevant differences in the pronominal paradigm rather than simply re-state them. It is almost certainly not accidental that the three anomalous cells in the paradigm for possessive *ein*-words in (23) are the same as those with the exceptional null ending in the determiner paradigm (22). Furthermore, recall that adjectives following *ein*-words inflect according to a 'mixed' paradigm. In these cases, the cells in which we find strong forms also overlap with the cells that are exceptional in the determiner and pronominal paradigms. On a descriptive level, we can derive the forms of indefinite and possessive pronouns, by taking the three exceptional cases with null endings and adding to them the corresponding 'strong' endings from the adjectival paradigm. This is illustrated in Figure 1 below.

Indefinite article inflection:

	MASC	FEM	NEUT
NOM	**ein-**	eine	**ein-**
ACC	einen	eine	**ein-**
DAT	einem	einer	einem
GEN	eines	einer	eines

+

Mixed adjectival inflection:

	MASC	FEM	NEUT
NOM	**-er**	-e	**-es**
ACC	-en	-e	**-es**
DAT	-en	-en	-en
GEN	-en	-en	-en

⇒

Indefinite pronoun inflection:

	MASC	FEM	NEUT
NOM	**einer**	eine	**eines**
ACC	einen	eine	**eines**
DAT	einem	einer	einem
GEN	eines	einer	eines

Figure 1: Deriving the pronominal paradigm

The question at this juncture is how we can derive this. In other words, where does the adjectival inflection come from in prominal forms? One influential approach to this problem that was first pursued in the theoretical literature by Lobeck (1995) is to treat pronominal forms as instances of NP ellipsis such as (27).

(27) Ich habe ein neu-es   Auto und du hast ein alt-es   ⟨Auto⟩.
     I   have a   new-ACC.NEUT car   and you have a   old-ACC.NEUT car
     'I have a new car and you have an old one.'

On this view, an example such as (25) would be re-analyzed as containing an elided noun:

(28) *Ihr*   Freund ist verreist, *mein-er*   ⟨Freund⟩ bleibt hier.
     her-Ø friend is left   my-NOM.MASC friend   stays here
     'Her friend has left, mine is staying here.'

However, this assumption alone still offers no explanation for the exceptional inflection on the determiner, which is never possible with an overt noun complement (**meiner Freund*). Lobeck's answer to this was that morphology, in particular strong inflection, plays a central role in licensing ellipsis in cases such as (28). This is a claim that I will challenge in the remainder of this article. Instead, the analysis I propose involves the assumption that the syntactic projection hosting adjectival inflection (ϕP) is left stranded by ellipsis of the NP. When no adjective is present, ϕ would ordinarily fuse with *n* and be spelled out as null. However, NP ellipsis applies early enough to block this Lowering operation (29b). As a result, a later operation in the PF component attaches

the affixal head to the nearest available host, the determiner (29c). Once adjoined, this head is realized as a strong inflectional ending on the determiner (29d).

(29)   a.   [$_{DP}$ mein [$_{\phi P}$ ϕ ⟨ [$_{nP}$ *n* Freund] ⟩]]   (*NP ellipsis*)
       b.   [$_{DP}$ mein [$_{\phi P}$ ϕ ⟨ [$_{nP}$ *n* Freund] ⟩]]   (*Lowering blocked*)

       c.   [$_{DP}$ mein-ϕ [$_{\phi P}$ ⟨ [$_{nP}$ *n* Freund] ⟩]]   (*Local Dislocation*)

       d.   [$_{DP}$ mein-er [$_{\phi P}$ ⟨ [$_{nP}$ *n* Freund] ⟩]]   (ϕ *realized as strong inflection*)

A crucial aspect of the analysis is that Local Dislocation can only apply in cases where Lowering is bled by ellipsis. As will be shown in Section 4, there is an inherent phonological adjacency constraint on Local Dislocation (e.g. Embick & Noyer 2001; Embick 2007), which will result in this stranded affix only being able to attach to the determiners with null endings. This captures the fact that one can derive the pronominal paradigm by adding the relevant adjectival endings only to uninflected determiners, as shown in Figure 1.

Before this analysis is presented in detail, the following section first presents some evidence that pronominal forms involve ellipsis coming from relative clause selection. Subsequently, Lobeck's licensing approach is reviewed and discussed. Finally, I turn to the approach by Saab & Lipták (2016), who view inflection as a consequence, rather than a precondition for ellipsis. This is the view that the analysis of the German data will also follow.

3   Deriving pronominal forms from NP ellipsis

The fact that German pronominal forms resemble cases of NP ellipsis was first noticed by Lobeck (1995). As we have seen, indefinite determiners such as *ein* have null inflection (30a) in three exceptional cases, however when the noun complement of the determiner is missing, it shows obligatory strong inflection (30b).

(30)   a.   Ich sah viele ihr-er   Bücher und ein(*-es)   Buch war sehr teuer.
            I   saw many her.GEN.PL books   and one(*-NOM.NEUT) book was very expensive
       b.   Ich sah viele ihr-er   Bücher und ein*(-es)   ⟨Buch⟩ war sehr
            I   saw many her.GEN.PL books   and one*(-NOM.NEUT)   book was very
            teuer.
            expensive
            'I saw many of her books and one (book) was very expensive.'

                                                                                      (Lobeck 1995:119)

However, how can we be sure that pronominal forms actually involve NP ellipsis? There is in fact some compelling evidence from relative clause selection. In German, relative pronouns normally take the form of the definite determiner, agreeing in gender and number with the head noun.

(31)   a.   [$_{DP}$ Das Buch   [$_{CP}$ *das*   ich gestern   gelesen habe]]
            the book.NEUT.SG   that.NEUT.SG I   yesterday read   have
            'the book that I read yesterday'
       b.   [$_{DP}$ die Frau   [$_{CP}$ *die*   ich gestern getroffen habe]]
            the woman.FEM.SG   that.FEM.SG I   have   yesterday met
            'the woman that I met yesterday'

However, if the relative clause does not modify a DP containing lexical noun, then the relative operator takes the 'default' form *was* ('what') (Behaghel 1928; Brandt & Fuß 2014).² This can be seen with free relative clauses in (32), and also with relative clauses modifying quantifiers such as *alles* ('everything') (33a–c) and nominalized adjectives (33d). In all of these cases, the agreeing relative pronoun *das* is not possible.³

(32)   [CP Was / *das du gekocht hast] ist schimmlig
             what / *that you cooked have is mouldy
        'What you cooked is mouldy.'   (van Riemsdijk 2006:353)

(33)   a.   [DP Etwas   [CP was / *das ich gestern   gelesen habe]]
                   something   what *that I   yesterday read   have
               'something I read yesterday'
        b.   [DP Nichts [CP was / *das mir   Sorgen macht]]
                   nothing   what   *that me.DAT worries makes
               'nothing that worries me'
        c.   [DP Alles   [CP was / *das man über   die Linguistik wissen muss]]
                   everything   what *that one about the linguistics know   must
               'Everything you need to know about linguistics'
        d.   [DP das Beste [CP was / *das mir   jemals passiert   ist]]
                   the best   what *that me.DAT ever   happened is
               'The best thing that ever happened to me'

However, *was*-relatives cannot modify lexical nouns. Instead, they function as an elsewhere form if no lexical noun is present (Brandt & Fuß 2014, also cf. Fuß & Grewendorf 2014; Fuß to appear). Returning to examples such as (30b), we can now use relative clause selection as a diagnostic for whether a lexical noun is present or not. If *eines* were a simple pronominal form not involving ellipsis, then we would expect it to pattern with the cases in (33) in that it can be modified by a *was*-relative. It is quite straightforward to show that this is not the case using data from corpus and internet searches (cf. Brandt & Fuß 2014:312). In (34) and (35), we find the agreeing relative pronoun *das*, rather *was* (and indeed speakers report that *was* is ungrammatical in these cases).

(34)   Es war ein Foul, aber *k-ein-es*,   *das* mich heute noch stark   beeinträchtigt.⁴
        it was a-Ø foul but NEG-a-AGR that me   today still   strongly hinders
        'It was a foul, but not one that still really affects me today.'

(35)   Ein zu kleines Ziel ist *ein-es*, *das* Sie nicht fordert.⁵
        a-Ø too small   goal is a-AGR that you not   challenges
        'A goal that is too small is one that does not challenge you.'

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² Brandt & Fuß (2014:305) formulate the generalization made by Behaghel in the following way: '*Was* replaces *das* in relatives that lack a proper nominal antecedent'.

³Note that these words are grammatically neuter and can license neuter adjectival agreement (ia), as well as neuter pronouns (ib). Thus, we would in principle expect *das* to be a possible form for the relative pronoun.

(i)   a.   ein gewiss-es   Etwas   b.   Alles   hat seine   Zeit
              a-Ø certain-NEUT something   everything has its.NEUT time
              'a certain something'   'There is a time for everything.'

⁴URL: http://www.faz.net/aktuell/sport/zitate-des-tages-glanzstuecke-und-kapriolen-11636441/sagen-wir-es-mal-so-es-war-14110978.html [accessed 26.05.16]
⁵Oliver Kahn, *Ich. Erfolg kommt von innen* (2008, Riva Verlag)

With regard to relative clause selection, so-called *ein*-words pattern like DPs with a lexical noun, rather than pronominal quantifiers such as *alles* and *etwas*. This strongly suggests that an (elided) lexical noun is syntactically present:

(36)   … [$_{DP}$ [$_{DP}$ *ein-es* ⟨ [$_{NP}$ Ziel] ⟩] [$_{CP}$ *das* …]]

If what are traditionally taken to be pronominal forms are actually instances of NP ellipsis, then how do we explain the fact that the determiner surfaces with an inflectional ending that would never be possible with an overt noun complement? The correct generalization seems to be that this ellipsis is only possible if a 'strong' inflectional ending (such as *-er* or *-es*) is added to the determiner, even if this form would is not possible in non-elliptical contexts.

This necessity for strong inflection with NP ellipsis can also be seen with a particular class of adjectives. In German, a subset of colour-denoting adjectives, such as *lila* ('purple') and *rosa* ('pink'), allow for either null or strong adjectival inflection (also see Sleeman 1996; Ott 2012; Roehrs 2015; Saab & Lipták 2016) (37).

(37)   a.   ein lila   Kleid
             a   purple dress
       b.   ein lila-nes   Kleid
             a   purple-AGR dress
             'a purple dress'   (Muysken & van Riemsdijk 1985:26)

However, this optionality disappears in cases of NP ellipsis such as (38), where only the strong ending is possible.

(38)   Wenn ich ein Kleid tragen muss, dann lieber ein lila*(-nes)   ⟨Kleid⟩
       if   I   a   dress wear   must then rather a   purple*(-AGR) dress
       'If I have to wear a dress, than I'd rather wear a purple one.'

Thus, there seems to be an undeniable connection between inflection and NP ellipsis, however the crucial question to be answered is the directionality of relation, i.e. does inflection license ellipsis or *vice versa*? The former view is taken by Lobeck (1995) who proposes that strong agreement/inflection is a pre-requisite for ellipsis. However, Saab & Lipták (2016) have recently argued that the unexpected emergence of strong inflectional forms is a consequence of, rather than a necessary condition for ellipsis.

3.1   NP ellipsis licensed by strong agreement

Lobeck (1993, 1995) claimed that NP ellipsis is licensed by strong agreement (also cf. Torrego 1985; Bernstein 1993; Kester 1996a; Panagiotidis 2003; Ticio 2010). In particular, Lobeck views ellipsis sites as empty categories (i.e. *pro*) and proposed the following licensing condition for ellipsis sites:

(39)   *Licensing and identification of pro (Lobeck 1995:4)*:
       An empty, non-arbitrary pronominal [i.e. ellipsis site] must be properly head-governed, and governed by an X^0 specified for strong agreement.

To illustrate, this consider the examples in (40). As we have seen, indefinite determiners do not take an ending in accusative neuter contexts. However, if the noun is elided, the determiner must bear the strong inflectional ending *-es* that we usually find on the adjective.

(40)   A: Peter hat ein-Ø   alt-es   Auto gekauft
             Peter has a-ACC.NEUT old-ACC.NEUT car bought
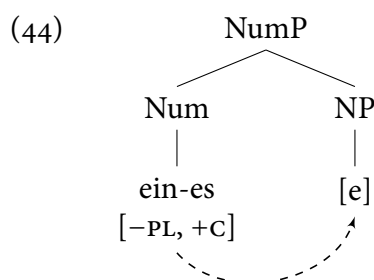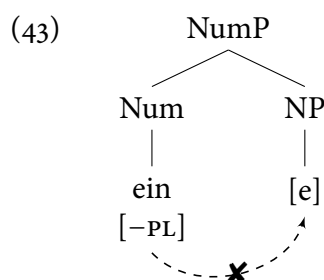   'Peter bought an old car.'

B: *Hat Maria auch ein-Ø   ⟨Auto⟩ gekauft?
    has Maria also a-ACC.NEUT   bought
    'Has Maria also bought one?'

B′: Hat Maria auch ein-es   ⟨Auto⟩ gekauft?
    has Maria also a-ACC.NEUT   bought
    'Has Maria also bought one?'   (Lobeck 1995:114)

Following the condition in (39), a terminal must bear what Lobeck calls 'strong agreement features' in order to license an ellipsis site. In this account, case features (among others) count as a strong features. The determiner *ein* in *ein Auto* in (40), assumed to head a NumP, only bears a [−PL] feature, but no strong agreement features such as case (41) (Lobeck 1995:114). An inflected determiner such as *viele* in *viele Autos* ('many cars'), on the other hand, would have a strong agreement feature for case (42).

(41)   NumP
           /   \
        Num   NP
         | |
        ein   Auto
       [−PL]

(42)   NumP
           /   \
        Num   NP
         | |
       viel-e   Autos
      [+PL, +C]
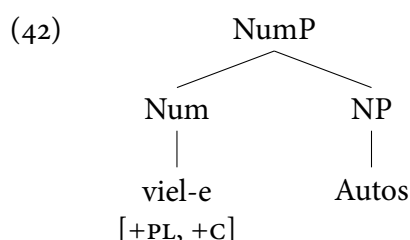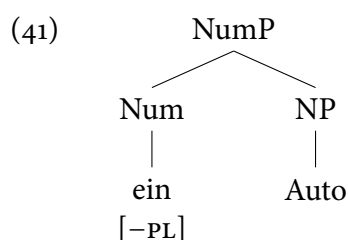
Since *ein* lacks strong features, it cannot license the ellipsis site in its complement (43). However, the inflected form *ein-es* does have a strong case feature under Lobeck's assumptions (1995:121) and can therefore license the ellipsis site (44).

(43)   NumP
           /   \
        Num   NP
         | |
        ein   [e]
       [−PL]

(44)   NumP
           /   \
        Num   NP
         | |
       ein-es   [e]
      [−PL, +C]

This means that whenever *ein* is adjacent to an ellipsis site, it must take an exceptional inflectional form in order for the ellipsis site to be possible. This raises a number of questions, however. For example, we have to assume that *eines* is a potential form for the indefinite determiner in neuter nominative/accusative contexts, even though we never oberseve this outside of ellipsis constructions. It is unclear how this form can be blocked from occuring more generally (e.g. *eines Buch*), since it also more specific in its featural composition, than the non-agreeing form *ein*. Most current theories of morphology (e.g. Distributed Morphology; Halle & Marantz 1993) would predict that the more specific *eines* should be favoured over *ein* if it is indeed a competing form for the determiner. In addition, there is a sense of arbitrariness about which features are assumed to constiue 'strong features'.[6] For example, in English *each* can license NP ellipsis (45a), whereas *every* does not (45b).

---

[6] Lobeck proposes the following parameter:

(i)   *Ellipsis Identification Parameter (Lobeck 1995:102)*:
       The number of strong agreement features in DET or NUM that is required to identify an empty, pronominal
       NP is proportional to the number of possible strong agreement in the agreement system of noun phrases in
       the language.

(45) a.   The women came in and [$_{DP}$ each ⟨ [$_{NP}$ woman] ⟩] sat down.
      b.   *The women came in and [$_{DP}$ every ⟨ [$_{NP}$ woman] ⟩] sat down.

<div align="right">(Lobeck 1995:93)</div>

Despite there being no obvious difference in surface agreement, Lobeck was forced to stipulate that *each* 'strongly agrees' with its complement, licensing NP ellipsis, whereas *every* does not (see Merchant to appear). Instead, I following Saab & Lipták (2016) in rejecting the assumption that the strength of agreement/inflection directly licenses ellipsis, and instead claim that the exceptional forms on the determiner we find in the presence of an absent noun stem from the interaction of ellipsis with other operations in the postsyntactic component.

3.2   Ellipsis and stranded affixes (Saab & Lipták 2016)

Saab & Lipták (2016) reconsider the generalization put forward by Lobeck that NP ellipsis requires strong agreement. They discuss an example from Hungarian, where inflectional endings that normally only ever appear on nouns can surface on adjectives when the noun is elided. On the surface, this is similar to the German cases above in that an element exhibits non-canonical inflection only when adjacent to an ellipsis site. First, consider that nouns, but not adjectives, are marked for plural in Hungarian DPs (46) (also cf. Dékány 2011).

(46) a.   az új   ház-ak
           the new house-PL
      b.   *az új-ak   ház-ak
           the new-PL house-PL
      c.   *az új-ak   ház
           the new-PL house
           'the new houses'   (Saab & Lipták 2016:83)

If the noun is elided, however, the number marking we would normally find on the noun appears to have 'shifted' to the adjective (47) (cf. (46b)).

(47) Mari a   régi kis ház-ak-at   látta. Én az új-*ak-at*   ⟨ház[-ak-at]⟩
      Mari the old all house-PL-ACC saw   I   the new-PL-ACC
      'Mari saw the old small houses. I saw the new ones.'   (Saab & Lipták 2016:84)

The analysis of the inflectional pattern in (46a) proposed by Saab & Lipták (2016) is that number marking originates in a separate Num projection above *n*P and is fused with the lexical root+*n* complex (created by syntactic head movement) via the postsyntactic operation of Lowering (Embick & Noyer 2001; Embick 2007) as shown in (48).

It is unclear what theoretical status this parameter has, beyond stating a surface-level generalization based on German and French. Furthermore, it does nothing to explain why cerain features (e.g. case or gender) count as strong agreement features, and others do not.

(48)
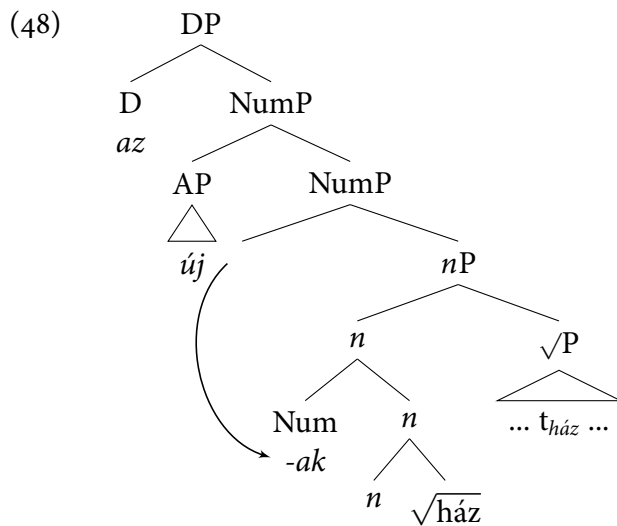
In NP ellipsis contexts, an [E_N] feature on Num triggers ellipsis of its complement, *n*P, at PF (cf. Merchant 2014). Saab & Lipták (2016) then also assume that ellipsis can bleed other postsyntactic processes such as the Lowering operation in (48). They propose the following generalization:

(49) *Ellipsis-Morphology* (Elmo) *Generalization*:
For every morphological operation MO that affects the domain of X, where X contains the target of MO, MO cannot apply in X if X is subject to ellipsis.
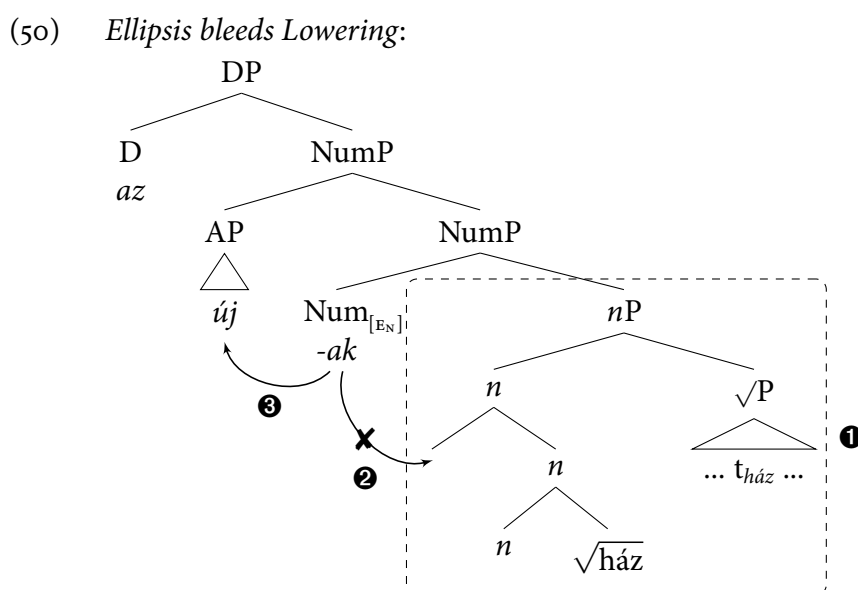
Since Lowering is a 'downward' operation, it targets the closest c-commanded head in its complement domain. This is also the domain that can be elided, and as a result there is a potential bleeding interaction if ellipsis first removes the relevant head. This is exactly what Saab & Lipták (2016) assume. In an NP ellipsis derivation, the complement of Num in (50) is elided at PF (indicated by the dashed box) and, subsequently, Lowering of Num to *n* cannot apply since *n* is no longer accessible. In this case the plural affix is 'stranded' and must be realized on a different host. Saab & Lipták (2016) then assume that the merger operation of Local Dislocation, which applies under strict linear adjacency (Embick & Noyer 2001, 2007; Embick 2007), attaches the plural affix *-ak* to the adjective.

(50) *Ellipsis bleeds Lowering*:

As Saab & Lipták (2016) point out, this is approach is entirely parallel to classic 'Stray Affix' accounts of *do*-support under VP ellipsis in English (Lasnik 1981, 1995).

(51)   John likes sushi and Mary does 〈 [$_{VP}$ like sushi] 〉 too.

Although English does not seem to have V-to-T movement (Emonds 1978; Pollock 1989), tense morphology that is assumed to originate on T surfaces on the verb. Embick & Noyer (2001) propose that postsyntactic Lowering of T is responsible for placing tense morphology on finite verbs in English (52a). We see that this Lowering process is also bled by VP ellipsis (52b), resulting in *do*-support to rescue to the stranded affix (52c).

(52)   a.   John [$_T$ -s] [$_{vP}$ like   sushi]]

        b.   John likes sushi and Mary [$_{TP}$ [$_T$ -s] 〈 [$_{vP}$ like   sushi] 〉 too]

        c.   John likes sushi and Mary [$_{TP}$ [$_T$ -s] 〈 [$_{vP}$ like sushi] 〉 too]
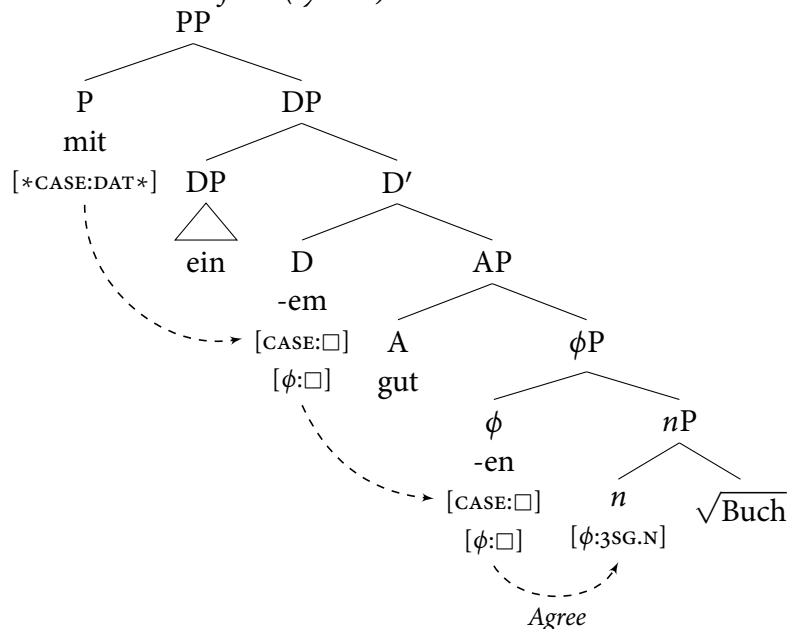   *do*

A crucial aspect of Saab & Lipták's approach is that the only context in which number morphology can appear on an adjective is with NP ellipsis. Furthermore, it is not the unexpected morphology on the adjective that licenses NP ellipsis, but rather non-canonical inflection is a side effect of ellipsis creating a stray affix configuration. There are then language-specific repairs, such as Local Dislocation, that a language can use to repair this configuration. In the following section, I will show how this approach can be utilized to derive Lobeck's German examples and, as a result, how we can dispense both with the assumption of distinct inflectional paradigms for indefinite and possessive pronouns and that the type of inflection licenses ellipsis.

4   Analysis

4.1   The derivation of DP (syntax)

I make the following assumptions about the structure of DPs in German: I adopt an articulated structure of the nominal domain (cf. Abney 1987; Coene & D'hulst 2002; Alexiadou et al. 2007; Alexiadou 2014), comprising of a determiner phrase DP; and a categorizing head *n* that combines with the lexical root . Furthermore, I posit an intermediate projection ϕP hosting features for person, number and gender, which is responsible for inflection on the adjective.[7] Adjectives can be merged either above or below this ϕP projection. Taken together, this yields the basic clause structure in (53).

---

[7]This can be thought of as a composite projection corresponding to distinct projections such as NumP (Ritter 1991, 1992) or GenP (Picallo 1991) in the literature. It seems that one could decompose this projection and nothing fundamental about the analysis would change, but I will refrain from doing so for the purposes of this article.

(53)   *The basic structure of DP*:

```
              DP
          ┌────┴────┐
          D       (AP)
              ┌────┴────┐
              A        φP
                   ┌────┴────┐
                   φ       (AP)
                       ┌────┴────┐
                       A        nP
                            ┌────┴────┐
                            n      √Root
```

It is assumed that *ein*-words, i.e. possessive and indefinite determiners, are base-generated in Spec-DP (e.g. Gallmann 1996; Lindauer 1998; Demske 2001; Müller 2002) and their case inflection is realized on D, which receives case features under Agree with the lower nominal (Abney 1987; Olsen 1989, 1991*a*,*b*). Furthermore, I assume a series of feature-sharing dependencies between the D, φ and n heads (Pesetsky & Torrego 2007). In particular, case is assigned to the D head, whereas the φ-features associated with the lexical root are situated on *n*. The Agree dependencies in (55) ensure that both D and φ bear the relevant case features required to determine the correct inflectional endings.

(54)   mit ein-em   gut-en   Buch
       with a-DAT.NEUT good-DAT.NEUT book

(55)   *The architecture of DP (syntax)*:

```
                    PP
          ┌──────────┴──────────┐
          P                    DP
         mit            ┌───────┴───────┐
    [*CASE:DAT*]       DP              D′
                       △          ┌────┴────┐
                      ein         D        AP
                                 -em    ┌───┴────┐
                              [CASE:□]  A       φP
                               [φ:□]   gut  ┌────┴────┐
                                            φ        nP
                                           -en    ┌───┴────┐
                                        [CASE:□]  n     √Buch
                                         [φ:□]  [φ:3SG.N]
                                               Agree
```

4.2   The derivation of DP (post-syntax)

At PF, the relevant inflection endings are inserted into the D and φ terminals respectively.[8] In addition, the affixes hosted in D and φ must be attached to a host. Standard approaches to Distributed Morphology (e.g. Halle & Marantz 1993; Harley & Noyer 2003; Embick & Noyer 2007;

---

[8]Note that I assume that the fact that weak endings follow a strong ending has been merged is a factor relevant for PF (cf. Roehrs 2006). Evidence for this comes from split topicalization, see footnote 14.

Nevins 2015) envisage two main postsyntactic operations to achieve this; *Lowering* and *Local Dislocation*. They are defined by Embick & Noyer (2007:319) as follows:

(56)   *Two operations at PF*:
   a.   Before linearization: The derivation operates in terms of hierarchical structures. Consequently, a movement operation that applies at this stage is defined hierarchically. This movement is *Lowering*; it lowers a head to the head of its complement.
   b.   After linearization: The derivation operates in terms of linear order. The movement operation that occurs at this stage, *Local Dislocation*, operates only in terms of linear adjacency, not hierarchical structure.

As is clear from the above definitions, there are intrinsic factors determining the relative of order of these two operations (see e.g. Embick & Noyer 2001, 2007; Embick 2007; Kandybowicz 2007; Schoorlemmer 2009; Arregi & Nevins 2012; Myler 2013). Since the presence of hierarchical syntactic structure is necessary for Lowering to apply, it must apply relatively early on the PF branch, i.e. before Linearization. Local Dislocation, on the other hand, applies after Linearization and Vocabulary Insertion. By transitivity, we can conclude that Lowering precedes Local Dislocation:

(57)   *Order of PF operations (first version)*:
       Lowering ≫ {Vocabulary Insertion, Linearization} ≫ Local Dislocation

These two fusion operations correspond to the different adjective positions that are possible (above or below ϕP). If the adjective is merged lower than ϕP, then it is the closest c-commanded head and can be targetted by Lowering (58). Since the indefinite article is not c-commanded by the affix in D, it is always fused with the article under adjacency via Local Dislocation. If the adjective is merged above ϕP, then Local Dislocation is responsible for attaching both affixes as in (59).
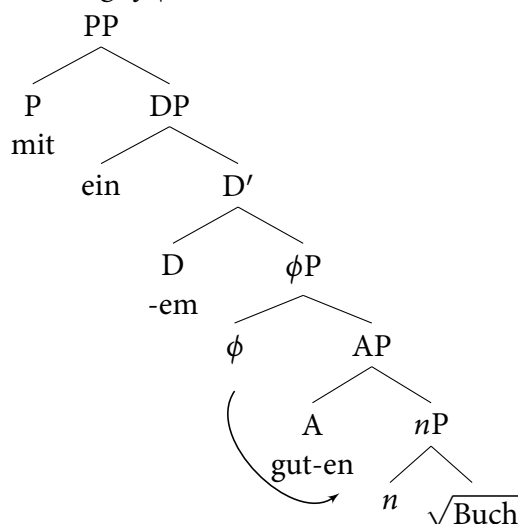
(58)   *Lowering of ϕ*:   (59)   *Local Dislocation of ϕ*:
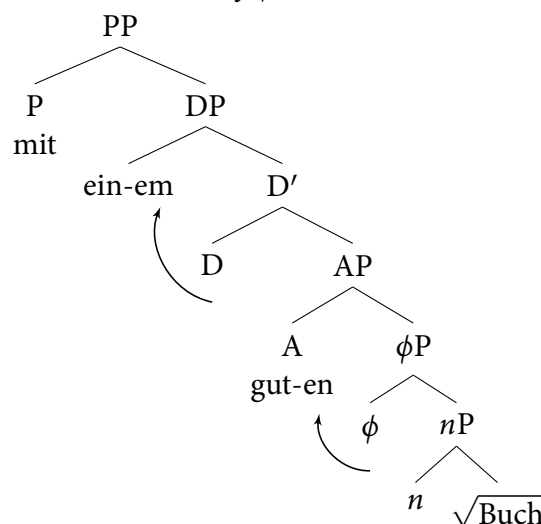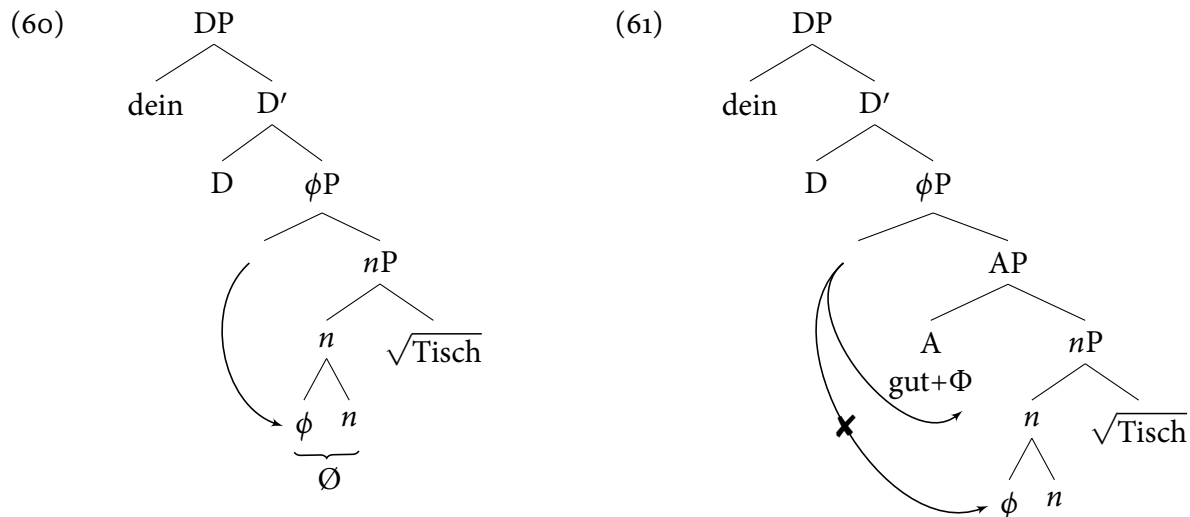

Finally, let us consider what happens if no adjective is present. Since Lowering targets the closest c-commanded head, then the ϕ node is lowered onto the *n* and this complex head consequently receives a null Spell-Out (60).[9]

---

[9] There is then a slight Look Ahead problem for cases where an adjectives are merged above ϕP as in (59). Here, we would expect that Lowering applies first, fusing ϕ and *n* and thereby preventing later Local Dislocation of ϕ to the preceding adjective. This would seem to imply that there must be some degree of transderivational economy in the PF component as well (cf. Collins 2001; Müller 2011). Concretely, both the outputs of applying and not applying Lowering of ϕ to *n* in the presence of an adjective must be compared. The former case, will result in the adjective

This ϕ-to-n Lowering is of course blocked if an adjective intervenes for Lowering as in (61).

(60)

```
              DP
            /    \
         dein     D′
                 /  \
                D    φP
                      \
                       nP
                      /  \
                     n    √Tisch
                    / \
                   φ   n
                   \__/
                    Ø
```

(61)

```
              DP
            /    \
         dein     D′
                 /  \
                D    φP
                      \
                       AP
                      /   \
                     A      nP
                  gut+Φ    /  \
                          n    √Tisch
                         / \
                        φ   n
```

As the following section will show, early application of ellipsis can block this kind of Lowering.

4.3 NP ellipsis

As we saw in Section 3.1, German has an active process of NP ellipsis, as in examples such as (62):

(62) Ich habe ein neu-es   Buch und du hast ein alt-es   ⟨Buch⟩.
      I   have a   new-ACC.NEUT book and you have an old–ACC.NEUT book
      'I have a new book, and you have an old one.'

Following Merchant (2014), Saab & Lipták (2016) and Saab (to appear) among others, I assume that cases of NP ellipsis such as (62) involve ellipsis of nP. Formally, this is triggered by a construction-specific variant of Merchant's (2001) [E]-feature ([E$_N$]). This feature triggers non-pronunciation of its complement, either as an instruction for PF not to parse its complement, or by some other technical means (cf. Bartos 2000; Kornfeld & Saab 2004; Nunes & Zocca 2009; Saab 2009; Aelbrecht 2011; Murphy to appear). Most recent approaches to NP ellipsis place this feature on the head of NumP, thereby triggering ellipsis of its complement nP. The corresponding node in the present analysis is ϕ, also resulting in nP ellipsis (elided material is indicated by a dashed box):

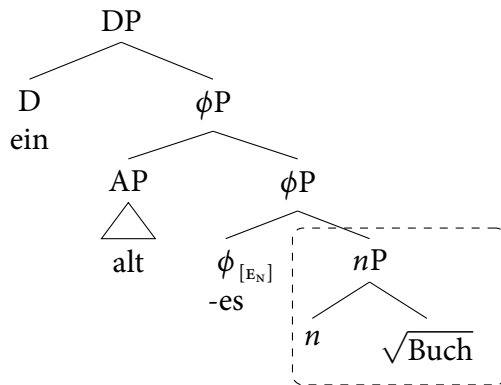remaning uninflected, which – for the vast majority of adjectives – is not permitted (i).

(i)   *ein   schön   Tag
        a.MASC.NOM beautiful-Ø day.MASC

Thus, the output of possible PF derivations must be evaluated relative to a morphophonological constraint that requires adjectives to host an affix. As we have seen, the *lila*-class of adjectives would constitute a possible exception to this requirement (see Section 4.5).

(63) *NP ellipsis triggered by $[E_N]$*:

```
                    DP
                  /    \
                 D      φP
                ein    /   \
                     AP      φP
                     /\     /   \
                    alt   φ[Eɴ]   ┌───────────┐
                          -es     │    nP     │
                                  │   /  \    │
                                  │  n   √Buch│
                                  └───────────┘
```

In addition, I follow Saab & Lipták (2016) in making the additional assumption that ellipsis applies early enough in the PF derivation to bleed certain postsyntactic operations. Recall Saab & Lipták's '*Elmo* Generalization' from (49) (repeated below).

(64) *Ellipsis-Morphology* (Elmo) *Generalization*:
      For every morphological operation MO that affects the domain of X, where X contains the target of MO, MO cannot apply in X if X is subject to ellipsis.

The generalization is tantamount to a statement that ellipsis bleeds 'downward operations' such as Lowering that target elements in the ellipsis site (cf. Saab & Lipták 2016:77, fn.11). This also presupposes that ellipsis then precedes Lowering on the PF branch:

(65) *Order of PF operations (final version)*:
      (NP-)Ellipsis, Lowering ≫ {Vocabulary Insertion, Linearization} ≫ Local Dislocation

4.4 Pronominal inflection and NP ellipsis

With these assumptions in place, we are now in a position to show how pronominal forms can be derived by NP ellipsis. Let us first consider NP ellipsis with an adjective as in (66).

(66) Ich habe ein neu-es   Buch und du hast ein alt-es   ⟨Buch⟩.
      I   have a   new-ACC.NEUT book and you have a-Ø old-ACC.NEUT book
      'I have a new book and you have an old one.'

The adjective is merged above φP and is therefore not contained in the domain affected by ellipsis (nP). Following the ordering of PF operations in (65), the nP constituent is first elided, and then Local Dislocation fuses the φ-affix with the adjective (67).

(67)

```
                        DP
                      /    \
                    DP      D′
                   /\      /   \
                  ein     D      AP
                               /    \
                              A       φP
                             alt     /   \
                                  φ[Eɴ]   ┌───────────┐
                                   -es    │    nP     │
                                          │   /  \    │
                                          │  n   √Buch│
                                          └───────────┘
```
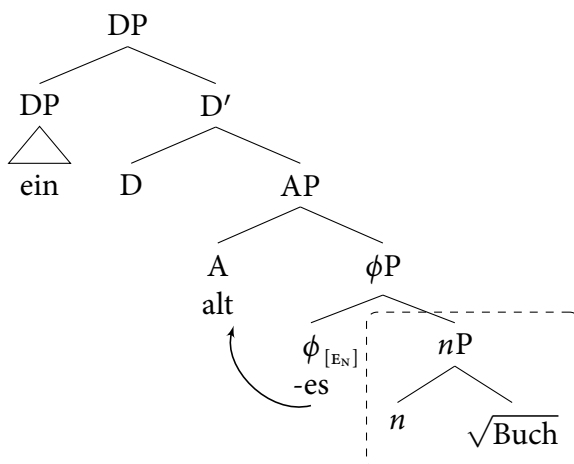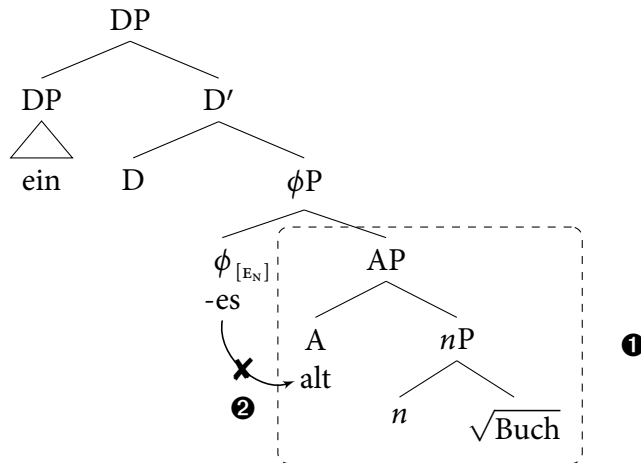
If the adjective is merged below ϕP, however, then early application of ellipsis bleeds Lowering of ϕ to the adjective, as we saw with the Hungarian examples in Section 3.2.

(68) Ich habe ein neues   Buch und du hast auch ein-es   ⟨neu(-es) Buch⟩.
      I   have a   new-ACC.NEUT book and you have also a-ACC.NEUT   new   book
      'I have a new book and you have one too.'

(69) *Ellipsis bleeds Lowering*:

Since Lowering is bled by ellipsis, it does not apply and the affix in ϕ must now be dealt with by another operation. When Lowering is bled, the later opation Local Dislocation, which differs from Lowering in being sensitive to linear adjacency and phonological structure, has the chance to apply and attach the affix to a relevant host. Due to its application after Linearization and Vocabulary Insertion, Local Dislocation can also allow for suffixes to attach 'upward' to non c-commanded material (cf. (59)). This what happens in NP ellipsis cases: the adjectival inflection ϕ undergoes Local Dislocation to an adjacent host (the indefinite determiner).

(70) *Local Dislocation of 'stranded' affix*:
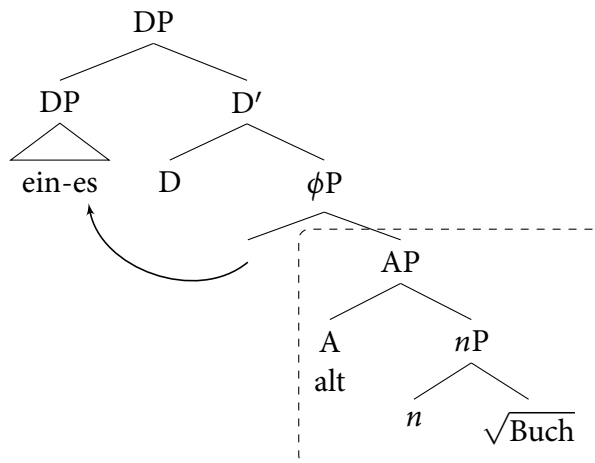
Thus, ellipsis is special in that it bleeds an operation that would normally always apply early (Lowering), and exceptionally allows for later PF operations (such as Local Dislocation) to derive surface patterns we do not find outside of ellipsis contexts.
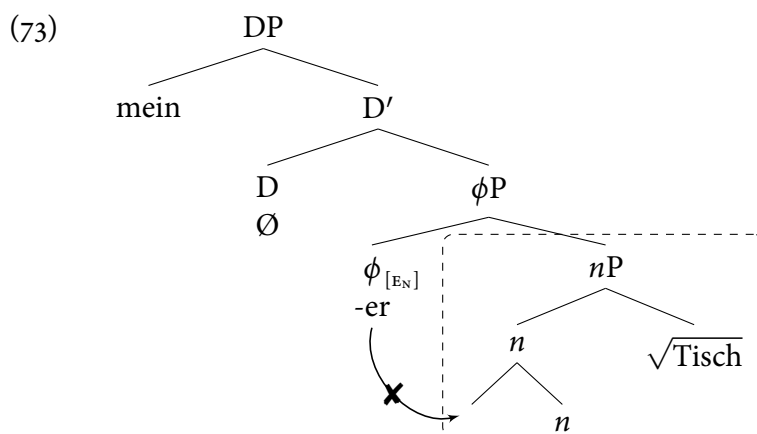
Let us now consider how we can derive the exceptional pronominal paradigm under this approach. In cases of NP ellipsis without adjectives such as (71), the strong adjectival morphology obligatorily appears on the possessive determiner *mein* ('my').

(71) Dort ist dein-Ø   Tisch, und hier ist mein-er.
      there is your-NOM.MASC table   and here is my-NOM.MASC
      'There is your table, and here is mine.'

As we have seen, when no adjective is present, Lowering of ϕ to the n head results in a null Spell-Out of ϕ and the non-occurence of the associated inflection.

(72)

```
              DP
           /      \
        dein       D′
                 /    \
               D       φP
                        \
                         nP
                        /   \
                      n      √Tisch
                     / \
                    φ   n
                     \_/
                      Ø
```
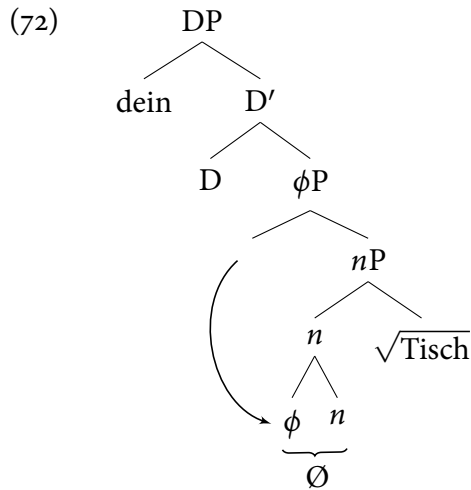
Crucially, ellipsis of nP bleeds Lowering of ϕ to n resulting in the stranded affix configuration:

(73)

```
                DP
            /        \
         mein         D′
                    /     \
                  D        φP
                  Ø      /     \
                     φ[ₑₙ]      nP
                     -er       /   \
                             n      √Tisch
                            / \
                              n
```

Since Lowering to n fails, Local Dislocation applies to attach the stray affix. Recall that Local Dislocation, as defined in (74), is typically assumed to apply under strict adjacency and is sensitive to the phonological form of terminals (since it applies after Vocabulary Insertion).

(74)   *Local Dislocation Hypothesis (Embick & Noyer 2001:566)*:
        If a movement operation is Vocabulary sensitive, it involves only string-adjacent items.

This can be illustrated on the basis of superlative forms in English. Embick & Noyer (2001:564f.) assume that the superlative affix *-st* attaches to an adjective under adjacency (75a). This can be seen by the fact that intervening material such as *amazingly* between the affix and the adjective blocks Local Dislocation (75b,c).

(75)   a. Mary is the -st smart person.

        b. Mary is the -st amazingly smart person.

        c. Mary is the *mo*-st amazingly smart person.

Recall from Figure 1 (repeated below) that we can derive the pronominal paradigm by adding what would be the adjectival endings to the three exceptional non-inflecting determiners *ein*.

Indefinite article inflection:	Masc	Fem	Neut
Nom	**ein-**	eine	**ein-**
Acc	einen	eine	**ein-**
Dat	einem	einer	einem
Gen	eines	einer	eines

+

Mixed adjectival inflection:	Masc	Fem	Neut
Nom	**-er**	-e	**-es**
Acc	-en	-e	**-es**
Dat	-en	-en	-en
Gen	-en	-en	-en

⇒

Indefinite pronoun inflection:	Masc	Fem	Neut
Nom	**einer**	eine	**eines**
Acc	einen	eine	**eines**
Dat	einem	einer	einem
Gen	eines	einer	eines

Figure 1: Deriving the pronominal paradigm

What we need to ensure is that adjectival morphology can only attach to those three exceptional cases in the determiner paradigm that do not show inflection. Given the aforementioned assumptions about Local Dislocation, this follows naturally. Recall that the inflection associated with the determiner originates on the D head, and that Local Dislocation of the ϕ affix would necessarily have to cross it. This means that Local Dislocation is only possible when this head is empty (or possibly realized by a null case ending; Roehrs 2006). If the determiner is either masculine nominative or neuter nominative/accusative, then Local Dislocation of the adjectival inflection can apply as in (76).
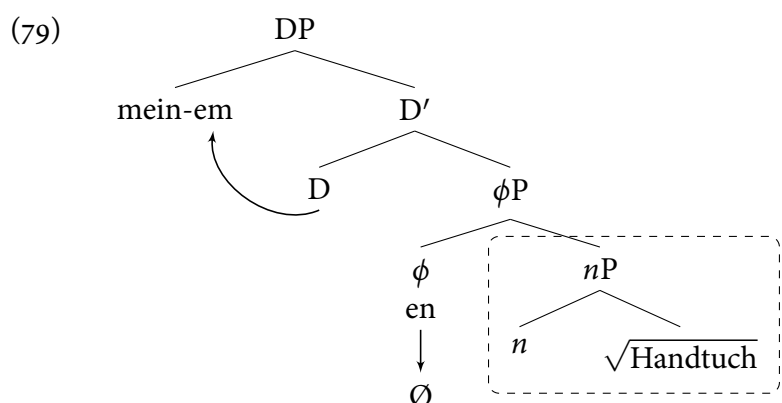
(76)
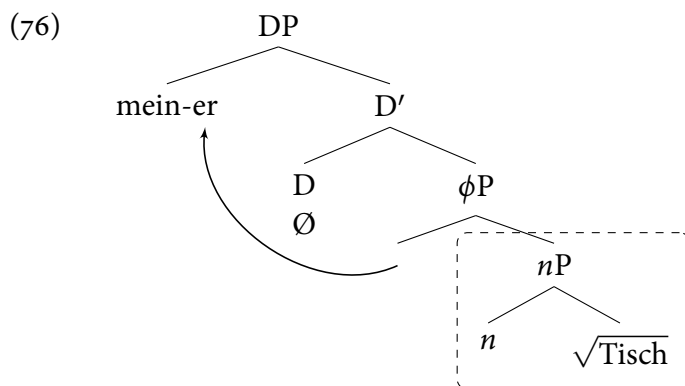
Furthermore, if the form of the determiner is not null, as with dative neuter cases such as (77), then Local Dislocation of ϕ to the determiner is not possible since phonological adjacency is no longer given:

(77)   Den   Fleck kannst du mit ein-em   (alt-en)   Handtuch entfernen, aber
       the.ACC stain can   you with a-NEUT.DAT (old-NEUT.DAT) towel   remove   but
       nicht mit   mein-em!
       not   with my-NEUT.DAT
       'You can get rid of that stain with a(n) (old) towel, but not with mine!'

Here, the affix hosted in D intervenes to make Local Dislocation impossible:

(78)

```
              DP
         ┌─────┴─────┐
      mein-en        D′
         ↑        ┌───┴────┐
         │        D        φP
         │       -em    ┌───┴──────────────────┐
         ✗            φ      ┌ ─ ─ nP ─ ─ ─ ┐
                             │    ┌──┴───┐   │
                             │    n   √Handtuch│
                             └ ─ ─ ─ ─ ─ ─ ┘
```
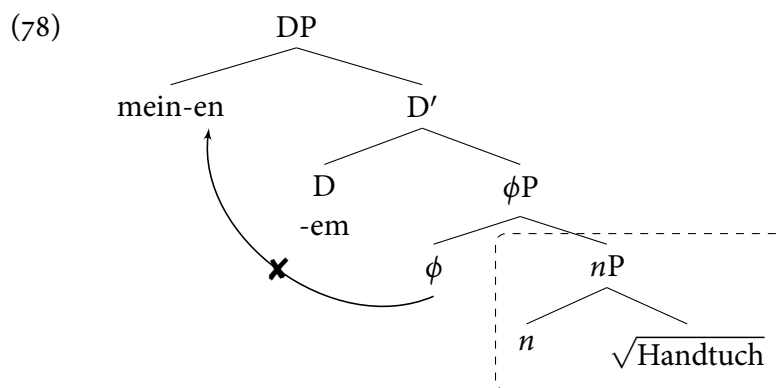
Instead, it is the closest affix in D (*-em*) that undergoes Local Dislocation to attach to the determiner. The question is then what happens to ϕ in such cases. Again, I follow Saab & Lipták (2016) in assuming that it is deleted by an even later operation of *Morphological Ellipsis*.

(79)

```
              DP
         ┌─────┴─────┐
      mein-em        D′
         ↑        ┌───┴────┐
         │        D        φP
         └────────┘     ┌───┴──────────────────┐
                       φ      ┌ ─ ─ nP ─ ─ ─ ┐
                       en     │    ┌──┴───┐   │
                       │      │    n   √Handtuch│
                       ↓      └ ─ ─ ─ ─ ─ ─ ┘
                       ∅
```

Saab & Lipták (2016:98ff.) claim that languages differ with regard to how they resolve the stranded affix configuration. They argue that, in Spanish, a stranded Num head is not re-positioned by Local Dislocation, but is instead deleted by a *Morphological Ellipsis* operation.[10] Assuming that this operation, or something like it, is independently motivated (see Arregi & Nevins 2007 for the similar concept of *Obliteration*), we can assume it must be ordered after Local Dislocation in German. Thus, it can only ever have an effect if both Lowering and Local Dislocation fail to apply. This means thatits domain of application is restricted to NP ellipsis contexts with adjectives following overtly inflecting determiners. Importantly for our purposes, we can derive the pronominal paradigm via NP ellipsis, as shown in Figure 1, by appealing the inherent nature of PF operations such as Local Dislocation.

4.5 Optionality disappears: *lila* revisited

Consider again some of the data that were typically used to support the claim that only strong inflection licenses NP ellipsis. In (38), repeated below, it was shown that the colour adjectives such as *lila* ('purple') optionally require strong inflection.

[10] The exact definition offered by Saab & Lipták (2016:99) is given in (i).

(i)   *Morphological Ellipsis*:
      At PF, a morphosyntactic word (MWd) X^0 can be elided only if X^0 has an identical antecedent contained in a MWd Y^0 adjacent or immediately local to X^0.

For reasons of space, I will not discuss this definition, nor the details of the analysis of the Spanish data that motivates it (but see Saab & Lipták 2016:98ff. for detailed exposition). Instead, I will simply point out that deletion of ϕ by the rule in (i), or a similar reformulation, should be licensed by the inflection in D since they share the same features, e.g. case, ϕ-features.

(80) a. ein lila   Kleid
          a   purple dress
      b. ein lila-nes   Kleid
          a   purple-AGR dress
          'a purple dress'   (Muysken & van Riemsdijk 1985:26)

In the current approach, the presence or absence of agreement would correlate with the adjunction height of the adverb. If the adverb adjoins below ϕP, then the ϕ affix will be fused with it via Lowering (81). If it adjoins, however, the affix receives a null Spell-Out when lowered to n (82).[11]

(81)

(82)
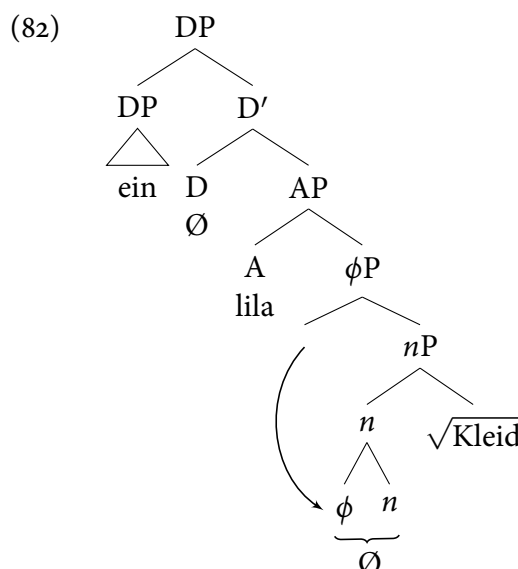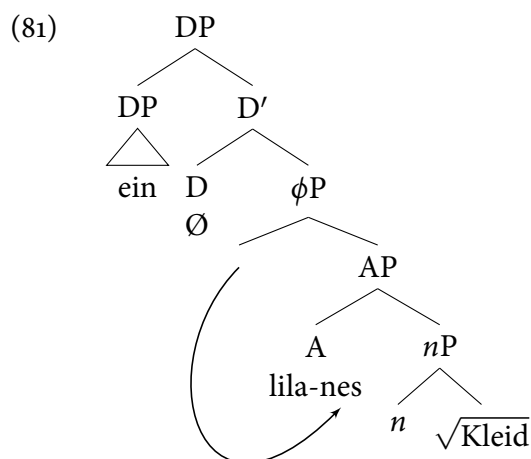
However, we saw that the unagreeing form of the adjective is not possible in ellipsis contexts (83).

(83) Wenn ich ein Kleid tragen muss, dann lieber ein lila*(-nes)   ⟨Kleid⟩
      if   I   a   dress wear   must then rather a   purple*(-AGR) dress
      'If I have to wear a dress, than I'd rather wear a purple one.'

This can be straightforwardly explained in the present system since the absence of agreement requires successful Lowering of ϕ to n, an operation that we have seen is bled by ellipsis. For this reason, the option in (82) is no longer possible since ellipsis removes the target for the Lowering operation involved. As shown in (84), only Local Dislocation can apply in these cases.

---

[11] Note that the Look Ahead issue sketched in footnote 9 does not apply here. It was argued that, for the majority of adjectives, the derivation in (82) is ruled out by a PF filter that requires adjectives bear overt inflection. The *lila*-class are clearly an exception to this requirement.

(84)

```
                    DP
           ┌─────────┴─────────┐
          DP                   D′
          △              ┌─────┴─────┐
          ein            D           AP
                         Ø      ┌─────┴─────┐
                                A          ϕP
                             lila-nes   ┌───┴────────────┐
                                      ϕ[Eɴ]            nP
                                               ┌────────┴────────┐
                                               n              √Kleid
                                            ┌──┴──┐
                                                  n
```
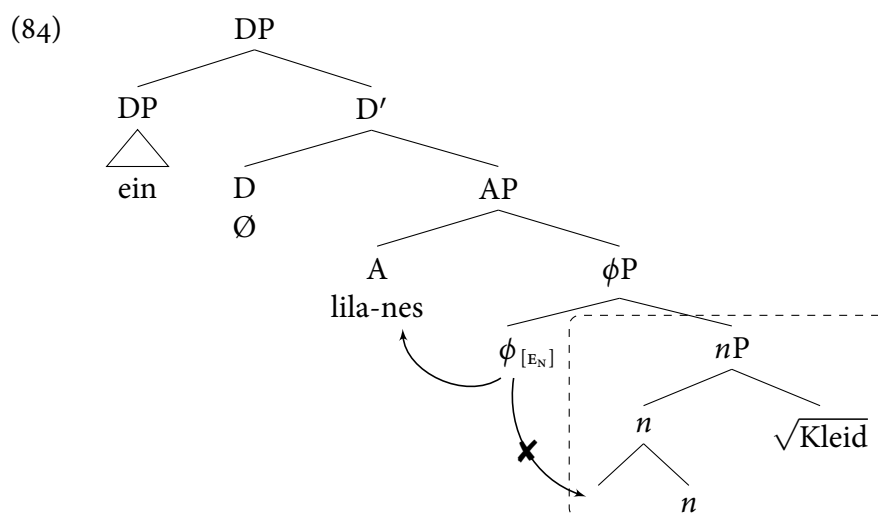
Thus, the present system derives the fact that optional inflection with *lila*-type adjectives becomes obligatory under ellipsis without assuming that inflection plays any role in ellipsis licensing.

5 Extensions

5.1 NP ellipsis in Dutch

The present analysis can also potentially explain some similarly puzzling data from NP ellipsis in Dutch (cf. Corver & van Koppen 2009, 2011). In terms of gender, Dutch only distinguishes between neuter and non-neuter nouns (85) (Corver & van Koppen 2009:8, also cf. Broekhuis & Keizer 2012). Adjectives modifying non-neuters are marked with agreement suffix *-e* when following the indefinite determiner *een* (85b), whereas adjectives modifying neuter singular nouns show no agreement when they follow an indefinite determiner (86b).

(85) *Non-neuter singular nouns*:

    a. de   klein-e   goochelaar
        the.NON.NEUT small-AGR magician

    b. een klein-e   goochelaar
   one small-AGR magician

(86) *Neuter singular nouns*:

    a. het   witt-e   konijn
        the.NEUT white-AGR rabbit

    b. een witt(*-e)   konijn
        one white(-AGR) rabbit

Interestingly, however, a number of Dutch speakers also allow for an adjective modifying an indefinite neuter noun to show agreement if the noun is elided (Kester 1996a,b; Corver & van Koppen 2009, 2011):

(87) Jan   had voor Marie een rood-Ø   boek   gekocht, maar zij had veel
     John had for   Mary a   red-NEUT.SG book.NEUT.SG bought   but   she had much
     liever een groen-e ⟨boek⟩.
     rather a   green
     'John had bought a red book for Mary, but she preferred a green one.'

                                                   (Kester 1996a:69)

We are then faced with a similar situation to the putative German 'pronouns', since we have an element bearing a kind of inflection under ellipsis that would not be possible in non-elliptical contexts. This Dutch case can also be handled in a similar fashion. Following assumptions in the previous sections, let us assume that adjectival agreement *-e* is located on the head of a ϕP projection (or alternatively it could be a classifier, following Alexiadou & Gengel 2008).[12] Recall that, in general, we have assumed that there is a Lowering operation that merges the *n* with its closest c-commanding head. Focussing on indefinite DPs, let us assume for argument's sake, that non-neuter DPs (85b) contain some functional projection (FP) directly below ϕP.[13] It is then this F head, rather than ϕ which under goes Lowering (88). I assume that this projection is absent with neuter indefinite DPs such as (86b) and thus, ϕ-Lowering results in the disappearance of agreement as we saw above for German (89).

(88)

(89)
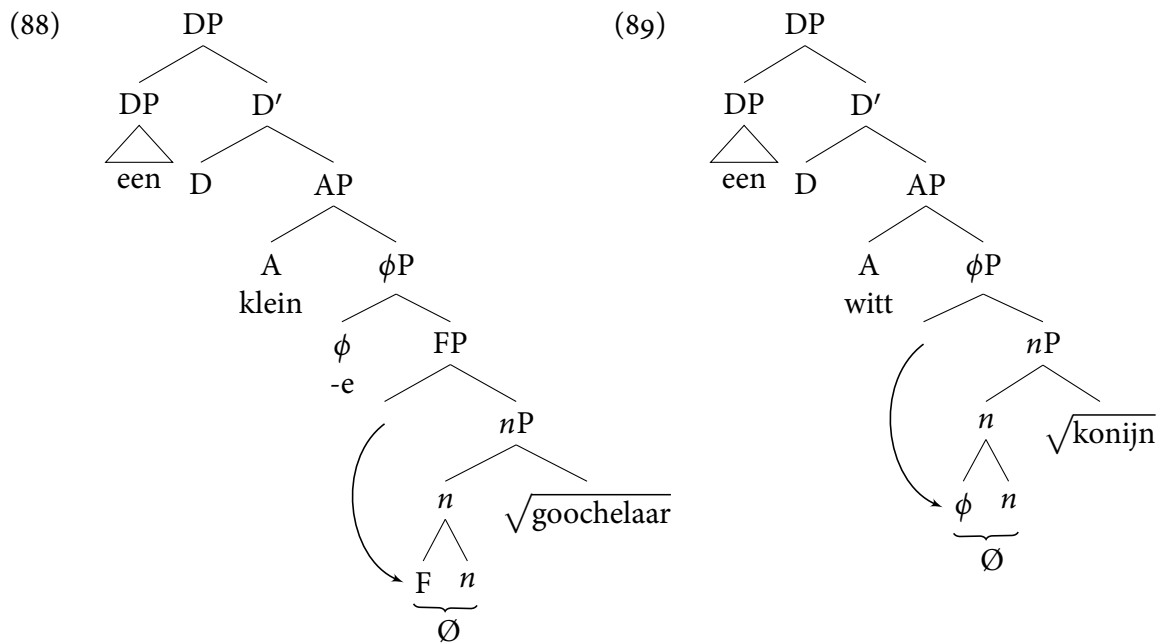
As shown in previous sections, ϕ-to-*n* Lowering is bled by NP ellipsis. If we adopt the same analysis for (87), then the process that would normally result in the disappearence of the *-e* suffix with indefinite neuter nouns is blocked, as shown in (90).

---

[12] Corver & van Koppen (2009) propose that the *-e* is the head of a DP internal focus projection that licenses ellipsis (but see Alexiadou & Gengel 2008; Eguren 2010 for criticism of this approach). The *-e* marker is later argued by Corver & van Koppen (2011) to be a NP *pro*-form under a pronominalization account of NP ellipsis. However, none of these approaches offer a particularly good reason why this marker is absent with indefinite neuter DPs.

[13] This functional projection hosts whatever feature(s) is relevant for the distinction between neuters and non-neuters. These features can either be hosted on a single head or on a serious of separate functional heads in a nanosyntactic approach (Starke 2009).

(90)
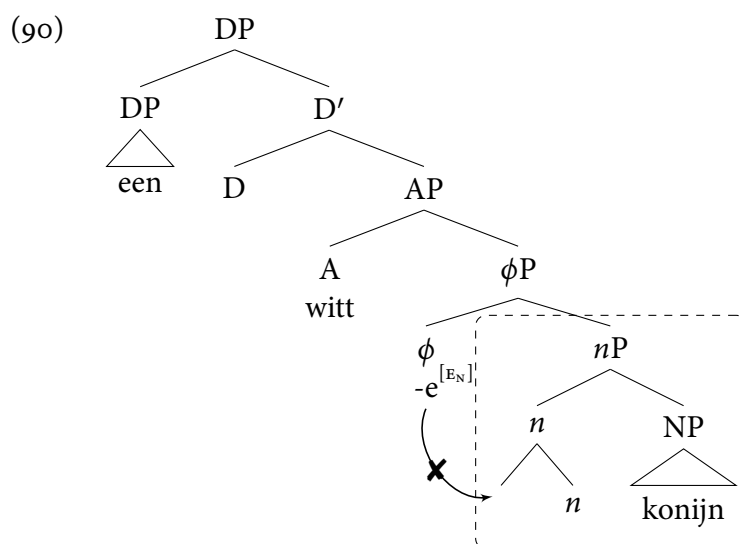
Thus, the descriptively similar situation we find in Dutch that ellipsis can license non-canonical inflection on adjectives can be handled in an entirely parallel way to German determiners.

5.2   Strong agreement in split topicalization

Further support for the general approach pursued here comes from so-called 'split topicalization' in German (Fanselow 1988; Kniffka 1996; van Hoof 1997; Roehrs 2006, 2009; Nolda 2007; Ott 2012). The simplest instantiations of this construction involve part of a noun phrase displaced to a clause initial position (91).

(91) a. Autos besitzt er nur schnelle ___
          cars   owns   he   only   fast
          'As for cars, he only has fast ones.'   (Fanselow & Ćavar 2002:69)
      b. Französische Bücher hat Amina bisher nur wenige gute ___ gelesen
          French   books has Amina so.far only few   good   read
          'As for French books, so far Amina read only a few good ones.'   (Ott 2012:2)

As with NP ellipsis, we find the exceptional occurence of strong forms of indefinite determiner, for example *keiner* instead of *kein*:[14]

(92) a. Das ist k-ein(*-er)   Fruchtsalat
          that is NEG-one(*-AGR) fruit.salad
      b. Fruchtsalat ist das k-ein*(-er)   ___
          fruit.salad   is that NEG-one*(-AGR)
          'That is not fruit salad.'   (Nolda 2007:67)

---

[14] There is another interesting asymmetry involving the inflection of the 'topicalized' element. The adjective *polnisch* exhibits strong agreement (-e) in the split topicalization construction(ib), rather than the weak ending we would normally expect (-en), cf. (ia).

(i)   a. Sie hat k-ein-e   polnisch-en Gänse gekauft
          she has NEG-one-STRONG Polish-WEAK geese bought
      b. Polnisch-e   Gänse gekauft hat sie k-ein-e
          Polish-STRONG geese   bought has she NEG-one-STRONG
          'She didn't buy any Polish geese.'   (Fanselow 1988:99)

A possible explanation of this is that 'status government', i.e. whatever determines that weak endings follow strong endings, is determined at PF (under c-command by a strong inflectional marker) and, following movement, this configuration is destroyed.

(93) a. Er hat k-ein(*-es)   Auto
          he has NEG-one(*-AGR) car

      b. Auto hat er kein*(-es)   __
          car   has he NEG-one*(-AGR)
          'He doesn't have a car'   (van Hoof 1997:6)

(94) a. Ich bin k-ein(*-er)   Generativer Linguist.
          I   am NEG-one(*-AGR) generative   linguist

      b. Generativer Linguist bin ich k-ein*(-er)   __
          generative   linguist am I   NEG-one*(-AGR)
          'I am not a generative linguist.'   (Fanselow 1988:107)

This is clearly the same pattern that we find with pronominal forms – if the NP is missing, then the determiner must show exceptional strong inflection. One could then simply claim that split topicalization constructions also involve NP ellipsis (e.g. Olsen 1987; Fanselow 1988; Fanselow & Ćavar 2002). The alternative would be to assume that split topicalization can, at least in some cases (what Ott 2012:2 calls 'simple splits'), involve subextraction (van Riemsdijk 1989; Tappe 1989; Bhatt 1990).[15]

(95)

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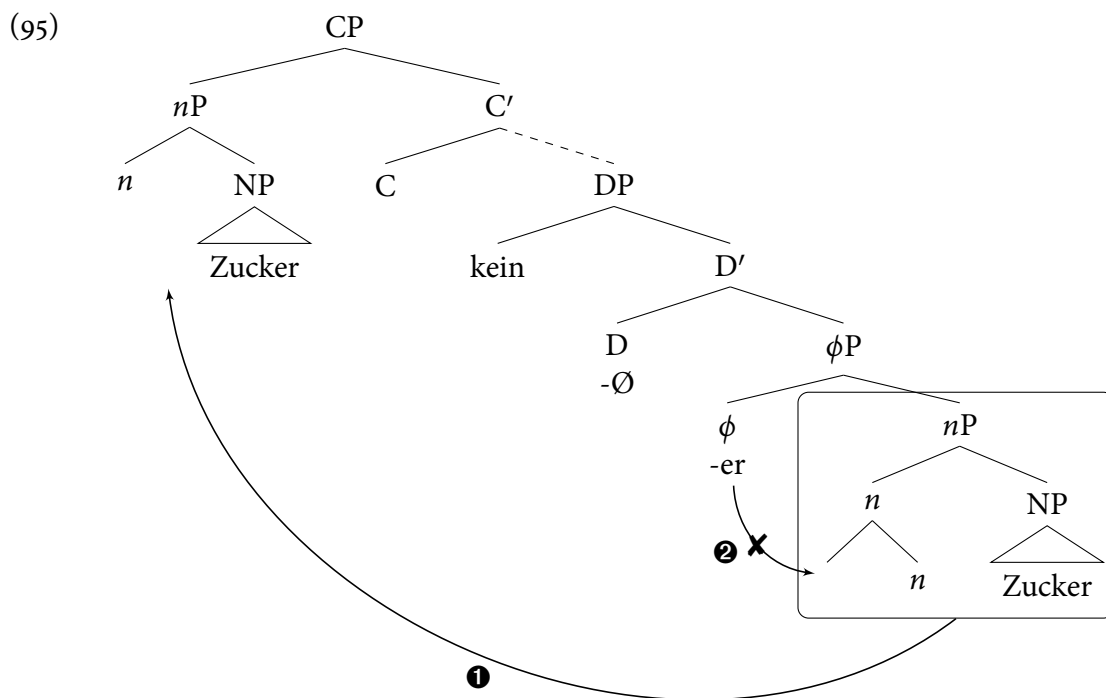
[15] Particularly problematic cases for a subextraction account involve so-called 'gapless splits' such as (i).

(i)   Seltene Raubvögel   hat Jürgen nur ein paar Bussarde gesehen
      rare   birds.of.prey has Jürgen only a   few buzzards seen
      'As for birds for prey, Jürgen has only seen a few buzzards.'   (Ott 2012:3)

However, there are some connectivity diagnostics that suggest that at least the simple cases of split topicalization show Ā-properties (see van Riemsdijk 1989, and van Hoof 2006 for an overview). For example, van Riemsdijk (1989) shows that split topicalization shows reconstruction for Principle A (ii), a fact that follows straightforwardly under a subextraction approach.

(ii) Bücher von einander₁ sind unsᵢ keine ___ bekannt.
      books of each.other are us   none   known
      'As for books of each other, none are known to us.'   (van Riemsdijk 1989:115)

If this derivation exists for at least some cases of split topicalization, then we are presented with an interesting parallel between the contexts for *do*-support and the analysis of pronominal inflection here, since both involving a stranded affix configuration that can be created either by movement or ellipsis (96).

(96) a.   He said he would teach him a lesson and [$_{VP}$ teach him a lesson] he did t$_{VP}$.
      b.   He said he would teach him a lesson and he did ⟨ [$_{VP}$ teach him a lesson] ⟩.

Nevertheless, the alternative view that split topicalization involves NP ellipsis is also compatible with the analysis pursued here.

6   Conclusion

In this paper, it was shown that it is not necessary to posit an additional 'pronominal' paradigm to account for the distinction between determiners such as *ein* 'a (masc. sing. nom.)' and its pronminal counterpart *einer* 'one'. Furthermore, Lobeck's (1995) approach in terms of strong agreement was shown to be problematic, since the exact features one assumes to trigger 'strong' agreement are somewhat arbitrary and simply mirror the observed patterns of ellipsis.

Instead, one can derive the fact that we find a particular kind of inflection on determiners only if their nominal complement has been elided by taking a closer look at the way ellipsis interacts with other operations in the postsyntactic component. Following insights by Saab & Lipták (2016), I have argued that NP ellipsis also bleeds postsyntactic Lowering in German. This operation is what ordinarily results in the disappearence of the head bearing adjectival inflection (ϕ), as it is fused with the *n* head. However, if NP ellipsis applies, then the ϕ head is stranded and subsequently reattached to the determiner as a non-canonical host. The assumptions that Local Dislocation is responsible for attaching the ϕ-affix to the determiner and that this operation applies under strict linear adjacency explains why reattachment only pertains in cases where the determiner does not bear its own inflection. Furthermore, It was shown that this general approach can also be employed for unexpected adjectival inflection on neuters found under NP ellipsis in Dutch. In addition, the 'stranded affix' approach also explains why we find the same exceptional inflection on determiners in split-NP constructions.

The assumption that ellipsis can bleed particular processes means that operations applying later on the PF branch have the chance to apply in ways they would not outside of elliptical contexts. Thus, ellipsis contexts can shed light on the ordering of postsyntactic operations that would otherwise be difficult to detect since earlier operations (such as Lowering) often block their application. When Lowering is bled, it becomes apparent that different languages adopt different repairs (e.g. Morphological Ellipsis in Spanish, and Local Dislocation in German/Hungarian) depending on the exact order of operatons on the PF branch (cf. Saab & Lipták 2016).

In sum, this approach allows us to derive the fact that determiners can bear strong endings only if their noun is elided without positing additional paradigms or assuming that ellipsis is licensed by agreement. In fact, this approach crucially views the occurence of strong inflectional endings as a consequence of NP ellipsis, rather than a licensing factor (*contra* Lobeck 1995).

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