The Structural Nature of Adjective Endings in German and some Consequences[1]

Dorian Roehrs (roehrs@unt.edu)

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1.   Introduction

This chapter is mainly concerned with the explanation of the strong and weak endings on adjectives in the German noun phrase. Compare the following typical inflectional alternation on an adjective where the ending is strong when no determiner is present and it is weak when there is a determiner. I exemplify these patterns here with the nominative neuter (for a complete survey, see Duden 1995):[2]

(1)   a.   *kaltes   Bier*
                cold(STRONG) beer
                'cold beer'

        b.   *das kalte   Bier*
                the cold(WEAK) beer
                'the cold beer'

In what follows, it is proposed that the derivation of the weak ending must take a certain structure into account. In other words, it is argued that it is not just the presence of a preceding determiner that brings about a weak ending but that a weak ending is only possible in one structural constellation. In particular, I propose that inflections are weak when they occur in a regular DP and undergo the morphological process Impoverishment. The diverse occurrence of the strong endings illustrated below is explained by other, different structures where Impoverishment does not apply. The main conclusion to be drawn from this discussion is that weak endings are not simply a surface phenomenon. In light of this proposal, a number of other cases appear to be "exceptional". It is proposed that the surface patterns of German nominal inflection are the result of several mechanisms that "mask" the main underlying mechanism.

   The chapter is organized as follows: the first part of the chapter contrasts the one context where weak inflections are found (i.e., garden-variety DPs) with several other contexts where strong endings occur. It is proposed that the latter cases involve different structures. Section 3 provides an explanation of all these cases in terms of the (non-)application of the mechanism Impoverishment, which is partially "masked" by some additional minor mechanisms. In section 4, I turn to strong and weak endings in Predicate Inversion structures and discuss some

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[1] This chapter pulls together some of the strings of my previous work, extends it and further refines it. It is part of a larger book project provisionally entitled "Explorations of the German Noun Phrase".
[2] I take it as an established fact that the strong and weak endings in German do not correlate with (non-)definiteness of the noun phrase as is commonly assumed for the Scandinavian languages (for discussion, see Harbert 2007: 130-137).

consequences of that. Before I conclude the chapter, I briefly illustrate the workings of some other mechanisms.

2.   Regular DPs vs. Other Structures

In this section, I contrast ordinary noun phrases with less common nominal constructions. I will follow much of the research tradition initiated by Abney (1987) and assume that the former type of cases involves a DP-structure. With the determiner in a separate DP-layer and the adjective in a Specifier just below that, I assume that this is the crucial constellation to derive the weak endings on adjectives in German. It will be proposed that determiners are responsible for bringing about the weak endings on adjectives (for the actual mechanism, see section 3). In contrast, the more "exotic" cases will be argued to involve structures, different from regular DPs and different from one another. Some independent evidence will be provided for the individual structures.

Proposing that weak endings occur in regular DPs only, there are methodologically two options to come to terms with the strong endings: (i) one could claim that the determiner is in a position where it cannot have an impact on the adjective; (ii) one could claim that the adjective itself is outside the determiner's regular domain of influence. Note that in each of these scenarios, the structural relation between the determiner and the adjective differs from that of ordinary DPs. The following discussion will feature both options. For expository clarity, the "special" position of either the determiner or the adjective will be marked by square brackets in the relevant tree diagrams.

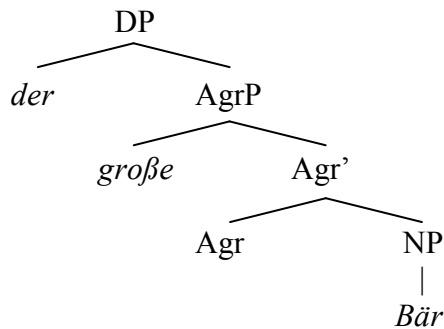### 2.1.   Regular DP vs. Low Right-Adjunction: Close Appositions

Let us begin by a garden-variety noun phrase, (2a), and compare it to a noun phrase where a name-like nominal (*Großer Bär* 'Big Bear') is attached to another nominal on its immediate left, (2b). As can easily be verified, the former must involve a weak and the latter a strong ending on the adjective:

(2)   a.   *der große(*r)   Bär*
            the big(WEAK/*STRONG) bear
            'the big bear'

       b.   *der Indianer Große*(r)   Bär*
            the indian   big(STRONG/*WEAK) bear
            'the Red Indian Big Bear'

Turning first to (2a), I follow Cinque (1994) and much subsequent discussion in that adjectives are located in Specifier positions in the extended projection of the noun (Grimshaw 1991). This type of position will be labeled Spec,AgrP. The determiner is in the DP-level. I assume the following structure for ordinary DPs:[3]

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[3] This structure is simplified as I abstract away here from some other DP-internal phrases (for discussion, see Julien 2005, Roehrs 2009). With successive-cyclic movement of determiners (section 3), the presence or absence of other phrases does not make a difference for the account developed below.

(3)   *Regular DP-structure (simplified)*

```
                    DP
            ┌────────┴────────┐
          der              AgrP
                    ┌────────┴────────┐
                  große            Agr'
                            ┌────────┴────────┐
                          Agr               NP
                                             |
                                            Bär
```
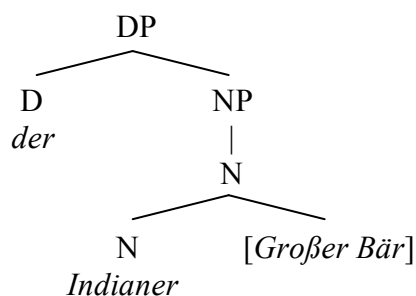
I take this to be the structural constellation where the weak endings come about (for the actual mechanism, see section 3). With a strong ending on the adjective in (2b), something else must be going on in that example.

As noted by Löbel (1991), the optional prepropial article as in *(die) Anna* 'Anne' is not possible with close appositions, (4a), and the name has to follow the noun it specifies, (4b):[4]

(4)   a.   *die Tochter (*die) Anna meines Nachbarn*
             the daughter   the Anna of.my neighbor
             'Anne, my neighbor's daughter '

       b. * *die Tochter meines Nachbarn (die) Anna*
             the daughter of.my neighbor   the Anna

I propose that a different structure is involved in (2b), where the name-like element is attached to the head noun of the DP on the left (e.g., Roehrs to appear, a):

(5)   *Close appositions*

```
                 DP
           ┌──────┴──────┐
          D             NP
         der             |
                         N
                   ┌─────┴─────┐
                   N       [Großer Bär]
                Indianer
```

Note that the adjective is not in the Specifier position below the determiner – the constellation for the weak ending. This, then, is the first context for a strong ending.

2.2.   Regular DP vs. Mid Right-Adjunction: Indefinite Pronoun Constructions

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[4] The latter example improves significantly if there is a long pause after *Nachbarn* 'neighbor' (see the discussion of loose appositions in section 2.3).

Roehrs (2008) argues that indefinite pronoun constructions involve several different types. With current purposes in mind, there are two types relevant here: one type shows a weak ending (see also Roehrs 2007b), (6a), and the other shows a strong ending, (6b):

(6) a. *jeder   andere(%r)*
         every(one) different(WEAK/%STRONG)
         'everyone different'

     b. *wer   andere*(r)*
         someone different(STRONG/*WEAK)
         'someone different'

It is argued there that, although both types involve concord between the pronominal element and the adjective, they involve different structures. If so, this also means that concord can only be a necessary, but not sufficient, condition for the occurrence of a weak ending. Turning to the individual structures, let us first point out that there are other important differences between these two types. Among others, the first type allows an overt noun but the second crucially does not:

(7) a. *jeder   andere   Mann*
         every(one) different(WEAK) Mann
         'every different man'

     b. * *wer   andere(r)   Mann*
         someone different(STRONG/WEAK) Mann
         'some different man'

As discussed in that paper, I assume (and I am simplifying here somewhat) that the former case involves a regular DP-structure with the option of overtly realizing the head noun and that the second involves a completely different structure. In particular, it is suggested for the latter that the adjective is part of a Modifier Phrase (ModP), which is right-adjoined to an Indefinite Pronoun Restrictor Phrase (IPRP). For examples like *jemand/wer anderer* 'somebody different', the structure looks as follows (e stands for a null element):

(8) *Indefinite pronoun construction*

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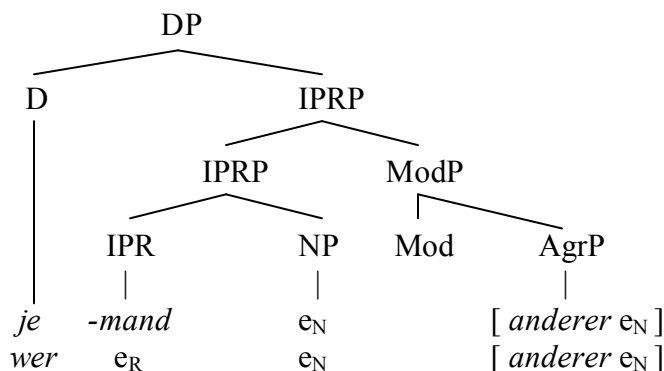
Notice again that the adjective is not in the Specifier position below the determiner. Next, we turn to a third type of adjunction.

2.3.   Regular DP vs. High Right-Adjunction: Loose Apposition

A typical case of a – what is sometimes called – loose apposition is given in (9a) below. Like in the two other cases above, the adjective can only be strong. This is in contrast to the loose apposition in (9b) and the pronominal DP in (9c) (for the detailed discussion of the last example, see the next section):
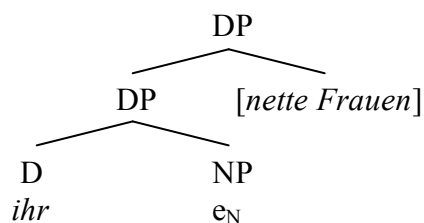
(9)   a.   *Das seid ihr, sehr nette(*n)   Frauen*.
            this is   you, very nice(STRONG/*WEAK) women
            'This is you, very nice women.'

        b.   *Das seid ihr, die sehr netten   Frauen*.
            this is   you, the very nice(WEAK) women
            'This is you, the very nice women.'

        c.   *ihr sehr netten   Frauen*
            you very nice(WEAK) women
            'you very nice women'

Unlike the two adjunction cases above, the nominal following *ihr* in (9a) is not name-like and can have an overt head noun. Moreover, these constructions have a distinctive intonation contour and a genitive complement to the head noun can only precede this type of apposition:

(10)   a.   *die Studenten unserer Uni, sehr gute   Linguisten*
            the students   of.our   univ, very good linguists
            'the students of our university, very good linguists'

        b. *   *die Studenten, sehr gute Linguisten, unserer Uni*
            the students,   very good linguists,   of.our   univ

In order to capture the fact that only a strong adjective ending is possible in (9a), I propose that this is another case of right-adjunction. As for the differences, I would like to suggest that adjunction is higher in the structure, namely to the DP-level (cf. Delorme & Dougherty 1972):

(11)   *Loose appositions*

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                    DP
              ┌──────┴──────┐
             DP         [nette Frauen]
          ┌───┴───┐
         D         NP
        ihr        eN
```

On this analysis, an issue arises that has to do with a ban of adjunction to an argument where adjunction is assumed to interfere with the assignment of a theta-role (Chomsky 1986). In order to avoid this issue, I will basically follow Bošković (2004) in assuming that this type of adjunction to DP occurs once the DP has received a theta-role and has moved out of its base-position. In other words, I extend Bošković's discussion of acyclic merge of floating quantifiers to loose appositives. As in the cases above, the adjective is not in the Specifier below the determiner, here the pronoun (see Postal 1966). Let us consider pronouns as determiners in more detail.

2.4.   Regular DP vs. Complex Specifier inside DP: Dis-agreement in Pronominal DPs

Postal (1966) argues that pronouns are determiners (for more recent discussion, see Roehrs 2005).[5] A typical case is given in (12a). What is interesting about this case is that both types of endings are, with some differences in preference, possible. Furthermore, Roehrs (2006b) discusses some pronominal DPs where plural pronouns and singular head nouns disagree in morphological number, (12b). Importantly, though, only strong endings are possible here:

(12)   a.   *ihr   dummen / $^{\%}$dumme   Idioten*
              You(PL) stupid(WEAK/$^{\%}$STRONG) idiots
              'you stupid idiots'

        b.   *ihr   dumme*(s)   Pack*
              you(PL) stupid(STRONG/*WEAK) gang
              'you stupid gang'

It is pointed out there that semantic agreement in number must hold between all these elements. For instance, like *ihr* 'you(PL)', both *Idioten* 'idiots' and *Pack* 'gang' imply several individuals. Turning briefly to some other properties, only one dis-agreeing nominal (e.g., *dummes Pack* 'stupid gang' in (12b)) is possible in each of these noun phrases. Furthermore, a (plural) adjective related to the pronoun can neither follow nor precede the dis-agreeing nominal:
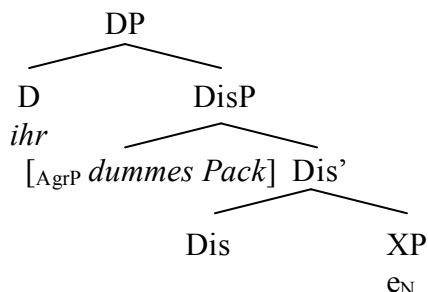
(13)   a.   *ihr dummes   Pack (*junge(n))*
              you stupid(STRONG) gang   young(STRONG/WEAK)
              'you stupid (young) gang'

        b.   *ihr (*dumme(n))   junges   Gemüse*
              you stupid(STRONG/WEAK) young(STRONG) vegetable(s)
              'you (stupid) young folks'

In contrast to pronominal determiners, garden-variety determiners such as *diese* 'these' do not tolerate morphological dis-agreement at all (e.g., *diese Pack 'these gang'). In order to capture these facts, Roehrs (2006b) proposed that the pronominal determiner can optionally select either AgrP resulting in the (ordinary) agreeing cases or a Dis-agreement Phrase (DisP) bringing about

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[5] This is fairly straightforward for "transitive" pronouns, where an overt head noun follows. However, I will assume that all pronouns, including cases that do not seem to involve a head noun, take such a nominal complement (see the structure in (11) above).

the dis-agreeing cases.[6] With the former case already discussed above, let us illustrate the latter, where the dis-agreeing nominal is assumed to be in Spec,DisP:

(14)   *Transitive pronouns (Dis-agreement)*

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              DP
         ┌─────┴─────┐
         D          DisP
        ihr      ┌────┴────┐
        [AgrP dummes Pack]  Dis'
                        ┌────┴────┐
                       Dis        XP
                                  eN
```

Note now that the difference between the agreeing DP in (12a) and the dis-agreeing case in (12b) is that the former has the adjective and its projected AP in Spec,AgrP but that the latter has both the adjective *and* the noun, which themselves are contained in AgrP, in Spec,DisP. Crucially, then, while the adjective is in the Specifier below the determiner in (12a), the adjective in (12b) is also in the Specifier below the determiner but more deeply embedded (cf. AP vs. AgrP, which contains AP). In sum, then, it is not surprising that (12a) shows a weak ending (for the less preferred strong ending, see section 3.3) but that (12b) does not, presumably establishing its own agreement relation with the overt noun. In section 4, we will return to the different layers of embedding in the context of Predicate Inversion.

So far, we have discussed four cases, where the adjective is outside the determiner's domain of influence. Next, we turn to cases, where the determiner itself is in a position where it cannot bring about a weak ending.

2.5.   Regular DP vs. Outside of DP Proper: Intensifiers

Roehrs (2009: Chap. 4) discusses some cases where determiners or determiner-like elements may co-occur (also Wood 2007). To get the discussion off the ground, consider first (15a), where the demonstrative occurs with a weak adjective. In contrast, the possessive element occurs with a strong adjective, (15b). Now, the demonstrative and the possessive element can be combined as in (15c). Importantly, the adjective must be strong:

(15)   a.   *dieses große(*s)   Glück*
              this   great(WEAK/*STRONG) happiness
              'this great happiness'

        b.   *mein große*(s)   Glück*
              my   great(STRONG/*WEAK) happiness
   'my great happiness'

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[6] With adjunction less constrained, these restrictions are best stated in terms of selection.

c. *dieses mein große*(s)*   *Glück*
    this   my   great(STRONG/*WEAK) happiness
    'this my great happiness'

In other words, the presence of the demonstrative does not play a morphological role for the adjective in (15c). This is surprising given that it does have an impact in (15a).

As is well-known, the demonstrative can only occur to the left of the possessive (cf. **mein dieses große(s) Glück* 'my this great happiness') and it seems to function as some kind of intensifier (Wood 2007). To explain this different behavior in the morphology, syntax, and semantics, it is proposed in Roehrs (2009) that the demonstrative is merged in an Intensifier Phrase (IntP), which is on top of the DP:

(16)   *Intensifiers*
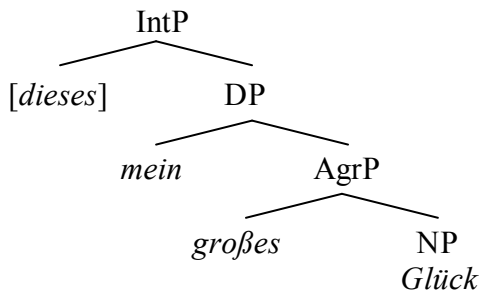
As can easily be verified, although the adjective is in the Specifier below the DP-level, it is not immediately below the much higher demonstrative.

2.6.   *Regular DP vs. Separate Base-generation: Split-NPs*

Fanselow (1988) and van Riemsdijk (1989) discuss discontinuous noun phrases, often referred to as split-NPs, where the lower part of a noun phrase occurs in a higher position and the higher part of the same noun phrase is in situ. This type of construction has a number of interesting properties. Among others, an adjective with a weak ending in a non-split noun phrase, (17a), will be strong if it occurs in the higher position, (17b):

(17)   a.   *Ich habe immer nur diese bunte*(n)*   *Hemden da getragen.*
          I   have always only these colored(WEAK/*STRONG) shirts   there worn
          'I have always worn only these colored shirts there.'

     b.   *Bunte(*n)*   *Hemden habe ich immer nur diese da getragen.*
          colored(STRONG/*WEAK) shirts   have I   always only these there worn
          'As for colored shirts, I have always worn only these there.'

Fanselow (1988) proposes that the two nominals in the split NP are base-generated separately in the VP and one of them eventually undergoes movement (see also Roehrs 2006a, 2007a). Some independent evidence for this comes from the fact that the discontinuous noun phrase can have two determiners:

(18) '*N Hemd habe ich immer nur dieses getragen.*
      a shirt have I   always only this   worn
      'As for a shirt, I only wore this one.'

With the two nominals assembled separately from one another, it should be clear that the adjective in (17b) was never in the Specifier below the determiner.[7]

      To sum up this section, we have discussed one context where weak endings occur (regular DP) and six contexts in which strong endings surface (the adjective may be part of three different types of adjunction, it may be deeply embedded inside a Specifier, the determiner may be outside of the DP proper, and both the determiner and adjective may be base-generated separately). In each case, the adjective or the determiner is in a different position as regards the assumptions about the structure of regular DPs. Some independent evidence was provided for the assumption of different structures. In the next part of the chapter, we provide the main account for the weak and strong endings and discuss some "unexpected" cases in regular DPs.

3.   Derivation of Adjective Endings in Regular DPs

In the previous section, we saw that there are several structures in which the adjective has a strong ending but only one structure with a weak one. In particular, showing that concord is only a necessary condition, we pointed out that the weak ending is only possible in a regular DP, where the adjective is in a Specifier right below the determiner. Given the diverse distribution of the strong endings, we can suggest that the latter instances involve some type of elsewhere case. I take this to mean that the strong endings surface when a certain structure and mechanism is not involved. In other words, underlyingly strong endings may be realized as weak endings under certain specific conditions only but as strong endings in all other circumstances.

      Specifically, I will propose that the weak endings follow from one mechanism inside a regular DP (Impoverishment). If this is on the right track, then a number of other cases that involve a regular DP appear to be "exceptional". I will argue that the main mechanism may be "masked" by other, secondary mechanisms. It is important to point out that the latter only hold in well-defined contexts; that is, they are restricted to certain combinations of "case + gender" or "case + number" and do not hold in a general fashion. To be clear, then, this part of the chapter proposes that the inflectional surface patterns of attributive adjectives in German do not receive a homogenous account but rather are the result of (at least) three different mechanisms.[8] If this discussion is tenable, then it has certain implications for other proposals. In section 4, I will discuss one particular structure involving Predicate Inversion and argue that a weak ending on an adjective in such a structure does not follow from the system developed here.

3.1.   Impoverishment – Ordinary Weak Endings

Traditionally, German is taken to have an inventory of five strong and two weak endings (Duden 1995, but see Roehrs 2009: Chap. 4). These endings distribute in a certain way. As already

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[7] Note that late separation, that is, generating all elements in a regular DP and moving the lower part out (e.g., van Riemsdijk 1989, Bhatt 1990: 249-250), would bring about a (wrong) weak ending on the analysis developed in section 3.

[8] There seem to be more mechanisms (see section 5).

briefly discussed in the introduction, if there is no (overt) determiner, then all adjectives surface with a strong ending, (19a). If a determiner is present, all the adjectives must be weak, (19b):

(19) a. *heiße*(r)*   *schwarze*(r)*   *Kaffee*
          hot(STRONG/*WEAK) black(STRONG/*WEAK) coffee
          'hot black coffee'
      b. *de-r*   *heiße(*r)*   *schwarze(*r)*   *Kaffee*
          the(STRONG) hot(WEAK/*STRONG) black(WEAK/*STRONG) coffee
          'the hot black coffee'

These are the stereotypical cases. Let us summarize this in the following generalization (< stands for precede; * stands for multiple occurrences):

(20) a. $\emptyset_{Det} < STRONG_{Adj*}$

      b. $STRONG_{Det} < WEAK_{Adj*}$

It is important to point out that the grammaticality judgments in (19) are very sharp. I propose that the morphological mechanism of Impoverishment explains these data. While I cannot go into too much detail here (for more detailed discussion, see Sauerland 1996, Roehrs 2009: Chap. 4), I assume that underlyingly, endings are abstract feature bundles that, if reduced by Impoverishment, are spelled out as weak endings. If they are not reduced, they surface as strong endings.[9] In particular, it is argued in Roehrs (2009: Chap 4) that the determiner moves from a position below the adjective, called the Article Phrase (ArtP), to the DP-level in a successive-cyclic fashion. Consider (21). Assuming the ancillary mechanism Percolation, the fully specified feature bundles of the adjectival inflections are reduced by Impoverishment, which is triggered by the presence of a determiner in a local domain (for details, see Roehrs 2009):

(21)
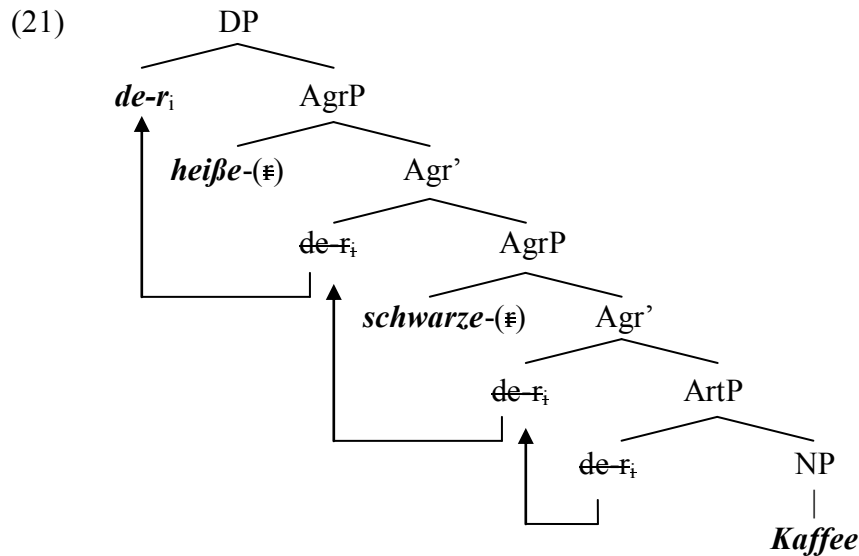
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[9] As is well-known, the (reduced) weak endings form a proper subset of the (unreduced) strong endings.

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This reduction process must be local occurring "bottom-up", as shown above. To see this, consider first (22a) and (22b), where both *alle* 'all' and *diese* 'these' trigger Impoverishment on the following adjective. Crucially, both of these elements can co-occur and when they do, both must appear with a strong ending, (22c). Now, if we make the plausible assumption that like with adjectives, the inflections on determiners and determiner-like elements can undergo Impoverishment, then the latter mechanism cannot have occurred with either of these two elements. Importantly, the adjective in (22c) is still weak. I propose that *diese* moves from below the adjective in both (22b) and (22c) bringing about a weak ending on the adjective. In contrast, while *alle* also moves from below the adjective in (22a), it crucially does not in (22c). As already suggested for a similar case in section 2.5, I assume that *alle* is an intensifier here. As such, it is base-generated higher up in the structure (i.e., in IntP), where it does not trigger or undergo Impoverishment:[10]

(22) a.   *alle   kleine*(n)   Autos*
           all(STRONG) small(WEAK) cars
           'all small cars'

      b.   *diese   kleine*(n)   Autos*
           these(STRONG) small(WEAK) cars
           'these small cars'

      c.   *alle   diese(*n)   kleinen   Autos*
           all(STRONG) these(STRONG) small(WEAK) cars
           'all these small cars'

As for the cases involving strong endings on the adjectives (sections 2.1-2.6), it should be clear that they do not appear in the relevant structural configuration, which involves a Specifier in the local domain of a determiner. As a consequence, these feature bundles do not undergo Impoverishment, remain unaltered, and are spelled out as strong inflections. With this in place, let us turn to some cases less-often discussed in the literature. It will be shown that making certain assumptions, they also follow straightforwardly from the system developed above. As a result, we will further refine the discussion in Roehrs (2009).

If Impoverishment occurs in a local domain, then the question arises how adjectival inflections that appear to be deeply embedded can undergo this type of feature reduction.[11] Consider (23), where an adjective projects an argument (Corver 1997). Interestingly, this argument is separated from the adjective by the degree word *sehr* 'very'. Despite the presence of

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[10] This argument only goes through if intensifiers can, at least in principle, trigger Impoverishment (see Roehrs 2009: 171 on the discussion of *ein* in *ein jeder* '(an) every'). Furthermore, if intensifiers can trigger Impoverishment, then adjunction of the intensifier to DP (perhaps à la Bošković 2004) could not explain the strong ending on the demonstrative in (22c) as the adjoined intensifier would be in a position to trigger Impoverishment on the demonstrative, which is in Spec,DP (see Roehrs 2009: 151-52).

[11] In Roehrs (2009), it is assumed that Percolation is local (i.e., within one phrase). If one were to give up that assumption, one could claim that Percolation goes all the way down the extended projection of the adjective and deeply embedded weak inflections would be explained. While this may be an alternative solution, it raises other issues that I would like to avoid (for discussion, see Heck 2009).

these elements, the adjective alternates between exhibiting a strong and a weak ending, as can be seen in (23a) and (23b):[12]

(23)   a.   *ein [auf seinen Sohn sehr stolzer]*   *Vater*
            a   of his   son   very proud(STRONG) father
            'a father very proud of his son'

       b.   *der [auf seinen Sohn sehr stolze]*   *Vater*
            the   of his   son   very proud(WEAK) father
            'the father very proud of his son'

Following, among many others, Zamparelli (2000: Chap. 7) and Neeleman, van de Koot & Doetjes (2004), I assume that adjectives have an extended projection, similar to verbs and nouns (Grimshaw 1991, van Riemsdijk 1998b; for demonstratives, see Roehrs to appear, b). In particular, with Corver (1991, 1997), I will assume that the extended projection of the adjective includes a Degree Phrase (DegP). Furthermore, assuming that theta-role assignment occurs in a local fashion (i.e., within AP), the intervening degree word implies that the argument must have moved to the left, stranding the adjective. This in turn implies that the extended projection of the adjective has more structure on top of DegP where the dislocated argument surfaces. If this is so, then the question arises how the adjectival inflection can undergo Impoverishment, given that it appears to be so deeply embedded in the structure.

Basically following Leu (2008), I propose that adjectives and their inflections are base-generated in separate positions: while the adjective forms the bottom part of the extended projection, the inflection closes this structure off. Moving top-down, I assume that the inflection projects an Inflectional Phrase (InflP), whose head hosts the abstract feature bundle eventually realized as a strong or weak ending.[13] Furthermore, I assume that there is a functional phrase (FP), which can form the landing site for the argument. Finally, DegP is on top of AP. The basic structure is provided in (24a).[14] Now, with the PP-argument moved to Spec,FP, I propose that FP moves to Spec,InflP. This is illustrated in a simplified fashion in (24b):

(24)   a.   [$_{InflP}$ Infl [$_{FP}$ F [$_{DegP}$ Deg [$_{AP}$ Adj]]]]

       b.   [$_{InflP}$ [$_{FP}$ [$_{PP}$ *auf seinen Sohn*] F *sehr stolz*]$_k$ Infl-*e* [... t$_k$ ...]]

The feature bundle is then spelled out on the element to its immediate left. More concretely, the adjective *stolz* 'proud' will surface as *stolze*. This derivation has a number of advantages. On the one hand, Impoverishment can occur in a local fashion (the inflection is in Infl and InflP itself is in Spec,AgrP) and on the other, the inflected adjective is, on the surface, adjacent to the head noun, a restriction that has been widely noted (e.g., Williams 1982, also Roehrs in prep.). If this is on the right track, then we can also account for some other, rarely discussed cases.

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[12] Cases involving *ein* 'a' and similar elements will be discussed below.

[13] With regard to adjectives, I diverge here from Roehrs (2009), where adjectives and Infl (=X in the latter work) are generated together. For determiners, I still assume that their stems are suffixed by Infl (=X) in the base.

[14] While I cannot explore this in detail here, there are good reasons to believe that the structure in (24a) is more complex. Furthermore, with the inflection separated from the adjective, the difference between attributive adjectives, which have an inflection, and predicative ones, which do not, can be captured by assuming that InflP is present in the former cases but not in the latter.

Based on work by van Riemsdijk (1998a: 673), Roehrs (2006a: 222) discusses some cases where the adjectival inflection is not on the adjective itself but on an element that is part of the extended projection of the adjective. Like above, the adjective alternates:

(25)   a.   *ein [so schnell wie möglich-es]*   *Aufräumen*
            a   so quick   as   possible(STRONG) cleaning
            'a cleaning as quick as possible'

       b.   *das [so schnell wie möglich-e]*   *Aufräumen*
            the   so quick   as   possible(WEAK) cleaning
            'the cleaning as quick as possible'

Aware of their anomalous properties, Roehrs calls these cases "phrasal" suffixes. As in the examples above, the question arises how the deeply embedded inflection can undergo Impoverishment. Furthermore, it is not clear how the inflection can occur on the non-head in the first place.

       I believe that the above discussion can shed some light on these issues. Let us assume that the adjectival head cannot move out of the comparative structure (CompP) marked by square brackets in (25). In order to provide an overt host for the feature bundle in Infl, CompP moves to Spec,InflP. Again simplifying somewhat, this can be illustrated as follows:

(26)   [$_{InflP}$ [$_{CompP}$ *so schnell wie möglich*]$_i$ Infl-*e* [... t$_i$ ...]]

This, then, allows Impoverishment not only to occur in a local fashion, just like above, but also explains the unexpected distribution of the adjectival inflection. Next, we briefly turn to some cases where a strong ending appears in a regular DP despite the presence of a determiner or a determiner-like element.

       It is well-known that *ein*-words (i.e., the indefinite determiner *ein* 'a', the numeral *ein* 'one', the negative determiner *kein* 'no', and possessive elements like *mein* 'my') occur with a strong adjective in three cases (but see also Roehrs 2009: Chap. 4): in the nominative masculine and in the nominative/accusative neuter, (27a). In all the other instances, the adjective must be weak as illustrated with a dative in (27b):

(27)   a.   *ein / mein großes*   *Auto*
            a   / my   big(STRONG) car
            'a / my big car'

       b.   *mit einem / meinem großen*   *Auto*
            with a   / my   big(WEAK) car
            'with a / my big car'

In view of these data, we need to say something about the determiners that do not trigger Impoverishment. In order to explain why only some of these elements have this property, we will not modify the general system laid out above but blame this behavior on some specific property.

       While I cannot go into all the intricacies of the proposal here, Roehrs (2009) argues that certain cases of *ein* (i.e., the cases mentioned above) move to the DP-level at a later point, which

is assumed to be too late for Impoverishment to occur.[15] Further assuming that possessives like *mein* 'my' consist of a possessive element *m-* and *ein*, these (and some other) cases basically receive the same account.

Let us briefly turn to possessor constructions involving a proper name. Here, we find the strong ending on the adjective also in the dative:

(28) a. *Marias großes   Auto*
    Mary's big(STRONG) car
    'Mary's big car'

   b. *mit Marias großem   Auto*
    with Mary's big(STRONG) car
    'with Mary's big car'

This, then, is in stark contrast to the *ein*-words above (including *mein* 'my') and calls for a different account. Interestingly, there is one indication that these cases also involve some kind of determiner.

As is well-known, (superficially) unpreceded adjectives have two types of endings: they are strong in all instances, (29a), except for the masculine/neuter genitive, where they are weak, (29b). Again, while I cannot go into too much detail here, Roehrs (2009) assumes that there are two types of null determiners: (i) one type moves to the DP-level late and does not trigger Impoverishment, (29a), and (ii) due to certain featural specifications, the second type moves to the DP early triggering Impoverishment, (29b). Interestingly, when a name functions as the possessor, the pattern is as in the latter case. Compare (29b-c):

(29) a. *heißer   schwarzer   Kaffee*
    hot(STRONG) black(STRONG) coffee
    'hot black coffee'

   b. *statt frischen / *frisches   Brotes*
    instead of fresh(WEAK/*STRONG) bread(GEN)
    'instead of fresh bread'

   c. *wegen Marias guten / *gutes   Schülers*
    because of Mary's good(WEAK/*STRONG) pupil(GEN)
    'because of Mary's good pupil'

Here, I will simply assume that the same null determiner is involved in both (29b) and (29c).[16] Next, I turn to some "exceptions" in well-defined contexts. These cases concern unexpected weak and strong endings in the same configuration as above, namely in the regular DP.

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[15] One way to instantiate this is by assuming that Percolation does not occur at that point anymore.
[16] This would mean that null determiners are unmarked for definiteness, given that they occur with definite possessors. However, this should not be surprising as we suggested above that pronominal elements like *mein* 'my' consist of a (definite) possessor element *m-* and *ein*. Alternatively, one could claim that the *–s* on *Marias* is also a two-flavored determiner with the same specifications as the two null determiners described in the main text (note that it is well-known that the ending on *Marias* is not a genuine genitive inflection; cf. *der Maria* 'of the Mary').

3.2.   Phonological Rule – An Unexpected Weak Ending

In the previous section, we saw examples where two co-occurring adjectives have the same ending, with either all endings being strong (cf. (19a)) or all endings being weak (cf. (19b)). There is one much-discussed exception to this: in the masculine/neuter dative, there is the possibility that although there is no overt determiner, the second adjective can exhibit a weak ending, as in (30b) (% indicates variation with speakers):

(30)　a. %　*mit　frischem　　schwarzem　　Kaffee*
　　　　　　with fresh(STRONG) black(STRONG) coffee
　　　　　　'with fresh black coffee'

　　　b. %　*mit　frischem　　schwarzen　　Kaffee*
　　　　　　with fresh(STRONG) black(WEAK) coffee

　　　c. ??　*mit　frischen　　schwarzem　　Kaffee*
　　　　　　with fresh(WEAK) black(STRONG) coffee

　　　d. ??　*mit　frischen　　schwarzen　　Kaffee*
　　　　　　with fresh(WEAK) black(WEAK) coffee

These patterns have a number of peculiar properties. First, the grammaticality judgments are less sharp than in the previous section. Second, these inflectional distributions are restricted to the two instances above. For instance, this is not possible in the feminine gender:

(31)　a.　　*mit　guter　　　roter　　　　Sauce*
　　　　　　with good(STRONG) red(STRONG) sauce
　　　　　　'with good red sauce'

　　　b. *　*mit　guter　　　roten　　　　Sauce*
　　　　　　with good(STRONG) red(WEAK) sauce

Third, different authors report different possibilities, which I will refer to here as dialects. Considering the two inflectional options in table 1 (column 1), Gallmann (1996, 2004), Schlenker (1999), and Demske (2001) describe dialect 1; Müller (2002) discusses dialect 2; and Schlenker (1999) also reports that some speakers have dialect 3. As far as I know, dialect 4 does not exist. In other words, all speakers have at least one of the two inflectional distributions in their language:

Table 1: Different Dialects for the Masculine/Neuter Dative

	Dialect 1	Dialect 2	Dialect 3	Dialect 4
Adj+*m* Adj+*m*	√	√	??	??
Adj+*m* Adj+*n*	√	?	√	??

In order to explain these exceptional properties, I propose that the alternation in (30a-b) follows from a phonological rule:

(32)   R$_1$:   m   ->   n   / [...]$_A$ +ə____#

The application of the rule is optional in dialect 1, "costly" in dialect 2, and obligatory in dialect 3. Making certain other assumptions, this rule explains the unexpected weak endings in regular DPs of dialects 1 and 3 (for more details, see Roehrs to appear, a; for *m~n* alternations in indefinite pronoun constructions, see the same paper). Next, we turn to a different type of restriction in the dative.

3.3.   Disambiguation – Unexpected Strong Endings

As discussed in section 2.4, pronouns are determiners. If this is so, then the weak ending in (33) is not surprising and follows from the system laid out above. However, the very possibility of the strong ending and its dialectal restriction call for an explanation:

(33)   *wir netten / $^{\%}$nette   Studenten*
         we nice(WEAK/$^{\%}$STRONG) students
         'we nice students'

In Roehrs (2009), I propose that pronouns are ambiguous between determiners (which trigger Impoverishment) and quantifiers (which do not). This lexical option accounts for the two possibilities in (33). What is left to explain now is the difference in preference between the strong and the weak ending. Morphologically, we will see that different combinations of "case + gender" or "case + number" result in different preferences. I will claim that these distributions are due to a preference or a requirement to disambiguate the noun phrase morphologically.

     Noun phrases in German inflect for three morphological features: gender, case, and number. Given that certain pronouns are ambiguous in gender or case (but not number) and that both a strong and weak ending is possible on the adjective, only the (strong) adjectival inflection can overtly disambiguate the relevant morphological category.[17] First, we discuss cases where gender is (preferably) disambiguated by the adjective ending. In the second subsection, we turn to morphological case, which must be disambiguated by the adjective ending.

3.3.1.   Preferred Disambiguation of Morphological Gender

As can be seen in (34), many personal pronouns can, at least in principle, be followed by both a weak and a strong adjective (see also Duden 2007: 39).[18] Recall from above that this general optionality follows from the assumption that personal pronouns are ambiguous between determiners and quantifiers. Putting (34a) aside for a moment, we notice a preference for the

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[17] Abstracting away from certain spelling conventions, the only pronoun ambiguous in number is *sie*, which translates as 'she', 'they', or 'you(SGL/PL, formal)'. However, these cases are not "transitive"; that is, they cannot appear with an overt noun or adjective. Note also that adjectives can only have these disambiguating functions if they are present in the noun phrase.

[18] Singular non-third-person pronouns in the nominative/accusative only occur with strong adjectives. As such, they behave like the three "exceptional" *ein*-words discussed above and I assume that they receive a similar account (Roehrs 2005, 2009). Note also that pronominal DPs in the genitive do not exist.

weak ending in (34b) versus the strong ending in (34c). This seems to correlate with a difference in gender: (34b) has a feminine head noun and (34c) has a masculine one (the same pattern holds for the neuter, not shown here). Importantly, although gender is inherently specified on the head noun, it manifests itself overtly not on the head noun but usually only on an element preceding the head noun. With the dative singular pronoun the same for all genders, only the adjective can overtly exhibit gender. Now, note that the adjective ending *–en* is multiply ambiguous and cannot reliably indicate different genders:

(34) a.   *wir netten / %nette*   *Studenten*
            we nice(WEAK/%STRONG) students
            'we nice students'

      b.   *mir großen / %großer*   *Gans*
            me great(WEAK/%STRONG) goose(FEM)
            'me stupid idiot'

      c.   *mir großem / %großen*   *Esel*
            me great(STRONG/%WEAK) donkey(MASC)
            'me stupid idiot'

I propose that German prefers to disambiguously mark grammatical gender in the morphology, as in (34c), unless it leads to – what sounds like – the sequence of two strong endings, (34b).[19] It seems, then, as if speakers tend to avoid similar endings on lexically different but co-occurring elements (i.e., pronouns and adjectives). I take this to be an economy condition that, if possible, avoids morphological redundancy ("be disambiguous [in gender] but not redundant").

 Returning to the nominative plural in (34a), note that it patterns with the feminine in (34b); that is, both have a weak ending. However, the general acceptability of a weak ending is due to different reasons in these instances. Notice first that the plural datum does not involve any disambiguation at all: gender considerations do not hold in the plural in German; number and case are clearly provided by the pronoun. Thus, the preferred weak ending cannot be due to disambiguation. I suggest that this inflectional pattern follows the stereotypical distribution discussed in section 3.1, where an adjective following a determiner is overwhelmingly weak. If so, this makes it plausible why the multiply ambiguous ending *–en* is the best option here. To be clear, then, while (34b) tends to *avoid* a specific (feminine) strong ending, (34a) generally *prefers* a weak ending. We turn to case.

3.3.2. *Required Disambiguation of Morphological Case*

It will be recalled from above that both strong and weak endings are possible in the pronominal DP. With *–en* ambiguous between a strong and a weak ending in the dative plural, these two

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[19] Compare this to the following regular DP, which is completely ungrammatical with two strong endings:
    (i)   *der   großen / *großer   Gans*
           the(STRONG) big(WEAK/*STRONG) goose
           'the great idiot'
Again, that the strong ending in the feminine in (34b) is at all possible has to do with the fact that unlike regular determiners, pronouns are lexically ambiguous.

options cannot be teased apart in the dative plural, (35a). Importantly, however, only a strong ending is possible in the accusative plural, (35b).

(35)   a.   *von   uns netten   Schülern*
              from us   nice(STRONG/WEAK) pupils(DAT)
              'from us nice pupils'

       b.   *für uns nette(*n)   Schüler*
              for us   nice(STRONG/*WEAK) pupils
              'for us nice pupils'

Note that while the non-third-person pronouns are the same in the dative and accusative plural, the head noun has a case inflection in the dative (but not in the accusative) and may potentially disambiguate the two instances. However, as discussed by Wegener (1995: 154-63) and Gallmann (1996: 289), this case inflection has become somewhat unstable. If so, it may not reliably distinguish the two cases. Given that the weak ending –*en* in the accusative plural is identical to the ambiguous inflection –*en* in the dative plural, only the strong ending –*e* in the accusative plural can disambiguate these instances. Unlike with gender, then, non-nominative case must be distinguished in the plural. This difference may ultimately follow from the fact that unlike morphological gender, case has grammatical function as it may distinguish between direct and indirect objects.

        To sum up, in the cases discussed above, all the weak endings are in the same configuration (regular DP) and Impoverishment (section 3.1) and a phonological rule (section 3.2) explains them. The strong endings in this structural configuration are due to something else: the lexical ambiguity of pronouns allows them, the desire to disambiguate (masculine) gender prefers them, and the disambiguation of dative vs. accusative case in the plural requires them (section 3.3). If no morphological disambiguation is at issue, the weak ending is preferred, presumably a reflex of the stereotypical pattern discussed in section 3.1. With this in place, we turn to some consequences for another type of proposal.
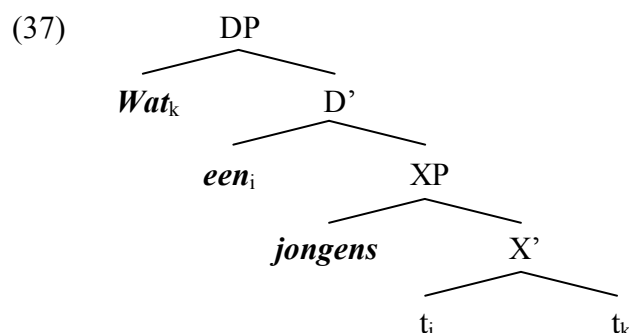

4.   Weak Endings in Predicate Inversion Structures

Taking Dutch as their empirical basis, Bennis, Corver & den Dikken (1998) (henceforth BC&D) discuss – what they call – *wat*-exclamative constructions, (36a). Like some other constructions they investigate, a singular indefinite article is compatible with a plural noun, (36b). They call this article spurious. Unlike in (36b), however, the article is obligatory in (36a):[20]

(36)   a.   *Wat *(een) jongens!*   (Dutch)
              what   a   boys
              'What boys!'

       b.   *idioten van (een) mannen*
              idiots of   a   men
              'idiots of men'

---

[20] The presence of the indefinite article in (36b) has semantic consequences (see den Dikken 2006: 171).

Adopting the general framework of den Dikken (1995), they propose a small clause structure with some further functional positions on top. Considering (37) below, the small clause is represented by XP and the functional structure by DP. The nominal *jongens* 'boys' is assumed to be the subject, *wat* 'what' is the predicate, and *een* 'a' is the head of the small clause. They propose that D is an [+EXCL] operator, which needs to be lexicalized. As a consequence, *een* raises from X to D. The predicate *wat* undergoes Predicate Fronting to Spec,DP, a type of A'-movement, which for them, results in something similar to Verb Second in the clause (their tree diagram on page 106 is slightly adapted here):

(37)

```
                    DP
                   /  \
               Watₖ    D'
                      /  \
                  eenᵢ    XP
                         /  \
                   jongens   X'
                            /  \
                          tᵢ    tₖ
```

The counterpart of the *wat*-exclamative in German is different. First, unlike in Dutch, the prepositional element *für* must be present, (38a). Second, the spurious article is not obligatory and seems to be possible in some dialects only (all cases in (38b) were delivered by an informal *Google*-search).[21] Compare (38a-b):

(38) a. *Was *(für) Ferien!*
          what for holidays
          'What holidays!'

      b. % *Was für eine Ferien/Typen/Idioten/Frauen!*
             what for a(PL) holidays/guys/idiots/women

After these preliminary observations, let us return to the main line of investigation. To make these cases relevant, let us see how an adjective, especially its inflection, fares when it is added to the subject of the small clause.

   With no (overt) determiner present, the adjective has a strong ending, (39a). It should be clear that this is expected and basically follows from the system developed above. Something interesting happens when the spurious article is present. Under this condition, the adjective must be weak, (39b):

(39) a. *Was für tolle(*n)*   *Ferien!*
          what for great(STRONG/*WEAK) holidays
          'What great holidays!'

---

[21] Interestingly, Leu (2008: 122) claims that interrogatives such as **Was für eine Bücher?* 'What (for a =) kind of books?' are ungrammatical in German. He concludes that these structures cannot be analyzed as *eine ART Bücher* 'a KIND OF books', where the capitalized noun remains unpronounced. If so, interrogatives are different from exclamatives.

b. % *Was für eine tolle*(n)   Ferien!*
     what for a(PL) great(WEAK/*STRONG) holidays

With BC&D's discussion in mind, the structure for (39b) would presumably look as follows:

(40)

Was$_k$

für+eine$_i$ XP

[*tollen Ferien*]   X'

t$_i$ t$_k$

DP — D' — ...
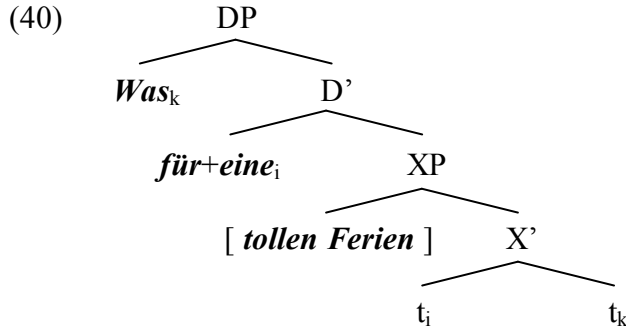
The question that arises now is how to account for the weak ending in (39b), given this structure.[22]

    Note first that the Predicate Inversion structure, simplified in (41a) below, is configurationally identical to the disagreement case discussed in section 2.4. In particular, in both cases, the adjective and noun form complex Specifiers. In other words, unlike regular DPs, both cases in (41) have an additional layer of embedding. Furthermore, both the spurious article and the pronoun move across this Specifier:

(41)   a.   [$_{DP}$ ... *eine* [$_{XP}$ [A$_{WEAK}$ N] X   [...]]]

        b.   [$_{DP}$ pron [$_{DisP}$ [A$_{STRONG}$ N] Dis [...]]]

Now, despite these apparent structural and derivational commonalities, (41a) involves morphological agreement and semantic dis-agreement (see momentarily) and (41b) involves semantic agreement and morphological dis-agreement (section 2.4). Crucially, these differences correlate with the type of ending, weak in the former and strong in the latter case.

    As seen above, German *ein* exhibits a typical plural ending in these cases: *ein-e* 'a(PL)' vs. *dies-e* 'these'. It appears then as if the spurious article morphologically agrees but semantically dis-agrees with the noun. BC&D (1998: 94, 97) explicitly claim that the indefinite article does not form a constituent with the following noun (and adjective). In their base position, though, the noun (and adjective) and the indefinite article are in Spec-head relation. This, for instance, explains certain agreement patterns in English (e.g., *What a man / *a men*!). In order to explain the plural morphology in German, we could assume that English *a* is specified for semantic and morphological number but that German *ein* has only a morphological

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[22] Some remarks are in order here. Note first that in their discussion of *N of a N*-constructions, BC&D (1998) allow a preposition and a spurious article to occupy the same head position. In other words, the structure in the main text should in principle be fine. Second, they state explicitly (p. 112), that *wat*-exclamatives do not involve the intermediate phrase FP (between XP and DP), where *een* would be in F and *wat* would, as an instance of Predicate Inversion, move through Spec,FP on its way to Spec,DP (see their discussion of *wat voor*-interrogatives on pages 109-110). Note, however, that even if we assumed the latter possibility for German, the problem to be discussed in the main text would still remain.

specification.[23] Now, while the morphological specification can be valued in the relevant Spec-head relation, the non-specification for semantic number in German makes *ein* (but not *a*) compatible with a plural noun. So far, so good. Note, however, that this Spec-head relation is not sufficient to explain the weak ending on the adjective.

Recall from section 2.2 that concord is not a sufficient condition for a weak ending. What is required is an appropriate structure. As is clear from the discussion above, the Predicate Inversion structure is not a regular DP, which leaves the occurrence of the weak ending unexplained in the system developed above. To summarize, at best, one could state, then, that the indefinite article in these constructions is not entirely spurious in German. Accepting BC&D's structure, one would need to modify the above analysis to account for the weak adjective.[24] At worst, the weak ending on the adjective hints at the fact that BC&D's structure is not on the right track.

While I cannot fully discuss these constructions here, on the system developed above, the indefinite determiner must form a regular DP with the adjective (and head noun). Noting that these exclamative constructions are, in some sense, "affective", what one would need, then, is a mechanism that licenses the overt occurrence of the plural indefinite article in this context.[25] Before we conclude the chapter, let me briefly point out that there must be some other mechanisms that explain the distribution of nominal inflections in German.

5.   Further Mechanisms

Above, we focused on the interaction between the determiner and the adjective. In particular, we argued that the determiner triggers Impoverishment on the inflectional feature bundle, which in turn gets spelled out as weak. Interestingly, there are at least two more mechanisms. First, as Gallmann (1996: 293) discusses, the inflection on the head noun is important in licensing a weak inflection on a preceding element. Assuming that *manch-* 'some' is lexically ambiguous between a determiner and an adjectival quantifier, the genitive presents a relevant case. Here determiners

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[23] Considering that I suggested above that *mein* 'my', *unser* 'our', and *kein* 'no' are composites consisting of a possessive/negation element and *ein* and given that these forms in the plural are legion, this is needed independently.

[24] This modification should preferably not be a second (construction-specific) mechanism that simply serves to "save" the Predicate Inversion analysis. Interestingly, for ordinary DPs such as (ia), den Dikken (2006: 49) proposes the structure in (ib), where the adjective is in the Specifier position of a Relator Phrase (RP) and the noun is in the complement position of it:

(i)   a.   a big butterfly
           b.   [$_{DP/NumP}$ *a* [$_{RP}$ [$_{AP}$ *big*] [RELATOR [$_{NP}$ *butterfly*]]]]

Importantly, the adjective is also in the Specifier below the determiner, just as in the case involving AgrP. The question, then, still remains how the weak endings can be accounted for in the two different structures employing presumably just one mechanism.

[25] Note in this regard that the ending on *ein-e* could also be feminine (and not plural as assumed in the main text). One could then assume the presence of a feminine noun such as *Art* 'kind', which remains unpronounced in "affective" contexts: *eine ART Frauen* 'a KIND OF women'. Note, however, that weak adjectives present a problem again. Here is a relevant example from German (cf. BC&D's footnote 7):

(i)   *Eine coolen   Typen kamen zur   Party*!
           a   cool(WEAK) guys   came   to.the party
           'Some cool guys came to the party!'

Considering (i) and pointing out that *–en* is not a weak ending in the feminine nominative, one could analyze the subject nominal as *eine ART coolen Typen*. If so, then it remains unclear how to explain the weak ending on the adjective (cf. footnote 21 above).

have a strong ending but (unpreceded) adjectives have a weak ending. Compare (42a) to (42b). The crucial difference between (42b) and (42d) is that the genitive ending on the noun is strong in the former but weak in the latter:[26]

(42) a. *manches   Schülers*
        some(STRONG) pupil
        'of some pupil'

     b. *manchen   Schülers*
        some(WEAK) pupil

     c. *manches   Studenten*
        some(STRONG) student
        'of some student'

     d. * *manchen   Studenten*
        some(WEAK) student

It appears then as if at least one strong ending has to be present to license the genitive.

   Second, both the determiner/adjective and noun seem to be dependent on one another. This can be nicely seen in the accusative. Again, as discussed by Gallmann (1996: 284), the noun can only have an ending if and only if the determiner/adjective has an inflection too. Unlike above, the "optional" ending on the noun occurs when there is another inflected element present, (43a), but it does not occur when no such element is present, (43b):

(43) a. *Orchester ohne   dies-en / eign-en   Dirigent-*(en)*
        orchester without this   / one's own conductor
        'orchester without this/one's own conductor'

     b. *Orchester ohne   Dirigent-(*en)*
        orchester without conductor
        'orchester without conductor'

Note that these judgments are not as strong for all speakers as indicated here. I will restrict myself to these points.

6.   Conclusion

The purpose of this chapter was to investigate the relevant conditions for the weak and strong endings. In the course of the discussion, we isolated one structure where weak endings occur (regular DP) and six contexts where strong endings surface. In each case, some independent evidence was provided that suggests that different structures are involved. Illustrating that concord is a necessary (but not a sufficient) condition, it was proposed that the weak endings are underlyingly fully specified feature bundles that get reduced by Impoverishment and are

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[26] Although different in inventory and distribution, strong or weak endings also appear on (certain) nouns.

eventually spelled out as the weak inflections. Impoverishment is triggered by the determiner, which moves across adjectives in Specifier positions. Importantly, it was also claimed that Impoverishment is sensitive to the depth of the embedding of the inflection. If the feature bundles are not reduced, then they get spelled out as the strong endings. In that sense, the strong endings are the elsewhere case, which explains their diverse occurrences.

In light of this discussion, a number of unexpected weak and strong endings were discussed. It was suggested that there are other mechanisms: besides Impoverishment, there is a phonological rule and morphological disambiguation, the latter being preferred for gender but required for case. Then, we turned to a very influential type of proposal – Predicate Inversion. We argued that the weak endings in these structures do not follow from the system developed here. This means that we either have to modify the present account or change the Predicate Inversion structures. The last section illustrated briefly that there are presumably still other mechanisms that are needed to explain the whole range of nominal inflections in German. It remains to be seen if all these mechanisms can be reduced in number at some more abstract level of investigation.

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