

# On a Certain Strong/Weak Ending in the German DP: Schwa and Zero Equal Nothing<sup>1</sup>

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## 0. Introduction

German is a language with rich nominal inflection, where noun phrases may distinguish case, number, and gender by way of exhibiting different endings. Traditional grammars and proposals usually discuss five different sets of endings (for references and discussion, see Roehrs 2006a): two sets of endings for determiners (e.g., for the definite and indefinite articles) and three sets of endings for adjectives (i.e., the strong, weak, and “mixed” paradigms).<sup>2</sup> Making certain assumptions (see below), Roehrs (2006a) takes the first steps at reducing the number of these sets of endings from five to two. While the proposal of two basic paradigms is certainly not novel, the particular current assumptions and resultant system are. In what follows, this system and its assumptions are further streamlined.

To prepare the discussion, section 1 demonstrates the well-known facts that definite determiners (e.g., demonstratives) and strong adjectives share the same endings and that this set of endings is different from that of the weak adjectives. In other words, collapsing the first two sets of endings into one, we are left with just the strong and weak sets of endings. Having reduced the sets of endings by one, I turn in section 2 to the discussion of the definite article and the third-person personal pronouns showing that these determiners have partially different endings from those discussed in section 1. This discussion is then related to that of the indefinite article and the “mixed” adjectival endings begun in Roehrs (2006a). In particular, assuming that there are null inflections more generally and that certain determiners may appear in D at different times, it is argued in section 3 that all these “exceptional” cases can be reduced to the basic strong and weak inflections discussed in section 1. Finally, section 4 shows that, if we construe null endings as a lack of ending, then we not only reduce the number of exponents of both the strong and weak paradigms but we also arrive at two desirable consequences; for instance, we arrive at a simpler analysis of split NPs that involves an abstract suffix (rather than particular endings) licensing the null head noun in the “stranded” nominal. Section 5 summarizes the discussion.

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<sup>1</sup> This paper is part of a book project with the working title *Nominal Auxiliaries*. It is based on my dissertation (Roehrs 2006a). Comments are welcome.

<sup>2</sup> The terms ‘strong’ and ‘weak’ go back to Jacob Grimm (1870: 718-756) and are labels for the endings of these elements shown in certain syntactic contexts, something I will address here only to the extent necessary (for more complete discussion, see Roehrs 2006a).

# 1. The Strong and Weak Inflections: The Traditional Endings

This section illustrates the well-known fact that determiners and adjectives in German exhibit two basic types of endings. Comparing tables 1a and 2a, one can see that the strong adjective has the same endings as the definite determiner *dieser* ‘this’ (as well as *jeder* ‘every’, *jener* ‘that’, and others). As marked in bold print in table 2a, there is one exception, where the endings in the masculine and neuter genitive are not identical (for some discussion, see below and also Roehrs to appear):

Table 1a: Inflections on the Demonstrative *dies-* ‘this’

Case\Gender	Masculine	Neuter	Feminine	Plural
Nominative	dies-e-r	dies-e-s	dies-e	dies-e
Accusative	dies-e-n	dies-e-s	dies-e	dies-e
Dative	dies-e-m	dies-e-m	dies-e-r	dies-e-n
Genitive	dies-e-s	dies-e-s	dies-e-r	dies-e-r

Table 2a: Strong Inflections on the Adjective *gut-* ‘good’

Case\Gender	Masculine	Neuter	Feminine	Plural
Nominative	gut-e-r	gut-e-s	gut-e	gut-e
Accusative	gut-e-n	gut-e-s	gut-e	gut-e
Dative	gut-e-m	gut-e-m	gut-e-r	gut-e-n
Genitive	<b>gut-e-n</b>	<b>gut-e-n</b>	gut-e-r	gut-e-r

Looking at tables 1a and 2a in more detail, we can distinguish five different strong endings: *-r*, *-s*, *-m*, *-n*, *-e*. In contrast, the weak set of endings in table 3a below shows only two different endings: *-n*, *-e*. In other words, the strong set has three more inflections than the weak one and it is thus better able to disambiguously mark case, number, and gender of the DP. Note also that both sets of endings differ in ten (out of sixteen) cells. This is marked in bold print in table 3a:

Table 3a: Weak Inflections on the Adjective *gut-* ‘good’

Case\Gender	Masculine	Neuter	Feminine	Plural
Nominative	<b>gut-e</b>	<b>gut-e</b>	gut-e	<b>gut-e-n</b>
Accusative	gut-e-n	<b>gut-e</b>	gut-e	<b>gut-e-n</b>
Dative	<b>gut-e-n</b>	<b>gut-e-n</b>	<b>gut-e-n</b>	gut-e-n
Genitive	gut-e-n	gut-e-n	<b>gut-e-n</b>	<b>gut-e-n</b>

To summarize, the above discussion illustrates the following well-known generalization:

- (1) *(Non-)Identity*
  - a. The ending on the determiner = the strong ending on the adjective.
  - b. The strong ending on the adjective  $\neq$  the weak ending on the adjective.

In what follows, I will refer to the endings on the determiner and the strong adjective simply as ‘strong endings/inflections’ and to those of the weak adjective as ‘weak endings/inflections’. Note that the weak endings form a proper subset of the strong inflections:<sup>3</sup>

- (2)    a.     *Strong Endings*  
              -r, -s, -m, -n, -e  
           b.     *Weak Endings*  
              -n, -e

## 2.     **The Problem: Determiners with Different Endings**

From the perspective of section 1, I discuss in this section two, at first glance, unrelated exceptions. However, I will argue that both problems are not only related but also just apparent.

### 2.1.    *The definite article*

The definite article in German differs from the determiners discussed in section 1 in that the final *-e* on <di-e> is not pronounced as schwa, as implied by the segmentation in table 1a’ below, but <die> is actually pronounced [di:]. As such, it is different from the strong endings (cf. table 1a above), where this difference is marked in bold print in table 1a’ below:

Table 1a’: Inflections on the Definite Article *d-* ‘the’

Case\Gender	Masculine	Neuter	Feminine	Plural
Nominative	de-r	da-s	<b>di-e</b>	<b>di-e</b>
Accusative	de-n	da-s	<b>di-e</b>	<b>di-e</b>
Dative	de-m	de-m	de-r	de-n
Genitive	de-s	de-s	de-r	de-r

Strictly speaking, these four endings of the definite article are exceptional and the traditional segmentation is misleading. While this difference is usually abstracted away from in traditional accounts, I will take it seriously here with the intention to explain it. As a first step, I propose that these instances of the definite article have a strong null ending:<sup>4</sup>

Table 1b’: Inflections on the Definite Article *d-* ‘the’

Case\Gender	Masculine	Neuter	Feminine	Plural
Nominative	de-r	da-s	die-Ø	die-Ø
Accusative	de-n	da-s	die-Ø	die-Ø
Dative	de-m	de-m	de-r	de-n
Genitive	de-s	de-s	de-r	de-r

<sup>3</sup> The schwa preceding the consonantal endings in tables 1a through 3a is presumably due to some insertion rule (see section 3).

<sup>4</sup> In section 4, I follow Wiese (1988) in arguing that these cases have no ending at all.

Interpreted this way, the *-e* in <di-e> is now taken to be a spelling convention, indicating long [i:] just as in words like *sieben* ‘seven’. This discussion can now be extended to personal pronouns of the third person.

If Postal (1966) is right in that personal pronouns are determiners (see also Roehrs 2005, 2006b and references cited therein), then we can update the relevant segmentations as follows:<sup>5</sup>

Table 1b’’: Inflections on the Third-person Personal Pronouns

Case\Gender	Masculine	Neuter	Feminine	Plural
Nominative	e-r	e-s	sie-Ø	sie-Ø
Accusative	ih-n	e-s	sie-Ø	sie-Ø
Dative	ih-m	ih-m	ih-r	ih-n+en
Genitive	<b>seiner</b>	<b>seiner</b>	<b>ihrer</b>	<b>ihrer</b>

The conception of strong null endings is not surprising when one considers other closely related languages.

In indefinite noun phrases, Dutch has a null strong ending in the neuter gender and the (Mainland) Scandinavian languages, here exemplified by Norwegian, have a null strong ending in the common gender. Compare (3a) to (3b) and (3c) to (3d), respectively.

- (3) a. *een goed-e vulpen* (Dutch)  
a good pen(COMM)  
b. *een goed-Ø potlood*  
a good pencil(NEUT)  
c. *en stor-Ø bil* (Norwegian)  
a big car(COMM)  
d. *et stor-t hus*  
a big house(NEUT)

In section 3, I extend this claim involving null endings to the other definite determiners from section 1 and adjectives in general. The result will be that all these determiners and adjectives will have identical strong inflections without exception. Before we embark on this part of the proposal, let us relate this discussion to the indefinite article.

## 2.2. The indefinite article

Assuming that they are indeclinable, the three instances of inflectionless *ein* ‘a’ (nominative masculine and nominative/accusative neuter) are often treated as an exception (for references and discussion, see Roehrs 2006a: Chap. 4). However, comparing *ein* in unsplit and split NPs (for

<sup>5</sup> Note that pronouns in the genitive exhibit “frozen”, archaic forms given in bold print in table 1b’’ and that the dative plural has the additional ending *+en* (for discussion of the latter, see Lühr 1991). Abstracting away from these cases, there are some other obvious similarities between definite articles and third-person pronouns: (i) with the exception of some special forms such as nominative/accusative neuter *dies* ‘this’ and nominative masculine and nominative/accusative neuter *ein* ‘a’, both are the only determiners that are monosyllabic; and (ii) unlike other determiners, the definite articles and the pronouns have different stem vowels in the nominative and accusative (*e*, *i*, and, with the article, also *a*).

proposals of the latter, see Fanselow 1988, van Riemsdijk 1989; more recently, Roehrs 2006a, 2007), Roehrs (2006a) shows that these two “types” of *ein* are basically the same. In fact, it is demonstrated there that this situation is more general in that besides *ein* ‘a’, the negative article *kein* ‘no’ and possessive elements such as *mein* ‘my’ exhibit the same properties. This is briefly illustrated here with the negative article, where the only divergence is that *kein* has a strong ending when it is not followed by another overt nominal element, as shown in (4d):<sup>6</sup>

- (4) a. *Das ist kein Wein.*  
       this is no wine  
       b. *Das ist kein guter Wein.*  
           this is no good(STRONG) wine  
       c. *Wein ist das kein guter!*  
           wine is this no good(STRONG)  
           ‘As for wine, this is no good one.’  
       d. *Guter Wein ist das kein\*(er)!*  
           good(STRONG) wine is this none(STRONG)

Now, considering the emergence of an ending on *kein* in (4d), Roehrs (2006a) argues that the cases of inflectionless *kein* in (4a-c) should be taken seriously and not be treated as indeclinable exceptions. To retrace and extend some of the discussion in Roehrs (2006a, 2007), we notice that truly indeclinable elements such as *zehn* ‘ten’ can also license split-NPs. Consider (5a-b).<sup>7</sup>

- (5) a. *Ich habe zehn Hemden.*  
       I have ten shirts  
       b. *Hemden habe ich zehn.*  
           shirts have I ten

As a preliminary generalization, we can state, then, that either a strong ending or no ending whatsoever can license split NPs. The question that arises is why *kein* must have an ending in (4d) in spite of the facts that it does not have an ending when an overt nominal element follows in (4a-c) and that inflectionless elements can, at least in principle, license split NPs as just seen in (5b). Before I turn to this question, let us briefly refine the above-mentioned generalization.

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<sup>6</sup> In Roehrs (2006a), I argue that the negative article *kein* ‘no’ and possessive elements such as *mein* ‘my’ consist of *ein* and a negative element (*k+ein*) or possessive element (*m+ein*). If so, their identical behavior follows straightforwardly. For simplicity’s sake, I will often refer only to *ein* in what follows.

<sup>7</sup> The numerals *zwei* ‘two’ and *drei* ‘three’ (to some extent also *vier* ‘four’) are special in that they take an ending in the genitive in both unsplit and split NPs:

- (i) a. *Ich erinnere mich zwei\*(er) Studenten.*  
       I remember REFL two(GEN) students  
       b. *Studenten erinnere ich mich zwei\*(er).*  
           students remember I REFL two(GEN)

The obligatory presence of an ending in both the unsplit and split NPs has presumably to do with the ‘genitive rule’, which, simplifying somewhat, requires the presence of an inflected element in front of a noun in the genitive. As might be expected, other numerals than those mentioned above cannot occur in a genitive context and must be licensed differently:

- (ii) *Ich erinnere mich ?\*(an) zehn Studenten.*  
       I remember REFL about ten students

Note first that weak endings, as in (6b), or something that looks like a weak ending, as in (6d), can also license split NPs:

- (6) a. *Ich habe immer nur diese roten Hemden getragen.*  
 I have always only these(STRONG) red(WEAK) shirts worn  
 b. *Hemden habe ich immer nur diese roten getragen.*  
 shirts have I always only these(STRONG) red(WEAK) worn  
 c. *Ich erinnere mich nur guten Weins.*  
 I remember REFL only good wine(GEN)  
 d. *Weins erinnere ich mich nur {?guten / \*gutes}.*  
 Wine(GEN) remember I REFL only good(“WEAK”/“STRONG”)

To be clear, the first part of the generalization under discussion is not about strong inflections but seems to be about the overttness of endings (to be revised below). Interestingly, adjectives such as *lila* ‘purple’ and *prima* ‘great’ show that overttness is only a necessary, but not a sufficient, condition.

As can be seen in (7a,c), both *lila* and *prima* are special in that they can appear pre-nominally without a typical inflection. What both adjectives have in common is that they end in *-a*, a vowel different in quality from schwa. Let me interpret this ending as an (item-specific) generalized inflection that does not distinguish phi-features overtly.<sup>8</sup> Both adjectives differ in that *lila*, but not *prima*, has the option of spelling out the phi-features overtly by the addition of a specific ending. Now, as can be seen in (7b,d), the generalized inflection *-a* is not sufficient to license the split NPs but a specific ending is required, available, as just seen, with *lila* but not *prima*:

- (7) a. *Ich habe lila(ne) Hemden.*  
 I have purple shirts  
 b. *Hemden habe ich lila\*(ne).*  
 shirts have I purple (ones)  
 c. *Ich habe prima(\*ne) Freunde.*  
 I have great friends  
 d. \* *Freunde habe ich prima(ne).*  
 friends have I great (ones)

The generalization that seems to emerge is that, if an element is indeclinable (basically all numerals), it does not need to have an inflection to license split NPs; however, if an element is declinable (basically all adjectives and determiners), it must show a *specific overt* ending, weak or strong, to license a split NP. If so, then we can sharpen the above question as follows: if *kein* is indeclinable in the three cases in (4a-c) just like numerals in general, why does it *have* to have a specific overt ending in (4d)?

<sup>8</sup> That the ending *-a* also realizes other phi-features is briefly illustrated in the singular:

- (i) a. *ein lila(nes) Hemd*  
 a purple shirt(NEUT)  
 b. *ein prima(\*ner) Freund*  
 a great friend(MASC)

Roehrs (2006a) takes the bull by the horns and proposes that all instances of *ein* differ from numerals in the relevant respect, that is, they all are generally declinable.<sup>9</sup> In particular, for the three cases where *ein* does not exhibit an overt ending, he proposes the presence of a null ending. In other words, inflectionless *ein* is similar to *prima* in that both are declinable but they differ in that *ein* has a specific null (weak) ending and *prima* has a generalized ending. The reason why “bare” *ein* cannot license split NPs is that, although declinable, it does not comply with other conditions on the licensing of split NPs. In fact, if *ein* does adhere to those conditions, the emergence of the overt ending on it in (4d) is a side effect (for details, see Roehrs 2006a).

With this in mind, table 4 presents the relevant endings, including the null inflections, where the three differences between *ein* and the definite determiners are marked in bold print (cf. table 1a; for the meaning of shading in the tables, see below):

Table 4a: Inflections on the (Negated) Indefinite Article *kein* ‘no’

Case\Gender	Masculine	Neuter	Feminine	Plural
Nominative	<b>kein-Ø</b>	<b>kein-Ø</b>	kein-e	kein-e
Accusative	kein-e-n	<b>kein-Ø</b>	kein-e	kein-e
Dative	kein-e-m	kein-e-m	kein-e-r	kein-e-n
Genitive	kein-e-s	kein-e-s	kein-e-r	kein-e-r

This discussion allows us to relate the “exceptional” cases of the definite article from section 2.1 to the “exceptional” instances of the indefinite article: despite appearances, both elements have an ending, namely a null morpheme. However, these null endings also differ as the definite article has a null strong ending and the indefinite article has a null weak ending (considering the facts that the adjective following *ein* has a strong ending and co-occurring determiners and adjectives have different types of endings). Before I make the proposal involving null endings more general, let us quickly turn to the discussion of the endings on the indefinite article and those on the “mixed” adjective with the intention of reducing these two types of endings to the basic ones set out in section 1.

Adjectives of the “mixed” inflection follow indefinite articles. In particular, in the three instances where the indefinite article does not have an (overt) ending (cf. table 4a), the adjective takes a strong ending. In the other thirteen cases, the adjective has the same endings as the weak adjectives. This mixed bag of endings has given this paradigm its name. Compare table 5a to the tables 2a and 3a, marking the differences in bold print:

<sup>9</sup> There is other evidence that *ein* is different from numerals: through the history of the German language, *ein* has changed from adjectival to determiner-like in inflection. Compare the Old High German example in (i), taken from Demske (2001: 76), to its Modern German equivalent:

(i) *mīt éin-emo rô-t-emo tâoche* (Old High German)  
*mit ein-em rot-en Tuch*  
 ‘with one red scarf’

(This difference is also visible in the genitive in Modern German when one compares the different types of endings on an adjective following *ein* versus *zwei* ‘two’; cf. Roehrs 2006a: 240.)

Table 5a: “Mixed” Adjectival Inflections

Case\Gender	Masculine	Neuter	Feminine	Plural
Nominative	<b>gut-e-r</b>	<b>gut-e-s</b>	gut-e	gut-e-n
Accusative	gut-e-n	<b>gut-e-s</b>	gut-e	gut-e-n
Dative	gut-e-n	gut-e-n	gut-e-n	gut-e-n
Genitive	gut-e-n	gut-e-n	gut-e-n	gut-e-n

However, comparing the other three, inter-paradigmatically identical cases in the singular nominative/accusative in tables 4a and 5a, Roehrs (2006a: Chap. 4) proposes to comprise these differences into six cells making it a “natural class”. This is marked by shading in tables 4a and 5a. In more detail, he interprets the shaded cells in table 4a as weak endings and the shaded cells in table 5a as strong endings. In other words, six instances of *ein* exhibit weak endings and the six corresponding instances of the “mixed” paradigm show strong endings. The remaining instances are strong and weak, respectively. As these instances involve the exact same morphological cases and genders, Roehrs (2006a) proposes a syntactic account to explain this mutual mixture of endings.

In more detail, assuming that the strong ending is licensed on the first overt element, he proposes that these six instances of *ein* merge in D only *after* the strong ending is licensed – on the adjective in (4a-c) if present. In contrast, *ein* in (4d) is argued to merge in D *before* the strong ending is licensed. Assuming that the weak ending is assigned as a default option, this syntactic account explains the weak endings on the indefinite article and the strong endings on the adjective, in particular, and provides the crucial (first) step for reducing these two sets of endings to the more basic types discussed in section 1, in general. We return to this momentarily.

The discussion of sections 2.1 and 2.2 has consequences for the number and nature of the strong and weak endings. Recalling the discussion of section 1, there is now an item-specific strong null ending (on the definite article and personal pronoun) and an item-specific weak null ending (on the indefinite article). Furthermore, there are now six strong endings vis-à-vis three weak endings, and strictly speaking, these weak endings are not a proper subset of the strong ones anymore:

- (8) a. *Strong Endings*  
       -r, -s, -m, -n, -e, -Ø<sub>DIE/SIE</sub>  
       b. *Weak Endings*  
       -n, -e, -Ø<sub>EIN</sub>

Note that we have now introduced item-specific endings, a new and, with the plausible exception of *-a* on certain types of adjectives, an undesirable notion. Second, recall that strong endings not only better distinguish case, number, and gender than weak endings in general, but four endings (*-r*, *-s*, *-m*, and certain cases of *-Ø*) are disambiguously strong. With the weak endings no longer a proper subset of the strong ones, both types of endings are becoming more alike in nature: now certain cases of *-Ø* also indicate weak endings disambiguously.

While these may only be esthetical flaws, they may also give rise to certain new predictions (e.g., a possible semantic differentiation of the two sets of endings over time). However, as we will see, the constellation in (8) can be simplified again. During that process, we



finalize the reduction of the null strong and weak endings and the “mixed” paradigm bringing them in line with the basic scenario set out in section 1.

### 3. The Proposal: Weak and Strong Null Endings More Generally

With the exception of the three cases of *ein*, all pre-nominal adjectives *and* determiners (with a final stem consonant), exhibit a schwa and are thus disyllabic or, more precisely, multi-syllabic (cf. *jedweder* ‘every’). This holds across the strong and weak distinction (tables 1a - 3a). I will basically follow Wiese (1988) here, who proposes that the schwa in these cases is due to an insertion rule. Simplifying somewhat, let us first assume that suffixation of an inflection adds an abstract segmental position, indicated as X in (9a). Second, schwa is inserted according to the rule in (9b):<sup>10</sup>

- (9) a. ...C+\_\_ X#  
b. Ø -> ə / \_\_ X

Finally, the abstract X is spelled out by the relevant ending. To be clear, then, the ending schwa is interpreted here as due to some phonotactic constraint. Reanalyzing schwa in this way, we assume now that a null ending is not only on certain cases of *ein*, the definite article and the personal pronoun (section 2) but that it is more generally present, that is, it also follows every “bare” schwa. Although we collapsed tables 1a and 2a in section 1, I provide their updated versions here for clearer exposition:

Table 1b: Inflections on the Demonstrative

Case\Gender	Masculine	Neuter	Feminine	Plural
Nominative	dies-e-r	dies-e-s	dies-e-Ø	dies-e-Ø
Accusative	dies-e-n	dies-e-s	dies-e-Ø	dies-e-Ø
Dative	dies-e-m	dies-e-m	dies-e-r	dies-e-n
Genitive	dies-e-s	dies-e-s	dies-e-r	dies-e-r

Table 2b: Strong Adjectival Inflections

Case\Gender	Masculine	Neuter	Feminine	Plural
Nominative	gut-e-r	gut-e-s	gut-e-Ø	gut-e-Ø
Accusative	gut-e-n	gut-e-s	gut-e-Ø	gut-e-Ø
Dative	gut-e-m	gut-e-m	gut-e-r	gut-e-n
Genitive	<b>gut-e-n</b>	<b>gut-e-n</b>	gut-e-r	gut-e-r

<sup>10</sup> Alternatively, one could also assume that all the relevant elements have a schwa underlyingly that is deleted unless the element is in pre-nominal position or is licensed by X. I will not try to choose between these options here.

Table 3b: Weak Adjectival Inflections

Case\Gender	Masculine	Neuter	Feminine	Plural
Nominative	<b>gut-e-Ø</b>	<b>gut-e-Ø</b>	gut-e-Ø	<b>gut-e-n</b>
Accusative	gut-e-n	<b>gut-e-Ø</b>	gut-e-Ø	<b>gut-e-n</b>
Dative	<b>gut-e-n</b>	<b>gut-e-n</b>	<b>gut-e-n</b>	gut-e-n
Genitive	gut-e-n	gut-e-n	<b>gut-e-n</b>	<b>gut-e-n</b>

Furthermore, although section 2 basically reduced the indefinite article and the “mixed” paradigm to the strong and weak endings by way of a syntactic account, consider these two updated tables, where the cells containing the weak endings are shaded in 4b (cf. table 3b) and the cells containing the strong endings are shaded in 5b (cf. tables 1b, 2b):

Table 4b: Inflections on the (Negated) Indefinite Article

Case\Gender	Masculine	Neuter	Feminine	Plural
Nominative	kein-Ø	kein-Ø	kein-e-Ø	kein-e-Ø
Accusative	kein-e-n	kein-Ø	kein-e-Ø	kein-e-Ø
Dative	kein-e-m	kein-e-m	kein-e-r	kein-e-n
Genitive	kein-e-s	kein-e-s	kein-e-r	kein-e-r

Table 5b: “Mixed” Adjectival Inflections

Case\Gender	Masculine	Neuter	Feminine	Plural
Nominative	gut-e-r	gut-e-s	gut-e-Ø	gut-e-n
Accusative	gut-e-n	gut-e-s	gut-e-Ø	gut-e-n
Dative	gut-e-n	gut-e-n	gut-e-n	gut-e-n
Genitive	gut-e-n	gut-e-n	gut-e-n	gut-e-n

Note now that not only specific overt but also specific covert endings can license split NPs:

- (10) a. *Bluse hat sie immer nur dies-e-Ø lilan-e-Ø getragen.*  
 blouse(FEM) has she always only this(STRONG) purple(WEAK) worn  
 b. *Blusen hat sie immer nur lilan-e-Ø getragen.*  
 blouses has she always only purple(STRONG) worn

In the next section, we take the final steps. We suggest that the assumption of an abstract X allows us to state that certain instances of declinable elements have no endings (rather than null endings) and that split NPs are licensed by the abstract X (rather than particular endings).

#### 4. Null Endings as No Endings

In the last section, we generalized the proposal of -Ø replacing -e as a strong and weak ending. We now have a situation where all determiners and adjectives have identical endings within their relevant set of endings. Furthermore, while the same cells are still different in the relevant tables,

the weak endings are, once again, a proper subset of the strong ones. In the last section, we also introduced X, an abstract suffix to be spell-out by an inflection. As is clear, a null ending cannot “realize” this abstract element and we have two null elements in the current system. Now, suppose we interpret the null ending as a complete lack of ending in these cases. We, then, obtain the following constellation, where there are four exponents for the strong and one for the weak set of endings:

- (11) a. *Strong Endings*  
           -r, -s, -m, -n  
       b. *Weak Endings*  
           -n

Factoring in the syntactic account of the endings on *ein* and the “mixed” adjectives from section 2, the final update of the two sets of endings looks as follows (where the underscore indicates the earlier presence of the null endings):

Table 1c: Inflections on the Demonstrative

Case\Gender	Masculine	Neuter	Feminine	Plural
Nominative	dies-e-r	dies-e-s	dies-e_	dies-e_
Accusative	dies-e-n	dies-e-s	dies-e_	dies-e_
Dative	dies-e-m	dies-e-m	dies-e-r	dies-e-n
Genitive	dies-e-s	dies-e-s	dies-e-r	dies-e-r

Table 3c: Weak Adjectival Inflections

Case\Gender	Masculine	Neuter	Feminine	Plural
Nominative	<b>gut-e_</b>	<b>gut-e_</b>	gut-e_	<b>gut-e-n</b>
Accusative	gut-e-n	<b>gut-e_</b>	gut-e_	<b>gut-e-n</b>
Dative	<b>gut-e-n</b>	<b>gut-e-n</b>	<b>gut-e-n</b>	gut-e-n
Genitive	gut-e-n	gut-e-n	<b>gut-e-n</b>	<b>gut-e-n</b>

The elimination of  $-\emptyset$  and the assumption of X have some desirable consequences.

#### 4.1. Consequence 1: Weak endings as default options

In Roehrs (2006a), I interpreted the weak endings as inflections licensed as the default option. As pointed out to me by Željko Bošković (p.c.), the assumption of two default endings ( $-n$ ,  $-e$ ) is somewhat odd. In footnote 24 on page 209 of that work, I suggested that  $-e$  is due to some insertion rule. In section 3 above, I fleshed this proposal out by way of suffixing X and stating a schwa-insertion rule. Having interpreted null endings as a lack of ending, we now have only one weak ending (cf. table 3c), which can naturally be construed as a default option. With this in place, we are ready to turn to some necessary readjustment rules.

With the above discussion in mind, we formulate the following (simplified) readjustment rules to explain some unsystematic exceptions: (i) assuming that the plural and/or oblique cases get  $-n$  as a weak (= default) ending, I suggest the rule in (12a) for the presence of  $-n$  in the

masculine accusative (cf. table 3c); (ii) in order to account for the three instances of “bare” *ein* (cf. table 4b), I propose the rule in (12b); (iii) in order to capture the two different strong endings on the adjective in the masculine/neuter genitive (cf. table 2b), I propose the rule in (12c):

- (12) a. *masculine accusative weak ending:*  
 $-\emptyset \quad -> \quad -n$   
 b. *nominative masculine and nominative/accusative neuter ein:*  
 $-e \quad -> \quad -\emptyset$   
 c. *adjective in masculine/neuter genitive:*  
 $-s \quad -> \quad -n$

That readjustment rules are needed independently can be seen from the fact that certain usages of *ein* cannot have a schwa, as in (13a-c), and others may have an optional schwa, as illustrated in (13d), slightly adapted from Grewendorf (1991: 304) and van Riemsdijk (1989: 124):

- (13) a. *Ich habe kein(\*e/\*s) Geld.*  
 I have no money  
 b. *ein(\*e)s, zwei, drei, ...*  
 one, two, three, ...  
 c. *Es ist um ein(\*e)s.*  
 it is at one  
 ‘It is one o’clock.’  
 d. *Geld habe ich kein(e)s.*  
 money have I none

Now, while the rule in (12b) is obligatory in (13a-c), it is optional in (13d). Let us briefly turn to the much-discussed masculine/neuter genitive in German.

In a similar vein, rule (12c) can be extended to some determiners. Compare the endings on the determiners in (14a,b). However, the application of rule (12c) is only possible under certain conditions, namely where the genitive ending on the noun differs with regard to – what is often called – specificity. Contrast the endings on the nouns in (14b,d) (data are taken from Gallmann 1996: 293):

- (14) a. *der Traum manches Schülers*  
 the dream (of) some pupil(GEN)  
 b. *der Traum manchen Schülers*  
 c. *der Traum manches Studenten*  
 the dream (of) some student(GEN)  
 d. \* *der Traum manchen Studenten*

Considering the constellation of endings in (11), the notion of ‘specificity’ can now be made more precise. There are three potential endings in the genitive: *-r*, *-s*, *-n*. Note now that *-n* is the only ending that appears as a strong *and* weak (= default) inflection. While there are also some differences between noun and determiner/adjective inflections, let us say that specific endings

can only be taken from the strong set (or what look like endings from that set).<sup>11</sup> Returning to the adjustment rule in (12c), we can now state that it is obligatory for adjectives, that it can be “optionally” extended to certain determiners (constrained by specificity), but that it is not applicable to nouns.

With my current understanding of these issues, I believe that all the exceptional cases in (12) are best captured by readjustment rules applying to certain elements in certain contexts. Having shown that the assumption of X allows for a simpler formulation of weak endings as a default option, we now turn to a second consequence.

#### 4.2. Consequence 2: Simplifying the licensing of split NPs

Let us distinguish between a weak and a strong hypothesis. Starting with the weak claim, we could assume that X is sensitive to lexical categories, where this abstract suffix can only be added to determiners and adjectives (but not numerals). As such, this would cut the pie into declinable and indeclinable elements. Recall that we arrived in section 2 and 3 at the following generalization for the licensing of split NPs: if declinable, elements must have specific inflections. We have seen that these endings can be manifested by overt strong and weak inflections and null strong and weak inflections, where the latter are reanalyzed now as lack of ending. At face value, this appears to be not only a mixed batch but also includes specific endings other than *-r* and *-s*. However, what these elements have in common on a more abstract level is the presence of X. We can now state that split NPs are either licensed by indeclinable elements or declinable elements that are suffixed by X. Before we turn to the strong claim, let us briefly revisit the *lila*-type adjectives.

Note first that there appears to be another generalized inflection with city adjectives: *-er*. Unlike *-a* with *lila*-type adjectives (cf. (7b,d)), this ending can license split NPs:

- (15) a. *Ich habe Dresdener Bier* *getrunken*.  
           I have Dresdener beer(NEUT) drunk  
       b. *Bier* *habe ich Dresdener* *getrunken*.  
           beer(NEUT) have I Dresdener drunk

If we assume that the extended stem of *lila*-adjectives (i.e., *lila-n*) and city names like *Dresden* can both undergo suffixation according to (9a), then it follows that these cases can license split

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<sup>11</sup> Both *-r* and *-s* have interesting properties. As noted by Fuhrhop (2003), city adjectives, derived by adding *-(e)r* to city names, can license the genitive despite the fact that the expected adjective ending in the neuter would be *-en*; interestingly, *lila*-type adjectives are fairly marked when they do not fully spell out their ending. Compare (ia-b):

- (i) a. *der Verkauf Dresdener Biers*  
           the sale of Dresdener beer(NEUT)  
       b. *der Verkauf lila<sup>??</sup>(ner) Hemden*  
           the sale of purple shirts

Turning to *-s*, this inflection is special in that it can be left out with a number of nouns but not adjectives:

- (ii) a. *des Barock(s)*  
           of.the baroque (age)  
       b. *ein barock\*(es) Haus*  
           a baroque house

NPs as well.<sup>12</sup> Notice also that there are additional conditions on the licensing of split NPs (see Roehrs 2006a), which also account for the incapability of *ein-X* to license these constructions.

The first, weak hypothesis does not answer the question as to what indeclinable elements (i.e., numerals, possessors such as *Peters* ‘Peter’s’, etc., see Roehrs 2006a, 2007) and declinable elements suffixed by X have in common when it comes to licensing split NPs. Making a stronger claim, one might speculate that, in order to be merged into the noun phrase and undergo (partially abstract) concord, all these elements must be suffixed by X. For this to be possible, (9a) would have to be formulated in an appropriate way. If one could find a way to block schwa-insertion in these cases (note that Wiese 1996: section 4.3 shows that schwa-insertion is sensitive to lexical categories), then these “indeclinable” elements would all have X but no actual endings (except some numerals in the genitive).

Returning to the discussion of split NPs, Roehrs (2006a, 2007) argues that the in-situ noun phrase is headed by a null noun ( $e_N$ ). It is often assumed that null elements have to be syntactically licensed and semantically identified (cf. Rizzi 1986). If so, syntactic licensing of  $e_N$  inside the in-situ noun phrase could technically be instantiated by assuming that  $e_N$  must incorporate into a higher overt nominal part, an operation mediated by X. The example (10b), repeated and updated here as (16a), could be schematically analyzed as in (16b):

- (16) a. *Blusen hat sie immer nur lilan-e-\_\_\_\_\_ getragen.*  
           blouses has she always only purple(STRONG) worn  
       b. [NumP *Blusen*] ... [DP *lilan-(e)-X+e<sub>Ni</sub>* [NP  $t_i$ ]]

Metaphorically speaking, then, X would function as some kind of morpho-syntactic “glue”. (For the discussion of semantic identification of  $e_N$ , see Roehrs 2006a, 2007).

## 5. Conclusion

I started this paper by arguing that rather than schwa, null inflections may appear as both weak and strong endings in the German DP. While this proposal accounts for the exceptional behavior of certain cases of the definite article and the third-person personal pronoun, the discussion was also related to certain cases of *ein* already discussed in Roehrs (2006a). As a result, the discussion there was generalized here and consequently further streamlined. Assuming with Wiese (1988) that suffixation is mediated by an abstract X, these null endings were then

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<sup>12</sup> Let us briefly comment on the optional “linking” element *-n*. As seen above, this “linking” element is not possible with *prima* ‘great’ but with *lila* ‘purple’. Furthermore, it has to appear in derived forms like *Amerika-n-e-r* ‘American (man)’, which is based on the country name *Amerika* ‘America’. Let us assume the following underlying forms:

- (i) a. *prima*  
           great  
       b. *lila, lila-n*  
           purple  
       c. *Amerika-n*  
           America/n

Suffixation, as formulated in (9a), applies to *lila-n* and *Amerika-n*, but not *prima* and *lila*. If suffixation does not apply (i.e., in predicative contexts for *lila-n* or underived contexts for *Amerika-n*), assume that *-n* gets deleted.

construed as lack of endings. As a result, the system could be further simplified in a number of other ways.

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