

“Semantically Vacuous Elements in German:
Adjectival Inflections and the Article *ein*”
(provisional title)

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Preface

Anyone teaching German as a foreign language knows that mastering the adjectival endings and *ein*-words is particularly challenging for students. I became interested in these grammatical topics some 25 years ago when I started working as a Teaching Assistant in the United States. I have been fascinated by these phenomena ever since. A couple of years ago, this interest was strongly piqued again by the phrase *Eine Störche!* uttered by my dad during a hike. With my family interested in language, a discussion followed where we agreed that this phrase could be loosely rendered as ‘Wow! So many storks!’ However, my parents are, to this day, surprised that a singular article like *ein* ‘a’ can combine with a plural noun. Wow, indeed! This book attempts to shed some light on this and other issues. In particular, I will focus on two elements: *ein*-words and adjectival inflections.

Thinking back, although the chapter on *ein*-words was the first to be written for my dissertation, it has taken the longest to present it in a more polished form. Although the basic idea is still the same, many details, empirical and analytical, have been modified or added. In the meantime, adjectival inflections have become a second major point of interest for me. Again, while the basic system has already been laid out in Roehrs (2009a: Chapter 4), more “exotic” cases are discussed in the following pages. I believe it is these new details about *ein*-words and adjectival inflections that reveal the true nature of these elements allowing us to formulate some new and interesting hypotheses.

It is my hope that due to its richness of data and analyses, many of which new, this book will be of interest to anyone working on semantically vacuous elements, in general, and on the syntax and semantics of the DP, in particular. With the main focus on German, the book will not be the final word on these topics as the investigation of other languages will surely reveal more interesting facts and lead to other theoretical insights. However, I hope that this book will make a contribution toward the description and explanation of these parts of the grammar, topics I believe have not received due attention.

The material in this book was presented at many linguistic colloquia and conferences, too many to detail here. I thank the respective audiences for questions and comments, especially, Marcel den Dikken, Volker Gast, Tom Leu, and Erik Schoorlemmer. I would also like to express gratitude to Jochen Trommer and Bernd Wiese for helping me find some of their work. I am also indebted to many reviewers whose comments over the years have helped me shape the ideas expressed here. Parts of Chapter 5 are based on Roehrs (2006a: Chapter 5, Part II). Chapter 7 was supported by a Faculty Research Grant (G34217) from the University of North Texas, which I hereby gratefully acknowledge. The book was thoroughly revised during my Faculty Development Leave in Fall 2020.

I dedicate this book to my late dad, who encouraged me to look for commonalities, to my mom, who emphasized I should write clearly, and to my brother, who reminded me to stop and smell the roses. *Danke, Sigg, Rosen und Keule!*

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Chapter 1: Introduction

1. Vacuous Elements – an Imperfection of Language?

In many languages, ordinary sentences contain a nominative subject. Nominative case is often taken to be “structural,” that is, assigned under certain syntactic conditions. This type of case has received an enormous amount of attention in the linguistic literature. In the generative tradition, structural case – often spelled Case – is frequently represented by uninterpretable features. Chomsky (e.g., 2000: 119) has pointed out that uninterpretable features may be an imperfection in the design of languages. Specifically, structural case may receive no interpretation in either PF or LF. Putting oneself in the position of a language engineer, one may wonder why these elements exist at all.

Besides these abstract features, there are also word-level elements that raise similar issues. Although these elements do get an interpretation in PF (i.e., they have a phonetic realization), they seem to have no semantics either. In the next section, I briefly illustrate two such cases that have been intensively discussed in the literature: expletive *there* and the proprial article. The former has left a tremendous impact on the field of linguistics, the latter somewhat less so. In the second section, I discuss two elements that have received much less attention in this regard: German adjectival inflections and the indefinite article *ein* ‘a.’ In this book, I will propose that these elements also have no semantics at all. I will suggest that given a certain perspective, these elements are not a design flaw but provide clues about the presence of abstract linguistic elements. As such, they might help with the process of language acquisition.

1.1. The Clause

Sentence pairs such as (1) have received an enormous amount of attention in the literature. Clauses like (1b) are usually referred to as *there*-existentials:

- (1) a. A man is in the garden.
b. There is a man in the garden.

Note first that both sentences in (1) have very similar meanings: they are about a man being in the garden. Importantly, as Hazout (2004: 396) points out, *there* itself cannot have any semantics. For instance, if *there* were a deictic element, its distal semantics should clash with the proximal meaning of *here* in (2a). Evidently, this is not the case. Second, the unaccusative predicate *arrive* assigns one theta role in (2b), namely to *three men*. With the classical Theta-Criterion satisfied, *there* cannot be an argument or a predicate. If *there* makes no semantic contribution, then one might expect that it can be left out without a (significant) loss in meaning. This is borne out as can easily be verified in (2c):

- (2) a. There are too many people here.
b. There arrived three men.

- c. Three men arrived.

If *there* is indeed an expletive (i.e., pleonastic) element, then the slight semantic contrast between (2b) and (2c) above cannot stem from *there* itself but must be due to something else.

There are many accounts that try to come to terms with *there*-existentials (for a brief survey of some of the relevant issues, see, e.g., Lasnik & Uriagereka with Boeckx 2005: 153-169). For concreteness, let me briefly illustrate the basic account in Chomsky (1991 [reprinted in 1995]), one of the first proposals in the Minimalist tradition.

Relevant for current purposes, Chomsky (1995: 154-157) assumes the Principle of Full Interpretation, according to which all elements in a linguistic expression must have an interpretation in LF. Above, I showed that *there* is semantically vacuous; that is, it can, by itself, not be interpreted. To explain the grammaticality of *there*-constructions, Chomsky proposes that *there* is a LF-affix that the overt noun phrase, the associate, adjoins to. As the expletive is licensed by adjunction of another element in LF, Full Interpretation is not violated. For current purposes, I will assume that this is basically correct. With pleonastic elements available in the clause, one might expect that they can also appear in the nominal domain.

1.2. The Noun Phrase

Longobardi (1994) develops a theory of noun movement in (overt) syntax and LF to account for a number of differences and similarities between the Romance and Germanic languages.

Longobardi (1994: 651) suggests that the following alternation can be related to the *there*-existentials discussed in the previous section. Specifically, similar to above, the proper name itself may appear in a high position (3a) but also in a lower position (3b). The latter option is possible when the definite article is present:

- (3) a. *Gianni mi ha telefonato.* (Italian)
 Gianni me has called
 ‘Gianni called me.’
- b. *Il Gianni mi ha telefonato.*
 the Gianni me has called
 ‘Gianni called me.’

Importantly, both noun phrases in (3a) and (3b) are interpreted as specific definite; that is, the definite article in (3b) does not make a semantic contribution (see also Vergnaud & Zubizarreta 1992). In other words, the article is added in (3b) with no change in meaning. In fact, note that if the definite article in (3b) were to make a contribution, it would raise issues with regard to the redundancy of certain semantic components. In particular, singular definite articles typically presuppose the existence of a unique entity. At the same time, proper names already denote unique individuals by themselves. To avoid this issue, Longobardi claims that the proprial article functions as an expletive element similar to *there* above.

Longobardi proposes that (3a) and (3b) differ in that (3a) involves movement of the noun to D. Among others, this N-to-D movement lexically licenses the null D position of a syntactic argument, and it obviates a default existential interpretation. With the discussion of *there*-existentials in mind, let me assume that this movement is overt in (3a) but covert in (3b). In the

latter case, the noun – in Chomsky’s terms, the associate – licenses the expletive proprial article. There is other distributional and morphological evidence that the noun undergoes movement and that this article is different from other types of determiners.

Simplifying somewhat, Longobardi (1994: 623) points out that the proper name can precede or follow a possessive adjective. Compare (4a) and (4b). Importantly, if the proper name follows the possessive adjective, the definite article must appear. Observe the difference in grammaticality between (4b) and (4c):

- (4) a. *Gianni mio ha finalmente telefonato.* (Italian)
 Gianni my has finally called
 ‘My Gianni finally called.’
- b. *Il mio Gianni ha finalmente telefonato.*
 the my Gianni has finally called
 ‘My Gianni finally called.’
- c. * *Mio Gianni ha finalmente telefonato.*
 my Gianni has finally called

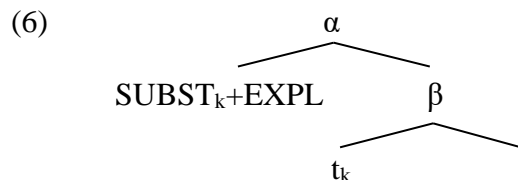
Similar to the paradigm in (3), Longobardi proposes that the noun moves from a lower position (4b) to the higher position D (4a). The example in (4c) is out because the empty D is not lexically licensed in syntax, something the Romance languages require.

Second, Longobardi (1994: 656) provides evidence that pleonastic articles can be morphologically different from substantial articles. Compare (5a) involving a proper name to (5b) containing a common noun. Depending on the noun, there is a different definite article in the nominal:

- (5) a. *en Pere* (Catalan)
 the Peter
 ‘Peter’
- b. *el gos*
 the dog
 ‘the dog’

Given the difference in (5), Longobardi identifies a strong argument that articles come in several types with different semantics, expletive or contentful.

To sum up, I take it as established that there are expletive elements in the clause as well as in the noun phrase. To review some of the advantages of such a conjecture, the assumption of semantically vacuous elements allows us to avoid certain issues involving contradictions (e.g., deixis in the clause) and redundancies (e.g., uniqueness in the noun phrase). Furthermore, the assumption of such elements explains that these elements can be left out without a significant change in meaning. In order not to violate Full Interpretation, the pleonastic element must be licensed. Interestingly, in both cases, this licensing process involves movement of a lower substantive element to the higher expletive one. Schematically, this can be illustrated as follows:



With this in mind, one might wonder if there are other semantically vacuous elements. In fact, one might wonder why these elements exist in the first place. The first question will be discussed in quite some detail for the noun phrase in German. I will argue that adjectival inflections and the indefinite article *ein* ‘a’ are also semantically vacuous elements. The second question is much harder and will only be briefly addressed in this book. I will tentatively suggest that these types of elements may facilitate language acquisition in that they indicate the presence of abstract structure and “flag” the presence of covert operators. Presumably, these unpronounced, invisible elements require more acquisitional effort on the part of the language learner. The tentative suggestion is that expletives provide helpful clues about the presence of these elements (although this is probably not the main *raison d’être*). In that sense, I believe that semantically vacuous elements are not an imperfection of language.

2. Scope of the Book and Basic Assumptions

In this section, I start by discussing some of the characteristics of adjectival inflections and the indefinite article *ein* ‘a.’ On the basis of that, I formulate the main hypotheses of this book. Next, I briefly lay out the basic assumptions of the structure of a garden-variety noun phrase, and I summarize the main hypotheses of Distributed Morphology. Then, I provide extensive evidence that *ein* can occur in plural contexts, perhaps the most controversial empirical claim in this book.

2.1. Adjectival Inflections and the Article *ein*

Taking German as the main language under investigation, this monograph focuses on two elements: adjectival inflections and *ein* ‘a.’ While these elements have an overt realization and thus receive an interpretation in PF, I will argue that they are semantically vacuous. Adjectival inflections are affixes and *ein* is, at least in some cases, a free morpheme. I will suggest below that the former is licensed by movement of the adjective stem and the latter by that of certain operators. Some of these operators have an overt manifestation of their own and some do not.

Let me provide a brief illustration of the reasons why I believe these elements are of great interest. Similar to the cases in the previous section, the assumption of adjectival inflections and *ein* making semantic contributions leads to some issues. In general terms, if adjectival inflections and *ein* had semantic properties, that would lead not only to a certain amount of redundancy but also to some contradictory conclusions. These issues disappear if we assume that these elements are semantically vacuous. This assumption is strengthened by the fact that while these elements have to be generally present for independent reasons, they can be left out in certain, well-defined contexts without a loss of meaning. Let me illustrate these points in more detail.

2.1.1. Basic Properties of Adjectival Inflections

Jacob Grimm (1870: 718-756) pointed out that adjectives can alternate between having a strong or a weak inflection.¹ Strong endings have more different forms than weak ones. The distribution of these endings is often referred to as ‘the strong/weak alternation.’ It is sometimes suggested that this alternation correlates with (in-)definiteness. In particular, a strong (ST) inflection occurs in an indefinite context (7a) and a weak (WK) ending in a definite environment (7b):

- (7) a. *lauter dumm-e Idioten*
many stupid-ST idiots
‘many stupid idiots’
- b. *wir dumm-en Idioten*
we stupid-WK Idiots
‘us stupid idiots’

However, a weak inflection can also occur in an indefinite context, and a strong ending is possible in a definite environment as well. Consider (8a) and (8b):

- (8) a. *mancher klug-e Freund*
some smart-WK friend
‘many a smart friend’
- b. *Peters klug-er Freund*
Peter’s smart-ST friend
‘Peter’s smart friend’

It is clear from the two paradigms in (7) and (8) that strong endings do not correlate with indefiniteness or weak endings with definiteness. Below, I will demonstrate that this holds more generally. Faced with these contradictory patterns, I will propose that adjectival inflections have neither semantics of their own nor do they make such features visible – they are not associated with (in-)definiteness. This is what I mean by stating that these elements are semantically vacuous. If so, then one may expect that they can be left out without a change in meaning.

Adjectival inflections do not appear under certain, well-defined conditions in German. Specifically, while adjectives must be inflected before the noun (9a-b), they remain uninflected when they follow it (9c-d):

- (9) a. *ein auf seine Frau stolz-er Mann*
an of his wife proud-ST man
‘a man proud of his wife’
- b. *der auf seine Frau stolz-e Mann*
the of his wife proud-WK man
‘the man proud of his wife’

¹ In the literature, there are other terms for these inflections: pronominal (i.e., diachronically related to the third-person pronouns) vs. nominal, determining vs. determined, and primary vs. secondary.

- c. *ein Mann, stolz auf seine Frau*
a man proud of his wife
'a man, proud of his wife'
- d. *der Mann, stolz auf seine Frau*
the man proud of his wife
'the man, proud of his wife'

Comparing (9a) to (9c) and (9b) to (9d), there is no change in (in-)definiteness of the noun phrase, and yet adjectival inflections are present in (9a-b) but absent in (9c-d). This could be interpreted such that inflections make no semantic contribution. One might object though that the adjectives in (9c-d) are not part of the noun phrase proper given that they are presumably part of a reduced relative clause. In view of that, one might continue claiming that adjectival inflections have some semantic function when they occur inside the noun phrase. However, there are also examples involving a special set of adjectives that show that adjectival endings can be optional in prenominal position:

- (10) a. *ein lila(-n-es) Kleid*
a purple-n-ST dress
'a purple dress'
- b. *das lila(-n-e) Kleid*
the purple-n-WK dress
'the purple dress'

To be clear, while inflections on prenominal adjectives are usually obligatory, there are some special cases where they are not (10). Importantly, the presence or absence of the inflections here does not change the interpretation of the noun phrase as a whole. In fact, I will demonstrate in Chapter 4 that these elements are not a reflex of other semantic concepts such as (non-)restrictiveness of the interpretation of modifiers or referentiality. An account of the strong/weak alternation must involve something else.

Consider the following noun phrases where the (a)-examples are in the nominative and the (b)-examples are in the dative. In keeping with the facts above, the strong and weak endings occur both in indefinite and definite contexts:

- (11) a. *ein rot-es Auto*
a red-ST car
'a red car'
- b. *mit einem rot-en Auto*
with a red-WK car
'with a red car'
- (12) a. *sein rot-es Auto*
his red-ST car
'his red car'

- b. *mit seinem rot-en Auto*
 with his red-WK car
 ‘with his red car’

Again, it is unlikely that semantic concepts like (in-)definiteness can explain the strong/weak alternation. Rather, it seems more promising to find an explanation in the morpho-syntax. Considering the similarities between (11) and (12), let me assume that possessive pronouns consist of a possessive component (*s-*) and *ein*. If so, the types of adjectival endings seem to be a function of preceding *ein*, independently of the presence or absence of the possessive component. In other words, (11) and (12) are directly relatable. One might claim then that the strong/weak alternation is a reflex of the semantics of *ein* behaving differently in the nominative vs. dative case. However, like adjectival inflections, *ein* exhibits not only contradictory properties with regard to the semantics but also shows characteristics of having no meaning at all. These points can be made most straightforwardly as regards semantic number.²

2.1.2. Basic Properties of *ein*

It is often claimed that *ein* is semantically singular in meaning. Specifically, (13a) makes mention of the fact that a girl was seen, and (13b) emphasizes the point that only one girl has a certain property, namely having been at a party (*n* is the reduced form of *ein*; capitalization indicates stress):

- (13) a. *Ich habe gestern (ei)n Mädchen getroffen.*
 I have yesterday a girl met
 ‘I met a girl yesterday.’
- b. *Nur EIN Mädchen war auf der Party!*
 only one girl was at the party
 ‘Only one girl was at the party.’

Crucially, *ein* can also imply the existence of a second entity (14a). In these cases, the first clause often, but not always, occurs with the second one put in parentheses below. Independently of the second clause, *ein* preceded by a definite determiner yields a duality partitive; that is, it is presupposed that there is a second girl present (NB: this is different in the English counterpart).³ In fact, *ein* can be part of a noun phrase denoting a more numerous plurality of entities. Anticipating the discussion of the data in Section 2.4, *ein* can clearly occur in semantically plural contexts: (14b) is the title of a DVD, and (14c) is an example from the ebook *Hilfe ich bin’n Vampir* ‘Help, I am a Vampire:’

² Making the following points with regard to the (in-)definiteness of *ein* would take me too far afield here. As regards the explanation of adjectival inflections, semantic number has nothing to do with the strong/weak alternation. I will discuss the relation between adjectival inflections and *ein* as regards (in-)definiteness in great detail in Chapter 5. I will propose there that *ein* has nothing to do with (in-)definiteness, neither in the nominative nor in the dative. Thus, this semantic dimension cannot explain the distribution of adjectival inflections either closing the arc just opened in the main text.

³ In English, *one* following a definite article often has an intensifying meaning close to ‘only:’

(i) She was the (one) girl I did not recognize.

- (14) a. *Das ein-e Mädchen blieb stehen* (, *das andere ging weg*).
 the one-WK girl remained standing, the other went away
 ‘One of the two girls stopped walking, the other went away.’
- b. *Tomboy – Junge, was für ein-e Mädchen!*
 Tomboy boy what for a-PL girls
 ‘Tomboy – boy, what kind of girls!’
- c. *So n-e Mädchen gehn mir auf die Nerven.*
 such a-PL girls go me on the nerves
 ‘Such girls get on my nerves.’
 (https://www.bookrix.de/book.html?bookID=cronalein_1360707129.5978798866#3276,468,12258)

Similar to adjectival endings, we seem to be faced with a contradictory state of affairs; in this case, *ein* seems to imply not only singularity but also different pluralities. Again, I will propose that *ein* has no semantics at all. If so, then one may expect that *ein* can sometimes be left out without a change in meaning.

To illustrate this point, consider nominals in predicate contexts. Note that the example in (15a) involves *ein* but that the one in (15b) does not:

- (15) a. *Er ist ein Mann.*
 he is a man
 ‘He is a man.’
- b. *Er ist Lehrer.*
 he is teacher
 ‘He is a teacher.’

It is clear that both of these predicate nominals denote a property; that is, *ein* does not seem to make a semantic contribution with regard to (singular) number (or (in-)definiteness, for that matter). Thus, the presence of *ein* is a function of the different types of nouns, a kind noun in (15a) vs. a role noun in (15b). So, similar to adjectival endings, I conclude that the presence or absence of *ein* makes no difference with regard to the semantics, here illustrated with semantic number. In fact, I will show below that this type of element is not a reflex of other semantic concepts such as indefiniteness or a certain type of emotiveness either. I propose that *ein* neither has semantics nor does it make such features visible – it is semantically vacuous. Note that this also means that the strong/weak alternation of adjectives briefly illustrated above cannot be explained by the semantics of *ein* either.

To recapitulate, I have illustrated some cases where adjectival inflections and *ein* seem to imply contradictory conclusions about their relation to the semantics: adjectival inflections, strong or weak, occur in both definite and indefinite contexts, and *ein* appears in singular and plural environments. At the same time, we have seen that these elements seem to have no semantics at all as they are absent in certain, well-defined contexts without loss of meaning (N.B. they usually have to be present for independent reasons, see below): adjectival inflections do not have to occur with a special set of adjectives, and *ein* does not have to occur with role nouns in

predicative contexts. I proposed that adjectival inflections and *ein* are semantically vacuous. Returning to the more general issues, what is interesting then about adjectival endings and *ein* is that they are overt elements that receive no interpretation in LF – like *there* and the proprial article discussed above.

2.2. Main Hypotheses and Relatedness of Adjectival Inflections to *ein*

If it is true that adjectival inflections and *ein* are semantically vacuous, then one may wonder what their function is; that is, why they exist at all. This question is particularly interesting in view of the fact that similar to the expletives in the Section 1, these elements can also co-occur with elements that seem similar and related in some way. In fact, adjectival inflections and *ein* can each co-occur. Given their pleonastic status, not only one but both of these elements seem to be redundant; consider (16a) and (16b). On par with possessives like *sein* ‘his,’ I assume for now (and argue below) that the negative article *kein* ‘no’ consists of a negative element and *ein*:

- (16) a. *frisch-er heiß-er Kaffee*
 fresh-ST hot-ST coffee
 ‘fresh hot coffee’
- b. *k-ein so ’n Mann*
 NEG-a so a man
 ‘no such man’

Note first that neither of the two adjectives in (16a) can occur with no ending at all. Similarly, neither *ein* nor *’n* in (16b) can be left out. Now, if adjectival inflections and *ein* were to make specific semantic contributions, then it would remain unclear why several instances of the same elements can, and in these cases must, co-occur. Again, this curious fact finds a natural explanation if we assume that adjectival endings and *ein* are semantically vacuous and their presence in (16a) and (16b) is due to a different reason or reasons. Below, I will propose that adjectival inflections make abstract morpho-syntactic features visible, and *ein* supports certain semantic operators.

With these points in place, let me summarize the main general properties of adjectival inflections and *ein*. Some have already been touched upon; others will be introduced later on in the book. These two types of elements can each:

- co-occur
- appear in contradictory semantic contexts
- be left out in certain, well-defined contexts without loss of meaning

Furthermore, adjectival inflections are *not* a reflex of:

- (in-)definiteness
- (non-)restrictiveness of interpretation of modifiers
- referentiality

Finally, *ein* is *not* a reflex of:

- indefiniteness
- emotiveness
- singular number/countability

Given this, I can formulate the two main hypotheses that adjectival endings and *ein* have in common. While (17a) has already been mentioned above, I add (17b) now:

(17) *Hypothesis 1*

Adjectival inflections and *ein*:

- a. are expletive elements and
- b. indicate abstract structure in the noun phrase.

Hypothesis 1b is slightly different for adjectives and *ein*. This can be fleshed out in the two (a)-statements below. In addition, each of these two type of elements have another difference summarized in the (b)-statements:⁴

(18) *Hypothesis 2*

Adjectival inflections:

- a. indicate abstract structure in the higher layers of the noun phrase (DP vs. LPP), they provide clues about structures involving various degrees of embedding of adjectives (simple vs. complex DPs), and
- b. they make nominal features like case, number, and gender visible.⁵

(19) *Hypothesis 3*

Ein:

- a. indicates abstract structure in the lower layers of the noun phrase (NP vs. ArtP), and
- b. it supports overt semantic operators (e.g., NEG *k-*) and flags the presence of covert semantic operators (e.g., TYPE).

Some of these ideas are not entirely new; for instance, Hypothesis 2b is familiar from Olsen (1991b), and Hypothesis 3b has, in part, been argued for by de Swart *et al.* (2007). In the course of this book, I will discuss this and other related work.

Besides the above similarities, both elements are actually related directly. First, it is surely not surprising that adjective inflections occur on adjectives (20a). However, as is well known, these inflections can also appear on determiners in German (20b). This includes *ein* (20c):

⁴ Note though that the (b)-statements are also partially relatable: both adjectival inflections and *ein* make elements visible, morpho-syntactic features vs. operators. On a different note, I argue in Chapter 5 that there are two basic types of *ein*: the so-called indefinite article characterized in Hypothesis 3 and adjectival *eine*, which is not related to the article. Adjectival *eine* is different in that it has semantics and is in a different position.

⁵ I will not consider the feature person here.

- (20) a. *frisch-er Kaffee*
fresh-ST coffee
'fresh coffee'
- b. *d-er Kaffee*
the-ST coffee
'the coffee'
- c. *ein-er*
one-ST
'one'

In the absence of evidence to the contrary, I will assume that the strong inflections in (20a), (20b), and (20c) are the same. Something similar holds for the weak endings: not only do they occur on adjectives (21a), they can also (optionally) occur on certain determiners in the genitive masculine/neuter (21b) (for more detailed discussion, see Chapter 3, Section 4):

- (21) a. *der Verkauf heiß-en Kaffee-s*
the sale hot-WK coffee-GEN
'the sale of hot coffee'
- b. *im Sommer dies-en Jahr-es*
in.the summer this-WK year-GEN
'in the summer of this year'

In other words, both strong and weak inflections can occur on adjectives and, to some degree, on determiners. Considering (20) and (21), note again that both strong and weak endings appear in definite and indefinite contexts. I will refer to these endings, including the ones on articles and other determiners, as 'adjectival' inflections.

Second, I will argue in Chapter 2 that the strong/weak alternation of adjectives is a direct function of specific morpho-syntactic properties of determiners including *ein*. To be clear then, besides the commonalities pointed out in Hypothesis 1, inflections and *ein* may intersect directly: adjectival inflections occur on *ein*, and the latter may regulate the former. These points make it advantageous to discuss both of these elements in tandem.

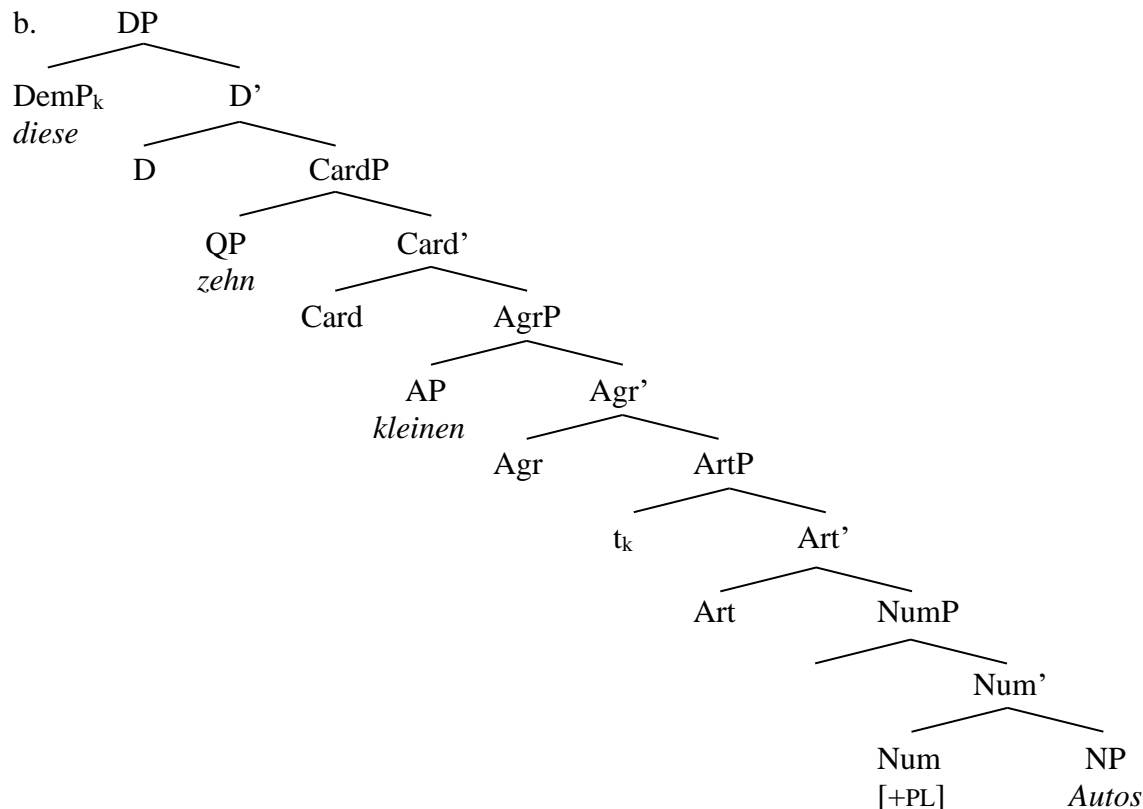
2.3. Basic Assumptions about Structure and Distributed Morphology

This book is written in the general generative tradition (e.g., Chomsky 1995, 2000). Focusing on the most important assumptions relevant for this book, the structure of the noun phrase has received quite some attention since Abney (1987). This statement is particularly true of ordinary strings such as in (22a). It is usually assumed that a noun projects a NP and that morphological number is specified in NumP.⁶ It is sometimes claimed that determiners originate in a lower Article Phrase (ArtP; Roehrs 2009a, Schoorlemmer 2009). Following Cinque (1994, 2010), I

⁶ I will abstract away from the idea that lexical items such as nouns and adjectives are merged as acategorical or category-neutral roots that receive their lexical category during the derivation; that is, after they have merged with a category-defining head (e.g., Marantz 1997).

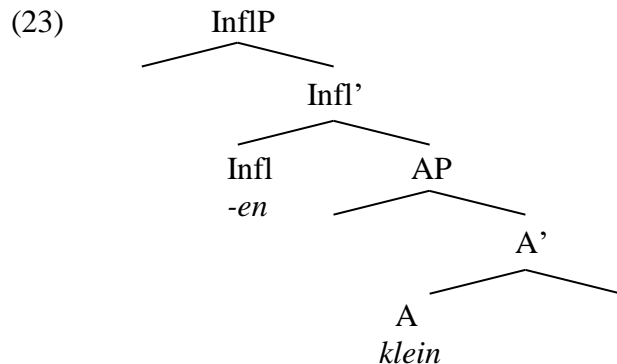
assume that adjectives reside in the specifier of a recursive AgrP. I take it that (weak) quantifiers are housed in Spec,CardP and that determiners move to the DP-level, with articles to D but demonstratives and possessives to Spec,DP (for more detailed background discussion, see among many others Abney 1987, Alexiadou *et al.* 2007, Bernstein 2001a, Julien 2005a, Roehrs 2020c). Given these assumptions, the example in (22a) can be analyzed as in (22b):

- (22) a. *dies-e zehn klein-en Autos*
 these-ST ten small-WK cars
 ‘these ten small cars’



Elements in specifiers project their own phrases: demonstratives are in DemP, quantifiers and numerals are in QP, and adjectives in AP. I assume with Julien (2005b) that nouns undergo partial N-raising to Num (not shown).

Before I proceed, let me spell out the structure of the AP in a little bit more detail. I assume that just like nouns (Grimshaw 1991), adjectives also involve extended projections (e.g., Corver 1997). Minimally, the adjective projects an AP, and this is topped of by an Inflection Phrase (InflP; e.g., Leu 2015, Sapp & Roehrs 2016). The adjective stem is located in A and the inflection in Infl. Both combine by movement of the adjective stem to Spec,DP (not shown):



These are the basic structural assumptions of the noun phrase that I take to be fairly uncontroversial. Against this backdrop, a number of other, less canonical nominal constructions involving adjectival inflections and/or *ein* will be discussed. It will become clear that not all nominal constructions can have the same structure. More importantly, I believe it is these types of different structures that reveal the true nature of adjectival inflections and *ein* (see Roehrs 2015 on adjectival inflections in this regard).⁷

Due to greater familiarity, I will usually provide tree representations of the form in (22b) and (23), where vocabulary items are directly merged in the tree, that is, during the syntactic derivation. This is a convenient shortcut. While not relevant in many cases, I will assume that such tree structures are actually built on terminal nodes containing morpho-syntactic features (rather than lexical elements). This is a basic tenet of Distributed Morphology (DM) (see, e.g., Halle & Marantz 1993, Arregi & Nevins 2012: 3-11), a realizational approach to morphology where the derivation of complex words is separate from the spelling out (or realization) of those words. I briefly summarize the most important assumptions of DM.

In very general terms, terminal nodes in DM involve abstract features, and these features can be manipulated in certain ways. The resultant features are spelled out by overt vocabulary items. The insertion of these items occurs late in the derivation (after syntax) and depends on the specific morpho-syntactic features present on the terminal nodes. Vocabulary items may be underspecified as regards their morpho-syntactic features. This allows competition between related items in certain contexts. Vocabulary Insertion is regulated by the Subset Principle. Provided that all features of the vocabulary item match those on the terminal node, the vocabulary item with the most specifications, that is, the most matching features, will be inserted over less specified items. When a more specific vocabulary item cannot be inserted (i.e., at least one of its features does not match those on the terminal head), the vocabulary item with fewer or no features will be inserted as the elsewhere case.

To illustrate briefly, inflections are taken to be the overt spell-out of abstract feature bundles on terminal nodes in syntax.⁸ These feature bundles can be manipulated in certain ways; for instance, features can be rearranged (Lowering) or deleted (Impoverishment). After Linearization and Vocabulary Insertion, elements can undergo Local Dislocation combining with other items. In more detail, the head Infl in (23) consists of a feature bundle involving case, number, and gender later to be spelled out as the inflection on the adjective. In Chapter 2, I will argue in detail that determiners trigger Impoverishment. With a determiner present in (22),

⁷ This idea has been echoed by other authors; for instance, Sigurðsson & Wood (2020: 22) state that the exceptional cases may throw light on the more general instances.

⁸ I will assume that terminal nodes may contain feature bundles (rather than just individual features).

Note that Lowering operates on hierarchical structures, but Local Dislocation involves linear adjacency. It is clear that Impoverishment precedes Vocabulary Insertion, and we will observe that it seems to have access to structural information. As such, Impoverishment will be ordered with Lowering. Arregi & Nevins (2012: 342) order Impoverishment before Linearization and the latter before Vocabulary Insertion. We will see that the insertion of *ein* is indeed sensitive to word order. More generally, while not all these operations will be equally important in this book, they are assumed to occur in the order below (see also Murphy 2018: 359). The operations whose orderings are not relevant here are enclosed in curly brackets:

- More details and assumptions will be provided as they become relevant.

As for empirical grounding of this study, most of the data involving adjectival inflections have been reported in previous work and appear to be relatively straightforward and accepted. This statement is only partially true of *ein*. One of the proposals of this book is that *ein* is not a reflex of singular number. This is probably the most controversial claim of these pages. Consequently, let me turn to empirical evidence that shows that *ein* can indeed occur in plural contexts in many German dialects, both in the north and in the south of central Europe.

Plural indefinite articles are quite familiar from languages like Dutch, where this element occurs in various contexts ((25a-b) are taken from Bennis *et al.* 1998: 98, 101; (25c) is from van Riemsdijk 2005: 165):

- 14

- c. *Die auto heeft een deuken!*
that car has a dents
'That car has dents!'

This plural element is often referred to as 'the spurious article.' It is perhaps less well known that it also exists in other Germanic languages. Another West Germanic language where plural *ein* occurs is Yiddish. This language has this element in *was-für* constructions ((26a) is taken from Jacobs 2005: 188; (26b) is from Lockwood 1995: 55):⁹

- (26) a. *vos far a bikher* (Yiddish)
what for a books
'what kind of books'
- b. *voser a shprakhn*
what.for a languages
'what kind of languages'
- c. *, vos iz dos far a verter.*
what is that for a words
'what kind of words are these'
(from Olsvanger's *Röyte pomerantsen*, p. 98)

In addition, this element has also been identified in North Germanic. Delsing (1993: 33-35, 143f) points out that it occurs in *was-für* constructions in Swedish (27a). Delsing states that in predicative contexts, the article is "nearly obligatory" (27b). Note that it can also surface between an adjective and a noun (27c):

- (27) a. *Vad är ni för ena filurer?* (colloquial Swedish)
what are you for a slyboots
'What kind of slyboots are you?'
- b. *Pelle och Lisa är *(ena) idioter*
Pelle and Lisa are a idiots
'Pelle and Lisa are idiots.'
- c. *Dänna var he stor a husa.* (Northern Swedish)
over.there were there big a houses
'There were big houses over there.'

Delsing points out that these are non-argumental articles.

It is less clear if this article occurs in German. While its existence is sometimes played down or even denied, it is, in my view, beyond doubt that *ein* occurs in plural contexts. As far as I have been able to establish, there are three syntactic contexts where plural *ein* occurs with a following overt noun. Similar to Dutch, Yiddish, and Swedish, German has plural *ein* in the *was-*

⁹ In Olsvanger's collection of stories, there is an example similar to (26c) that also shows the verb in the singular (p. 172). In German, the verb would have to be in the plural to yield a grammatical example.

für construction (28a). Furthermore, like Dutch, German seems to have (28b). The latter type of example might be related to (28c), at least in some dialects:¹⁰

- (28) a. *Was für'ne / Was für eine Idioten!*
 what for.a / what for a idiots
 'What kind of idiots!'
- b. *Eine Idioten!*
 a idiots
 'Idiots!'
- c. *So 'ne / So eine Idioten!*
 so.a / so a idiots
 'Such idiots!'

There is no doubt that *'ne* stands for *eine*. Below, this is evidenced by many examples that exhibit the full form involving *eine*. Indeed, *'ne* is a typical reduction of the indefinite article as can readily be seen in the nominative feminine: *eine Frau* > *'ne Frau* 'a woman.'

These three cases seem to occur with different frequencies as ascertained in an online search performed in September 2020. While (28b) is hard to search for, (28c) seems to be the most common construction in (Northern) German. Overall, I identified over 150 examples through Google, on Twitter, and on Facebook (all these hits are listed in the Appendix).¹¹ The numeric results are provided in Table 1:

Table 1: Numeric Results of Plural *ein* (September 20, 2020)

Source	<i>so (ei)ne</i>	<i>so (ei)ne Adj-en</i>	<i>was für (ei)ne</i>	<i>was für (ei)ne Adj-en</i>
Googled	many (provided 4 with the noun <i>Ferien</i> 'holidays')	many (provided 23 with the adjective <i>geil</i> 'awesome' and 10 with <i>süß</i> 'cute')	20	12
Twitter	many (provided 3 with the numeral <i>zwei</i> 'two' following)	many (provided 23 with the adjective <i>geil</i> 'awesome' and 21 with <i>dumm</i> 'stupid')	28	4
Facebook	hard to search	5	hard to search	hard to search

¹⁰ There is another context in which *ein* can appear in plural contexts:

- (i) *die einen, die anderen*
 the ones the others
 'these, those'

However, this *ein* is of a different type – it is adjectival (see Chapter 5).

¹¹ When searching for these types of examples, care must be taken. For instance, one comes across many cases of false positives where a following plural noun actually forms the first part of a singular compound:

- (i) *Was für ne Männer Wg?*
 what for a men living.community
 'What kind of a living community for men?'

In the Appendix, the examples are provided with the relevant strings in bold print for ease of identification (no glosses or translations are given there). Unless indicated otherwise, all below examples involving plural *ein* are authentic; that is, these data are taken from the Appendix. Besides these online searches, I also consulted some non-linguist friends from the county of Oberhavel (north of Berlin, Germany). All allowed (28c), one found (28b) to be fine, but most stated that (28a) was somewhat marked. The individual who allowed (28b) took it to be a short form of (28c).

That plural *so 'ne* '(so'a =) such' exists in northern German dialects has already been established by Elmentaler & Rosenberg (2015: 389-394) in *Norddeutscher Sprachatlas* (Northern German Language Atlas).¹² Below are two examples from Elmentaler & Rosenberg (2015: 392), who identified this element in both interviews and (dinner) table conversations:

- (29) a. *so 'ne Kurse*
so a courses
'such courses'
- b. *so 'ne komischen Löcher*
so a weird holes
'such weird holes'

These authors agree with Keller (2004: 6f) that this element fills a gap forming an indefinite demonstrative. In my own search, I came across examples with clear indications that these types of cases exist in Berlin, Hamburg, and Lübeck. In addition, certain linguistic features (e.g., *wat* for *was* 'what') indicate the same geographical area.

Besides northern dialects, this element also occurs in southern dialects like Swabian and Bavarian (Glaser 1993: 106). While its use and distribution are not the same across all subdialects, it is clear that plural *ein* does occur (30a). The latter is a Bavarian example taken from Glaser (1993: 109). Hubert Haider (p.c.) points out to me that these cases also exist in Southern Bavarian, for instance, in Carinthia, Austria (30b).¹³ Another possibly southern example identified during my search is (30c), where the pronoun *ihr* 'you' has been dropped, and *es* 'it' has been encliticized to the verb:

- (30) a. *Də sən òa Epfe drō.*
there are a apples there.on
'There are apples on it.'
- b. *Brauchts es ane Untatatzalan oda tans de Schalalan alaan aa?*
need.it it a saucers or do.it the cups alone too
'Do you need saucers or will the cups by themselves do?'

¹² The existence of plural *ein* is particularly clear in the central and eastern parts of this area (in the western part, the plural form *so Dinge* '(so =) such things' is more prevalent). Elmentaler & Rosenberg (2015: 383) also point out that the full form (*so eine Dinge*) is not possible. I disagree. I have found many examples of this string. In fact, if the indefinite element is stressed, unreduced *eine* is certainly possible (and indeed required).

¹³ More cases of Southern Bavarian can be found in *Kärntner Wörterbuch* (Carinthian dictionary) available at <http://www.stelzel.at/kaernten-woerterbuach/wort-suachn>. In fact, these types of examples have even found their way into the media (<https://www.diepresse.com/443923/karntnerisch-fur-anfanger>) and advertisements (<https://pensionria.at/woerthersee-kaerntnerisch/>). I thank Hubert Haider for providing these sources to me.

- c. *Was für ne Vögel habts denn da aufgetrieben?*
 what for a idiots have.it PRT there found
 ‘What kind of idiots have you got there?’

Note in passing that the occurrence of this *ein* in Bavarian fits well with the Yiddish facts. Notice in this respect that the plural indefinite article in Yiddish cannot be an innovation from Slavic (e.g., Polish or Russian) as these languages do not have articles to begin with. However, as is well known, Yiddish is historically related to southern dialects of German, specifically Bavarian.

Indeed, diachronically, plural *ein* is not a recent development as it occurred already in older varieties of German (31a). While searching for examples, I also came across a datum in an older book (31b) ((31a) is taken from Paul *et al.* 1989: 388)

- (31) a. *in einen zîten* (Middle High German)
 in a times
 ‘during times’
- b. *blos so ‘ne Mâdchen* [1836]
 just so a girls
 ‘just such girls’
 (googled: C. Richard’s *Tante Pontypool*, 2nd volume, p. 10)

It seems clear that these cases occur in colloquial contexts, in contemporary speech and writing. This is even acknowledged in Duden, both the dictionary and the grammar. Without indication of the dialect, these works state that *sone* ‘such’ occurs in colloquial German ((32a) is taken from Duden 1989: 1414 and (32b) from Duden 1995: 276).¹⁴

- (32) a. *es gibt immer sone und solch-e*
 it gives always so.a and such-PL
 ‘There are all kinds.’
- b. *Ich kann sone Leute nicht leiden.*
 I can so.a people not stand
 ‘I cannot stand such people.’

As regards writing, these constructions occur mostly in unedited texts like Twitter messages. However, they can also be found in edited contexts like the title of a DVD (33a) or in ebooks such as *Hilfe ich bin ‘n Vampir* ‘Help, I am a Vampire’ (33b):

- (33) a. *Tomboy – Junge, was für eine Mädchen!*
 Tomboy boy what for a girls
 ‘Tomboy – boy, what kind of girls!’

¹⁴ While Duden (1995: 341f) discusses *was-für* constructions with special forms for the plural in Northern German, this work explicitly states that there is no *ein* in these cases. As is clear, these forms do occur, at least with some speakers.

- b. *So ne Mädchen gehn mir auf die Nerven.*
 so a girls go me on the nerves
 ‘Such girls get on my nerves.’
 (https://www.bookrix.de/book.html?bookID=cronalein_1360707129.5978798866#3276,468,12258)

These strings are clearly in the plural: *ein* itself has a plural inflection, the following adjective has the typical weak ending, and the noun has a plural inflection along with the corresponding meaning. Compare (34a) to (34b):

- (34) a. *Was für ein-e geil-en Bild-er*
 what for a-ST awesome-WK picture-s
 ‘Such awesome pictures!’
- b. *dies-e geil-en Bild-er*
 these-ST awesome-WK picture-s
 ‘these awesome pictures’

Furthermore, verbs and pronouns agree with the plural noun phrase:

- (35) a. *Was für eine Idioten wohn-en nur in Sachsen-Anhalt?*
 what for a idiots live-PL PRT in Sachsen-Anhalt
 ‘What kind of idiots live in Sachsen-Anhalt?’
- b. *was für eine Idioten, die so Aufmerksamkeit woll-en*
 what for a idiots who.PL so attention want-PL
 ‘what kind of idiots that want attention like this’

Note that these cases do not involve syntactically frozen (or fossilized) templates: they can involve several adjectives in a row (36a), coordinated adjectives (36b), and nominalized adjectives (36c):

- (36) a. *Wieso gibt es so ne dummen, bescheuerten Leute die sowas machen?? D:*
 why gives it so a stupid dumb people who so.something do
 ‘Why are there such stupid, dumb people that do something like that?’
- b. *es gibt halt so ne dummen und abgehobenen leute*
 it gives PRT so a stupid and stuck-up people
 ‘There are indeed such stupid and stuck-up people.’
- c. *ach so 'ne dummen gibt es öfter. xD*
 oh so a stupid gives it more.often
 ‘Oh, there are often such stupid ones.’

Additionally, these types of cases may include numerals or other preceding elements:

- (37) a. *drei so ne geilen Mädels*
 three so a awesome girls
 ‘three such awesome girls’
- b. *Da waren heute 2 so'ne dummen Weiber beim Zumba-Kurs, die*
 there were today 2 so.a stupid women at.the Zumba-course who
 ‘Today, there were two such stupid women at the Zumba course who’
- c. *Alter irgend so ne dummen Hunde haben direkt neben mir n Böller gezündet*
 man any so a stupid dogs have directly next.to me a firecracker lit
 ‘Man, some such stupid idiots lit a firecracker right next to me.’

Indeed, numerals can also follow *so 'ne*:¹⁵

- (38) a. *ach man wir sind schon so ne zwei wärmflaschen*
 oh boy we are PRT so a two warm.bottles
 ‘Oh boy, we are such two hot-water bottles.’
- b. *und so ne zwei Kämpfer die alles umpflügen,*
 and so a two fighters who all under.plough
 ‘and such two guys, who create such chaos’

Finally, as one might expect, *was-für* splits are also possible. Compare (39a) to (39b):

- (39) a. *was für ne krassen Menschen albanische Wurzeln haben*
 what for a weird people Albanian roots have
 ‘what kind of weird people have Albanian roots’
- b. *was meine Unachtsamkeit für ne krassen Folgen hat*
 what my carelessness for a bad consequences has
 ‘what kind of bad consequences my carelessness has’

To be clear, these are not frozen (or fossilized) templates but productive constructions in German.

To sum up, I take it as established that plural *ein* occurs in German. Specifically, strings like *so 'ne Äpfel* ‘such apples’ are common in the northern dialects, and sequences like *eine Äpfel* ‘(an) apples’ are widespread in the southern dialects. Plural *ein* also occurs in *was-für* constructions, but this seems less common. While a more systematic investigation of the differences between the various dialects and constructions must await another occasion, I will proceed on the assumption that all dialects of German have some evidence of plural *ein*. Most of

¹⁵ I have not found any examples involving numerals in *was-für* constructions. Note though that while (ia) sounds possible to my ears, (ib) is completely out:

- (i) a. *was für ne zwei Typen*
 what for a two guys
 ‘what kind of two guys’
- b. * *was für zwei (ei)ne Typen*
 what for two a guys

the following discussion will focus on the constructions of the northern dialects. More generally, we may observe then that the plural indefinite articles in Dutch, Yiddish, and Swedish are in good company. I return to the Dutch data below. Finally, let me provide a brief overview of the individual chapters.

3. Overview of the Chapters

The book pursues two goals. First, it attempts to provide an overview of certain synchronic aspects in the nominal domain in German. In particular, Chapters 2-7 discuss in quite some detail adjectival inflections, *ein* along with its related words, and consequences of the proposed analyses. Making a few relevant cross-linguistic remarks throughout the book, I show that German differs from even closely related languages like Yiddish and Norwegian in a number of points. The second goal is to find commonalities between these different phenomena; that is, to tie these analyses together to offer some remarks about the larger issues involved. This is the main focus of Chapter 8, the final chapter. On the basis of the similarities and differences of adjectival inflections and *ein*, I engage there in a summary discussion of the main hypotheses stated in (17) through (19).

It is important to point out that both of these goals go in partially different directions. Specifically, an overview tries to be fairly exhaustive, but discussing the larger issues involved is an attempt to see what different sub-domains, empirical or theoretic, have in common. As such, discussing issues to some comprehensive degree tends to move the focus away from traits shared by all the different domains. However, as already briefly illustrated above, the discussion of one phenomenon often forms the background for the analysis of another. It is due to the shared properties and the interwoven argumentation that I believe that adjectival inflections and *ein* can and should be discussed in tandem.

The book is organized into two primary chapters (2, 5), four supporting chapters (3, 4, 6, 7), and a conclusion (8). Here is a brief overview:

Chapter 2 (*The Structural Nature of Adjectival Endings*) Taking the system developed in Roehrs (2009a: Chapter 4, 2015) as a point of departure, this chapter investigates the inflectional behavior of adjectives in a wide range of nominal constructions, many of which are typically not discussed in this respect. Pulling together some of the strings of other previous work, it reaches the conclusion that the strong/weak alternation of adjectival inflections is the result of a reduction process (Impoverishment) occurring in a regular DP. In contrast, strong endings surface as the unreduced form if Impoverishment does not occur, either in ordinary or less canonical structures. It is briefly illustrated that the Scandinavian languages are different in this regard.

Chapter 3 (*Secondary Mechanisms and Further Extensions*) Given the analysis of the previous chapter, a number of unexpected inflections are discussed. It is pointed out that these cases are very restricted in that they occur only in specific, well-defined contexts. It is argued that unexpected strong endings help disambiguate pronominal DP such as *uns nett-e(n) Linguisten* ‘us nice-ST(WK) linguists’ as regards case (or gender). In contrast, unexpected weak endings in instances like *mit frisch-em schwarz-en Kaffee* ‘with fresh-ST black-WK coffee’ are claimed to be a reflex of phonetic simplification. Overall, it is proposed that adjectival inflections are due to several mechanisms whereby some “mask” the general picture outlined in Chapter 2. Finally, inflectional variation on determiners and predeterminers is addressed, issues with the

traditional generalization “weak after strong” are discussed, and the strong/weak alternation in the dialect of Mannheim is analyzed.

Chapter 4 (*Consequences for Other Analyses*) This chapter discusses some consequences of the first part of the book. Specifically, it is shown that weak adjectival endings in the context of plural *ein* raise issues for analyses involving Predicate Inversion (Bennis *et al.* 1998) and for accounts proposing the presence of certain null nouns (van Riemsdijk 2005). Furthermore, it is argued that the present analysis is not compatible with certain discontinuous noun phrases (i.e., split topic constructions) if simply analyzed as movement (van Riemsdijk 1989) but only if analyzed as involving the separate base-generation of two nominals where one or both of these nominals undergo movement later (Fanselow 1988). Finally, it is suggested that non-restrictive adjectives must have the same basic structure as restrictive ones and that strong endings are not “referential” in nature but serve to make nominal features like case, number, and gender visible.

Chapter 5 (*Ein-words and Adjectival eine*) The indefinite article and singularity numeral have been discussed for English in quite some detail (Perlmutter 1970). However, German and many other languages have not received as much attention in this empirical domain. Exemplifying with Yiddish, it is shown that care must be taken if one attempts to compare different, even very closely related, languages in this part of the grammar. In view of these potential issues, this chapter is intended to make progress in plugging that empirical and theoretical hole for German only. It is argued that there are two types of *ein* in German: semantically vacuous *ein*, which forms part of a number of complex *ein*-words (e.g., *sein* ‘his,’ *kein* ‘no,’ and *EIN* ‘one’), and adjectival *eine*, which is an independent element that can only occur in definite contexts. It is briefly suggested that diachronically, *sein* ‘his’ and *EIN* ‘one’ were, at some point during the development of the language, split into two parts (*kein* ‘no’ already consisted of two parts). This change explains why older varieties of German are more similar to the Scandinavian languages than to Modern German.

Chapter 6 (*Ein and Emotiveness*) This chapter presents the first consequence of the second major component of this book. Comparing the different interpretations of pronominal and copular constructions such as *du Bauer* ‘you peasant’ and *du bist Bauer* ‘you are a farmer,’ the addition of *ein* as in *du bist ein Bauer* seems to bring about an additional emotive reading. Not only does *Bauer* denote ‘farmer’ now but also ‘peasant,’ where the referent is ascribed certain stereotypical properties of a profession without implying that the individual actually works in that profession. I will argue that *ein* is not responsible for this effect. Rather, following Rauh (2004) and de Swart *et al.* (2007), I propose that this emotive reading is due to certain pragmatic restrictions and the realization operator REL. The presence of the latter is flagged by *ein*. More generally, this and the next chapter discuss the relatedness of noun phrases and clauses.

Chapter 7 (*Ein and Number*) This chapter presents a second consequence of Chapter 5. Comparing again the nominal and clausal domains, I show that the DP is very restricted with regard to morphological and semantic number; that is, a singular DP is singular in interpretation, and a plural DP is plural in interpretation. In contrast, the CP is, under certain conditions, more flexible in its interpretations; for instance, *ihr seid alle Arzt* ‘you(PL) are all doctor(SGL)’ involves a non-plural noun that is compatible with a plural pronoun and its meaning. I propose that DPs always project NumP but that copular constructions may optionally lack NumP, provided NumP is the highest phrase of the predicate nominal. It is shown that *ein* does not determine number, neither morphological nor semantic, but that it flags the presence of a certain amount of structure and an operator.

Chapter 8 (*Concluding Remarks*) This chapter ties the previous chapters together. Focusing on the two major threads of this book, it concludes that both adjectival inflections and *ein* are semantically vacuous elements. Furthermore, both elements provide clues about the structure of the noun phrase. In fact, different adjectival inflections are not only a reflex of different structural sizes but also indicate different degrees of embedding of adjectives. Furthermore, adjectival endings also spell out morpho-syntactic features like case, number, and gender. Unlike inflections, *ein* makes certain semantic operators visible. Finally, the chapter closes with some cases that cannot be covered in detail in this book and some brief remarks as to what all semantically vacuous elements might have in common. It winds up suggesting briefly that the two vacuous elements might help facilitate the acquisition of the language, in particular of abstract structure and covert operators.

Chapter 2: The Structural Nature of Adjectival Endings

1. Introduction

This chapter provides detailed evidence for Hypothesis 1, namely that adjectival inflections are semantically vacuous and indicate abstract structure. As regards the latter, the discussion lends credence to Hypothesis 2a: adjectival inflections indicate structure in the higher layers of the noun phrase, and they provide clues about various degrees of embeddings of adjectives.

1.1. *The Strong/Weak Alternation of Adjectives*

As briefly discussed in Chapter 1, one of the most interesting features of the Germanic languages is the fact that adjectives can take – what is traditionally called – ‘strong’ or ‘weak’ endings. Compare the following typical inflectional alternation on adjectives where the ending is strong (ST) when no determiner is present, and it is weak (WK) when there is a determiner. Let me exemplify these patterns in the nominative case using a singular masculine mass noun and a plural count noun (for a complete survey of all the combinations of case, number, and gender, see Duden 1995):

- (1) a. *frisch-er Kaffee*
fresh-ST coffee
‘fresh coffee’

b. *der frisch-e Kaffee*
the fresh-WK coffee
‘the fresh coffee’
- (2) a. *nett-e Frauen*
nice-ST women
‘nice women’

b. *die nett-en Frauen*
the nice-WK women
‘the nice women’

These are the basic patterns. I will label the phenomenon involving the two related forms of the adjective ‘the strong/weak alternation.’ Although it is actually the ending of the adjective that alternates, I will frequently refer to these cases simply as ‘strong’ or ‘weak adjectives.’ Unlike verbs and nouns, which are lexically specified as strong or weak, (almost) all adjectives can take either ending and display this inflectional alternation.

These inflectional patterns have been discussed in some detail in the literature. At first glance, one might claim that the strong and the weak endings correlate with an indefinite or definite interpretation of the noun phrase. In the (a)-examples above, the nominals with the strong adjectives are indefinite, but in the (b)-examples, the nominals with the weak adjectives

are definite. In other words, one could suggest that these different inflections are a reflex of the varying semantics of the noun phrase.

Traditional discussions of this topic claim that this is indeed the case in the older Germanic languages (see Demske 2001, Lohrmann 2010: 60-62). As Harbert (2007: 130-137) points out, this is different for some of the contemporary languages (also Gallmann 1996: 302f). In fact, he claims that diachronically, the two sets of endings developed from a – what he calls – semi-regular distribution toward regularization and functionalization. This development occurred in different ways: in the Scandinavian languages, the alternation signals (in-)definiteness (cf. Lohrmann 2011); in German, it developed into an economy principle such that the strong ending is limited to exactly one per noun phrase (Esau 1973).

While I basically concur with Harbert, I believe the German facts are more complicated. Note already here that Esau's economy condition does not account for multiple occurrences of strong endings in cases like *frisch-er schwarz-er Kaffee* 'fresh-ST black-ST coffee.' Before I turn to a detailed discussion of the strong/weak alternation in German, let me provide some evidence that Modern German is indeed different from the Scandinavian languages and older varieties of German; that is, the Modern German inflections do not correlate with (in-)definiteness (also Roehrs & Julien 2014). This point can be made on the basis of language-external and language-internal considerations.

1.2. Adjectival Inflections and (In-)definiteness

Starting with language-external evidence, adjectives in the Germanic languages differ as regards a correlation with (in-)definiteness. For instance, adjectives behave differently in vocatives: in Modern German, the adjective is strong; in the Scandinavian languages, here exemplified by Norwegian, the adjective is weak. Interestingly, vocatives in Old High German also have a weak ending, just as they do in the Scandinavian languages today:

- | | | | |
|-----|----|--|-------------------|
| (3) | a. | <i>Dumm-er Idiot!</i>
stupid-ST idiot
'Stupid idiot!' | (Modern German) |
| | b. | <i>Dumm-e idioten!</i>
stupid-WK idiot-the
'Stupid idiot!' | (Norwegian) |
| | | (Svenonius 1993b: 208) | |
| | c. | <i>llob-o man</i>
dear-WK man
'dear man' | (Old High German) |
| | | (Demske 2001: 67) | |

Parallel to (3), possessive determiners also show a different inflection on the adjective in Modern German vs. Norwegian and Old High German:

- (4) a. *mein lieb-er Sohn* (Modern German)
 my dear-ST son
 ‘my dear son’
- b. *min kjær-e sønn* (Norwegian)
 my dear-WK son
 ‘my dear son’
- c. *mîn liob-o sun* (Old High German)
 my dear-WK son
 ‘my dear son’
 (Demske 2001: 67)

To be clear, the above-mentioned languages show different endings on the adjective in the same contexts. I know of no evidence that indicates that the definiteness involved in these vocatives and possessives is different in the three languages. If this holds true, then adjectival endings do not reliably indicate the definiteness of noun phrases across the different Germanic languages.¹ Interestingly, this lack of correlation in Modern German between inflection and interpretation can be made even more forcefully language-internally.

Depending on the morphological case, noun phrases involving indefinite articles or possessive determiners take either a strong adjective or a weak adjective in Modern German. Compare the noun phrases in the nominative in the (a)-examples to those in the dative in the (b)-examples, where the former have a strong adjective but the latter a weak one:

- (5) a. *ein groß-es Auto*
 a big-ST car
 ‘a big car’
- b. *mit einem groß-en Auto*
 with a big-WK car
 ‘with a big car’
- (6) a. *mein groß-es Auto*
 my big-ST car
 ‘my big car’
- b. *mit meinem groß-en Auto*
 with my big-WK car
 ‘with my big car’

¹ Roehrs & Julien (2014) show that German and Norwegian differ quite generally in this regard. For instance, documenting with nine sets of data (possessives involving proper names and pronominals, embedded and unembedded proper names, “dis-agreeing” pronominal DPs, appositives, definite adjectives, vocatives, and discontinuous noun phrases), they show that German consistently has a strong ending but that Norwegian has a weak ending. They propose that adjectival inflections in German are a function of lexical and structural factors (see also below) but that Norwegian is regulated by semantic ones.

To be clear, adjectives pattern the same after indefinite articles and possessive determiners in Modern German; that is, adjectives can take a strong or weak ending in both indefinite and definite contexts. The distinguishing factor seems to involve case. It is not clear though that different morphological cases in German are related to different values for definiteness (a similar point can also be made with Saxon Genitives, see below).

Indeed, morphological case alone cannot explain the strong/weak alternation in this language. This can be exemplified with one and the same lexical item where the morphological case remains unchanged. For instance, the quantifier *manch*- ‘some’ is indefinite. If it is inflectionless, the adjective is strong (7a); if it has a strong ending, the adjective is weak (7b). Similarly, the pronominal determiner *wir* ‘we’ is definite but can occur with both types of endings (8a-b). Note that % below marks a less preferred but certainly possible form (see Bhatt 1990: 154f; Duden 1995: 280, 2007: 39; Darski 1979: 198). I will interpret this as dialectal variation:²

- (7) a. *manch nett-e Studenten*
 some nice-ST students
 ‘some nice students’
- b. *manch-e nett-en Studenten*
 some-ST nice-WK students
 ‘some nice students’
- (8) a. *wir nett-en Studenten*
 we nice-WK students
 ‘we nice students’
- b. % *wir nett-e Studenten*
 we nice-ST students
 ‘we nice students’

As will become clear below, these are not isolated cases: they also apply to *welch*- ‘which,’ *solch*- ‘such,’ *mir* ‘me(DAT),’ *dir* ‘you(DAT.SGL),’ and *ihr* ‘you(NOM.PL).’

To summarize, then, it is clear that at least in Modern German, different adjectival endings do not correlate with differences in definiteness. While I will make this point in different ways in the course of the discussion, let me propose already here that adjectival inflections are semantically vacuous: they neither have semantics of their own nor do they make semantic features visible.

Returning briefly to the diachronic data, it was pointed out by Demske (2001: 82) that adjectives in Old High German are weak after the possessive determiner but strong after the indefinite article. As illustrated above, this is different in Modern German, where adjectives pattern the same after the possessive determiner and the indefinite article. If so, this implies that the possessive determiner and the indefinite article were not related to each other in the older

² The strong ending in (8b) becomes more acceptable if the overt noun is missing (Bhatt 1990: 179, Duden 2007: 39). Presumably, a strong ending is better able to license a null noun.

varieties of German as compared to Modern German.³ It seems clear then that German underwent a number of changes during its diachronic development (for the discussion of some diachronic issues, see Demske 2001, Alexiadou 2004, and Wood 2007; also Chapter 5).

1.3. Outlook

The following discussion will focus on Modern German with a few cross-linguistic remarks if the phenomenon under discussion shows an interesting contrast between German and another language. Restricting the discussion to attributive adjectives, I will reach the conclusion that, at least in German, adjectival inflections are semantically vacuous (Hypothesis 1a) and that the strong/weak alternation is not simply a surface phenomenon. Rather, it is, in part, a reflex of different structures of the noun phrase (Hypothesis 2a). In fact, this alternation will be argued to be a good probe into the structure, but not the semantics, of the nominal domain.

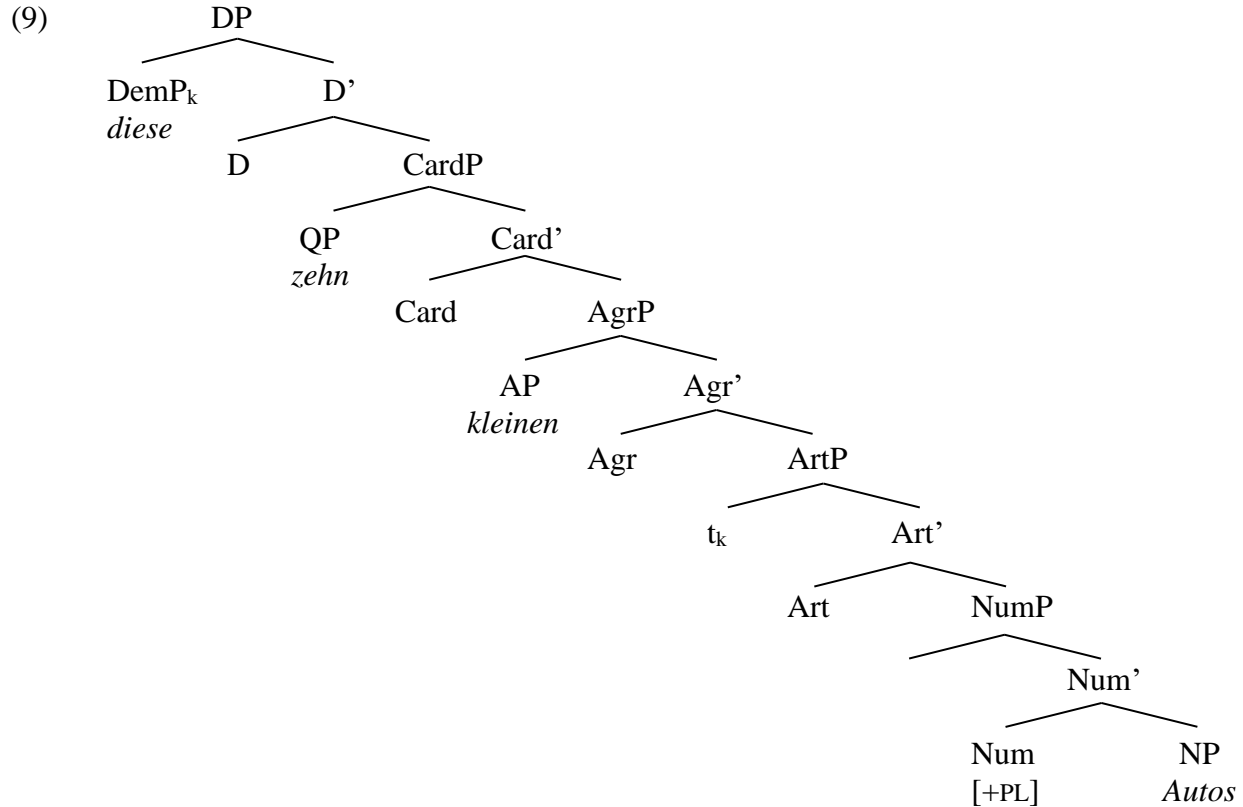
To anticipate the discussion, I will propose that the derivation of the weak ending must take a certain structure into account. I will argue that an adjective is only weak if it occurs in a regular DP and undergoes a certain reduction process. This process is taken to be Impoverishment and is triggered by a determiner. The diverse distribution of the strong endings illustrated at length below is explained by the fact that Impoverishment does not occur, either because there is no determiner, no relevant determiner, or because the determiner or the adjective is in a position that is different from that in the regular DP. In a sense, the strong endings form the elsewhere case. In light of these claims, a number of other cases appear to be “exceptional.” I will propose in Chapter 3 that the inflectional patterns of adjectives (and determiners) in German are the reflex of several mechanisms that “mask” the main underlying mechanism (i.e., Impoverishment). Chapter 4 discusses some consequences of these proposals for other analyses.

The chapter is organized as follows: the first part of the chapter contrasts garden-variety DPs where weak inflections are found with several non-canonical nominals 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 of Impoverishment. In Section 4, I discuss three previous proposals of the strong/weak alternation, and Section 5 concludes the chapter.

2. Garden-variety DPs vs. Other Nominals

In this section, I contrast ordinary noun phrases with less canonical nominal constructions. I will follow much of the research tradition initiated by Abney (1987) and assume that the former type of case involves a regular DP-structure. With the determiner in a separate DP-layer and the adjective in a specifier below that, I assume that this is the crucial constellation to derive the weak endings on adjectives in German. The basic structure from Chapter 1 is repeated here for convenience:

³ In Chapter 5, I will argue in detail that possessive determiners in Modern German consist of a possessive component and *ein* (e.g., *mein* ‘my’).



Considering (9), note that the determiner and the weak adjective are not in a local relation – CardP intervenes. However, it will be proposed that determiners are nevertheless responsible for bringing about the weak endings on adjectives. In contrast, the less canonical 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 (for detailed discussion, see the original sources).

Proposing that weak adjectives occur in regular DPs only, there are methodologically two distinct options to come to terms with the strong adjectives in the presence of a relevant determiner: (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.⁴ Note that in each of these scenarios, the structural relation between the determiner and the adjective differs from that in ordinary DPs. The following discussion will feature both options and provide evidence for Hypothesis 2a (i.e., inflections indicating abstract structure). For expository clarity, the non-canonical position of either the determiner or the adjective will be marked by square brackets around the relevant element in the tree diagrams. Note finally that with the exception of indefinite pronoun constructions (Section 2.2), all noun phrases involve definite determiners, and one might expect weak endings on the adjectives. As we will see though, this is not borne out. Again, adjectival inflections in German cannot be a reflex of the definiteness of the containing noun phrase (cf. Hypothesis 1a).

⁴ As a third option, one could suggest that both the determiner and the adjective are in non-canonical positions. To keep things simple, I will not consider this possibility.

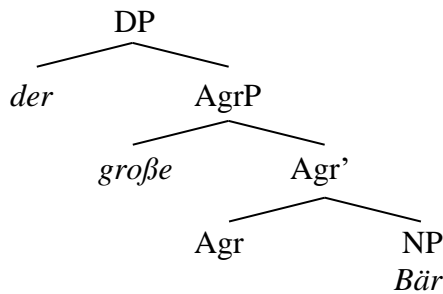
2.1. Regular DP vs. Low Right-Adjunction: Close Appositions

Let me begin with a garden-variety noun phrase (10a), and compare it to a noun phrase where a name-like nominal such as *Großer Bär* ‘Big Bear’ is attached to the right of another nominal (10b). It is clear that the former must involve a weak but the latter a strong ending on the adjective:

- (10) a. *der groß-e(*r) Bär*
the big-WK/*ST bear
‘the big bear’
- b. *der Indianer Groß-e*(r) Bär*
the indian big-ST/*WK bear
‘the Red Indian Big Bear’

Turning first to (10a), the relevant part of the structure of this ordinary DP is as follows:

(11) Regular DP-Structure (Simplified)



As stated above, I take this to be the structural constellation where the weak endings come about. With the adjective strong in (10b), something else must be assumed to explain that example.

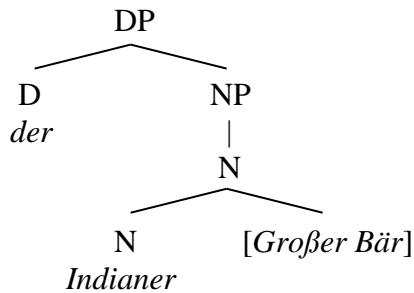
In certain northern dialects of German, proper names can take an optional article as in *(die) Anna* ‘Anne’ (Nübling *et al* 2015: 123ff). As noted by Löbel (1991), this optional proprial article is not possible with close appositions (12a), and the name has to follow the noun it specifies; compare (12a) to (12b):⁵

- (12) a. *die Tochter (*die) Anna meines Bruders*
the daughter the Anna of.my brother
‘Anne, my brother’s daughter’
- b. * *die Tochter meines Bruders (die) Anna*
the daughter of.my brother the Anna

Relating the close appositive in (12a) to (10b), I propose a structure different from that of regular DPs, namely the name-like element is attached to the head noun of the DP:

⁵ The second example improves significantly if there is a long pause after *Bruder* ‘brother’ (see the discussion of loose appositions in Section 2.3).

(13) *Close Appositions*



Note that the adjective in (13) is not in the specifier position below the determiner – the constellation in which a weak adjective occurs. This, then, is the first context for a strong adjective.

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

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 adjective (14a), and the other shows a strong adjective (14b-c):

- (14) a. *jeder* *ander-e*(%r)
 every(one) different-WK/%ST
 ‘everyone different’
- b. *wer* *ander-e**(r)
 someone different-ST/*WK
 ‘someone different’
- c. *jemand* *ander-e**(r)
 someone different-ST/*WK
 ‘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 means that concord can only be a necessary, but not sufficient, condition for the occurrence of a weak ending.

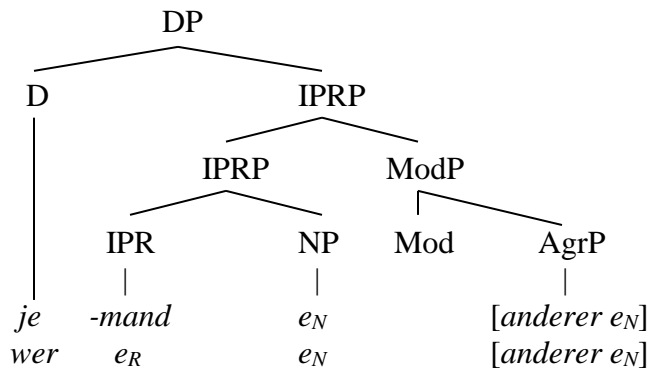
Turning to the individual structures, let me first point out that there are other important differences between these two types. Among others, the first type allows an overt noun, but the second crucially does not:

- (15) a. *jeder* *ander-e* *Mann*
 every(one) different-WK Mann
 ‘every different man’

- b. * *wer* *ander-e(r)* *Mann*
 someone different-ST/WK Mann
- c. * *jemand* *ander-e(r)* *Mann*
 someone different-ST/WK Mann

As discussed in the above-mentioned paper, I assume 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). The structure looks as follows (e stands for a null element; see also Leu 2005):⁶

(16) *Indefinite Pronoun Construction*



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

2.3. *Regular DP vs. High Right-Adjunction: Loose Appositions*

A typical case of a – what is sometimes called – ‘loose apposition’ is given in (17a) below. Like in the two other cases above, the adjective can only be strong. This is in contrast to the loose apposition in (17b), which involves a definite determiner:

- (17) a. *Wir, begeistert-e(*n) Linguisten, fordern mehr Unterstützung.*
 we enthusiastic-ST/*WK linguists demand more support
 ‘We, enthusiastic linguists, demand more support.’

⁶ Note that I put the quantifying, determiner-like element under D. Also, with the discussion of the introduction in mind, one might object that a strong ending is expected here as this is an indefinite construction. Importantly though, a strong ending also occurs in the dative (for detailed discussion, see Chapter 3):

- (i) *mit {jemand / %wem} ander-em*
 with someone different-ST
 ‘with someone different’

In other words, this indefinite pronoun construction is different from the noun phrases involving *ein* ‘a’ (e.g., *mit einem ander-en Mann* ‘with a different-WK man’). As the latter are usually used to exemplify the inflectional alternation in indefinite contexts, indefinite pronoun constructions deserve being mentioned in the current context – they show that not all indefinite constructions behave the same as regards inflections on adjectives.

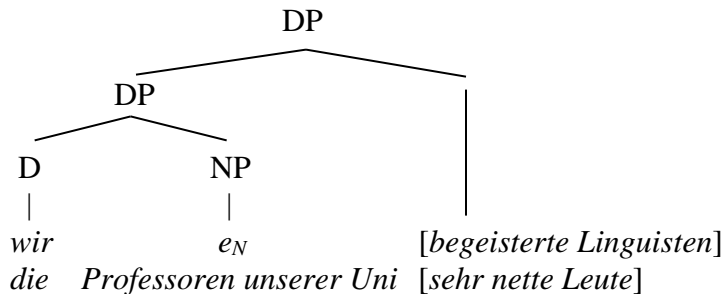
- b. *Wir, die begeistert-e*(n) Linguisten, wollten mehr Unterstützung.*
 we the enthusiastic-WK/*ST linguists wanted more support
 ‘We, the enthusiastic linguists, wanted more support.’

Unlike the two adjunction cases from Sections 2.1 and 2.2, the nominal following *wir* in (17a) is not a name-like element (unlike close appositions), and it involves an overt head noun (unlike indefinite pronoun constructions). Moreover, these constructions have a distinctive intonation contour, and a genitive complement to the first head noun can only precede this type of apposition:

- (18) a. *die Professoren unserer Uni, sehr nett-e Leute*
 the professors of.our univ, very nice-ST people
 ‘the professors of our university, very nice people’
- b. * *die Professoren, sehr nett-e Leute, unserer Uni*
 the professors, very nice-ST people, of.our univ

In order to capture the difference in (18), I propose that this is another case of right-adjunction. Unlike the two other types of cases, I suggest that this adjunction is higher in the structure, namely to the DP-level (cf. Delorme & Dougherty 1972). (17a) and (18a) are derived as follows:

(19) *Loose Appositions*



As in the cases above, the adjective is not in the specifier below the determiner. Note that the pronominal determiner *wir* ‘we’ in (19) is taken to have a null noun as part of its complement. In the next section, I consider cases where this determiner co-occurs with an overt noun.

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, and the extensive recent work by Höhn, e.g., Höhn 2020). A typical case is given in (20a). What is interesting about this case is that both types of endings are, with some differences in preference, possible; compare (20a) to (20b). Note already here that the unmarked (20a) runs counter to the often-made generalization that weak adjectives must follow inflected determiners (for detailed discussion of this generalization, see Chapter 3, Section 6). Furthermore, Roehrs (2006b) discusses some pronominal DPs where plural pronouns and singular head nouns

combine despite the fact that they do not agree in morphological number (20c). Importantly, though, only strong adjectives are possible here (Darski 1979: 202, Gunkel *et al.* 2017: 1308):

- (20) a. *ihr dumm-en Idioten*
 you(PL) stupid-WK idiots
 ‘you stupid idiots’
- b. % *ihr dumm-e Idioten*
 you(PL) stupid-ST idiots
 ‘you stupid idiots’
- c. *ihr jung-es Gemüse*
 you(PL) young-ST.SGL vegetable
 ‘you young folks’

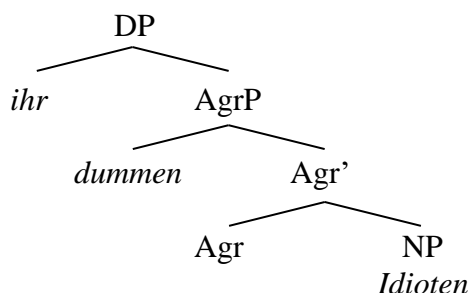
It is pointed out there that semantic agreement in number must hold between all these elements. For instance, like the pronominal determiner *ihr* ‘you(PL),’ both the count noun *Idioten* ‘idiots’ and the mass noun *Gemüse* ‘vegetable’ imply several individuals. This is different from garden-variety determiners such as *diese* ‘these,’ which are more restrictive and do not tolerate morphological dis-agreement at all (e.g., *ihr blödes Pack* ‘you stupid gang’ vs. **diese Pack* ‘these gang’).

Without a special intonation contour, agreeing nominals (e.g., *dumme(n) Idioten* ‘stupid idiots’) or dis-agreeing nominals (e.g., *junges Gemüse* ‘young [vegetable =] folks’) cannot be iterated in pronominal DPs, and both of these nominals cannot interact with one another. In other words, there can be only one overt noun and related adjective in the pronominal DP:

- (21) a. *ihr Idioten*
 you(PL) idiots
 ‘you idiots’
- b. * *ihr Idioten jung-es (Gemüse)*
 you(PL) idiots young-ST.SGL vegetable
- c. * *ihr jung-es (Gemüse) Idioten*
 you(PL) young-ST.SGL vegetable idiots
- (22) a. *ihr Gemüse*
 you(PL) vegetable
 ‘you (young) folks’
- b. * *ihr Gemüse dumm-en (Idioten)*
 you(PL) vegetable stupid-WK.PL idiots
- c. * *ihr dumm-en (Idioten) Gemüse*
 you(PL) stupid-WK.PL idiots vegetable

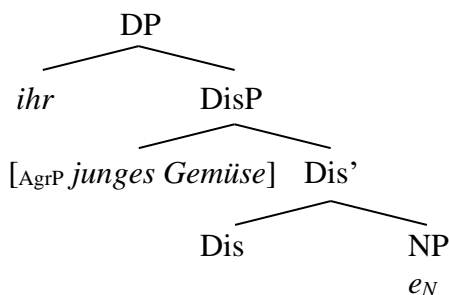
In order to capture these facts, Roehrs (2006b) proposes that the pronominal determiner can optionally select either AgrP resulting in the (ordinary) agreeing cases or a – what he calls – Dis-agreement Phrase (DisP) bringing about the dis-agreeing cases.⁷ More specifically, I assume that pronominal DPs with an agreeing adjective and noun involve a regular DP where the pronoun is in the DP-layer, the adjective is in Spec,AgrP, and the noun is in NP:

(23) *Transitive Pronouns (Regular DP)*



In contrast, pronominal DPs with a dis-agreeing nominal have a different structure where the entire dis-agreeing element is assumed to be in Spec,DisP:⁸

(24) *Transitive Pronouns (Dis-agreement)*



Note now that there is a clear difference between the agreeing DP in (20a) and the dis-agreeing case in (20c). In the former, the adjective and its projected AP reside in Spec,AgrP; in the latter, the adjective projects an AP and the noun involves an NP, together making up an AgrP. This AgrP, in turn, is located in Spec,DisP. Crucially, then, while the adjective is in the specifier below the determiner in (23), the adjective in (24) is also in the specifier below the determiner, but it is more deeply embedded (cf. AP vs. AgrP, which contains AP). I conclude that the strong ending in the latter case is a reflex of (more) abstract structure (Hypothesis 2a).

In sum, then, it is not surprising that (20a) shows a weak adjective (for the less preferred strong adjective, see Chapter 3) but that (20c) does not. Presumably, the adjective in the latter establishes its own agreement relation with the overt noun inside the embedded AgrP and is

⁷ With adjunction less constrained, above-mentioned restrictions are best stated in terms of selection.

⁸ For more justification of this structure, see Chapter 6, where it is pointed out that a bare noun such as *Bauer* ‘peasant/farmer’ must be singular in interpretation in dis-agreement cases such as *Sie Bauer* ‘you peasant’ but not in *Sie alle als Bauer* ‘you all as a farmer/farmers,’ which involves *als* ‘as.’ To capture this difference, I will argue in more detail there that the former involves a specifier (i.e., Spec,DisP), but the latter is a case of adjunction.

independent of the larger DP. So far, I have discussed four cases, where the adjective is outside the determiner's domain of influence. Next, I 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

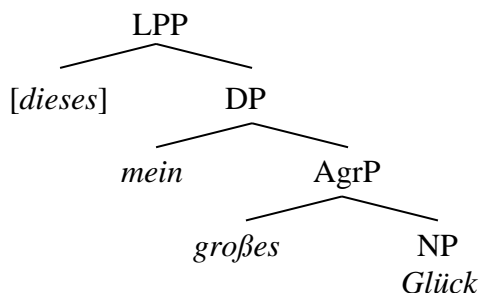
Roehrs (2009a: Chapter 4) discusses some cases where determiners or determiner-like elements may co-occur (also Wood 2007). To get the discussion off the ground, consider first (25a), where the demonstrative occurs with a weak adjective. In contrast, the possessive pronominal occurs with a strong adjective (25b). Now, the demonstrative and the possessive pronominal can be combined as in (25c). Importantly, the adjective must be strong (Duden 1995: 286, Gunkel *et al.* 2017: 1308):

- (25) a. *dieses groß-e(*s) Glück*
 this great-WK/*ST happiness
 ‘this great happiness’
- b. *mein groß-e*(s) Glück*
 my great-ST/*WK happiness
 ‘my great happiness’
- c. *dieses mein groß-e*(s) Glück*
 this my great-ST/*WK happiness
 ‘this my great happiness’

In other words, the presence of the demonstrative does not play a morphological role for the adjective in (25c). This is surprising given that it does have an impact in (25a).

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 account for this different behavior in the morphology, syntax, and semantics, it is proposed in Roehrs (2009a) that the demonstrative is merged in a phrase above the DP-level. Here, I label this phrase Left Periphery Phrase (LPP) (see Giusti & Iovino 2016):

(26) 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 Topicalizations

Fanselow (1988) and van Riemsdijk (1989) discuss discontinuous noun phrases, often referred to as ‘split topicalizations’ (also Ott 2011a). Putting it in simple terms, the lower part of a noun phrase occurs in a higher position of the clause, and the higher part of the same noun phrase is in a lower position. This type of construction has a number of interesting properties. As pointed out by Bhatt (1990: 249f) and Fanselow & Ćavar (2002), some speakers allow the split of a definite noun phrase. Now, an adjective in a non-split noun phrase has a weak ending (27a); it is strong though if it occurs in the higher position separated from the determiner (27b):

- (27) a. *Ich habe immer nur diese bunt-e*(n) Hemden da getragen.*
 I have always only these colored-WK/*ST shirts there worn
 ‘I have always worn only these colored shirts there.’
- b. *Bunt-e(*n) Hemden habe ich immer nur diese da getragen.*
 colored-ST/*WK 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 split topicalizations are base-generated separately in the VP, and one of them eventually undergoes movement (for more detailed discussion, see Chapter 4). Some independent evidence for this comes from the fact that the discontinuous noun phrase can have two determiners:

- (28) *‘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 (27b) was never in the specifier below the determiner *diese* ‘this.’

To sum up this section, I have discussed one context where weak endings occur (regular DP) and six contexts where 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 the determiner and adjective are in their typical positions but both occur separately in a discontinuous noun phrase. In each and every case, the adjective or the determiner is in a position different from that of a regular (continuous) DP. Some independent evidence was provided for the assumption of different structures.

More generally, if this is correct, then the strong/weak alternation of adjectival inflection appears to be a reflex of different structures. In fact, the different types of inflections may indicate the degree of embedding of adjectives (Spec,AgrP vs. Spec,DisP containing Spec,AgrP) and a certain amount of structure (DP vs. LPP on top of DP). The strong adjectives in the latter two types of contexts (Spec,DisP and LPP) provide evidence for Hypothesis 2a – more abstract structure is involved. In the next part of the chapter, I provide my account of the strong/weak alternation.

3. Derivation of Adjectival Endings in Regular DPs

In the previous section, we have seen that there are several structures in which the adjective has a strong ending but only one structure with a weak one. With the exception of one structure, all constructions involved definite determiners, and I concluded that adjectival inflections in German cannot be a reflex of (in-)definiteness. I proposed that these inflections are semantically vacuous (Hypothesis 1a). Furthermore, having shown that concord is only a necessary (but not sufficient) condition for the appearance of the weak ending (Section 2.2), I pointed out that this ending is only possible in a regular DP, where the adjective is in a specifier below the determiner.

I will propose that the weak endings follow from the operation of Impoverishment in the framework of Distributed Morphology. Arguing that this mechanism can only occur in regular DPs, it is taken to reduce fully specified feature bundles on terminal heads. These reduced feature bundles are then spelled out as the weak endings. Given the diverse distribution of the strong endings, I will propose that the latter instances involve the elsewhere case; that is, the strong endings surface in the absence of Impoverishment. As such, I assume that strong endings constitute the “underlying” forms in that they involve fully specified nominal features for case, number, and gender.⁹

This section is organized as follows. First I discuss adjectives in the context of *der*-words. This is followed by *ein*-words and the null article. Next, I discuss adjectival inflections in extended-adjective constructions. Finally, I turn to strong endings in certain definite contexts. Given that previous proposals usually address only the stereotypical cases, I will postpone the discussion of three such proposals to Section 4.

3.1. Impoverishment – Weak Endings

After providing the basic proposal of the strong/weak alternation, I flesh out the details in the second subsection. This is followed by the analysis of the inflections on the determiner elements themselves.

3.1.1. The Basic Proposal

In German, determiners are categorized into three groups: *der*-words, *ein*-words, and the null article. The first set includes *der* ‘the,’ (stressed) *DER* ‘that,’ *dieser* ‘this,’ *jener* ‘that,’ *jeder* ‘every,’ *mancher* ‘some,’ *solcher* ‘such,’ *welcher* ‘which,’ and *alle* ‘all’ in the plural (and occasionally with mass and abstract nouns; for more details on the use of these elements, see Zifonun *et al.* 1997: 1930ff). Second, *ein*-words are comprised of *ein* ‘a,’ (stressed) *EIN* ‘one,’ *kein* ‘no,’ and possessive pronominals like *mein* ‘my,’ *dein* ‘you,’ etc. The third category involves the null article marked here by \emptyset . Given certain minor complications with the definite article where the stem form may vary between *de-*, *da-*, *di-* (for discussion, see G. Müller 2002a: 125 referencing work by B. Wiese later published as Gunkel *et al.* 2017: 1297-98; Roehrs 2013), I illustrate the *der*-words with the proximal demonstrative *dieser* ‘this’ setting off its

⁹ If this is on the right track, then a number of other cases involving a regular DP appear to be unexpected. I will argue in Chapter 3 that the main mechanism of Impoverishment may be “masked” by other, secondary mechanisms. It is important to point out though that the latter only hold in specific, 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.

endings by a dash (I discuss *ein*-words and the null article in Section 3.2).¹⁰ The arrangement of features in Table 1 follows Bierwisch (1967) allowing us to state syncretisms based on natural classes (more on this below). I will also follow Bierwisch (1967: 250) and others in assuming that the schwa before a consonantal inflection is due to schwa-epenthesis. This is not indicated separately below:

Table 1: Determiner Endings

	Masculine	Neuter	Feminine	Plural
Nominative	dies-er	dies-es	dies-e	dies-e
Accusative	dies-en	dies-es	dies-e	dies-e
Dative	dies-em	dies-em	dies-er	dies-en
Genitive	dies-es	dies-es	dies-er	dies-er

Following Milner & Milner (1972), Leu (2015) and many others have pointed out that the endings on the determiner are the same as the strong endings on the adjective. Comparing Tables 1 and 2, there are only two instances (the genitive masculine/neuter cases) where the endings on the determiner are different from the endings on the adjective (*-es* vs. *-en*):

Table 2: Strong Adjective Endings

	Masculine	Neuter	Feminine	Plural
Nominative	-er	-es	-e	-e
Accusative	-en	-es	-e	-e
Dative	-em	-em	-er	-en
Genitive	-en	-en	-er	-er

Considering Tables 1 and 2, we also notice that in many instances, masculine and neuter pattern together and feminine and plural do too. Comparing Table 2 and Table 3 below, German is traditionally taken to have an inventory of five strong and two weak endings (Duden 1995). The latter form a proper subset of the former (*-er, -es, -em, -en, -e* vs. *-en, -e*):

Table 3: Weak Adjective Endings

	Masculine	Neuter	Feminine	Plural
Nominative	-e	-e	-e	-en
Accusative	-en	-e	-e	-en
Dative	-en	-en	-en	-en
Genitive	-en	-en	-en	-en

¹⁰ The subanalyses provided in the above-mentioned works and here are part of a more general approach to morpho-syntax involving the segmentation of word and morpheme forms into smaller units (e.g., Pike 1963, 1965; Anderson 1992; Wunderlich 1997; B. Wiese 1999; Stump 2001; Fischer 2006; Leu 2015; but see also Janda & Joseph 1992). Furthermore, similar to DM as employed here, the recent approach of nanosyntax also involves analyses at the submorphemic level (see Starke 2009 and Hachem 2015). However, the latter approach explicitly rejects Impoverishment rules (Arregi & Nevins 2012: 341), a type of operation essential for the account to be developed below. I return to some of these works below.

Considering all three tables, we notice that the nominative is the same as the accusative, with one well-known exception (e.g., Blevins 1995: 145f, Eisenberg 1998: 173f): the masculine accusative has its own, different form (*-en*). Below, I derive this exception in a straightforward way. As mentioned above, given the overall similarity of the inflections on determiners and adjectives, I will treat them the same and refer to them as ‘adjectival’ endings.

These endings distribute in a certain way. As already briefly discussed in the introduction, we can observe that if there is no determiner, then all adjectives surface with a strong ending (29a). If a determiner is present, the strong ending is on the determiner, and all the adjectives must be weak (29b):

- (29) a. *frisch-e*(r) schwarz-e*(r) Kaffee*
 fresh-ST/*WK black-ST/*WK coffee
 ‘fresh black coffee’
- b. *d-er frisch-e(*r) schwarz-e(*r) Kaffee*
 the-ST hot-WK/*ST black-WK/*ST coffee
 ‘the fresh black coffee’

These are the stereotypical cases. Note again that the *der*-word in (29b) has the same ending as the adjective in (29a). Assuming a null article for (29a), let me summarize this determiner-adjective interaction in the following generalization (but see also Chapter 3, Section 6): in the presence of a null article, the adjective is strong; if a *der*-word is present, the adjective is weak (< stands for precede; * means multiple occurrences):

- (30) a. $\emptyset_{\text{DET}} < \text{STRONG}_{\text{ADJ}*}$
- b. $\text{STRONG}_{\text{DET}} < \text{WEAK}_{\text{ADJ}*}$

This generalization, sometimes referred to as the Principle of Monoinflection, describes two facts: on the one hand, the strong ending occurs once, and on the other, the strong ending occurs on the first element in the noun phrase. Among others, this generalization is meant to state the fact that some combinations of the strong and weak endings do not occur; for instance, a weak element in *-e(n)* cannot be followed by a strong one in *-er/-es/-em* (e.g., **d-en gut-em Noun* ‘the-WK good-ST Noun’).

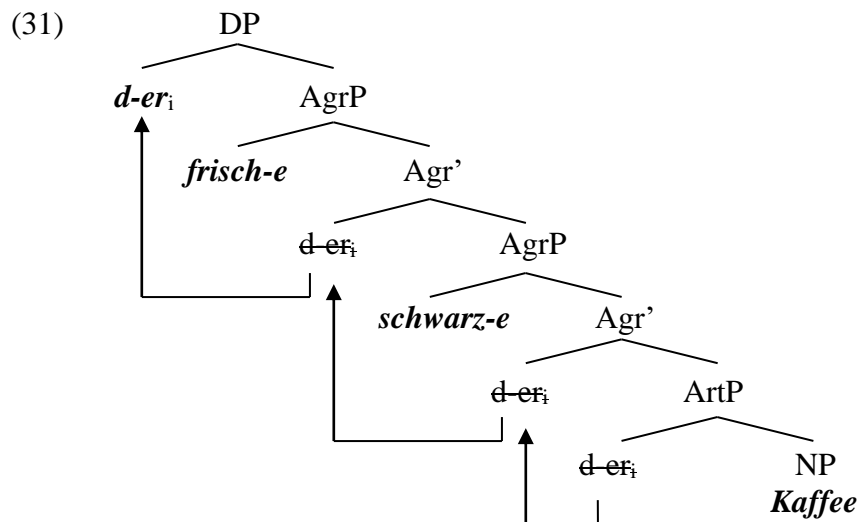
It is important to point out that the grammaticality judgments in (29) are very sharp. I propose that the morphological mechanism of Impoverishment explains these data. I closely follow the discussion of Roehrs (2009a: Chapter 4) and Roehrs & Julien (2014), who base their proposals on Sauerland (1996). Specifically, I assume that endings are abstract feature bundles underlyingly. If the feature bundles on the terminal nodes are reduced by Impoverishment, they are spelled out as weak endings; if not, they surface as strong endings. Vocabulary items for strong endings involve more features than those for weak ones. Taking the number of features as the relevant metrics, it is not surprising that the (less specified) weak endings form a proper subset of the (more specified) strong endings.¹¹

¹¹ Rather than an account based on feature specificity as developed below, G. Müller (2002a) provides an optimality-theoretic proposal (also Gallmann 2004). In order to formulate simpler constraints, Müller analyzes noun

In more detail, I propose that determiners, *der*-words and *ein*-words, form triggers for Impoverishment. I assume that Impoverishment operates in a local fashion. More precisely, I propose that the feature bundles that are realized as the overt inflections on the adjective undergo Impoverishment inside the phrase that hosts them (i.e., AgrP). This means that the trigger for Impoverishment, the determiner, and its target, the inflection on the adjective, must be in a local relation at some point in the derivation. With the determiners surfacing in the DP-level, this implies that determiners must have originated in a lower position. Indeed, a number of authors have argued for a low base position of determiners.

Taraldsen (1990: 428) was one of the first to propose that the suffixal determiner in Norwegian originates in a D-type position below prenominal adjectives and that there is a second D-type position above adjectives to explain cases of Double Definiteness. Julien (2002, 2005a) elaborated on that providing arguments that the low determiner position is tied to the definiteness feature [SPECIFICITY] in certain Scandinavian languages (see also Schoorlemmer 2012). Roehrs (2009a) proposed that both of these determiner positions are related by movement accounting for the different interpretations of adjectives as regards (non-)restrictiveness (see also Chapter 4). In order to explain the Definiteness Cycle in the history of English, Nykiel (2015) employed determiner movement from a low position as well. Schoorlemmer (2009) utilized the two determiner locations in his analysis of concord of the noun phrase (see Section 4.2). Heck *et al.* (2008) proposed that a definiteness feature moves from N to D when a prenominal adjective is present. Finally, separating the definiteness feature into different components, Roehrs (2015, 2019) provided evidence that the low position of some of these components explain adjective endings in the Scandinavian languages and certain interactions between demonstratives/possessives and suffixal determiners.

Given these remarks, I assume that the determiner moves from a position below the adjective, called the Article Phrase (ArtP) here, to the DP-level in a successive-cyclic fashion. The example in (29b) can be represented as follows:



Definite determiners like *der* ‘the’ have the feature [+DEF] and move to the DP-level to specify the definiteness feature on D. In keeping with the claim that *ein* is semantically vacuous, one

phrases as NPs although DPs (e.g., *dieser* ‘this’) exist in the account. Furthermore, and also unlike the current account, Müller’s proposal is that inflections have no independent status as morphemes in the lexicon.

could suggest that *ein* has the feature [-DEF], which could be interpreted as lack of definiteness, bringing about indefiniteness of the DP. We will see below though that there are certain advantages in assuming that *ein* does not have a feature for definiteness at all. Specifically, it allows *ein* to surface in different positions (Art, Card, or D). This, in turn, makes it possible to claim that *ein* flags the presence of covert operators or supports overt operators (Chapter 5). To be clear, I assume that *ein* remains in ArtP unless it has to move up for a reason. When *ein* is present, D has no feature for definiteness (something that is independently needed for indefinite DPs without a determiner).

Sternefeld (2008: 255) reports work by Horst Simon, who observes that the negative article *kein* ‘no’ can be repeated in dialectal German (32a). Sternefeld concludes that another position is needed for the second (low) instance. Above, I have identified this position as Art. This type of case is familiar from the Scandinavian languages, where such a syntactic distribution has been reported for the indefinite article on several occasions (32b) (e.g., Delsing 1993: 143, Julien 2002: 269):

- (32) a. *Ich hab k-ein blau-es k-ein Kleid nicht.* (dialectal German)
 I have NEG-a blue-ST NEG-a dress not
 ‘I don’t have a blue dress.’
- b. *en stor en ful en kar* (Northern Swedish)
 a big an ugly a man
 ‘a big ugly man’

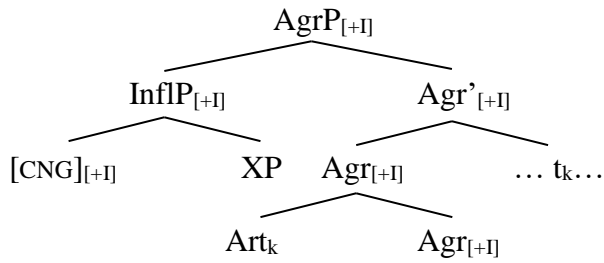
This basic proposal can be made more formal in several aspects.

3.1.2. The Proposal in More Detail

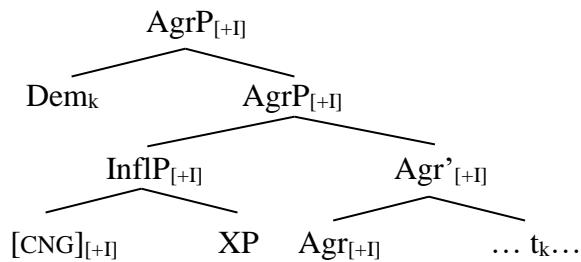
I propose that determiners move via adjunction to the DP-level. Articles are heads, and they move by head adjunction to D; demonstratives are phrases, and they move by phrasal adjunction to Spec,DP. Let me assume that all elements including structural elements are fully specified for case, number, and gender yielding concord.¹² Impoverishment involves the deletion of a certain feature (to be made more precise below). Recalling that determiners are triggers for Impoverishment, I will illustrate this feature reduction by [+I(mpoverishment)] for now. I propose that adjunction by the determiner reduces the feature bundle of the element adjoined to. Assuming Percolation within the same phrase, this feature reduction “spreads” from the head to the phrase in case of an article (33a), or from the phrase to the head in case of a demonstrative (33b). Finally, assuming Spec-head agreement and Percolation, [+I] spreads to InflP in Spec,AgrP and to its head Infl. The latter contains the feature bundle for case, number, and gender ([CNG]) and will be spelled out as the ending on the adjective stem in XP in (33a-b) (also Section 3.3). The relevant portion of the tree is given below for these two scenarios:

¹² It is not clear what the mechanism is that yields concord (see, e.g., Sigurðsson 1989: 112-113 for an analysis based on feature percolation/spreading, Schoorlemmer 2009 for an Agree-based account, and Norris 2014 for a proposal in terms of feature spreading and local feature copying; for insightful discussion of agreement in the clause, see Pesetsky & Torrego 2007). Note in this regard that the successive-cyclic movement of the determiner could do double duty here and mitigate concord. I will leave this interesting option open here.

(33) a. *Adjunction of Article*



b. *Adjunction of Demonstrative*



Note that the reduction due to adjunction, Percolation within the same phrase, and Spec-head agreement are all local relations. Given a recursive AgrP and successive-cyclic movement of the determiner from ArtP to DP , this analysis provides an explanation of why either all adjectives are strong or all are weak. Next, I turn to the details of Impoverishment (for general assumptions about Distributed Morphology, see again Chapter 1). The following discussion follows Roehrs & Julien's (2014) analysis of German with one modification. In the course of the discussion, I will add many details to that proposal.

Adjectival inflections in German are exponents of case, number, and gender. I take it that these features are not primitive notions. Rather, I assume that case involves a two-category system and can be represented by the features $[\text{O}(\text{blique})]$ and $[\text{S}(\text{tructural})]$. Each of these features can have a negative or a positive value (i.e., $[-, +]$) yielding the following decomposition:

- (34) a. nominative: $[-\text{O}, -\text{S}]$
 b. accusative: $[-\text{O}, +\text{S}]$
 c. dative: $[\text{+O}, -\text{S}]$
 d. genitive: $[\text{+O}, +\text{S}]$

Similarly, gender consists of the features $[\text{F}(\text{eminine})]$ and $[\text{N}(\text{euter})]$ and can be broken down as in (35a-c). Plural is the neutralization of gender (35d), something Sternefeld (2008: 80) refers to as the 'fourth gender:'

- (35) a. masculine: [-F, -N]
 b. neuter: [-F, +N]
 c. feminine: [+F, -N]
 d. plural: [+F, +N]

Unlike plural, all singular forms involve at least one negative value for [F] or [N].¹³

In order to state certain commonalities and reduce the number of vocabulary insertion rules, I utilize value variables (α , β), whereby α or β can be positive or negative. To illustrate, a negative value of α in [α O] yields nominative and accusative case (cf. (34a-b) above). Similarly, I employ a category variable (γ), which ranges over [F] and [N]. To give an example, [- γ] indicates singular (as plural has both [F] and [N] specified positively); that is, [- γ] stands for the (inclusive) disjunction of [-F] or [-N] (for the discussion of the explicit use of disjunctions, see G. Müller 2002a: 120 fn. 14).

Importantly, I propose that the two weak endings have the same feature specifications as certain strong endings (cf. also Gallmann 2004: 140). For convenience, these related instances are respectively marked by round and curly brackets in Table 4; below, I formulate vocabulary insertion rules to capture this relatedness. Using these features, all strong and weak inflections can be analyzed as follows:

Table 4: Strong and Weak Endings in German

STRONG	[-F, -N]	[-F, +N]	[+F, -N]	[+F, +N]	WEAK	[- γ]	[+F, +N]
[-O, -S]	<i>-er</i>	<i>-es</i>	<i>(-e)</i>	<i>-e</i>	[-O]	<i>(-e)</i>	
[-O, +S]	<i>-en</i>	<i>-es</i>	<i>(-e)</i>	<i>-e</i>			
[+O, -S]	<i>-em</i>	<i>-em</i>	<i>-er</i>	<i>{-en}</i>	[+O]	<i>{-en}</i>	
[+O, +S]	<i>-es</i>	<i>-es</i>	<i>-er</i>	<i>-er</i>			

Comparing Table 4 to Table 3 from above, we notice that the masculine accusative ending *-en* is missing from the weak endings here. The special status of this ending will follow from the way

¹³ There are many different systems to decompose case, number, and gender – too many to review here in detail. Roehrs & Julien (2014: 250 fn. 5) provide motivation for the above system. Most importantly, following Harbert's (2007: 468) Case Hierarchy, they assume that nominative is the least and genitive the most oblique case. Based on Steinmetz (2001), they assume that masculine is the default gender in German, and following Sternefeld (2008: 80), they take plural to be the neutralization of gender. Note that taking the masculine gender and the nominative case as the least marked categories is consonant with Bierwisch's (1967: 253) statement that there is more syncretism within marked categories (observe that with the strong inflections, genitive has the fewest different forms in Table 4; conversely, masculine has the most different forms). For other, partially similar decompositions, see Bierwisch (1967: 246ff), Wunderlich (1997: 48f), B. Wiese (1996, 1999), G. Müller (2002a: 119), Gallmann (2004: 124f), Trommer (2005), and many others. Blevins (1995) captures syncretism as part of feature hierarchy, with primary (e.g., feminine vs. non-feminine) and subsidiary (e.g., masculine vs. neuter) features. The latter, similar to Feature Geometry, will not play a role here (for discussion, see Arregi & Nevins 2012: 204f). For critical discussion of Bierwisch (1967), Blevins (1995), Wunderlich (1997), and B. Wiese (1999), see G. Müller (2002b).

the strong ending for masculine accusative is stated in (36c).¹⁴ The rules for vocabulary insertion of the endings can be stated as follows:¹⁵

(36) Strong (except for feminine *-e* and plural *-en*):

- | | | | |
|----|------------------|---|------------|
| a. | [+F, -N, +O, αS] | → | <i>-er</i> |
| | [+F, +N, -O, αS] | → | <i>-e</i> |
| b. | [αF, αN, αO, αS] | → | <i>-er</i> |
| c. | [-F, -N, -O] | → | <i>-en</i> |
| | [-F, +O, -S] | → | <i>-em</i> |
| d. | [-F, αO, βS] | → | <i>-es</i> |

(37) Weak (including strong feminine *-e* and plural *-en*):

- | | | | |
|----|----------|---|------------|
| a. | [-γ, -O] | → | <i>-e</i> |
| b. | [] | → | <i>-en</i> |

Comparing (36) to (37), note first that the (unambiguously) strong endings are stated in more specific terms than the weak endings. In other words, weak endings are underspecified to a greater degree, and there is no intrinsic difference between strong and weak inflections. Second, let me assume that a vocabulary item involving the same number of features with a variable is less specific than a corresponding vocabulary item without such a variable. Given this, I have listed the vocabulary items with descending degrees of specificity in (36) and (37). Note that equally specified items differ (in (36a) and (36c), the items vary in the feature [O]). Finally, as is often stated, note that the two paradigms, strong and weak, in Table 4 are simply generalizations. They have been replaced by the vocabulary items above; that is, paradigms are an epiphenomenon without independent status.

In DM, vocabulary items are inserted late. Matching the maximum number of features on the terminal head, the availability of a more specific vocabulary item precludes the insertion of a

¹⁴ In Roehrs & Julien (2014), the exceptional masculine accusative form *-en* contained the specification [+S]. Removing this feature from the vocabulary entry as in (36c) still allows me to specify this ending disambiguously (as masculine nominative *-er* is more specific). In fact, this is now the only strong ending without a specification for [S]. This will become significant momentarily.

¹⁵ In his critique of previous – what he calls – constructive analyses, G. Müller (2002b) points out that all these types of accounts have rules that show different contexts for the insertion of (some of) the same strong inflections, for instance, *-er* in (36a) and (36b). This leads to systematic as well as accidental syncretism. This criticism can also be leveled against the current proposal. Destructive type of analyses involving rules that ban the insertion of certain inflections (G. Müller 2002a, 2002b) fare better.

This seems a valid criticism. However, I think such multiple vocabulary insertion rules for one and the same inflection(s) cannot be avoided altogether. Considering that certain endings occur in other, unrelated domains as well (e.g., plural inflections on nouns: *-e*, *-en*, *-er*, *-s*; personal endings on verbs: *-e*, *-en*), it is not clear how these inflections can be related yielding just one rule of vocabulary insertion (or ban) for each inflection. Note in this regard that unspecified *-en* in (37b) could potentially do multiple duty as a plural inflection for nouns and verbs. An advantage of the current proposal is that unlike some of the previous proposals, here the weak inflections are explicitly discussed; in fact, they are integrated with the strong inflections, and there is no inherent difference between these types of inflections.

less specific one. With the system laid out above in mind, the abstract feature bundle in Infl ([CNG]) can now be restated (for convenience, I will continue referring to the feature bundle as CNG if the decomposition is not relevant). Taking dative masculine as an example, the terminal head Infl is specified as in (38). Note that [-F, +O, -S] in (36c) is the most specific, matching vocabulary item. It is inserted and spelled out as the strong ending *-em*:

$$(38) \quad \begin{array}{c} \text{InflP} \\ | \\ [-F, -N, +O, -S] \end{array} \rightarrow -em$$

Before I formulate the Impoverishment rule, consider the internal structure of determiners.

Again illustrating with the dative masculine, the most common determiners have the following feature specifications. The terminal head where the indefinite article is later inserted is the least specified element – it has features for case, number, and gender. In addition, it has the categorial feature [+D(eterminer)]. Given the different types of features (CNG vs. category), I assume that there are two individual feature bundles. These two separate bundles undergo feature union yielding Art (39a).¹⁶ The definite article has an additional definiteness feature (39b). As for the overt forms, [+D] is spelled out as *ein-* in (39a) and [+D; +DEF] as *d-* in (39b). Turning to the inflection, only [-F, +O, -S] will match the CNG bundle yielding *-em*. This spells out the form of the determiner provided after the arrow:

(39) a. *Indefinite Article*

$$\begin{array}{c} \text{Art}_{[+D; -F, -N, +O, -S]} \\ \swarrow \quad \searrow \\ [+D] \quad [-F, -N, +O, -S] \end{array} \rightarrow ein-em$$

b. *Definite Article*

$$\begin{array}{c} \text{Art}_{[+D; +DEF; -F, -N, +O, -S]} \\ \swarrow \quad \searrow \\ [+D; +DEF] \quad [-F, -N, +O, -S] \end{array} \rightarrow d-em$$

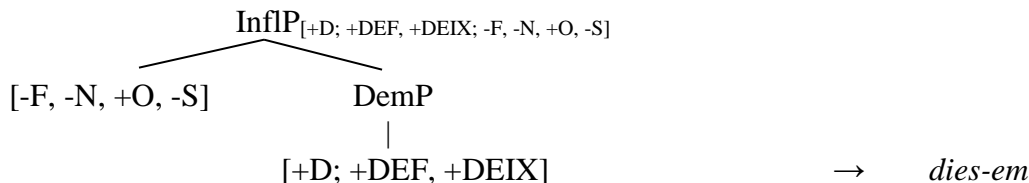
Unlike the first two elements, the demonstrative is phrasal. For simplicity's sake, I assume there are two terminal heads (40). Dem involves the features [+D; +DEF, +DEIX] and projects its own extended projection topped off by InflP (see Leu 2007, Roehrs 2010). The features for case, number, and gender are in Infl. Dem moves to adjoin to Infl (not shown). Given feature union and Percolation, all features spread to InflP. The features [+D; +DEF, +DEIX] and [-F, -N, +O, -S] are spelled out as *dies-* and *-em*, respectively:

¹⁶ There is evidence that inflections are generated with their determiner heads. As discussed in Chapter 8, there are cases where *ein* occurs in a low position. Crucially, it has the same inflection as related *kein* 'no':

(i) *k-ein-e so'n-e Leute*
NEG-a-ST so.a-ST people
'no such people'

As indefinite articles are usually assumed to be heads, this clearly shows that they have a bipartite structure. In the main text, this is captured by two separate feature bundles under Art.

(40) *Demonstrative*



Note that all determiners have the categorial feature [+D]. I assume that this is the trigger for Impoverishment. Notice also that the indefinite article *ein* ‘a’ has no features for definiteness and deixis. In Chapter 5, I will propose in more detail that *ein* is a semantically vacuous element.

Turning to Impoverishment, I formulate a rule deleting a specific feature. Note first that this rule cannot be stated in terms of the category features [F] or [N] as these features are still relevant for the weak ending (37a). Furthermore, it cannot be stated in terms of the feature [O] as that feature is also mentioned in (37a). I propose then that Impoverishment deletes the feature [S] if a determiner adjoins to a head or a phrase:¹⁷

(41) *Impoverishment Rule:*

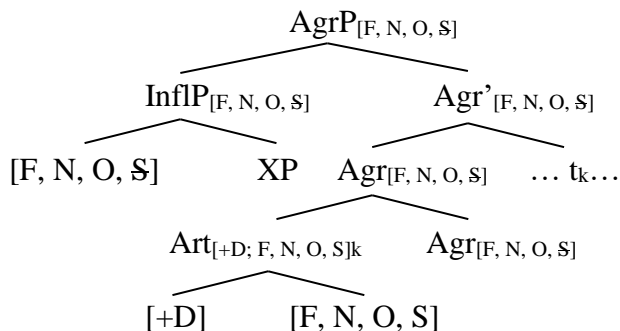
[_δ Determiner [_δ [~~S~~]], where $\delta = X, XP$

This is a language-specific rule that applies to German only (for the discussion of Yiddish, see Roehrs 2015).

Exemplifying with an article, the property [+I] from above (see, e.g., (33a)) can now be restated. Recall that the article moves to adjoin to Agr. Leaving out the positive/negative values of the features, the general constellation is as in (42). The Impoverishment Rule deletes [S], marked by strikethrough, from Agr, the adjunctin site. In fact, due to Percolation and Spec-head agreement, this feature is deleted from the feature bundles on all elements except the terminal head of the determiner itself:

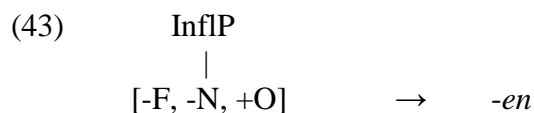
¹⁷ It is clear that Impoverishment has to occur before Vocabulary Insertion. Note that this Impoverishment Rule involves hierarchical relations (see also Impoverishment Rule 2 below). Recalling from Chapter 1 that Lowering also has access to structural relations, this fits well with the partial ordering of {Lowering, Impoverishment} >> Vocabulary Insertion. Notice also that the current Impoverishment rules bear some resemblance to Arregi & Nevins’ (2012) syntagmatic neutralization rules, Impoverishment rules that involve two distinct nodes where a rule affecting one node makes reference to the (external) morpho-syntactic environment of a second node. Note though that both nodes in their system are inside the same M-word (defined as a X^0 that is not immediately dominated by another X^0). While the Impoverishment rules in the main text also apply in a local context, they do not occur inside M-words. If it turns out that the context of application of Impoverishment only involves M-words, then there are several options to update the above proposal; for instance, either one assumes that all determiners and adjectives are heads, and determiners move by head adjunction and excorporation to D; or alternatively, one could suggest that the feature [+D] of the determiner cliticizes to Infl.

(42) *Impoverishment by Article*



Recall that operations in DM occur after syntax. Given that movement of the determiner features leaves copies behind, each copy triggers Impoverishment deleting the feature [S]. Note also that after Impoverishment and Copy Deletion, there is still (at least) one fully specified feature bundle – it is on the terminal head later to be spelled out as the appropriate form of the determiner. Surfacing in the DP-level, this element is accessible to DP-external operations.

As to the adjectival inflection, the removal of the feature [S] yields (43) in the dative masculine. With [S] absent, only [] in (37b) above will match spelling out the weak ending *-en*:



Finally, note that all strong endings in (36) have the feature [S], except for one: *-en*. In other words, the masculine accusative ending is left untouched by Impoverishment and surfaces as the “exceptional” case in strong and weak contexts.

The upshot of this discussion is that the traditional terms ‘weak’ and ‘strong’ have no significance other than the degree of feature specification. The weak endings form a subset of the strong endings in the sense of having the fewest features in their specifications. If indeed Impoverishment occurs bottom-up and locally, then we predict that the highest element or perhaps even elements will not undergo this operation. In other words, several elements with a strong inflection could be possible at the top of the structure although Impoverishment brought about weak inflections at the lower part of the tree. Such cases can be identified.

3.1.3. Strong Endings on Determiner Elements

First, consider (44a) and (44b), where both *alle* ‘all’ and *diese* ‘these’ are followed by a weak adjective:

- (44) a. *all-e klein-e*(n) Autos*
 all-ST small-WK cars
 ‘all small cars’
- b. *dies-e klein-e*(n) Autos*
 these-ST small-WK cars
 ‘these small cars’

I proposed above that the determiner moves to the DP-level triggering Impoverishment on the adjective. Interestingly, both of these determiner elements can co-occur and when they do, both must appear with a strong ending (45a). Another case involving two determiner elements was discussed in Section 2.5 (45b). Comparing (45a) to (45b), the adjective is weak in the former but strong in the latter case:

- (45) a. *all-e dies-e(*n) klein-en Autos*
all-ST these-ST/*WK small-WK cars
‘all these small cars’
- b. *dies-es mein groß-es Glück*
this-ST my great-ST happiness
‘this my great happiness’

Again, note that the strong endings on these determiner elements are identical to those on adjectives, and as such they should receive a similar account. Now, if we make the plausible assumption that similar to adjectives, the inflections on determiners and determiner-like elements can undergo Impoverishment (for such cases, see Chapter 3, Section 4), then the latter mechanism cannot have occurred on either *alle* or *diese* in (45a). Importantly, the adjective in (45a) is still weak. I propose that *diese* moves from below the adjective in (45a) bringing about a weak ending on the adjective. In contrast, *alle* behaves differently.

Recall that I have proposed in Section 2.5 that *dieses* in (45b) is base-generated in LPP; that is, it is higher up in the structure. In other words, this element is not in a specifier position below another determiner, nor did it undergo adjunction on its way up. Originating in LPP, it neither undergoes nor triggers Impoverishment. I assume that *alle* in (45a) is also base-generated in LPP. Finally, with *mein* ‘my’ in (45b) not triggering Impoverishment either (next section), this yields a strong ending on the adjective.

Notice that these are not isolated cases. An example similar to (45b) can be provided in the plural (46a), and both *alle* and *diese* can precede a possessive pronominal in one and the same nominal (46b) (Bhatt 1990: 217f, Vater 1991: 28f). Again, in each case, the determiner or determiner-like element has a strong ending:

- (46) a. *dies-e mein-e nett-en Freunde*
these-ST my-ST nice-WK friends
‘these my nice friends.’
- b. *all-e dies-e mein-e Freunde*
all-ST these-ST my-ST friends
‘all these friends of mine’

I suggest that *diese* in (46a) is also base-generated in LPP and that there is a second LPP in (46b) accommodating *alle*. Note again that none of the determiner elements was in a specifier position below another determiner. This explains why determiners do not (usually) have weak endings. Again, this is in line with the assumption that one determiner moves to the DP-level but that a second determiner, the intensifier, must be base-generated in LPP. More generally, the sequence

of two or three determiner(-like) elements with a strong ending indicates more structure on top of the DP; that is, adjectival inflections are indicators of abstract structure (Hypothesis 2a). To sum up thus far, it appears then that Impoverishment occurs locally and in a bottom-up fashion.

Turning to the strong adjectives discussed in Sections 2.1-2.6, it should be clear that they do not appear in the relevant structural configuration (the latter involves a specifier in the local domain of a determiner). As a consequence, the feature bundle of the adjective in these constructions does not undergo Impoverishment, remains unaltered, and is spelled out as a strong inflection. With this in place, let me turn to *ein*-words and Saxon Genitives that may be followed by a strong adjective in a regular DP. It will be shown that making certain assumptions, they also follow straightforwardly from the system developed above. In the course of the discussion, I will further refine the current proposal.

3.2. Regular DPs with a Strong or Weak Adjective

First, I discuss adjectives in the context of *ein*-words. After that, I address adjectives following Saxon Genitives.

3.2.1. Adjectives after *ein*-words

In this section, I consider regular DPs that involve adjectives preceded by *ein*-words. Recall that *ein*-words consist of the indefinite article *ein* ‘a,’ the numeral *EIN* ‘one,’ the negative article *kein* ‘no,’ and possessive pronominals like *mein* ‘my,’ *dein* ‘your,’ etc. Now, as is well known, these elements occur with a strong adjective in three instances: in the nominative masculine and in the nominative/accusative neuter. This is illustrated with an indefinite article and possessive pronominal in (47a). In all the other instances, the adjective must be weak as shown with the dative in (47b):

- (47) a. *(m-)ein groß-es Auto*
 (my) a big-ST car
 ‘a / my big car’
- b. *mit (m-)einem groß-en Auto*
 with (my) a big-WK car
 ‘with a / my big car’

This inflectional distribution is often referred to as ‘the mixed paradigm.’ Considering (47), it is clear that the presence of possessive *m-* does not make a difference for the inflection on the adjective. In view of the strong ending in (47a), I need to say something about the determiners that do not trigger Impoverishment. In order to explain that, I will not modify the general system laid out above but derive these patterns by some inherent property of the relevant *ein*-words themselves. I will focus on *ein* itself and then comment on possessive pronominals and the negative article *kein* ‘no.’

Some authors claim that *ein* is, in a sense, inert: for some reason, it does not have an ending in the three above-mentioned cases (Demske 2001: 33, Eisenberg 1999: 233, Olsen 1991b: 47 fn. 14). Consequently, the following adjective must be strong to spell out the relevant features for case, number, and gender. These authors seem to suggest that there are two types of lexical items: uninflected *ein* is a determiner, and inflected *einer* is a pronoun (more on this

below). Others propose a timing mechanism to explain the three instances of *ein*. Specifically, Roehrs (2009a: Chapter 4) suggests that certain cases of *ein* move to the DP-level later in the derivation. As a consequence, they do not trigger Impoverishment on the adjective, and the ending on *ein* itself is not licensed. Here, I make a different proposal (for the discussion of Murphy 2018, see Section 4.3).

Let me break down the behavior of *ein* into two issues: (i) *ein* itself has no inflection, and (ii) the following adjective is strong (i.e., *ein* does not trigger Impoverishment). At first glance, these points seem to be related. Indeed, they have given rise to the following generalization already briefly mentioned above: if the determiner has a strong inflection, the adjective is weak; if the determiner has no inflection, the adjective is strong. This is often more briefly referred to as “weak after strong.” Note though that we have already seen evidence that this generalization does not cover all the facts (e.g., *wir nett-en Studenten* ‘we nice-WK students;’ for a more detailed discussion, see Chapter 3, Section 6). Second, a generalization is, in and of itself, not an explanation.

Starting with the second issue, I have proposed above that the categorial feature [+D] of the determiner is the trigger for Impoverishment. To explain the special properties of *ein*, I postulate now that determiners may be triggers for Impoverishment under certain conditions only. In order to establish a natural group, I propose that four (not three) instances of *ein* are special. Besides the three traditional cases, I add accusative masculine to the group.¹⁸ In the system laid out above, nominative/accusative masculine and nominative/accusative neuter are the least marked items in terms of the features [O] and [F]: both have a negative value in these four instances. More tentatively, this could be interpreted as a complete lack of specification (cf. Roehrs & Julien 2014 fn. 5).

I propose then that [+D] is only a trigger for Impoverishment in the context of positively valued [O], [F], [DEF], or [DEIX]. Furthermore, I assumed in the previous section that vocabulary items are inserted late. If so, it must indeed be the feature on the terminal node that triggers Impoverishment. Crucially, the terminal heads that are later spelled out as the four relevant instances of *ein* lack these features altogether or a positive value on them. Consequently, these cases of *ein* will not trigger Impoverishment. To be clear then, like the other determiners, the four instances of *ein* can undergo movement upwards. Unlike the other determiners, they do not trigger Impoverishment. Keeping with the tradition, I will usually refer to the special cases as the three (not four) instances of *ein*.

Turning to the first issue, note that the endings on *ein* do appear in elliptical contexts. To avoid certain side issues, I will illustrate some of the data with possessive pronominals:¹⁹

¹⁸ This also means that *-en* on the adjective in the masculine accusative is a strong (rather than weak) ending, an interpretation that is possible given that *-en* is both a strong and weak ending in this feature combination. Indeed, I formulated a vocabulary insertion rule in (36c) above that captures this identity directly. Note also that Paul *et al.* (1989: 234) provide the following forms of *ein* in the nominative/accusative singular in Middle High German:

(i)		MASC	NEUT	FEM	
	NOM	ein	ein	ein	(Middle High German)
	ACC	ein-en	ein	ein(e)	

It appears as if over time, the feminine form of *ein* has taken on *-e*, possibly to mark feminine more consistently (cf. *dies-e Lamp-e* ‘this lamp’). This change may have led to the formation of a natural group containing the four other instances of *ein* in (i), as suggested in the main text.

¹⁹ Observe that ellipsis is irrelevant for Impoverishment; that is, the ellipsis of a noun in a regular DP does not impact the strong/weak alternation on the adjective itself:

(i)	<i>der gut-e</i>
	the good-WK

- (48) a. *Das ist mein-(*)er Wagen.*
 this is my-*ST car
 ‘This is my car.’
- b. *Das ist mein-(*)er gut-er.*
 this is my-*ST good-ST
 ‘This is my good one.’
- c. *Das ist mein-*(er).*
 this is mine-ST
 ‘This is mine.’

With Panagiotidis (2002, 2003) and others, I assume that (48b-c) involve a null noun. This makes these two nominals parallel to (48a), which involves an overt noun.

DPs with elements following the (null) matrix head noun do not lead to uninflected *ein*. These elements include genitive DPs, PPs, and relative clauses:

- (49) a. *ein-er mein-er Freunde*
 one-ST my-GEN friends
 ‘one of my friends’
- b. *ein-er von mein-en Freunden*
 one-ST of my-DAT friends
 ‘one of my friends’
- c. *ein-er, den ich gesehen habe*
 one-ST that I seen have
 ‘one that I have seen’

Let me summarize the complete set of *ein*-words in Table 5, where the inflections in brackets indicate the forms occurring in the absence of the relevant overt material:²⁰

Table 5: Endings on *ein*-words

	Masculine	Neuter	Feminine	Plural
Nominative	mein-[er]	mein-[es]	mein-e	mein-e
Accusative	mein-en	mein-[es]	mein-e	mein-e
Dative	mein-em	mein-em	mein-er	mein-en
Genitive	mein-es	mein-es	mein-er	mein-er

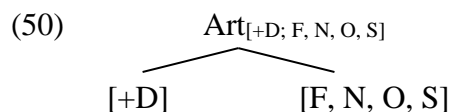
Abstracting away from the brackets for a moment, the inflections in Table 5 are the same as those on the *der*-words discussed earlier. However, the inflection on *ein* in the three special

‘the good one’

²⁰ The two neuter forms of *meines* are often realized as *meins* (the same goes for the other *ein*-word forms in these instances).

instances is a function of the presence of following overt material such as an adjective and/or a noun. Given the large overlap of forms, it is, in my view, undesirable to state two types of vocabulary items, one involving *ein* as a determiner and one with *einer* as a pronominal form. Rather, since the presence of the inflection depends on overt material, I propose that the alternation between uninflected and inflected *ein* is brought about by certain Vocabulary Insertion rules. These are late operations that occur after lexical elements such as adjectives and nouns have been inserted.

Inspired by Höhn's (2020: 13ff) analysis of the third-person gap in pronominal DPs (e.g., **they linguists*), I provide a PF-analysis of uninflected *ein*. I propose that the different forms of *ein* present another case of contextually conditioned allomorphy. Höhn states that the relevant overt material must be linearly adjacent and in the same spell-out domain (i.e., the phase Φ). For current purposes, I assume that the DP is a phase. With this in mind, recall now the structure of determiners from the previous section. Consider the features on the terminal head to be spelled out as a form of *ein* (leaving out the feature specifications for CNG). Note again that features undergo feature union:



Rather than formulating three separate, exceptional instances of *ein*, I can use the feature system from Section 3.1.2 and formulate the following vocabulary insertion rules. The vocabulary entries in (51a-b) are for the (four) special cases of *ein*, where the accusative masculine in (51a) is singled out as it is more specific than (51b). The latter entry is taken to be sensitive to overt material, the adjective and/or noun, at the right edge of the phase. Given the relevance of word order, this is consistent with the assumption from Chapter 1 that Vocabulary Insertion follows Linearization. The vocabulary entry in (51c) presents the elsewhere case for *ein*, (51d) shows the entry for the inflection *-er*, and (51e) stands for the remaining vocabulary entries of the endings from Section 3.1.2.²¹

²¹ The setup in (51a-c) is inspired by Blevins' (1995: 146) treatment of weak adjectives where the form *klein-en* 'small' is both the most and least specific, and *klein-e* is inbetween. Note that these insertion rules may also be relevant to another, very recent development in German. Vogel (2006) observes that the reduced form of the indefinite article 'n is replaced in the nominative masculine and nominative/accusative neuter by *nen*. This is particularly clear in chat contexts (notice that the example below makes it clear that this is not an accusative form):

(i) *das waere nen gut-er preis*
that would.be a good-ST price
'That would be a good price.'

Vogel proposes that speakers might take 'n to be too short filling it with more phonetic material. With an added initial *n* and schwa, this makes *nen* more similar to other reduced forms of the article (but see also the development of reduced *ein* in the next paragraph).

Note now that the new form *nen* occurs in the featural context of (51b). Thus, alternatively, one could suggest that the featural context of insertion in (51a) has been generalized to the one in (51b) (given that there are some potential challenges to this alternative, I will have to leave the discussion of the details of this tentative suggestion for future research). Conversely, Vogel also states that unreduced *einen* is sometimes replaced by reduced *ein* (rather than 'nen) in the accusative masculine. This is the case in Mannheim German, for instance. I will argue in detail in Chapter 3, Section 7 that in this dialect, (51a) has been deleted. What seems to be clear then is that the featural contexts of (51a-b) are special. I take this as confirmation that these four instances of *ein* form a natural group.

- (51) a. [+D; -F, -N, -O, +S] → *ein-en*
 b. [+D; -F, -O] → *ein* / __ word]_Φ
 c. [+D] → *ein-*
 d. [+F, -N, +O, αS] → *-er*
 e. etc.

Let me comment on the resulting forms of *ein* in more detail. I assume that the feature union of the categorial feature and CNG features is more specific than either the categorial feature or CNG features alone; that is, (51a-b) are more specific than (51c-d). With this in place, I can point out that (51a-b) spell out Art in (50) as a whole but that (51c-e) spell out the two individual feature bundles of the article separately, as the stem and the inflection.

Specifically, if (51a) does not apply, (51b) will spell out uninflected *ein* in the context of a following overt word. However, if (51a-b) do not apply, (51c) will. In conjunction with (51d) or (51e), this will bring about the remaining inflected forms of *ein* including the ones in elliptical contexts. Note that these rules only supply the phonetic form of *ein* and the inflection – the abstract features are present during the entire syntactic derivation. Finally, notice that unlike adjectives and nouns in (51b), elements outside the DP (genitive DPs, PP, or relative clauses) are not part of the DP phase and do not have an impact on the calculation of the right edge; that is, (51b) will not apply. Hence, the latter elements will occur with inflected *ein* if an adjective and/or noun is absent. Finally, let me comment on the other types of *ein*-words.

Recall that all *ein*-words behave the same as regards their inflection (also Chapter 5). In order to avoid the postulation of the same type of vocabulary items as just discussed with *ein*, I suggest that possessive pronominals undergo some late interaction with *ein* (i.e., after the insertion of *ein*). Note in this regard that possessive pronominals fall into two groups: elements that are phonetically similar to *ein*, and those that are not. Decomposing *mein* ‘my,’ *dein* ‘your(SGL),’ and *sein* ‘his’ into *ein* and a possessive component, the latter surface as in (52a). The second type involves free forms as in (52b):

- (52) a. *m-*, *d-*, *s-*
 my, your(SGL), his
 b. *ihr*, *unser*, *euer*
 her/their/your(FORMAL), our, your(PL)

Recall also that *ein* is proposed to be a semantically vacuous element. After Vocabulary Insertion, (52a) combines with *ein*; that is, the possessive component is supported by *ein*. The same holds for the negative article *k-ein* ‘no.’ As for (52b), I assume that these forms suppress the pronunciation of *ein* (for more details, see Chapter 5). I turn to another set of exceptions. The latter are often mentioned but an account is usually not provided.

3.2.2. Adjectives after Saxon Genitives

The Saxon Genitive construction has a proper name as its possessor. An adjective following a Saxon Genitive has not only a strong ending in the nominative but also in the dative (53). Note that *wessen* ‘whose’ and *dessen* ‘his’ behave like Saxon Genitives as seen in the dative (54):

- (53) a. *(Marias) kalt-es Bier*
 Mary's cold-ST beer
 ' (Mary's) cold beer'
- b. *mit (Marias) kalt-em Bier*
 with Mary's cold-ST beer
 'with (Mary's) cold beer'
- (54) a. *mit (wessen) kalt-em Bier*
 with whose cold-ST beer
 'with (whose) cold beer'
- b. *mit (dessen) kalt-em Bier*
 with his cold-ST beer
 'with (his) cold beer'

Like above, the presence of the possessive does not have an impact on the inflection of the adjective. Unlike above, the adjective here is also strong in the dative. As such, Saxon Genitives are in stark contrast to pronominal possessives such as *mein* 'my' (and the other *ein*-words).²² This calls for a different explanation. Interestingly, the inflectional behavior of the adjective in the genitive is revealing here.

As briefly mentioned above, unpreceded adjectives have two types of endings. As already seen in (53) above, these adjectives are strong. There are only two well-known exceptions where the adjective is weak. These involve the genitive masculine/neuter instances. Note that the noun has an inflection in these very instances. Compare (55a) to (55b).²³ Once again, the presence of a Saxon Genitive does not make a difference:

- (55) a. * *statt kalt-es Bier-es*
 instead.of cold-ST bier-GEN
 'instead of cold beer'
- b. *statt (Marias) kalt-en Bier-es*
 instead.of Mary's cold-WK bier-GEN
 'instead of Mary's cold beer'

Recall that the inflections on the determiners themselves do not undergo Impoverishment (i.e., they are usually strong). If the endings on the determiners and those on the adjectives are indeed the same, then the ending *-es* on, for instance, the determiner *des* 'the' in the genitive masculine/neuter is directly related to the underlying features. This means that *-en* on the adjective in the genitive masculine/neuter must be the result of Impoverishment.

On the current analysis, the weak adjective could imply the presence of a determiner triggering Impoverishment. One could suggest that this determiner is the null article \emptyset with the

²² This means that *wessen* 'whose' is morpho-syntactically related to Saxon Genitives and *dessen* 'his' (but not *sein* 'his').

²³ Historically, the adjective had the (expected) strong ending *-es*. According to Demske (2001: 84), the weak ending *-en* started to spread in the 15th century.

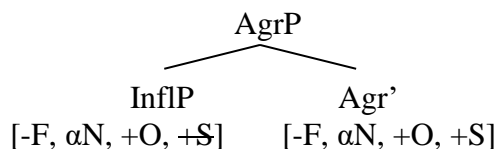
feature specification [+D; -F, +O, +S] yielding *Ø-es*. Following Roehrs (2009a), one could suggest another timing mechanism. Specifically, one could claim that null articles in the genitive masculine/neuter move to the DP-level in the regular fashion triggering Impoverishment (the remaining instances of the null article would move later in the derivation). Since null articles cannot support overt suffixes, a repair mechanism could be formulated. One could suggest that the lower copy of the null article combines with the head noun by partial N-raising, and the higher copy of the null article is deleted under Recoverability of Deletion:

(56) [DP ~~Ø-es~~ [AgrP *kalten* [ArtP *Bier_k-Ø-es* [NP *t_k*]]]

Considering that nouns are usually not inflected for case in German, this derivation would explain the presence of a suffix on the noun.

However, avoiding a timing mechanism and assuming late insertion of vocabulary items, Impoverishment must have to do with the features on the terminal head. Like other determiners, I assume that the null article has the categorial feature [+D]. Unlike the other determiners, it does not have a feature bundle for CNG: as null elements cannot provide an overt host for affixes, this will avoid the issue of a stranded affix. Note now that with CNG absent, [+D] is not (and cannot be) a trigger for Impoverishment. Consequently, I state a second Impoverishment rule that operates in a certain, identical featural context: Under sisterhood just below the phrasal node of AgrP, delete [S] in the following featural context:

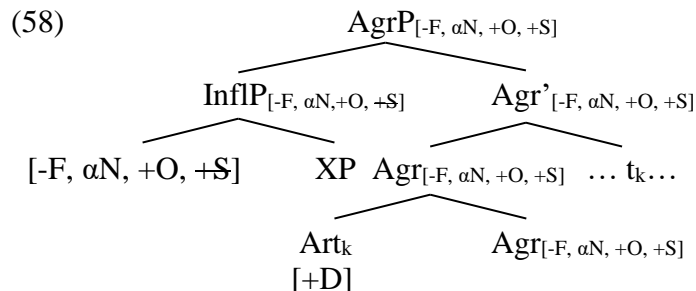
(57) *Impoverishment Rule 2:*



Notice that the above feature specification excludes [+D]; that is, this rule applies independently of the presence of a determiner. Observe also that the same feature is deleted here as in Impoverishment Rule 1.²⁴

To illustrate the application of this rule, note first that the null article moves to adjoin to Agr but does not trigger Impoverishment. Rather, the features on Agr' induce Impoverishment on InflP by the rule in (57). This reduced feature set on InflP percolates to Infl:

²⁴ In Chapter 3, Section 4, we will see that this rule is more general applying to elements not only in AgrP but also to elements in other phrases. Note also that this rule has the looks of a dissimilation operation where one of two identical features (here [S]) is deleted (cf. Arregi & Nevins' 2012: 213 Participant Dissimilation). Interestingly, this is also true of the first Impoverishment rule in some ways. There, however, a second [S], although present, does not trigger the deletion of [S], and the value of [S] plays no role. Assuming that the above discussion is on the right track, it is currently not clear to me why [S] has this special status in German.



Note that there are only three vocabulary items in (36) and (37) that do not involve [S]: two have a negative specification for [O], and one is the elsewhere case in (37b). The latter is the only vocabulary item that matches [-F, αN, +O] in Infl yielding the desired *-en* on the adjective.

Finally, notice that null articles are in complementary distribution with other determiners. If a null article is present, there will be no (additional) Impoverishment triggered by another determiner. Conversely, if an overt determiner is present, then there is an overlap in the application of the two Impoverishment rules. Assuming that feature deletion occurs postsyntactically, if Rule 1 applies first, Rule 2 does not (as [S] has already been removed); if Rule 2 applies first, Rule 1 still applies to the structural elements in AgrP (without visible effect), but not to the adjective in Spec,AgrP (where the feature [S] has already been removed by Rule 2). In either scenario, only the least specified element *-en* can be inserted under Infl.²⁵

To summarize, I have documented that the presence of possessives, be they pronominals like *m(ein)* or Saxon Genitives like *Marias*, does not have an impact on the inflection of a following adjective. Furthermore, I have discussed three (or rather four) instances where adjectives preceded by *ein* have a strong ending (the remaining instances are weak) and two instances where adjectives without determiners are weak (the remaining instances are strong). The first set of cases was explained by exempting four *ein*-words from triggering Impoverishment; the second was accounted for by formulating another Impoverishment rule triggered by a certain featural context. Overall, I can state that adjectival inflections are regulated by *der*-words, *ein*, and a certain featural context. If so, then I also have an account of why the possessive themselves have no influence on the adjectival inflections.

3.3. Weak Endings in Extended-Adjective Constructions

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. Consider the extended-adjective constructions in (59), where an adjective takes an argument. Interestingly,

²⁵ Notice that the second Impoverishment rule is stated independently of the suffix on the noun. This might turn out to be wrong. Durrell (2002: 126) reports that in rare cases, the adjective can surface with a strong ending if the noun is weak; that is, the noun ends in *-en* (but see also Gunkel *et al.* 2017: 1308 on the status of (i)):

(i) *das Gesuch obig-es Adressant-en*
the request above-ST sender-WK
'the request of the above sender'

If this holds more generally, then the suffix on the noun seems to play a role. Note though that *Adressat* 'sender' is a singular count noun that seems to occur without an article. Interestingly, *obig-* 'above' is definite in interpretation and might turn out to be a special type of adjective similar to *folgend-* 'following' (see Roehrs 2009a: 167f, van de Velde 2011; also Chapter 3, Section 2.2). If so, then the suffix on the noun might synchronically be relevant for the Genitive Rule (see Chapter 3, Section 4) in general but not for the inflection on the adjective in particular.

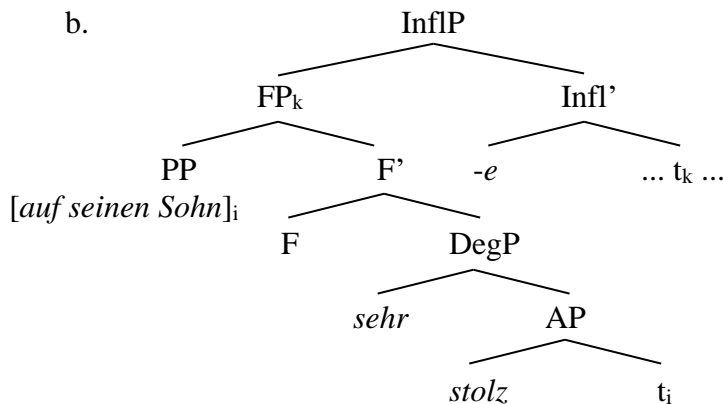
this argument is separated from the adjective by the degree word *sehr* ‘very.’ Despite the presence of these elements, the adjective alternates between exhibiting a strong or a weak ending:

- (59) a. *ein [auf seinen Sohn sehr stolz-er] Vater*
 an of his son very proud-ST father
 ‘a father very proud of his son’
- b. *der [auf seinen Sohn sehr stolz-e] Vater*
 the of his son very proud-WK father
 ‘the father very proud of his son’

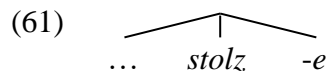
I follow, among many others, Zamparelli (2000: Chapter 7) and Neeleman, van de Koot & Doetjes (2004) and assume that adjectives have an extended projection, similar to verbs and nouns (Grimshaw 1991, van Riemsdijk 1998b). In particular, with Corver (1991, 1997), I will assume that the extended projection 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. This is where the dislocated argument surfaces. Given that the adjective appears to be so deeply embedded in the structure, it is important to make explicit how the above analysis copes with this type of data.

As assumed all along, I follow Corver (2006: 68), Leu (2015), and others in that adjectives and their inflections are base-generated in separate positions: while the adjective stem forms the bottom part of the extended projection, the inflection closes this structure off. Moving top-down, I reiterate the claim here that the inflection projects InflP. Infl involves the abstract feature bundle eventually realized as a strong or weak ending. 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 (60a). Now, with the PP-argument moved to Spec,FP, I propose that FP moves to Spec,InflP. This is illustrated in a simplified fashion for the relevant part in (59b) as in (60b):

- (60) a. [InflP Infl [FP F [DegP Deg [AP Adj]]]]



After Linearization and Vocabulary Insertion, we obtain the string in (61). Following Murphy (2018), the inflection can now undergo Local Dislocation onto an appropriate host yielding *stolze* ‘proud’ (see also Section 4.3):



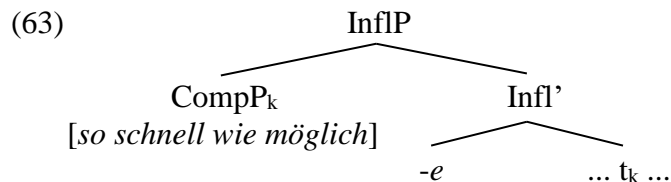
This derivation has a number of advantages. On the one hand, Impoverishment can occur in a local fashion – the inflection is in Infl and InflP itself is in Spec,AgrP just like in the cases above. On the other, the inflected adjective is, on the surface, adjacent to the head noun, a restriction that has been widely noted (e.g., Williams 1982).²⁶ If this is on the right track, then I can also account for some other cases.

Based on work by van Riemsdijk (1998a: 673), Roehrs (2006a: 222) discusses some instances 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 inflection alternates:

- (62)
- a. *ein [so schnell wie möglich-es] Aufräumen*
a so quick as possible-ST cleaning
‘a cleaning as quick as possible’
 - b. *das [so schnell wie möglich-e] Aufräumen*
the so quick as possible-WK cleaning
‘the cleaning as quick as possible’

Due to their anomalous properties, the inflections of these cases are sometimes analyzed as “phrasal” suffixes. As in the examples above, the question arises how the deeply embedded inflection can undergo Impoverishment on current assumptions. Furthermore, it is not clear how the inflection can occur on an element that is not the head of the AP in the first place.

I believe that the above discussion can shed some light on these issues. Consider the portion in (62b) marked by square brackets in more detail (63). Let me assume that the adjectival head cannot move out of the comparative structure, call it CompP. Abstracting away from the internal structure of CompP, the latter moves to Spec,InflP. With *möglich* ‘possible’ an adjective (at least by form), this provides an appropriate overt host for the feature bundle in Infl:



²⁶ Another advantage of separating the inflection from the adjective stem is that it can account for the difference in German between attributive adjectives, which have an inflection, and predicative ones, which do not:

- (i) *Das Haus ist klein.*
the house is small
‘The house is small.’

This can be captured by assuming that InflP is present in the former cases but not in the latter.

This, then, allows Impoverishment not only to occur in a local fashion, just like above, but also explains the unexpected position of the adjectival inflection. I return to adjectives as extended projections in the context of non-restrictive adjectives in Chapter 4. Next, I turn to some examples from the introduction that set German apart from Scandinavian.

3.4. *Strong Endings in Other Definite Contexts*

In this section, I consider vocatives and complex proper names. Beginning with the former, it is well known that singular countable nouns have overt determiners when they are preceded by an adjective (64a). Used as vocatives, such nominals surface without a determiner repeating the relevant datum from the introduction in (64b):

- (64) a. *Er ist ein dumm-er Idiot!*
 he is a stupid-ST idiot
 ‘He is a stupid idiot!’
- b. *Dumm-er Idiot!*
 stupid-ST idiot
 ‘Stupid idiot!’

There are several ways to account for the strong ending in (64b). On the one hand, one could claim that a relevant determiner is absent, or on the other, one could claim that a null article is present. In both scenarios, Impoverishment would not take place yielding a strong ending. Considering some related instances, we will see that these types of cases are indeed definite expressions. This means that an (indefinite) null article is unlikely to be present in (64b). Note also that these data confirm that strong endings are not tied to indefiniteness. To the best of my knowledge, the following data have not received any attention in this regard before.

Certain exclamations license the absence of a determiner directly before the noun and even before an inflected, following adjective (65a) (see Dürscheid 2002: 70). Interestingly, a definite, but not indefinite, determiner can precede the adjective. Compare (65b) to (65c):

- (65) a. *Schwein, schwarz-es!*
 pig black-ST
 ‘Stupid bastard!’
- b. *Schwein, das schwarz-e!*
 pig the black-WK
 ‘Stupid bastard!’
- c. * *Schwein, ein schwarz-es!*
 pig a black-ST

It is clear that both (65a) and (65b) have a similar, but not identical, reference; for instance, adding *du* ‘you(SGL)’ before *Schwein* ‘pig’ yields a better result in (66) than (67). Conversely, adding *das* ‘the’ gives a better result in (67) than (66). No determiner of any kind is possible in (65c) as can be verified in (68):

- (66) a. *Du Schwein, schwarz-es!*
 you(SGL) pig black-ST
 ‘You stupid bastard!’
- b. ?? *Das Schwein, schwarz-es!*
 the pig black-ST
 ‘The stupid bastard!’
- (67) a. ?? *Du Schwein, das schwarz-e!*
 you(SGL) pig the black-WK
 ‘You stupid bastard!’
- b. *Das Schwein, das schwarz-e!*
 the pig the black-WK
 ‘The stupid bastard!’
- (68) a. * *Du Schwein, ein schwarz-es!*
 you(SGL) pig a black-ST
- b. * *Das Schwein, ein schwarz-es!*
 the pig a black-ST

With a pronoun possible in (66) and a definite article in (67), I conclude that these structures involve definite expressions. This fits well with the common assumptions that vocatives like (64b) also involve definite contexts.

Returning to the above data, we can observe that the adjective in (65a) is strong in a definite context. Importantly, considering the ungrammaticality of (65c) and the definite reference of (65a), it seems implausible that an indefinite determiner, including the null article, is or was present in (65a). With no determiner present in these cases, Impoverishment is not triggered, and a strong ending surfaces. This reasoning can be extended to (64b). More generally, I can state again that strong inflections are not a reflex of (in-)definiteness adding to the evidence that adjectival inflections are semantically vacuous. There are other cases where a strong inflection occurs in a simple, definite noun phrase.

Consider complex proper names such as in (69a). Note that a determiner can be left out when the relevant nominal is used as part of a keyword list, in a title, or in a subtitle of a piece of writing (69b). We see again that when the determiner is absent, the adjective is strong. Interestingly, an indefinite article is possible here (69c). However, the noun phrase cannot function as a proper name anymore; for instance, now it can describe a different knightly order such as the *Johanniter* ‘Johannites:’

- (69) a. *der Deutsch-e Ritterorden*
 the German-WK knight.order
 ‘the Order of the Teutonic Knights’

- b. *Deutsch-er Ritterorden*
 German-ST knight.order
 ‘the Order of the Teutonic Knights’

- c. *ein deutsch-er Ritterorden*
 - a German-ST knight.order
 ‘a German knightly order’

To be clear, unlike the common nominal in (69c), (69a) and (69b) have the same definite interpretation, and I take these phrases to be different morpho-syntactic versions with the same reference. Now, since proper names are definite, one cannot suggest that an indefinite determiner is or was present in (69b). With a determiner absent, Impoverishment did not occur. If so, we have another case in (69b) where a strong adjective appears in a definite context. In order to account for the weak ending in (69a), Impoverishment must have taken place; that is, the determiner must have originated in a lower position. This means that certain complex proper names must have internal structure and cannot be “frozen” forms (see Roehrs 2020b). Finally, to highlight some of the points of the previous sections, let me discuss three earlier proposals.

4. A Brief Critique of some Previous Proposals

Abney (1987) stimulated much important research on the noun phrase. However, many of the discussions of German have concentrated on the structure of the DP (e.g. Haider 1988; Felix 1990; Löbel 1990a,b; Vater 1991) and relatively fewer contributions have been devoted to the explanation of morpho-syntactic phenomena such as the distribution of adjectival inflections. It is perhaps telling that three monographs on the DP, Bhatt (1990), Wegener (1995), and Demske (2001), discuss only three different types of analyses at length (they all discuss Olsen 1991b). In this section, I review three proposals in more detail. I start off by examining Olsen (1989a, 1989b, 1991a, 1991b), and then I turn to two more recent accounts: Schoorlemmer (2009) and Murphy (2018).²⁷ Note that all these analyses discuss only the stereotypical cases but not the less canonical structures. As laid out above, I believe, however, that it is the latter structures that reveal the true nature of adjectival inflections in German.

4.1. *Olsen (1989a, 1989b, 1991a, 1991b)*

In a series of papers (1989a, 1989b, 1991a, 1991b), Olsen discusses inflection within the German DP (I will refer only to her last paper since that contains the main relevant insights). Assuming Abney’s (1987) DP-Hypothesis, Olsen proposes that phi-features are located under D. These features involve person, case, number, and gender. Abbreviated as AGR, they need to be made visible. Olsen assumes that agreement within the DP is brought about by D selecting NP as its complement and by Percolation of superscripts from NP down the tree. Here are the relevant definitions (my translations):²⁸

²⁷ For the discussion of other proposals, see some earlier remarks in this chapter, also Roehrs (2006a: 175-191).

²⁸ These are the original definitions (Olsen 1991b: 40, 38):

(i) a. *Prinzip der morphologischen Realisierung*
 Grammatische Merkmale werden phonologisch sichtbar gemacht.

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

As an illustration, the example in (71a) is derived as in (71b):

- (71) a. *da-s kalt-e Wetter*
the-ST cold-WK weather
'the cold weather'
- b.
-
- ```

graph TD
 DP --> Di["Di
das"]
 DP --> NPi["NPi"]
 NPi --> APi["APi"]
 NPi --> Ni["Ni
Wetter"]
 APi --> Ai["Ai
kalte"]

```

AGR is made visible under D by the definite determiner *das* 'the,' which has a strong inflection. An identical superscript is on NP (by functional selection) and on N and A (by Percolation). To ensure unique realization of grammatical features, Olsen follows Emonds' (1987: 615) Invisible Category Principle:

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

To illustrate, the Invisible Category Principle is taken to restrict the realization of the comparative to just one overt maker:

- (73) a. [<sub>DEG</sub> more ] brightØ
- b. [<sub>DEG</sub> Ø ] bright-er

- 
- b. *Kongruenzkette:*  
Eine Kongruenzkette besteht aus einer ununterbrochenen Folge identischer Indizes, die auf der Basis der funktionalen Selektion entsteht, die zwischen einer AGR-Kategorie und ihrem Komplement erfolgt.

Relevant for the discussion of adjectival inflection, this principle allows the realization of AGR on a sister node, the adjective in (74b), and it rules out two strong endings in (74c):

- (74) a. *da-s kalt-eØ Wetter*  
the-ST cold-WK weather  
'the cold weather'
- b. [<sub>D</sub> Ø ] *kalt-es Wetter*  
cold-ST weather  
'cold weather'
- c. \* *da-s kalt-es Wetter*  
the-ST cold-ST weather  
'the cold weather'

The weak ending in (74a) is assumed to be the “unmarked” inflection of the adjective (Olsen 1991b: 44). Crucially, the strong ending can only be realized on the sister node (i.e., the adjective but *not* the noun), if D is empty (74b). In order to rule out cases such as \**ein-es kalte Wetter*, where *ein* would have a strong ending in the three exceptional cases, Olsen (1991: 47 fn. 14) stipulates that *ein* ‘a’ does not have an inflection in the nominative masculine and the nominative/accusative neuter. While this is an elegant account, it is not without problems.

Besides cases where AGR is present but does not have to be overtly realized (*ein Auto* ‘a car,’ *Karls Auto* ‘Karl’s car’), unmodified mass nouns do not involve a DP-level in Olsen’s account, and thus no AGR is present. Bhatt (1990: 191) and others have pointed out that this leads to the problem that these noun phrases have to enter DP-external agreement relations without AGR. Furthermore, while Olsen (1991b: 44) states that one strong inflection in (74) exemplifies a tendency for economical realization of features or an avoidance of redundancy, it raises issues about strong endings that appear on stacked adjectives: *frisch-es kalt-es Wasser* ‘fresh-ST cold-ST water (for other problems, see Wegener 1995: 159-63, Bhatt 1990: 44).

#### 4.2. Schoorlemmer (2009)

Schoorlemmer proposes to account for the strong/weak alternation by employing certain aspects of the Agree relation (Chomsky 2000). His novel claim is that the agreement relation between the adjective and the noun is not direct but rather indirect; that is, it is mediated by another element. In general terms, if this element is present and mediates the agreement between the adjective and the noun, the adjectival inflection is spelled out as strong. In contrast, if this agreement relation does not hold, then the features on the adjective are not valued/specified, and the inflection is spelled out as weak. The latter instance is interpreted as a default option. This account of agreement is labeled Indirect Agree.<sup>29</sup>

In Chomsky’s Agree system, probes have uninterpretable features and appropriate goals have the corresponding interpretable features. If the probe c-commands the goal, the former can value/specify its features on the basis of the latter. In Schoorlemmer’s terms, the probe and the

<sup>29</sup> Given the complexity of the system, I cannot do full justice to all the details of Schoorlemmer’s proposal. In what follows, I will limit myself to the illustration of the basic account leaving many interesting features unexplored. However, it will become clear that there are also certain shortcomings in the basic parts of the proposal.

goal share their features. Given that adjectival inflections are dependent on the phi-features of other elements, Schoorlemmer proposes that they are probes for nominal phi-features.

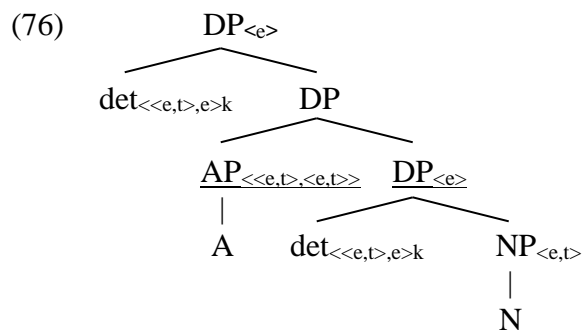
Specifically, adjectival inflections vary for gender and number. In addition, they may also exhibit properties of definiteness and case. The former is particularly clear in the Scandinavian languages and the latter in German.<sup>30</sup> Given that probes must c-command their goals, he suggests that adjectives are higher than nouns, which are specified for gender and number, but adjectives are also higher than determiners, which are specified for definiteness (note that case is a DP-external feature). In other words, adjectives c-command not only nouns but also determiners.

Note now that adjectives can also function as restrictive modifiers; that is, they participate in determining the reference of the noun phrase. As such, adjectives on their restrictive interpretation are often assumed to be in the scope of the determiner where scope is interpreted as the relevant c-command domain (for some discussion, see Chapter 4 below). This leads Schoorlemmer to the following C-command Paradox:

- (75) Attributive adjectives with weak adjectival inflection must be c-commanded by a definite D for their interpretation, but they must c-command a definite D in order to license their inflection (Schoorlemmer 2009: 12).

It appears then as if there must be two positions for determiners, one above adjectives for interpretatory purposes and one below for agreement reasons. Schoorlemmer proposes to resolve this apparent paradox by assuming that the determiner moves from the lower position to the higher position.

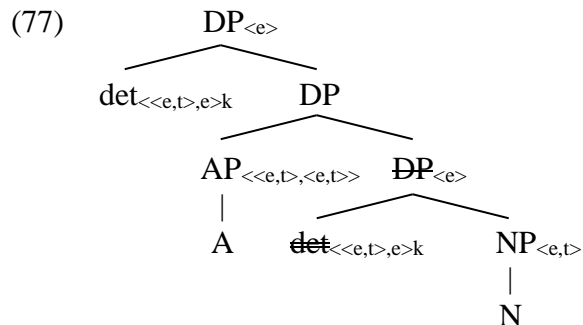
The movement of the determiner is triggered by the presence of an adjective. Adopting the general framework of Heim & Kratzer (1998) (for some general discussion, see also Chapter 6, Section 3.1.1), consider the simplified structure in (76). Note now that the adjective (type  $\langle\langle e, t \rangle, \langle e, t \rangle\rangle$ ) cannot combine with the lower DP (type  $\langle e \rangle$ ). The location of this type mismatch is indicated by underlining the incompatible elements. To resolve this mismatch, the determiner is moved to the left periphery:



At PF, the lower copy of the determiner is deleted; at LF, the lower copy of the determiner and its projection are deleted (Schoorlemmer 2009: 27). This is indicated by crossing out the relevant elements in (77):

<sup>30</sup> Erik Schoorlemmer (p.c.) points out that in his interpretation, the adjectival inflections in Swedish are not exponents of (in-)definiteness; that is, they are not probes for this feature. Rather, these inflections are sensitive to (in-)definiteness.

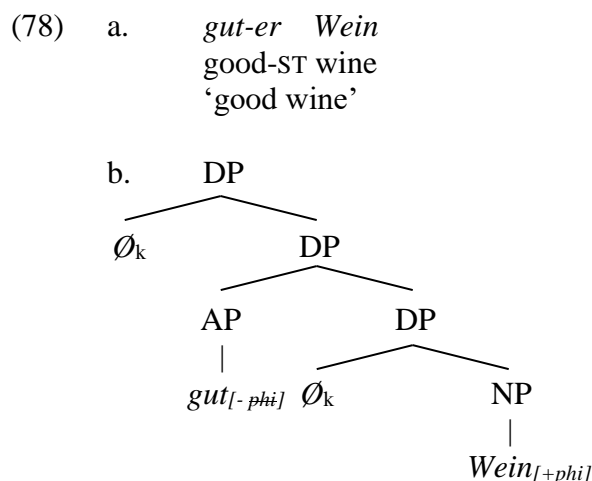




Observe now that at PF, this leaves only one, the higher copy of the determiner. This gives the right surface order. As for LF, with the lower copy of the determiner and its projection deleted, the adjective can now combine with NP. This yields an element of type  $\langle e, t \rangle$ , which itself can combine with the determiner. This brings about the right semantics of the noun phrase. Basically, all noun phrases with an attributive adjective have this much in common.

Turning to the strong/weak alternation, recall that Schoorlemmer claims that adjectives and nouns do not enter into an agreement relation directly. Rather, this relation is mediated by another element; that is, the agreement relation is indirect. Importantly, for the adjective not to c-command the noun and thus enter into a direct agreement relation with it, the agreement relation is taken to be based on dominance. Specifically, considering the structure in (77), the adjective does not dominate any of the nodes of the noun. Let me first discuss the strong inflections and then the weak endings.

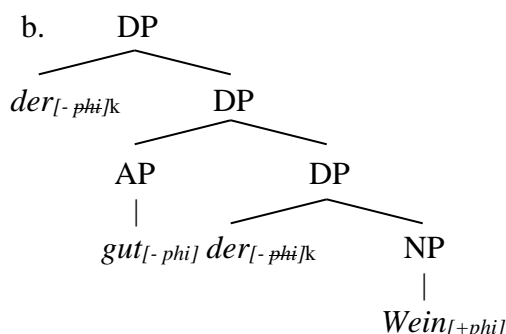
Recall that Indirect Agree is a function of a mediating head. Mediating heads are proposed to be case-assigners such as little  $\nu$ , T and presumably other elements. These heads have uninterpretable phi-features and thus function as probes. For concreteness, suppose that *guter Wein* ‘good wine’ is a subject, and the DP-external case-assigner is T. Assuming a null article ( $\emptyset$ ), the DP in (78a) is assembled as in (78b). After merging the DP in the clause, the mediating head T probes down the tree and finds the noun phrase *guter Wein*. With the adjective the closest potential goal, T inspects the features on the adjective. However, the adjective does not have interpretable features, here marked as  $[-\text{phi}]$ :



As a consequence, the probe looks further down the structure and finds the noun. Since the noun does have the relevant interpretable features, both T and the noun enter into an Agree relation, and they share their features. Now, since T had entered an agreement relation with the adjective before, T also shares its features with the adjective. With all its uninterpretable features licensed, the adjective is spelled out with a strong inflection. This is marked by crossing out the uninterpretable phi-features in (78). To be clear, indirect agreement and feature sharing explain the strong ending (for more details, see Schoorlemmer 2009: 145f).

Turning to the weak ending, Schoorlemmer assumes that unlike null articles (Schoorlemmer 2009: 156), overt articles are probes too; that is, they have uninterpretable features. This has consequences for the DP-internal agreement relations. Specifically, when the determiner probe is merged with the noun, it inspects the interpretable features of the noun. Both enter into an Agree relation and share their features. As all the features on the determiner have been specified, the determiner becomes a deactivated probe. Next, the adjective is merged and due to type mismatch, the determiner moves to the left periphery:

- (79) a. *der gut-e Wein*  
           the good-ST wine  
           ‘the good wine’



At this point, the DP is merged in the clause and T probes down the tree to find a goal. The closest goal is the determiner of the noun phrase. With its features already specified by the noun, the determiner deactivates T as probe. As both the determiner and T are deactivated, the features on the adjective remain unspecified. As a consequence, they are spelled out as a weak inflection by default. In a way, the determiner blocks the Agree relation between T and the adjective.

This is, in a nutshell, Schoorlemmer’s basic proposal. It presents a new and interesting view on the strong/weak alternation. To account for all the basic data in German, Schoorlemmer (2009: 201ff) has to make some other assumptions with regard to certain features. I will not review these finer points here. Rather, let me point out again that this proposal makes some claims about the structure of the DP that are similar to the ones put forth in this book. Specifically, here the determiner is also merged in a low position and undergoes subsequent movement to the left periphery. Note though that there are some very general differences between Schoorlemmer’s and the current proposal.

For instance, while it is the strong inflections in Schoorlemmer’s analysis that are due to a specific operation (Indirect Agree), it is the weak endings in the current account that are brought about by a certain mechanism (Impoverishment). Now, as illustrated in the first part of this chapter, the strong endings occur in more diverse contexts than the weak ones. I interpreted

the strong inflections as the elsewhere case. For Schoorlemmer, the presence of a mediating head is an essential ingredient to explain the strong adjectives. This raises the question as to what the mediating head in the non-canonical constructions, say vocatives in German, is. In fact, some of the complex noun phrases, discussed in the first part of this chapter, involve more feature sharing relations than there seem to be mediating heads. Again, it is not clear how strong adjectives in the different sub-structures of these nominals can be explained. Interpreting the strong inflections as the elsewhere case, I believe the current proposal is better able to handle these instances. After these general remarks, let me point out some more specific issues with Schoorlemmer's account.

To motivate the movement of the determiner, semantic types are interpreted as part of the syntactic feature bundles. It appears then as if semantic elements (types) and semantic operations (Functional Application) are either relocated into syntax or duplicated there (but see also Schoorlemmer 2012). Moreover, it is not entirely obvious that little *v*, *T* and other mediating heads have the full range of uninterpretable phi-features (e.g., gender). Finally, while I cannot discuss this in detail here, it appears that Schoorlemmer's system works best for the Scandinavian languages but is less straightforward for German. For instance, the "mixed" paradigm involving *ein*-words in German is left for future research, and the cross-linguistic differences between possessives and vocatives discussed in the introduction to this chapter do not follow from this uniform account.

#### 4.3. Murphy (2018)

Murphy (2018) discusses the emergence of the strong ending on *ein*-words in elliptical contexts (80) and relates that to the strong/weak alternation of adjectives (strikethrough marks ellipsis here):

- (80) a. *ein (gut-es) Buch*  
           a good-ST book  
           'a good book'
- b. *ein-es ~~Buch~~*  
           a-ST book  
           'one'

Rather than claiming that a strong ending licenses NP-ellipsis, here the strong ending is proposed to be a by-product of NP-ellipsis. Specifically, the latter creates a stranded affix that undergoes Local Dislocation onto a non-canonical element, the *ein*-word. Murphy assumes the structure in (81).<sup>31</sup> In his account, inflections and their hosts do not form constituents; that is, inflections are generated separately from their hosts. With determiners in Spec,DP and adjectives in A, strong endings are taken to be located in D and weak endings in  $\varphi$ .

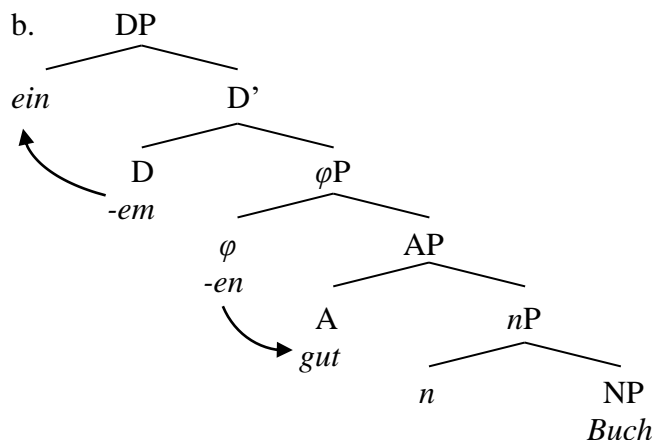
- (81) [ [ DET ] D [  $\varphi$  [ A [ *n* [ N ] ] ] ] ]  
           |    |  
           ST WK

<sup>31</sup> Note that the adjective can also be above  $\varphi$ . This allows Murphy to derive some special features of adjectives like *lila* 'purple.'

Murphy formulates a requirement that (basically) all adjectives must have an inflection in prenominal position. In order to combine the ending with the adjective or determiner, he follows assumptions from Distributed Morphology. Specifically, he makes the suggestion that if (downward) Lowering is not possible, (leftward) Local Dislocation will take place. Let me briefly illustrate the proposal by way of discussing four derivations involving *ein*-words.

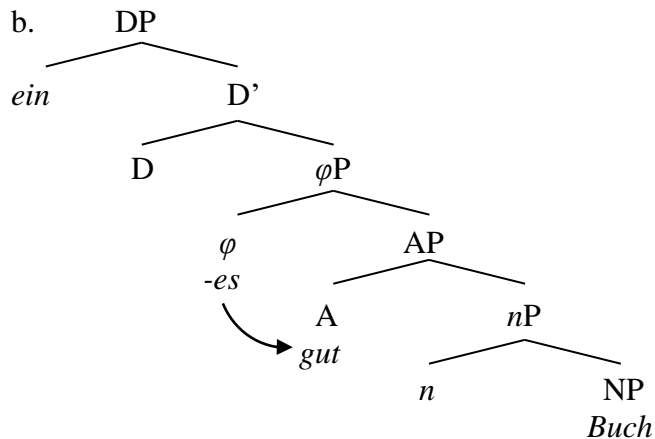
Starting with the most common case, the strong ending is under D. With the weak ending under  $\varphi$ , the strong ending cannot undergo Lowering. Consequently, it combines with *ein* by Local Dislocation, indicated by an upward pointing arrow (despite the fact that this mechanism operates on linear adjacency). The weak ending combines with the adjective by Lowering, marked by a downward pointing arrow. Providing the underlying structure, this is illustrated here with an example in the dative neuter:

- (82) a. *ein-em gut-en Buch*  
           a-ST   good-WK book  
           ‘a good book’



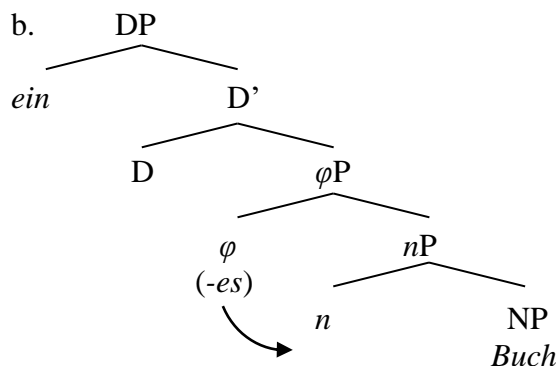
To account for the idiosyncrasy of the three special cases of *ein*-words, it is stipulated that if there is no ending in D, the strong ending is in  $\varphi$  (Murphy 2018: 356). Recalling that Lowering precedes Local Dislocation, the strong ending is displaced onto the adjective deriving (83a) as in (83b):

- (83) a. *ein gut-es Buch*  
           a   good-ST book  
           ‘a good book’



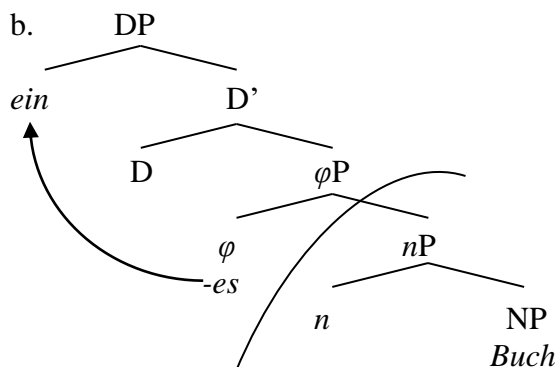
Removing the adjective from the noun phrase yields (84a). As just seen, the strong ending undergoes Lowering but this time onto *n* (84b). The result is spelled out as null (marked by brackets below):

- (84) a. *ein Buch*  
           a book  
           ‘a book’



Finally and most importantly, I turn to ellipsis (without an adjective). With *nP* undergoing ellipsis, the strong ending cannot undergo Lowering. Rather, Local Dislocation applies as a kind of repair mechanism, and the strong ending surfaces on *ein* (the arch sets off the elided material):

- (85) a. *ein-es*  
one-ST  
'one'



This is a novel proposal accounting for the emergence of the strong ending on *ein*. As such it is a welcome contribution. Note though that not all aspects of the proposal are entirely straightforward.

To obtain the correct surface forms, a number of adjustments have to take place. In particular, there are three instances for an inflectional suffix to be spelled out as null: (i) as seen above, if a strong ending combines with *n*, it is spelled out as null yielding *ein Buch* ‘a book’, (ii) if both *D* and  $\varphi$  have an inflection but there is no adjective present in elliptical contexts, the weak ending in  $\varphi$  is spelled out as null bringing about *mein-em* ‘mine’ (p. 358), and (iii) if Spec,DP is empty, the strong ending in *D* appears on the adjective, and the weak ending in  $\varphi$  is spelled out as null resulting in *heißer Kaffee* ‘hot coffee’ (p. 362).<sup>32</sup>

Note that Murphy’s proposal is not compatible with the current analysis as all determiners including *ein*-words are in Spec,DP, and adjectives are in head positions.<sup>33</sup> More importantly for current purposes, there are not many details provided as to what regulates the strong/weak alternation. While the Principle of Monoinflection is mentioned, it is not clear what derives the fact that the strong ending must precede the weak one(s). From Murphy’s mechanism

<sup>32</sup> Allowing these adjustments opens the door for other issues. Assuming the structure with A above  $\varphi$ , it is not clear how to rule out the following ungrammatical example in the dative:

(i) \* *ein gut-em Buch*  
a good-ST book

With Lowering taking precedence, the strong ending in *D* combines with the adjective. Given that the weak ending in  $\varphi$  can, at least in principle, be spelled out as null, it is not clear to me how to rule this case out. In my view, these issues are avoided if adjectives and inflections do not form individual heads in the extended projection line of the noun.

<sup>33</sup> Murphy (2018) argues that adjectives are heads in the extended projection line of nouns. One argument is that the complement of an adjective must precede that adjective in prenominal position. Note though that if adjective phrases are indeed head-initial, one may wonder how the position of the complement is derived. Given the head-initial configuration as argued in the paper, the complement is presumably not base-generated in Spec,AP. Furthermore, Murphy is forced to assume that degree words such as *sehr* ‘very’ and *genug* ‘enough’ are adjoined to the adjective head on the left and right, respectively. These are not standard assumptions.

The arguments in favor of adjectives as heads can also be expressed by adjectives in Spec,AgrP. The latter constellation also involves a head (Agr), a possibility not entertained in the paper. Indeed, the latter analysis has the advantage of accommodating complements to prenominal adjectives that appear after the adjective, an option instantiated in closely-related Yiddish. For a more general comparison of the advantages and disadvantages of adjectives in different structural positions, see Roehrs (to appear).

of partial copying, it is clear though that weak endings are taken as impoverished features that involve a subset of the features that spell out the strong endings. To be fair, while Murphy's goal was not to provide those types of details, such information along with vocabulary insertion rules would be desirable.

Let me also point out that there are two ways for adjectival endings to come about in Murphy's account: besides originating in D or  $\varphi$ , strong and weak endings can also be the result of copying (accounting for multiple inflected adjectives). Furthermore, note that the statement to capture the idiosyncrasy of the three special *ein*-words (i.e., the strong ending is exceptionally located in  $\varphi$ ) may involve a non-local relation when the adjective intervenes (i.e., A is above  $\varphi$ ). This means that selection cannot be invoked here. Moreover, the three cases of *ein* do not seem to have anything in common (unlike in the current account where they share features with a fourth element).

Finally, I turn to two empirical issues. First, split topicalizations are analyzed as either NP-ellipsis or NP-movement. However, it is not clear how to account for the two strong endings in (86a). As plural forms, these *ein*-words do not involve a strong ending in  $\varphi$  (but only in D). It is clear that a second D must be present in the higher nominal. However, this is unexpected on NP-ellipsis or NP-movement. Second, pronominal DPs like (86b) present another challenge. Given the absence of a strong ending, it appears as if the latter is, for some reason, not spelled out:

- (86) a. *Nett-e Leute waren kein-e da.*  
           nice-ST people were no-ST there  
           ‘As for nice people, there were none there.’
- b. *wir nett-en Studenten*  
           we nice-WK students  
           ‘we nice students’

To sum up, the three proposals reviewed in this section discuss the basic patterns with different degrees of success and explanatory force. All accounts have an explanation of the strong inflections, but the status of the weak endings is less clear: this type of ending is taken to be the “unmarked” inflection, the default inflection, or due to a certain type of partial copying (note that G. Müller 2002a: 129 makes an explicit distinction between case (strong) and agreement (weak) markers). Recall in this regard that there are actually two weak endings, *-e* and *-en*, and that their distributions do not form natural groups. In the current account, the strong and weak inflections have the same status, the difference being that the weak inflections are less specified than the (unambiguous) strong endings. More importantly, none of these proposals address the less canonical cases. It is my belief though that these cases reveal the true nature of adjectival endings in German. While this may turn out to be wrong, all analyses should eventually discuss these less canonical structures to identify their range of empirical coverage and to determine their consequences for the linguistic systems involved.

## 5. Conclusion

One goal of this book is to provide a detailed survey of the strong/weak alternation of adjectives in German and to determine the exact conditions for the emergence of the weak and strong endings. In the course of the discussion, I isolated one structure, the regular DP, where weak endings occur. 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. Impoverishment is triggered by the determiner, which moves across the specifier positions containing the adjectives.

I also investigated six contexts where strong endings surface. In each case, some independent evidence was provided that suggests that different structures are indeed involved. Importantly, arguing that Impoverishment proceeds locally and in a bottom-up fashion, I suggested that in these different structures, the relevant feature bundles remain unreduced and are spelled out as the strong endings. In that sense, the strong endings are the elsewhere case. This explains their diverse occurrences. The previous proposals discussed in the final section of this chapter do not discuss the whole range of data and as a consequence, reach very different conclusions. Another goal of this book is to draw some more general conclusions.

In this chapter, I showed that adjectival inflections in German do not correlate with (in-)definiteness. I proposed that these inflections are semantically vacuous (Hypothesis 1a). I argued that the strong/weak alternation is a reflex of different structures (Hypothesis 2a): on the one hand, a weak ending can only occur in Spec,AgrP; on the other, a strong inflection can be in LPP, in DP, and in other, non-canonical constellations. If this is on the right track, then we can utilize the strong/weak alternation as a probe into the structure of other nominals. With this in place, I turn to some consequences for the current and other proposals. The discussion of these consequences will reveal other properties of adjectival inflections.



## Chapter 3: Secondary Mechanisms and Further Extensions

### 1. Introduction

This chapter and the next continue the discussion of adjectival inflections begun in the previous chapter. While the current chapter focuses on consequences for the present proposal, the next chapter discusses implications for other analyses. In more detail, this chapter addresses data involving variation; that is, cases where both a strong and a weak adjective are possible in a regular DP structure. I will argue that the primary mechanism of Impoverishment may be “masked” by other, secondary mechanisms. It is important to point out that the latter only occur in specific, well-defined contexts; that is, they are restricted to certain combinations of “case + gender” or “case + number.” This variation can be accounted for by morpho-syntactic disambiguation and phonetic simplification. We will also see that there is some restricted variation as regards the inflection of certain determiners and predeterminers.<sup>1</sup>

To be clear, this chapter proposes that adjectival inflections in German do not receive a homogenous account but rather are the result of (at least) three different mechanisms, one primary and two secondary ones. More generally, this chapter provides more evidence that adjectival inflections do not mark (in-)definiteness; that is, they are semantically vacuous elements (Hypothesis 1a). Making features like case, number, and gender visible (Hypothesis 2b), they help disambiguate pronominal determiners.

The chapter is organized as follows. First, I discuss the disambiguation of pronominal determiners as regards gender or case. In Section 3, I turn to cases of phonetic simplification. Section 4 takes up variation of certain determiners in genitive masculine/neuter contexts. In Section 5, I address the presence or absence of the strong inflection on the predeterminer *alle* ‘all.’ Section 6 is dedicated to the discussion of the well-known generalization “weak after strong.” In Section 7, I turn to a comparison between Standard German and the dialect of Mannheim. I close the chapter with the conclusion in Section 8.

### 2. Unexpected Strong Adjectives: Disambiguation

In this section, I return to the discussion of pronominal DPs. I show that pronominal determiners are like *ein*-words. In order to account for the variation, I propose that they are categorially ambiguous between determiners and quantifiers. I argue that adjectival inflections disambiguate pronominal determiners as regards gender or case. Finally, I summarize these complex sets of data and the analysis.

#### 2.1. Prenominal Determiners are like *ein*-words

Recall from Chapter 2 that four instances of *ein*-words do not trigger Impoverishment. This applies to masculine (and neuter) cases in the nominative and accusative (1a-b). In contrast, all other *ein*-words and *der*-words in general do trigger Impoverishment (1c) (note that *Idiot* ‘idiot’

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<sup>1</sup> It is notoriously difficult to explain variation in a formal system. While some of the discussion below will admittedly be somewhat tentative, I will discuss new data and offer novel (and I hope, interesting) generalizations and proposals.

is a weak masculine noun that takes an ending in the non-nominative singular and all plural cases):

- (1) a. *ein dumm-er Idiot*  
a.NOM stupid-ST idiot  
'a stupid idiot'
- b. *einen dumm-en Idioten*  
a.ACC stupid-ST idiot  
'a stupid idiot'
- c. *die dumm-en Idioten*  
the.NOM stupid-WK idiots  
'the stupid idiots'

I proposed there that the categorial feature [+D] is a trigger for Impoverishment if the features [F], [O], [DEF], or [DEIX] have a positive specification. With *ein* in (1a-b) specified as [+D; -F, -O], it does not trigger Impoverishment yielding a strong ending on the adjective. In contrast, *die* in (1c) is specified as [+D; +DEF; +F, +N, -O, -S]. As such, it triggers Impoverishment bringing about a weak ending on the adjective. This explains the difference in adjectival inflections between (1a-b) and (1c). Let me return to the discussion of pronominal DPs from Chapter 2.

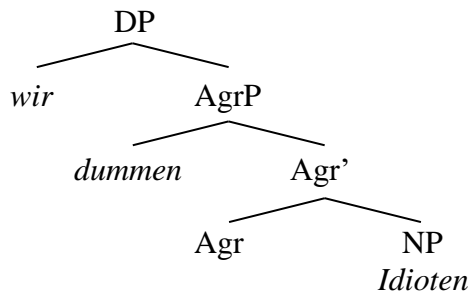
I start with cases parallel to (1) above. Compare the (a)-examples, the (b)-examples, and the (c)-examples, respectively:

- (2) a. *ich dumm-er Idiot*  
I.NOM stupid-ST idiot  
'I stupid idiot'
- b. *mich dumm-es Schwein*  
me.ACC stupid-ST pig  
'me stupid idiot'
- c. *wir dumm-en Idioten*  
we.NOM stupid-WK idiots  
'we stupid idiots'

Like above, the first two cases involve a strong adjective, but the third case exhibits a weak one. Note that the pronominal determiner *du* 'you(NOM.SGL)' shows the pattern in (2a), *dich* 'you(ACC.SGL)' is as in (2b), and *ihr* 'you(NOM.PL)' behaves as in (2c). There is more to say about cases like (2c). Below, I return to *wir* 'we(NOM.PL)' and *ihr* 'you(NOM.PL)', and I add *mir* 'me(DAT.SGL)', *dir* 'you(DAT.SGL)', *uns* 'us(ACC/DAT.PL)', and *euch* 'you(ACC/DAT.PL)' to the discussion. What all the latter pronouns have in common is that their pronominal DPs involve variation; that is, these pronouns may occur not only with a weak adjective but also with a strong one.

As discussed in Chapter 2, Section 2.4, personal pronouns are determiners:

(3) *Pronominal DP*



In fact, considering the above data, they are like *ein*-words as regards the inflections on adjectives: nominative *ich* ‘I’ and *du* ‘you(SGL)’ as well as accusative *mich* ‘me’ and *dich* ‘you(SGL)’ do not trigger Impoverishment.

Pronouns of the first and second person do not distinguish gender (see Table 1 below). Thus, it seems reasonable to assume that these instances do not have a feature for [F] or [N]. Furthermore, the nominative/accusative forms have a negative value for [O]. Now, if we assume that definiteness and deixis are part of their lexical meaning (and are not expressed as features), then these pronominal determiners receive the same account as the four *ein*-words (cf. Bhatt 1990: 155): [+D] is not a trigger for Impoverishment, and the strong adjectives follow. As for (2c), pronominal determiners in the plural involve a positive value for [F]. In this context, [+D] is a trigger for Impoverishment. This will bring about a weak adjective. Note already here that the same holds for the dative singular, which involves [+O] (personal pronouns in the genitive are not commonly used and do not do double-duty as pronominal determiners).

Before moving on, consider the full set of personal pronouns in Table 1 (for detailed discussion of the internal structure, see Fischer 2006). Unlike the cases mentioned above, third-person pronouns have the typical determiner endings, and the singular instances of these pronouns also distinguish gender. However, these pronouns do not take overt complements (for recent discussion, see Höhn 2020). Also, notice that all non-third person pronouns have different case forms except for the first and second person plural, where the accusative and dative are the same (*uns*, *euch*).

Table 1: Personal Pronouns in German

| Number | Singular              |                       |                      |                      |                     | Plural                |                       |                       |
|--------|-----------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|-----------------------|-----------------------|
| Person | 1 <sup>st</sup> Pers. | 2 <sup>nd</sup> Pers. | 3 <sup>rd</sup> Masc | 3 <sup>rd</sup> Neut | 3 <sup>rd</sup> Fem | 1 <sup>st</sup> Pers. | 2 <sup>nd</sup> Pers. | 3 <sup>rd</sup> Pers. |
| Nom    | ich                   | du                    | e-r                  | e-s                  | si-e                | wir                   | ihr                   | si-e                  |
| Acc    | mich                  | dich                  | ih-n                 | e-s                  | si-e                | uns                   | euch                  | si-e                  |
| Dat    | mir                   | dir                   | ih-m                 | ih-m                 | ih-r                | uns                   | euch                  | ihn-en                |

The lack of gender disambiguation in the first and second person singular and the absence of case disambiguation in the first and second person plural will play an important role below. We will see that these cases exhibit variation such that a following adjective may help disambiguate the pronominal determiner as regards gender or case. Finally, abstracting away from certain spelling conventions, the only pronoun ambiguous in number is *sie*: it translates as ‘she,’ ‘they,’

or ‘you(SGL/PL.FORMAL).’ However, the first two cases are third person, which, as already mentioned above, do not take overt complements (for the third case, see Chapter 7).

In the next sections, I propose that pronominal determiners are two-way ambiguous. First, I suggest that they are categorially ambiguous between a determiner and a quantifier. Second, I discuss the ambiguity of pronominal determiners as regards gender or case and how inflections on adjectives help disambiguate them.

## 2.2. Categorially Ambiguous Elements

As seen in (4), some pronominal determiners can, at least in principle, be followed by both a weak or a strong adjective (see also Bhatt 1990: 154f; Duden 1995: 280, 2007: 39; Darski 1979: 198; Gunkel *et al.* 2017: 1308). The weak adjective in (4a) is not surprising and follows from the system laid out above. However, the very possibility of the strong adjective and its smaller degree of preference in (4b) call for an explanation (recall that I interpret the difference in preferences as dialectal variation):

- (4) a. *wir nett-en Studenten*  
       we nice-WK students  
       ‘we nice students’
- b. % *wir nett-e Studenten*  
           we nice-ST students  
           ‘we nice students’

The same holds for *ihr* ‘you(PL).’ Before moving on, observe again that the strong ending in (4b) and similar instances below cannot mark indefiniteness.

In Roehrs (2009a), I propose that these pronominals are categorially ambiguous between determiners and quantifiers. The former involve [+D] and trigger Impoverishment; the latter do not. This lexical option accounts for the two inflectional possibilities in (4).<sup>2</sup> Evidence for this lexical option comes from certain other elements that may also take a weak or strong adjective:

- (5) a. *manch-e nett-en Studenten*  
       some-ST nice-WK students  
       ‘some nice students’
- b. *manch nett-e Studenten*  
           some nice-ST students  
           ‘some nice students’

The same patterns can be seen with the related elements *solch-* ‘such’ and *welch-* ‘which.’ I would like to suggest that inflected *manche* in (5a) is a determiner but that uninflected *manch* in

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<sup>2</sup> Alternatively, one could suggest a second structure to account for the possibility of a strong ending on the adjective. Beside regular DPs as discussed in the main text, the adjective and noun could be right-adjoined to the pronoun. Given this structure, Impoverishment would not apply, and a strong ending would surface on the adjective. This would essentially result in the claim that pronouns are transitive and intransitive (cf. Bhatt 1990: 155). While this is a possibility, I know of no independent evidence that suggests two structures for pronominal DPs in German.

(5b) is a quantifier. Note in this regard that determiners are typically inflected (e.g., *dies-e* ‘these’) but that quantifiers and numerals may not be (e.g., *lauter* ‘many,’ *vier* ‘four’). What is special, then, about non-third person pronominal determiners is that they themselves have no inflectional ending. One may object that the above pattern is not very convincing as *manch-* itself differs in inflection in (5a) vs. (5b).

Note though that there are other cases where elements clearly vacillate between the status of a determiner and that of an adjectival, quantificational element. I provide three examples. First, *folgend-* ‘following’ can be an adjectival element (6a). As has been noted in the literature, it can also have determiner-like uses where *folgend-* can license a singular count noun in argument position (6b) and related to that, it may take a strong ending in genitive singular contexts (6c) (see Roehrs 2009a: 167f, van de Velde (2011), and references therein):<sup>3</sup>

- (6) a. *Da-s folgend-e Beispiel soll das illustrieren.*  
the-ST following-WK example shall that illustrate  
‘The following example shall illustrate that.’
- b. *Folgend-es Beispiel soll das illustrieren.*  
following-ST example shall that illustrate  
‘The following example shall illustrate that.’
- c. *der Inhalt folgend-es/-en Satz-es*  
the content following-ST/-WK sentence-GEN  
‘the content of the following sentence’

As might be expected, this element can occur with strong or weak adjectives:

- (7) a. % *folgend-es neu-es Beispiel*  
following-ST neu-ST example  
‘the following new example’
- b. *folgend-es neu-e Beispiel*  
following-ST new-WK example  
‘the following new example’

Conversely, *beide* ‘both’ can be a determiner-like element triggering a weak ending on the adjective (8a), or it can be adjectival occurring with a strong adjective (8b). That *beide* can indeed be an adjectival element is confirmed by the fact that it can be preceded by a definite article (8c). In this context, it has the expected weak ending ((8a-b) are from Zifonun *et al.* 1997: 1946; to my ears, (8b) is somewhat marked):

- (8) a. *beid-e begabt-en Hände*  
both-ST gifted-WK hands  
‘both gifted hands’

---

<sup>3</sup> The strong ending in (6c) becomes obligatory when a weak noun ending in *-en* (e.g., *Paragraph-en* ‘paragraph’) follows (for the discussion of the Genitive Rule, see Section 4).

- b. % *beid-e groß-e Schriftsteller*  
both-ST great-ST writers  
'both great writers'
- c. *di-e beid-en Schriftsteller*  
the-ST both-WK writers  
'both writers'

Third, we can observe that something similar holds for *solch-* 'such' in the singular. The latter can trigger a weak ending on the adjective (9a), but it can also be preceded by an article (9b). In the latter case, it has the same ending as the adjective ((9a) is from Zifonun *et al.* 1997: 1937):

- (9) a. *solch-er glücklich-e Ausgang*  
such-ST happy-WK ending  
'such a happy ending'
- b. *ein solch-er glücklich-er Ausgang*  
a such-ST happy-ST ending  
'such a happy ending'

Again, it seems clear that some elements can alternate between a determiner and an adjectival, quantificational element. I take this as confirmation that pronominal determiners can do so too.

Returning to (4), the question arises why a weak adjective is generally acceptable, but a strong adjective is possible but less preferred. I propose that the former is more common as this inflectional pattern conforms to the stereotypical distribution discussed in Chapter 2, where an adjective following a determiner is overwhelmingly weak.

Next, I turn to the second type of ambiguity as regards pronominal determiners. Recall that noun phrases in German inflect for three morphological features: case, number, and gender. Given that certain pronouns are ambiguous in gender or case (but not number, see Table 1) and that both a strong or weak ending is possible on the adjective, I will propose that the strong adjectival inflection can overtly disambiguate the relevant morphological category. In other words, adjective endings are claimed to disambiguate gender or case on the pronominal determiner. In the next section, I discuss cases where gender is (preferably) disambiguated by the ending on the adjective. In Section 2.4, I turn to morphological case, which must be disambiguated by the ending on the adjective.

### 2.3. Preferred Disambiguation of Morphological Gender

In dative singular contexts, we observe a preference for the weak adjective in (10) versus the strong adjective in (11) and (12). This seems to correlate with a difference in gender: (10) involves a feminine head noun, (11) has a masculine one, and (12) shows a neuter head noun. In other words, feminine gender patterns differently from non-feminine genders:

- (10) a. *mir groß-en Gans*  
me great-WK goose.FEM  
'me stupid idiot'
- b. % *mir groß-er Gans*  
me great-ST goose.FEM  
'me stupid idiot'
- (11) a. % *mir groß-en Esel*  
me great-WK donkey.MASC  
'me stupid idiot'
- b. *mir groß-em Esel*  
me great-ST donkey.MASC  
'me stupid idiot'
- (12) a. % *mir groß-en Schwein*  
me great-WK pig.NEUT  
'me stupid idiot'
- b. *mir groß-em Schwein*  
me great-ST pig.NEUT  
'me stupid idiot'

The same patterns as in (10) through (12) also hold for the second-person singular pronoun in the dative (*dir* 'you'). In order to explain the different preferences, note that although gender is inherently specified on the head noun, it manifests itself overtly not on the noun itself but on a different, related element in the extended projection line of the noun. With the dative singular pronominal determiner appearing in the same form in all genders, only the adjective can overtly exhibit gender inside pronominal DPs. Now, observe that the adjectival ending *-en* is ambiguous in multiple ways and cannot reliably indicate different genders.

I propose that German prefers to disambiguously mark grammatical gender in the morphology. This is straightforward in the masculine (11) and neuter (12). Here the strong endings are more common, which distinguish gender more clearly. However, this appears to be different in the feminine (10) as it leads to – what sounds like – the sequence of two strong endings (also Duden 1995: 281, 2007: 39). It seems as if speakers tend to avoid similar endings on co-occurring but lexically different elements (i.e., pronominal determiners and adjectives). I take this to be a reflex of some kind of economy condition (cf. Esau 1973) that, if possible, disfavors redundant morphological disambiguation. Returning to the categorial ambiguity, this means that German prefers a quantificational pronominal in the dative masculine/neuter but a determiner-like pronominal in the dative feminine. I turn to a restriction in the accusative plural.

#### 2.4. Required Disambiguation of Morphological Case

Recall that both strong and weak adjectives are possible in the pronominal DP. With *-en* ambiguous between a strong and a weak ending in the dative plural, these two options cannot be

teased apart in that feature combination (13a). Importantly, however, only a strong ending is possible in the accusative plural (13b).

- (13) a. *von uns nett-en Schüler-n*  
 from us nice-ST/WK pupils-DAT  
 ‘from us nice pupils’
- b. *für uns nett-e(\*n) Schüler*  
 for us nice-ST/\*WK pupils  
 ‘for us nice pupils’

The same patterns can be observed with the second-person plural pronoun in the dative and accusative (*euch* ‘you’). Note that while the non-third-person pronouns have the same forms 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, one may suggest that it may not reliably distinguish the two morphological cases. Given that the weak ending *-en* in the accusative plural is identical to the ambiguous inflection in the dative plural, only the strong ending *-e* in the accusative plural can disambiguate these instances (also Duden 2007: 39). Unlike the different preferences to indicate gender above, here non-nominative case must be morphologically 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. As with gender, a strong ending is also better able to indicate case than a weak one. Finally, note that this disambiguation is only possible if a quantificational pronominal occurs in the accusative plural. Let me summarize these complex sets of data and analysis.

## 2.5. *Summary of the Discussion*

With the exception of *ich* ‘I,’ *mich* ‘me,’ *du* ‘you,’ and *dich* ‘you,’ all pronouns can occur with a weak or strong adjective. I proposed that on the one hand, pronominal determiners are like *ein*-words and that on the other, they are categorially ambiguous between determiner-like pronominals, which trigger Impoverishment, and quantificational pronominals, which do not. The latter accounts for the unexpected strong adjectives. In more detail and starting with the singular instances, a strong adjective is preferred in dative masculine/neuter contexts. In contrast, a weak adjective is preferred in the dative feminine. The preference of the strong ending followed from the disambiguation of gender of the (quantificational) pronominal unless it leads to two – what is taken to be – strong endings in the feminine. The latter makes the weak ending the preferred option. This is summarized in Table 2.



Table 2: Summary of Adjectival Inflections in Singular Pronominal DPs

| Pronoun | Gender | Weak | Strong |
|---------|--------|------|--------|
| ich     |        | -    | √      |
| mich    |        | -    | √      |
| mir     | [-F]   | %    | √      |
|         | [+F]   | √    | %      |
| du      |        | -    | √      |
| dich    |        | -    | √      |
| dir     | [-F]   | %    | √      |
|         | [+F]   | √    | %      |

Recalling that gender is only relevant in the singular in German, note that disambiguation occurs when gender is not marked on the pronominal elements, namely in the first and second person. Again, this applies only to the dative instances as the nominative and accusative forms have an independent explanation.

In the plural, all pronominal elements can occur with both a weak or strong adjective. With gender not at issue, the preferred weak adjective followed from the assumption that pronominal DPs adhere to the stereotypical pattern where a determiner is followed by a weak adjective (Chapter 2). Note that there are two instances that involve strong adjectives only (with *uns* and *euch* in the accusative). These are indicated by exclamation marks in Table 3. It was pointed out that these are the only instances where the relevant pronominal elements are ambiguous in case, and the ending on the adjective is ambiguous between strong and weak in the dative. Consequently, case on the (quantificational) pronominal is disambiguated by a strong adjective in the accusative.

Table 3: Summary of Adjectival Inflections in Plural Pronominal DPs

| Pronoun | Case | Weak      | Strong    |
|---------|------|-----------|-----------|
| wir     |      | √         | %         |
| uns     | [-O] | -         | √ (!)     |
| uns     | [+O] | ambiguous | ambiguous |
| ihr     |      | √         | %         |
| euch    | [-O] | -         | √ (!)     |
| euch    | [+O] | ambiguous | ambiguous |

Above, we have seen that the lack of gender disambiguation in the first and second person is important with singular pronominal elements. The same extends to the absence of case disambiguation in the first and second person with plural pronominal elements. In other words, disambiguation occurs only if the form of the pronominal may have several, different featural interpretations. More generally, as pointed out above, strong inflections bring about these types of disambiguation. Again, notice that these are the more diverse endings that visibly distinguish features like case, number, and gender in a clearer manner. Next, I turn to the other secondary mechanism explaining unexpected weak adjective inflections.

### 3. Unexpected Weak Adjectives: Phonetic Simplification

In this section, I turn to cases that involve two adjectives in a row where the first adjective exhibits a strong ending, but the second shows a weak one. This inflectional alternation involves nasal sounds, and I provide a phonetic rule. In the second subsection, this discussion is extended to indefinite pronoun constructions.

#### 3.1. Two Adjectives Without a Determiner

In the previous chapter, we have seen examples where two co-occurring adjectives have the same ending, with either both endings being strong (14a) or both endings being weak (14b):

- (14) a. *frisch-er schwarz-er Kaffee*  
fresh-ST black-ST coffee  
'fresh black coffee'
- b. *d-er frisch-e schwarz-e Kaffee*  
the-ST hot-WK black-WK coffee  
'the fresh black coffee'

Recall that *der* in (14b) involves [+DEF], a context where [+D] triggers Impoverishment. With the determiner moving from ArtP to DP in a successive-cyclic fashion, the CNG features of the two adjectives undergo Impoverishment and are spelled out as weak. As for (14a), Impoverishment does not occur, and the underlying features are spelled out as the strong endings.

There is one much-discussed exception to the pattern in (14a) above: in the dative masculine (and neuter), there is the option of the second adjective exhibiting a weak ending. Comparing (15a-b), we observe that (15a) exhibits the expected pattern but that (15b) shows two adjectives in a row that have different endings. This is in contrast to all the other patterns we have seen above.<sup>4</sup> As is clear from (15c-d), patterns with a weak ending on the first adjective are not possible (Nübling 2011), independent of whether the second adjective is strong or weak (% indicates variation with speakers; see Table 4 below):<sup>5</sup>

- (15) a. % *mit frisch-em schwarz-em Kaffee*  
with fresh-ST black-ST coffee  
'with fresh black coffee'

---

<sup>4</sup> Sternefeld (2004: 290) points out that (15b) is also possible with a Saxon Genitive:

(i) *Johanns gut-em alt-en Wein*  
Johann's good-ST old-WK wine  
'Johann's good old wine'

<sup>5</sup> Nübling (2011: 182) states that the coexistence of the parallel and non-parallel adjective strings has a long history, possibly several hundred years. Furthermore, she finds in her corpus study that the parallel strings occur slightly more often (57%) and that all types of adjectives have this variation (albeit coordinated adjectives much less so). Interestingly though, there is a slight correlation such that adjective types that occur closer to the noun tend to be inflected weak more often than those further away (p. 187).

- b. % *mit frisch-em schwarz-en Kaffee*  
with fresh-ST black-WK coffee  
'with fresh black coffee'
- c. \*? *mit frisch-en schwarz-em Kaffee*  
with fresh-WK black-ST coffee
- d. \*? *mit frisch-en schwarz-en Kaffee*  
with fresh-WK black-WK coffee

As in the canonical cases (e.g., *d-em frisch-en Kaffee* 'the-ST fresh-WK coffee'), the strong ending precedes the weak one yielding a left-to-right asymmetry in (15b). Notice also that the weak ending in the latter example and similar instances below cannot mark definiteness.

These patterns have a number of peculiar properties. First, the grammaticality judgments are less sharp than in the previous chapter. Second, these inflectional distributions are restricted to the two instances above (i.e., dative masculine/neuter). For instance, a weak ending on a second adjective is not possible in the feminine gender:

- (16) a. *mit gut-er rot-er Sauce*  
with good-ST red-ST sauce  
'with good red sauce'
- b. \* *mit gut-er rot-en Sauce*  
with good-ST red-WK sauce

Third, as noted in Roehrs (2009b), different authors have reported different possibilities. I will refer to these options as dialects. Considering the two inflectional options in Table 4 (column 1), Gallmann (1996: 296, 2004: 156), Schlenker (1999: 119), and Demske (2001: 53) describe dialect 1 where a strong or a weak ending is equally possible on the second adjective. G. Müller (2002a: 139) discusses dialect 2 where the strong ending on the second adjective is preferred. Finally, Schlenker (1999) also reports that some speakers have dialect 3 where the weak ending on the second adjective is strongly preferred. Dialect 4 does not exist. In other words, all speakers have at least one of the two inflectional distributions in their language:

Table 4: Different Dialects for the Dative Masculine/Neuter

| String        | Dialect 1 | Dialect 2 | Dialect 3 | Dialect 4 |
|---------------|-----------|-----------|-----------|-----------|
| Adj+em Adj+em | √         | √         | ??        | ??        |
| Adj+em Adj+en | √         | ?         | √         | ??        |

Note that the weak ending *-en* cannot be the result of Impoverishment. Recall that Impoverishment is a local process that occurs in one and the same phrase. Non-local effects are brought about by determiner movement (Impoverishment Rule 1) or a general featural context (Impoverishment Rule 2). Both options affect all adjectives in the same way. In the cases discussed here, the weak ending occurs only on the second adjective and seems to be parasitic on the presence of the first adjective, a statement I return to below.

An account for this alternation should answer the questions as to why this is only possible with adjectives ending in *-em* but not, for instance, with adjectives in *-es* instead or with adjectives in *-em* and *-es*. Note first that according to B. Wiese (1996: 327), *-m* and *-n* are diachronically and dialectally related. Now, in order to explain the above properties, I proposed in the aforementioned paper that the alternation in (15a-b) follows from a phonetic rule, according to which the inflection on the second adjective is changed from *-m* to *-n* (+ indicates a morpheme boundary, and # signifies a word boundary):

(17) *Rule (preliminary version):*

m        ->        n        / [...]A [...]A + \_\_\_\_ #

This rule turns a labial sound into its alveolar/coronal counterpart; that is, the place of articulation is altered. In fact, *-n* is usually considered the unmarked nasal sound.<sup>6</sup> Note in this regard that R. Wiese (1996: 165) states that “alveolar is taken to be the default place of articulation for consonants.” Utilizing this, Wiese formulates rules where coronal is the default value (p. 219). More tentatively, the latter could involve less articulatory effort and could be interpreted as phonetic simplification. The left-to-right asymmetry presumably has to do with parsing; that is, a disambiguating, strong ending occurs as early as possible. Alternatively, one could follow G. Müller (2002a: 140) claiming that this asymmetry has to do with analogy to the stereotypical pattern *d-em nett-en Mann* ‘the-ST nice-WK man.’ However, the cases in the next subsection will present a challenge to this alternative.

Returning to Table 4, the application of the rule is optional in dialect 1, “costly” in dialect 2, and obligatory in dialect 3.<sup>7</sup> Thus, this rule explains the unexpected weak adjectives in regular DPs of dialects 1 and 3. Given this rule, non-nasal inflections are immediately excluded explaining why this pattern is so restricted in occurrence. For convenience, I will refer to this phenomenon as ‘nasal alternation.’ What often goes unmentioned is that this nasal alternation is more general; for instance, it can also be found with indefinite pronoun constructions. In my view, these are related phenomena that should be discussed in the same context and receive the same account.

### 3.2. *Indefinite Pronoun Constructions Revisited*

In Chapter 2, I discussed indefinite pronoun constructions. To extend that discussion, consider cases involving the pronoun *etwas* ‘something’ and a following adjective. In either the nominative/accusative (18a-b) or the dative (18c-d), there is no variation – only a strong adjective is possible:

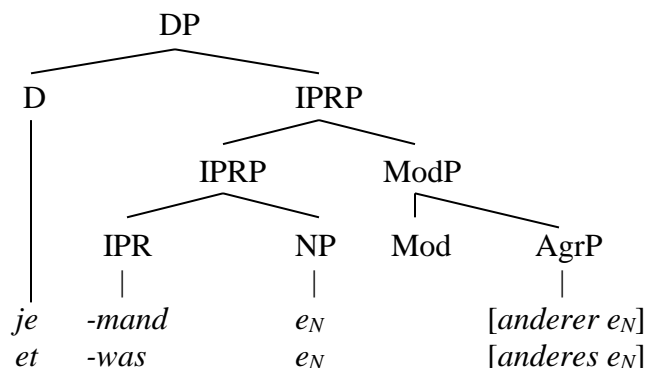
<sup>6</sup> In his optimality-theoretic proposal, Gallmann (2004: 156) formulates a phonological markedness constraint that bans German words that end in schwa + /m/ (cf. also Gunkel *et al.* 2017: 1308).

<sup>7</sup> The grammaticality judgments in Table 4 are taken from the original sources. It is not clear to me if the degree of the markedness/ungrammaticality of the respective bad patterns in dialect 2 or 3 is the same. If the relevant examples were more marked than “?”, one could suggest that the rule in (17) simply does not apply in dialect 2 at all.

- (18) a. *etwas ander-es*  
something different-ST  
'something different'
- b. \* *etwas ander-e*  
something different-WK
- c. *mit etwas ander-em*  
with something different-ST  
'with something different'
- d. ?\* *mit etwas ander-en*  
with something different-WK

It was proposed in the previous chapter that the nominative string *jemand anderer* 'somebody different' is analyzed as in (19). I now add (18a) to the analysis (recall that IPRP stands for Indefinite Pronoun Restrictor Phrase; for the internal makeup of indefinite pronouns, see also Roehrs & Sapp 2016: Chapters 5 and 6):

(19) *Indefinite Pronoun Construction*



Given right adjunction to the pronoun, the adjective is only expected to have a strong ending. Now, Duden (2007: 491) points out that there is variation in the dative forms of pronouns like *jemand* 'somebody' and *niemand* 'nobody'.<sup>8</sup> The same goes for the following adjective. I start by discussing the pronoun *jemand* in more detail.

Although this pronoun is the first element in the noun phrase, *jemand* shows the nasal alternation (20a-b). In addition, it can also occur without an ending (20c):

- (20) a. *jemand-em*  
somebody-ST  
'somebody'

<sup>8</sup> There is also variation in the accusative (*jemanden* vs. *jemand*), which is not relevant here.

- b.     *jemand-en*  
           somebody-WK  
           ‘somebody’
- c.     *jemand*  
           somebody  
           ‘somebody’

The same options can be found with *niemand* ‘nobody.’ It is clear that this inflectional alternation is not due to the phonetic rule proposed above. On the one hand, this element occurs in first position; on the other, it is not an adjective: syntactically, *jemand* can appear in argument position; morphologically, it can have a weak ending in first position or no ending at all. Rather, Roehrs (2009b) argues that *jemand* belongs to three different morphological paradigms. Besides the older declensions that are similar to those of strong nouns and determiners, there seems to be a third paradigm in the progress of developing. In the latter case, *jemand* has features of a weak noun where the ending *-en* is generalized throughout the non-nominative cases. All these forms are summarized in Table 5:<sup>9</sup>

Table 5: Different Paradigms of the Indefinite Pronoun *jemand*

|            | Strong Noun     | Determiner            | Weak Noun        |
|------------|-----------------|-----------------------|------------------|
| Nominative | <i>jemand</i>   | <i>jemand (/w-er)</i> | <i>jemand</i>    |
| Accusative | <i>jemand</i>   | <i>jemand-en</i>      | <i>jemand-en</i> |
| Dative     | <i>jemand</i>   | <i>jemand-em</i>      | <i>jemand-en</i> |
| Genitive   | <i>jemand-s</i> | <i>jemand-(e)s</i>    | <i>jemand-en</i> |

Adding an adjective after the pronoun retains the variation on the pronoun itself. In addition, the adjective itself also alternates between a strong and weak ending yielding six different options. Below, I provide my own grammaticality judgments:

- (21) a. (?) *mit jemand-em ander-em*  
           with somebody-ST different-ST  
           ‘with somebody different’
- b.     *mit jemand-em ander-en*  
           with somebody-ST different-WK  
           ‘with somebody different’

<sup>9</sup> Note that Duden (2007: 491) claims that *-en* on the dative pronoun is not part of the standard language. Notice also that the different inflections in Table 5 presumably indicate different internal makeups of the pronoun. For instance, *jemand* may involve a determiner (ia), but it may also involve a determiner with an indefinite pronoun restrictor where the latter has features of a weak noun (ib) or strong noun (ic):

- (i) a.     [<sub>D</sub> *jemand*]-*em*  
       b.     [<sub>D</sub> *je* ] + [<sub>IPR</sub> *mand* ]-*en*  
       c.     [<sub>D</sub> *je* ] + [<sub>IPR</sub> *mand* ]

The analyses in (ib-c) indicate how I interpret the terms ‘weak noun’ and ‘strong noun’ in Table 5.

- (22) a. (?) *mit jemand-en     ander-em*  
           with somebody-WK different-ST  
           ‘with somebody different’
- b. (?) *mit jemand-en     ander-en*  
           with somebody-WK different-WK  
           ‘with somebody different’
- (23) a.     *mit jemand     ander-em*  
           with somebody different-ST  
           ‘with somebody different’
- b. (?) *mit jemand     ander-en*  
           with somebody different-WK  
           ‘with somebody different’

All these patterns occur naturally but with different frequencies. Below are the results of an informal *google*-search involving three dative prepositions: *mit* ‘with,’ *von* ‘from,’ and *bei* ‘at’ (note that the numbers are too large to check the individual examples for relevance). While these numbers are, admittedly, not precise, the tendencies are clear. Whereas all patterns above occur, a pronoun with an inflection, be it *-em* or *-en*, is more frequent with a weak adjective. In contrast, a pronoun with no inflection is more frequent with a strong adjective. Notice also that the latter is the most frequent pattern overall (note in passing that the positive pronoun, set off by a slash sign in Table 6, is more frequent than its negative counterpart):

Table 6: Numeric Results of Indefinite Pronoun Constructions in the Dative (October 7, 2020)

| Preposition and Pronoun       | <i>anderem</i> | <i>anderen</i> |
|-------------------------------|----------------|----------------|
| <i>mit jemandem/niemandem</i> | 35K/425        | 95K/5K         |
| <i>von jemandem/niemandem</i> | 8K/711         | 63K/50K        |
| <i>bei jemandem/niemandem</i> | 3K/9           | 10K/347        |
| <i>mit jemanden/niemanden</i> | 9K/238         | 75K/3K         |
| <i>von jemanden/niemanden</i> | 7K/350         | 32K/16K        |
| <i>bei jemanden/niemanden</i> | 1K/109         | 14K/503        |
| <i>mit jemand/niemand</i>     | 755K/129K      | 408K/69K       |
| <i>von jemand/niemand</i>     | 762K/195K      | 362K/19K       |
| <i>bei jemand/niemand</i>     | 141K/19K       | 108K/816       |

Importantly, the adjectives exhibit the nasal alternation independently of whether the pronoun has a strong, weak, or no inflection. For the cases discussed in Section 3.1, this means that the second adjective in *-en* should not be taken to be parasitic on a preceding adjective ending in *-em* (see Murphy’s 2018 proposal of partial copying). Rather, the weak adjective depends on a preceding element more generally. Furthermore, indefinite pronoun constructions have a structure different from regular DPs. This indicates that the nasal alternation is independent of structure. If these cases are indeed related by the nasal alternation, then no strong morpho-syntactic claims should be made on the basis of the data in Section 3.1. Note in this regard that

Schlenker (1999) argues for top-down derivations and Sternefeld (2004: 288-90) for recursive DP-levels. Interestingly, the different frequencies in Table 6 seem to confirm the left-to-right asymmetry noted in Section 3.1 (i.e., a strong inflection precedes a weak one).

Given these remarks, I formulate the second version of the phonetic rule. Note that the word preceding the adjective may range over determiners, including pronouns, and adjectives. What all these elements have in common is that they are nominal in nature. I indicate this below by the feature [+N]:

(24) *Rule (second version):*

$$m \quad \rightarrow \quad n \quad / \quad [\dots]_{[+N]} [\dots]_A + \_\_\_\_\_\#$$

Notice that the rule will not apply to adjectives that have already undergone Impoverishment due to a preceding determiner. The latter has changed the ending on the adjective from *-em* to *-en* independently.

The different frequencies seen with the indefinite pronoun construction seem to be tendencies. Similar to the cases in Section 3.1, it is possible that they have to do with parsing such that a nominal string is preferred if the disambiguation occurs as early as possible. Matthias Schlesewsky (p.c.) points out to me that this claim about more effective processing is in agreement with work by John Hawkins. In particular, Hawkins (1994: 404-5; 2004: 49, 92-3) explains the general left-to-right asymmetry seen in Section 3.1 by general processing advantages (for an early intuition in this regard, see Esau 1973: 139). Finally, note that the postulation of the three paradigms of the pronoun in Table 5 may explain why this parsing does not chose between the different forms of the pronoun (otherwise one would expect *jemandem* to be the most frequent form, contrary to fact).

More tentatively, with the left-to-right asymmetry arguably due to language processing, it might be possible to simplify the above rule by leaving out the word preceding the adjective; that is, parsing might constrain the application of the phonetic rule independently. This would yield a context of rule application that is quite local:<sup>10</sup>

(25) *Rule (final version):*

$$m \quad \rightarrow \quad n \quad / \quad [\dots]_A + \_\_\_\_\_\#$$


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<sup>10</sup> In an appendix, Roehrs (2009b) suggests that the claim about the nasal alternation is even more general and can be extended to certain pseudo-partitives and *als*-appositives explaining unexpected accusative forms. Also, in a recent paper, Zimmer (2015) discusses pseudo-partitives that clearly show an unexpected weak adjective (the strong endings in the neuter are *-es* and *-em*):

(i) *bei einem Glas kalt-en Wasser*  
 over a glass cold-WK water.NEUT  
 ‘over a glass of cold water’

He reports that these cases are restricted to dative contexts like in (i) and mostly occur when the first noun is of masculine or neuter gender. He proposes that inflections that are less distinct as regards case marking are preferred in these constructions in contemporary German. Note that this proposal runs counter to the general fact that German nominal strings typically involve strong inflections (cf. also Gallmann’s 1996 Genitive Rule). Notice that cases like (i) would follow by extending the text discussion to this empirical domain.



To sum up, we arrive then at another secondary mechanism to explain inflectional variation, here accounting for unexpected weak adjectives. In the next two sections, I turn to inflectional options of certain determiner elements and the predeterminer *alle* ‘all.’

#### 4. Determiners in Genitive Masculine/Neuter Contexts

In this section, I discuss some variation that concerns the inflection on the determiners themselves. Given the discussion of Chapter 2, it is surprising that determiners may have a weak ending at all. Crucially though, this strong/weak alternation is restricted to certain *der*-words and to a specific context. We will see that with the exception of *der* ‘the’ and *DER* ‘that,’ all other *der*-words (i.e., *dieser* ‘this,’ *jener* ‘that,’ *jeder* ‘every,’ *mancher* ‘some,’ *solcher* ‘such,’ *welcher* ‘which,’ and *alle* ‘all’) show this alternation; there is no variation with *ein*-words. Importantly, this variation only occurs in genitive masculine/neuter environments.

Let me illustrate the variation with three of the relevant *der*-words. Considering the data below, the (a)-examples exhibit the strong ending on the determiners *dieser* ‘this,’ *jeder* ‘every,’ and *aller* ‘all;’ the (b)-examples show the weak endings:

- (26) a. *im Sommer dies-es Jahr-es*  
in.the summer this-ST year-GEN  
‘in the summer of this year’
- b. *im Sommer dies-en Jahr-es*  
in.the summer this-WK year-GEN  
‘in the summer of this year’
- (27) a. *die Verarbeitung jed-es Holz-es*  
the processing every-ST wood-GEN  
‘the processing of every (type of) wood’
- b. *die Verarbeitung jed-en Holz-es*  
the processing every-WK wood-GEN  
‘the processing of every (type of) wood’
- (28) a. *der Beginn all-es Schön-en*  
the beginning all-ST beautiful-WK  
‘the beginning of everything beautiful’
- b. *die Wege all-en Übel-s*  
the ways all-WK evil-GEN  
‘the ways of all evil’

Note that the occurrence of the weak ending on the determiner is constrained by the ending on the following noun: if the ending on the noun is *-(e)s*, both a strong or weak ending on the determiner is usually possible (29a-b) (but see Zifonun *et al.* 1997: 1936-1948 for some minor variation as to the grammaticality of (29a)); if the ending on the noun is *-(e)n*, only a strong

ending on the determiner is possible; compare (29c) to (29d) (data are from Gallmann 1996: 293, also Gallmann 1990: 268ff):

- (29) a. *der Traum manch-es Schüler-s*  
the dream some-ST pupil-GEN  
'the dream of some pupil'
- b. *der Traum manch-en Schüler-s*  
the dream some-WK pupil-GEN  
'the dream of some pupil'
- c. *der Traum manch-es Student-en*  
the dream some-ST student-GEN  
'the dream of some student'
- d. \* *der Traum manch-en Student-en*  
the dream some-WK student-GEN

In Chapter 2, I provided a specificity-based account of the inventory and distribution of adjectival inflections: assuming underspecification, vocabulary items are inserted depending on the number of matching features. Gallmann (1996, 1998) utilizes specificity of inflections to account for the above cases. Given the intricate interplay between the inflection on the adjectival element and that on the noun, Gallmann (1996) formulates the Genitive Rule: a noun phrase in the genitive must contain at least one element that is sufficiently specific as regards case.<sup>11</sup> Gallmann states that *-es* and *-er* are more specific than *-en*: the first two are [+Genitive], which consists of [+Oblique] and other features, but the third is only [+Oblique] (see Gallmann 1998: 146, 153). This is consistent with the feature specifications in Chapter 2, where the first two inflections, provided they can be inserted in a genitive context in the first place, are also more specific than the third inflection. Now, as there is no sufficiently specific element in (29d), this example violates the Genitive Rule, and its ungrammaticality is explained.

As briefly mentioned above, *der* 'the,' *DER* 'that,' and *ein*-words in general do not show this variation:

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<sup>11</sup> While I cannot discuss this rule in detail here, note that there might be more to this rule than stated in Gallmann's work. Gunkel *et al.* (2017: 1315) note that genitives behave differently after nouns vs. prepositions. To provide one example, Vogel (2006: 178) points out that the indefinite article in the genitive cannot be reduced after a noun but possibly after a preposition (to my ears, (ib) sounds marked):

- (i) a. \* *das Auto 'n-es Freund-es*  
the car a-ST friend-GEN  
'the car of a friend'
- b. % *während 'n-es Ausflug-s*  
during an-ST outing-GEN  
'during an outing'

Note in passing that the conditions as to when the indefinite article can, must, or must not be reduced are poorly understood.

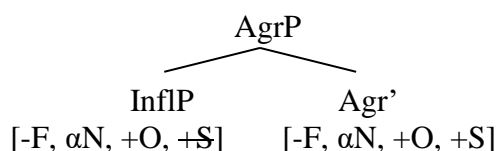
- (30) a. *der Verkauf d-es Wagen-s*  
the sale the-ST car-GEN  
‘the sale of the car’
- b. \* *der Verkauf d-en Wagen-s*  
the sale the-WK car-GEN
- c. *der Verkauf ein-es Wagen-s*  
the sale a-ST car-GEN  
‘the sale of a car’
- d. \* *der Verkauf ein-en Wagen-s*  
the sale a-WK car-GEN

Indeed, B. Wiese (2009: 184f) states that there is no variation with regular adjectives either; that is, unlike the above determiners, adjectives are always weak in this context.

To summarize thus far, there is variation of the inflectional ending in the genitive masculine/neuter with the following determiners: *dieser* ‘this’ (G. Müller 2002a: 137 fn. 38), *jener* ‘that’ (Gallmann 2004: 154), *jeder* ‘every’ (also *jedweder* ‘every,’ *jeglicher* ‘every’), *aller* ‘all,’ *mancher* ‘some,’ *solcher* ‘such,’ *welcher* ‘which’ (the latter are all mentioned in Zifonun *et al.* 1997: 1936-1948). Rather than explaining these cases by analogy to adjectives, let me make the stronger and more interesting claim that the weak endings on these determiners are also due to Impoverishment.

Recall that Impoverishment Rule 2 from Chapter 2 applies to adjectives in the exact same featural context:

(31) *Impoverishment Rule 2:*

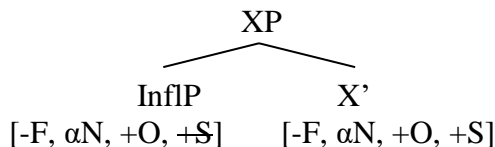


Recall also that *der* ‘the,’ *DER* ‘that,’ and *ein*-words do not exhibit variation. The same goes for the head noun itself – its ending is never changed from *-(e)s* to *-(e)n*. Now, what all these elements have in common is that they are heads in the nominal structure.<sup>12</sup> Let us assume then that all other elements are phrasal determiners.

With this in mind, I propose that Impoverishment Rule 2 has a more general context of application. Rather than just applying in AgrP, it applies in all phrases:

<sup>12</sup> If Roehrs (2013) is right, then this is not true of *DER* ‘that.’

(32) *Impoverishment Rule 2'*:



As discussed in Chapter 2, Impoverishment only affects elements with InflP in the relevant specifier position (i.e., Spec,AgrP). If so, the more general rule above now applies to determiners in Spec,ArtP, adjectives in Spec,AgrP, quantifiers/numerals in Spec,CardP, and determiners in Spec,DP. Note that Rule 2' will apply to CardP with some restrictions. While it may be applicable to inflected singular quantifiers (e.g., *vieler* 'much'), it will not be relevant to the singularity numeral *EIN* 'one,' which consists of a null element in Spec,CardP and *ein* in Card (Chapter 5). More generally, if Impoverishment applies in this featural context, only the least specified ending *-en* can be inserted as discussed with adjectives in Chapter 2. This accounts for the weak ending on the relevant determiners.

There are two more issues to be discussed. It is not entirely clear to me how to derive the optionality of the strong/weak alternation on the determiners. One could stipulate that there are actually two independent Impoverishment rules, Rule 2 and Rule 2', where the former applies obligatorily, but the latter does not. Note though that both rules have the same basic context of application running the risk of losing an important generalization here. Alternatively, one could suggest that phrasal determiners can vacillate between involving phrases or heads. If the relevant determiners merged as heads, Impoverishment Rule 2' would not apply to them (but only to their phrasal counterparts and adjectives more generally). Note that determiners, be they phrases or heads, still trigger Impoverishment on the adjective.

The second issue concerns the restrictedness of the variation – it only holds in the genitive of the masculine and neuter genders (but not in the feminine gender or in the plural). These are exactly the instances where the head noun has an overt case ending. So, rather than claiming that this variation is due to a more general change in progress (where genitive has come under pressure), I suggest that this has to do with the interaction between the determiners and the Genitive Rule illustrated above. The details of this interaction are currently not clear to me.

To sum up, this section illustrated some inflectional variation on certain determiners in genitive masculine/neuter contexts. I suggested that Impoverishment Rule 2 from Chapter 2 appears to have a more general context of application. I made two tentative suggestions to account for the (restricted) optionality of this variation.

## 5. Inflections on Predeterminer *alle*

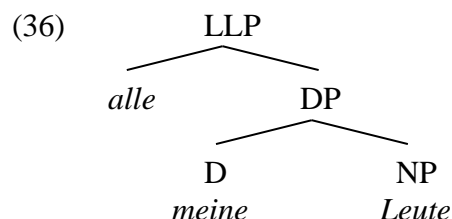
In this section, I discuss the presence and absence of the strong ending on the predeterminer *alle* 'all.' As is well known, both uninflected *all* and inflected *alle* can appear before elements such as possessive determiners (33) or demonstratives (34). There is an interesting restriction such that the co-occurrence of *alle* and a definite article results in slight degradedness (35b).<sup>13</sup> Note that in

<sup>13</sup> Cirillo (2016: 197ff) states that all (b)-examples are marked or even ungrammatical for some speakers. While I agree that (35b) is indeed marked, (33b) and (34b) are completely fine for me. A quick *google*-search has revealed that uninflected *all* is actually less frequent than inflected *alle*. Compare (i) to (ii):

this section, I gloss determiners like *die* ‘the/those’ differently. They are pronounced as [di(:)]; that is, they are monosyllabic. This will become important below.

- (33) a. *all mein-e Freunde*  
all my-ST friends  
‘all my friends’
- b. *all-e mein-e Freunde*  
all-ST my-ST friends  
‘all my friends’
- (34) a. *all dies-e Leute*  
all these-ST people  
‘all these people’
- b. *all-e dies-e Leute*  
all-ST these-ST people  
‘all these people’
- (35) a. *all die Leute*  
all the.NOM people  
‘all the people’
- b. ? *all-e die Leute*  
all-ST the.NOM people  
‘all the people’

In Chapter 2, I proposed that *alle* ‘all’ is in LPP. Not being part of the DP proper at any point, *alle* can neither undergo nor trigger Impoverishment explaining the strong ending on *alle* itself and on the following determiner:




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|      |    |                    |       |
|------|----|--------------------|-------|
| (i)  | a. | <i>all meine:</i>  | 1.4M  |
|      | b. | <i>all diese:</i>  | 16.5M |
| (ii) | a. | <i>alle meine:</i> | 8.8M  |
|      | b. | <i>alle diese:</i> | 21.2M |

These numbers are too large to check every example for relevance. Note though that while there may be many false positives, it is clear that inflected *alle* is fine for many speakers. Note also that it is sometimes claimed that uninflected *all* and inflected *alle* have different semantics (see Merchant 1996: 183 and Kobele & Zimmermann 2012: 249). For some brief discussion, see Chapter 8.

Pafel (1994: 264-266) makes a similar syntactic proposal for inflected *alle* such that this predeterminer selects a DP complement. In contrast, he proposes that uninflected *all* is adjoined to the determiner in D. This is not the place to critique this proposal. What is important for me here is that there is no explanation of the contrast in (35), neither in Pafel's nor in any other work I am aware of. While I cannot provide a detailed account either, I will make a tentative suggestion on the basis of a novel generalization.

This contrast is found in other morphological cases as well, here illustrated with the dative:

- (37) a. *mit all den Leuten*  
 with all the.DAT people  
 'with all the people'
- b. ? *mit all-en den Leuten*  
 with all-ST the.DAT people  
 'with all the people'

If the (lower) DP is replaced by a disyllabic pronoun, not only (37a) but also (37b) is fine now:

- (38) a. *mit all den-en*  
 with all those-INFL  
 'with all those'
- b. *mit all-en den-en*  
 with all-ST those-INFL  
 'with all those'

The obvious difference between a possessive determiner or a demonstrative and a definite article is that the former two are disyllabic, but the latter is monosyllabic. Assuming that LPP constitutes the left periphery of the noun phrase, I can formulate a preliminary version of the relevant generalization:

- (39) *Generalization (preliminary version):*  
 A disyllabic element in the left periphery cannot be followed by a monosyllabic element.

Note that the generalization is silent about sequences starting with a monosyllabic element; that is, it says nothing about the (a)-examples above.

At first glance, one may think that German prefers trochaic feet, which yield a certain phonotactic rhythm in the pronunciation. This seems to be confirmed when three determiner elements are present (40a). However, we have already seen above that two monosyllabic elements do co-occur (*all die*). Furthermore, as pointed out to me by David Fertig (p.c.), the string in (35b) above becomes better with stress on *die* (40b); that is, when *die* functions as a demonstrative (also Pafel 1994: 238):

- (40) a. *all-e dies-e mein-e Freunde*  
 all-ST these-ST my-ST friends  
 ‘all these friends of mine’
- b. *all-e DIE Leute*  
 all-ST those.NOM people  
 ‘all those people’

Note that while *die* is stressed now, it is still a monosyllabic element. Let me interpret multiple syllabicity and stress as related measures of heaviness. In other words, let me assume that multiple syllables in an element, on the one hand, or stress on an element, on the other, leads to heaviness of a word. This groups disyllabic and stressed monosyllabic words together in opposition to unstressed monosyllabic words. With this in mind, I can finalize the generalization as follows:

- (41) *Generalization (final version):*  
 A multisyllabic element in the left periphery cannot be followed by a lighter element.

Put differently, the relevant elements must be of the same weight or the relevant elements must increase in weight from left to right.

It is not clear what the explanation of this phenomenon is. Similar to the phonetic rule above, there is a directionality that goes from left to right. Furthermore, this phenomenon is about overt inflections and stress of certain elements. At this point in the investigation, I can only tentatively suggest that equal or increasing weight of elements facilitates parsing.

This generalization seems to carry over to another case. While judgments are very subtle, there is anecdotal evidence that some speakers find (42) not completely fine. Specifically, when a disyllabic demonstrative is followed by a lighter possessive determiner, the examples are slightly marked for these speakers:

- (42) a. ? *dies-es mein groß-es Glück*  
 this-ST my great-ST happiness  
 ‘this great happiness of mine’
- b. ? *dies-es mein Kleid*  
 this-ST my dress  
 ‘this dress of mine’

Interestingly, in the neuter nominative/accusative, the inflection on the demonstrative *dieses* ‘this’ is optional (43a). When the inflection is absent (43b-c), the examples sound a bit better than the corresponding instances in (42) above:

- (43) a. *dies(-es) Kleid*  
 this-ST dress  
 ‘this dress’

b. (?) *dies mein groß-es Glück*  
 this my great-ST happiness  
 ‘this great happiness of mine’

c. (?) *dies mein Kleid*  
 this my dress  
 ‘this dress of mine’

To the extent that this is correct, this subtle difference between (42a-b) and (43b-c) is now expected given the generalization put forth above.

## 6. Traditional Generalization of Adjectival Inflection: “Weak after Strong”

Let me return to the traditional generalization according to which an adjective with a weak inflection is preceded by a determiner with a strong inflection (for statements along these lines, see Bierwisch 1967: 255f, Gallmann 1998: 144, G. Müller 2002a: 129, Nübling 2011: 178, and many others). In this regard, compare (44a) to (44b):

(44) a. *d-er gut-e Kaffee*  
 the-ST good-WK coffee  
 ‘the good coffee’

b. *ein gut-er Kaffee*  
 a good-ST coffee  
 ‘a good coffee’

This generalization is often more briefly referred to as “weak after strong.”

It is clear that reference to lexical categories like adjective vs. determiner is essential to the formulation of the generalization. As documented above, inflections on elements of the same lexical category are the same. Specifically, independent of the presence or absence of *ein*, an adjective that follows a strong adjective must also be strong (45a). As for determiners, whatever the combination of determiner-like elements is, as long as they appear in the order in (45b), they yield grammatical strings provided all these elements have a strong inflection:

(45) a. *(ein) gut-er frisch-er Kaffee*  
 a good-ST fresh-ST coffee  
 ‘(a) good fresh coffee’

b. *(all-e) (dies-e) (mein-e) Freunde*  
 all-ST these-ST my-ST friends  
 ‘all these friends of mine’

To be clear, “weak after strong” must take the lexical categories of the elements involved into consideration. Note now that this generalization is surface-oriented making reference to the notion of precedence. While I already pointed out in Chapter 2 that this generalization is, in and



of itself, not an explanation, there are also two basic types of exceptions: (i) strong adjectives can be preceded by determiners with a strong inflection; (ii) weak adjectives can be preceded by determiners without a strong inflection.

As already seen above, the first type of exception holds with demonstratives preceding uninflected possessive pronominals: despite the presence of a determiner with a strong inflection, the following adjective is strong (46a). Similarly, Roehrs (2015) discusses complex proper names embedded in a larger nominal where a strong adjective also follows a determiner with a strong ending (46b):

- (46) a. ? *dies-es mein groß-es Glück*  
           this-ST my great-ST happiness  
           ‘this great happiness of mine’
- b. *d-es [ Deutsch-e Bank ] Chef-s*  
      the-ST German-ST Bank boss-GEN  
      ‘the German-Bank boss’

It is clear that any generalization (or proposal, for that matter) of the strong/weak alternation must take structure into account. I argued above that the demonstrative is base-generated in LPP in (46a), and Roehrs (2015) proposes that the article is in a nominal different from that of the complex proper name in (46b). In either case, the determiner does not originate below the adjective, and Impoverishment is not triggered.

As to the second type of exception, weak adjectives routinely occur in the genitive masculine/neuter without a determiner being present (47a); recall that the presence of a Saxon Genitive, an element usually taken to be a determiner(-like item), has no influence on the inflection. Observe that a – what looks like – strong inflection (i.e., *-s*) is present here. Crucially though, this inflection is on an element that follows (but not precedes) the relevant adjective. Second, weak adjectives can be preceded by pronominal determiners, which do not have an inflection in the first and second person (47b). Finally, weak adjectives can also be preceded by uninflected *dies* ‘this’ (47c):<sup>14</sup>

- (47) a. *trotz (Peters) heiß-en Kaffee-s*  
       despite Peter’s hot-WK coffee-GEN  
       ‘despite Peter’s hot coffee’
- b. *wir nett-en Studenten*  
      we nice-WK students  
      ‘we nice students’

---

<sup>14</sup> I will argue in detail in Chapter 4, Section 5 that uninflected *dies* is not based on inflected *dieses* such that the ending *-es* has been deleted. This is presumably different for *die* ‘the/those.’ Note first that the latter element is pronounced [di] as the article or [di:] as the demonstrative and that it has no obvious inflection. One might claim then that this is another exception to the generalization discussed in the main text. However, following the general tradition, I will assume that the vocalic inflection *-e* has been deleted (presumably to avoid a hiatus with the vocalic ending of the stem).

- c. *dies schön-e Kleid*  
 this pretty-WK dress  
 ‘this pretty dress’

Notice that these cases involve regular structures. Above, I argued that Impoverishment Rule 2 is at work in (47a). As for (47b-c), I argued that the feature [+D] on the determiner (but not its inflection) triggers Impoverishment on the adjective.

## 7. Dialectal Variation: Mannheim German

In his critique of Bierwisch (1967), Blevins (1995), Wunderlich (1997), and B. Wiese (1999), G. Müller (2002b) discusses a regional variety of German spoken in and around Mannheim, a dialect that is influenced by the local palatinate variety. For convenience, I will refer to this dialect as Mannheim German. Müller observes that regular nominative masculine forms are used in accusative masculine contexts (data from G. Müller 2002b: 354):

- (48) a. *Ich kenn [ d-er ander-e Mann ].* (Mannheim German)  
 I know the-ST other-WK man  
 ‘I know the other man.’
- b. *Der hat [ ein groß-er Hubser ] gemacht.*  
 he has a big-ST jump done  
 ‘He did a big jump.’
- c. *Ich mag [ gut-er Wein ].*  
 I like good-ST wine  
 ‘I like good wine.’
- d. *Ich seh [ ein-er ].*  
 I see one-ST  
 ‘I see one.’

Müller concludes that all analyses including his own can straightforwardly account for this dialect by deleting a rule or changing the featural specification of a rule. We will see that the current proposal can also explain this variety. Unlike Müller’s discussion, here I will also address the weak inflections and *ein*-words.

Let me start by updating the two inflectional paradigms. Considering (48a), note that the strong and weak ending *-en* in the accusative masculine is replaced by the strong ending *-er* and the weak ending *-e*. The inflectional paradigm of Mannheim German is summarized in Table 7:

Table 7: Strong and Weak Endings in Mannheim German

| <b>STRONG</b> | [-F, -N] | [-F, +N] | [+F, -N] | [+F, +N] | <b>WEAK</b> | [-γ]  | [+F, +N] |
|---------------|----------|----------|----------|----------|-------------|-------|----------|
| [-O, -S]      | -er      | -es      | (-e)     | -e       | [-O]        | (-e)  |          |
| [-O, +S]      | -er      | -es      | (-e)     | -e       |             |       |          |
| [+O, -S]      | -em      | -em      | -er      | {-en}    | [+O]        | {-en} |          |
| [+O, +S]      | -es      | -es      | -er      | -er      |             |       |          |

The rules for vocabulary insertion are updated below. There are three differences to Standard German as regards adjectival inflections: (i) the rule inserting *-en* in the accusative masculine has been deleted, (ii) both rules inserting *-er* have been changed in their feature specifications, and (iii) due to the latter change, these two rules have been reordered using the same specification metrics as above (in Table 8 below, I juxtapose the rule systems of Standard and Mannheim German):

(49) Strong (except for feminine *-e* and plural *-en*):

- a. [+F, +N, +O, +S] → -er
- b. [+F, +N, -O, αS] → -e
- c. [αF, -N, αO, βS] → -er
- d. [-F, +O, -S] → -em
- e. [-F, αO, βS] → -es

(50) Weak (including strong feminine *-e* and plural *-en*):

- a. [-γ, -O] → -e
- b. [] → -en

As regards *ein*-words, the rule that inserts accusative masculine *einen* has been deleted yielding the following insertion rules:

- (51)
- a. [+D; -F, -O] → *ein* / \_\_ word ]<sub>Φ</sub>
  - b. [+D] → *ein*-
  - c. [+F, -N, +O, αS] → -er
  - d. etc.

This adds a fourth difference to Standard German.

With the four adjustments for Mannheim German in mind, the vocabulary insertion rules for the two varieties are juxtaposed in Table 8:

Table 8: Comparison between Standard and Mannheim German

| Standard German                                                                  | Mannheim German                                          |
|----------------------------------------------------------------------------------|----------------------------------------------------------|
| a. [+F, -N, +O, $\alpha$ S] → <i>-er</i><br>[+F, +N, -O, $\alpha$ S] → <i>-e</i> | a. [+F, +N, +O, +S] → <i>-er</i>                         |
| b. [ $\alpha$ F, $\alpha$ N, $\alpha$ O, $\alpha$ S] → <i>-er</i>                | b. [+F, +N, -O, $\alpha$ S] → <i>-e</i>                  |
| c. [-F, -N, -O] → <i>-en</i><br>[-F, +O, -S] → <i>-em</i>                        | c. [ $\alpha$ F, -N, $\alpha$ O, $\beta$ S] → <i>-er</i> |
| d. [-F, $\alpha$ O, $\beta$ S] → <i>-es</i>                                      | d. [-F, +O, -S] → <i>-em</i>                             |
| a. [- $\gamma$ , -O] → <i>-e</i>                                                 | e. [-F, $\alpha$ O, $\beta$ S] → <i>-es</i>              |
| b. [] → <i>-en</i>                                                               | a. [- $\gamma$ , -O] → <i>-e</i>                         |
| a. [+D; -F, -N, -O, +S] → <i>ein-en</i>                                          | b. [] → <i>-en</i>                                       |
| b. [+D; -F, -O] → <i>ein / __ word ]<sub>\Phi</sub></i>                          | a. [+D; -F, -O] → <i>ein / __ word ]<sub>\Phi</sub></i>  |
| c. [+D] → <i>ein-</i>                                                            | b. [+D] → <i>ein-</i>                                    |
| d. [+F, -N, +O, $\alpha$ S] → <i>-er</i>                                         | c. [+F, -N, +O, $\alpha$ S] → <i>-er</i>                 |
| e. etc.                                                                          | d. etc.                                                  |

Given the deletion of one of the rules inserting *-en*, note that all vocabulary insertion rules for adjectival inflections in Mannheim German in (a-e) have the feature [S]. Impoverishment applies as in Chapter 2 but now to all (unambiguously) strong inflections.

To sum up, like the five other analyses, the current system can also account for the regional variety of Mannheim German, including the variation with weak inflections and *ein*-words.

## 8. Conclusion

This chapter continued the discussion of adjectival inflections begun in Chapter 2. Here I focused on variation in the regular DP where both unexpected strong and weak adjectives occur. The strong adjectives are due to something other than structure: the lexical ambiguity of pronominal determiners allows them, the desire to disambiguate (masculine and neuter) gender in the singular prefers them, and the disambiguation of dative vs. accusative case in the plural requires them. If no morphological disambiguation is at issue, a weak adjective is preferred, presumably a reflex of the stereotypical patterns discussed in Chapter 2. The unexpected weak adjectives followed from a phonetic rule, presumably a reflex of phonetic simplification. We arrive then at three different mechanisms that explain the strong/weak alternation. Note though that the three mechanisms overlap: the primary and general mechanism of Impoverishment is masked by the two secondary mechanisms in very specific contexts. The main patterns of Chapters 2 and 3 along with their analyses are summarized in Table 9:

Table 9: Summary Chart

| Construction: Example                                     | Inflection: Analysis                        |
|-----------------------------------------------------------|---------------------------------------------|
| Regular DP: <i>der heiße schwarze Kaffee</i>              | Weak: <i>Impoverishment</i>                 |
| Regular DP: <i>%mit frischem schwarzen Kaffee</i>         | Weak: <i>Phonetic Rule</i>                  |
| Regular DP: <i>mir großem Esel</i>                        | Strong: <i>Disambiguation of Gender</i>     |
| Regular DP: <i>uns nette Schüler</i>                      | Strong: <i>Disambiguation of Case</i>       |
| Regular DP: <i>Dummer Idiot!</i>                          | Strong: <i>Absence of Determiner</i>        |
| Regular DP: <i>Deutscher Ritterorder</i>                  | Strong: <i>Absence of Determiner</i>        |
| Close Appositions: <i>der Indianer Großer Bär</i>         | Strong: <i>Low Right-Adjunction</i>         |
| Indefinite Pronoun Constructions: <i>wer anderer</i>      | Strong: <i>Mid Right-Adjunction</i>         |
| Loose Apposition: <i>wir, begeisterte Linguisten</i>      | Strong: <i>High Right-Adjunction</i>        |
| Dis-agreement in Pronominal DPs: <i>ihr junges Gemüse</i> | Strong: <i>Complex Specifier inside DP</i>  |
| Intensifiers: <i>dieses mein großes Glück</i>             | Strong: <i>Determiner Outside DP Proper</i> |
| Split Topicalization: <i>bunte Hemden ... diese da</i>    | Strong: <i>Separate Base-generation</i>     |

Besides these cases, I also discussed variation on the determiner elements themselves, certain *der*-words and *alle* ‘all.’ In addition, I demonstrated that the generalization “weak after strong” faces a number of problems. Finally, I showed that the current system can be straightforwardly extended to dialectal variation, exemplified here by Mannheim German. The next chapter discusses consequences of the current proposal for other accounts.

## Chapter 4: Consequences for Other Analyses

## 1. Introduction

In this chapter, I turn to some other consequences of the analysis developed in Chapter 2. Unlike the previous chapter, I now consider implications for other proposals. In so doing, I provide more evidence for the hypotheses proposed in Chapter 1. I will consider three types of accounts where adjectival inflections are revealing as regards the proposed structure (Hypothesis 2a). Starting with analyses that seek to account for the presence of spurious articles, I will show that weak adjectives present problems for structures involving Predicate Inversion and for analyses postulating null nouns. Second, discussing discontinuous noun phrases, it will be argued that strong endings on topicalized adjectives are only compatible with split topicalizations being analyzed as the base-generation of two separate nominals but not as movement involving one nominal. Third, returning to weak inflections, I will show that adjectives involving a restrictive or a non-restrictive interpretation have the same basic structure. The discussion of these consequences will document some other properties of adjectival inflections. For instance, I will demonstrate that strong endings are not “referential” but simply serve to make nominal features such as case, number, and gender visible (Hypothesis 2b). I begin with Predicate Inversion and take up the discussion of the other points in the order mentioned above.

## 2. Weak Adjectives in the Context of a Spurious Article

In this section, I discuss two types of analysis that seek to account for the occurrence of spurious articles in Dutch. These proposals involve, on the one hand, Predicate Inversion and, on the other, null nouns. Extending the discussion to German, it is shown that a weak adjective follows the spurious article. Given that both proposals involve structures different from regular DPs, the weak adjective indicates that these types of analysis are not compatible with the system laid out in Chapter 2.

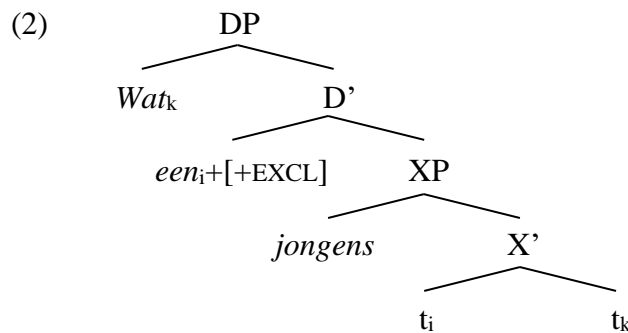
### 2.1. Weak Adjectives in Structures Involving Predicate Inversion

Taking Dutch as their empirical basis, Bennis *et al.* (1998) discuss – what they call – ‘*wat*-exclamative constructions’ (1a). Like some other constructions they investigate (1b), a singular indefinite article occurs with a plural noun. They call this article ‘spurious.’ The article is syntactically obligatory in the first construction but not in the second, where its presence or absence has semantic consequences (data are taken from Bennis *et al.* 1998: 98, 101, see also den Dikken 2006):

- (1) a. *Wat \*(een) jongens!* (Dutch)  
 what a boys  
 ‘What boys!’

- b. *idioten van (een) mannen*  
 idiots of a men  
 ‘idiots of men’

Adopting the general framework of den Dikken (1995), these authors propose a small clause structure with some further functional positions on top. Considering (2) 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. Bennis *et al.* (1998) propose that D is an [+EXCL] operator, and this element 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. The authors interpret this as something similar to the Verb Second Constraint in the clause (their tree diagram on page 106 is slightly adapted here):



The counterpart of the *wat*-exclamative in German is different. First, unlike in Dutch, the prepositional element *für* ‘for’ must be present (3a). Second, the spurious article is not obligatory. In fact, as pointed out in Chapter 1, it seems to be possible in some dialects only (% indicates dialectal variation). Note again that this *ein* has a typical plural ending as seen in an example taken from the Appendix (3b):

- (3) a. *Was \*(für) Mädchen!*  
 what for girls  
 ‘What girls!’
- b. % *Tomboy - Junge, was für ein-e Mädchen!*  
 tomboy - boy what for a-PL girls  
 ‘Tombody – boy, what girls!’

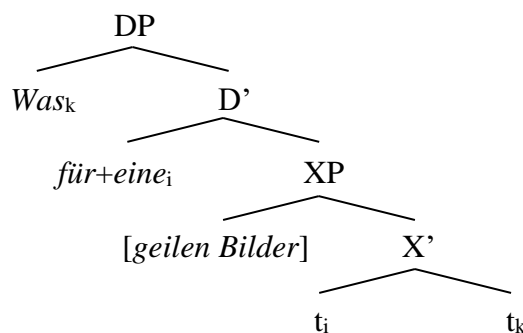
After these preliminary observations, let me return to the main line of investigation. To make these cases relevant, let me determine how an adjective, especially its inflection, fares when that adjective is added to the subject of the small clause.

Inserting an adjective yields an interesting asymmetry. With no determiner present, the adjective has a strong ending (4a). It should be clear that this is expected and follows from the system developed in Chapter 2. When the spurious article is present, the adjective is weak. In fact, all the examples I have found involve weak adjectives only. Consequently, I mark the strong inflection in the attested example in (4b) as ungrammatical:

- (4) a. *Was für geil-e(\*n) Bilder!*  
 what for awesome-ST/\*WK pictures  
 ‘What awesome pictures!’
- b. % *Was für ein-e geil-e\*(n) Bilder wer hat die bloß gemacht*  
 what for a-PL awesome-WK/\*ST pictures who has those PRT made  
 ‘What awesome pictures! Who in the world took those?’

With Bennis *et al.*’s (1998) discussion in mind, the structure for (4b) would presumably look as follows:

(5) *Predicate Inversion*



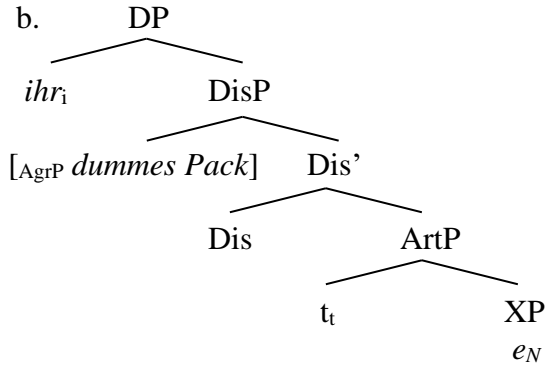
The question that arises now is how to account for the weak ending in (4b), given this structure.<sup>1</sup>

Note that the Predicate Inversion structure above is configurationally identical to pronominal DPs involving dis-agreement. This type of case was discussed in Chapter 2, Section 2.4 and is repeated below as (6). Notice first that both the spurious article and the pronoun move from a lower position to the DP-level. Second and more importantly, in both cases, the adjective and noun form a complex specifier. In other words, unlike regular DPs, the two cases in (5) and (6b) have an additional layer of embedding. However, unlike (4b), the nominal in (6a) involves a strong adjective:

- (6) a. *ihr dumm-e\*(s) Pack*  
 you(PL) stupid-ST/\*WK gang  
 ‘you stupid gang’

<sup>1</sup> In their discussion of *N of a N*-constructions, Bennis *et al.* (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.





As mentioned above, German *ein* exhibits a typical plural ending in these cases. It appears then as if the spurious article morphologically agrees with the plural noun. Now, Bennis *et al.* (1998: 94, 97) explicitly claim that the indefinite article does not form a constituent with the following noun. In their base positions, though, the noun and the indefinite article are in a Spec-head relation. This, for instance, explains certain agreement patterns in English, the grammatical *What a man!*, which involves agreement, and the ungrammatical *\*What a men!*, which does not.

In order to explain the contrast in the plural between English and German, one could assume that English *a* is specified for singular morphological number but that German *ein* is unspecified as regards morphological number: [ $\alpha$ PL morph] (see Chapter 5). Given the assumed Spec-head relation, English *a* is only compatible with a singular noun but German *ein* is with both a singular and plural noun. So far, so good. Note, however, that this Spec-head relation in and of itself does not explain the weak ending on the adjective.

Recall from Chapter 2, Section 2.2 that concord is not a sufficient condition for a weak adjective. What is required is an appropriate structure. As is clear from the above discussion, the Predicate Inversion structure is not a regular DP – the adjective is more deeply embedded. This leaves the occurrence of the weak adjective unexplained. However, one might suggest that the structure in (5) is not correct. For instance, one option might be to assume that there is a null article present in Spec,XP. However, as documented in Chapter 2, null articles occur with strong adjectives (except in the genitive masculine/neuter). In other words, a null article cannot account for the weak adjective either. To keep Bennis *et al.*'s structure, one would need to change the system of Chapter 2 to account for the weak adjectives here.

As a second alternative, one could suggest that the adjective is in a position different from that assumed in (5). Interestingly, for ordinary DPs such as (7a), den Dikken (2006: 49) proposes the structure in (7b), where the adjective is in the specifier position of a Relator Phrase (RP), and the noun is in the complement position of it (non-pronunciation is marked by capital letters):

(7) 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 ordinary cases in Chapter 2 (note that this holds independently of whether or not the adjective is base-generated or moved there). Updating the structure in (5), notice though that the entire RP, which includes the noun in (7b), would form the subject located in Spec,XP. This would yield

essentially the same configuration as in (5). Note also that NumP in (7b) cannot form the subject in (5) as it would involve a null article in the plural, an option that does not explain the weak adjective as already pointed out above. More generally, if one employed an account involving Impoverishment, one would have to find a different structure where the adjective is not part of the small clause subject. If successful, one would then wind up with different structures for modified nouns in *wat*-exclamatives vs. modified nouns in ordinary DPs. This in turn raises other questions.

To sum up this subsection, at best, one could state that the indefinite article in these constructions is not entirely spurious in German. Accepting Bennis *et al.*'s (1998) structure, one would need to modify the analysis in Chapter 2 to account for the weak adjective. This modification should preferably not be a second (construction-specific) mechanism that simply serves to “save” the Predicate Inversion analysis. At worst, the weak ending on the adjective hints at the fact that Bennis *et al.*'s structure is not on the right track (for other issues, see Matushansky 2002). Whatever will turn out to be the case, this discussion reiterates the fact that the inflection of the adjective seems to be closely tied to the structure of the noun phrase as a whole (Hypothesis 2b). If we accept the system laid out in Chapter 2, then we have a means to narrow down the choices of possible analyses of certain constructions.

In the next subsection, I consider another type of analysis that seeks to account for the spurious article. We will see that this type of proposal is also ill-equipped to deal with weak adjectives as discussed in Chapter 2.

## 2.2. *Weak Adjectives in Structures Involving Null Nouns*

Extending earlier work by Leu, later published as Leu (2008a,b), van Riemsdijk (2005) also discusses the spurious article in Dutch. Discussing various constructions, the example in (8) shows a non-*wh*-exclamative ((8) is taken from van Riemsdijk 2005: 165, see also Bennis *et al.* 1998: 92 fn. 7):

- (8) *Die auto heeft een deuken!* (Dutch)  
 that car has a dents  
 ‘That car has dents!’

Unlike the Predicate Inversion analysis, van Riemsdijk argues for the presence of a semi-lexical null noun. He labels this element TYPE. Based on his structure on page 173, the datum in (8) is analyzed as in (9), where !!! stands for an exclamative operator:

- (9) !!!.....[DP [ [D (*een*)] [ DEG [ [<sub>n</sub> TYPE] *deuken* ]]]]

With this in place, let me return to the discussion of the spurious article and a weak adjective in German. Since I have not come across any examples like (8) in German that involve an adjective, I will use a slightly different type of case as the basis for discussion – examples where *so* ‘so’ precedes the indefinite article. As far as I can see, this additional element does not affect the point to be made.

The presence of a null noun allows for a different analysis of the spurious article. Consider (10a), an example taken from the Appendix. Unlike Predicate Inversion, here the ending on *ein* could also be interpreted as feminine. Compare *ein-e* ‘a-FEM’ to *dies-e* ‘this-FEM.’

In order to account for the feminine gender, one could then follow van Riemsdijk in that a null noun with feminine gender is present. Such a noun could have its overt counterpart in German *Art* ‘kind’ (10b). In certain “affective” contexts, this noun would remain unpronounced (10c):

- (10) a. % *ich hab mal so'n-e ferien in den alpen mit ner jugendgruppe gemacht*  
 I have PRT so.a-PL/FEM holidays in the Alps with a youth.group made  
 ‘Once, I had such a vacation with a youth group in the Alps.’
- b. *so eine Art Ferien*  
 so a kind holidays  
 ‘such a kind of holidays’
- c. *so eine ART Ferien*  
 so a TYPE holidays

Note that the presence of a null noun leads to a split of these structures into two subparts, each involving a noun. To be clear, then, the postulation of a null noun involves an analysis different from the Predicate Inversion structure.

Notice, however, that this type of account also faces problems as regards a weak adjective. Considering an attested example with an adjective (11a), there are two ways to analyze this datum as regards the modifier. This is shown in (11b) and (11c), where the null noun follows or precedes the adjective:

- (11) a. % *ihr macht so ne geilen lieder*  
 you make so a awesome songs  
 ‘You compose such awesome songs.’
- b. (\*) *so eine geilen ART Lieder*
- c. (\*) *so eine ART geilen Lieder*

There are strong indications that both analyses in (11b) and (11c) are not correct. Starting with (11b), it is clear that the feminine form *eine* only occurs in the nominative/accusative. I point out that *-en* is not a possible adjective ending, strong or weak, in those instances (it would be *-e*). As for (11c), the adjective is located in the second subpart together with the plural noun. This type of structure is familiar from pseudo-partitive constructions. Let me take this seriously. Löbel (1989) observes in this regard that the second nominal in pseudo-partitives can be in all four morphological cases in German. In light of this, I consider the two types of adjective endings.

Starting with the strong endings, I observe that *-en* can only occur in the dative plural (the strong endings in the other cases are *-e* or *-er*). In the dative plural, the head noun usually takes *-n* (e.g., *mit geilen Lieder-n* ‘with awesome songs’). Crucially though, *Liedern* is not at all possible in (11a). This means that *geilen* cannot be in the dative plural and thus cannot be strong. If so, then *geilen* should be weak in these instances.

Note first that the weak ending *-en* occurs in all cases in the plural. As argued in Chapter 2, this implies the presence of a determiner triggering Impoverishment. However, *geilen* in (11c) does not have its own relevant determiner (recall again that a null determiner, arguably present in

(11c), does not trigger Impoverishment). This leaves the weak inflection unexplained. I conclude then that the presence of a null feminine noun cannot explain (11a). In other words, weak adjectives also present a problem for this type of analysis (for other issues, see Corver & van Koppen 2011: 6 fn. 6, 69 fn. 24).

In order to explain the weak adjective in the current system, it is clear that the indefinite article and the adjective must form a regular DP. It is also worth pointing out that for Impoverishment to be triggered, the spurious article (or its feature bundles) cannot be inserted late in the derivation. This applies to all types of analyses. While I cannot fully discuss all these constructions here, note that they are, in some sense, “affective” or “emotive.” As such, there should be a separate condition that licenses the occurrence of the overt plural indefinite article in these contexts. I briefly return to this in Chapter 8 suggesting that *ein* can flag covert operators.

Let me summarize the last two subsections. I claimed in Chapter 2 that inflections are related to abstract structure. If correct, this, in turn, narrows down the options of possible structural analyses of nominals. I have documented above that overt plural indefinite articles are followed by weak adjectives. It was pointed out that the latter pose a challenge for accounts involving Predicate Inversion or null nouns. This means that either the latter two analyses need to be changed or that the account in Chapter 2 needs to be modified. Importantly, the discussion of Chapter 2 has other interesting consequences. Thus, I will continue assuming that the current analysis is on the right track. In the next section, I discuss strong adjectives that raise issues for certain analyses of split topicalization.

### 3. Strong Adjectives in Structures Involving Split Topicalization

Discontinuous phrases have received much attention in the literature. German is interesting in that it allows the lower part of a noun phrase to be left dislocated. Compare (12a) to (12b). The topicalized element in (12b) functions as a contrastive topic and the lower nominal forms a focus. These two parts are related by a “bridge intonation contour:”

- (12) a. *Ich habe keine Bücher gelesen.*  
           I have no books read  
           ‘I have read no books.’
- b. */BÜcher habe ich KEI\ne gelesen.*  
       books have I none read.  
       ‘As for books, I have read none.’

To establish some terminology, I refer to this construction as ‘split topicalization,’ to the left nominal as ‘split-off,’ and to the right one as ‘source.’ This type of construction is characterized by a number of properties that indicate both movement and separate base-generation. With current purposes in mind, I will focus on the behavior of adjectives.

Van Riemsdijk (1989: 122) observes that the linear order of the adjectives in split topicalizations corresponds to the one without a split. Compare the sequences of adjectives in the unsplit examples in (13) to those in the split ones in (14):

- (13) a. *ein neues amerikanisches Auto*  
a new American car  
‘a new American car’
- b. \* *ein amerikanisches neues Auto*  
a American new car
- (14) a. ***Ein amerikanisches Auto*** kann ich mir ***kein neues*** leisten.  
an American car can I REFL no new afford  
‘As for an American car, I cannot afford a new one.’
- b. \* ***Ein neues Auto*** kann ich mir ***kein amerikanisches*** leisten.  
an new car can I REFL no American afford

This can be straightforwardly explained under a movement analysis. In Section 3.4, I turn to the discussion of *ein* in the split-off (14a) showing that this element cannot be inserted late.

In contrast, adjectival inflections differ in regular and discontinuous noun phrases. In particular, the adjective in a regular, unsplit DP is weak (15a). However, if the adjective is topicalized, it must be strong (15b):

- (15) a. *Ich habe kein-e bunt-en Blumen gekauft.*  
I have no-ST multi-colored-WK flowers bought  
‘I have bought no multi-colored flowers.’
- b. ***Bunt-e Blumen*** habe ich ***kein-e*** gekauft.  
multi-colored-ST flowers have I none-ST bought  
‘As for multi-colored flowers, I have bought none.’

With Chapter 2 in mind, I point out that the weak ending in (15a) shows that Impoverishment has taken place. The strong ending in (15b) indicates that Impoverishment has not occurred. This implies that either the structure is different or no determiner is present (or both). Crucially, notice that late separation, that is, building a regular DP and then moving the lower part out would bring about a (wrong) weak ending. However, a strong ending on an unpreceded adjective is exactly what one expects if the two noun phrases are base-generated independently of each other – here the structure is different, and there is or was no relevant determiner in the split-off.

To be clear, then, discontinuous DPs exhibit paradoxical properties in the behavior of adjectives in German – they indicate both movement and separate base-generation (for paradoxical properties not related to adjectives, for instance, see Roehrs 2011, Ott 2011a). In what follows, I discuss these two types of analysis in more detail (see also van Hoof 2006 and references cited therein). On the one hand, I will show that movement involving one noun phrase faces problems in the account of strong adjectives. On the other hand, it will be demonstrated that the base-generation of two independent noun phrases is completely compatible with the discussion in Chapter 2.

### 3.1. Movement out of the Source

Van Riemsdijk (1989) and Bhatt (1990: 249-250) argue for movement of the split-off out of the source. Adopting the DP-hypothesis, the above data can be analyzed as follows (see also Pafel 1995, Murphy 2018):

- (16) a. *Ein amerikanisches Auto kann ich mir kein neues leisten.*  
 an American car can I REFL no new afford  
 ‘As for an American car, I cannot afford a new one.’
- b. [ *Ein amerikanisches Auto* ]<sub>i</sub> kann ich mir [DP *kein neues* [ t<sub>i</sub> ]] leisten..

To explain the presence of *ein* in the split-off, it is assumed that this element is inserted later in the derivation. As briefly discussed above, this analysis immediately explains the restrictions on the sequence of adjectives:<sup>2</sup>

- (17) a. \* *ein amerikanisches neues Auto*  
 a American new car
- b. \* *Ein neues Auto kann ich mir kein amerikanisches leisten.*  
 an new car can I REFL no American afford

However, under these assumptions, the change of the adjective ending from weak to strong becomes mysterious:

- (18) a. *Ich habe kein-e bunt-en Blumen gekauft.*  
 I have no-ST multi-colored-WK flowers bought  
 ‘I have bought no multi-colored flowers.’
- b. [ *Bunt-e Blumen* ]<sub>i</sub> habe ich [DP *kein-e* [ t<sub>i</sub> ]] gekauft..  
 multi-colored-ST flowers have I none-ST bought  
 ‘As for multi-colored flowers, I have bought none.’

If the entire noun phrase is assembled first, which is then followed by movement of the split-off, then it is not clear how a strong ending can come about. As documented in Chapter 2 and Chapter 3, Section 6, a simple surface-oriented account of the strong/weak alternation will not suffice.<sup>3</sup> In contrast, a strong ending on an unpreceded adjective is exactly what one would expect if the two noun phrases were independent of each other; that is, these elements were not related by movement.

To drive this point home, note that two related adjectives may show different inflections when split up such that the adjective in the source is weak, but the adjective in the split-off is strong (cf. Haider 1993: 215 for similar data). Compare (19a) to (19b):

<sup>2</sup> The judgments in (17) are not uncontroversial and probably too strong (see Fanselow & Cavar 2002: 79-80, Ott 2011a: 30).

<sup>3</sup> Note that proponents of this and other structures of split topicalization do usually not provide (m)any details of their account of the strong/weak alternation.

- (19) a. *Ich habe kein-e groß-en bunt-en Blumen gekauft.*  
 I have no-ST big-WK multi-colored-WK flowers bought  
 ‘I have bought no big multi-colored flowers.’
- b. *Bunt-e Blumen habe ich kein-e groß-en gekauft.*  
 multi-colored-ST flowers have I no-ST big-WK bought  
 ‘As for multi-colored flowers, I have not bought any big ones.’

Given the discussion in Chapter 2, a movement analysis cannot account for the different endings on the two adjectives. This is particularly clear since the underlyingly higher adjective (*groß* ‘big’) is weak, but the underlyingly lower adjective (*bunt* ‘multi-colored’) is strong. With the determiner having moved to the DP-level in the source, all adjectives should have the same inflection if this involved one nominal split up by subsequent movement.<sup>4</sup>

### 3.2. Movement but not out of the Source

Fanselow and Ćavar (2002) hypothesize that split topicalizations involve movement but crucially *not* out of the DP to be split up. As a technical implementation, they argue for a different type of account adopting the copy-and-delete approach to movement (Chomsky 1995). Moving the entire DP, they propose that deletion may affect *both* copies. Glossing over some of the details here, they suggest that the determiner is deleted in the higher copy and the head noun in the lower one. This derives (20a) as in (20b):

- (20) a. *Wagen hat er sich noch k-einen leisten können.*  
 car has he REFL yet NEG-one afford could  
 ‘As for a car, he has not been able to afford one.’
- b. {~~einen~~ Wagen} hat er sich noch k- {einen ~~Wagen~~} leisten können

Note that these authors treat *keinen* ‘no/none’ as a composite form consisting of negative *k-* and the indefinite article *einen* (Chapter 5).

At first glance, this analysis of distributed deletion seems to receive strong confirmation from the fact that the deletion of the higher copy of the determiner may, under certain conditions, be suspended, deriving (21a) as in (21b):

<sup>4</sup> There is another type of analysis involving movement out of the source. Tappe (1989) argues for a combination of different base-generations and movement. In particular, the split-off is base-generated in Spec,CP, and the source is base-generated in situ. The lower part of the source is proposed to move into the complement position of the split-off. The example in (1a) is derived as in (1b):

- (i) a. *So\*(’nen) Wagen kann ich mir keinen leisten*  
 such a car can I REFL none afford  
 ‘As for such a car, I cannot afford one.’
- b. [DP so ’nen [NP Wagen]<sub>i</sub>] kann ich mir [DP keinen t<sub>i</sub>] leisten

This proposal leads Tappe to revise standard assumptions about chains, which raises other issues.

- (21) a. *Einen Wagen hat er sich noch k-einen leisten können.*  
 a car has he REFL yet NEG-one afford could  
 ‘As for a car, he has not been able to afford one.’
- b. {einen Wagen} hat er sich noch k- {einen ~~Wagen~~} leisten können

However, upon closer inspection, it turns out that both determiners do not have to be the same (22a). In fact, when the determiner in the source is definite, the one in the split-off cannot be definite (22b):

- (22) a. *Einen Wagen hat er sich nur diesen leisten können.*  
 a car has he REFL only this afford could  
 ‘As for a car, he has only been able to afford this one.’
- b. \* {*Diesen / Den*} Wagen hat er sich nur *diesen* leisten können.  
 this / the car has he REFL only this afford could

Now, if a copy-and-delete type of analysis were correct, one would expect the grammaticality judgments in (22) to be the reverse. One might suggest then that this type of contrast could be handled by repair rules. However, in Section 3.4, we will see that there is some indication that *ein* in (22a) is not due to some process of “late” insertion.

Returning to the main line of argument, we can observe that this type of proposal is not compatible with the analysis of adjectival inflections in Chapter 2 either. Specifically, constructing a regular DP first (*keine bunten Blumen* ‘no multi-colored flowers’), one would expect the weak ending *-en* on a split-off adjective, contrary to fact. This holds independently of whether or not *keine* is treated as a composite (23b) or not (23c):

- (23) a. *Bunt-e Blumen habe ich kein-e gekauft.*  
 multi-colored-ST flowers have I none-ST bought  
 ‘As for multi-colored flowers, I have bought none.’
- b. (\*) {~~eine~~ bunt-en Blumen} habe ich k- {ein-e ~~bunten-Blumen~~} gekauft.
- c. (\*) {~~keine~~ bunt-en Blumen} habe ich {kein-e ~~bunten-Blumen~~} gekauft.

As mentioned already above, a surface-oriented explanation of the strong ending will not be enough. In view of these and some other issues (e.g., the licensing of Negative Polarity Items, see Bosse 2009: 278), a different technical implementation is called for.

### 3.3. *Separate Base-generation*

Some alternative analyses take as their point of departure Fanselow and Cavar’s (2002) generalization that split topicalizations involve movement but crucially *not* out of the DP that surfaces in two separate parts. Specifically, these proposals involve the base-generation of two separate nominals in the VP and moving one of them (or both) to the left. I agree with this assessment, and as far as I am aware, a consensus seems to be emerging that this is indeed the

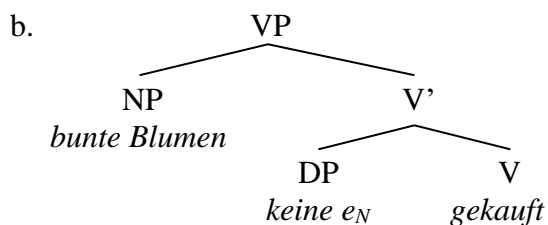


correct characterization of the facts. There have been several proposals to make this idea concrete.

Specifically, Bosse (2009) proposes an analysis where she links split topicalizations to Restrictive Elliptical Appositives (Riemsdijk 1998b). Ott (2011a) argues for an account that involves breaking up a symmetric bare-predication structure. Third, Roehrs (2011) also argues for the base-generation of two separate nominals. While all three analyses are compatible with the discussion in Chapter 2, let me, for concreteness, illustrate this with the third analysis in some detail.

Basing the following account on Fanselow (1988), Roehrs (2011) proposes that there is a division of labor between the syntax and the semantics. In particular, it is suggested in that paper that split topicalizations involve the separate base-generation of an argumental DP and a predicative part in the same local domain, the VP. The argumental part contains an empty noun ( $e_N$ ). The initial stage of the derivation of (24a) is illustrated in (24b):

- (24) a. *Bunt-e Blumen habe ich kein-e gekauft.*  
 multi-colored-ST flowers have I none-ST bought  
 ‘As for multi-colored flowers, I have bought none.’



Both the argumental part and the predicate nominal undergo movement to the left. The DP moves for case, the NP is topicalized. Assuming that the overt nominal in Spec,CP and  $e_N$  are of the same semantic type  $\langle e, t \rangle$ , the “unsaturated” overt predicate in Spec,CP is closed off by interpreting it in  $e_N$  of the argumental DP filling  $e_N$  with semantic content at the same time.

Returning to inflection, both nominals involve regular structures with the adjective in Spec,AgRP. It is clear though that the adjective is in a nominal different from that of the determiner, and as such Impoverishment does not occur. As a consequence, the CNG bundle is not reduced, and it is spelled out as the strong ending. This gives the desired result. More generally, proposals involving separate base-generation are fully compatible with the analysis in Chapter 2. Let me briefly return to the discussion of *ein*.

### 3.4. Ein in the Split-off

We have seen in the first two sections of this chapter that *ein* is not entirely spurious in that it triggers a weak ending on a following adjective. This means that *ein* (or its feature bundles) cannot be inserted late. There is independent evidence for this conclusion. It derives from indefinite pronoun constructions occurring as split topicalizations.

As illustrated in Chapter 2, adjectives can follow an indefinite pronoun (25a). Interestingly, an adjective preceded by an indefinite article cannot (25b):

- (25) a. *etwas Amerikanisches*  
 something American  
 ‘something American’
- b. \* *etwas ein Amerikanisches*  
 something an American

At first glance, one might claim that this is a phonetic restriction such that the pronoun and *ein* cannot be adjacent. However, consistent with (26b), split topicalizations formed on the indefinite pronoun construction cannot involve *ein* in the split-off either. Compare (26a) to (26b):

- (26) a. **(Ein) amerikanisches** hat er sich nur **eins** leisten können.  
 an American has he REFL only one afford could  
 ‘As for American ones, he has been able to afford only one.’
- b. **(\*Ein) Amerikanisches** hat er sich *etwas* leisten können.  
 an American has he REFL something afford could  
 ‘As for American stuff, he has been able to afford something.’

Considering *nichts* (*\*ein*) *Amerikanisches* ‘nothing American,’ the same facts hold if the source involves a negative element:

- (27) a. **(Ein) amerikanisches** hat er sich noch **keins** leisten können.  
 an American has he REFL yet none afford could  
 ‘As for American ones, he has not been able to afford one yet.’
- b. **(\*Ein) Amerikanisches** hat er sich noch **nichts** leisten können.  
 an American has he REFL yet nothing afford could  
 ‘As for American stuff, he has not been able to afford anything.’

In view of the ungrammaticality induced by *ein* in (26b) and (27b), a phonetic restriction cannot explain all the ungrammatical cases. Unlike (25b), the pronoun and *ein* are not adjacent in (26b) and (27b). Furthermore, if *ein* were inserted late (i.e., in PF), the local context of *ein* inside the split-off would be the same – an adjective follows *ein* in the grammatical and ungrammatical cases of (26) and (27). Rather, the difference between these cases seems to be located in the source: the pronominal forms *eins* and *keins* tolerate *ein* in the split-off, but the inherent pronouns *etwas* and *nichts* do not.

Above, I suggested that the split-off is related to the source by interpreting the former inside the latter. Note that interpretation occurs at LF (and not PF). Now, pronominal forms (*eins*, *keins*) presumably involve an internal makeup different from inherent pronouns (*etwas*, *nichts*). While there are several options to implement this idea, it seems clear that interpreting the split-off containing *ein* inside the source is compatible with the makeup of pronominal forms but that this is, for some reason, not compatible with the makeup of the inherent pronouns.<sup>5</sup> Be that

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<sup>5</sup> One idea to make this more concrete is to assume that DPs and smaller elements can be interpreted in  $e_N$  of the pronominal forms but that DPs are too large to be interpreted inside the inherent pronouns – only smaller elements

as it may, it seems clear that the presence of *ein* is not a late phenomenon in (26b) and (27b). If so, then the occurrence of *ein* in (26a) and (27a) cannot be a PF phenomenon on parity of assumption.

To sum up, I have demonstrated that split topicalizations are only compatible with the analysis of Chapter 2 if they involve two separate base-generations (but not if they involve movement out of the DP). Next, let me briefly turn to adjectival inflections in the context of semantic concepts such as the (non-)restrictiveness of the interpretation of adjectives and referentiality. In keeping with the current discussion, we will see that the inflected adjectives are in their regular positions (i.e., Spec,AgrP) and that the inflections themselves make no semantic contribution in German.

#### 4. Weak Adjectives with Non-restrictive Interpretation

As documented in detail in Chapter 2, adjectives are usually weak if they follow a determiner. Note that these types of examples can actually have two interpretation. The restrictive interpretation of the adjective is given in the translation line in (28a), and the non-restrictive interpretation is provided in that of (28b). The latter is clearly brought out by the addition of *übrigens* ‘by the way’ and is sometimes called a by-the-way remark:<sup>6</sup>

- (28) a. *der alt-e Mann*  
the old-WK man  
‘the man that is old’
- b. *der (übrigens) alt-e Mann*  
the incidentally old-WK man  
‘the man, who is (by the way) old’

With the above analysis of weak endings in mind, this implies that both restrictive and non-restrictive interpretations involve the same basic (regular) structure to which Impoverishment has applied. In other words, (inflected) non-restrictive adjectives cannot be inserted late, that is, after Impoverishment has occurred. Rather, I suggest that the structure of non-restrictive adjectives involves an additional lexical element.

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can do so. Alternatively, in the second part of the book, I argue that *ein* flags the presence of a null operator. If so, it might turn out that it is actually this null operator that is incompatible with inherent pronouns.

<sup>6</sup> In other languages, the strong/weak alternation of the adjective does indicate a difference in restrictive interpretation. In Icelandic, adjectives with a weak ending are restrictive in interpretation (ia), but adjectives with a strong ending are non-restrictive (ib) (see Delsing 1993: 132 fn. 25; Thráinsson 1994: 166, 2007: 3, 89; Sigurðsson 2006: 200 fn. 3; Pfaff 2015):

- (i) a. *gul-i bill-inn* (Icelandic)  
yellow-WK car-DEF  
‘the car that is yellow’
- b. *gul-ur bill-inn*  
yellow-ST car-DEF  
‘the car, which is yellow’

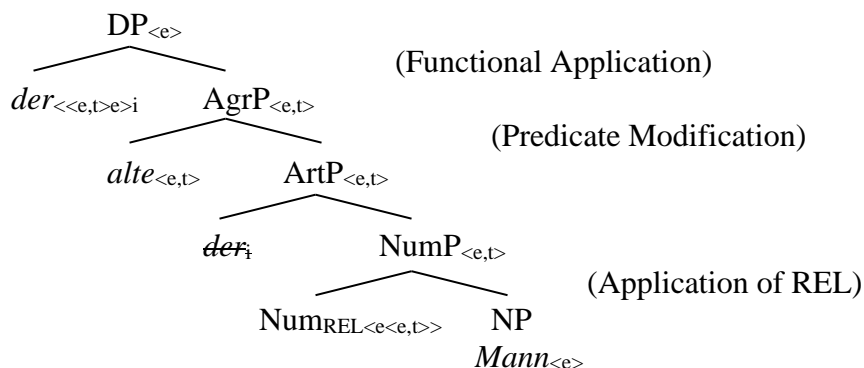
In Roehrs (2009a: 104), I proposed that the main structural difference between the restrictive and the non-restrictive interpretation involves the absence or presence of a null co-indexed *pro*. This can be schematically represented as follows:

- (29) [ *der* [ (*pro*<sub>i</sub>) *alte* ] *Mann* ]<sub>(i)</sub>  
           the           old    man

In order to account for the uniform inflectional behavior of the adjective, let me be a bit more specific about the relevant structures and derivations. With the focus on the morpho-syntax, I will only briefly discuss the semantics (for the denotations, see Roehrs 2009a: Chapter 3). I start with the case involving a restrictive interpretation.

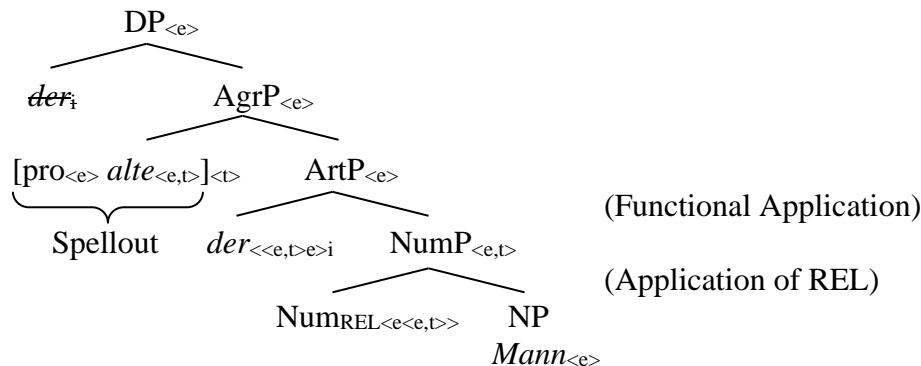
Recall from Chapter 2 that the determiner moves from below the adjective to the DP-level (30). Given this structure and the presence of a determiner, Impoverishment occurs bringing about the weak ending on the adjective. As to the semantics, I assume that kind nouns are of type  $\langle e \rangle$ . Following de Swart *et al.* (2007), I will argue in Chapter 6 that a kind noun combines with the realization operator REL (type  $\langle e \langle e, t \rangle \rangle$ ) to yield a predicate (type  $\langle e, t \rangle$ ). This predicate combines with the adjective by Predicate Modification. The resulting conjunction of the two predicates is combined with the determiner (type  $\langle \langle e, t \rangle e \rangle$ ) by Functional Application yielding an individual (type  $\langle e \rangle$ ):

- (30) *Restrictive Interpretation*



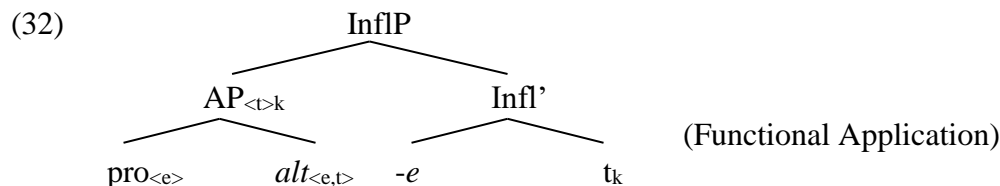
The structure of the non-restrictive reading is basically the same. Unlike above, however, the determiner is interpreted in its base-position; that is, the adjective is outside the scope of the determiner (31). Proceeding bottom-up, the low copy of the determiner combines with the predicate noun in a regular way yielding an element of type  $\langle e \rangle$ . In order for this resultant nominal to combine with a clausal predicate (type  $\langle e, t \rangle$ ), I will adopt a model of multiple semantic spell-out, whereby the higher by-the-way remark is sent off for interpretation separately (for details, see Roehrs 2009a: 102ff). More specifically, this remark consists of the adjective and *pro*. These two elements combine by Functional Application yielding a truth value (for details, see further below). After this nominal is sent off, the remaining nominal can combine with a clausal predicate (not shown here):

(31) *Non-restrictive Interpretation*



Recalling that *pro* and *der Mann* ‘the man’ are coindexed, the expression involving *pro* and the adjective is interpreted as an additional, non-restrictive remark about *der Mann*, something along the lines of ‘the man – he is old.’ To be clear then, the determiner in both cases has moved to the DP in syntax triggering Impoverishment. However, it is interpreted in different positions at LF. Consider the internal structure of the modifier in Spec, AgrP above in more detail.

Recall from Chapter 2, Section 3.3 that adjectives involve extended projections. In particular, I suggested there that they consist of an adjective stem at the bottom and an inflectional head at the top. In order for the stem to combine with its inflection, the stem along with its dependents moves to Spec, InflP. The minimal structure is as follows:



Semantically, the pronominal element *pro* (type  $\langle e \rangle$ ) combines with the adjective by Functional Application yielding a truth value (type  $\langle t \rangle$ ). This is the desired result.

Note now that independent of the presence of *pro*, Impoverishment can occur in a local fashion, namely on the highest head of the extended projection of the adjective. In other words, given this structure, Impoverishment is compatible with different interpretations of the adjective. If this is accepted, then I can continue to claim that weak adjectival inflections indicate one and the same structural constellation and are independent of the semantics (Hypothesis 1a). Finally, I turn to a case where an adjectival inflection seems to be related to referentiality.

## 5. Adjectival Endings Make Nominal Features Visible

Adjectival inflections occur on determiners and adjectives but not, for instance, on verbs. It is clear that they are nominal in nature. Above, I argued that they are semantically vacuous. I demonstrated that adjectival inflections do not indicate, or are a reflex of, (in-)definiteness or (non-)restrictiveness in interpretation. Considering certain other data, there is another possible semantic concept they could be associated with.

Alexiadou *et al.* (2011: 31) point out that inflected *dieses* ‘this’ is an anaphor for noun phrases only, but uninflected *dies* ‘this’ is an anaphor for both noun phrases and clauses. Compare (33a) to (33b) (data slightly adapted; see also Helbig & Buscha 2001: 229-230):

- (33) a. *Hans hat ein rotes Buch. {Dies-es / Dies} war sehr teuer.*  
 Hans has a red book. this-ST was very expensive  
 ‘Hans has a red book. It was very expensive.’
- b. *Daß Maria bereits angekommen ist, {\*dieses / dies} weiß ich genau.*  
 that Mary already arrived is this know I well  
 ‘I am positive that Mary has already arrived.’

Given the above data, one might claim that these demonstratives are semantically different in that inflected *dieses* must have a noun phrase as its antecedent, but uninflected *dies* is less restricted and tolerates both a noun phrase and a clause. Now, as these two elements differ in inflection, one might suggest further that adjectival endings have or are sensitive to the semantics after all. In particular, since inflected *dieses* can only refer back to noun phrases, one might claim that inflectional endings are “referential” in some sense. I believe this possible interpretation of the facts is not correct.

It is well known that adjectival inflections are obligatory when the hosting element is declinable and occurs in an anaphoric context (cf. Roehrs 2011, Murphy 2018). Compare the base structures in (34) to the anaphoric contexts in (35):

- (34) a. *ein lila(-nes) Kleid*  
 a purple-INFL dress  
 ‘a purple dress’
- b. *zehn Kleider*  
 ten dresses  
 ‘ten dresses’
- (35) a. *Da waren viele bunte Kleider. Ich kaufte ein lila\*(-nes).*  
 there were many multi-colored dresses I bought a purple-INFL  
 ‘There were many multi-colored dresses. I bought a purple one.’
- b. *Da waren viele Kleider. Ich kaufte zehn.*  
 there were many dresses I bought ten  
 ‘There were many dresses. I bought ten.’

If this holds more generally, then there is an interesting consequence. If the inflection on *dies* were indeed optional, then one would expect it to be present in (33a) on par with (35a). This, however, is not the case. In order to explain the possible absence of the ending on *dies* in (33a), we have to assume that there are actually two independent elements, a declinable *dieses* and an indeclinable *dies*. In other words, we cannot simply assume that *dies* is based on *dieses* such that the ending has been deleted in PF (see Gallmann 2004: 154 fn. 3, Roehrs 2009a: 159 fn. 33, cf. also G. Müller 2002a: 117 fn. 8).

Above, I argued that the source of a split topicalization contains a null noun. I assume the same for the demonstrative elements in anaphoric contexts. I propose that the structure of the demonstrative for the nominal case in (33a) is as in (36a). As for the clausal instance in (33b), I assume for concreteness that the demonstrative combines with a propositional element, here illustrated with TP (36b):

- (36) a. [DP {*dieses* / *dies*} [NP e<sub>N</sub> ]]  
 b. [DP {\**dieses* / *dies*} [TP e<sub>T</sub> ]]

Starting with *dies*, note again that this demonstrative element is inflectionless. I propose that this element is not subject to conditions such as concord, and it is fine in both nominal and clausal contexts. Turning to *dieses*, observe now that *-es* is a neuter inflection. Given the presence of a null noun in (36a), the inflection on *dieses* is licensed by concord, and it makes the CNG features visible. Consequently, this demonstrative can be part of a nominal anaphor. In order to explain the ungrammaticality of *dieses* in (36b), I suggest that the nominal features of the inflectional ending on the demonstrative cannot be licensed as there is no noun present. Consequently, *dieses* cannot serve as a propositional anaphor.<sup>7</sup>

Returning to the main line of argument, I propose that the different semantic restrictions and the varying morphology result from the element following *dies(es)*, either a null nominal (36a) or a null clausal element (36b). If so, I can maintain the claim that adjectival endings are semantically vacuous (Hypothesis 1a). They are licensed in certain contexts and serve to make nominal features such as case, number, and gender visible (Hypothesis 2b). There is an interesting consequence of this discussion.

Returning to the distribution of inflections on adjectives, the two forms of the demonstrative, *dies* and *dieses*, can only take a weak adjective, with the proviso that *dies* only occurs in the nominative and accusative singular:

- (37) *dies(-es) schön-e Kleid*  
 this-INFL pretty-WK dress  
 ‘this pretty dress’

If *dies* and *dieses* are indeed two separate elements, then the weak inflection on the following adjective is not a function of the preceding strong ending but rather of the preceding determiner. Note in this regard that both *dieses* and *dies* involve the feature [+DEF], a context where [+D] triggers Impoverishment. More generally, this makes *dies* similar to pronominal determiners such as *wir* ‘we’ as already discussed in Chapter 3, Section 6.

Finally, recall from Chapter 2 that *ein*-words can involve pronominal forms too. Exemplifying with *ein*, this element is different in certain ways. Similar to *dies(es)*, *ein* can also occur in an anaphoric context (38). Unlike *dies(es)*, *ein* must have an ending:

<sup>7</sup> There are dialects that do not make this difference; that is, *dieses* is also possible as a propositional anaphor (see, e.g., Duden 1995: 336, Griesbach & Schulz 1965: 148). I assume that in these dialects, the licensing conditions of the neuter inflection are different; for instance, neuter gender could be licensed as a default option.

- (38) *Zwei Männer standen auf der Straße. Ein-\*(er) von ihnen kam zur Tür.*  
 two men stand in the street one-ST of them came to.the door  
 ‘Two men were standing in the street. One of them came to the door.’

Assuming the presence of a null noun, I conclude that there can be only one type of *ein* functioning as a determiner. This is what I proposed in Chapter 2, Section 3.2.1. Second, like the inflection on *dieses* and other elements, the ending on *ein* makes nominal features visible. In the next chapter, I discuss *ein* in more detail. We will see that there are actually two types of *ein*. One type of *ein* is a determiner as in (38); the other is an adjective that follows definite determiners and crucially is not related to the article *ein*.

## 6. Conclusion

In this chapter, I turned to four consequences of the analysis laid out in Chapter 2. I discussed two influential types of proposals of spurious articles – Predicate Inversion and null nouns. I argued that the weak endings on adjectives in these structures do not follow from the system developed in Chapter 2. This means that we either have to modify the present account or change aspects of the other proposals. It seems clear, however, that the plural indefinite article in German is not entirely spurious in these constructions.

Next, I turned to some consequences for the discussion of discontinuous noun phrases. Illustrating some paradoxical properties, I showed that analyses postulating movement that involve one underlying noun phrase cannot account for the strong adjective in the split-off under current assumptions. In contrast, accounts involving the base-generation of two separate underlying nominals and subsequent movement are completely compatible with the analysis of Chapter 2. I also provided evidence that *ein* (or its feature bundles) cannot be inserted late.

Finally, I suggested that non-restrictive adjectives have a similar structural analysis as restrictive ones, the main difference being the presence of a null co-indexed pronoun in the former. In other words, inflectional endings do not signal (non-)restrictiveness of the interpretation of adjectives. In a similar vein, I argued that adjectival inflections are not tied to concepts like referentiality but make nominal features like case, number, and gender visible (Hypothesis 2b).

More generally, I can maintain the claim that adjectival endings are a reflex of the structure (Hypothesis 1b) but not of the semantics (Hypothesis 1a). Furthermore, besides clues about the structural sizes of the nominals involved, the discussion of Predicate Inversion has shown in more detail that the degree of the embedding of the adjective is important for the account of the strong/weak alternation (Hypothesis 2a). In the next chapter, I turn to the discussion of *ein* in more detail. We will see that *ein* shares some of the properties of adjectival inflections.



## Chapter 5: *Ein*-words and Adjectival *eine*

### 1. Introduction

In this chapter, I turn to the main hypotheses about *ein*, formulated in Chapter 1 and repeated here for convenience. Recall that (1b) can be fleshed out as in (2a):

- (1) *Hypothesis 1*  
Adjectival inflections and *ein*:
  - a. are expletive elements and
  - b. indicate abstract structure in the noun phrase.
- (2) *Hypothesis 3*  
*Ein*:
  - a. indicates abstract structure in the lower layers of the noun phrase (NP vs. ArtP), and
  - b. it supports overt semantic operators (e.g., NEG *k-*) and flags the presence of covert semantic operators (e.g., TYPE).

I start with some general considerations and basic data.

#### 1.1. Preliminaries and Basic Data

As amply illustrated above, German noun phrases have determiners. For instance, depending on the context, a singular noun may occur with the appropriate form of the indefinite article. The latter is often reduced in speech (3a). This reduction of the stem from *ein* to *n* is marked by parentheses or apostrophe below. Alternatively, such a noun can surface with the definite article or its (almost) homophonous demonstrative counterpart (3b) (the ambiguous status of *die* as the article ‘the’ or the demonstrative ‘that’ is indicated as DET(erminer) in the gloss):

- (3) a. *(ei)ne Freundin*  
a girlfriend  
‘a girlfriend’
- b. *die Freundin*  
DET girlfriend  
‘the / that girlfriend’

As is well known, indefinite and definite determiners cannot co-occur. This applies to both reduced and unreduced indefinite articles as well as to definite articles and demonstratives (for (5b) below, see Pafel 1994: 251; I discuss the unreduced form of *eine* following definite determiners below):

- (4) a. \* *(ei)ne (ei)ne Freundin*  
           an    a       girlfriend
- b. \* *(ei)ne die Freundin*  
           an    DET girlfriend
- (5) a. \* *die die Freundin*  
           DET DET girlfriend
- b. \* *die 'ne Freundin*  
           DET a   girlfriend

The same distributional restrictions hold if the simple demonstrative *die* ‘that’ is replaced by the complex demonstrative *diese* ‘this’ (for the discussion and references of demonstrative elements, see Bernstein 1997, 2001b; Leu 2007, 2015; Roehrs 2010).

Casting the empirical net wider, let me point out that possessives like *mein* ‘my’ and the negator *kein* ‘no’ are also in complementary distribution with the indefinite article, the definite article, and the demonstrative. Compare (6) to (7) and (8):

- (6) a. *nicht 'ne Freundin*  
           not   a   girlfriend  
           ‘not a girlfriend’
- b. *nicht die Freundin*  
           not   DET girlfriend  
           ‘not the / that girlfriend’
- (7) a. \* *meine 'ne Freundin*  
           my    a   girlfriend
- b. \* *meine die Freundin*  
           my    DET girlfriend
- (8) a. \* *keine 'ne Freundin*  
           no    a   girlfriend
- b. \* *keine die Freundin*  
           no    DET girlfriend

The same holds if the determiner precedes the possessive or negator in (7) and (8). In view of this mutually exclusive distribution, I will refer to the possessive pronominal and the negator as ‘possessive article’ and ‘negative article,’ respectively.

Interestingly, the distribution is partially different when *ein* is stressed, indicated here with capital letters. Similar to (6), the negation particle *nicht* is compatible with *eine* (9a). Unlike (7a), *ein* can, when stressed, co-occur with the possessive article (9b). Importantly, this element

is still impossible with the negative article or the indefinite article (9c-d) ((9c) is adopted from Fanselow 1988: 111 fn. 29):

- (9) a. *nicht EINE Freundin*  
not one girlfriend  
'not one girlfriend'
- b. *meine EINE Freundin*  
my one girlfriend  
'my one girlfriend'
- c. \* *keine EINE Freundin*  
no one girlfriend
- d. \* *(ei)ne EINE Freundin*  
an one girlfriend

It seems clear that the difference between the determiner-like elements in (9b) and (9c-d) relates to definiteness. Thus, besides stress and non-reduction, definiteness seems to be a relevant factor in the distribution of *ein*. In other words, any account that seeks to be on the right track needs to take the different stress and reduction patterns of this indefinite element and its syntactic-semantic context into account.

In what follows, I will discuss *ein* in more detail. This element is, in certain ways, different from its counterpart(s) in other languages. Before embarking on the discussion of the German facts, let me briefly illustrate what some of the relevant differences to other languages are. This will bring into focus certain issues that one faces when one wants to compare different languages, even very closely related languages. Unlike Chapter 2, here I will focus on Yiddish, which is like German in some regards but quite different in others. Since I am not aware of any detailed analysis of this topic in Yiddish, I will base the following discussion on my own work (e.g., Roehrs 2022).

Like German, Yiddish combines a noun with an indefinite article, a possessive article, a negative article, or the singularity numeral (10).

- (10) a. *a bruder* (Yiddish)  
a brother  
'a brother'
- b. *mayn bruder*  
my brother  
'my brother'
- c. *keyn bruder*  
no brother  
'no brother'

- d. *eyn bruder*  
one brother  
'one brother'

However, Yiddish is different in at least three aspects. First, Yiddish allows an inflected possessive pronoun to precede an indefinite article (11a), the negative article can co-occur with the numeral for ‘one’ (11b), and the – what looks like – inflected singularity numeral may precede an indefinite article (11c). The following data are taken from Lockwood (1995: 54, 66) and Weinreich (1999: 195, 205):

- (11) a. *mayn-er a bruder* (Yiddish)  
mine-INFL a brother  
'a brother of mine'
- b. *keyn eyn land*  
no one country  
'not a single country'
- c. *eyn-er a mentsh*  
one-INFL a person  
'a certain person'

While the strings in (10) presumably receive a similar analysis as in German, the options in (11a) through (11c) are less straightforward. In particular, I argue in Roehrs (2022) that the inflected possessive pronoun in (11a) is in a higher position than the possessive article in (10b). Turning to (11b), *eyn* is syntactically optional. Semantically, it seems to intensify the negation. As for (11c) and similar to (11a), Yiddish most likely involves a different structure than German (9d). Extending the discussion to *epes a khaver* ‘(something a =) some friend,’ I propose in the aforementioned paper that *eyner* and *epes* are in a position similar to the possessive pronoun in (11a).

What this brief illustration makes clear is that care must be taken when one attempts to compare different languages in this part of the grammar. There seem to be many factors that need to be taken into consideration. Currently, many languages seem to lack a detailed description and analysis of this empirical domain (for English, however, see Perlmutter 1970). Unfortunately, this also holds for German. Taking a look at the relevant literature (see Section 7), one notices that there is relatively little discussion about the morpho-syntax and semantics of all the different kinds of *ein*. As with adjectival inflections, only the canonical cases are usually discussed. In what follows, I will try to provide a more comprehensive overview of this type of element in German. Again, similar to adjectival inflections, I believe that the discussion of the non-canonical cases reveals the true nature of *ein*.

### 1.2. Initial Taxonomy of ein

I will assume the following initial classification. This taxonomy contains three main types of *ein* and some subtypes. Below, I will propose in detail that certain elements are composite forms consisting of the article and another component:

- (12) a. *ein* as an article:
- indefinite article
  - vacuous article:
    - *ein* as part of a composite:
      - possessive
      - negation
    - *ein* in predicative noun phrases
  - complex determiner
- b. *ein* as a numeral
- c. *ein* as an adjective

I will refer to the types of *ein* in (12a) and (12b) collectively as *ein*-words; the type in (12c) will be called adjectival *eine*. In fact, reducing the numeral to the article, I will propose below that there are just two types of *ein*: the article and the adjective. Thus, these two designations, *ein*-word and adjectival *eine*, reflect the analysis to be developed below. Before I go into any specifics, consider first some illustrative examples of the above taxonomy. Note already here that while *ein*-words have no ending in (13a-f), adjectival *eine* has a weak ending in (13g):

- (13) a. Indefinite Article  
*Ich habe immer nur (ei)n frisch-es Brot mitgebracht.*  
 I have always only a fresh-ST bread brought  
 'I have always brought only a fresh bread.'
- b. Possessive  
*Ich habe immer nur mein frisch-es Brot mitgebracht.*  
 I have always only my fresh-ST bread brought  
 'I have always brought only my fresh bread.'
- c. Negation  
*Ich habe kein frisch-es Brot mitgebracht.*  
 I have no fresh-ST bread brought  
 'I have brought no fresh bread.'
- d. Predicative  
*Mein Vater ist (ein) Lehrer.*  
 my father is a teacher  
 'My father is a teacher.'
- e. Complex Determiner  
*Ich habe ein jedes frisch-es Brot mitgebracht.*  
 I have an every fresh-ST bread brought  
 'I have brought each fresh bread.'

- f. Numeral  
*Ich habe immer nur EIN frisch-es Brot mitgebracht.*  
 I have always only one fresh-ST bread brought  
 ‘I have always brought only one fresh bread.’
- g. Adjective  
*Ich habe nur das ein-e frisch-e Brot mitgebracht.*  
 I have only the one-WK fresh-WK bread brought  
 ‘I have only brought the one fresh bread.’

In what follows, I will not discuss the complex determiner *ein jeder* ‘(an) every’ in (13e) (see Roehrs 2012, Zimmermann 2011).<sup>1</sup>

### 1.3. Outlook

One goal of this chapter is to provide a more comprehensive survey of the different types of *ein* with the intention of ultimately reducing them in number. I will propose that there are two lexical types of *ein*: the article and the adjective (cf. Pafel 2005: 179). The second goal is to determine the properties of the different types of *ein*. I will argue that the article is semantically vacuous (Hypothesis 1a) but that adjectival *eine* is not. In other words, the article is, in a number of ways, similar to adjectival inflections discussed in Chapter 2.

In more detail, I will propose that the possessive article, the negative article, and the singularity numeral are composite forms consisting of the indefinite article and another component. Making some brief remarks on the possessive and negative composites, most of the discussion will focus on the article, the numeral, and adjectival *eine*. Some distinctions between these three elements will be argued to follow from their different featural specifications and others from their different positions in the syntactic tree. Deriving the numeral from the combination of the indefinite article and another component, I account for the identical morphology but the different semantics of the numeral and article. In other words, the numeral is related to the article in a way that adjectival *eine* is not. While illustrated below, predicative *ein* will be discussed in greater detail in Chapter 6. The latter chapter will discuss *ein* in relation to emotiveness, and Chapter 7 will address *ein* as regards number.

The chapter is organized as follows. In order to motivate the approach that some types of *ein* should be treated in the same way, I will first illustrate certain morphological similarities between these different kinds of *ein*. In Section 3, some phonetic and semantic differences will be pointed out. These differences will be summarized in Table 1 below. A bipartite proposal involving different feature specifications and different syntactic positions will be discussed in Sections 4 and 5, respectively. Section 6 discusses some diachronic and cross-linguistic evidence that *ein*-words are indeed composite forms. In Section 7, I turn to a previous proposal, and Section 8 forms the conclusion.

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<sup>1</sup> Note that *ein* here occurs in the context of the semantically plural and definite element *jeder* ‘every.’ It is proposed in Roehrs (2012) that *ein* intensifies the distributivity of *jeder*. I will tentatively suggest in Chapter 8 that *ein* may flag the presence of a null distributivity operator. This is consistent with the proposal that *ein* is semantically vacuous, including in the string *ein jeder*.

## 2. Similarities

In Section 1.2, I provided my taxonomy along with an illustration of the basic cases. With these reference points in mind, I discuss the occurrence of the strong ending on *ein* in split topicalizations and with elided nouns. Note that these constructions require special contexts to be felicitous (see Chapter 4 again).

### 2.1. Split Topicalization

Comparing (13) to (14), split topicalizations with an in-situ adjective have the same morphology as non-split noun phrases; that is, *ein*-words have no ending in (14a-e) but a weak inflection in (14f):<sup>2</sup>

- (14) a. Indefinite Article  
*Brot habe ich immer nur (ei)n frisch-es mitgebracht.*  
bread have I always only a fresh-ST brought  
'As for bread, I have always brought only a fresh one.'
- b. Possessive  
*Brot habe ich immer nur mein frisch-es mitgebracht.*  
bread have I always only my fresh-ST brought  
'As for bread, I have always brought only my fresh one.'
- c. Negation  
*Brot habe ich kein frisch-es mitgebracht.*  
bread have I no fresh-ST brought  
'As for bread, I have brought no fresh one.'
- d. Numeral  
*Brot habe ich immer nur EIN frisch-es mitgebracht.*  
bread have I always only one fresh-ST brought  
'As for bread, I have always brought only one fresh one.'
- e. Predicative  
*Brot ist das vielleicht (ei)n frisch-es!*  
bread is that PRT a fresh-ST  
'As for bread, this is really a fresh one.'
- f. Adjective  
*Brot habe ich nur das ein-e frisch-e mitgebracht.*  
bread have I only the one-WK fresh-WK brought  
'As for bread, I have only brought the one fresh one.'

---

<sup>2</sup> To investigate the relevant aspects of the morpho-syntax of predicative *ein* in split topicalizations, I chose a non-canonical construction involving the modal particle *vielleicht* 'really.' Note also that the translations of the following examples into English are not always straightforward.

## 2.2. Split Topicalization with Fronted Adjective

If the adjective is part of the split-off, the *ein*-words exhibit a strong ending (15a-e). Interestingly, the stranded *ein*-words have an optional schwa (see also Roehrs 2009a: 156, Sternefeld 2008: 152), where the option with the schwa seems to be, at least to my ears, of elevated style.<sup>3</sup> With a determiner preceding, there is no change for *eine* in (15f):

- (15) a. Indefinite Article  
(*Frisch-es*) *Brot habe ich immer nur ein-(e)s mitgebracht.*  
fresh-ST bread have I always only a-ST brought  
'As for (fresh) bread, I have always brought only one.'
- b. Possessive  
(*Frisch-es*) *Brot habe ich immer nur mein-(e)s mitgebracht.*  
fresh-ST bread have I always only my-ST brought  
'As for (fresh) bread, I have always brought only mine.'
- c. Negation  
(*Frisch-es*) *Brot habe ich kein-(e)s mitgebracht.*  
fresh-ST bread have I no-ST brought  
'As for (fresh) bread, I have brought none.'
- d. Numeral  
(*Frisch-es*) *Brot habe ich immer nur EIN-(E)S mitgebracht.*  
fresh-ST bread have I always only one-ST brought  
'As for (fresh) bread, I have always brought only one.'
- e. Predicative  
(*Frisch-es*) *Brot ist das vielleicht ein-(e)s!*  
fresh-ST bread is that PRT one-ST  
'As for (fresh) bread, this is really one.'
- f. Adjective  
(*Frisch-es*) *Brot habe ich nur das ein-e mitgebracht.*  
fresh-ST bread have I only the one-WK brought  
'As for (fresh) bread, I have only brought the one.'

---

<sup>3</sup> When *ein* is stranded by itself (15a), it is actually stressed. This makes the indefinite article ambiguous with the numeral. Note that even if another stressed element such as *so* 'such' is added, the unreduced form of *ein* is still much better here:

- (i) *Brot habe ich immer nur so {ein(e)s / \*?'ns / \*'nes} mitgebracht.*  
bread have I always only such a brought  
'As for bread, I have always brought only such a one.'

In Chapter 4, I claimed that *ein* in the source in (i) is followed by a null noun. As null elements have special, independent licensing conditions, it is not clear to me if this instance of *ein* is the unreduced article or the numeral (which consists of the article and an additional component).



Comparing the inflections on the adjectives in Section 2.1 to the ones on the *ein*-words here, we can observe again that they are the same. In keeping with Chapter 4, I assume that these inflections make nominal features like case, number, and gender visible (Hypothesis 2b) licensing the absence of an overt noun in the source. Parallel facts hold when the noun is elided.

### 2.3. Adjective Followed by Elided Noun

When an adjective is present, noun phrases with an elided noun have the same morphology as those with a non-elided noun (Chapter 2); that is, *ein*-words have no ending in (16a-e) but a weak inflection in (16f):

- (16) a. Indefinite Article  
*Ich habe immer nur (ei)n frisch-es mitgebracht.*  
 I have always only a fresh-ST brought  
 ‘I have always brought only a fresh one.’
- b. Possessive  
*Ich habe immer nur mein frisch-es mitgebracht.*  
 I have always only my fresh-ST brought  
 ‘I have always brought only my fresh one.’
- c. Negation  
*Ich habe kein frisch-es mitgebracht.*  
 I have no fresh-ST brought  
 ‘I have brought no fresh one.’
- d. Numeral  
*Ich habe immer nur EIN frisch-es mitgebracht.*  
 I have always only one fresh-ST brought  
 ‘I have always brought only one fresh one.’
- e. Predicative  
*Das ist vielleicht (ei)n frisch-es!*  
 that is PRT a fresh-ST  
 ‘This is really a fresh one.’
- f. Adjective  
*Ich habe nur das ein-e frisch-e mitgebracht.*  
 I have only the one-WK fresh-WK brought  
 ‘I have only brought the one fresh one.’

Finally, consider topicalization where the split-off contains an adjective and an elided noun.

#### 2.4. Fronted Adjective with Elided Noun

If the noun phrase is split and the adjective and elided noun are part of the split-off, then similar to Section 2.2 *ein*-words have a strong ending (17a-e). Again, there is no change for *eine* in (17f):

- (17) a. Indefinite Article  
*Frisch-es habe ich immer nur ein-(e)s mitgebracht.*  
fresh-ST have I always only a-ST brought  
'As for a fresh one, I have always brought only one.'
- b. Possessive  
*Frisch-es habe ich immer nur mein-(e)s mitgebracht.*  
fresh-ST have I always only my-ST brought  
'As for a fresh one, I have always brought only mine.'
- c. Negation  
*Frisch-es habe ich kein-(e)s mitgebracht.*  
fresh-ST have I no-ST brought  
'As for a fresh one, I have brought none.'
- d. Numeral  
*Frisch-es habe ich immer nur EIN-(E)s mitgebracht.*  
fresh-ST have I always only one-ST brought  
'As for a fresh one, I have always brought only one.'
- e. Predicative  
*Frisch-es ist das vielleicht ein-(e)s!*  
fresh-ST is that PRT one-ST  
'As for a fresh one, this is really one.'
- f. Adjective  
*Frisch-es habe ich nur das ein-e mitgebracht.*  
fresh-ST have I only the one-WK brought  
'As for a fresh one, I have only brought the one.'

To summarize, with the exception of adjectival *eine*, all *ein*-words are marked by the emergence of the strong ending when they are “stranded” by themselves in split topicalizations. These facts are similar to *ein* in elliptical contexts. Again, I assume that the inflections on the *ein*-words make nominal features visible licensing the absence of an overt noun. For an account of the presence vs. absence of the adjectival inflection on *ein*, see Chapter 2 again.

### 3. Differences

In this section, I focus on three phonetic and semantic differences: encliticization, stressability, and semantic singularity (see also Pafel 2005: 180). These differences are summarized in tabular form at the end of this section.

#### 3.1. Encliticization

With reduced forms of the indefinite article independently possible, I take encliticization to be instantiated when the indefinite article undergoes further phonetic changes due to its preceding element, its host. For instance, coronal 'n as the reduced form of *ein* becomes 'm when it is encliticized onto a word ending in a labial sound (R. Wiese 1996: 166). For the most part, I will use verbal hosts with their endings apocopated (e.g., *habe* > *hab* 'have'). Now, note that cliticization to a preceding word is only possible with an indefinite article (18a) and predicative *ein* (18e) (encliticization is indicated in the gloss by a period; I will not use phonetic brackets to indicate the phonetic change):

- (18) a. Indefinite Article  
*Ich hab 'm (frisch-es) Brot mitgebracht.*  
I have.a fresh-ST bread brought  
'I have brought a (fresh) bread.'
- b. Possessive  
\* *Ich hab 'm 'm (frisch-es) Brot mitgebracht.*  
I have POSS.a fresh-ST bread brought  
'I have brought my (fresh) bread.'
- c. Negation  
\* *Ich hab 'k 'η (frisch-es) Brot mitgebracht.*  
I have NEG.a fresh-ST bread brought  
'I have brought no (fresh) bread.'
- d. Numeral  
\* *Ich hab 'M (frisch-es) Brot mitgebracht.*  
I have.one fresh-ST bread brought  
'I have brought one (fresh) bread.'
- e. Predicative  
*Ich bleib '( 'm jung-er) Lehrer.*  
I remain.a young-ST teacher  
'I remain a (young) teacher.'
- f. Adjective  
\* *Ich habe gestern nur dem 'm-en (frisch-en) Brot zugesprochen.*  
I have yesterday only the.one-WK fresh-WK bread eaten  
'Yesterday, I only ate the one (fresh) bread.'

To be clear, encliticization of *ein* is not possible when *ein* is part of a composite (18b-c) or stressed (18d, f). I will not have much more to say about this here.

### 3.2. Stressability

With regard to the possibility of bearing stress, some of the judgments from Section 3.1 reverse. The types of *ein* fall into three groups: first, the indefinite article may not be stressed (19a); second, the possessive article, the negative article, and *ein* in predicative noun phrases may be stressed (19b, c, e); and third, the numeral and adjectival *eine* must be stressed (19d, f, f’):

- (19) a. Indefinite Article  
 \* *Ich habe ‘N (frisch-es) Brot mitgebracht.*  
 I have a fresh-ST bread brought  
 ‘I have brought a (fresh) bread.’
- b. Possessive  
*Ich habe MEIN (frisch-es) Brot mitgebracht.*  
 I have my fresh-ST bread brought  
 ‘I have brought my (fresh) bread.’
- c. Negation  
*Ich habe KEIN (frisch-es) Brot mitgebracht.*  
 I have no fresh-ST bread brought  
 ‘I have brought no (fresh) bread.’
- d. Numeral  
 \* *Ich habe ‘n (frisch-es) Brot mitgebracht.*  
 I have one fresh-ST bread brought  
 ‘I have brought one (fresh) bread.’
- e. Predicative  
*Mein Vater ist EIN Lehrer.*  
 my father is one teacher  
 ‘My father is one teacher.’
- f. Adjective  
 \* *Ich habe nur das ‘n-e (frisch-e) Brot mitgebracht.*  
 I have only the one-WK fresh-WK bread brought  
 ‘I have brought only the one (fresh) bread.’
- f’. Adjective  
*Ich habe nur das EIN-E (frisch-e) Brot mitgebracht.*  
 I have only the one-WK fresh-WK bread brought  
 ‘I have brought only the one (fresh) bread.’

Although stressed, I will not provide adjectival *eine* in capital letters below in order to distinguish it better from the singularity numeral. Note that with the exception of the numeral and adjectival *eine* (which are independently stressed), it seems clear that stress has a semantic effect. For instance, following Higginbotham's (1987: 68 fn. 4) discussion of English, (19e) suggests that my father is not just a teacher but one teacher among others.<sup>4</sup>

### 3.3. Semantic Singularity

I turn to some semantic differences. While the indefinite article usually implies singularity of the entity (20a), the numeral emphasizes singularity as opposed to plurality (20b):

- (20) a. *Ich habe (ei)n Mädchen geküßt.*  
 I have a girl kissed  
 'I have kissed a girl.'
- b. *Ich habe EIN Mädchen geküßt (nicht ZWEI).*  
 I have one girl kissed not two  
 'I have kissed one girl (not two).'

Below, I will argue that singularity in (20a) does not come from *ein* itself – the latter is proposed to be a semantically vacuous element. Note again that this is consistent with the fact that the indefinite article can occur in plural contexts as illustrated in the previous chapters and discussed in more detail in Section 4. In contrast, the singularity numeral has semantics, and it is proposed below that it consists of (vacuous) *ein* and a contentful element.

There are other cases of *ein* where singularity is not at issue. As is clear, *ein* as part of the possessive article or negative article has no relevance with regard to semantic singularity either. In fact, these two *ein*-words can take a head noun with plural morphology (21a-b). Note also that a predicative noun phrase does not denote an entity but a property (21c). As such, semantic singularity does not seem to be a relevant notion here either (see Chapter 7):

- (21) a. *Ich fahre meine Autos.*  
 I drive my cars  
 'I drive my cars.'
- b. *Ich fahre keine Autos.*  
 I drive no cars  
 'I drive no cars.'
- c. *BMW ist (ei)n Auto.*  
 BMW is a car  
 'BMW is a car.'

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<sup>4</sup> In fact, stressed *EIN* in (19e) might be a numeral in a predicative context. I will not discuss the effects of stress on the semantics in detail here – my focus is on the morpho-syntax.

Finally, nominalized infinitives and generic noun phrases make no claim about singularity of the event or entity either (the data are adopted from Bisle-Müller 1991: 115, 151):<sup>5</sup>

- (22) a. *(Ei)n Abweichen vom Kurs ist nicht gut.*  
a departing from.the course is not good  
‘Departing from one’s course is not good.’
- b. \* *EIN Abweichen vom Kurs ist nicht gut.*  
one departing from.the course is not good  
‘Departing from one’s course is not good.’
- c. *(Ei)n Wal ist ein Säugetier.*  
a whale is a mammal  
‘A whale is a mammal.’
- d. \* *EIN Wal ist ein Säugetier.*  
one whale is a mammal  
‘A whale is a mammal.’

As to adjectival *eine*, note again that like the numeral *EIN* in (23a), this type of *ein* is stressed (23b) (recall though that I do not mark it as such). Crucially, unlike the numeral, adjectival *eine* usually presupposes the existence of a second entity and thus implies plurality of the members of the relevant kind:

- (23) a. *EIN Mann*  
one man  
‘one man’
- b. *der eine Mann*  
the one man  
‘the one man’

In fact, as observed by M. Müller (1986: 43), *eine* in (23b) has a partitive sense, presupposing a set of typically two entities in the relevant world of discourse (cf. also Vater 1982: 71). Note that this duality presupposition cannot come from the definite article – the latter typically presupposes uniqueness in singular contexts. Importantly, *eine* must be preceded by a definite element, and it is often contrasted with a second DP containing *andere* ‘other’:<sup>6</sup>

<sup>5</sup> While a nominalized infinitive is not compatible with the numeral for ‘one’ (22b), it is fine with adjectival *einmalig* ‘one-time:’

(i) *(Ei)n einmaliges Abweichen vom Kurs ist verzeihbar.*  
a one-time departing from.the course is forgivable  
‘Departing from one’s course one time is forgivable.’

Presumably, this has to do with the event structure of the nominal. Also, note that both (22a) and (22c) allow *ein* to be replaced by a definite article.

<sup>6</sup> The same is possible in Yiddish (from Reershemius 1997: 362):

(i) *...tsvey brider ...Der eyner hot zikh ungerufn Elon un der tsveyter Aladan.* (Yiddish)  
two brothers the one has REFL called Elon and the second Aladan

- (24) *Der eine Mann kam, der andere nicht.*  
 the one man came the other not  
 ‘One of the men came, the other did not.’

Last but not least, like *ein* in the possessive and negative composites, adjectival *eine* can also be morphologically plural. In this case, adjectival *eine* presupposes two sets of elements. Compare (24) to (25):<sup>7</sup>

- (25) *die einen, die anderen*  
 the one the other  
 ‘these, those’

Below, we will see that this duality presupposition can be cancelled.

The differences discussed above are summarized in Table 1 (the properties are coded as follows: OK indicates an optional property; +/- signifies an inherent characteristics; N.A. means that this criterion is not applicable):

Table 1: Summary of the Differences between the Types of *ein*

| Kinds of <i>ein</i> |            |             | Enclitic | Stress | Sem. singularity                  | Morphological plural |
|---------------------|------------|-------------|----------|--------|-----------------------------------|----------------------|
| Article             | Indefinite |             | OK       | -      | (+)                               | (-)                  |
|                     | Vacuous    | Possessive  | -        | OK     | N.A.                              | OK                   |
|                     |            | Negative    | -        | OK     | N.A.                              | OK                   |
|                     |            | Predicative | OK       | OK     | N.A.                              | (-)                  |
| Numeral             |            |             | -        | +      | +                                 | -                    |
| Adjective           |            |             | -        | +      | OK (with canceled presupposition) | OK                   |

These are the most typical properties. Having set out the basic similarities and differences, I turn to accounting for them. In the course of the following discussion, I will refine the statements about the indefinite article, especially with regard to semantic and morphological number (for predicative *ein*, see Chapter 6). Specifically, I will propose that the article *ein* is semantically vacuous (Hypothesis 1a), and I will illustrate (again) that it can occur in morphologically plural contexts. The upcoming refinement of the statements about number is indicated in Table 1 by parentheses.

#### 4. Step 1 of the Proposal: Morphology and Semantics

Recall from Section 1 that determiners may, independent of word order, not co-occur (26).

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‘...two brothers... The first was called Elon and the second Aladan.’

<sup>7</sup> Interestingly, Börjars (1998: 18 fn. 7) points out for Swedish that these two sets can be of different sizes. The same is true of German.

- (26) \* *keine / meine / diese / die* / ‘ne Freundin  
 no / my / this / DET / a girlfriend

There were basically two potential exceptions to this generalization: (i) definite determiners may occur with stressed *eine* (27a-c), and (ii) *diese* ‘this’ can occur with a possessive article (27d):<sup>8</sup>

- (27) a. *meine eine Freundin*  
 my one girlfriend  
 ‘my one girlfriend’  
 b. *diese eine Freundin*  
 this one girlfriend  
 ‘this one girlfriend’  
 c. *die eine Freundin*  
 DET one girlfriend  
 ‘that / the one girlfriend’  
 d. *diese meine Freundin*  
 this my girlfriend  
 ‘this my girlfriend’

Furthermore, recall from Section 2 that the indefinite article (including predicative *ein*), the possessive articles, the negative article, and the singularity numeral exhibit the same inflectional behavior. In other words, semantically quite diverse elements behave morphologically the same. In this and the next section, I will account for these and some other facts. Let me provide a brief preview of the account of *ein*.<sup>9</sup>

Starting with (26), I will follow much discussion in the literature and assume that indefinite and definite articles are in D, and demonstratives are in Spec,DP (e.g., Alexiadou *et al.* 2007). Furthermore, it is well documented for German that only one such element can be in the DP-level. If so, this restriction explains the non-co-occurrence of these three elements in one and the same DP.<sup>10</sup> Turning to the two remaining elements in (26), that is, to the negative and the possessive articles, I will develop a composite analysis of *keine* and *meine* (and other elements) below arguing that these elements consist of an abstract component denoting negation or

<sup>8</sup> In poetic or elevated German, a possessive element can also be combined with a definite article (i):

(i) *Du bist die meine.*  
 you are the my  
 ‘You are mine.’

<sup>9</sup> For the discussion of some previous proposals of the indefinite article, see Section 7. It will become clear there that when one studies these accounts, one cannot help but notice that opinions diverge considerably with regard to the nature of this kind of indefinite element. Furthermore, none of these proposals discusses all the different kinds of *ein*. While the current analysis does surely not discuss all instances either, it strives to be more comprehensive than its predecessors.

<sup>10</sup> Usually, the Doubly-filled DP Filter is brought into play here (for some discussion, see Abney 1987: 271; Giusti 1997: 109, 2002: 70). In Roehrs (2019), I propose that unlike the North Germanic languages, the West Germanic languages have only one (complex) feature bundle for definiteness explaining why there is only one element showing definiteness in the DP in the latter type of languages. Note that the latter account makes no claim about the co-occurrence of a definite and a semantically vacuous element (see the discussion of *m+ein* ‘my’ below).



possession and vacuous *ein*. Among others, this proposal explains, on the one hand, the non-co-occurrence of the latter two elements with articles and demonstratives and, on the other, the identical morphology of the various composites and *ein*.

If this is on the right track, then *eine* in (27a-c) cannot be derived from vacuous *ein* and must be a different element. I will propose that this type of *ein* is an adjective in a high specifier position.<sup>11</sup> If so, the distributions in (27a-c) do not present a true exception to the generalization about non-co-occurrence. Turning to (27d), this datum has greater potential of being an exception to this generalization. However, as already discussed in Chapter 2, this type of *diese* is not in Spec,DP. Rather, it is a semantic intensifier in LPP (also Section 5.2.3). Thus, there is only one element in the DP-level here as well. Let me flesh out these preliminary remarks.

#### 4.1. Composite Elements: Article *ein* as a Supporting Element

It was suggested in Roehrs (2009a: Chapter 4) that *ein* is part of the negative article *kein* ‘no,’ possessive articles like *mein* ‘my,’ and the singularity numeral *EIN* ‘one’ (28a-c). Below, this is instantiated by proposing that *ein* supports certain operators. We will see in Chapter 6 that *ein* also indicates the presence of the realization operator REL (28d). Completing the picture, I propose that unlike these elements, adjectival *eine* is not a complex element (28e):

- (28) a. (vacuous) *ein* + NEG → *kein*  
 b. (vacuous) *ein* + POSS<sub>[1ST PERS -PL]</sub> → *mein*  
 c. (vacuous) *ein* + Ø<sub>[-PL]</sub> → *EIN*  
 d. (vacuous) *ein* + REL → *ein*  
 e. (non-composite) *eine*<sub>ADJ</sub>

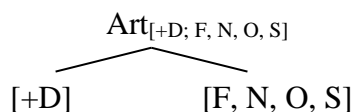
The claim that (28a-b) are composite forms is by no means new; for instance, Fanselow & Cavar (2002) and Kobele & Zimmermann (2012: 247) employ (28a), and Corver (2003: 4) and Corver & van Koppen (2010: 114) assume (28b) in their discussion of Dutch. Murphy (2018: 331) accepts both (28a) and (28b) for German. The analysis in (28c) might be relatable to Ackles (1996), who proposes that NumP is licensed by English *a(n)* with singular count nouns. (28d) is also in good company. For instance, Bennis *et al.* (1998) claim that the operator [+EXCL] needs to be made overt by *een* ‘a’ in Dutch (but cf. also Ackles 1996). In the framework of DM, consider the derivation of these composite elements.

<sup>11</sup> That this type of *ein* is indeed special becomes clear in Norwegian. As is well known, this language has a singularity numeral in the neuter gender (ia). However, in the construction under discussion, the expected form *ette* is impossible, and only a – what looks like – non-neuter form can be used (ib) (Marit Julien, p.c.):

- (i) a. *ett stor-t hus* (Norwegian)  
 one big-ST house  
 ‘one big house’  
 b. *det en-e stor-e hus-et*  
 the one-WK big-WK house-DEF  
 ‘one of the big houses’

Starting with *ein*, I proposed in Chapter 2 that this element consists of the categorial feature [+D] and features for case, number, and gender (I leave the values unspecified below). Unlike definite articles and demonstratives, *ein* has no features for definiteness or deixis. As such, this is the least specified (overt) determiner, and I propose that *ein* is a semantically vacuous element:

(29) *Indefinite Article*



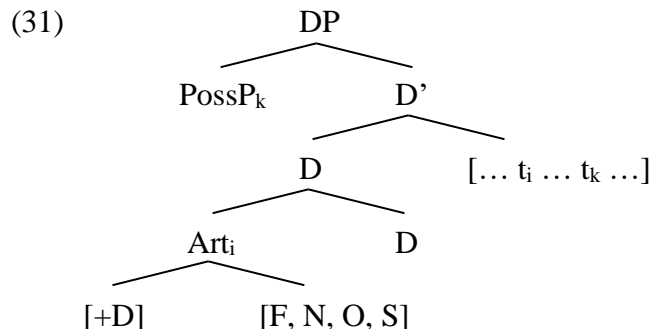
Turning to the second component in (28a-d), recall also from Chapter 2 that I analyzed possessive articles as bound or free forms (30a-b). Let me point out now that these forms are more general (also Fischer 2006). For instance, the bound forms in (30a) also occur in reflexive pronominal forms (30c). In fact, this decomposition is quite pervasive with personal pronouns (30d) (leaving out the genitive forms, which are diachronically related to the possessive forms in (30a)):<sup>12</sup>

- (30) a. *m-*, *d-*, *s-*  
my, your(SGL), his-
- b. *ihr*, *unser*, *euer*  
her/their/your(FORMAL), our, your(PL)
- c. *m-ich*, *d-ich*, *s-ich*  
myself, yourself, himself/herself/themselves  
'myself, yourself, himself/herself/themselves'
- d. *m-ich*, *m-ir*; *d-u*, *d-ich*, *d-ir*; *s-ie*  
me.ACC, me.DAT; you.NOM(SGL), you.ACC(SGL), you.DAT(SGL); she.NOM/her.ACC/  
they.NOM/them.ACC  
'me; you; she/her/they/them'

Furthermore, there is another subregularity here in that all forms in (30b) involve feminine and plural forms, which tend to pattern together in the nominal paradigms (Chapter 2). Taken together, this provides some empirical motivation for separating possessive articles into bound and free forms in (30a) and (30b), respectively.

In Roehrs (2020a), I propose that possessives involve a Possessive Phrase (PossP) and that they are base-generated low in the nominal structure. Following standard assumptions, I assume that pronominal possessives move to Spec,DP. After movement of the article and PossP, the relevant part of the structure, the DP-level, can be illustrated in a simplified way as follows:

<sup>12</sup> Note that third-person *s-* only involves masculine with possessives but masculine and/or other specifications with reflexive and personal pronouns; *S-ie* 'you(FORMAL)' is morphologically third but semantically second person (see Chapter 7).

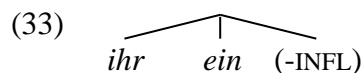


Exemplifying with *mein* ‘my,’ *m-* is inserted under Poss in (31). In Chapter 2, I also formulated conditions on the insertion of *ein*. If an overt element like an adjective and/or a noun follows, then *ein* is effectively inserted in Art yielding uninflected *ein*; if no such element follows, then *ein* is merged in [+D] yielding inflected forms of *ein*. After Linearization and Vocabulary Insertion in (31), we obtain the following string:

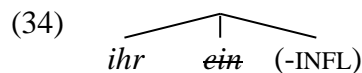


I propose that *ein* supports the bound morpheme *m-* and the inflection (unless *ein* was inserted in Art in (31)). Given adjacency, the operation of support could be instantiated by Local Dislocation such that *ein* undergoes this operation onto *m-* and the inflection does so onto *m-ein* (cf. Murphy 2018).

The free possessive morphemes in (30b) involve the same derivation as in (31) above. After Linearization and Vocabulary Insertion, we have the following string exemplifying with *ihr* ‘her:’



Note that there are two free morphemes in (33): *ihr* and *ein*. This is not the correct surface string yet. Let me bring into play the Doubly-filled DP Filter here. I make the plausible assumption that the latter applies to free, but not bound, elements. This means that the possessive components in (30a) and adjectival inflections more generally are exempt from the filter. As to (33), observe that the possessive component has semantics but that *ein* is claimed to be semantically vacuous. As such, I propose that the semantically vacuous element is deleted. This yields the following:



If an inflection is present, it will undergo Local Dislocation onto the possessive element. With regard to the workings of *ein*, I will continue to speak of support.

As to the remaining elements in (28), I assume that *kein* ‘no’ is similar to *mein* ‘my,’ the difference being that NEG, later realized as *k-*, is adjoined to the DP in (31). Finally, the singularity numeral  $\emptyset$  is also supported, but REL gets “flagged” by *ein* (see below). To be clear,

the elements on the right of the arrows in (28a-d) are taken to be the spell-out forms of the combination of the elements on the left of them.

There are two immediate advantages of this proposal. With these elements made up of *ein* and another component, it is easy to see how semantically quite diverse elements can share an identical morphology. Furthermore, with the article *ein* present, it follows that a second determiner cannot occur, and the complementary distribution with other determiners follows. Interestingly, noun phrases involving indefinite articles may have different interpretations with regard to specificity. As will be reported momentarily, these interpretations are often claimed to be tied to different positions, for instance, D and Card. One might suggest then that vacuous *ein* also supports D<sub>[+SPEC]</sub> and Card<sub>[-SPEC]</sub>. However, these are structural elements, and it is not likely that they are supported in the sense above.

Specifically, it is well known that indefinite articles are weak determiners (Milsark 1974). Furthermore, indefinite noun phrases may have different readings (see, among many others, Fodor & Sag 1982, Harbert 2007: 140, Zamparelli 2005: 760; also Diesing 1992 and Hallman 2004). For instance, they can be non-specific or specific in interpretation. Compare (35a) to (35b):

- (35) a. *Ich würde nur (ei)n Auto mit lila Punkten kaufen.*  
 I would only a car with purple dots buy  
 ‘I would only buy a car with purple dots.’
- b. *Ich habe gestern (ei)n Auto mit lila Punkten gekauft.*  
 I have yesterday a car with purple dots bought  
 ‘I bought a car with purple dots yesterday.’

Without going into much detail here, these readings are supported by noun phrase-external factors, for instance, mood. I will basically follow Jackendoff (1977: 105) and Bowers (1988) in that weak determiners may be in different positions inside the noun phrase (licensed by these noun phrase-external factors).

To make the discussion concrete, let me assume that there are two positions inside the DP relevant for the different readings: D, the head of DP, and Card, the head of CardP, which is located just below the DP (Chapter 1). Specifically, on the weak, non-specific reading, I assume that the indefinite article surfaces in Card, and on the strong, specific reading, it appears in D (cf. Chomsky 1995: 342; Zamparelli 2000: 264-5; Alexiadou *et al.* 2007: 225). As proposed in Chapter 2, *ein* originates in ArtP. With *ein* lacking a feature for definiteness, it does not have to undergo movement to D. Thus, I propose that *ein* moves to Card if the nominal has a weak reading and to D if the nominal has a strong reading. Note that a definite article can also involve specificity (e.g., *das Auto, das ich gekauft habe* ‘the car I bought’). As such, I will assume that vacuous *ein* + D<sub>[+SPEC]</sub> is not a composite form.

I will claim in Chapter 6 that vacuous *ein* (or a definite article) “flags” the presence of the realization operator REL. Let me suggest now that the negative, possessive, and singularity components of the *ein*-words are also operators.<sup>13</sup> I propose then that there are two ways to make operators visible by *ein*: supporting where the operator itself is in some way detectable, as claimed for (28a-c), and flagging where the operator itself remains invisible as in (28d). If this is

<sup>13</sup> I define operator broadly here. They involve scopal elements (negators, quantifiers), indexical elements (possessives), and other semantically active functional elements (see subsequent chapters).

tenable, then the term indefinite article seems inappropriate, but I will continue with traditional terminology.

#### 4.2. Some Evidence for the Composite Analyses

In the previous subsection, I provided the derivations that bring about the composite forms. What they all have in common is that the two elements are adjacent to one another. Let me consider this in more detail providing some evidence for the composite analyses.

##### 4.2.1. The Negative Article *kein*

It seems to be an established fact that *kein* ‘no’ consists of NEG + *ein*. While a more comprehensive discussion must await another occasion, I will begin by illustrating this with a morpho-syntactic argument. Considering (36), it seems clear that the contraction of NEG and *ein* is obligatory in certain cases (36a-a’), optional in others (36b-b’), but cannot occur in yet other contexts (36c-c’):

- (36) a. \* *Ich habe nicht (ei)n Buch gekauft.*  
I have not a book bought  
‘I did not buy a book.’
- a’. *Ich habe kein Buch gekauft.*  
I have no book bought  
‘I bought no book.’
- b. *Ich habe nicht (ei)n BUCH gekauft, sondern (ei)n HEFT.*  
I have not a book bought but a booklet  
‘I did not buy a book but a booklet.’
- b’. *Ich habe kein BUCH gekauft, sondern (ei)n HEFT.*  
I have no book bought but a booklet  
‘I did not buy a book but a booklet.’
- c. *(Ei)n Buch habe ich nicht gekauft.*  
a book have I not bought  
‘I bought no book/I did not buy a book.’
- c’. \* *(Ei)n Buch habe ich kein gekauft.*  
a book have I no bought  
‘I bought no book/I did not buy a book.’

Specifically, with ordinary stress, NEG and *(ei)n* must form the negative article (36a-a’). This is different with contrastive stress on the noun where NEG and *ein* can optionally be spelled out separately (36b-b’). Finally, when NEG and *(ei)n* are not adjacent (36c-c’), both elements are spelled out separately, with unsupported NEG being realized as *nicht*.<sup>14</sup> Now, the fact that NEG

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<sup>14</sup> Note that *ein* and *kein* can co-occur in split topicalizations:

(i) *(Ei)n Buch habe ich kein-s gekauft.*

can be realized in two different ways depending on the stress pattern and the adjacency with *ein*, argues for the claim that *kein* is a composite form.

Consider a second piece of evidence for this composite analysis. The examples in (37a) and (37b) establish that negation is higher than the degree particle *so* ‘such’ and that the latter can intervene between negation and the indefinite article. However, with an intervening *so*, negation is not adjacent to *ein*, and consequently, these two elements cannot be spelled out as *kein* by the morphology as evidenced by (37c) and (37d):

- (37) a.     *nicht so (ei)n Idiot*  
           not   such an   idiot  
           ‘not such an idiot’
- b. \*     *so nicht (ei)n Idiot*  
           so not    an   idiot
- c. ?\*     *kein so    Idiot*  
           no    such idiot
- d. \*     *so kein Idiot*  
           so no    idiot

For other syntactic and semantic arguments for a composite analysis, see Kratzer (1995: 144-147), Pafel (2005: 186-187), von Stechow & Iatridou (2007: 467-468), and Zeijlstra (2011); for English, see Klima (1964: 273ff); for the discussion of *kein so ’n Idiot* ‘(no so’an =) no such idiot’, see Chapter 8.

#### 4.2.2. Possessive Articles such as *mein*

There is also evidence that possessive articles are composite forms. While Saxon Genitives can both precede and follow the head noun (38a-b), possessive articles can only precede the noun (38c-d):

- (38) a.     *Marias Buch ist schön.*  
           Mary’s book is beautiful  
           ‘Mary’s book is beautiful.’
- b.     *Das Buch Marias ist schön.*  
           the book Mary’s is beautiful  
           ‘The book of Mary’s is beautiful.’

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a   book have I   none-ST bought  
 ‘As for books, I bought none.’

Considering the strong ending on *kein* in (i), I assume that a null noun follows the negative article (see Chapter 4). In other words, there are two base-generated nominals in (i), each with its own *ein*. As such, the grammaticality of this example is not an argument against *kein* requiring adjacency of NEG and *(ei)n*, which is illustrated in (36c-c’).

- c. *Mein Buch ist schön.*  
 my book is beautiful  
 ‘My book is beautiful.’
- d. \* *Das Buch mein(s) ist schön.*  
 the book mine is beautiful  
 ‘The book of mine is beautiful.’

These facts follow from the assumption that possessive articles consist of a possessive component and *ein*. Specifically, *ein* can, as an article, only precede the noun explaining the restriction in (38d). There is other evidence for a composite analysis.

It is well known that the possessive component of the article agrees in gender with its antecedent but that the remaining part of the possessive article agrees in case, number, and gender with the head noun (39a). Furthermore, besides gender, the possessive component also agrees in person and number with the antecedent, as can easily be seen in (39b). These agreement relations are illustrated with different indices below:

- (39) a. *Peter<sub>i</sub> hat s<sub>i</sub>-einer<sub>k</sub> Freundin<sub>k</sub> geholfen.*  
 Peter has POSS-a girlfriend helped  
 ‘Peter helped his girlfriend.’
- b. *Ich<sub>i</sub> habe m<sub>i</sub>-einen<sub>k</sub> Freunden<sub>k</sub> geholfen.*  
 I have POSS-a friends helped  
 ‘I helped my friends.’

These apparent mismatches in agreement within one and the same word are straightforwardly explained by the composite analysis (cf. also Olsen 1989b). Note also that *ein* and the adjectival inflections have a status different from the possessive component: the first two elements are semantically vacuous (Hypothesis 1a), and they make operators (*ein*) and features (adjectival inflections) visible (Hypotheses 3b and 2b).

#### 4.2.3. The Singularity Numeral *EIN*

As to the singularity numeral, I will discuss the advantages of a composite analysis in Section 5 in quite some detail. Note already here that  $\emptyset$  is located in Spec,CardP in the weak reading and that the supporting element *ein* is in Card. Something similar holds for the strong reading of this indefinite element where  $\emptyset$  has moved to Spec,DP, and *ein* is in D. Crucially, these are all Spec-head constellations, where adjacency inherently holds; that is, structurally nothing can intervene. Consequently, both elements can be spelled out by the morphology as the numeral. When  $\emptyset$  is not present, the vacuous article is spelled out as *ein* under Card or D. Finally, recall again that adjectival *eine* is not a composite element.

To sum up, I take two points as established: the negative article *kein* ‘no,’ possessive articles such as *mein* ‘my,’ and the singularity numeral *EIN* ‘one’ are composites, and they are post-syntactic spell-outs. As we have seen and will see throughout this chapter, this analysis has a number of advantages allowing for a fairly simple account of the different kinds of *ein*. Before I turn to some syntactic differences, let me consider some of the morphological and semantic differences of these elements in more detail.

### 4.3. Feature Specifications

First, I document that the presupposition induced by adjectival *eine* can be cancelled under certain conditions. In the second subsection, I provide the feature specifications of the different types of *ein*.

#### 4.3.1. Cancelling the Presupposition of Adjectival *eine*

Determiners do not have weak endings. There is just one exception. As discussed in Chapter 3, Section 4, some determiners may optionally have a weak ending in genitive masculine/neuter contexts. However, this does not apply to *ein*-words. Now, we have seen in Section 3 above that adjectival *eine* can have a weak ending in singular contexts (e.g., *der ein-e*) or in plural ones (e.g., *die ein-en*). Thus, this element behaves morphologically like a regular adjective (and not like an *ein*-word).

Considering (40a-b), *eine* may also exhibit a typical strong inflection when it follows certain determiner elements. Furthermore, as noted above, *eine* has partitive semantics in that it usually presupposes the existence of two elements or two sets of elements. Moreover, as already briefly mentioned, there is a licensing condition on adjectival *eine* – it must occur in the context of a definite element, the definite article or possessives. This is confirmed by the fact that *eine* can also co-occur with demonstratives (40c) (for 40b, see Gunkel *et al.* 2017: 1300):

- (40) a. *Peter sein ein-er Sohn*  
Peter his one-ST son  
'Peter's one son'
- b. *Peters ein-er Sohn*  
Peter's one-ST son  
'Peter's one son'
- c. *Dieser ein-e Junge hat viele Wunder vollbracht.*  
this one-WK boy has many miracles accomplished  
'This one boy has performed many miracles.'

Let me assume that the periphrastic possessive in (40a) and the Saxon Genitive in (40b) have essentially the same structure (see Krause 1999, Roehrs 2020a). Again, adjectival *eine* presupposes the existence of another son in both cases. This is different in (40c), where a demonstrative is present. In this case, there is no presupposition that there is a second boy with the relevant property. In a similar vein, (41a) below consists of a singular subject and a predicate nominal modified by a relative clause. Indeed, there is no presupposition that there is a second man with the property denoted by the relative clause. Furthermore, Orrin Robinson (p.c.) raises the question as to whether the duality presupposition can disappear when one nominal containing adjectival *eine* is coordinated with another involving a numeral (41b). This is indeed the case:

- (41) a. *Du bist der eine Mann, der mich geliebt hat.*  
you are the one man that me loved has  
'You are the one man that has loved me.'



- b. *Meine eine Freundin und seine zwei sind ausgegangen.*  
 my one girl-friend and his two are gone out  
 ‘My one girl-friend and his two went out.’

To be clear, then, although *eine* has adjectival morphology in each case, it may lack the presupposition property under certain conditions (also M. Müller 1986: 45).

I will tentatively suggest for (40c) that the demonstrative determiner, with its strong deictic force, cancels the presupposition of adjectival *eine*. Furthermore, note that *eine* is not (strongly) stressed in that case, presumably also a reflex of the presence of word stress on the demonstrative.<sup>15</sup> As to (41a), I assume that adjectival *eine* undergoes the same cancelling effect when its containing nominal forms the predicate of a singular subject. Turning to (41b), I assume that the coordination of the two nominals leads to a list-type effect where the different numbers of the people involved are contrasted. This resultant contrast also allows a singularity reading of adjective *eine*.

With these qualifications in mind, I suggest that *eine* is an adjective that can only occur in definite contexts. Recall that the duality presupposition cannot stem from a singular definite determiner. On the one hand, this determiner carries a uniqueness presupposition; on the other hand, other definite elements can also license adjectival *eine*. Rather, I assume that this distributional restriction has to do with *eine*’s own (contribution to the) duality presupposition, which is dependent on a definite contexts. With these remarks in mind, let me turn to the feature specifications.

#### 4.3.2. Feature Specifications of the Different Types of *ein*

As documented in Chapter 1, Section 2.4, *ein* as an article can occur not only in singular but also plural contexts. Note that in each of the two cases below, there is no duality presupposition:

- (42) a. % *ihr macht so n-e geilen lieder*  
 you make so a-PL awesome songs  
 ‘You compose such awesome songs.’
- b. % *Was für ein-e Idioten!*  
 what for a-PL idiots  
 ‘What (a bunch of) idiots!’

Furthermore, I just discussed that adjectival *eine* has semantics. Thus, let me make a distinction between morphological and semantic number (also Chapter 7), morph vs. sem. I assume a plural feature [PL] in the feature makeup where  $\alpha$  may range over a negative or positive value:<sup>16</sup>

<sup>15</sup> With a contrastively stressed adjective present, adjectival *eine* itself is not stressed and does not seem to have the usual presupposition property either:

- (i) *Ich habe das eine FRISCHE Brot mitgebracht.*  
 I have the one fresh bread brought  
 ‘I have brought the one fresh bread.’

Apparently, stress and the presupposition of duality are connected in some way. I have to leave this interesting issue for future research.

<sup>16</sup> With Chapter 2 in mind, plural actually consists of the features [+F, +N]. The difference between plural and singular is that in the plural, both  $\alpha$  and  $\beta$  in [ $\alpha$ F,  $\beta$ N] are valued positively but in the singular,  $\alpha$  and/or  $\beta$  is valued

- (43) Number:       [αPL morph; αPL sem]

Starting with the feature specification of *EIN*, recall that if vacuous *ein* is in the context of  $\emptyset_{EIN}$ , this composite is spelled out and interpreted as the singularity numeral. I assume that  $\emptyset$  is inherently specified for [-PL], morphologically and semantically. As such, *EIN* is individuating and implies spatial integrity (which is a characteristics of elements with different defining subparts, that is, spatially delimited elements). This yields countability as a side-effect. The number specification for  $\emptyset_{EIN}$  is: [-PL morph; -PL sem].

As for the indefinite article, I proposed that *ein* lacks a definiteness feature. Furthermore, given the composite analyses above, I argue that it is not marked for countability either. These two claims are confirmed by *ein* being compatible with (definite) possessives and mass nouns (44a). As already seen in (42) above, *ein* is also compatible with plural nouns. This is also true if *ein* is part of a composite form (44b):

- (44) a.       *m-eine Milch*  
              POSS-a milk  
              ‘my milk’
- b.       *k-eine Frauen*  
              NEG-a women  
              ‘no women’

In Chapter 8, I discuss in more detail that countability here comes from a different element in the noun phrase.<sup>17</sup> Now, since *ein* morphologically agrees with singular and plural nouns as just seen, I suggest that this element only has morpho-syntactic features. In particular, I assume that it has an unvalued/unchecked feature for morphological number: [αPL morph]. Notice that with semantic number absent, I can continue claiming that *ein* is a semantically vacuous element.

Adjectival *eine* is different in one aspect. Like *ein*, I suggest that *eine*<sub>ADJ</sub> has an unvalued/unchecked feature for morphological number. Unlike *ein*, it has a specification for semantic number as regards the cardinality of items (n) presupposed: [αPL morph; n = 2 sem, where n is the number of presupposed entities or sets of entities]. For ease of reference, let me juxtapose the three types of *ein* and their specifications:

- (45) a.       *ein*:       [αPL morph]
- b.        $\emptyset_{EIN}$ :   [-PL morph; -PL sem]
- c.       *eine*<sub>ADJ</sub>: [αPL morph; n = 2 sem unless in the context of a demonstrative, etc.]

---

negatively (the latter was captured by a category variable: [-γ]). For simplicity, I will use the feature [PL] moving forward.

<sup>17</sup> This is in keeping with claims made by other authors. For example, H. Wiese & Maling (2005: 8) claim that countability stems from the head noun, but Panagiotidis (2002: 58, 2003a: 421), developing ideas of Delfitto & Schroten (1991), suggests that it originates with Num.

Given the complex structure of determiners and adjectives (stem + inflection, see Chapter 2), the semantic specification of (45) is assumed to be on the stem, but the morphological one is encoded in the inflection as an unvalued/unchecked feature. With this in mind, let me briefly address the (simplified) statement in (45b).

There is an interesting interaction between (45a) and (45b). As proposed in more detail below, the numeral *EIN* derives from the combination of (45a) and (45b), where the stem of *ein* adds the categorial feature [+D], the inflection on *ein* supplies unvalued/unchecked morphological features for case, number, and gender, and  $\emptyset_{EIN}$  imposes the restriction that only singular number will be compatible with an agreement relation that values/checks the relevant features on all elements in the noun phrase.

Finally, I suggested above that the wider linguistic context (e.g., different moods) licenses the different readings of indefinites with regard to specificity. I proposed that this involves different positions of *ein* inside the DP. If these claims are on the right track, then we can maintain that *ein* is semantically vacuous (Hypothesis 1a).

## 5. Step 2 of the Proposal: Syntax

In the first subsection, I propose in more syntactic detail that synchronically, the numeral *EIN* derives, in certain respects, from the indefinite article even though historically, the relationship is the reverse. With the different specifications from above in mind, the remaining differences between *EIN* and *ein* are argued to derive from the two different positions that  $\emptyset$  and *ein* occupy in the syntactic tree. In the second subsection, adjectival *eine* is shown to be independent of the indefinite article and occupies a third position.

### 5.1. Article vs. Numeral

In this subsection, I first provide two pieces of evidence that the numeral *EIN*, specifically the contentful component of it, is in a different position than the indefinite article. Then I proceed to derive certain aspects of the numeral from the indefinite article.

#### 5.1.1. Uniform Position(s) of all Numerals

Recall from Chapter 1 that numerals are in a position different from determiners or determiner-like elements. Straightforward evidence for this comes from the following cases:

- (46) a. *die zwei Freunde*  
           DET two friends  
           ‘the / those two friends’
- b. *Peters zwei Freunde*  
           Peter’s two friends  
           ‘Peter’s two friends’

I assumed that numerals are in Spec,CardP. Following previous work though, I also suggested that if there is no determiner, then numerals may be in Spec,DP yielding a specific interpretation. The picture is slightly more complicated with *ein*-words.

In the last section, I discussed the different interpretations of nominals involving *ein* with regard to specificity. In particular, I proposed that when non-specific, *ein* is in Card, but when it is specific, it is in D. In other words, *ein* in (47a) may be in two different positions. Furthermore, I proposed that *EIN* consists of the singularity part  $\emptyset$  and vacuous *ein*. As regards the different specificity interpretations, I can point out now that when non-specific,  $\emptyset$  is in Spec,CardP and supporting *ein* is in Card, but when specific,  $\emptyset$  is in Spec,DP and *ein* is in D. In other words, just like other numerals,  $\emptyset$  is located in two phrasal positions in (47b):<sup>18</sup>

- (47) a. *(ei)n Freund*  
           a friend  
           ‘a friend’
- b. *EIN Freund*  
           one friend  
           ‘one friend’

To be clear, regarding *ein*-words, there are two positions involving phrases (Spec,CardP and Spec,DP for  $\emptyset$ ) and two positions involving heads (Card and D for *ein*). There are two issues that need to be addressed now.

First, if the article and the numeral (or a part of it) are in different positions, then I need to explain why the two cannot co-occur (48a-b). This is presumably not due to semantic reasons as other (adjectival) elements emphasizing singularity are possible (48c-d). In fact, under the right conditions, (emotive) *ein* can occur with a non-singularity numeral (48e), repeating an example from Chapter 1 here (for this option in Dutch, see Bennis *et al.* 1998: 112):<sup>19</sup>

- (48) a. \* *(ei)n EIN Freund*  
           a one friend

<sup>18</sup> Despite certain differences between the singularity and the other numerals, Barbiers (2005: 171) also assumes the same position for all numerals (see also his footnote 20). For typological discussion of numerals, see Corbett (2000) and Hurford (2003).

<sup>19</sup> As is expected from the above discussion, adjectival *eine* is also ungrammatical here (ia) since it is only licensed in a definite context (ib):

- (i) a. \* *ein einer Bruder*  
           a one brother
- b. *Peters einer Bruder*  
           Peter’s one brother  
           ‘Peter’s first brother’

Furthermore, an indication that adjectival *eine* is different from *einzig* ‘only’ can be seen in Negative Polarity contexts (iia-b) and by the fact that both elements can cooccur (iic) ((iic) is from Zifonun *et al.* 1997: 1931):

- (ii) a. *Du bist der {einzig / ??eine} Mann, der mich je geliebt hat.*  
           you are the only / one man that me ever loved has  
           ‘You are the only man that has ever loved me.’
- b. \* *Du bist {der / ein} Mann, der mich je geliebt hat.*  
           you are the / a man that me ever loved has
- c. *der eine einzige Gegensatz*  
           the one unique contrast  
           ‘the only contrast’

- b. \* *EIN (ei)n Freund*  
one a friend
- c. *(ei)n einziger Freund*  
a sole friend  
'a sole friend'
- d. *(ei)n einzelner Mann*  
a individual man  
'a individual man'
- e. % *ach man wir sind schon so ne zwei wärmflaschen*  
oh boy we are PRT such a two warm.bottles  
'Oh boy, we are such two hot-water bottles.'

The ungrammaticality of (48a-b) follows from the assumptions above. Recall that *ein* originates in Art and undergoes movement to Card or D. Proposing that  $\emptyset$  and *ein* are spelled out together as *EIN* under adjacency, I can explain why an indefinite article cannot co-occur with the singularity numeral but only with other (non-composite) numerals. I return to the latter case below.

Turning to the second issue, I have documented above that the indefinite article and the singularity numeral have the same morphology. What is interesting to note is that under certain conditions, the German numerals for 'two' and 'three' can take an ending in the genitive. In this case, these numerals and the following adjective have an identical ending (49a). This is in stark contrast to *EIN*, which does not have the same ending as the adjective (49b):

- (49) a. *das Auto zwei-er nett-er Freunde*  
the car two-ST.GEN nice-ST friends  
'the car of two nice friends'
- b. *das Auto EIN-ES nett-en Freundes*  
the car one-ST.GEN nice-WK friend  
'the car of one nice friend'

Assuming that all numerals are in the same positions (Spec,CardP or Spec,DP), I need to explain the different, unexpected morphological impact that the numerals for 'one' vs. 'two' and 'three' have on the following adjective.

Historically, the indefinite article derives from the numeral for 'one.' Importantly, the inflectional properties of the singularity numeral have changed over time. In particular, Old High German *éin* behaves like Modern German *zwei* 'two' and *drei* 'three' but crucially not like Modern German *EIN*: *éin* takes a strong adjective like *zwei* and *drei*, but *EIN* takes a weak one. Compare the dative strings in (50a) to (50b) (the (a)-example is taken from Demske 2001: 76):

- (50) a. *mît éin-emo rôet-emo tûoche* (Old High German)  
with one-ST red-ST scarf  
'with one red scarf'

- b.     *mit EIN-EM rot-en Tuch*  
           with one-ST red-WK scarf  
           ‘with one red scarf’

It is clear, then, that the singularity numeral in these two varieties of German is, in certain ways, different and should not receive the same account.

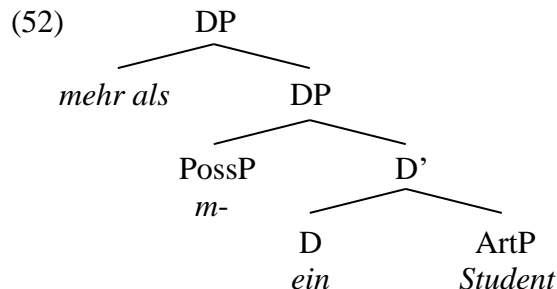
Recall that diachronically, the indefinite article derives from the numeral for ‘one.’ On a somewhat speculative note, one could suggest that in the development from Old High German to Modern German, *ein* split into two parts: (vacuous) *ein* +  $\emptyset_{EIN}$ . Specifically, with two separate elements, the null part can also be left out resulting in the emergence of the indefinite article. If one makes this assumption, then it is not implausible to suggest that synchronically, the numeral *EIN* derives from the indefinite article, at least in certain respects. In particular, Modern German *EIN* has the morphological properties of a determiner because it consists in part of vacuous *ein*. This explains the weak adjective in (49b) and (50b). It has the semantic properties of a numeral because it involves  $\emptyset$ . In Section 6, I return to this kind of diachronic split into two components in the context of *mein* ‘my’ and *kein* ‘no.’

#### 5.1.2. Different Scope of *mehr als*

Above, I proposed that articles are in head positions but that numerals are in specifier positions. The second piece of evidence that the article and the numeral are in different positions derives from scopal facts. To begin, *mehr als* ‘more than’ can take scope over the entire noun phrase where the nuclear stress is on the noun. In this case, it is implied in (51a-b) that the relevant person is more than just a student (perhaps he is also the speaker’s friend), and in (51c) that not only exactly the one hundred students came but perhaps other students showed up or even other people that are not students:

- (51) a.     *Er ist [ mehr als (ei)n Student ].*  
           he is more than a student  
           ‘He is more than a student.’  
       b.     *Er ist [ mehr als mein Student ].*  
           he is more than my student  
           ‘He is more than my student.’  
       c.     *Es kamen [ mehr als die hundert Studenten ].*  
           there came more than the one.hundred students  
           ‘More than the one hundred students came.’

Illustrating with (51b), the possessive element moves to Spec,DP, and the article moves to D. If so, the scopal element must be outside the DP. For concreteness, I assume that it is adjoined to the DP:



To be clear, *mehr als* c-commands the entire DP.

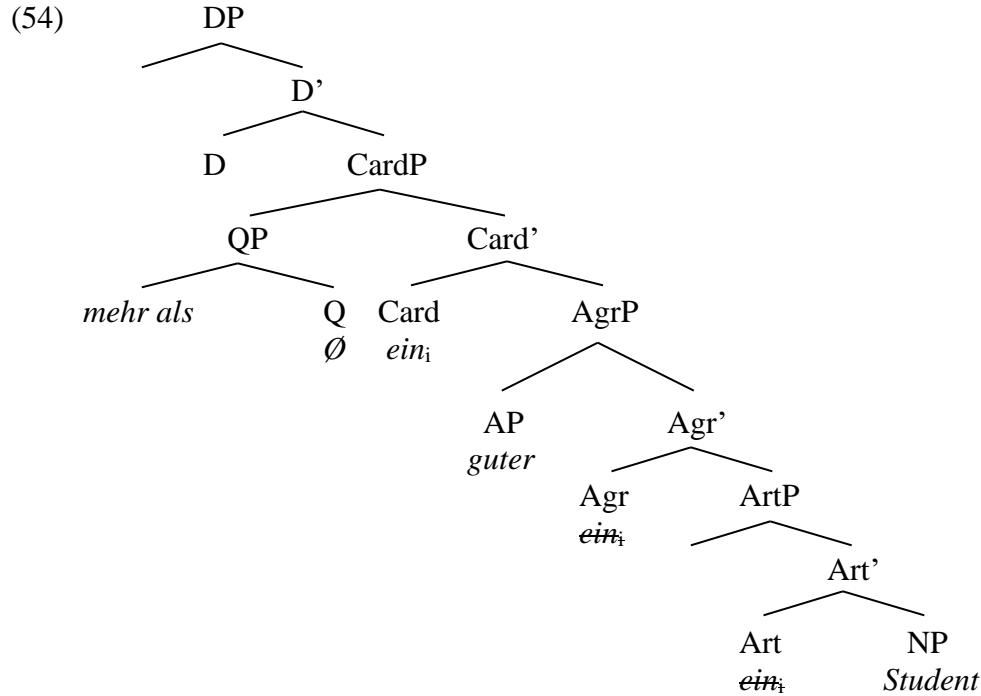
Second, *mehr als* may also take scope over numerals. For the following sentences to be true, it must hold for (53a) that at least two students came and for (53b) that at least one hundred and one did:

- (53) a. *Es kam [ mehr als EIN ] Student.*  
 there came more than one student  
 ‘More than one student came.’
- b. *Es kamen die [ mehr als HUNDERT ] Studenten.*  
 there came the more than one.hundred students.  
 ‘The more than one hundred students came.’

Crucially, whereas *mehr als* has an obviously different position with regard to the definite determiner in (51c) and (53b), it precedes the *ein*-word in (51a-b) and (53a). In order to derive the different scopal readings, I propose that *mehr als* may also be in different positions when it precedes *ein*. This, in turn, will provide an argument that the two instances of *ein* (article vs. numeral) are in different positions. Consider this in more detail.

I illustrated in (51) that *mehr als* precedes the article *ein* and numerals. I proposed that the scopal element is outside the DP proper c-commanding the entire DP. As for (53), let me now follow Svenonius (1993a: 445-446), who points out that in order to prevent a modifier from taking scope over the entire noun phrase, this modifier and its modifiee must be embedded inside a specifier position. If we assume that the same holds for modifiers and their numeral modifiees, then numerals are also in a specifier position (rather than in a head position in the extended projection of the noun). Again, I assume that this position is Spec,CardP (or after movement Spec,DP).

With this in mind, recall that the numeral *EIN* consists of vacuous *ein* and contentful  $\emptyset$ . The latter component is responsible for singularity and stress (cf. Barbiers 2005: 168) and is taken to have no independent phonetic realization. As with all null elements,  $\emptyset$  needs to be licensed in some way. I have proposed that *ein* is responsible for that. Now, with *ein* having no feature for definiteness, it does not have to move to the DP-level but can surface in Card:



Given Linearization, Vocabulary Insertion, and Copy Reduction, the relevant portion of (54) above can be illustrated as in (55). Note that  $\emptyset$  and *ein* are adjacent and that the former can be supported by the latter:



As with the possessive and negative articles, the operation of support can be instantiated by Local Dislocation (Section 4.1). This, essentially, derives the numeral from the article:<sup>20</sup>

Returning to the discussion of scope, unlike in (52), in (54) *mehr als* is part of a specifier inside the DP c-commanding the numeral *EIN*, or more precisely, the element  $\emptyset$ , which is the semantically active part. Finally, recall that, in order to derive the strong reading of the numeral, I assume that the article and  $\emptyset$  (or rather QP) move to D and Spec,DP, respectively; morphological spell-out occurs as in (55).

To take stock thus far, if only one copy in a movement chain is pronounced, then deriving the numeral from the combination of  $\emptyset$  and the vacuous article has a number of advantages. On the one hand, I can put all numerals in the same phrasal position(s) and explain the different scopal effects with the various *ein*-words. On the other, I can account for the facts that *EIN* inflects like the indefinite article and that both of these elements cannot co-occur. In other words, the splitting of the numeral into two abstract underlying parts and their subsequent composite

<sup>20</sup> Several authors (e.g., Bernstein 1993: 128, Julien 2002: 274) share the intuition that the indefinite article is merged lower and then raises to the DP. In contrast to the text proposal, they basically derive the indefinite article from the numeral. As far as I can see, there are a number of issues with this assumption, at least for Modern German (for some issues in English, see Perlmutter 1970: 239 fn. 10, 244 fn. 13): for instance, it is unclear to me how to account for the different morphological properties of *ein* (and *EIN*) vs. non-singularity, non-composite numerals as regards the inflection on a following adjective (cf. (49) above).



spell-out accounts for the hybrid properties of *EIN*.<sup>21</sup> To highlight the special status of *EIN* further, consider the interaction between *ein* and other numerals in more detail.

As briefly illustrated above, non-singularity numerals can co-occur with determiners, including *ein* under certain conditions. Consider another example from Chapter 1, provided in (56a), and (56b):

- (56) a. % *und so ne zwei Kämpfer die alles umpflügen,*  
 and so a two fighters who all under.plough  
 ‘and such two guys, who create such chaos’
- b. *Es waren k-eine zehn Leute da.*  
 it were NEG-a ten people there  
 ‘There were not even ten people.’

This distribution follows from the fact that unlike *EIN*, other numerals are not composite forms. With this in mind, I can state that the numerals in (56) are in Spec,CardP, and *ein* is in a higher head position (D).

## 5.2. Article vs. Adjective

Above, I derived some of the morpho-syntactic aspects of the numeral from the indefinite article. Among others, this accounted for the fact that the numeral and the indefinite article may not (separately) co-occur although they are in different positions (specifier vs. head). This now makes the prediction that if a form of *ein* were to occur with a determiner, this *ein* could not be the indefinite article (or the numeral). We will see again that such distributions are indeed possible. I will argue that this instance of *ein* is adjectival. In what follows I provide more evidence for this categorically different *ein* suggesting that it is in a different position.

### 5.2.1. Different Morphology

As amply documented in Section 2, the indefinite article and the singularity numeral cannot have an ending when an overt noun follows (57a-b). We have also seen that adjectival *eine* has an inflection when a noun follows. However, this element can only occur in a definite context (57c):

- (57) a. *‘n-(\*)er Sohn*  
 a-ST son  
 ‘a son’
- b. *EIN-(\*)ER Sohn*  
 one-ST son  
 ‘one son’

<sup>21</sup> A composite analysis could also explain the alternation between the indefinite article and the numeral for ‘one’ in some other languages closely related to Standard German:

- |     |    |             |     |            |                            |
|-----|----|-------------|-----|------------|----------------------------|
| (i) | a. | <i>a(n)</i> | vs. | <i>one</i> | (English)                  |
|     | b. | <i>a(n)</i> | vs. | <i>eyn</i> | (Yiddish)                  |
|     | c. | <i>een</i>  | vs. | <i>één</i> | (Dutch)                    |
|     | d. | <i>a</i>    | vs. | <i>õa</i>  | (southern German dialects) |

In some of these cases, the spell-out of the relevant component(s) results in quite different surface forms.

- c. \* *ein-er Sohn*  
one-ST son

The same facts hold when a *von*-possessive is added in the left periphery:

- (58) a. *von Peter 'n Sohn*  
of Peter a son  
'a son of Peter'
- b. *von Peter EIN Sohn*  
of Peter one son  
'one son of Peter'
- c. \* *von Peter ein-er Sohn*  
of Peter one-ST son

In contrast, the judgments reverse with a Saxon Genitive. Compare (58a-b) to (59a-b). As briefly mentioned above, adjectival *eine* can have a strong ending (59c), exhibiting similarities with a regular adjective (59d):

- (59) a. \* *Peters 'n Sohn*  
Peter's a son
- b. \* *Peters EIN Sohn*  
Peter's one son
- c. *Peters ein-er Sohn*  
Peter's one-ST son  
'Peter's one son'
- d. *Peters groß-er Sohn*  
Peter's big-ST son  
'Peter's big son'

As is expected, concomitant with the different distributions in (57-58) vs. (59), there is a difference in the semantics: while there is no duality presupposition in the first two sets of data, it is present in the third. In other words, the nominal in (59c) can straightforwardly occur with *Peters anderer Sohn* 'Peter's other son.' Furthermore, the different inflections on *ein* and the different semantics correlate with another morpho-syntactic distinction: the definite article can replace *ein* in (57a-b) and (58a-b) but not *einer* in (59c). Consider (60a-b) vs. (60c). With a definite article present in (60a-b), adjectival *eine* is also possible (60d):

- (60) a. *der Sohn*  
the son  
'the son'

- b. *von Peter der Sohn*  
of Peter the son  
'Peter's son'
- c. \* *Peters der Sohn*  
Peter's the son
- d. *(von Peter) der eine Sohn*  
of Peter the one son  
'the one son (of Peter's)'

In Roehrs (2020a), I propose that *von*-possessive are outside the DP proper but that Saxon Genitives are in Spec,DP. Given this analysis, it follows that the former allows different determiners but the latter does not.

The inflectional parallelism of adjectival *eine* and regular adjectives can be strengthened further. As already seen above, the article and the numeral have endings different from the following adjective. This is illustrated here again in the nominative and dative neuter:

- (61)
- a. *(ei)n frisch-es Brot*  
a fresh-NOM.ST bread  
'a fresh bread'
  - b. *EIN frisch-es Brot*  
one fresh-NOM.ST bread  
'one fresh bread'
  - c. *(ei)n-em frisch-en Brot*  
a-DAT.ST fresh-WK bread  
'a fresh bread'
  - d. *EIN-EM frisch-en Brot*  
one-DAT.ST fresh-WK bread  
'one fresh bread'

Now, comparing (59c) to (59d) above, we expect that when adjectival *eine* co-occurs with a regular adjective, they both have the same ending. This is indeed borne out: both elements are weak in (62a-b) but strong in (62c):

- (62)
- a. *da-s ein-e frisch-e Brot*  
the-NOM.ST one-WK fresh-WK bread  
'the one fresh bread'
  - b. *de-m ein-en frisch-en Brot*  
the-DAT.ST one-WK fresh-WK bread  
'the one fresh bread'

- c. *Peters einer lieber Sohn und Peters anderer lieber Sohn verstehen sich gut.*  
 Peter's one nice son and Peter's other nice son understand REFL well  
 'Peter's first nice son and Peter's second nice son get along well.'

I return to the parallelism of adjectival *eine* and *andere* 'other' in Section 5.2.5. Now, in order to derive the adjectival endings in a uniform way (see Chapter 2), I propose that adjectival *eine* is merged in a position similar to that of other adjectives. Presumably, this is the highest Spec,AgrP in the nominal structure (see also Gallmann 2004: 155, Pafel 2005: 179). The tree representation for adjectival *eine* will be provided after some other remarks in Section 5.2.3.

### 5.2.2. Different Semantics

Besides the difference with regard to number (singularity vs. duality) mentioned above, numerals can be modified by *mehr als* 'more than' whereas adjectival *eine* cannot:

- (63) a. [ *Mehr als EIN Student* ] kam zur Party.  
 more than one student came to.the party  
 'More than one student came to the party.'
- b. [ *Mehr als HUNDERT Studenten* ] kamen zur Party.  
 more than one.hundred students came to.the party  
 'More than one hundred students came to the party.'
- c. \* *Der [ mehr als eine ] Student kam zur Party.*  
 the more than one student came to.the party
- d. *Die [ mehr als HUNDERT ] Studenten kamen zur Party.*  
 the more than one.hundred students came to.the party  
 'The more than one hundred students came to the party.'

Again, adjectival *eine* is an element semantically different from numerals including *EIN*.

### 5.2.3. Co-occurrence with Possessive *ein*-words

Above, *ein* was discussed in the context of prenominal possessives like *von*-phrases and Saxon Genitives. Turning to possessive determiners, I can point out again that unlike the negative and the indefinite article (64a-b), possessive articles (64c), including cases where they are part of periphrastic possessive constructions (64d), may occur with adjectival *eine*:

- (64) a. \* *keine eine Freundin*  
 no one girlfriend
- b. \* *(ei)ne eine Freundin*  
 an one girlfriend

- c. *meine eine Freundin*  
my one girlfriend  
'my one girlfriend'
- d. *Peter seine eine Freundin*  
Peter his one girlfriend  
'Peter's girlfriend'

The sequence of two instances of *ein* in (64a) and (64b) cannot be ruled out by haplology. Roughly, this describes the reduction of identical sequences of sounds (for the discussion of (64b) in this regard, see Bhatt 1990: 201; more generally, see Neeleman & van de Koot 2006). If this were the case, we would expect (64c-d) to be ungrammatical as well, contrary to fact. The difference between (64a-b) and (64c-d) has to do with definiteness. Again, I conclude that adjectival *eine* must occur in definite contexts.

Note though that *ein* preceding the noun in (64) is actually morphologically ambiguous in the feminine between the singularity numeral and the adjective. Thus, one may object that *eine* here is not the adjective. To confirm the analysis of *ein* as an adjective in (64), let me consider each of the two analytical options (numeral vs. adjective) more carefully.

Starting with the first option, the indefinite article and the numeral *EIN* cannot co-occur – as the numeral, they occur as one element. Deriving the numeral from the indefinite article, we expect only one copy after Copy Reduction and spell-out of the composite. This is confirmed in the masculine gender, which clearly disambiguates the relevant morphology. Each of the ungrammatical cases below involves two instances of the article *ein*:

- (65) a. \* *kein EIN Freund*  
no one friend
- b. \* *(ei)n EIN Freund*  
a one friend
- c. \* *mein EIN Freund*  
my one friend
- d. \* *Peter sein EIN Freund*  
Peter his one friend

Crucially, note that unlike (64c-d) above, their counterparts in (65c-d) are also ungrammatical.

This is different for adjectival *eine*, the second option. While this element cannot occur with a negative article or an indefinite article in the masculine either (66a-b), it can appear with the possessives (66c-d):

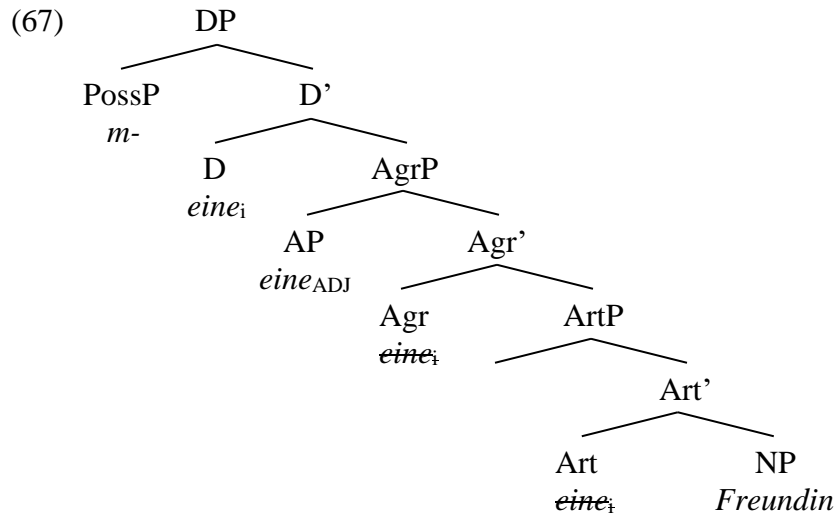
- (66) a. \* *kein ein-er Freund*  
no one-ST friend
- b. \* *(ei)n ein-er Freund*  
a one-ST friend

- c.     *mein ein-er Freund*  
          my   one-ST friend  
          ‘my one friend’
- d.     *Peter sein ein-er Freund*  
          Peter his one-ST friend  
          ‘Peter’s one friend’

This essentially yields the distribution in (64) above confirming the claim that (64) involves adjectival *eine*.

Note now that (66a-b) are ruled out by the semantics in multiple ways: adjectival *eine* implies duality, which is incompatible with the null set, implied by *kein* (66a), and the singleton set, implied by the indefinite article (66b).<sup>22</sup> In addition, (66a-b) are also out as adjectival *eine* is not in a definite context here. No such semantic problems arise with the possessives in (66c-d), which are definite and do not presuppose a null set or a singleton set. I turn to the syntactic derivation of adjectival *eine*.

I have argued that *ein* as part of the possessive and *eine* as an adjective are of different lexical categories. I can point out then that they do not stand in a relevant morpho-syntactic relation with one another. If so, it is expected that both types of *ein* can co-occur. Syntactically, this can be illustrated as follows:



This derivation also applies to more complex cases.

Unsurprisingly, like possessive articles, *diese* ‘this’ can also co-occur with adjectival *eine* (68a). As discussed in Chapter 2, *diese* and *meine* can co-occur (68b). In fact, as can be witnessed in (68c), adjectival *eine* can appear with both of these elements at the same time:

<sup>22</sup> As proposed above, *ein* itself does not determine semantic number. Rather, I propose in Chapter 7 that semantic number is the result of an interplay between NumP and NP.

- (68) a. *diese eine Freundin*  
           this one girlfriend  
           ‘this one girlfriend’
- b. *diese meine Freundin*  
           this my girlfriend  
           ‘this my girlfriend’
- c. (?) *diese meine eine Freundin*  
           this my one girlfriend  
           ‘this my one girlfriend’

On current assumptions, *diese* is in Spec,DP in (68a) but in Spec,LPP in (68b-c); *meine* is in Spec,DP in (68b-c). Thus, these distributions are expected to be possible. Conversely, if one were to assume just one type of *ein*; that is, if one were to try and derive both the numeral *EIN* and adjectival *eine* from (vacuous) *ein*, then a number of distributions would be hard to account for. This is what I consider next.

#### 5.2.4. Co-occurrence of *ein* and Determiners Revisited

Recall that the indefinite article and the numeral have no ending when they appear in front of a noun (69a-b). As is well known, a definite determiner cannot precede either of them (69c-d):

- (69) a. *(ei)n Mann*  
           a man  
           ‘a man’
- b. *EIN Mann*  
           one man  
           ‘one man’
- c. \* *der (ei)n Mann*  
           the one man
- d. \* *der EIN Mann*  
           the one man

Note that *ein* with a weak inflection is possible here (70a). Finally, recall again that Saxon Genitives can occur with *ein* if the latter has a strong inflection. Compare (70b-c):

- (70) a. *\*(der) ein-e Mann*  
           the one-WK man  
           ‘the one man’
- b. *Peters ein-er Sohn*  
           Peter’s one-ST son  
           ‘Peter’s one son’

- c. \*     *Peters EIN Sohn*  
            Peter's one son

Under current assumptions, the indefinite article in (69c) is ruled out because only one article can appear in a noun phrase. If I assume again that *EIN* consists, in part, of (vacuous) *ein*, then I can rule out the option of (69d) under the same assumption. In other words, these cases are not ruled out because *ein* does not have a weak adjectival ending. Rather, there are two articles in the DP, *der* and (vacuous) *ein*, but only one of them can originate in ArtP and move to the left periphery. Turning to (70), if I assume – as I have all along – that adjectival *eine* is a non-composite form, then this element is predicted to occur with another article in (70a). Similarly, if I assume that Saxon Genitives as in (70b) involve a null article (Chapters 2), then this distribution follows from the same assumptions. This means that (70c) is out as there are two articles, vacuous *ein* and the null article.

To be clear, then, assuming two basic types of *ein*, I can explain why sometimes a form of *ein* cannot occur with another article but sometimes it can, provided that form of *ein* appears in a definite context. These distributions are hard to account for if one assumes just one type of *ein*. A simple surface-oriented explanation involving the presence or absence of the inflection on *ein* will not suffice as demonstrated in previous chapters. Finally, let me return to the parallelism between adjectival *eine* and *andere* ‘other.’

#### 5.2.5. More Evidence for Adjectival *eine*

The claim that *ein* can be an adjective is further strengthened if *eine* is treated as categorially parallel to *andere* ‘other’ in (71a). In particular, as briefly discussed in Chapter 3, Section 2.2, there are certain types of adjectives – often called definite adjectives – that can license singular count nouns (71b-b’). The adjective *andere* is different and requires the presence of a determiner (71c-c’):<sup>23</sup>

- (71) a.     *Meine eine Tochter kam, meine andere nicht.*  
            my    one daughter came, my    other not  
            ‘One of my daughters came, the other did not.’
- b.     *Folgendes Beispiel illustriert das.*  
            following example illustrate this  
            ‘The following example illustrates this.’
- b’.    *Das folgende Beispiel illustriert das.*  
            the following example illustrate this  
            ‘The following example illustrates this.’

<sup>23</sup> Another indication for categorial parallelism comes from the fact that adjectival *eine* can also be co-ordinated with *andere*, as in the following idiom:

- (i)     *der [ eine oder andere ] Mann*  
            the   one or   other   man  
            ‘some men’

This argument must be taken with a pinch of salt though as the relevant interpretation of *eine* is different here; that is, the idiom does not denote just two people.



- c. \* *Anderes Beispiel illustriert das.*  
 other example illustrate this
- c'. *Das andere Beispiel illustriert das.*  
 the other example illustrate this  
 'The other example illustrates this.'

That the determiner must also be present with adjectival *eine* is exactly what we have seen in (70a). In other words, adjectival *eine* is not a definite adjective (by itself) but is similar to *andere*.

I have also observed in Section 5.2.2 that adjectival *eine* cannot be modified by *mehr als* 'more than.' Something similar holds for adjectival *eine* when modified by the degree particle *so* 'such.' Compare (72a) and (72b). Consistent with that, the adjective *andere* can only be interpreted as 'different' (but not 'other') under this condition (72c):

- (72) a. *so (ei)n Mann*  
 so a man  
 'such a man'
- b. \* *der so eine Mann*  
 the so one man
- c. *der so andere Mann*  
 the so different man  
 'the so different man'  
 #'the so other man'

Thus, the ungrammaticality of (72b) and the interpretative restriction in (72c) fit well with the discussion above, where I showed that adjectival *eine* often co-occurs with *andere* in the meaning of 'other.' This provides more evidence that this type of *ein* is adjectival.

## 6. Diachronic and Cross-linguistic Evidence for *ein*-words as Composites

As mentioned in Section 4.2.2, there is an interesting asymmetry in the syntactic distribution of Saxon Genitives and possessive articles. Whereas the former can follow the head noun, the latter cannot:

- (73) a. *das Buch Peters*  
 the book Peter's  
 'Peter's book'
- b. \* *das Buch sein*  
 the book his

(74) a. *(ther) fater min* (Old High German)  
           the father my  
           ‘my father’  
                                   (Demske 2001: 173)

      b. *katt-a mi* (Norwegian)  
           cat-DEF my  
           ‘my cat’  
                                   (Julien 2005a: 140)

(75) a. \*  $\{das / ein / \emptyset\}$  Buch ein  
the / a book a

b. \*  $\{das / ein / \emptyset\}$  Buch EIN  
the / a book one

c. \*  $\{das / ein / \emptyset\}$  Buch kein  
the / a book no

Recall from above that I tentatively suggested that Old High German *ein* ‘one’ was split into two components in the development of the language (76a). With this in mind, I can claim now that possessive pronominals were also split up into two parts over time (76b). Note that this

(i) a. *in dhemu heilegin daniheles chiscribe* (Old High German)  
in the holy Daniel's scripture  
'in Daniel's holy scriptures'  
(Demske 2001: 227)

b. *in dheru sineru heilegun chiburdi*  
in the his holy birth  
'in his holy birth'  
(Harbert 2007: 155)

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process is probably tied to Early New High German Diphthongization, which changed [i:] to [ai]. As for the negative article, judging from the diachronic development of *kein* ‘no’ described in Paul *et al.* (1989: 235), it appears as if the negative article has always involved two components (76c). Importantly though, the inner makeup seems to have changed from the combination of a negative element with the singularity numeral to a negative element with the indefinite article:

- (76) a. *éin* ->  $\emptyset$  +*ein*  
           one  $\emptyset_{\text{EIN}+\text{a}}$
- b. *mīn* -> *m* +*ein*  
      my POSS+a
- c. *ne(c)h+ein* -> *nekein* -> *k* +*ein*  
      not +one NEG+a

To sum up, Modern German *ein*-words are composite forms. In contrast, the counterparts of these elements in Old High German and in the Scandinavian languages are not. This difference in decompositionality is also compatible with the change in inflection that adjectives went through in the history of German; for instance, recall from Chapter 2, Section 1 that possessive pronominals in Old High German take adjectives with weak inflections but that possessive determiners in Modern German take adjectives with mixed inflections. In the next section, I turn to some previous proposals. Unlike adjectival endings discussed earlier, there are much fewer analyses of *ein*.

## 7. A Brief Critique of a Previous Proposal

In the traditional literature, the indefinite and the definite article are usually discussed together, with the former taken to be the indefinite counterpart of the latter (for German, see Duden 1995: 303ff). Recognizing certain shortcomings of this juxtaposition, a number of other views have emerged. For example, Perlmutter (1970) derives English *a(n)* as an unstressed version of the numeral *one* (see also Footnote 20), Higginbotham (1987: 47) argues that the indefinite article in predicate nominals is an adjective meaning ‘one,’ and Ackles (1996) argues that *a(n)* marks the presence of NumP with singular count nouns.<sup>25</sup> Elaborating on work by Oomen (1977), Vater (1982, 1984, 2002) proposes that there is no indefinite article at all but only a numeral/quantifier (“Quantor”). He mainly discusses German but his empirical coverage is meant to be wider.

It is interesting to point out that all alternative proposals make different claims and have different empirical foci. Recall now that I showed above that German and Yiddish seem to differ in some of the empirical details, and care must be taken when one wants to compare different languages in this part of the grammar. Similar to adjectival inflections in Chapter 2, I believe that it is these details that show the true nature of *ein*. In what follows, I will review only Vater’s

<sup>25</sup> For the discussion of English *a(n)* in quantifying expressions (e.g., *a lot, a few*), see Klockmann (2020). The author tentatively extends the discussion to ordinary noun phrases like *a book* claiming that *a(n)* involves countability but that it is not indefinite and it is featureless. This is different from the current discussion of German, where *ein* is also claimed not to be related to indefiniteness, but crucially it is not responsible for countability, and it does involve a feature (i.e., [+D]).

proposal, which explicitly discusses German. As far as I am aware, this proposal seems to have received fairly wide acceptance, at least for German. To give just one example, although providing a critique of some points of Vater (1982, 1984), Bisle-Müller (1991: 100-116) reaches a similar conclusion.

Arguing against the traditional opposition of the indefinite vis-à-vis the definite article, Vater (1982, 1984, 2002) proposes that *ein* is not the indefinite counterpart of definite *der* ‘the.’ According to Vater, this element is not indefinite as *ein* can lead not only to a non-specific but also to a specific interpretation of the containing noun phrase (for examples, see Section 4.1 above). In addition, it denotes a specific amount, namely singularity. Furthermore, this element is not an article as *ein* is not necessarily “localizing” in function in the sense of Hawkins (1978).

Rather, Vater proposes that *ein* is a cardinal numeral, that is, a type of quantifier that denotes a specific number of entities (also Oomen 1977). Generalizing his discussion, he claims that determiners or articles only involve definite elements. In contrast, the other determiner-like elements belong to a different part of speech – the numerals/quantifiers. He provides some empirical arguments for this claim. Below, I will return to these arguments. Let me start with some syntactic observations.

First, Vater points out that like other quantifiers, *ein* can undergo quantifier float:

- (77) a.     *Antrag     habe ich keinen gestellt.*  
           application have I   no     made  
           ‘As for applications, I have made none.’
- b.     *Antrag     habe ich einen gestellt.*  
           application have I   one    made  
           ‘As for applications, I have made one.’

Second, like other numerals, *ein* can co-occur with a determiner:

- (78) a.     *die zwei Bücher*  
           the two books  
           ‘the two books’
- b.     *das eine Buch*  
           the one book  
           ‘the the book’

Turning to some semantic arguments, Vater argues that like other numerals, *ein* can individuate mass nouns. Glossing over some of the details, the interpretation in (79a) can involve certain types of bread or certain amounts of bread. Modulo the singular, the example in (79b) has a similar range of readings. Importantly, the definite article by itself does not have this individuating function. Note though that the example in (79c) is still ambiguous between a mass and a count reading:

- (79) a.     *zwei Brote*  
           two breads  
           ‘two types / loaves of bread’

- b.     *ein Brot*  
         one bread  
         ‘one type / loaf of bread’
- c.     *das Brot*  
         the bread  
         ‘the bread’

Following certain aspects of Perlmutter (1970), Vater (1984: 39) proposes that the mass interpretation in (79c) only involves a definite article (80a). In contrast, the definite singular count reading in (79c) involves *ein*, which is deleted (80b). Interestingly, *ein* can also surface. In this scenario, the interpretation is, according to Vater, partitive. This is indicated by the translation in (80c):

- (80) a.     *das Brot*  
             the bread  
             ‘the bread (as substance)’
- b.     *das ~~ein~~ Brot*  
             the one bread  
             ‘the bread (as a loaf)’
- c.     *das eine Brot*  
             the one bread  
             ‘one of the breads’

After this brief illustration, let me return to the above arguments pointing out some shortcomings.

Note that the first syntactic argument does not involve quantifier float but rather a different type of discontinuous noun phrase. In Chapter 4, I labeled this construction split topicalization. One argument against Vater’s view is that under certain conditions, this type of split does allow (other) determiners to be stranded:

- (81) *Hemden habe ich immer nur diese da getragen*  
       shirts    have I   always only these there worn  
       ‘As for shirts, I have always worn only these there.’

Given this possibility, one could maintain the claim that *ein* is a determiner, specifically an article.

Turning to the second syntactic argument, it is true that determiners and quantifiers can co-occur. However, there are also cases where two determiners can be combined (82a). The same holds for two quantifiers on Vater’s assumptions or, alternatively, two determiners on my assumptions (82b):

- (82) a. *diese meine Freunde*  
 these my friends  
 ‘these friends of mine’
- b. *ein jeder von uns*  
 an every of us  
 ‘each of us’

Again, given these options, one could continue to claim that *ein* is an article when it co-occurs with another determiner (see also Footnote 1). As for the semantic arguments, I agree that *ein* seems to be individuating in nature. However, I will suggest in Chapter 8 that *ein* is not responsible for this effect, but rather it flags the presense of an operator. Finally, let me discuss the partitive interpretation in more detail.

Vater claims that *ein* preceded by a definite article can be paraphrased as *ein* followed by a genitive noun phrase in the plural; that is, *ein* is taken to be the singularity numeral. Consider (83). Vater (1982: 72) explicitly states that *ein* here presupposes a larger set of elements. However, I believe this claim is not accurate. Rather, while the paraphrase does indeed imply a larger set, *ein* preceded by the definite article as in (83a) presupposes just two elements.<sup>26</sup> Furthermore, as mentioned above, this duality presupposition can be cancelled when a demonstrative replaces the definite article (83b). Importantly, the partitive reading in the paraphrase is not cancelled when the demonstrative replaces the definite article there:

- (83) a. *das eine Buch – eins der Bücher*  
 the one book – one of.the books
- b. *dieses eine Buch – eins dieser Bücher*  
 this one book – one of.these books

I take this to mean that the paraphrases do not capture the correct semantics of this *ein*. In other words, *ein* is not the singularity numeral here. Furthermore, I believe that other numerals do not invoke this partitivity either; that is, *die zwei Bücher* ‘the two books’ does not mean ‘two of the books.’ I conclude that this *ein* is of a different type. Above, I suggested that this *ein* is adjectival, an element only licensed in a definite context. Besides these issues, it is also worth pointing out that a number of other types of *ein* are not discussed in Vater.

Predicative nominals and cases in the plural are not mentioned in Vater’s discussion at all:

- (84) a. *Er ist (ein) Lehrer*  
 he is a teacher  
 ‘He is a teacher.’
- b. % *So ein-e Idioten!*  
 such a-PL idiots  
 ‘Such Idiots!’

<sup>26</sup> Recall from Section 3.3, that adjectival *eine* in plural contexts can also presuppose two *sets* of elements.

It is quite clear that the noun phrases in (84a) and (84b) have nothing to do with singularity: (84a) denotes a property, and (84b) involves a plurality.

Furthermore, note also that Vater does not discuss reduced forms. However, as can be seen in (85), the form of *ein*, reduced or unreduced, does make an important difference with regard to the grammaticality judgments (for (85a), see Pafel 1994: 251):

- (85) a. *Geben Sie mir \*(ei)nen!*  
           give you me one  
           ‘Give me one!’
- b. *Geben Sie mir (ei)nen Apfel!*  
           give you me one / a apple  
           ‘Give me an / one apple!’

The reduced form of *ein* in (85a) is presumably out as pronominal forms of *ein* involve some stress.

Finally, Vater treats the negator *keinen* ‘no’ as an unanalyzed form, and possessives such as *mein* ‘my’ are not discussed at all. Since inflections are not addressed by him, I believe an important morpho-syntactic generalization over the different *ein*-words is being missed. As illustrated in detail above, these elements share a number of morpho-syntactic properties and should be discussed in tandem. In this respect, let me point out again that adjectival inflections provide important clues about the lexical items in the noun phrase and the structure of the noun phrase as a whole.

To sum up, I agree with Vater (and others) that *ein* is not an indefinite article (although I keep the name for convenience). I disagree with him (and others) that *ein* is the singularity numeral. Rather, I claim that there are two types of *ein*: one is a semantically vacuous element, and the other is adjectival *eine*, which has semantics.

## 8. Conclusion

One goal of this chapter was to provide a more comprehensive survey of the different types of *ein*. Arguing that *ein* cannot involve the singularity numeral only, I examined three types: the article, the numeral, and the adjective. In order to capture the morphological similarities and the non-co-occurrence between the article and the numeral, I proposed to derive the numeral from the article – the numeral involves the null element  $\emptyset$ , and the latter is supported by the article. Something similar holds for the possessive and negative articles. Adjectival *eine* was proposed to be an independent element. In order to account for the differences, I suggested that the three elements have different specifications and are in different positions in the syntactic tree (in Chapter 6, I will propose that predicative *ein* can also remain in Art). Table 2 below summarizes these differences:

Table 2: Summary of the Properties of the Types of *ein*

| Kinds of <i>ein</i>    |                                                         | Morphology  | Semantics                          | Position                                              |
|------------------------|---------------------------------------------------------|-------------|------------------------------------|-------------------------------------------------------|
| Article <i>ein</i>     | Vacuous (indefinite, possessive, negative, predicative) | $\alpha$ PL |                                    | Card or D (depending on the reading, weak vs. strong) |
|                        | Numeral $\emptyset_{EIN}$                               | -PL         | -PL                                | Spec,CardP or Spec,DP                                 |
| Adjectival <i>eine</i> |                                                         | $\alpha$ PL | n = 2 (unless in certain contexts) | (high) Spec,AgrP                                      |

It is clear that the conditions under which adjectival *eine* loses its duality presupposition deserve more attention.

The second goal was to identify more general properties of *ein*. Similar to adjectival inflections in Chapter 2, I concluded here that *ein* is semantically vacuous (Hypothesis 1a). In the next two chapters, I turn to some consequences of the analysis. In particular, I will discuss *ein* in relation to semantic concepts such as emotiveness and number. We will find confirmation of the conclusions reached thus far. Furthermore, we will see more evidence that *ein* can also indicate a certain amount of structure in the noun phrase, and it can flag the presence of covert operators (Hypothesis 3).



## Chapter 6: *Ein* and Emotiveness

### 1. Introduction

In Chapter 5, I argued that *ein* is semantically vacuous (Hypothesis 1a). I now turn to two consequences. In this and the next chapter, I discuss *ein* with regard to emotiveness and number. Before I start, let me point out that the next two chapters are meant to be broader in their empirical and theoretical range; that is, they discuss *ein* in the context of both the DP and the CP. Specifically, I will provide a more detailed survey of two (partially known) restrictions. Focusing on the contribution of *ein*, I will identify three types of readings in this chapter where the notion of emotiveness will be of importance in singular, out-of-the-blue contexts. In the next chapter, I will isolate restrictions with regard to both morphological and semantic number in the plural. To contextualize the following discussion, let me begin with some general remarks.

#### 1.1. General Structural Similarities Between DP and CP

It is a fairly standard assumption that clauses and noun phrases are parallel in meaning and structure (e.g., Chomsky 1970, Abney 1987, Iordăchioaia 2020). This can most easily be seen in (1), which juxtaposes a verb and its arguments with its derived nominal counterpart. It is important to point out that both the verb in the sentence and the noun in the noun phrase have an agentive subject (*the Romans*) and an affected object (*the city*):

- (1)    a.     The Romans destroyed the city.  
      b.     the Romans' destruction of the city

Based on these similarities in meaning, a certain structural parallelism has come to be established. Considering (2), NP is taken to be the nominal counterpart of VP. Furthermore, NumP is similar to AgrP, DP to TP, and PP to CP:<sup>1</sup>

- (2)    a.     CP     TP     AgrP     VP  
      b.     PP     DP     NumP     NP

These and other observations have led to the general hypothesis that noun phrases are similar to clauses. This line of investigation has been very fruitful in its empirical discoveries and theoretical innovations (for a survey, see Alexiadou *et al.* 2007). This and the next chapter intend to add to this body of work focusing on certain combinations of “pronoun + noun” in simple DPs and copular CPs. Unlike the cases in (1) above, I will investigate noun phrases and copular sentences that involve non-theta nouns.

Observe first that the DPs and CPs under discussion here involve a pronoun and a noun (3a-b). The difference is that the CP contains an auxiliary:

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<sup>1</sup> This alignment based on Grimshaw (1991) is far from uncontroversial; for instances, other authors have proposed that DP is parallel to CP (e.g., Szabolcsi 1994).

- (3) a. *wir Idioten*  
 we idiots  
 ‘us idiots’
- b. *Wir sind Idioten.*  
 we are idiots  
 ‘We are idiots.’

Unlike in the plural above, *ein* is added in clauses involving the singular:

- (4) a. *du Idiot*  
 you idiot  
 ‘you idiot’
- b. *Du bist (ei)n Idiot.*  
 you are an idiot  
 ‘You are an idiot.’

In other words, these structures are fairly similar to each other and involve comparatively little complexity. Specifically, taking the auxiliary to be semantically vacuous, I will assume that this verbal element simply indicates the presence of more structure, for instance, TP. As we will see below, *ein* is similar to the auxiliary in this regard. To be clear, focusing on these types of constructions affords us a fairly simple and direct comparison of the workings of *ein* in the nominal and clausal domains.

Overall, I will reach the conclusion that *ein* makes no semantic contribution (Hypothesis 1a) and that the nominal and clausal combinations of “pronoun + noun” are quite similar albeit not entirely identical. The few differences between the two domains will follow from certain assumptions about the different pragmatics involved, lexical differences between certain overt and covert elements (*als* ‘as’ vs. *ALS*), and the obligatoriness of NumP in the DP but its syntactic optionality in the CP. If this discussion is on the right track, then I provide additional evidence that the nominal and sentential domains are essentially parallel. With these general remarks in mind, I begin the investigation. Postponing the discussion of number to the next chapter, I start by illustrating *ein* in emotive contexts.

## 1.2. General Interpretatory Differences Between DP and CP

In this chapter, I will compare the structural and interpretatory differences of constructions where pronouns combine with bare nouns (5) or with nouns preceded by overt elements like *als* ‘as’ or *ein* ‘a’ (6). Recalling the discussion of Chapter 5, the indefinite article is provided in its reduced and unstressable form ‘*n*’. Interestingly, nouns such as *Bauer* are ambiguous in that they have a neutral/literal meaning (‘farmer’) and an emotive/figurative one (‘peasant’). However, this ambiguity disappears in these different types of DP and CP in interesting ways. Specifically, bare nouns have an emotive/figurative meaning in the DP (5a) but a neutral/literal meaning in the CP (5b). In contrast, nouns preceded by *als* have a neutral/literal meaning in the DP (6a), but nouns preceded by *ein* have a (predominantly) emotive/figurative meaning the CP (6b) (# indicates that

the interpretation is not available; % means that the interpretation is possible but somewhat less prevalent or for some speaker not available at all):

- (5) a. *du Bauer*  
 you peasant  
 ‘you peasant’  
 #‘you farmer’
- b. *Du bist Bauer.*  
 you are farmer  
 ‘You are a farmer.’  
 #‘You are a peasant.’
- (6) a. *du als Bauer*  
 you as farmer  
 ‘you as a farmer’  
 #‘you as a peasant’
- b. *Du bist ‘n Bauer.*  
 you are a peasant/farmer  
 ‘You are a peasant.’  
 %‘You are a farmer.’

Comparing the (a)-examples to the (b)-examples, we find a near complementary distribution of the two readings of the noun. This is in need of an explanation.

Contrasting (5b) to (6b) first, one could claim that *ein* brings about the semantic difference. However, I will suggest that the added emotiveness in (6b) stems from the interaction between an operator, specifically the realization operator REL, and nouns lexically specified as [+figurative]. I will propose that on the one hand, *ein* indicates the presence of syntactic structure above NP (Hypothesis 3a) and that on the other, it flags the presence of the realization operator REL (Hypothesis 3b). As such, similar to adjectival inflections, I will maintain that *ein* is a reflex of the structure but not of the semantics. As to (5a) and (6a), their difference will take certain pragmatic considerations into account.

The chapter is organized as follows. Section 2 discusses three different readings in the DP and CP and the role emotiveness plays in them. In Section 3, I first lay out my main assumptions, and then I provide the proposal and detailed derivations for these different readings. Section 4 summarizes the main findings of this chapter.

## 2. Emotiveness in the DP and CP

This section investigates the parallelism between the nominal and clausal domains with regard to certain readings. I focus on three different interpretations.

## 2.1. Three Different Readings

As a point of departure, let me establish some terminology by briefly looking at the readings of singular DPs first. Basically following den Dikken's (2006: Chapter 5) discussion of binominal structures of the type *an idiot of a doctor*, the three relevant interpretations are illustrated in (7). For lack of a better term, I will label the first case 'ordinary' reading. The second and the third case will be called 'comparative' and 'capacity' readings:<sup>2</sup>

- (7) a. Ordinary reading:

*du Idiot*  
you idiot  
'you idiot'

- b. Comparative reading:

*du Schwein*  
you pig  
'you idiot'

- c. Capacity reading:

*du als Landwirt*  
you as farmer  
'you as a farmer'

I paraphrase each of these three readings as follows:

- (8) the unique x (informally addressed) such that

- a. x is an idiot
- b. x is, in a certain way, similar to a pig
- c. x is being singled out in the capacity of a farmer

Restricting myself to out-of-the-blue contexts for now, I point out that the ordinary reading in the DP is most often negatively emotive (Vater 2000), but a positive connotation is also possible. In this regard, Rauh (2004) provides the following example: *du Glückspilz* '(you luck.mushroom =) lucky you.' Assuming that the pronoun and noun stand in a predication relation with one another (see Section 3.2), I suggest that this type involves direct predication. In a similar vein, the second reading is also emotive. Unlike the first case, it involves indirect predication; that is, the predication seems to be mediated by a predicate such as *like* or *similar to*.<sup>3</sup> Note that epithetically used nouns like *Schwein* 'pig' in (7b) characterize the individual in their entirety, but there is no implication that the individual being addressed is actually a pig, as reflected in the translation.<sup>4</sup>

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<sup>2</sup> Note that den Dikken labels the capacity reading as 'attributive,' a term I would like to avoid.

<sup>3</sup> This is what I assume for now. Below, I will suggest that the comparative reading follows from the realization operator REL.

<sup>4</sup> For simplicity, I will translate the figurative meaning of animal names as 'idiot.'

Finally, in contrast to the first two cases, the capacity reading is neutral. Furthermore, like the second reading, it involves indirect predication, which in this case is mediated by elements such as *as* or *in the capacity of*. As noted by Rauh (2004: 85-6, 94), these *als*-nominals clearly presuppose the presence of other properties, but only the overt one following *als* ‘as’ is taken to be relevant. In contrast to the comparative reading, which characterizes individuals in their entirety, the capacity reading zooms in on a certain aspect of the individual.

## 2.2. Different Types of Nouns

First, I discuss how role and kind nouns fare in DPs and CPs. In the second subsection, I expand on concepts like emotiveness and figurative extension.

### 2.2.1. Basic Differences between Role and Kind Nouns in DPs and CPs

Nouns can be classified along different dimensions: role vs. kind, neutral vs. emotive, and related to neutral/emotive, literal vs. figurative (for the latter, see next subsection). It is important to point out that the restrictions to be discussed reveal themselves with certain types of nouns only.

Starting with role nouns, de Swart *et al.* (2005: 453) provide a convenient summary of the properties of bare predicate nominals such as *Landwirt* ‘farmer’:<sup>5</sup> (i) they form a restricted class of nouns (typically, names for professions, nationalities, and religions), (ii) they only exhibit a restricted range of interpretations (what they call ‘capacities’), (iii) they allow capacity qualifiers such as *by profession*, (iv) they exhibit number neutrality, and (v) they combine with certain adjectives, which remain uninflected (at least, in Dutch). In the discussion below, I will revisit (i), (ii), and (iv). Importantly, bare role nouns are not emotive.

Kind nouns comprise a more diverse group; for instance, they involve names for humans, animals, and inanimates. For current purposes, animate nouns can be classified as regards neutral (*Mann* ‘man’) and emotive (*Idiot* ‘idiot’). Now, it is well known that pronominal DPs in the singular only allow emotive kind nouns like *Idiot*; role nouns like *Landwirt* and neutral kind nouns like *Mann* are marked in out-of-the-blue contexts (9). In contrast, copular constructions can involve bare predicate nouns only if the relevant nominals involve role nouns like *Landwirt*; independent of their emotiveness, kind nouns like *Idiot* and *Mann* require an indefinite article (10):

- (9)
- a. *du Idiot*  
you idiot  
‘you idiot’
  - b. ?? *du Landwirt*  
you farmer  
‘you farmer’
  - c. ?? *du Mann*  
you man  
‘you man’

---

<sup>5</sup> For relevant discussion, see also Stowell (1989, 1991), Kupferman (1991), and more recently Alexiadou (2005: 814ff), Déprez (2005), Matushansky & Spector (2005), Munn & Schmitt (2005: 846ff), Winter (2005: 780ff), and Zamparelli (2008). The latter paper also contains detailed critical discussion of earlier work on this topic.

- (10) a. *Du bist* ('n) *Landwirt*.  
           you are a farmer  
           'You are a farmer.'
- b. *Du bist* \*('n) *Idiot*.  
           you are an idiot  
           'You are an idiot.'
- c. *Du bist* \*('n) *Mann*.  
           you are a man  
           'You are a man.'

To be clear, considering the (a)-examples, bare nouns are emotive in the DP but neutral in the CP. Furthermore, role nouns in the DP (9b) and emotive kind nouns in the CP (10b) pattern like neutral kind nouns such as *Mann* in the (c)-examples.

Examining these cases, it becomes clear that true minimal pairs between the DP and CP are not possible. In other words, in out-of-the-blue contexts, there do not seem to be lexical items that share properties of being both emotive nouns and role nouns; that is, there are no nouns that allow licit patterns such as *du Noun<sub>I</sub>* 'you Noun' as well as *Du bist Noun<sub>I</sub>* 'You are a Noun.' The generalization to be explained, then, is that emotive nouns cannot involve role nouns and that role nouns (in their literal meaning) are not emotive. Expressed in more structural terms, emotive nouns can occur in the DP but require *ein* in the CP, and role nouns cannot occur in the DP but can be bare in the CP.

Let me point out again that these restrictions only hold in singular, out-of-the-blue contexts. The following account will combine Rauh's (2004) proposal for the DP with de Swart *et al.*'s (2007) analysis of the CP. Furthermore, I will clarify the role *ein* plays in these cases. Consistent with the claims made in Chapter 5, I will argue that *ein* has nothing to do with emotiveness but rather flags the presence of a covert operator.

Before moving on, note that adding an evaluative adjectival modifier creates minimal pairs. However, this covers up the lexico-semantic and syntactic differences in (9) and (10) above:

- (11) a. *du blöder Idiot*  
           you stupid idiot  
           'you stupid idiot'
- b. *du blöder Landwirt*  
           you stupid farmer  
           'you stupid farmer'
- c. *du blöder Mann*  
           you stupid man  
           'you stupid man'

- (12) a. *Du bist \*(n) blöder Landwirt.*  
 you are a stupid farmer  
 ‘You are a stupid farmer.’
- b. *Du bist \*(n) blöder Idiot.*  
 you are a stupid idiot  
 ‘You are a stupid idiot.’
- c. *Du bist \*(n) blöder Mann.*  
 you are a stupid man  
 ‘You are a stupid man.’

So, in order to probe into certain restrictions, I will use unmodified nouns.<sup>6</sup> In the introduction, I made use of a distinction as regards the meaning of nouns: neutral/literal vs. emotive/figurative. Let me be more precise about this. We will see that emotiveness and figurativeness are not the same.

### 2.2.2. Emotiveness and Figurative Extension

With the current discussion in mind, I point out that role and kind nouns can have two subtypes. Role nouns like *Landwirt* have a neutral-only meaning (‘farmer’); others like *Bauer* can have an additional figurative meaning (‘farmer/peasant’).<sup>7</sup> The figurative meaning is emotive. Recall that role nouns are not emotive in their literal meaning but only in their figurative meaning. Kind nouns like *Schwein* have a neutral-only meaning (‘pig’), but if applied to humans, they can also have a figurative meaning (‘swine/pig-like person’); others like *Idiot* have an emotive-only meaning (‘idiot’).

To be clear, some nouns become emotive when “figuratively extended” (*Schwein*, *Bauer*), but others are inherently emotive (*Idiot*). This means that not all emotive readings are due to figurative extension. Let me elaborate on the figurative extension of *Schwein* and *Bauer*. In their neutral/literal meaning, these nouns denote properties like ‘pig’ or ‘farmer;’ in their emotive/figurative meaning, these nouns denote certain features of a stereotypical representative of the relevant kind. In other words, while the individuals under discussion are ascribed certain features of a pig or farmer, there is no implication here that the individuals are actually pigs or farmers.

In sum, while certain role nouns only have a neutral/literal meaning (*Landwirt*), other such nouns may have an additional emotive/figurative one (*Bauer*). Emotive kind nouns only have an emotive meaning (*Idiot*), but neutral kind nouns may have an additional emotive/figurative meaning (*Schwein*). Importantly, while a figurative meaning is emotive, an unambiguous emotive noun does not have a figurative meaning. In the summary Table 1, I mark this as unambiguous and ambiguous (NB: since the neutral meaning of *Schwein* ‘pig’ cannot

<sup>6</sup> I will concentrate on countable nouns (for the discussion of the concept of countability, see Allan 1980, also Chapters 7 and 8) and basically leave aside group nouns and *pluralia tantum* nouns. Also, I will abstract away from special cases such as “royal” *ihr* ‘you’ and “nursely” *wir* ‘we.’

<sup>7</sup> For the latter reading, there are other names found in the literature: metaphorical, extended, approximative, subjective, descriptive, “gradable,” and [+scalar]. Also, note that this difference in interpretative possibilities also holds true for regular kind nouns and proper names; for instance, while *Obelisk* ‘obelisk’ and *Joachim* ‘Joachim’ pattern with *Landwirt* ‘farmer,’ *Säule* ‘column/pillar’ and *Willi* ‘Willy/idiot’ align with *Bauer* ‘farmer/peasant.’

apply to a human, I put it in parentheses; the negative value in parentheses indicates that this is not a possible reading in out-of-the-blue contexts):<sup>8</sup>

Table 1: Different Types of Count Nouns

| Type                            | Unamb.          | Ambiguous                           | Unamb.       | Ambiguous                      |
|---------------------------------|-----------------|-------------------------------------|--------------|--------------------------------|
| Meaning                         | <i>Landwirt</i> | <i>Bauer</i>                        | <i>Idiot</i> | <i>Schwein</i>                 |
| Neutral/literal                 | ‘farmer’        | ‘farmer’                            | -            | (‘pig’)                        |
| Emotive                         | (-)             | (-)                                 | ‘idiot’      | (-)                            |
| Figur. (emot.)<br>[Comparative] | -               | ‘peasant’<br>[“farmer-like person”] | -            | ‘swine’<br>[“pig-like person”] |

To be clear, the word pairs in Table 1 are intriguing in that one element is unambiguous and the other is ambiguous. To account for this difference, one must assume some amount of lexical specification (if so, one might also expect some dialectal and cross-linguistic variation in this regard, which I think is true). I return to the issue of lexical specification below.

Let me now turn to the data and see how role and emotive or figurative kind nouns pattern as regards the three readings. I will compare the relevant readings in the DP to those of the CP. I start with cases in the plural. We will see that with the exception of the capacity reading involving *als* ‘as,’ there are no restrictions in these cases.

### 2.3. Plural

I begin with the two unambiguous nouns from Table 1. As can be seen in (13) and (14), role as well as emotive kind nouns are equally possible in ordinary readings:

- (13) a. *ihr Landwirte*  
you farmers  
‘you farmers’
- b. *Ihr seid Landwirte.*  
you are farmers  
‘You are farmers.’
- (14) a. *ihr Idioten*  
you idiots  
‘you idiots’
- b. *Ihr seid Idioten.*  
you are idiots  
‘You are idiots.’

Continuing with ambiguous nouns, something similar holds for the comparative reading with figuratively extended kind nouns:

<sup>8</sup> As we will see in the next subsection, role nouns in their literal meaning can take on an emotive component. The same goes for kind nouns (but is less relevant for current purposes).



- (15) a. *ihr Schweine*  
           you pigs  
           ‘you idiots’
- b. *Ihr seid Schweine.*  
           you are pigs  
           ‘You are idiots.’

Turning to the capacity reading, I note that only certain predicate nouns are possible. In particular, role nouns (and certain kind nouns, see below) are fine (16a). However, as pointed out in Lawrence (1993: 93) and Rauh (2004: 86), emotive and figuratively extended kind nouns are marked (16b-c). It seems to me that the latter also holds true for kind nouns that have a more general, hypernym-like denotation (16d):

- (16) a. *ihr als Landwirte*  
           you as farmers  
           ‘you as farmers’
- b. ?? *ihr als Idioten*  
           you as idiots
- c. ?? *ihr als Schweine*  
           you as pigs
- d. ?? *ihr als Personen*  
           you as persons

I believe that the restriction shown in (16b-d) is probably due to the fact that *als* ‘as’ singles out a person with regard to a specific capacity or skill. Importantly, this quality must be restrictive enough such that only some people typically have it in a given context. In other words, while it is clear that not each and every person is a farmer (16a), every person can presumably be in someone else’s bad books (16b-c). As to (16d), every person is a human being making *Personen* too general in meaning to be restrictive in the relevant way. To be clear, only *Landwirte* in (16a) singles out the addressed individuals in the relevant way but the other nouns in (16) do not.

Turning to ambiguous nouns such as *Bauer* ‘farmer/peasant,’ they are possible in the neutral/literal and emotive/figurative meanings in simple DPs and copular cases (17a-b), where both an ordinary and comparative reading is possible. In contrast, the restriction just discussed emerges again in *als*-nominals (17c). In other words, the capacity reading in (17c) is the sum of *als* ‘as’ and the neutral/literal reading of the noun:

- (17) a. *ihr Bauern*  
           you farmers/peasants  
           ‘you farmers/peasants’

- b. *Ihr seid Bauern.*  
you are farmers/peasants  
'You are farmers/peasants.'
- c. *ihr als Bauern*  
you as farmers  
'you as farmers'  
# 'you as peasants'

Unlike the DP cases, clauses do not involve *als* 'as' in the capacity reading (18a). However, I believe this reading can be brought out when the modal particle *vielleicht* 'really' is added (18b). What is interesting to note is that even an unambiguous role noun like *Landwirt* 'farmer' can take on an emotive component in such a context, with a negative reading being somewhat easier to obtain (18c):

- (18) a. \* *Ihr seid als Bauern.*  
you are as farmers/peasants
- b. *Ihr seid vielleicht 'n paar Bauern!*  
you are PRT a couple farmers/peasants  
'You are some farmers/peasants!'
  - c. *Ihr seid vielleicht 'n paar Landwirte!*  
you are PRT a couple farmers  
'You are some farmers!'

Note that the emotive reading in (18c) is not due to the properties of the noun itself or figurative extension. Rather, the modal particle *vielleicht* plays a role here. Specifically, this particle invokes a [+scalar] capacity reading; that is, the persons being addressed are described as being good or bad in the capacity of farmers.

#### 2.4. Singular

The cases in the singular are more restricted. While the same readings as above are in principle possible, some well-known restrictions with regard to the predicate noun will appear. As with the plural cases above, I start with unambiguous nouns in the ordinary reading.

Recalling that I focus for now on out-of-the-blue contexts, I already noted in the introduction that role nouns are not possible in the DP but that they pattern more freely in the CP. In fact, unlike what is often claimed in textbooks, many speakers allow these nouns not only to occur without *ein* but also with the indefinite article:

- (19) a. ?? *du Landwirt*  
you farmer

- b. *Du bist ( 'n) Landwirt.*  
 you are a farmer  
 'You are a farmer.'

Unlike role nouns, emotive kind nouns are possible in the DP but must co-occur with an article in the CP:

- (20) a. *du Idiot*  
 you idiot  
 'you idiot'
- b. *Du bist \*( 'n) Idiot.*  
 you are an idiot  
 'You are an idiot.'

In the comparative reading, the distribution is identical to the cases with an ordinary reading involving emotive kind nouns (as just seen):

- (21) a. *du Schwein*  
 you pig  
 'you idiot'
- b. *Du bist \*( 'n) Schwein*  
 you are a pig  
 'You are an idiot.'

In other words, kind nouns, be they inherently emotive or figuratively extended, pattern alike. Finally, I turn to the capacity reading.

Similar to the cases in the plural, only certain nouns are possible in *als*-nominals:

- (22) a. *du als Landwirt*  
 you as farmer  
 'you as a farmer'
- b. ?? *du als Idiot*  
 you as idiot
- c. ?? *du als Schwein*  
 you as pig
- d. ?? *du als Person*  
 you as person

I assume that the restriction involved in (22b-d) is the same as that seen in the plural above.

In the clause, the indefinite article is obligatory with role nouns, and these cases are emotive (23a).<sup>9</sup> Notice also that when emotive or figuratively extended kind nouns combine with the modal particle, the ordinary and comparative readings get intensified (23b-c):

- (23) a. *Du bist vielleicht \*(‘n) Landwirt!*  
           you are PRT           a farmer  
           ‘You are some farmer!’
- b. *Du bist vielleicht ‘n Idiot!*  
           you are PRT           an idiot  
           ‘You are really an idiot!’
- c. *Du bist vielleicht ‘n Schwein!*  
           you are PRT           a pig  
           ‘You are really an idiot!’

Before I discuss ambiguous nouns like *Bauer* ‘farmer/peasant’ in the singular, let me briefly take stock here.

## 2.5. Interim Summary

As seen in the last two subsections, unambiguous role nouns can take on an emotive component in the clausal capacity reading. The latter involves the modal particle *vielleicht* ‘really.’ In other words, emotiveness can be distinguished into an inherent property (*Idiot*), it can be due to figurative extension of a lexical meaning (*Schwein* ‘pig > swine,’ *Bauer* ‘farmer > peasant’), and it can be brought about in certain contexts where in conjunction with a modal particle, a neutral-only role noun may describe an individual performing their profession in an amazing or appalling way (*Landwirt* ‘farmer > some farmer’). The latter becomes particularly clear when evaluative adjectives like *toller* ‘great’ or *miserabler* ‘poor’ are added. In other words, the context where a neutral noun appears may change its reading. With this in place, I summarize the discussion above by sorting the facts according to the three readings.

As can be seen in Table 2, DPs and CPs in the plural have basically the same readings, and only the capacity reading differs in emotiveness:

Table 2: Summary of the Readings in the Plural

|    | Ordinary reading | Comparative reading | Capacity reading              |
|----|------------------|---------------------|-------------------------------|
| DP | Emotive/Neutral  | Emotive             | Neutral [ <i>als</i> ]        |
| CP | Emotive/Neutral  | Emotive             | Emotive [ <i>vielleicht</i> ] |

<sup>9</sup> These constructions can take – what Delsing (1993: 36) calls – an ‘implicit argument.’ To illustrate with German, the dative pronoun *mir* ‘me’ can be added to (23a):

- (i) *Du bist mir vielleicht \*(‘n) Landwirt!*  
       you are me PRT           a farmer  
       ‘(To me,) you are some farmer!’

Note that the ethical dative seems to bring out more clearly the capacity reading where the presence of other properties is presupposed, but only the overt predicate is taken to be relevant. I will stick to the simpler cases in the main text.

The singular cases are more restricted, especially in the ordinary reading. In particular, the ordinary reading in the DP only allows (inherent) emotive kind nouns, but the other two readings in the DP are like in the plural. As for the CP, role nouns take an optional article in the ordinary reading, but kind nouns must have *ein*. In the two other readings, nouns are emotive and require a determiner. In other words, *ein* appears in both neutral and emotive contexts. Consider Table 3 (the subscript K stands for kind noun and the subscript R for role noun):

Table 3: Summary of the Readings in the Singular

|    | Ordinary reading                                                                                                                                | Comparative reading                         | Capacity reading                                                                   |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------|
| DP | Emotive [ <i>du Idiot</i> <sub>K</sub> ]                                                                                                        | Emotive [ <i>du Schwein</i> <sub>K</sub> ]  | Neutral [ <i>du als Landwirt</i> <sub>R</sub> / <i>Mann</i> <sub>K</sub> ]         |
| CP | Neutral [( <i>ein</i> ) <i>Landwirt</i> <sub>R</sub> ]<br>Emotive [ <i>ein Idiot</i> <sub>K</sub> ]<br>Neutral [ <i>ein Mann</i> <sub>K</sub> ] | Emotive [ <i>ein Schwein</i> <sub>K</sub> ] | Emotive [ <i>vielleicht ein Landwirt</i> <sub>R</sub> / <i>Mann</i> <sub>K</sub> ] |

Note that all comparative readings involve figurative extension and consequently are emotive. Let me make some more remarks.

Starting with the singular (Table 3), we observe again that the ordinary reading and the capacity reading are complementary in the DP. The absence vs. presence of *als* ‘as’ seems to play a role here. Furthermore, emotiveness has less structure in the nominal domain (there is no *als* present) but more structure in the clausal domain (*ein* is present). In fact, the bidirectional entailment “non-emotive  $\leftrightarrow$  *als*” holds in the DP, and assuming that pronouns are determiners (Chapter 3), the unidirectional entailment “emotive  $\rightarrow$  determiner” holds in both domains. Finally, as mentioned above, the unidirectional entailment “no determiner  $\rightarrow$  role noun” holds in the CP.

Interestingly, these entailments allow the combination of a role noun and *ein*. This state-of-affairs is neatly summarized for the clause by de Swart *et al.* (2005: 451), who point out that the reading of a bare noun is basically a subset of the readings of the corresponding “*ein* + noun” combination (also Zamparelli 2008: 114). In other words, while a bare noun can only be neutral/literal in meaning, the same noun preceded by *ein* can be both neutral/literal (for some speakers) and emotive/figurative.<sup>10</sup> Below, we will see that the occurrence of *ein* is simply a side-effect and does not cause this figurative extension in interpretation.

Returning briefly to the plural (Table 2), the facts are somewhat different. First, *als* ‘as’ does not have to be present for a neutral reading in the DP (e.g., *ihr Linguisten* ‘you linguists’), and second, *ein* is not present in the plural (for a non-canonical case, see Footnote 22). With this in place, let me finally turn to ambiguous nouns in singular contexts.

<sup>10</sup> Note that de Swart *et al.* (2007) seem to have retreated from this position. However, I believe their former generalization is correct. In this regard, see, for instance, the discussion of John F. Kennedy’s famous sentence *Ich bin ein Berliner* in Eichhoff (1993), which for some speakers does not only have the emotive/figurative reading but also the neutral/literal one. I thank Veronika Ehrich for this reference and some discussion of this topic.

## 2.6. Ambiguous Nouns in the Singular

With the above discussion in mind, let me consider examples involving *Bauer* ‘farmer/peasant.’ The expectation is that only some readings are possible in certain constructions. In fact, in the relevant cases, there should be a complementary loss of ambiguity. This is indeed borne out. To compare the distribution of the readings, I organize the data here according to syntactic domain.

Starting with the nominal domain, we expect that a simple DP involves a comparative reading and that an *als*-nominal has a neutral capacity reading. This is exactly what we find in (24a) and (24b), respectively:

- (24) a. *du Bauer*  
           you peasant  
           ‘you peasant’  
           #‘you farmer’
- b. *du als Bauer*  
           you as farmer  
           ‘you as a farmer’  
           #‘you as a peasant’

Recall that unambiguous role nouns (e.g., *Landwirt* ‘farmer’) exhibit degraded grammaticality in the ordinary reading.

Turning to the sentential cases, a bare role noun should only have a neutral ordinary reading (25a), a noun with an indefinite article should be ambiguous between a comparative and a neutral ordinary reading (25b), and the case involving the modal particle *vielleicht* ‘really’ should be ambiguous between an intensified comparative and an emotive capacity reading (25c). Again, this is exactly what the data bear out:

- (25) a. *Du bist Bauer.*  
           you are farmer  
           ‘You are a farmer.’  
           #‘You are a peasant.’
- b. *Du bist ‘n Bauer.*  
           you are a peasant/farmer  
           ‘You are a peasant.’  
           %‘You are a farmer.’
- c. *Du bist vielleicht ‘n Bauer!*  
           you are PRT a peasant/farmer  
           ‘You are some peasant/farmer!’

The discussion can be summarized in Table 4:

Table 4: Summary of the Readings of Ambiguous Nouns in the Singular

|    | Ordinary reading               | Comparative reading          | Capacity reading                        |
|----|--------------------------------|------------------------------|-----------------------------------------|
| DP |                                | Emotive [ <i>du Bauer</i> ]  | Neutral [ <i>du als Bauer</i> ]         |
| CP | Neutral [ <i>(ein) Bauer</i> ] | Emotive [ <i>ein Bauer</i> ] | Emotive [ <i>vielleicht ein Bauer</i> ] |

Table 4 is similar to Table 3, except for the ordinary reading. The latter is only available in the CP and must be neutral. Furthermore, note that *Bauer* is only ambiguous in the presence of *ein*. However, the article by itself does not have an “emotivizing” function as it does allow a neutral ordinary reading of *Bauer* in the CP. Finally, let me complete the picture with neutral kind nouns that involve names for humans.

As already seen in Section 2.2, kind nouns such as *Mann* ‘man’ are awkward in the DP (26a). Importantly, although non-emotive, they nonetheless require *ein* in the CP (26b):

- (26) a. ?? *du Mann*  
          you man
- b. *Du bist \*(‘n) Mann.*  
          you are    a man  
          ‘You are a man.’

This difference between role and kind nouns is taken up in the next section. We will see that the appearance of *ein* is a mere side-effect of the presence of a semantic operator. I will argue that *ein* indicates structure on top of NP (Hypothesis 3a). Thus, I will continue to claim that *ein* is semantically vacuous (Hypothesis 1a). I will also provide an explanation of the other highlighted properties of the aforementioned constructions. The proposal is based on two important works, de Swart *et al.* (2007) and Rauh (2004), that manifest an interesting division of labor, at least in the DP.

### 3. Proposal

In this section, I account for the similarities and differences between pronominal DPs and their clausal counterparts. First, I lay out my assumptions. This includes the discussion of two previous proposals. Then I turn to the three readings in detail.

#### 3.1. Combining Two Previous Proposals

In order to account for the readings in the nominal and sentential domain, I will basically follow de Swart *et al.*’s (2007) discussion of the copular cases and extend it to the nominal domain. Before I get into the details, I lay the groundwork.

##### 3.1.1. General Type Theory

As mentioned before, this book is not about the semantics of the DP *per se* (or the semantics of the CP, for that matter). Rather than providing detailed denotations, I will use Type Theory to

show that the relevant elements are semantically compatible with one another (for general background, see Heim & Kratzer 1998). Consider the following three sentences:

- (27) a. *Peter ist blond.*  
           Peter is blond  
           ‘Peter is blond.’
- b. *Er ist blond.*  
           he is blond  
           ‘He is blond.’
- c. *Der Mann ist blond.*  
           the man is blond  
           ‘The man is blond.’

What all these sentences have in common is that somebody is blond. In fact, assuming that *er* ‘he’ and *der Mann* ‘the man’ are the same person as *Peter*, all these sentences are true if a certain man called Peter has the property of being blond.

I assume that the copular verb *sein* ‘to be’ is semantically vacuous. A sentence has a truth value of 1 if its proposition is true in a given context or 0 if it is false. Illustrating for (27a), if a certain Peter is indeed blond, then this statement has a truth value of 1; that is, it is true. Truth values are of type  $\langle t \rangle$  (28a). It is usually assumed that individuals like *Peter* are entities. They are of type  $\langle e \rangle$  (28b). Like *Peter*, *er* ‘he’ and *der Mann* ‘the man’ are definite expressions and can replace *Peter*. Thus, I will assume that they are also of type  $\langle e \rangle$ . Turning to (intersective) adjectives like *blond* ‘blond,’ they involve predicates. Put simply, predication involves membership of an element in a certain set of ordinary/individual entities. Specifically, the adjective *blond* denotes a set of entities that are all blond. Predicates are of type  $\langle e, t \rangle$  (28c) – they are functors combining with entities and returning truth values. Finally, definite determiners like *der* ‘the’ are functors as well presupposing uniqueness. They combine with predicates yielding entities (28d):

- (28) a. truth values (type  $\langle t \rangle$ ): *Peter ist groß.*
- b. entities (type  $\langle e \rangle$ ): *Peter, er, der Mann*
- c. predicates (type  $\langle e, t \rangle$ ): *blond*
- d. determiners (type  $\langle \langle e, t \rangle, e \rangle$ ): *der*

Before commenting on *der Mann* ‘the man’ in (28b), note that Type Theory involves a combinatory system whereby elements are related to one another, two at a time. There are two main operations. First, Functional Application combines a functor and an argument by plugging the latter into the former (29a). For instance, the predicate *blond* can be a functor, and it takes an entity, say *Peter*, as its argument yielding a truth value (i.e.,  $X_{\langle e, t \rangle}(Y_{\langle e \rangle}) = Z_{\langle t \rangle}$ ). Second, Predicate Modification combines two predicates; that is, it forms an intersection of two sets of certain entities (29b). For example, predicates such *nett* ‘nice’ and *blond* ‘blond’ can be



combined as in *der nette blonde Mann* ‘the nice blond man’ such that a certain man is a member of the set of nice entities and a member of the set of blond entities; that is, he has the properties of being both nice and blond:

- (29) a. Functional Application: functor(argument)  
 b. Predicate Modification: predicate & predicate

Returning to *der Mann* in (28b), I assumed that this string is of type  $\langle e \rangle$  and that the determiner *der* itself is of type  $\langle \langle e, t \rangle e \rangle$ . Given Functional Application, one might expect the noun *Mann* to be a predicate, just like the adjective *blond*. Note that here the predicate itself is the argument, and the determiner is the functor. However, below I will follow de Swart *et al.* (2007) in arguing that nouns start out as certain types of “entities” – they become predicates before they combine with other elements (e.g., the determiner). Furthermore, I will assume that pronouns like *er* ‘he’ or, more relevant here, *du* ‘you’ are similar to *der* ‘the;’ that is, they are pronominal determiners as argued in Chapter 3.

### 3.1.2. De Swart, Winter & Zwarts (2007)

As discussed in Section 2.2.1, de Swart *et al.* (2007) propose that common nouns come in two types: kind nouns and (a specific set of) role nouns.<sup>11</sup> Both sorts of nouns are of type  $\langle e \rangle$  and have to be mapped to type  $\langle e, t \rangle$  if they are to function as predicate nouns. They propose that kind nouns combine with the realization operator REL (30a). In contrast, there are two options for role nouns: a direct path, whereby the capacity operator CAP takes the role noun and returns the predicate counterpart (30b); or an indirect path, whereby the role noun undergoes kind coercion resulting in a kind noun. The latter then combines with REL bringing about the predicate counterpart (30b’):<sup>12</sup>

- (30) a. kind nouns:  $N_{\langle e \rangle} + \text{REL} \rightarrow \text{NumP}_{\langle e, t \rangle}$   
 b. role nouns:  $N_{\langle e \rangle} + \text{CAP} \rightarrow \text{NP}_{\langle e, t \rangle}$   
 b’. role nouns:  $N_{\langle e \rangle} \rightarrow \text{kind coercion} + \text{REL} \rightarrow \text{NumP}_{\langle e, t \rangle}$

Note first that REL and CAP are of type  $\langle e \langle e, t \rangle \rangle$ . Furthermore, these operators are mutually exclusive; that is, when one applies, the other cannot. Moreover, both operators are tied to structure. REL is part of NumP, which triggers the presence of the indefinite article *ein* ‘a’ (note

<sup>11</sup> De Swart *et al.* (2007) call the latter ‘capacity’ nouns. There are two notions of capacity now: an interpretative one (a certain type of reading) and a lexical one (certain groups of nouns). These notions are not identical. For instance, certain kind nouns may also occur in capacity readings (Section 2). In order to avoid confusion, I will continue calling the relevant lexical items ‘role’ nouns.

<sup>12</sup> A different proposal is made by Zamparelli (2008: 125), who claims that role nouns are ambiguous between nominals that denote certain classes of human beings and nominals that denote abstract, well-established activities that identify those classes of human beings. Unlike the former, the latter nominals lack an inherent value for abstract gender, which, in turn, is taken to explain the absence of the indefinite article in predicative contexts. To the extent that I understand this correctly, this basically implies the existence of two lexical items for every role noun. In contrast, de Swart *et al.*’s analysis takes one relevant lexical item as its point of departure and proposes two operations for the role noun to be able to function as a predicate. I believe the latter approach is more desirable.

that this is not further elaborated on in de Swart *et al.*). In contrast, CAP is assumed to be part of the NP (more on this momentarily). For the most part, I will follow Swart *et al.*'s proposal. However, I will refine it in certain ways.

The different paths to derive a predicate nominal are taken to explain the fact that bare role nouns are only neutral/literal in meaning, but role nouns preceded by *ein* 'a' are both neutral/literal and emotive/figurative (Swart *et al.*'s 2005 generalization). As such, de Swart *et al.* relate overt morphological cues directly to the relevant interpretative differences. Specifically, the relevant overt morphology involves singular *ein* and plural suffixes on the noun (e.g., -s). Assuming that number morphology is associated with NumP, their proposed minimal structures of predicate nominals are as follows (also Munn & Schmitt 2005: 827, cf. Déprez 2005: 866):<sup>13</sup>

- (31) a. N → [ NP ] → CAP  
 b. N-s → [ NumP [ NP ] ] → REL  
 c. *ein* N → [ ArtP [ NumP [ NP ] ] ] → REL

Comparing (31a) to (31c), let me point out already here that *ein* indicates the presence of structure beyond NP (Hypothesis 3a) and that *ein* flags the presence of REL (Hypothesis 3b). The latter claim provides a reason for the appearance of *ein*.<sup>14</sup> Thus far, the proposal seems straightforward.

However, it is not entirely clear which part of de Swart *et al.*'s (2007) account derives the emotive/figurative reading. Although intuitively attractive at first glance, I will show that the emotive/figurative reading does, most likely, not derive from kind coercion but from the presence of REL. Furthermore, as already briefly pointed out in Section 2.2, not all nouns undergo figurative extension (e.g., *Landwirt* 'farmer'). Thus, the figurative extension of the literal meaning (e.g., *Bauer* 'farmer' > 'peasant') must take a certain lexical specification of the head noun into account. Finally, I will extend de Swart *et al.*'s (2007) proposal to the nominal domain. Consider these points in more detail.

### 3.1.3. Lexical Features on Nouns

As seen above, certain nouns can only be neutral/literal in meaning (e.g., *Landwirt* 'farmer'), but others can, under certain conditions, be ambiguous (e.g., *Bauer* 'farmer/peasant'). Let me start with the latter. It is clear from de Swart *et al.*'s (2007) proposal that the emotive/figurative reading is not derived from the direct path involving CAP. If this were the case, a bare role noun in the CP could have an emotive/figurative reading, contrary to fact. This leaves the indirect path

<sup>13</sup> Note that de Swart *et al.* call cases like (31b-c) 'Marked Nominals.' Furthermore, these authors assume that (31c) actually involves the indefinite article in the DP-level. With the discussion of the previous chapters in mind, I will assume that the predicate nominal is of a smaller size; that is, in the absence of modifiers, predicate nominals preceded by *ein* do not involve DP but ArtP (recall in this regard that *ein* has no feature for definiteness and does not have to move to the DP-level). This allows me to state that *ein* and REL are in a local relation (i.e., in adjacent phrases in underlying structure). If REL were to turn out to be in ArtP (at least in the singular cases), both *ein* and REL would be in the same phrase.

<sup>14</sup> Notice that this comes close to one of Ackles' (1996: 15) tentative suggestions that English *a(n)* might be a dummy that makes the presence of NumP in an indefinite singular count noun phrase identifiable. Assuming the structural sequence of Q D Num N, she proposes that *a(n)* is the minimal marker that is inserted in NumP when the latter is the leftmost, empty phrase of the larger noun phrase.

where kind coercion and REL are at work. With REL present, NumP will be projected, and the indefinite article will be present in ArtP too. Unlike the bare noun counterpart, *ein Bauer* can have both a neutral/literal and a emotive/figurative reading, which is correct. The question then arises whether kind coercion or REL is responsible for the figurative reading. As we will see momentarily, the answer is not entirely straightforward and involves several considerations. I will wind up suggesting that in combination with a lexical feature, REL brings about the interpretative extension.

First, considering *ein Landwirt* ‘a farmer,’ we observe that an article is present with a role noun. This means that ArtP, NumP, and REL are present. Consequently, kind coercion must have occurred. However, this nominal has a neutral/literal meaning only. This means that certain nouns do not undergo extension of their neutral/literal meaning. As such, nouns must be lexically specified as to whether or not they can undergo this interpretative extension. In other words, neither kind coercion nor REL will automatically invoke the figurative extension.

Second, when applied to a person, names for animals (e.g., *Schwein* ‘pig’) can only have an emotive/figurative meaning. Since these nouns are kind nouns to begin with, they do not undergo kind coercion. As such and making minimal assumptions, REL must be responsible for this extension in meaning (‘swine’).<sup>15</sup> However, REL performing this task cannot be the whole story. Certain other kind nouns (e.g., *Katze* ‘cat’) do not seem to be able to undergo this extension easily or at all. This makes these kind nouns similar to the role noun *Landwirt* (see also the word pairs in Footnote 7).

I propose that certain vocabulary items (*Bauer*, *Schwein*) involve a lexical feature that allows figurative extension; other nouns (*Landwirt*, *Katze*) do not have this feature and cannot undergo this extension. With this in mind, I make the plausible assumption that *Bauer* and *Schwein* are similar in the relevant way (recall that the literal meaning of *Schwein* ‘pig’ is excluded for pragmatic reasons when the relevant entity is anatomically not a pig). For concreteness, let me assume that the relevant lexical items are specified as [+figurative] if they are able to undergo the extension. Thus, while both *Bauer* and *Schwein* are specified with this feature, *Landwirt* and *Katze* are not. Given that *ein Bauer* can, at least for some speakers, also have a neutral/literal meaning, I assume that figurative extension is not obligatory (unless forced by the pragmatics).

To be clear, then, I will basically follow de Swart *et al.* (2007) with the refinement that figurative extension is due to REL but constrained by the feature [+figurative] present on certain nouns. Note again that kind coercion only applies to role nouns but figurative extension to both role and kind nouns. Also, figurative extension does not entail kind coercion, but the former yields a special case of emotiveness. More generally, if REL is indeed responsible for the (optional) figurative extension, then I can continue to claim that *ein* makes no semantic, but only a morpho-syntactic, contribution – it indicates the size of the structure and flags the presence of an operator. Before I extend de Swart *et al.*’s (2007) discussion to the DP, it is important to point out that the full explanation of the nominal cases involves a(nother) pragmatic aspect as part of the account.

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<sup>15</sup> Alternatively, one could also suggest here that a null predicate, call it LIKE, is responsible for the extension in meaning (cf. den Dikken’s 2006: 178 predicate SIMILAR in the comparative binominals). However, I will proceed on minimal assumptions; that is, I will assume that REL brings about the figurative extension.

### 3.1.4. Rauh (2004)

So far, I have only considered pragmatically neutral, out-of-the-blue examples for the ordinary reading in the DP (32a). However, as Rauh (2004) discusses in detail, these cases are perfectly fine given an appropriate context. Two of her examples may suffice here (32b-c) (again, stress is indicated here by capital letters):<sup>16</sup>

- (32) a. ?? {*ich / du*} *Linguist*  
I / you linguist
- b. *Ihr Literaturwissenschaftler mögt den jetzigen Zustand für angemessen halten, aber ich LINGUIST halte die Linguistik für weit unterrepräsentiert.*  
'You literature scholars may consider the current status quo as adequate but I linguist consider linguistics as quite underrepresented.'
- c. *Wenn noch nicht einmal du LINGUIST die neue Rechtschreibung beherrscht, wer sollte es dann?*  
'If not even you linguist have mastered the new spelling rules, who else could do that?'

While I cannot do full justice to all the facets of her account here (e.g., the different stress patterns involved), Rauh's basic proposal is based on the different deictic qualities of the personal pronouns involved and two Gricean maxims.

As a rule, *ich* 'I' and *du* 'you(SGL)' are disambiguously specified in their deixis such that the identity of the person concerned is clear in a given context. Additional restrictive information provided by a NP complement (e.g., *Linguist*) is not needed. In fact, by Grice's maxim of quantity (informally: "be as informative as required but not more"), it is redundant and thus yields a marked string. Given a different, more involved context as in (32b-c) above, such a NP complement may make a relevant contribution, and as such it is allowed by Grice's maxim of relation (informally: "be relevant"). Specifically, this contribution involves a contrastive or emotive component; compare (32b) to (32c). With this in mind, emotive NP complements such as *Idiot* 'idiot' are always relevant and thus always possible. Finally, plural pronouns are less deictically specified and thus allow restrictive material in the complement position. Let me relate Rauh's (2004) proposal for the DP to de Swart *et al.*'s (2007) account of the CP.

As I will discuss in detail in Chapter 7, all DPs must involve NumP, and as such REL is always present there. With the discussion of the clause in mind, this makes both a neutral and an emotive noun, at least in principle, possible inside the complement position of a determiner. Now, recalling Rauh's (2004) pragmatic account of singular DPs, only an emotive complement remains possible in out-of-the-blue, neutral contexts. In contrast, singular DPs in a different, appropriate context or plural DPs in general can have neutral or emotive NP complements. To be clear, then, the explanation of the DP involves a straightforward extension of Swart *et al.* (2007), once we assume that NumP (and thus REL) is always present there and that a pragmatic aspect must be part of the account. Combining these two proposals will also explain the fact that in out-of-the-blue contexts, there are no true minimal pairs between pronominal DPs and copular CPs when both involve bare predicate nouns (Section 3.3).

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<sup>16</sup> Although English does, for some reason, not tolerate singular pronominal DPs in argument position, I will keep the translation parallel to German.

In the next section, I turn to the details of my proposal. I will focus on the cases in the singular where I have identified most restrictions and where *ein* is present in emotive contexts. Before doing so, let me summarize in Table 5 the cases in the singular (without *als* ‘as’), discussed in this and the previous sections:<sup>17</sup>

Table 5: Nouns and their Readings in the DP and CP

| Noun    | Reading                             | DP                                                             | CP                                                                       |
|---------|-------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------|
| Neutral | Literal                             | <i>du LANDWIRT</i><br>‘you farmer’<br>(stressed - contrastive) | <i>Du bist</i> (‘ <i>n</i> ) <i>Landwirt.</i><br>‘You are a farmer.’     |
| Emotive | Emotive                             | <i>du Idiot</i><br>‘you idiot’                                 | <i>Du bist</i> ‘ <i>n Idiot!</i><br>‘You are an Idiot!’                  |
| Neutral | Emotive/figurative<br>[comparative] | <i>du Schwein/Bauer</i><br>‘you idiot/peasant’                 | <i>Du bist</i> ‘ <i>n Schwein/Bauer!</i><br>‘You are an idiot/peasant!’  |
| Neutral | Emotive                             | <i>du LANDWIRT</i><br>‘you farmer’<br>(stressed - emotive)     | <i>Du bist vielleicht</i> ‘ <i>n Landwirt!</i><br>‘You are some farmer!’ |

Note again that all the emotive readings have *ein* in singular predicate nominals in the CP (but not in the DP). Furthermore, it is clear though from the optionality of *ein* in certain clausal cases that the presence of *ein* does not necessarily lead to emotiveness. With this in place, I turn to the explanation of the individual readings in the DP and CP starting with the – what I have called – ordinary reading.

### 3.2. Ordinary Reading

I propose that the ordinary reading involves direct predication. What I mean by that is that the pronoun and noun combine with one another without invoking a figurative extension of the literal meaning of the head noun. This is different from the comparative reading discussed in the next section. First, I discuss the nominal domain and then the clausal one.

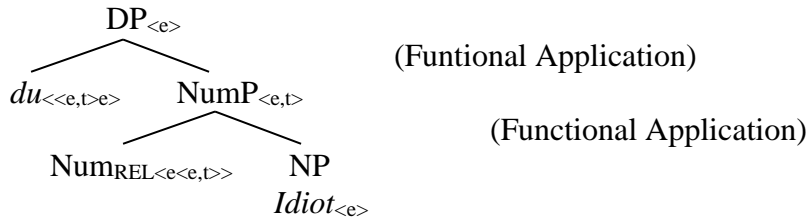
#### 3.2.1. Ordinary Reading in the DP

As discussed in Chapter 3, I assume that pronominal DPs consist of a head noun and a pronominal determiner. To keep the exposition simple, I will abstract away from the lower base position of the determiner and its movement to the DP-level. I will assume here and argue below that NumP is sandwiched between the head noun and the pronominal determiner. As such, pronominal DPs exhibit a regular DP structure (see Chapter 1). Consider the example in (33a) and its structural analysis in (33b):

- (33) a. *du Idiot*  
you idiot  
‘you idiot’

<sup>17</sup> As far as I can tell, emotive nouns cannot have neutral or figurative readings. As to the latter, note that *Du bist* ‘*n Idiot!*’ does not seem to mean ‘You are an idiot-like person!’, which states that the person addressed only has certain features of an idiot (whatever those may be).

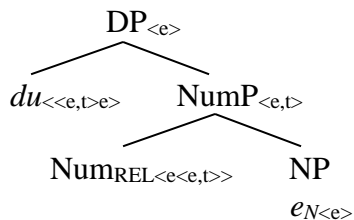
b. *Ordinary Reading in DP*



I turn to the semantics. With Section 3.1.1 in mind, I will restrict myself to giving the semantic types of the relevant elements and how they are combined. This is shown in (33b). Putting it into words and starting at the bottom of the tree, the kind noun *Idiot* ‘idiot’ combines with the REL operator in NumP to return a predicate nominal. I take Postal’s (1966) claim that pronouns are determiners at face value. In other words, I assume that *du* ‘you(SGL)’ is a pronominal determiner that is semantically similar to a definite determiner. Given that, Functional Application can apply to the predicate nominal and the pronominal determiner resulting in an entity with the following reading: the unique *x* (informally addressed) such that *x* is an idiot (in Chapter 7, I discuss the ungrammaticality of cases like \**du* ‘*n Idiot* ‘you an idiot’). The derivation is the same for *Landwirt* ‘farmer’ and *Mann* ‘man’ but requires a special context.

Before I discuss the clausal cases, let me be more explicit about pronouns that have no noun as their complement. Similar to what we have just seen, I assume that they are not simply “intransitive” but more complex. In particular, I assume that there is actually a head noun. I suggest that this head is an unpronounced kind noun, say,  $e_N$  (cf. PERSON in Rauh 2004: 89). The latter combines with REL to give a predicate nominal. This complex null element, semantically  $REL(e_N)$ , can now function as an argument to the pronominal functor resulting in an entity:

(34) *Pronouns Without Overt Complement*



Note that this is the same abstract structure and derivation as in (33b) above.

### 3.2.2. Ordinary Reading in the CP

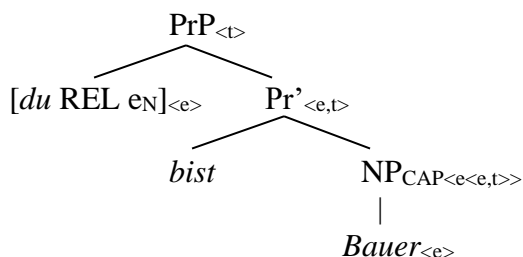
Similar to the DP, the ordinary reading in the clause does not involve figurative extension either. For simplicity’s sake, I will adopt fairly traditional tree representations. Unlike DPs, I claim that nominals in a copular clause do not necessarily involve NumP. Furthermore, I assume that the clause involves a Predication Phrase (PrP, Bowers 1993).<sup>18</sup> The underlying structure of (35a) is

<sup>18</sup> There are other possibilities; for instance, the auxiliary could select a Small Clause (e.g., Hoekstra 1984: 231). Note also that Bowers (1993) employs PrP in the DP. However, I follow here the more familiar structural view of

given in (35b) (for simplicity, I abstract away here from further movements to the left, see Chapter 7):

- (35) a. *Du bist Bauer.*  
 you are farmer  
 ‘You are a farmer.’

b. *Ordinary Reading in CP with Role Nouns*



As to the semantics, *Bauer* is a role noun, and unlike kind nouns it can combine with CAP. The latter is located in NP and brings about a predicate nominal. Above, we have seen that “intransitive” pronouns like *du* ‘you(SGL)’ actually involve pronominal DPs; that is, they involve entities. Recalling that the copula is semantically vacuous, the pronominal DP and the predicate nominal combine by Functional Application to yield a truth value. Note now that (35a) cannot have the emotive/figurative reading ‘peasant.’ This is so because CAP (but not REL) brought about the predicate nominal involving *Bauer*. Finally, in order to account for the full grammaticality of these types of examples, observe that the predicate noun makes an assertion about the subject, and as such it is informative and relevant from a pragmatic point of view. The same holds if we exchange *Bauer* with *Landwirt* ‘farmer.’

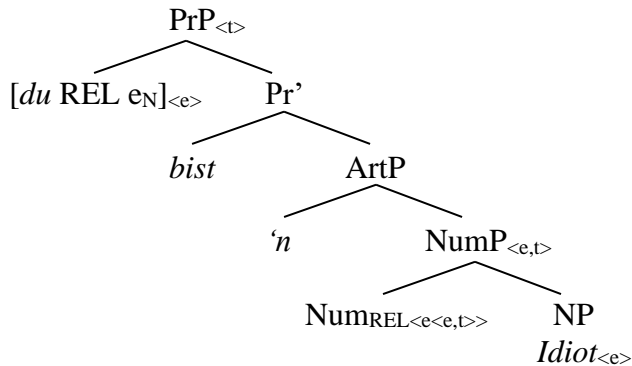
Finally, let me mention again that the combination of “*ein* + N” can also result in ordinary readings (36a). With *Idiot* ‘idiot’ an emotive kind noun, it combines with REL in NumP bringing about *ein*. The remainder of the derivation basically proceeds as above:

- (36) a. *Du bist 'n Idiot.*  
 you are an idiot  
 ‘You are an idiot.’

---

DPs already discussed above. The resulting differences in names for functional phrases should not be taken as an indication that the DP and CP are not parallel.

### b. Ordinary Reading in CP with Kind Nouns



The same holds if NP involves *Mann* ‘man.’ As to the latter case, note again that *ein* does not have an “emotivizing” function; that is, *ein* is an expletive element and does not participate in the semantic derivation. The ambiguous noun *Bauer* ‘farmer/peasant’ preceded by *ein* will be discussed in the section on comparative readings. This is also where I comment on the optional presence of *ein* in the ordinary reading in the CP (e.g., *Du bist ('n) Bauer*. ‘You are a farmer.’).

To summarize, the ordinary reading is emotive in the nominal domain but neutral or emotive in the sentential domain. Both cases involve direct predication; that is, there is no figurative extension in the DP (i.e., the head noun is inherently emotive), and the CP involves a role noun in combination with CAP or an emotive kind noun combining with REL. Next, I will discuss cases with figurative extension.

### 3.3. Comparative Reading

Before I provide the structures of the relevant DPs and CPs, let me start with some general considerations.

#### 3.3.1. Preliminaries

As a point of departure, I begin with more complex comparative structures. It is well documented that an attributive adjective and its head noun must agree in phi-features yielding concord. This means that the adjectives in (37) below are in the extended projection of their following noun. Furthermore, I proposed in Chapter 2 that a weak adjective is the result of Impoverishment. This, in turn, implies that the adjective is in the specifier just below the determiner:

- (37) a.   *ihr*           *dumm-en* *Schweine*  
           you.PL.NOM stupid-WK pigs  
           ‘you stupid idiots’
- b.   *mir*           *groß-en* *Gans*  
           me.SGL.DAT great-WK goose.FEM  
           ‘me stupid idiot’



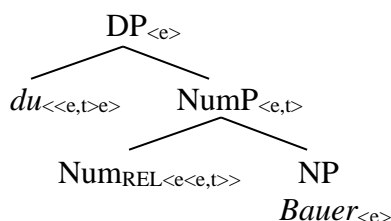
In other words, these comparative constructions have the pronominal determiner, the adjective, and the noun in a regular DP structure, just like with the ordinary reading. Let me proceed with examples involving unmodified nouns.

### 3.3.2. Comparative Reading in the DP

Recall that I proposed that the comparative reading involves a figurative extension of the neutral/literal meaning of the head noun; for example, the neutral/literal meaning of *Bauer* ‘farmer’ is extended to ‘farmer-like person’ or ‘peasant.’ I proposed that this is due to REL. This fits well with the assumption that NumP is present in the DP. The example in (38a) is derived as in (38b):

- (38) a. *du Bauer*  
 you peasant  
 ‘you peasant’  
 #‘you farmer’

#### b. Comparative Reading in DP



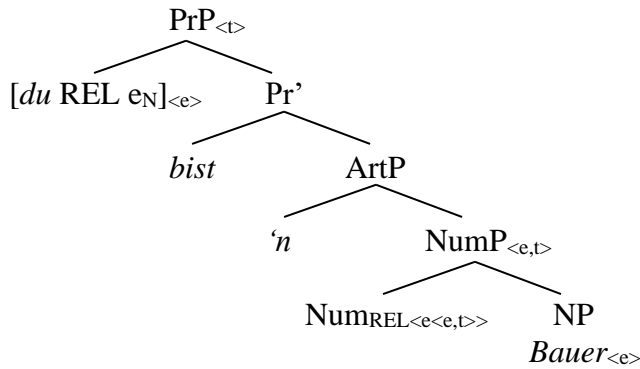
As for the interpretation, the role noun *Bauer* undergoes kind coercion and combines with REL in NumP. As the noun is lexically marked as [+figurative], it can undergo figurative extension. Unlike the neutral/literal reading, this extension yields emotiveness and is felicitous in out-of-the-blue contexts (Rauh 2004). Next, NumP combines with the pronoun resulting in an entity with the following reading: the unique x (informally addressed) such that x is, in some way, similar to a farmer. Similar considerations apply to *Schwein* ‘pig.’

### 3.3.3. Comparative Reading in the CP

If the above discussion of the DP is tenable, then the comparative reading in the CP should involve a similar account. The example in (39a) is derived as in (39b):

- (39) a. *Du bist 'n Bauer.*  
 you are a peasant/farmer  
 ‘You are a peasant.’  
 %‘You are a farmer.’

b. *Comparative Reading in CP*

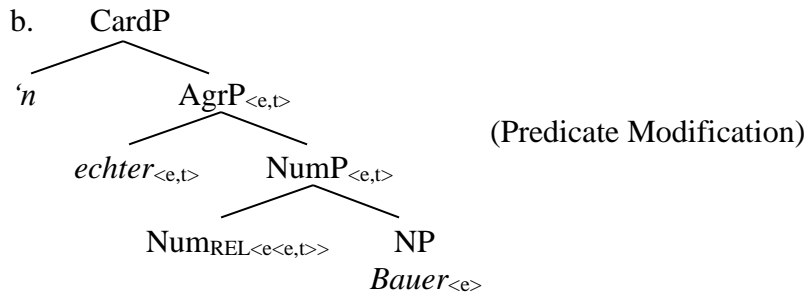


Like above, *Bauer* undergoes kind coercion and then combines with REL in NumP. Structurally, this brings about *ein* 'a' in ArtP. Semantically, this complex element, namely  $\text{REL}(\text{Bauer})$ , combines with the pronominal DP to give a truth value. Note that *Bauer* has the option of keeping its neutral/literal meaning or undergoing figurative extension. This is so because this noun is specified [+figurative], but the figurative extension by REL is not obligatory. This derives the two readings in (39a) above. The same basic derivation as in (39b) applies to *Schwein* 'pig,' with the proviso that the interpretation can only be 'pig-like person' or 'swine' for pragmatic reasons.

Returning to an issue left open in the last section, notice also that the ordinary reading of the role noun involves the indirect path in (39), and as such it entails more structure and more operations than in the direct path (Section 3.2.2). This might explain why the combination of *ein* and *Bauer* in its neutral/literal meaning is somewhat less easily available or even absent for some speakers.

Finally, recall also that the modal particle *vielleicht* 'really' can intensify the comparative reading resulting in an interpretation close to "really like" (40a). Consonant with the above discussion, the adjective and the noun are in their regular position (40b):

- (40) a. *Du bist vielleicht 'n echter Bauer!*  
 you are PRT a real peasant  
 'You are really like a peasant!'



Taking stock, the comparative reading in the nominal and sentential domain involves the operator REL in NumP. In combination with an [+figurative] role noun, this results in an emotive/figurative reading in the DP and in the CP (although a neutral/literal reading is not

excluded in the latter domain). Note now that the interaction between de Swart *et al.* (2007) and Rauh (2004) also affords us an explanation of why there are no true minimal pairs of the type *du Noun<sub>I</sub>* ‘you Noun’ and *Du bist Noun<sub>I</sub>* ‘You are a Noun’ in pragmatically neutral contexts.

Specifically, all pronominal DPs involve NumP and thus REL. The latter may bring about the emotive/figurative extension of the meaning of the head noun. Now, Rauh’s pragmatic proposal explains why only inherently emotive kind nouns (*Idiot*), [+figurative] kind nouns (*Schwein*), and [+figurative] role nouns (*Bauer*) are possible in the DP. In contrast, de Swart *et al.* argue that bare predicate nouns in the CP only involve NP and thus CAP. With REL absent here, this only allows the occurrence of role nouns, with the feature [+figurative] (*Bauer*) or without (*Landwirt*). Due to the absence of REL, *Bauer* can only have the neutral/literal meaning like *Landwirt*. To be sure, then, Rauh’s proposal forces the bare noun to be emotive in the DP, and de Swart *et al.*’s analysis explains why the bare noun can only be neutral in the CP. If so, the absence of minimal pairs should not be taken as an argument that DPs and CPs are fundamentally different after all – the difference is explained by the interplay of the two above proposals. I turn to the last reading.

### 3.4. Capacity Reading

Before I discuss the detailed analyses of the DP and CP, let me provide some background information motivating the relevant structures.

#### 3.4.1. Preliminaries

We have seen that DPs involving *als* ‘as’ have a (neutral) capacity reading (41a). The latter can be paraphrased as “in the capacity of / with regard to being.” In the CP (41b), the modal particle *vielleicht* ‘really’ invokes an emotive capacity reading similar to “bad/good in the capacity of / with regard to being,” and it intensifies the comparative reading (for the structure, see previous section):

- (41) a. *du als Bauer*  
           you as farmer  
           ‘you as a farmer’  
           #‘you as a peasant’
- b. *Du bist vielleicht ‘n Bauer!*  
           you are PRT       a farmer/peasant  
           ‘You are some farmer/peasant!’

Starting with the DP, I will make the fairly straightforward proposal that *als* ‘as’ brings about the capacity reading. As to the CP, I would like to suggest that in combination with the modal particle, the null equivalent of *als* (i.e., ALS) derives the corresponding clausal reading. Like all null elements, ALS has to be licensed. I assume that the modal particle is responsible for that. For concreteness’ sake, suppose that the modal particle is an operator, that ALS is some kind of emotiveness variable (cf. *some* in the English translations), and that the former binds the latter (N.B. unlike *als*, ALS by itself is not an operator). Schematically, we arrive at the following, where the relevant parts of the data in (41a-b) are provided in (42a-b):

- (42) a. [du als Bauer]  
 b. vielleicht<sub>i</sub> [ein ALS<sub>i</sub> Bauer]

The bracketed strings will be of particular relevance below. To determine the syntactic properties of these two capacity constructions, let me consider the latter in combination with third-person pronouns. As is well known, these pronouns are syntactically very restrictive and will therefore help me find a plausible structural analysis.

Unlike pronouns of the first and second person, pronouns of the third person cannot directly combine with adjectives and/or overt nouns (see Höhn 2020 and many others). Compare (43a) to (43b-d):

- (43) a. er als Bauer  
           he as farmer  
           ‘he as a farmer’  
 b. \* er Gute(r)  
       he good  
 c. \* er Bauer  
       he farmer  
 d. \* er gute(r) Bauer  
       he good farmer

However, they can be modified by relative clauses (44a) (see Vater 1985, Rauh 2003). In other words, I take (43a) to be on a par with (44a). Assuming the traditional adjunction analysis for relative clauses, I propose that *als Bauer* is also adjoined to the pronoun (cf. Rauh 2004: 94), schematically illustrated in (44b):

- (44) a. er, der gerade durch die Tür gekommen ist  
           he who just through the door come is  
           ‘he, who just came through the door’  
 b. Adjunction-type Analysis  
     du [ als Bauer ]

Turning to the clausal counterpart (42b), recall from Chapter 2 that *ein* ‘a’ cannot have an ending when an adjective and/or a noun follows. This holds independently of the presence or absence of the modal particle. Compare (45a) to (45b-d):

- (45) a. Er ist vielleicht ein (guter) Bauer!  
           he is PRT a/one good farmer  
           ‘He is some great farmer!’

- b. \* *Er ist (vielleicht) ein-er Gute(r)*  
 he is PRT a/one-ST good
- c. \* *Er ist (vielleicht) ein-er Bauer*  
 he is PRT a/one-ST farmer
- d. \* *Er ist (vielleicht) ein-er gute(r) Bauer*  
 he is PRT a/one-ST good farmer

Rather, inflected *ein* is only possible when the modifier is a relative clause (a genitive DP, or a PP) or when no relevant element follows at all (46a). Thus, in order to explain the absence of the inflection on *ein* in (42b), I propose that similar to the adjective in (45a), ALS *Bauer* is in a specifier. This is shown in simplified form in (46b):

- (46) a. *Er ist ein-er (, der viel arbeitet).*  
 he is one-ST who much works  
 'He is one that works a lot.'
- b. Specifier-type Analysis  
*ein [ ALS Bauer ] e<sub>N</sub>*

To sum up thus far, we have seen some evidence that *als Bauer* is most likely in an adjoined position and that ALS *Bauer* is in a specifier. Importantly, de Swart *et al.* (2007: 200) and others have noted that modifiers such as relative clauses and adjectives make optional determiners obligatory. This is particularly clear with role nouns (47a-b), even if such a noun is not pronounced (47c):

- (47) a. *Er ist \*( 'n ) Bauer, der viel arbeitet.*  
 he is a farmer that much works  
 'He is a farmer that works a lot.'
- b. *Er ist \*( 'n ) guter Bauer.*  
 he is a good farmer  
 'He is a good farmer.'
- c. *Peter ist 'n schlechter Bauer, aber Hans ist \*( 'n ) guter.*  
 Peter is a bad farmer but Hans is a good  
 'Peter is a bad farmer, but Hans is a good one.'

It is clear then that modifiers in both adjoined and specifier positions require the presence of *ein*. I propose that *ein* is present because the modifiers in (47) combine with their nouns by Predicate Modification. Notice that this operation conjoins elements of type <e,t>. Now, for the noun to be of this type, it must have combined with REL first. As we know from above, this operator implies the presence of NumP and thus *ein*.<sup>19</sup> This explains the presence of *ein* in (46b).

<sup>19</sup> For some discussion of why CAP cannot be involved here, see Chapter 7.

Returning briefly to *du als Bauer* in (44b), note that this string involves adjunction just like (47a). However, given that there is no *ein* in (44b), I need to expand on this discussion a little.

As discussed in Section 3.2.1, *du* itself involves a complex structure. Specifically, *du* is a determiner with NumP and a null noun in its complement structure. Let me update (44b) as in (48a). Notice now that this makes (48a) and (47a) completely parallel in that the adjoined material (in brackets) is preceded by a structurally complex nominal:<sup>20</sup>

- (48) a. *du* REL  $e_N$  [*als Bauer*]  
 b. ‘*n* REL *Bauer* [*der viel arbeitet*]

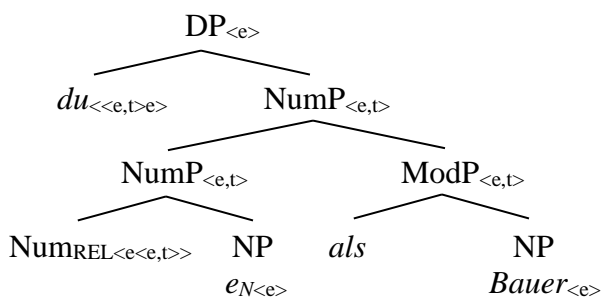
To explain the absence of *ein* in the first nominal in (48a), I suggest that elements like pronominal determiners can also flag REL.

To sum up, *du als Bauer* involves adjunction, and *ein ALS Bauer* contains a complex specifier. The determiners *du* and *ein* are present due to REL. The absence of the inflection on *ein* is due to the presence of an overt element following *ein*. With this much in place, let me now consider the relevant analyses in more detail. I start with the (neutral) capacity reading in the DP.

### 3.4.2. Capacity Reading in the DP

I have proposed that *du* itself involves a complex structure and that *als Bauer* is adjoined to that structure as in (48a). I assume that this type of adjunction is instantiated by a Modifier Phrase (ModP, see Rubin 1996). I interpret *als* as the head of ModP, and this head takes *Bauer* as a complement. I derive (49a) as (49b):

- (49) a. *du als Bauer*  
 you as farmer  
 ‘you as a farmer’  
 #‘you as a peasant’  
 b. (Neutral) Capacity Reading Licensed DP-internally



Note that the two nominals, (lower) NumP and ModP, are both of type  $\langle e,t \rangle$  (I comment on the role of *als* momentarily). I assume that they combine by Predicate Modification.

<sup>20</sup> To the extent that *ein* can be followed by *als Bauer*, it must have an inflection: *ein\*(-er) als Bauer*. This fits well with the adjunction-type analysis of *als Bauer* in (48a).

Let me point out that *als*-nominals are special in that *als* also combines with a bare kind noun such as *Mann* ‘man’ in appropriate contexts (50a). In fact, the presence of *ein* leads to awkwardness (50b):

- (50) a. *Was würdest du als Mann dazu sagen?*  
 what would you as man it.to say  
 ‘What would you as a male say about this?’
- b. ? *Was würdest du als ‘n Mann dazu sagen?*  
 what would you as a man it.to say  
 ‘What would you as a male say about this?’

Since a kind noun is involved here, CAP cannot be at work. Furthermore, if REL were at work here, one would expect that the presence of *ein* is fully grammatical, contrary to fact. I assume that *als* is a general(ized) capacity operator that maps role and kind nouns alike into predicate nominals; that is, *als* is of type  $\langle e \langle e, t \rangle \rangle$ . I discuss this in more detail in Chapter 7. I turn to the data from the clausal domain.

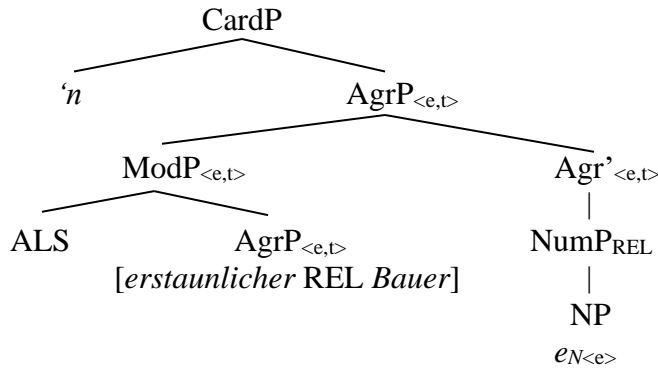
### 3.4.3. Capacity Reading in the CP

As illustrated many times, adjectives exhibit a strong ending after uninflected *ein*. In Chapters 2 and 4, I discussed two options to analyze this: either the adjective is in the regular specifier position, and the strong ending follows from the special morpho-syntactic properties of *ein*, or alternatively, the adjective is deeply embedded in a complex specifier, and as such its ending cannot undergo Impoverishment in the first place. Recalling that the combination of “*vielleicht* + *ein* N” has two readings, I made use of the first option with the intensified comparative reading in Section 3.3.3. I now turn to the second option.

Specifically, I propose that cases with the emotive capacity reading (51a) have the adjective and noun embedded in a specifier position (51b). As discussed in Section 3.4.1, this complex specifier contains the null element ALS. As in the DP, the embedded nominal involves ModP, and I assume that ALS is its head. Again, similar to the DP, Predicate Modification combines the two nominals, here ModP and Agr’:

- (51) a. *Du bist vielleicht ‘n erstaunlicher Bauer!*  
 you are PRT an amazing farmer  
 ‘You are really an amazing farmer!’

b. *Emotive Capacity Reading Licensed DP-externally*



Recall that ALS by itself is not an operator – it is externally licensed by the modal particle *vielleicht*. Furthermore, *ein* is present due to REL in the matrix nominal and is uninflected due to the presence of the specifier of AgrP.<sup>21</sup> Finally, I assume that the emotive flavor originates with the modal particle.

Let me summarize the two differences between the capacity reading in the nominal vs. the clausal domain. First, the DP has a neutral interpretation, and the CP has an emotive one. This difference follows from the need to be restrictive enough in the former case (namely when one singles someone out in a certain capacity, see Section 2.2) and the presence of the modal particle in the latter case.

Second, the indefinite determiner is absent in the DP (*du als Bauer*) but present in the CP (*ein ALS erstaunlicher Bauer*  $e_N$ ). Let me consider two domains here, delineated by square brackets in the following examples. In the matrix nominal, *ein* is absent in *du [als Bauer]* as *du* itself flags REL of the matrix nominal; *ein* is present in *ein [erstaunlicher Bauer]*  $e_N$  as it flags REL. In the embedded nominal, *ein* is absent in *als Bauer* since *als* is a general(ized) capacity operator that takes role and kind nouns as arguments; *ein* is absent in *erstaunlicher Bauer* due to haplology with *ein* in the matrix nominal.

Before closing this chapter, note that the pronoun and the noun in the *als*-nominal are only subject to semantic agreement. This can be seen in the example in (52a-b), where the pronoun agrees with the collective noun semantically but not morphologically:

- (52) a. *ihr als Mannschaft*  
           you(PL) as team  
           ‘you as a team’

<sup>21</sup> Note that these cases involve agreement between *ein* in the matrix nominal and the material embedded in Spec,AgrP. For the instances without an adjective, I assume that REL is also present. In other words, ALS always involves REL and thus NumP as part of its complement. I take it that ALS mediates this agreement (also Chapter 8). I assume that the second instance of *ein*, the one inside the complex specifier, remains unpronounced due to haplology. Finally, notice that with singular role nouns in the presence of REL, one may expect the latter to undergo figurative extension, a reading already discussed in the section on the comparative readings. We have seen in Section 2.6 though that capacity nominals like *du als Bauer* ‘you as a farmer’ only have a neutral/literal meaning. On a par with the capacity reading in the DP, I assume that this figurative extension is blocked by the covert counterpart of *als* (i.e., ALS) in the clause.



- b. \* *du als Mannschaft*  
you(SGL) as team

In contrast, the CP case is subject to morphological agreement, namely agreement between the subject pronoun and the predicate nominal (53a-b), as well as concord between the elements inside the predicate nominal (53c):<sup>22</sup>

- (53) a. *Ihr seid vielleicht Bauern!*  
you(PL) are PRT farmers  
'You are some farmers!'
- b. \* *Ihr seid vielleicht 'n Bauer!*  
you(PL) are PRT a farmer
- c. \* *Du bist vielleicht (ei)n-e erstaunliche(r) Bauer!*  
you(SGL) are PRT an-FEM amazing farmer.MASC

Again, I take it that this follows from the different structures involving *als* in the DP (adjoined) vs. ALS in the CP (specifier). I briefly return to the discussion of agreement in Chapters 7 and 8.

To sum up this section, I derived the three readings established at the beginning. In the DP, the ordinary and comparative readings have simple DPs, but the capacity reading involves an adjoined *als*-nominal. As for the CP, the first two readings exhibit regular copular structures, but the capacity readings involves a modal particle binding an unpronounced ALS, which is part of a complex specifier.

#### 4. Conclusion

This chapter discussed the first consequence of the proposal laid out Chapter 5. I started with the observation that the DP and the CP are parallel in structure and interpretation. Making this my general heuristic methodology, I extended the discussion to pronominal DPs and copular CPs containing non-theta nouns. Establishing three basic readings (cf. den Dikken 2006), I provided a more detailed investigation of how role and kind nouns fare with regard to emotiveness in the nominal and sentential domains.

In order to explain the commonalities and slight differences, I employed, with a few refinements, de Swart *et al.*'s (2007) account of the clause and extended it to the DP. To explain the whole range of data, the explanation of the DP had to include some pragmatic considerations (Rauh 2004). The interaction between these two proposals also explained the absence of true minimal pairs of pronominal DPs and copular DPs involving bare predicate nouns. More importantly, I showed that *ein* is not responsible for the emotiveness property. Rather, this is due

<sup>22</sup> Interestingly, elements such as plural *eine* and *ein paar* 'a couple' are also possible here favoring the comparative reading:

- (i) *Ihr seid vielleicht (?)ein-e / 'n paar Bauern!*  
you are PRT a-PL / a couple peasants/farmers  
'You are some peasants!'  
% 'You are some farmers!'

Note that plural *eine* occurs in a predicative context in this constructed example.

to REL in combination with a [+figurative] noun. It was argued that *ein* indicates the presence of structure on top of NP and the presence of REL (Hypothesis 3). In other words, I can maintain the claim that *ein* is semantically vacuous (Hypothesis 1a).

So far, I only discussed cases where we find morphological agreement between the pronoun and the predicate noun. Next I turn to cases of – what looks like – dis-agreement in number.

## Chapter 7: *Ein* and Number

### 1. Introduction

In this chapter, I will continue the investigation begun in Chapter 5 and turn to the second and final consequence of the proposals about *ein*. I will argue that *ein* is not a reflex of number, neither morphologically nor semantically. This is consistent with the claim that *ein* is semantically vacuous (Hypothesis 1a).

#### 1.1. A Brief Review

Recall from Chapter 6 that true minimal pairs between the DP and CP are not possible in singular, out-of-the-blue contexts. Specifically, although a bare role noun such as *Bauer* is possible in both the DP and CP, it crucially has different readings: it is emotive/figurative in the DP (meaning ‘peasant’) and neutral/literal in the CP (meaning ‘farmer’). In other words, bare nouns are fairly restricted with regard to (non-)emotiveness in the two domains. I proposed that factors involving both pragmatics and semantics explain these restrictions, the former (Grician maxims) being particularly relevant for the DP and the latter (the operator CAP) for the CP. When *ein* appears in front of the role noun, the facts fall differently.

In particular, I pointed out that *ein* cannot surface in pronominal DPs. Compare (1a) to (1b). To avoid certain issues discussed in Chapter 5, *ein* is provided again in its reduced, unstressable form ‘*n*’:

- (1) a. *du Bauer*  
you(SGL) peasant  
‘you peasant’
- b. \* *du ‘n Bauer*  
you(SGL) a peasant

However, *ein* is possible in predicative nominals in the CP. Specifically, if *ein* appears in these copular cases, the role noun may undergo an interpretative extension from its neutral/literal meaning in (2a) to an emotive/figurative reading in (2b).

- (2) a. *Du bist Bauer.*  
you(SGL) are farmer  
‘You are a farmer.’
- b. *Du bist ‘n Bauer.*  
you(SGL) are a peasant/farmer  
‘You are a peasant.’  
% ‘You are a farmer.’

I proposed that this effect is not due to the presence of *ein* itself. Rather, this extension in interpretatory possibilities is a function of the null operator REL, the presence of which is flagged by *ein*. This is consistent with the claim that *ein* is a semantically vacuous element.

## 1.2. Number in the DP and CP

For the most part, this chapter will abstract away from the different readings of the noun. Below, I will focus on issues related to number (for general typological discussion, see Corbett 2000 and Hurford 2003; for a survey of the formal semantics, see Link 1998). To start with some simple examples, consider plural contexts where nouns and pronouns of the same number can combine in both the DP and CP:

- (3) a. *ihr Schweine*  
       you(PL) pigs  
       ‘you idiots’
- b. *Ihr seid Ärzte.*  
       you(PL) are doctors  
       ‘You are doctors.’

Turning to singular nouns, it is also well known that such nouns cannot combine with plural pronouns to form pronominal DPs. This holds independently of the presence of *ein*:

- (4) a. \* *ihr Schwein*  
       you(PL) pig
- b. \* *ihr ‘n Schwein*  
       you(PL) a pig

However, singular nouns behave differently in the CP. Surprisingly, a singular noun is possible in copular contexts (5a). At face value, this presents a case of disagreement between a singular noun and a plural pronoun. Crucially though, when *ein* appears, restrictions in number do reveal themselves again (5b):

- (5) a. *Ihr seid alle Arzt.*  
       you(PL) are all doctor  
       ‘You are all doctors.’
- b. ?\* *Ihr seid alle ‘n Arzt.*  
       you(PL) are all a doctor

To sum up thus far, as seen in Chapter 6, bare nouns are restricted to non-emotiveness in the CP. As just seen though, they are unrestricted in number in the CP. The first restriction reveals itself in singular contexts, the second in plural contexts.

Returning to the main focus, it is clear that the grammaticality status of (5a) vs. (5b) correlates with the absence vs. presence of *ein*. One might claim then that this difference is due

to the morphology and/or semantics of *ein*. However, I proposed in Chapter 5 that *ein* itself is not specified for morphological number; that is, it has the specification [ $\alpha$ PL morph]. Furthermore, I argued that *ein* has no semantics. If so, one cannot rule out (5b) by resorting to problems in morphological or semantic number induced by the presence of *ein*.

To anticipate the discussion, let me start with the claim that morphological number is actually not specified on nouns in German. In Chapter 6, I followed de Swart *et al.* (2007) in assuming that number morphology has to do with NumP. Specifically, bare nouns such as the role noun *Arzt* ‘doctor’ are unmarked for number and only project NP (6a). In contrast, plural nouns like *Ärzte* ‘doctors’ involve NumP (6b), and singular nominals such as *(ei)n Arzt* ‘a doctor’ project ArtP (6c). Let me label the type of nouns in (6a) as ‘non-plural’ elements and the type in (6c) as ‘singular’ elements. In other words, what has traditionally been classified as “singular” nouns may have two structural interpretations depending on the presence of *ein*:

- (6) a. bare/non-plural *Arzt*: [ NP ]
- b. plural *Ärzte*: [ NumP [ NP ]]
- c. singular ‘*n Arzt*’: [[[ ArtP [ NumP [ NP ]]]]

To explain the difference in grammaticality in (5), I will make use of the structural proposal in (6), where NumP is absent with non-plural nouns (6a) but present with plural and singular nouns (6b-c). With NumP present in the latter two cases, REL is present too. Note again that the presence of REL is indicated by overt elements. In other words, it is the absence vs. presence of NumP (but not *ein*) that explains the difference in grammaticality in (5).

As for the DP cases in (4), I will propose that NumP is always present here for cartographic reasons. Unlike the CP, where the presence of NumP is indicated by overt elements, here obligatory, higher phrases like ArtP entail the presence of lower NumP. If so, the presence of NumP rules out (4a) due to a mismatch in number between a plural pronoun and a singular noun. Note now that what may look like a non-plural noun in (4a) actually involves a singular noun – NumP entails REL and thus, *ein* should be present (NB: I will usually refer to the surface forms though).

I suggest that the reason why *ein* can never be present inside pronominal DPs, be they singular as in (1b) or plural as in (4b), is that the null operator REL can be flagged not only by expletive *ein* but also by other, substantive elements (e.g., pronominal determiners). Assuming that both types of determiner elements are merged in ArtP, only one of them can surface. If these considerations are on the right track, then I can maintain the claim that *ein* does not determine number, neither morphologically nor semantically. As in the last chapter, I will suggest that *ein* indicates more structure on top of NP (Hypothesis 3a), and it flags the presence of a null operator (Hypothesis 3b).

The chapter is organized as follows. First, I present the data illustrating the restrictions on morphological and semantic number in more detail. In Section 3, I lay out my proposal to capture these facts. Section 4 summarizes the main findings.

## 2. Data

Given the discussion of the last chapter, I will present the data of the DP with figuratively extended nouns and the examples of the CP with role nouns. The data are summarized in Tables 1 and 2 below. I start with pronominal DPs involving agreement in number. Recall that I refer to “singular” forms of the noun without *ein* as ‘non-plural’ and to those with *ein* as ‘singular.’

### 2.1. Cases of Agreement

As already seen in the introduction, a non-plural noun can combine with a singular pronoun (7a) but a singular noun cannot (7b). As expected, a plural noun can combine with a plural pronoun (7c):

- (7) a. *du*        *Schwein*  
         you(SGL) pig  
         ‘you idiot’
- b. \* *du*        ‘*n Schwein*  
         you(SGL) a pig
- c. *ihr*        *Schweine*  
         you(PL) pigs  
         ‘you idiots’

As one would expect, (7a) can only be singular in interpretation and (7c) only plural. In other words, the interpretations in (7a) and (7c) are parallel to the morphology on the noun. I discuss the ungrammatical case of (7b) in Section 3.2.5.

Turning to the CP, we find similar facts with the exception of singular nouns. Specifically, a non-plural as well as a singular noun can combine with a singular pronoun (8a-b). Again, a plural noun can occur with a plural pronoun (8c):<sup>1</sup>

- (8) a. *Du*        *bist Arzt.*  
         you(SGL) are doctor  
         ‘You are a doctor.’
- b. *Du*        *bist ‘n Arzt.*  
         you(SGL) are a doctor  
         ‘You are a doctor.’

---

<sup>1</sup> Recall that in German, a predicative role noun can, for many speakers, take an indefinite article. In other words, these speakers allow both (8a) and (8b). Below, I will focus on those speakers. In English, predicate nouns typically have an indefinite article in cases like (8a) yielding (8b). Note that Zamparelli’s (2008) explanation that this is due to lack of morphological gender in that language is probably not the whole story as Yiddish, which does have morphological gender, patterns with English (see Lockwood 1995: 112, also Harbert 2007: 148).

- c. *Ihr seid Ärzte.*  
 you(PL) are doctors  
 ‘You are doctors.’

Again, the semantics runs parallel to the morphology. Next, I illustrate the cases involving disagreement in number in more detail.

## 2.2. Cases of Dis-agreement

Starting with the DP, a plural noun cannot combine with a singular pronoun (9a). Conversely, a singular or a non-plural noun cannot combine with a plural pronoun either (9b-c):<sup>2</sup>

- (9) a. \* *du Schweine*  
 you(SGL) pigs  
 b. \* *ihr ‘n Schwein*  
 you(PL) a pig  
 c. \* *ihr Schwein*  
 you(PL) pig

So far, the facts are as one would expect. Furthermore, it may not be surprising that a plural noun cannot combine with a singular pronoun (10a) or a singular noun with a plural pronoun (10b). However, it is unexpected that a non-plural noun can combine with a plural pronoun (10c). Importantly, the interpretation here is plural (for similar facts in Dutch, see de Swart *et al.* 2005: 451):<sup>3</sup>

- (10) a. \* *Du bist Ärzte.*  
 you(SGL) are doctors  
 b. ?\* *Ihr seid alle ‘n Arzt.*  
 you(PL) are all a doctor  
 c. *Ihr seid alle Arzt.*  
 you(PL) are all doctor  
 ‘You are all doctors.’

Note that there is a floating quantifier in the grammatical (10c) above. This element can also be in a different position (11a) or be exchanged by another quantifier (11b). Interestingly, when such an element is missing, the example becomes a bit marked, and the judgements are somewhat unstable (11c) (I indicate this by <sup>m</sup> here):

<sup>2</sup> In Section 3.3, I discuss special cases such as *Sie Schwein* ‘you (pig =) idiot,’ which are characterized by semantic agreement but morphological disagreement (the latter though crucially holds between two different nominals).

<sup>3</sup> There seem to be some interesting cross-linguistic differences with these type of data. For example, the Romance languages are different in that they require agreement between the pronoun and the nominal (see Zamparelli 2008: 107 fn. 4; also Munn & Schmitt 2005: 839).

- (11) a. *Ihr alle seid Arzt.*  
 you(PL) all are doctor  
 ‘You are all doctors.’
- b. *Ihr seid jeder Arzt.*  
 you(PL) are each doctor  
 ‘You are each a doctor.’
- c. <sup>m</sup> *Ihr seid Arzt.*  
 you(PL) are doctor  
 ‘You are doctors.’

Similar facts hold in capacity constructions involving *als* ‘as.’ This is what I turn to next.

### 2.3. Cases Involving *als*-nominals

Recall from the previous chapter that *als*-nominals agree with their preceding pronoun, with the qualification that the presence of *ein* leads to slight markedness (12b):

- (12) a. *du als Arzt*  
 you(SGL) as doctor  
 ‘you as a doctor’
- b. ? *du als ‘n Arzt*  
 you(SGL) as a doctor  
 ‘you as a doctor’
- c. *ihr als Ärzte*  
 you(PL) as doctors  
 ‘you as doctors’

The same grammaticality judgments hold for the sentences involving a non-copular verb (recall that sentences involving the copula *sein* ‘to be’ do not have *als* ‘as’):

- (13) a. *Du sprichst als Arzt.*  
 you(SGL) speak as doctor  
 ‘You speak as a doctor.’
- b. ? *Du sprichst als ‘n Arzt.*  
 you(SGL) speak as a doctor  
 ‘You speak as a doctor.’
- c. *Ihr sprecht als Ärzte.*  
 you(PL) speak as doctors  
 ‘You speak as doctors.’



Next, consider nominals where a singular pronoun is combined with a plural noun, and a plural pronoun is followed by a singular or non-plural noun. While these combinations lead to ungrammaticality (14a-b), there is one exception: a plural pronoun can be followed by an *als*-nominal with a non-plural noun (14c):

- (14) a. \*     *du*         *als Ärzte*  
               you(SGL) as doctors
- b. ?\*    *ihr*        *als 'n Arzt*  
               you(PL) as a doctor
- c.       *ihr*        *alle als Arzt*  
               you(PL) all as doctor  
               'you all as doctors'

Note that the interpretation of the non-plural nominal in (14c) is indeed plural. The same holds for the clausal cases (the datum in (15c) is adapted from de Swart *et al.* 2007: 206):

- (15) a. \*     *Du*         *sprichst als Ärzte.*  
               you(SGL) speak as doctors
- b. ??    *Ihr*        *sprecht alle als 'n Arzt.*  
               you(PL) speak all as a doctor
- c.       *Ihr*        *sprecht alle als Arzt.*  
               you(PL) speak alle as doctor  
               'You speak all as doctors.'

To take stock, the last section discussed *als*-nominals in the context of pronominal DPs and non-copular CPs. These cases show the same syntactic distributions and corresponding semantic interpretations as the copular CPs illustrated in the two preceding sections.

## 2.4. Summary of the Data

In view of these data, I conclude that number is very restricted in simple DPs such that pronouns and nouns have to match in number. In contrast, copular clauses, non-copular clauses, and pronominal DPs, the latter two involving *als*, are less constrained, both syntactically and semantically. Syntactically, singular pronouns can never combine with plural nouns and plural pronouns cannot combine with singular nouns.<sup>4</sup> However, plural pronouns can, under certain

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<sup>4</sup> The only potential exception that I am aware of comes from discontinuous noun phrases, where a plural noun is compatible with both a plural and a singular determiner element:

(i)        *Hemden habe ich {kein-e / ?kein-es} getragen.*  
               shirts have I none-PL/ none-SGL worn  
               'As for shirts, I have worn none.'

conditions, occur with non-plural nouns. Semantically, plural nouns cannot be interpreted as singular, and singular nouns cannot be understood as plural. However, non-plural nouns may lead to plural interpretation. Let me summarize the syntactic distributions in the following charts. Table 1 shows the facts involving the DP. I mark the unexpected instances by (!):

Table 1: Summary of the Judgments in DPs

|                      | Non-plural N                                        | ( <i>ei</i> ) <i>n</i> N                         | N- <i>s</i> |
|----------------------|-----------------------------------------------------|--------------------------------------------------|-------------|
| <i>du</i> (singular) | √                                                   | * [without <i>als</i> ]<br>? [with <i>als</i> ]  | *           |
| <i>ihr</i> (plural)  | * [without <i>als</i> ]<br>√ (!) [with <i>als</i> ] | * [without <i>als</i> ]<br>?* [with <i>als</i> ] | √           |

Table 2 shows the facts of the CP. Observe again that non-plural nouns are surprising as they are grammatical in basically all clausal contexts:

Table 2: Summary of the Judgments in CPs

|                      | Non-plural N | ( <i>ei</i> ) <i>n</i> N                          | N- <i>s</i> |
|----------------------|--------------|---------------------------------------------------|-------------|
| <i>du</i> (singular) | √            | √ [without <i>als</i> ]<br>? [with <i>als</i> ]   | *           |
| <i>ihr</i> (plural)  | √ (!)        | ?* [without <i>als</i> ]<br>?? [with <i>als</i> ] | √           |

To repeat, the unexpected distributions occur when a plural pronoun is combined with a non-plural noun, both in the DP mediated by *als* ‘as’ and in the CP more generally. Furthermore, the judgments are basically the same with or without the presence of *als*, except in the DP when a singular pronoun combines with a singular noun and, as just pointed out, a plural pronoun occurs with a non-plural noun. These differences are marked by shading of the relevant cells in Table 1. Finally, let me point out that the syntactic distribution and semantic interpretation discussed in the clause above do not only hold with personal pronouns but also with regular DPs such as *die Männer* ‘the men.’ To save space, this is not illustrated here. In the next section, I turn to an explanation of these syntactic and semantic facts.

### 3. Proposal

In this section, I account for the different morphological and semantic possibilities licensed in the different syntactic domains. Just as in Chapter 6, I will follow de Swart *et al.* (2007) and extend their proposal to the DP explaining the differences between predicate nominals in CPs and DPs.

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Recall first that I argued in Chapter 4 that the source and the split-off involve two separately base-generated nominals. Furthermore, Ott & Nicolae (2010) suggest that the plural in the split-off presumably has to do with frame-setting in topicalization, and as such the “dis-agreement” here is a different phenomenon.

### 3.1. Basic Assumptions

Starting with the syntax and simplifying somewhat for now, I assume again that all DPs, including pronominal DPs, consist of a head noun projecting an NP, a Number head projecting a NumP, and a (pronominal) determiner surfacing in the DP-level (16a). In keeping with the discussion in Chapter 6, the predicate nominal inside the DP always involves NumP. In contrast, CPs are different: they all involve a subject DP, a copular verb, and a predicate nominal. Crucially, the predicate nominal in the CP may vary. Again, as in Chapter 6, I assume that NumP is syntactically optional here. Specifically, following a copular auxiliary, non-plural nominals are NP (16b), plural nominals involve NumP (16c), and singular nominals project ArtP (16d) (Aux = stands for the auxiliary *sein* ‘to be’):

- (16) a. DP<sub><e></sub>: [DP [NumP [NP ]]]<sub><e></sub>  
 b. CP<sub><t></sub>: [DP [NumP [NP ]]]<sub><e></sub> Aux [NP ]<sub><e,t></sub>  
 c. CP<sub><t></sub>: [DP [NumP [NP ]]]<sub><e></sub> Aux [NumP Num<sub>[+PL]</sub> [NP ]]<sub><e,t></sub>  
 d. CP<sub><t></sub>: [DP [NumP [NP ]]]<sub><e></sub> Aux [ArtP *ein* [NumP Num<sub>[-PL]</sub> [NP ]]]<sub><e,t></sub>

These are the basic assumptions about the syntax.

As for the semantics, I follow again de Swart *et al.*’s (2007) discussion of the clause in (16b-d) and assume that the predicate nominal must be of type <e,t> to combine with the subject DP (type <e>). Recalling that the copular auxiliary is semantically vacuous, this means that NP, NumP, and ArtP must all be of type <e,t>. As already discussed above, de Swart *et al.* propose that role nouns combine with CAP, which is in NP, and that kind nouns, inherent or coerced, combine with REL, which is in NumP. The first option holds for (16b); the second option applies to plural (16c) and to singular (16d), with singular involving an additional structural layer (ArtP). To be clear, these types of predicate nominals are all syntactically different but semantically the same (i.e., type <e,t>). As such, they can combine with the subject DP to yield a truth value (type <t>). Note again that *ein* indicates the presence of a certain amount of structure on top of NP (Hypothesis 3a) and that it flags the presence of the operator REL (Hypothesis 3b).

As for the DP in (16a), I will argue that NumP (and thus REL) are always present for cartographic reasons – obligatory, higher phrases entail the presence of lower ones. Semantically, combining the head noun and REL yields an element of type <e,t>. Assuming again that determiners, including pronominal determiners, are of type <<e,t>e>, predicate nominals and determiners can combine to return an entity (type <e>).

With these general points in place, let me be more specific about the individual cases from the data section. First, I discuss DPs and CPs involving agreement and disagreement. Then, discussing some special cases involving the pronoun *Sie* ‘you(FORMAL)’, I identify the parts of the structure where morphological and semantic numbers originate. In the final section, I turn to the more complex DPs and CPs involving *als* ‘as.’

### 3.2. Agreement in Constructions Without *als*

First, I review some general facts about agreement in the CP. This is followed by proposing that NumP plays a crucial role in agreement. Finally, I detail the account of agreement as regards plural nouns, non-plural nouns, and singular nouns.

#### 3.2.1. Agreement and Dis-agreement

To get the discussion off the ground, consider the data below. Recall from above that non-plural nouns are fine in all contexts in the clause (17). In contrast, singular nouns can only combine with singular pronouns (18) and plural nouns only with plural pronouns (19):

- (17) a. *Du bist Arzt.*  
you(SGL) are doctor  
'You are a doctor.'
- b. *Ihr seid alle Arzt.*  
you(PL) are all doctor  
'You are all doctors.'
- (18) a. *Du bist 'n Arzt.*  
you(SGL) are a doctor  
'You are a doctor.'
- b. ?\* *Ihr seid alle 'n Arzt.*  
you(PL) are all a doctor
- (19) a. \* *Du bist Ärzte.*  
you(SGL) are doctors
- b. *Ihr seid Ärzte.*  
you(PL) are doctors  
'You are doctors.'

To be clear, singular and plural nouns are in complementary distribution here.

To see whether this is a morphological or semantic restriction, let me consider *jeder* 'each' in this regard. This element is morphologically singular but semantically plural (i.e., it presupposes a plurality of entities). As might be expected, combining this element with a non-plural noun is fine (20a). However, while *jeder* can also occur with a singular noun, it cannot occur with a plural one. Compare (20b) to (20c):<sup>5</sup>

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<sup>5</sup> Other quantifiers also presuppose a plurality of entities, but they are morphologically plural and can combine with a plural noun:

(i) *Einige (Männer hier) sind Ärzte.*  
some men here are doctors  
'Some (men here) are doctors.'

- (20) a. *Jeder (Mann hier) ist Arzt.*  
 each man here is doctor  
 ‘Each (man here) is a doctor.’
- b. *Jeder (Mann hier) ist ‘n Arzt.*  
 each man here is a doctor  
 ‘Each (man here) is a doctor.’
- c. \* *Jeder (Mann hier) ist Ärzte.*  
 each man here is doctors

Considering that *jeder* is semantically plural, the incompatibility with a plural noun in (20c) is somewhat surprising. I will make the strongest claim and propose that the number restrictions in (17) through (20) are morphological *and* semantic in nature. The lack of morphological agreement explains the ungrammaticality of the plural noun in (20c). As for the semantics of the non-plural and singular nouns in (20a-b), I suggest that the reason why *jeder* is compatible with such nouns has to do with the presence of a null distributive operator. In what follows, I focus on morphological number, but I will return to semantic number in Section 3.3.

### 3.2.2. Agreement and NumP

Starting with the CP, recall that I assume that plural morphology on the noun indicates the presence of NumP and that the presence of *ein* shows ArtP (containing NumP). Furthermore, I propose that when NumP is present, an agreement relation must be established between the predicate nominal and the subject DP. In contrast, a non-plural noun does not project NumP – it is a predicate nominal involving NP. I propose that with NumP absent, such a predicate nominal does not have to undergo an agreement relation, and consequently its distribution is much freer (see also den Dikken 2006: 210). Again, predicate nominals in the clause are NP, NumP, or ArtP depending on the presence of plural morphology or *ein*.

DPs are different. NumP must be present for cartographic reasons: obligatory, higher phrases such as ArtP entail the presence of lower phrases such as NumP. Recall in this regard that determiners originate in ArtP and turn predicate nominals into entities, which can then combine with a clausal predicate. Now, as is well known, elements in the DPs must exhibit concord in phi-features. I follow the literature in making the standard assumption that number features originate in NumP (for details, see Section 3.3). In Roehrs (2006b), I assume that the values on Num are morphological (i.e., [ $\alpha$ PL morph]). Specifically, I propose there that NumP mediates concord within DP with regard to morphological number. For concreteness, I will assume that the value of the Num head “percolates” up the nominal tree by some concord mechanism.<sup>6</sup> As to the (lower) head noun, I proposed in Chapter 1 that it moves to adjoin to Num (also Julien 2005a), where the head noun establishes an agreement relation with Num. To be clear, NumP is always present in the DP.

With these points about NumP in mind, we will see that there are two notions of disagreement. As regards the DP, there are only (ungrammatical) cases where the relevant elements

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<sup>6</sup> As mentioned in Chapter 2, there are different mechanisms that have been claimed to bring about concord. Note also that the obligatory presence of NumP is presumably not due to concord itself. This is so because I suggest below that mass nouns receive singular morphology by default (as [ $\alpha$ PL morph] is proposed to be absent on Num in those cases).

involve *true* dis-agreement. This is due to the obligatory presence of NumP and a failure to establish concord:

- (21) a. \* *du* *Ärzte*  
you(SGL) doctors
- b. \* *ihr* *Arzt*  
you(PL) doctor

This is different for the CP. Given certain conditions, one may find instances of true dis-agreement (22a) but also cases of *apparent* dis-agreement (22b):

- (22) a. \* *Du* *bist* *Ärzte*.  
you(SGL) are doctors
- b. *Ihr* *seid* *alle* *Arzt*.  
you(PL) are all doctor  
'You are all doctors.'

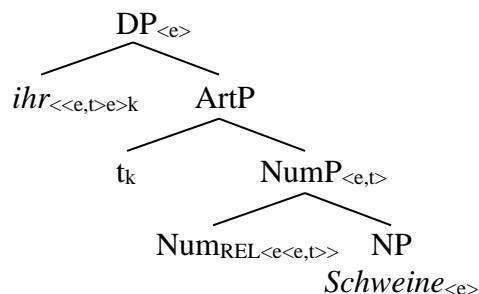
Importantly, true dis-agreement involves NumP. This leads to ungrammaticality as an agreement relation between the relevant elements cannot be established; however, apparent dis-agreement does not yielding an ungrammatical example – here NumP is absent, and no agreement relation has to be established. Consider the individual derivations involving the different types of nouns.

### 3.2.3. Plural Nouns

DPs involve a regular structure; that is, NumP is always present. Assuming again that determiners originate in ArtP, the tree diagram for (23b) is given in (23c) (in the discussion, I abstract away from the traces/copies left by movement):

- (23) a. \* *du* *Schweine*  
you(SGL) pigs
- b. *ihr* *Schweine*  
you(PL) pigs  
'you idiots'

#### c. Agreement in the DP



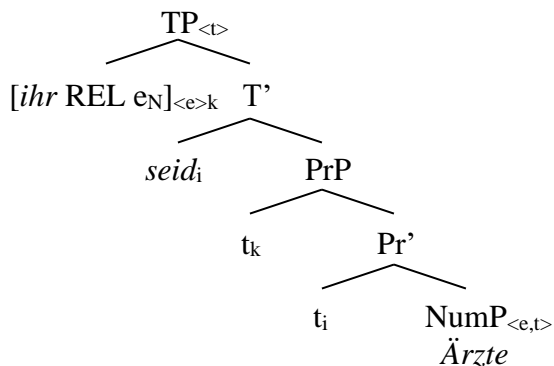
As discussed in the previous section, let me assume that all elements inside DP have to establish an agreement relation mediated by NumP. If so, it is easy to rule out (23a), where such a relation between the pronominal determiner, Num, and the noun has not been successfully established. In contrast, (23b) is fine as the relevant elements have established an agreement relation in number. I turn to the clausal domain.

As in Chapter 6, I follow Bowers (1993) in assuming that copular structures involve a Predication Phrase (PrP). The latter is embedded under a Tense Phrase (TP). I propose that the Predication head can take different elements as its complement. With plural morphology present on the nouns in (24a-b), I assume that Pr takes NumP as its complement. I provide the tree diagram for (24b) in (24c):

(24) a. \* *Du bist Ärzte.*  
you(SGL) are doctors

b. *Ihr seid Ärzte.*  
you(PL) are doctors  
'You are doctors.'

c. *Agreement in the CP*



Recall from the previous chapter that pronominal determiners are of type <<e,t>e>, but pronominal DPs as a whole are of type <e>. As regards morphological number, I assume that NumP has to establish an agreement relation with the subject DP. As plural *Ärzte* can enter such a relation with plural *ihr* but not singular *du*, the difference in grammaticality in (24a-b) is accounted for (for the discussion of morphological case on predicate nominals, see Maling & Sprouse 1995). As just seen, we can observe that the cases involving plural nouns are straightforward.

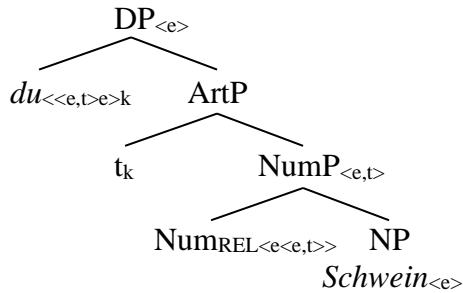
### 3.2.4. Non-plural Nouns

I proposed that DPs always contain NumP. As such, a singular pronoun is grammatical with a non-plural noun (25a), but a plural pronoun is not (25b). I derive (25a) as in (25c):

(25) a. *du* *Schwein*  
 you(SGL) pig  
 ‘you idiot’

b. \* *ihr* *Schwein*  
 you(PL) pig

c. *Agreement in the DP*



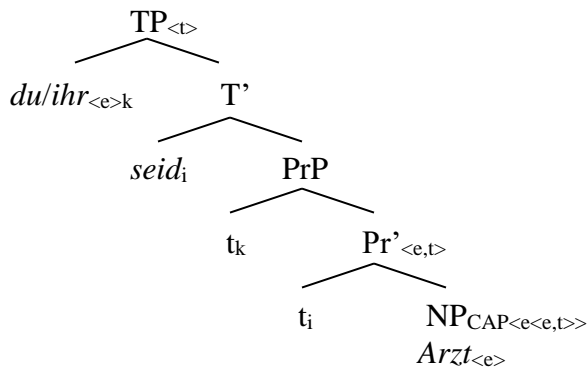
The ungrammaticality in (25b) is due to the failure of establishing the relevant agreement relation between the pronominal determiner, Num, and the noun. Note now that with NumP present, REL is present too, and one would expect *ein* to occur. In the next subsection, I discuss why singular nouns are not possible here.

As regards the CP, I suggested that if no number-related elements are present, NumP is absent. This is the case for (26a-b). I propose that the Predication head takes NP as its complement here. I derive (26a-b) as (26c):

(26) a. *Du* *bist* *Arzt*.  
 you(SGL) are doctor  
 ‘You are a doctor.’

b. *Ihr* *seid* *alle* *Arzt*.  
 you(PL) are all doctor  
 ‘You are doctors.’

c. *Apparent (Dis-)Agreement in the CP*





With NumP absent, the predicate nominal does not have to establish an agreement relation. In other words, no agreement relation between the predicate nominal and the subject DP needs to be established, and both singular and plural pronouns are grammatical here. These, then, are cases of apparent dis-agreement as no relevant agreement relation is established in the first place. In order to obtain a plural interpretation of the non-plural noun in (26b), I follow de Swart *et al.* (2007) in that NP may involve a distributivity operator. I take the floating quantifier to be this element. This set of assumptions also explains the grammaticality of *jeder ist ('n) Arzt* ‘everyone is a doctor,’ where singular or non-plural elements receive a plural interpretation. Presumably, here a null distributivity operator is present (more on this below).

This discussion makes an interesting prediction: if a predicate nominal in a copular CP does not involve NumP but just NP, then the head noun can only combine with CAP to yield an element of type <e,t>. This in turn should allow only a neutral/literal meaning of a role noun that can, at least potentially, undergo figurative extension. In keeping with what we have seen in Chapter 6, we find the same interpretatory restriction in the (apparent) dis-agreement cases discussed here:

- (27) *Ihr seid jeder Bauer.*  
 you(PL) are each farmer  
 ‘You (each) are farmers.’  
 #‘You (each) are peasants.’

In the next section, I discuss singular nouns, and I provide an explanation as to why *ein* is not possible in pronominal DPs.

### 3.2.5. Singular Nouns

Starting with the DP, I return to the question left unanswered in the last subsection, namely why *ein* cannot occur in pronominal DPs despite the fact that REL is present. This not only applies to pronominal DPs (28a) but also to ordinary DPs (28b):

- (28) a. \* *du 'n Schwein*  
 you(SGL) a pig  
 b. \* *das 'n Schwein*  
 the a pig

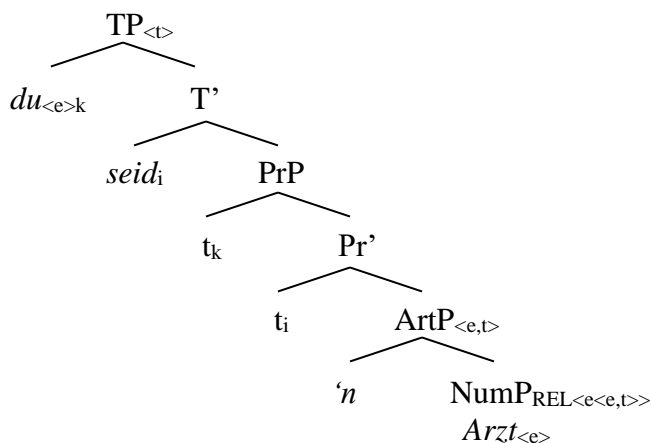
Extending the concept of flagging from the last chapter, I reiterate the proposal that the presence of REL is not only indicated by *ein* but also by other elements. Specifically, definite determiners, pronominal or ordinary, can also flag the presence of REL. Now, assuming that determiners and *ein* originate in the same position (i.e., ArtP), only one such element can occur. This explains the ungrammaticality of the cases in (28). I turn to the CP.

In Chapter 6, I discussed in detail the proposal that for nouns to be predicates, kind nouns combine with REL directly, and role nouns do so indirectly (via kind coercion). REL triggers the presence of *ein* in singular contexts, and conversely *ein* indicates REL. Consider (29a-b). Now, given the absence of a feature for definiteness, I also proposed that *ein* may surface in ArtP (and

not necessarily in DP). With this in mind, I propose that besides NP and NumP, the Predication head can also take ArtP as its complement. The tree diagram of (29a) is provided in (29c):

- (29) a. *Du bist 'n Arzt.*  
 you(SGL) are a doctor  
 'You are a doctor.'
- b. ?\* *Ihr seid alle 'n Arzt.*  
 you(PL) are alle a doctor

c. *Agreement in the CP*



Note that the subject pronoun *du* 'you' and *ein* in (29a) are part of different nominals, pronominal and predicate. As such, they do not compete for insertion in the same ArtP, and they can co-occur. Now, notice that with NumP present, a singular predicate nominal can establish an agreement relation with a singular, but not a plural, pronoun. As such, the latter case presents an instance of true dis-agreement, and the failure to establish an agreement relation explains the ungrammaticality of (29b). Let me return to the main focus of this book summarizing the discussion so far and drawing some conclusions.

Starting with the DP, I proposed that NumP is always present, and a relevant agreement relation has to be established. Furthermore, although REL is always present in the DP, *ein* does not surface when another determiner occurs. Recall that all determiners are merged in ArtP. Assuming that merging a contentful element precludes merging an expletive one, the failure of *ein* to appear in each and every case finds a natural explanation if *ein* is a semantically vacuous element but a regular determiner is a substantive element. As suggested above, this also means that elements other than *ein* can flag the presence of REL in singular contexts.

As for the CP, I proposed that the Predication head can take NP, NumP, or ArtP as its complement. Importantly, when NumP is present in the complement, an agreement relation with the subject DP has to be established. More generally, these assumptions allow me to account for the diverse agreement phenomena illustrated above while maintaining the claim that *ein* has no specifications for number. In keeping with Chapter 5, I will provide more details in the next section that morphological number is not due to *ein* but due to the number specification on NumP.

### 3.3. Morphological and Semantic Number

Considerations related to number are notoriously complex and difficult. For convenience, I will employ my own system developed in Roehrs (2006b).<sup>7</sup> My primary goal here is not to argue that this is the correct way to account for morphological and semantic number. Rather, I intend to show that elements other than *ein* can be held responsible for morphological and semantic number thus defending the claim that *ein* is not a reflex of number. I will illustrate the relevant issues with some special cases involving the pronoun *Sie* ‘you(FORMAL),’ an element rarely discussed in the literature in this respect.

#### 3.3.1. Dis-agreement Revisited

As detailed in the previous section, DPs mediated by *als* ‘as’ and CPs more generally may exhibit morphological dis-agreement in number. Extending this discussion, it is clear from the verbal agreement in (30a) that *Sie* ‘you’ is morphologically plural. As is well known, *Sie* is semantically ambiguous between singular and plural; that is, *Sie* can be used to address one or several people. It is interesting to note now that when this pronoun occurs with a non-plural noun in a copular sentence, it can have both interpretations (30a). The presence of the floating quantifier disambiguates *Sie* as having plural semantics and makes the latter reading more easily available. The DP is different. Although both *Sie* and a non-plural noun co-occur, this string can only have a singular interpretation (30b). This interpretative difference is indicated in the relevant translations (for other cases like (30b), see Roehrs 2006b):

- (30) a. *Sie sind (alle) Arzt.*  
you are.PL all doctor  
‘You are a doctor.’  
‘You are (all) doctors.’
- b. *Sie Schwein*  
you pig  
‘you idiot’  
#‘you idiots’

This difference in the semantics between (30a) and (30b) resembles the cases from the previous section. However, here *both* CPs and DPs involve morphological dis-agreement. This is of special interest for the nominal domain as (30b) does not involve mediating *als*.

In keeping with the last section, I will suggest that the semantic difference between (30a) and (30b) follows from the optional presence of NumP in the clausal domain but its obligatory presence in the nominal domain. Specifically, I will propose in the next subsection that semantic number is due to an interaction between NumP and the head noun. The felicitous case of morphological dis-agreement in (30b) will be accounted for by a structure involving two separate nominals on a par with the discussion of Chapter 2, Section 2.4.

Starting with the copular case in (30a), recall from above that if there is no number morphology on the noun, then there is no NumP in the predicate nominal. Consequently, no

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<sup>7</sup> There are many other proposals. To name just a few: Borer (2005), Watanabe (2006), Ott (2011b), and Eynde (2020) (see also references cited in these works).

agreement relation is established, and there is no true dis-agreement. To derive the singular and plural interpretation of the predicate nominal, I assume that a distributivity operator (DIST) is optionally present:

- (31) *Sie sind* (DIST) *Arzt*.  
           you are.PL           doctor

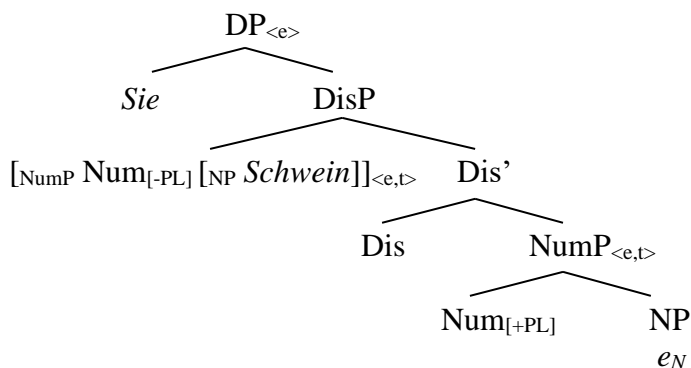
If the operator is absent, we derive the singular interpretation; if present, we obtain the plural reading. Note in passing that this distributivity operator is incompatible with subjects that have inherently singular semantics. As such, unlike *Sie, du* ‘you(SGL)’ combined with a non-plural noun (e.g., *du bist Arzt* ‘you are a doctor’) can only be singular in interpretation.

As for (30b), recall that DPs always contain NumP. At first glance, this then appears to be a case of true morphological dis-agreement between the plural pronoun and the singular nominal. In the last section, similar cases were ruled out by suggesting that the singular nominal cannot establish an agreement relation with a plural pronominal. Now, to explain the unexpected grammaticality of this example, I suggested in Roehrs (2006b) that these types of DPs have a structural analysis different from the garden-variety DPs discussed above.

Specifically, it is proposed in that paper that this construction involves two nominals, a matrix nominal containing the pronoun and an embedded nominal containing the dis-agreeing predicate nominal. The latter is proposed to be located in a specifier inside the matrix pronominal DP. For lack of a better term, this position was labeled as specifier of a Disagreement Phrase (DisP) in Chapter 2. Repeating (30b) here as (32a), the tree diagram is provided in (32b):

- (32) a. *Sie Schwein*  
           you pig  
           ‘you idiot’

b. *Apparent Dis-agreement in the DP*



Following the literature in that NumP has a specification for morphological number, I propose that both the matrix and the embedded nominal have a NumP where the value of the former is plural, but the value of the latter is singular. In order to account for the absence of a featural clash between the two nominals in (32b), I blame the lack of obligatory concord on the absence of a head (Mod) that mediates the agreement in phi-feature between the two nominals (for the discussion of such cases, see Chapter 8). To be clear, then, both nominals in (32b) form

independent agreement domains, and consequently, there is no true morphological disagreement. As for semantic number, (32b) can only be singular in interpretation. To capture this, I will propose that head nouns have a specification for semantic number and that the latter interacts with the morphological number on NumP in a certain way. This is what I turn to next.

### 3.3.2. Relating Morphological and Semantic Number

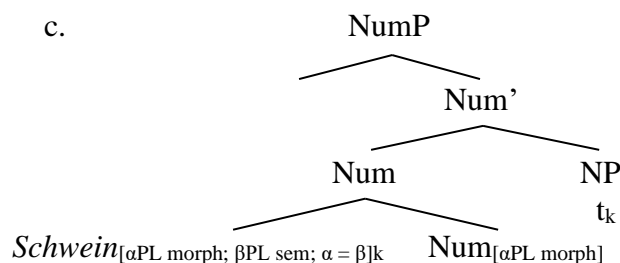
I begin by illustrating the relevant issues with an ordinary noun like *Schwein* ‘pig.’ The relevant part of its lexical specification has two statements. The first shows morphological and semantic number with unspecified values (33a); the second states that both values have to coincide (33b); that is, either both are positive or both are negative. Syntactically, recall that the head noun moves to adjoin to Num. With the lexical specifications in mind, the lower part of the DP structure is fleshed out in (33c):

(33) *Schwein*

a. [ $\alpha$ PL morph;  $\beta$ PL sem]

b. (where  $\alpha = \beta$ )

c.



As briefly mentioned above, I assume that the morphological values for number on the noun and Num establish an agreement relation. After the morphological number of the noun has agreed with Num, the equality statement in (33b) will bring about the semantic number of the noun. This means there is an interplay between Num and the noun as regards number, morphologically and consequently semantically.

Now, *Schwein* can have three manifestations: it can be a mass, a singular count, or a plural count noun. Let me assume that the morphological feature [ $\alpha$ PL morph] on NumP is syntactically optional. If it is absent, *Schwein* is interpreted as a mass noun. The apparent singularity of mass nouns (e.g., *das Schwein* ‘the pork’) is due to singular being a default value here. If [ $\alpha$ PL morph] on NumP is present, it can have two values. [-PL] results in a singular count noun, and [+PL] brings about a plural count noun.<sup>8</sup> In each case, the morphological and semantic number coincide by (33b). Note that this yields countability as a side-effect and makes individuable or mass quantifiers (e.g., *mehrere* ‘several’ vs. *viel* ‘much’) compatible with individuable or mass head nouns. If there is no NumP at all (e.g., with role nouns), the number

<sup>8</sup> On the basis of diachronic facts, Hachem (2015) proposes that grammatical gender functions as a mass quantifier; that is, gender is a semantically meaningful category that creates different types of mass distinctions (p. 100): neuter involves unbounded mass (e.g., *snow*), masculine forms individuable mass (e.g., *frost*), and feminine is collective mass (e.g., *winter*); plural is a separate category. This proposed correlation between gender of the noun and its interpretation is no longer obvious in Modern German, and according to Hachem, has been regrammaticalized to some degree.

values on the head noun in (33a) do not get specified resulting in a number neutral element (cf. also Munn & Schmitt 2005: 827).<sup>9</sup>

It is important to point out that the two number values, morphological and semantic, can also diverge; for instance, pluralia tantum nouns such as *Ferien* ‘vacation/holidays’ are inherently specified as in (34a).<sup>10</sup> They are morphologically plural but semantically singular (i.e., they involve one entity). Furthermore, let me assume that *Sie* ‘you’ has a specification for morphological number, but it does not have a fixed value for semantic number (34b):<sup>11</sup>

- (34) a. pluralia tantum noun  
[+PL morph; -PL sem]
- b. *Sie*  
[+PL morph; βPL sem]

Note that the semantic number of *Sie* is determined by the head noun in the complement of *Sie* mediated by NumP. I return to this momentarily.

More generally, NumP is present in the noun phrase for cartographic reasons. Semantic number may come about in one of three ways: (i) it is inherently specified on the noun (pluralia tantum), (ii) it originates with the head noun if (33a) is specified via the morphological value of NumP and the equality statement in (33b), or (iii) it stems from the distributivity operator if there is no NumP in the structure (e.g., with bare role nouns in copular sentences, cf. (31) above). With these general remarks in mind, I flesh out the structure involving *Sie*.

### 3.3.3. Pronominal DPs Involving *Sie* Revisited

For easier readability, I illustrate the pronominal DP in (35a) two parts: (35b) shows the matrix nominal, and (36) further below illustrates the embedded part XP located in Spec,DisP in (35b). In more detail, let me assume that the complement of *Sie* in *Sie Schwein* ‘you (pig =) idiot’ involves a null pluralia tantum noun. Since both *Sie* and this type of noun are inherently specified for [+PL morph], both elements are morphologically compatible. However, a pluralia tantum noun is only compatible with a negative value on *Sie*’s [βPL sem] statement. This leads to singular semantics of *Sie*:<sup>12</sup>

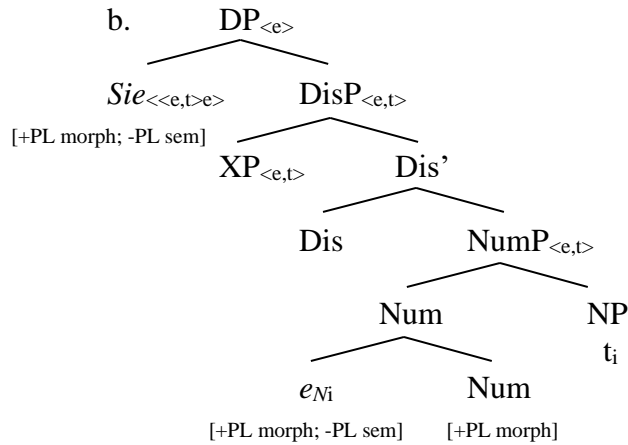
<sup>9</sup> Presumably, the pragmatics will force a role noun to have an individuating (rather than mass) interpretation. Furthermore, one might suggest that nouns on their mass interpretation also lack NumP (cf. Borer 2005). Note, however, that these nouns can combine with adjectives. With AgrP – the location of adjectives – high in the structure, NumP is also present. However, the mass interpretation of the modified noun is not necessarily turned into a count interpretation. Thus, I continue to assume that with the exception of bare role nouns, NumP is present, and the number feature on Num is syntactically optional.

<sup>10</sup> For Pesetsky & Torrego (2007: 263), English pluralia tantum nouns like *scissors* are also taken to have a lexically valued feature for number.

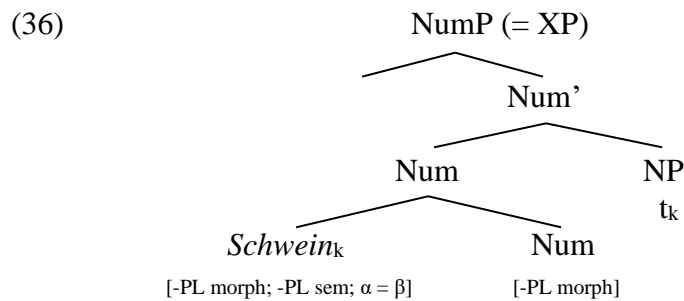
<sup>11</sup> The Dutch counterpart *u* ‘you(FORMAL)’ is morphologically singular and semantically singular or plural. On current assumptions, its feature specifications would be [-PL morph; βPL sem].

<sup>12</sup> This is different from the copular case *Sie sind Arzt* ‘(you are doctor =) you (all) are doctors’ discussed earlier. Here, *Sie* contains an ordinary null noun in its complement, that is, a noun with the specification [αPL morph; βPL sem]. Mediated by NumP, this leads to plural semantics of the entire pronominal DP. The latter is combined with the non-plural predicate noun *Arzt* via Pr. An assumed distributive operator accounts for the plural interpretation of the non-plural noun.

- (35) a. *Sie Schwein*  
 you pig  
 ‘you idiot’



As for the embedded nominal, NumP is specified as [-PL morph], and the ordinary noun *Schwein* comes out as a singular count element:



To recapitulate, the matrix nominal involves a plural NumP and a (null) pluralia tantum head noun, and the embedded nominal contains a singular NumP and an (overt) ordinary head noun. In other words, although there are two NumPs in (35b) and (36) with different (morphological) specifications for number, both nominals are semantically singular. Let us consider now how the two nominals in (35b) and (36) are semantically combined.

Let me assume that the null noun in the matrix nominal is of the kind type. For this element to function as a predicate, it must combine with REL in NumP. Let me suppose now that the matrix nominal and the embedded nominal in (35b) and (36) are combined by Predicate Modification, which conjoins two elements of the same semantic type (i.e.,  $\langle e, t \rangle$ ). In order to avoid type mismatch, the embedded predicate nominal must be of the same type. With the kind noun *Schwein* present there, this means that the latter must also involve REL in NumP. Thus, we have justification for the assumption of two NumPs, one in the matrix nominal and one in the embedded one. Furthermore, assuming that Predicate Modification only combines two nominals with the same general semantics, I can also account for the fact that the semantically singular nominal in Spec,DisP is only compatible with a semantically singular matrix nominal (for more details, see Roehrs 2006b: 168). This explains the lack of a plural reading in *Sie Schwein* ‘you (pig =) idiot.’

To sum up, following the literature, I suggested that morphological number originates with NumP. Furthermore, I proposed that semantic number is the result of an interplay between NumP and the head noun. Discussing cases involving the pronoun *Sie*, I explained the copular cases in the same fashion as in the previous section, namely by the syntactic optionality of NumP. To account for DPs with morphological dis-agreement, I proposed that a different structure is involved, with two morphologically independent nominals. This explained why these two NumPs do not involve true morphological dis-agreement despite the fact that they each have a different specification for number. Second, assuming that Predicate Modification only combines semantically similar elements, I could explain why both nominals are singular in interpretation.

If correct, this discussion leads to some interesting issues. I will not pursue these questions here.<sup>13</sup> My main goal in this section was to show that elements other than *ein* can be held responsible for morphological and semantic number. If this is tenable, then I can continue to claim that *ein* is not a reflex of number, be it morphological or semantic – it is a semantically vacuous element (Hypothesis 1a). Next, I consider constructions involving *als* ‘as.’ While these instances have certain similarities to the dis-agreement cases above, they are different and more complex in a number of ways.

### 3.4. Agreement in Constructions Involving *als*

Finally, I discuss *als*-constructions, nominal and clausal constructions involving *als* ‘as’ and a following noun. I begin by showing how the *als*-nominal combines with the preceding part of the structure. This includes a brief discussion of the semantic types. Then I address the agreement facts with regard to number. Finally, I return to some semantic considerations discussing the realization operator *als* in more detail.

#### 3.4.1. Structure and Semantics

Recall from Chapter 6 that *als* in the DP is a generalized capacity operator that combines with a noun, be it a role or a kind noun, to return an element of type  $\langle e, t \rangle$ . I labeled this combination as the *als*-nominal and suggested that it is right-adjoined to its preceding structure. For current purposes, let me assume that the *als*-nominal combines with another element by Predicate Modification. As illustrated above, this operation combines two elements of type  $\langle e, t \rangle$ . As such, I assume that the *als*-nominal is right-adjoined to an element of type  $\langle e, t \rangle$ . Recalling that *du* ‘you’ itself is assumed to have internal structure, NumP is such an element. I also assumed in Chapter 6 that *als* is the head of ModP. I propose then that ModP is adjoined to NumP of the pronominal DP:

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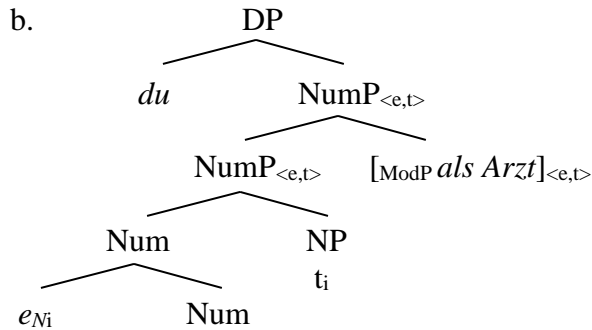
<sup>13</sup> Let me mention just one issue. As pointed out in the main text, the kind noun in the embedded nominal in (36) requires the presence of REL to supply a predicate. REL, in turn, should trigger *ein*. However, this yields an ungrammatical example:

(i) \* *Sie* [<sub>ArtP</sub> ‘*n Schwein* ] *e<sub>N</sub>*  
       you       a pig

Notice that *Sie* and *ein* are in different nominals in (i). To explain the ungrammaticality, there is more involved here than with cases like \**du* ‘*n Schwein* ‘you a (pig =) idiot’ (see Section 3.2.5). Without going into too much detail, I suggest here that *ein* is deleted in the presence of the adjacent pronominal determiner. Note in this regard that the latter is presumably retained as it is hierarchically higher and has semantics unlike vacuous *ein*.

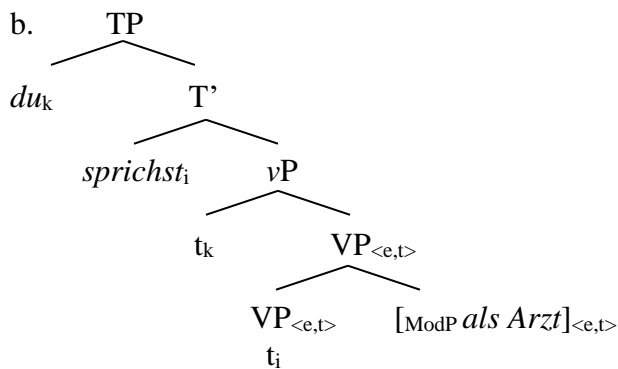


- (37) a. *du als Arzt*  
 you(SGL) as doctor  
 ‘you as a doctor’



As for the non-copular CP, I suggest that the *als*-nominal is adjoined to the VP:

- (38) a. *Du sprichst als Arzt.*  
 you(SGL) speak as doctor  
 ‘You speak as a doctors.’



To be clear, the *als*-nominal, NumP, and VP are all elements of type <e,t>. These are the basic assumptions about the syntax and semantics.

### 3.4.2. Agreement and *als* as a Realization Operator

Turning to the agreement facts, I assume that agreement in morphological number is established independently of the presence of the verb. In a way, this makes the adjunction of the *als*-nominal in the clause similar to displaced relative clauses.<sup>14</sup> Recall that I argued in Chapter 6 that *als*-nominals in the DP are also similar to relative clauses. Consequently, I will treat the *als*-nominals in the non-copular sentences and in the pronominal DPs in a related way.

We have seen in Section 3.1 that number morphology on the noun indicates the presence of NumP. Assuming that the number specification of the predicate nominal inside the *als*-

<sup>14</sup> Below is an example of a displaced relative clause:

- (i) *Er hat das Haus gekauft, das nicht so teuer war.*  
 he has the house bought that not so expensive was  
 ‘He bought the house that was not so expensive.’

nominals has to establish an agreement relation with the pronominal element, this rules out (39a) but allows (39b):

- (39) a. \* *du (sprichst) als Ärzte*  
 you(SGL) speak as doctors
- b. *ihr (sprecht) als Ärzte*  
 you(PL) speak as doctors  
 ‘you (speak) as doctors’

In contrast, non-plural nouns do not project NumP. They involve NPs and do not enter into an agreement relation with the pronominal element. As such, both (40a) and (40b) are fine:

- (40) a. *du (sprichst) als Arzt*  
 you(SGL) speak as doctor  
 ‘you (speak) as a doctor’
- b. *ihr (sprecht) als Arzt*  
 you(PL) speak as doctor  
 ‘you (speak) as doctors’

I assume that the plural interpretation in (40b) follows from a distributivity operator just like in the copular cases. So far, the agreement facts are similar to what we have seen above.

Turning to singular nouns, I observed in Section 2.3 that the presence of *ein* leads to awkwardness in singular contexts (41a). This is somewhat surprising and makes *als*-nominals different from predicate nominals the copular constructions, which are completely fine (for many speakers). As also pointed out in that section, a singular *als*-nominal is ungrammatical with a plural pronominal (41b):

- (41) a. ? *du (sprichst) als ‘n Arzt*  
 you(SGL) speak as a doctor  
 ‘you (speak) as a doctor’
- b. (??)?\**ihr (sprecht) als ‘n Arzt*  
 you(PL) speak as a doctor

Before I finalize the discussion of the agreement facts, let me specify the role of *als*.

In Chapter 6, we have seen that with role nouns, both CAP and REL are possible. However, these realization operators are mutually exclusive – only one is needed to supply a predicate, and the presence of a second would lead to type mismatch. Recall that with role nouns, CAP involved direct predication but that REL involved an indirect path to predication. In other words, CAP must be, at least in principle, optional. Let me now make the assumption that all realization operators are optional in type but not in number; that is, while there is a potential choice between different operators, the presence of one such operator is required to supply a predicate. This might lead us to expect that there are other realization operators.

As briefly mentioned in that chapter, I believe that *als* is such an element. Similar to the other two elements, if *als* is present, both CAP and REL cannot be. I would like to suggest again that unlike CAP and REL, *als* takes all elements of type  $\langle e \rangle$ , that is, role nouns or kind nouns alike, as arguments and returns predicate nominals (type  $\langle e, t \rangle$ ). In other words, *als* is a general(ized) capacity operator of type  $\langle e, \langle e, t \rangle \rangle$ .

Returning to the agreement facts, we have seen that they are similar to the copular constructions discussed above (cf. also Tables 1 and 2). There is only one exception, namely the presence of *ein* in the *als*-nominal leads to a certain degree of awkwardness in singular contexts. Recall though that the fully grammatical copular cases do not involve *als* (e.g., *Du bist 'n Arzt* ‘You are a doctor.’). Now, I assume that *als* is in NumP with plural nouns but in NP with non-plural nouns – the first case will force morphological agreement, the second will not.<sup>15</sup> This explains the ungrammaticality of (39a) but allows (40b). As to singular nouns, I suggest that *als* does not trigger *ein*. This makes *als* similar to CAP and explains the markedness of (41a). As to (41b), *als* does not bring about *ein* either, and additionally, no agreement relation between the pronoun and *als*-nominal can be established.

To sum up the entire section, the preceding discussion reveals an interesting syntax-semantics correlation: cases of morphological agreement are very restricted in their interpretations, but instances of apparent morphological disagreement (copular cases and *als*-nominals) are fairly free. Given the proposed interaction between NumP and the head noun, this difference follows from the presence of NumP in the first cases but its absence in the second. Importantly, the role of *ein* is only indirect. Its presence allows us to draw conclusions about the syntactic structure and the type of realization operator present in the structure (i.e., REL).

#### 4. Conclusion

This chapter provided the second and final consequence of the proposals involving *ein*. Continuing the investigation from the previous chapter, I provided a survey of the data and discussed issues pertaining to morphological and semantic number in the nominal and clausal domains. I showed that the DP is more restricted in this regard than the CP. I proposed that this is accounted for by the obligatory presence of NumP in the DP (a reflex of the cartography of the DP) and its optional syntactic presence in the CP.

Specifically, I proposed that morphological number resides in Num and semantic number is a result of an intricate interaction between NumP and the head noun. With current purposes in mind, I can conclude then that *ein* itself does not determine number, neither morphologically nor semantically. Rather, we have seen that *ein* indicates the presence of a certain amount of structure on top of NP (Hypothesis 3a) and the presence of the operator REL (Hypothesis 3b). I also showed that elements other than *ein* can flag the presence of REL precluding *ein* from occurring. Again, these facts find a natural explanation if *ein* is semantically vacuous (Hypothesis 1a); that is, *ein* is an element that can be absent without a loss in meaning.

More generally, to the extent that the discussion here proves tenable, it provides further support for de Swart *et al.*’s (2007) proposal, and more generally, it strengthens the parallelism between the DP and CP.

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<sup>15</sup> This means that Mod takes different complements and that *als* might move to Mod.

## Chapter 8: Concluding Remarks

### 1. The Bigger Picture

Focusing on German, one goal of this book was to provide a more comprehensive discussion of adjectival inflections and *ein* compared to what exists up to this point in time in the literature. Beside an overview of these important empirical subdomains, the second goal was to find commonalities and differences between these two types of elements and to discuss certain theoretical issues that arise in these contexts. It is important to point out again that both goals go in partially different directions.

Specifically, providing an overview aims to be fairly exhaustive, but painting the big picture is an attempt to see what different domains, empirical or theoretic, have in common. As such, discussing issues to some comprehensive degree in one domain tends to move the focus away from traits shared by the different domains. In this final chapter, I will try to make more headway toward the second goal; that is, toward comparing both adjectival inflections and *ein* more directly. In the second part of this chapter, I will discuss some more consequences of the current analysis, show avenues for future research, and draw some more general conclusions. Before I compare adjectival inflections and *ein* in more detail, let me review the general contents of the previous chapters.

In Chapter 1, I laid out my general assumptions and formulated the main claims of this book. Chapter 2 focused on adjectival inflections and briefly mentioned the special role of *ein*-words in this regard. In Chapter 3, some secondary mechanisms that regulate adjectival endings were discussed, and in Chapter 4 some consequences of the analysis for other accounts were addressed. Chapter 5 provided an overview of the different types of *ein*. Finally, *ein* was discussed with regard to emotiveness and number in Chapters 6 and 7, respectively. Contrasting these phenomena, we have observed that adjectival inflections and *ein* are similar in certain aspects but different in others. Let me return to the main hypotheses discussed throughout this book.

#### 1.1. Commonalities of Adjectival Inflections and *ein*

Starting with the similarities, I formulated the following two claims:

- (1) *Hypothesis 1*  
Adjectival inflections and *ein*:
  - a. are expletive elements and
  - b. indicate abstract structure in the noun phrase.

Starting with Hypothesis 1a, we have seen that both adjectival endings and *ein* are not a reflex of (in-)definiteness. While both elements overlap as regards indefiniteness, evidence for Hypothesis 1a has also come from other, different empirical domains. Specifically, adjectival inflections have nothing to do with the restrictiveness of the interpretation of modifiers or referentiality, and *ein* is not an exponent of emotiveness and number. These points were summarized in the statement that adjectival inflections and *ein* are semantically vacuous.

As for Hypothesis 1b, both adjectival inflections and *ein* indicate abstract structure. However, they do so in different ways. Compare (2) to (3):

(2) *Hypothesis 2*

Adjectival inflections:

- a. indicate abstract structure in the higher layers of the noun phrase (DP vs. LPP), [and] they provide clues about structures involving various degrees of embedding of adjectives (simple vs. complex DPs).

(3) *Hypothesis 3*

*Ein*:

- a. indicates abstract structure in the lower layers of the noun phrase (NP vs. ArtP).

While both adjectival inflections and *ein* indicate certain sizes of abstract structure, the former also provides clues about different types of embeddings. Let me briefly review some of the evidence for these claims.

I will begin with the intersecting semantic concept of indefiniteness, where both types of elements not only show the same but also directly interact with one another. Following that, I will repeat one more argument from the other, different empirical domains showing that both types of elements are semantically vacuous: adjectival inflections do not indicate the restrictiveness of the interpretation of modifiers, and *ein* is not related to number. Finally, I will review the main facts that show that both types of elements provide clues about abstract structure (the indication of different types of embeddings by adjectival inflections is left for Section 1.2).

1.1.1. Some Evidence for Hypothesis 1a

Starting with indefiniteness, consider again cases in the nominative, the (a)-examples, and in the dative, the (b)-examples:

- (4) a. *ein gut-er Wein*  
a good-ST wine  
'a good wine'
- b. *mit einem gut-en Wein*  
with a good-WK wine  
'with a good wine'
- (5) a. *sein gut-er Wein*  
his good-ST wine  
'his good wine'
- b. *mit seinem gut-en Wein*  
with his good-WK wine  
'with his good wine'

Traditionally, the article *ein* 'a' is taken to be an indefinite element, but the possessive determiner *sein* 'his' is a definite one. Furthermore, it is also often assumed for the Germanic

languages that strong adjectival endings are associated with indefiniteness but weak adjectival endings with definiteness. With that in mind, compare the (a)-examples to their (b)-counterparts. We observe that indefinite contexts exhibit strong and weak adjectival inflections (4) but that definite environments also show strong and weak inflections (5). Put differently and contrasting the (a)-examples to each other and the (b)-examples to each other, strong endings occur in both indefinite and definite contexts, and weak endings also surface in both indefinite and definite contexts. Thus far, these are contradictory state-of-affairs.

Recall though that I proposed in Chapter 5 that possessive determiners consist of a possessive component and *ein* (e.g., *s-ein* ‘his’). If one assumes that *ein* alone determines the adjectival inflection, then we can observe that *ein* occurs with a strong adjectival ending in the nominative but with a weak adjectival ending in the dative. This would be consistent with the claim that *ein* itself is indefinite, and the adjectival endings would vary according to morphological case. However, weak adjectival endings are also possible in the nominative (6a), and strong inflections can also appear in the dative (6b):

- (6) a. *seine gut-en* *Weine*  
           his good-WK wines  
           ‘his good wines’
- b. *mit gut-em* *Wein*  
           with good-ST wine  
           ‘with good wine’

Thus, there is no correlation between case and the strong/weak alternation on the adjective either. These contradictory points disappear once we claim that neither *ein* nor adjectival inflections are tied to indefiniteness. Rather, both of these elements are semantically vacuous and interact with each other morpho-syntactically. I proposed that determiners including *ein* trigger Impoverishment on the adjective yielding the weak endings. There is one exception: instances of *ein* specified as [-N, -O] are special – in this featural context [+D] does not trigger Impoverishment. It is clear then that adjectival inflections and *ein* are directly related albeit not by the semantics.<sup>1</sup>

Turning to the other, differing empirical domains, adjectival endings do not indicate the restrictiveness of the interpretation of modifiers. Considering (7), notice again that both a restrictive and a non-restrictive adjective can have a weak ending:

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<sup>1</sup> There is other evidence that these two elements share some properties. German has two constructions involving (*so*) *manch* ‘some.’ Consider (ia-b), where the presence of the adjectival inflection or *ein* yields a felicitous example. Importantly, these elements cannot be left out (ic) or co-occur (id):

- (i) a. *so manch-er* *Mann*  
           so some-INFL man  
           ‘some men’
- b. *so manch ein* *Mann*  
           so some a man  
           ‘some men’
- c. \* *so manch* *Mann*  
           so some man
- d. \* *so manch-er ein* *Mann*  
           so some-INFL a man

Again, it take this to mean that adjectival inflections and *ein* are related.

- (7) a. *der alt-e Mann*  
           the old-WK man  
           ‘the man that is old’
- b. *der (übrigens) alt-e Mann*  
           the incidentally old-WK man  
           ‘the man, who is (by the way) old’

Recalling that determiners move from ArtP to DP, I proposed in Chapter 4 that the determiner is interpreted above the adjective in (7a) but below the adjective in (7b). The latter also involves a coindexed *pro*. The weak ending on the adjective is the result of Impoverishment applying in a regular DP structure. This analysis is consistent with the fact that adjectival endings involve no semantics.

As for *ein*, I claimed that this element is not associated with number (and related countability). To illustrate this claim again, notice that the example in (8a) denotes a singularity, and the one in (8b), taken from the Appendix, involves a plurality:

- (8) a. *Nur EINE Katze war auf dem Hof!*  
           only one cat was in the yard  
           ‘Only one cat was in the yard!’
- b. % *Och so n-e süssen Katzis... :-)*  
           oh, so a-PL cute kittens  
           ‘Oh, such cute kittens!’

Contrasting these two examples, we observe that *ein* can appear in very diverse semantic contexts. Again, with *ein* appearing to be tied to different, contradictory semantics, I proposed that this element is also semantically vacuous. I suggested that *EIN* in (8a) consists of  $\emptyset$  and *ein*, that *ein* makes null operators visible (for more discussion of (8b), see below), and more generally that number is due to an interaction between the head noun and Num.

Given these facts, we expect that the two types of elements can be left out without a change in meaning. While these cases are rare for independent reasons, I showed that this is indeed the case:

- (9) a. *Er ist (ein) Lehrer.*  
           he is a teacher  
           ‘He is a teacher.’
- b. *Das ist ein lila(nes) Buch.*  
           this is a purple-INFL book  
           ‘This is a purple book.’

Furthermore, the suggestion that both types of elements are semantically vacuous also allows me to avoid the conclusion that certain semantic features are redundantly present when these elements do co-occur (I return to (10a) in Section 2.2):

- (10) a. % *k-eine so 'ne Autos*  
 NEG-a so a cars  
 'no such cars'
- b. *gut-e teuer Autos*  
 good-INFL expensive-INFL cars  
 'good expensive cars'

If these elements are indeed semantically vacuous, then the actual semantics involved is brought about in a different way. Discussing the various cases, remarks to such effect were made in the previous chapters.

### 1.1.2. Some Evidence for Hypothesis 1b: Hypothesis 2a vs. 3a

Hypothesis 1b, the indication of abstract structure, consists of two subclaims: Hypothesis 2a and Hypothesis 3a. Specifically, I proposed that adjectival inflections and *ein* indicate differences in nominal structures with regard to size. For instance, the strong/weak alternation supports the claim that syntactic arguments are not only DPs (11a) but also LPPs (11b). Note in this regard that *alle* 'all' is followed by an element with a weak adjectival inflection in (11a) but by an element with a strong ending in (11b):

- (11) a. [DP *all-e nett-en Studenten* ]  
 all-ST nice-WK students  
 'all nice students'
- b. [LPP *all-e* [DP *dies-e nett-en Studenten* ]]  
 all-ST these-ST nice-WK students  
 'all these nice students'

I argued in Chapter 2 that Impoverishment only occurs inside the DP proper, the domain in which the determiner undergoes movement.

Turning to *ein*, I followed de Swart *et al.* (2007) in arguing that predicate nominals without *ein* involve NPs (12a) and that those with *ein* are (at least) ArtPs (12b):

- (12) a. *Er ist* [NP *Lehrer* ].  
 he is teacher  
 'He is a teacher.'
- b. *Er ist* [ArtP *ein Lehrer* ].  
 he is a teacher  
 'He is a teacher.'

I followed above-mentioned authors in arguing that (12a) involves CAP in NP but that (12b) contains REL in NumP flagged by *ein*. More generally, observe again that adjectival inflections indicate differences in structure in the higher layers of the noun phrase, but *ein* shows distinctions in the lower projections.



Finally, let me restate the observation that adjectival inflections and *ein* interact morpho-syntactically calling into question certain structural claims of other proposals. In Chapter 4, I pointed out that *ein* is possible in certain *wh*-exclamatives (13a) and in exclamative constructions involving *so* ‘such’ (13b). Now, while not all speakers of German allow *ein* to occur in these contexts, those who do have a weak ending on the adjective as shown in the following attested examples:

- (13) a. % *NFU und NFSU2 (was für n-e dumm-en Abkürzungen)*  
 NFU and NFSU2 what for a-PL stupid-WK abbreviations  
 ‘NFU and NFSU2 (what stupid abbreviations!)’
- b. % *So n-e süß-en klein-en Pfoten*  
 so a-PL cute-WK little-WK paws  
 ‘Such cute little paws!’

I have demonstrated in the preceding chapters that a simple, surface-oriented account of the strong/weak alternation cannot explain all the cases. Rather, determiners including *ein* bring about a weak ending on the adjective in a specific structural constellation; that is, *ein* interacts with the inflection on the adjective morpho-syntactically. If this is so, then the weak adjectival inflections above raise issues for a Predicate Inversion analysis of (13a) as discussed in Bennis *et al.* (1998), and they argue against the assumption of a null noun in (13b) after *ein* or after the adjectives (van Riemsdijk 2005). In Chapter 4, I also showed that strong inflections on adjectives in the split-off are consistent with split topicalization being analyzed as involving two separately base-generated nominals. Furthermore, I argued there that *ein* cannot be inserted late in split topicalizations involving indefinite pronouns.

It is interesting to observe that the presence of *ein* in (13) does not only interact with the adjectival inflections, but *ein* also seems to have semantic impact there. For instance, van Riemsdijk (2005: 167) points out that these – often called – ‘emotive’ or ‘affective’ constructions can express some relatively excessive property of the entities under discussion. These cases were not accounted for in Chapter 4. In Section 2 below, I will suggest again that *ein* itself does not have an influence on the interpretation in these cases. Rather, an operator will be held responsible for this effect, and this operator is flagged by *ein*.

More generally, given these shared properties and the interwoven argumentation, I believe that adjectival inflections and *ein* deserved to be discussed in tandem. Importantly, these elements also differ in certain ways.

## 1.2. Differences between Adjectival Inflections and *ein*

In the previous section, I reviewed the claim that adjectival inflections and *ein* indicate abstract structure. I left open there that the former also provides clues about the different types of embeddings, namely clues that indicate simple vs. complex DPs. To illustrate this again, consider (14). The example in (14a) involves a simple, regular DP where the adjective is in Spec,AgrP. In contrast, the example in (14b) is a case of morphological dis-agreement. I argued that it involves a different structure where both the adjective and the noun are in Spec,DisP, and the head noun of the larger structure is a null element:

- (14) a. *ihr* [<sub>AgrP</sub> *blöd-en* [<sub>NP</sub> *Schweine* ]]  
 you stupid-WK pigs  
 ‘you stupid idiots’
- b. *ihr* [<sub>DisP</sub> [<sub>AgrP</sub> *blöd-e* [<sub>NP</sub> *Bande* ] ] [<sub>NP</sub> *e<sub>N</sub>* ]]  
 you stupid-ST gang  
 ‘you stupid gang’

Importantly, although the adjectives in both (14a) and (14b) are in Spec,AgrP, the one in (14b) is more deeply embedded. Unlike in (14a), Impoverishment cannot apply in (14b) yielding a strong ending on the adjective. In addition to complex specifiers, it was shown in Chapter 2 that strong adjectival endings also surface in several other non-canonical structures, for instance, in different kinds of adjunction. In each case, Impoverishment does not occur, and I concluded that weak inflections only surface in simple, regular DPs. More generally, the strong/weak alternation on the adjective was employed throughout the book as a means to find plausible structures for related constructions and as briefly mentioned just above, to evaluate other proposals as regards their structural claims.

Both adjectival inflections and *ein* also make contributions in their own right. While both types of elements indicate the precense of certain elements, they differ in that adjectival endings make morphological features visible, but *ein* supports or flags semantic operators. Consider the remaining claims of Hypothesis 2 and 3.

#### 1.2.1. Some Evidence for Hypothesis 2b

I put forth the following hypothesis for adjectival inflections:

- (15) *Hypothesis 2*  
 Adjectival inflections:  
 b. [...] make nominal features like case, number, and gender visible.

To briefly illustrate, this claim receives credence from the comparison of a regular noun phrase as in (16a) and its discontinuous counterpart as in (16b):

- (16) a. *ein lila-(n-es) Kleid*  
 a purple-n-ST dress.NEUT  
 ‘a purple dress’
- b. *Kleid habe ich ein lila-\*(n-es).*  
 dress.NEUT have I a purple-n-ST  
 ‘As for dresses, I have a purple one’

I proposed that in the second example above, the adjectival ending makes the features of the displaced noun visible; that is, the adjectival inflection is an exponent of case, number, and gender (specifically for (16b): nominative, singular, neuter). In fact, due to concord inside the noun phrase, adjectival inflections make features of the entire DP visible. The same holds for the inflection on *ein*:

- (17) a. *ein Kleid*  
           a dress.NEUT  
           ‘a dress’
- b. *Kleid habe ich nur ein-\*(es).*  
           dress.NEUT have I only one-ST  
           ‘As for dresses, I have only one.’

Comparing (16b) and (17b), note again that adjectival inflections and *ein* interact in that *ein* determines the ending on the following adjective (16b), but this ending may also appear on *ein* itself (17b).

### 1.2.2. Some Evidence for Hypothesis 3b

The element *ein* also makes certain elements visible. Unlike adjectival inflections, *ein* indicates the presence of semantic operators.<sup>2</sup> I formulated the following general claim:

- (18) *Hypothesis 3*  
*Ein:*
- b. [...] supports overt semantic operators (e.g., NEG *k-*) and flags the presence of covert semantic operators (e.g., TYPE).

To see this again, I argued above that the possessive articles, the negative article, and the singularity numeral are composite forms. These complex elements involve possessor, negator, or singularity components that, if supported by *ein*, receive the following spell-outs:

- (19) a. *m-eine Frau*  
           POSS-a woman  
           ‘my woman’
- b. *k-eine Frau*  
           NEG-a woman  
           ‘no woman’

---

<sup>2</sup> It may turn out that adjectival inflections are even more similar to *ein* than claimed here. Specifically, they might also be able to flag the presence of an operator in certain contexts. In this context, Merchant (1996:183) points out that uninflected *all* ‘all’ tends to induce a collective reading (ia) but that its inflected counterpart seems to yield a distributive reading (ib):

- (i) a. *all diese guten Freunde*  
           all these good friends  
           ‘all these good friends’
- b. *all-e diese guten Freunde*  
           all-INFL these good friends  
           ‘all these good friends’

Taking this at face value, the presence or absence of the inflection seems to correlate with different readings. Rather than suggesting that adjectival inflections have semantics after all, one might tentatively suggest that they make a distributivity operator visible. I briefly return to this in Section 2.3.

- c. *EINE Frau*  
 $\emptyset_{[-PL]}$ +a woman  
 ‘one woman’

Note again that supporting involves overt operators. Overtness of the operator is a convenient shorthand for stating that the relevant semantic components have a detectable manifestation: possessors and negation have an overt segmentable element (e.g., *m-*, *k-*), but the singularity numeral involves a non-segmentable element, namely stress. I suggested above that these three components are operators. This allows me to relate the three cases to each other but also to other cases below.

I also proposed that *ein* indicates the presence of the realization operator REL, an element that does not have an independent overt manifestation (20). With *ein* appearing in this context, this is what I referred to as flagging. Notice also that the flagging of an operator and the indication of a certain amount of structure are related here. Assuming that REL is in NumP, *ein* indicates the presence of REL and a certain abstract structure (i.e., ArtP) in singular contexts:

- (20) [ArtP *eine* [NumP REL<sub><e<e,t>></sub> [NP *Frau*<sub><e></sub> ]]]<sub><e,t></sub>  
           a                                 woman  
       ‘a woman’

Finally, note already here that the cases in (19) above presumably also involve REL. In other words, *ein* does not only support an overt operator, but it also flags a covert one at the same time. In Section 2.2, I will provide more cases involving flagging and discuss some of the related issues in more detail.

### 1.3. Summary of the Main Claims

In this last subsection, I provide a convenient summary of the main insights in bullet-point form:

Adjectival inflections are not a reflex of:

- (in-)definiteness
- (non-)restrictiveness of interpretation of modifiers
- referentiality

The article *ein* is not a reflex of:

- indefiniteness
- emotiveness
- singular number/countability

Both adjectival inflections and *ein* are semantically vacuous and can:

- appear in contradictory semantic contexts
- be left out in certain, well-defined contexts without loss of meaning
- have multiple occurrences without leading to semantic redundancy

Abstracting away from adjectival inflections indicating different degrees of embedding, these two type of elements indicate abstract structure:

- adjectival inflections: DP vs. LPP
- *ein*: NP vs. ArtP

These two types of items make other elements visible:

- adjectival inflections: morphological features
- *ein*: semantic operators

Miscellaneous for adjectival inflections:

- concord is a necessary (but not sufficient) condition for weak endings
- Impoverishment occurs locally and in a bottom-up fashion

Miscellaneous for *ein*:

- it is the least specified overt determiner (it only has the categorial feature [+D])
- it is not inserted late<sup>3</sup>
- it is triggered by REL (but not CAP or *als*)

More generally, I can conclude that although semantically vacuous, these two types of elements provide valuable clues about the structure and the presence of elements in the German noun phrase. I would like to suggest that these elements facilitate the acquisition of abstract structure and covert elements in the language (see also Section 3.2 below).

## 2. Some Final Consequences and Avenues for Future Research

In this section, I consider some more consequences. Given the current state of the investigation, I will only briefly discuss the relevant issues and tentatively hint at some solutions. A full-blown account of all the relevant aspects must await another occasion.

### 2.1. Supporting and Flagging

The previous chapters discussed cases where the indefinite article does not seem to have semantic import. In fact, I proposed that *ein* involves the categorial feature [+D] and a separate feature bundle for case, number, and gender. I have taken [+D] to be the semantically vacuous element that is spelled out as the stem *ein*; the CNG features are spelled out as its inflection. If features in addition to [+D] and CNG are present, different elements are spelled out; for instance, if [+DEF] is present, the definite article *der* ‘the’ is realized.

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<sup>3</sup> With Vocabulary Items inserted late in DM, this statement has to do with the feature that makes up *ein* (i.e., [+D]). Note that the same is true of the features making up adjectival inflections; that is, no features are inserted late.

There are some other well-known cases where *ein* does seem to make a semantic contribution, at least at first glance. I will discuss split-scope phenomena, review *ein* with role nouns, return to exclamatives, and briefly discuss *ein* in mass nominals. For each of these cases, I will suggest that it is not *ein* that brings about the different interpretations. Rather, different covert operators are taken to be responsible, and *ein* simply flags the presence of these null elements. One result of this discussion will be that I will identify more cases that suggest that there are two general ways to make operators visible: supporting and flagging.

I have argued above that *ein* is not a reflex of indefiniteness. One could suggest then that the absence of definite elements such as *der* ‘the’ or *dieser* ‘this’ leads to indefiniteness, perhaps as a default option. However, this is, most likely, not correct. There is evidence that indefiniteness is not a default option but rather that it involves an actual element. This evidence comes from split-scope phenomena (e.g., Bech 1955/57, Jacobs 1980, data taken from Zeijlstra 2011: 113):

- (21) *Du must keine Krawatte tragen.*  
 you must no tie wear  
 a. ‘It is not required that you wear a tie.’ ( $\neg > \text{must} > \exists$ )  
 b. ‘There is no tie that you are required to wear.’ ( $\neg > \exists > \text{must}$ )  
 c. ‘It is required that you don’t wear a tie.’ ( $\text{must} > \neg > \exists$ )

The most salient reading is paraphrased in (21a), where the negation has the widest scope, and the existential operator has the lowest scope. In other words, the negative article *kein* ‘no’ is split into two parts, and both elements have semantic import. Note first that split scope provides more evidence for the composite analysis of the negative article. Now, given that the different scope options are derived from the different positions of the existential operator in (21a-c), I conclude that this operator involves an actual element.

In keeping with the claims made thus far, I suggest that this existential operator is a null element and that it is responsible for indefiniteness. For concreteness, I will label this element EXIST(ence). I will assume that the presence of this null operator is flagged by *ein*. As regards the specific and non-specific readings of indefinites, I assume that EXIST is in CardP in the weak, non-specific reading but in DP in the strong, specific interpretation. These positions are licensed by DP-external factors.

Second, recall from Chapter 5 that role nouns can appear in predicative contexts without an article (22a). Importantly, these nouns require a determiner when they appear in argument position (22b):<sup>4</sup>

- (22) a. *Er ist Landwirt.*  
 He is farmer  
 ‘He is a farmer.’

<sup>4</sup> If role nouns are modified by an adjective, they also take *ein* in predicative contexts. As discussed in Chapter 6, note again that AgrP entails the presence of NumP and thus REL. The noun combines with the latter to be compatible with the adjective. With both elements of type <e,t>, the noun and adjective can combine by Predicate Modification. REL is flagged by *ein*.

- b.     \*(*Ein*) *Landwirt kam nach Berlin.*  
           a   farmer   came to   Berlin  
           ‘A farmer came to Berlin.’

For these nouns to be part of an argumental expression, more structure beyond NP must be projected (Longobardi 1994). Part of this nominal structure is NumP which involves REL. The latter is flagged by *ein*. To be clear, it is not *ein* itself that turns a predicate role noun into an argumental expression – it is a semantic operator and more structure.

Third, as briefly discussed in Chapter 4, special contexts such as exclamatives license the presence of *ein* with plural nouns as in the (constructed) example in (23a). Recall that this construction is not possible for all speakers. Mass nouns can also occur with *ein* (23b). Both examples have a clear quality reading expressed in the translation as ‘great.’ Note that while the latter reading may be dominant, a quantity interpretation seems possible rendered as ‘a lot of’ in the translation:

- (23)   a. %    *So (ei)ne Autos!*  
               so a     cars  
               ‘Such great cars!’  
               ‘Such a lot of cars!’
- b.     *So (ei)n Bier!*  
               so a     beer  
               ‘Such great beer!’  
               ‘Such a lot of beer!’

The presence of *ein* is unexpected with a plural or a mass noun. I argued for cases like (23a) that there cannot be a null noun between the article and the overt noun. I assume the same for (23b). I suggest now that there are two semantic operators at work, QUAL(ity) and QUANT(ity). Depending on which operator is present, we get a different interpretation. The presence of these operators is flagged by *ein*.

Fourth, mass nouns are interesting in other ways. As already briefly mentioned, they usually appear without an article (24a). As might be expected from above, mass nouns can also occur with an article (24b-c), but here the effect is different from (23b) above. Specifically, the former two cases have at least two different readings: (24b) has a sortal reading, and (24c) has a container reading:

- (24)   a.     *Pumpernickel ist Brot.*  
               pumpernickel is bread  
               ‘Pumpernickel is bread (= the substance).’
- b.     *Pumpernickel ist (ei)n Brot.*  
               pumpernickel is   a   bread  
               ‘Pumpernickel is a bread (= certain kind of that substance).’

- c. *Ich möchte (ei)n Brot.*  
 I would.like a bread  
 ‘I would like a loaf of bread (= a certain quantity of that substance).’

I believe that semantic operations also account for these data. To be concrete, I will simply label these elements as TYPE and QUANT. Note that the quantity reading in (23b) above is unspecific, but the one in (24c) is specific (something I will not investigate further). Again, I suggest that *ein* flags the presence of operators that bring about the different readings.

To sum up, I have made the claim more general that *ein* indicates the presence of covert operators (cf. in this regard Crisma 1999: 122, Matushansky & Spector 2005: 245, and others). In particular, I have extended this claim to split-scope phenomena (EXIST), to role nouns in argument position (REL), to plural indefinite nouns in exclamatives (QUAL, QUANT), and to mass nouns (QUAL, QUANT, TYPE). In Section 2.3, I will summarize all cases and identify some possible restrictions.

## 2.2. *Nominals with Two Overt Operators*

I have pointed out that there are two ways for *ein* to make operators visible: supporting and flagging. Interestingly, several of these operators can co-occur in one nominal. To set the stage, recall that we have seen above that *so* ‘such’ can precede *ein* where both unreduced and reduced forms of *ein* are possible (for (25b), cf. Elmentaler & Rosenberg 2015: 389):

- (25) a. *so (ei)ne (nette) Frau*  
 so a nice woman  
 ‘such a nice woman’
- b. *irgend so (ei)ne Frau*  
 any so a woman  
 ‘some woman or other’

I assume that *so* is an overt TYPE operator.

As mentioned above, *ein* can support NEG and  $\emptyset_{EIN}$ . Let us assume that this also holds for *so*. Considering (26a) and (26b), note that there are two operators in each case and that *ein* follows both yielding two instances of the indefinite article (the example in (26b) is adapted from Hole & Klumpp 2000: 238, also Elmentaler & Rosenberg 2015: 383, 389; for Dutch, see Barbiers 2008: 6). Notice that the example in (26b) is parallel to an example from the Appendix where a numeral other than *EIN* precedes *so* (26c):<sup>5</sup>

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<sup>5</sup> Hole & Klumpp (2000) propose that *son*, that is, *so* ‘n in (26), is an article that simultaneously expresses definite type reference and indefinite token reference. They wind up suggesting that German has actually three articles: the definite article, the indefinite article, and *son*. Note, however, that German allows the following strings:

- (i) a. *so jemand*  
 so somebody  
 ‘somebody like that’
- b. *so etwas*  
 so something  
 ‘something like that’



- (26) a. *k-eine so 'ne Frau*  
 NEG-a so a woman  
 'no such woman'
- b. *EINE so 'ne Frau*  
 $\emptyset_{[-PL]}+a$  so a woman  
 'one such woman'
- c. % *drei so ne geilen Mädels*  
 three so a awesome girls  
 'three such awesome girls'

Before I provide the derivations of these multiple occurrences of *ein*, let me identify some restrictions.

First, unlike (25), (26) cannot involve an unreduced form of *ein* as a second instance. This is particularly clear with the singularity numeral (27a). Furthermore, the first instance of *ein* cannot be a reduced form either (27b-c) (for (27a), see Elmentaler & Rosenberg 2015: 383):

- (27) a. \* *EINE so eine Frau*  
 one so a woman
- b. \* *'ne so eine Frau*  
 a so a woman
- c. \* *'ne so 'ne Frau*  
 a so a woman

Second, *so* 'such' cannot be left out:

- (28) a. \* *keine 'ne Frau*  
 no a woman
- b. \* *EINE 'ne Frau*  
 one a woman

Third, the second instance of *ein* cannot be left out:

- (29) a. \* *keine so Frau*  
 no so woman
- b. \* *EINE so Frau*  
 one so woman

---

Assuming that *so* in (i) is the same as in (26), one may conclude that *son* is not an atomic article but a composite form.

Fourth, this distribution is not possible in definite contexts:

- (30) a. \* *meine so 'ne Frau*  
my so a woman
- b. \* *Peters so 'ne Frau*  
Peter's so a woman
- c. \* *die so 'ne Frau*  
the so a woman
- d. \* *diese so 'ne Frau*  
this so a woman

Summarizing these sets of data, note that these multiple occurrences only surface in indefinite contexts where one instance of *ein* occurs before *so* and one after it. Furthermore, with both instances of *ein* present, *so* cannot be left out; that is, both instances of *ein* cannot be adjacent. With the first instance of *ein* and *so* present, the second instance of *ein* must be present as well. Finally, the first instance of *ein* involves an unreduced form, but the second instance is a reduced form of *ein*. Note that this is different when the first instance of *ein* is missing as in (25). In the latter case, *ein* can appear in both forms.<sup>6</sup>

I argued in Chapter 2 that *ein* involves a complex head consisting of the categorial feature [+D] and a separate feature bundle for case, number, and gender (31a). Furthermore, I assumed that determiners are base-generated in ArtP and move successive cyclically up the tree. I propose for the multiple occurrences of *ein* above that the two positions of *ein* are also related by movement. For concreteness, I assume that the TYPE operator *so* is in the specifier position of a Type Phrase (TypeP). Deriving the nominal involving the singularity numeral in (26b) as in (31b), I suggest that  $\emptyset_{EIN}$  and *so* each get supported by *ein*. The relevant elements are linearly adjacent:<sup>7</sup>

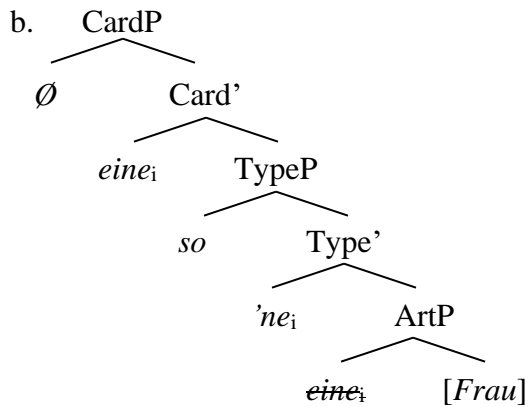
- (31) a.  $\text{Art}_{[+D; F, N, O, S]}$
- [+D]                      [F, N, O, S]

<sup>6</sup> There is a third option such that *ein* cannot be reduced at all when it follows other elements. This is the case with *manch* 'some:':

- (i) *so manch \*(ei)ne Frau*  
so some a woman  
'some women'

Perhaps, one might object that the reduced form of *ein* in (i) is out due to a phonetic restriction. Importantly, *manch 'ne* is phonetically similar to *Münchner* '(from) Munich,' and yet the reduced form is ungrammatical. Hence, this cannot explain (i). Rather, it seems clear that although *manch* has the main accent, *ein* does not seem to be entirely unstressed here. This probably explains the ungrammaticality of the reduced form in (i). It is not clear to me why this instance of *ein* must have some stress. Note in this regard that this element cannot be adjectival *eine*. Although also stressed, adjectival *eine* occurs in definite contexts, and furthermore it has an inflection in masculine contexts (e.g., *Peters ein-er Sohn* 'Peter's one son' vs. *so manch ein Sohn* 'many sons'). More generally, I point out again that the conditions as to when the indefinite article can, must, or must not be reduced are poorly understood.

<sup>7</sup> For the counterpart in Dutch, Barbiers (2005: 171) suggests that NumP (the current CardP) is base-generated above DP.



Some remarks are in order here. Notice that the complex head in (31a) immediately explains that the second instance of *ein* is inflected and that it is inflected in the same way as the first instance. More tentatively, assuming that the operator *so* is affixal, it must be supported by *ein* accounting for the fact that *ein* must follow *so*. There are two kinds of derivation. Starting with (25), either an unreduced or a reduced form of *ein* follows *so*. I assume that in the reduced instances, *ein* has encliticized to the operator (note in this regard that both relevant elements are sometimes spelled as one word: *son*).<sup>8</sup>

Unlike (25), (26b) involves two instances of *ein*, and the *ein* following *so* is a reduced form. Now, Nunes (2001) argues that Move is not a primitive operation but rather the output of Copy, Merge, Form Chain, and Copy Reduction. Assuming that Copy Reduction applies to free, unbound copies, the unreduced form of (the lower) *ein* is deleted. This leads to ungrammaticality as *so* is not supported. However, *ein* can also involve a reduced form and thus encliticizes to *so*. In the latter case, *ein* is not an unbound copy and becomes invisible to Copy Reduction (cf. Nunes 2001: 311f). This derivation allows a second *ein* to surface. Finally, I assume that *mein* ‘my’ is not possible in these constructions as this type of *so* is incompatible with definiteness. This also rules out the other definite determiners in addition to the fact that they do not involve (a higher instance of) *ein* to begin with – these cases are also out as there are two independent determiners in the noun phrase.

### 2.3. Other Considerations

The upshot of the above discussion is that we can observe that all nominals containing *ein* involve an operator, supported or flagged. I believe this is an interesting claim. However, the picture of flagging is complicated in at least three ways. First, it seems that different elements can flag the same operator. For instance, *ein* flags REL in indefinite contexts where REL is in NumP in both predicative and argumental nominals (e.g., *ein Auto* ‘a car’).<sup>9</sup> However, as already

<sup>8</sup> Recalling the restriction from Footnote 6, the derivation involving unreduced *ein* might extend to (*so*) *manch ein* ‘some,’ *solch ein* ‘such a,’ and *welch ein* ‘what kind of a.’ One might also suggest that *irgendein* ‘any’ is another case where an operator (*irgend*) is supported by *ein*. However, *irgend* can also occur with other elements: *irgendwelche* ‘any,’ *irgend (et)was* ‘anything,’ *irgend jemand* ‘anybody,’ and others. In addition, the word *so* ‘so’ can intervene between the two elements (e.g., *irgend so was* ‘anything like that’). These considerations make it unlikely that *ein* supports *irgend*.

<sup>9</sup> The reason why singular \**Ø Auto* ‘car’ is ungrammatical is that the null article lacks a phonetic realization and thus cannot make REL visible. In contrast, plural *Ø Autos* ‘cars’ is fine as the plural morphology flags REL.

pointed out in Chapter 7, a definite element can also flag REL when the context is definite (e.g., *das Auto* ‘the car’). It is clear then that the presence of REL can only be a necessary, but not a sufficient, condition for the occurrence of *ein*.

Second, as briefly pointed out in Section 1.2, one instance of *ein* can make two operators visible at the same time. To see this again, consider the example in (32a). For the kind noun *Freund* ‘friend’ to be a predicate and thus to be able to get modified by the adjective, it must combine with REL in NumP. REL triggers the presence of *ein*. Furthermore, the singularity operator must be supported by *ein*. Thus, (32a) has the more abstract representation in (32b):

- (32) a. *EIN netter Freund*  
           one nice friend  
           ‘one nice friend’
- b.  $\emptyset_{\text{EIN}}$  Adjective REL Noun

To be clear, *ein* flags the presence of REL and supports the singularity operator. The same applies to *mein* ‘my’ and *kein* ‘no.’ With the discussion of *so* ‘such’ in mind, we wind up with the following possibilities:<sup>10</sup>

- (33) Supporting and Flagging:
- a. *m-ein* REL
  - b. *k-ein* (*so* ‘ne’) REL
  - c.  $\emptyset$ +*ein* (*so* ‘ne’) REL

A lot of the discussion focused on *ein* flagging REL (34a). To this, I have made some tentative additions in the last subsection (34b-e):

- (34) Flagging:
- a. *(ei)n* REL
  - b. *(ei)n* EXIST
  - c. *(ei)n* QUAL
  - d. *(ei)n* QUANT
  - e. *(ei)n* TYPE

Recall from Chapter 1 that there are (southern) dialects of German that have *ein* in plural contexts more generally; that is, *ein* occurs without the presence of a preceding *so* ‘such’ or *was für* ‘what (for).’ I would like to suggest that REL is flagged by *ein* not only in the singular but also in the plural in those dialects. Since there is overt evidence for this flagging, I assume that the difference between the various dialects can be acquired without much difficulty. If the interpretation of the above empirical observations is tenable, then I can state again that the traditional term indefinite article is a misnomer – *ein* supports and flags operators.

Turning to the final complicating factor, Chapter 6 also discussed one null operator that is never overtly flagged: CAP. It is not clear to me if the type of operator flagged by *ein* and the one that is not can each be related to an independent factor. Ideally, one might ultimately like to

<sup>10</sup> Currently, I am not sure if there are cases of supporting without flagging. An answer to this questions may depend on whether or not mass nominals like *so’n Brot* ‘such a bread’ (also) involve a null operator.

claim that the respective operators have something in common – perhaps, they occur in certain positions only – and that this factor correlates with the (non-)occurrence of *ein*. Additionally, flagging might be related to the various positions of one and the same operator – elements that might manifest themselves differently in various domains (e.g., DP vs. CP). That the latter conjecture might not be implausible is indicated by the following tentative discussion of the operator DIST.

I briefly suggested in the preceding pages that *ein* intensifies the distributive reading in (35a) and that the inflection on *all* ‘all’ does something similar in (35b). Following de Swart *et al.* (2007), I argued that a distributive operator brings about the plural interpretation of a non-plural noun in (35c).

- (35) a. *ein jeder von euch*  
           an every of you  
           ‘each of you’
- b. *all-e diese guten Freunde*  
           all-INFL these good friends  
           ‘all these good friends’
- c. *Sie sind DIST Arzt.*  
           you(PL) are doctor  
           ‘You are (all) doctors.’

One could suggest then that the null operator DIST is present in (35a-b) and is flagged by *ein* and the adjectival inflection. This is different from (35c), where DIST is neither flagged nor supported. If this turned out to be tenable, then one could state that DIST is made visible in the left periphery of the noun phrase (i.e., LPP) but not in other positions. Returning to the various operators above, one could suggest that operators in NP do not get flagged (CAP) but that the ones in NumP do. The latter could involve all the operators in (34) above, at least when they are first merged (more on this below). Note in this regard that it could turn out that REL and EXIST are related (or indeed the same). If so, one could claim that all operators in (34) are mutually exclusive hinting at the fact that they are all in the same position. I will have to leave a more robust discussion of this for future research.

### 3. More General Conclusions

In this final section, I return to complex nominals in the context of concord, and I make suggestions as to what all expletives, clausal and nominal, may have in common.

#### 3.1. Nominal Structure and Concord

In the previous chapters, a variety of syntactic phrases played a role. These phrases can be assembled into one hierarchical, abstract structure:<sup>11</sup>

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<sup>11</sup> Additionally, the left periphery can involve a LPP (Giusti & Iovino 2016).

(36) [ D [ Card [ Agr [ Art [ Num [ N ]]]]]]

Let me point out just two things about this structure: I assumed that nouns move to Num and that articles are merged in Art also undergoing movement. With minor differences, this is consistent with the proposals by Julien (2005a), Roehrs (2009a), and others. Importantly, the structure in (36) received further application in this book. I take this to indicate that this structure shows good promise for future investigations. Let me turn to some issues related to agreement.

As is well known, elements in the noun phrase are subject to morphological concord. For example, determiners, adjectives, and nouns in (36) agree in case, number, and gender. In the course of this book, I also discussed a number of more complex cases where a second nominal is combined to the matrix DP by way of an embedded complex specifier or right adjunction. In the literature, these types of nominals have not received much attention. I summarize them briefly here focusing on agreement. We will see that all these constructions agree in semantic number but not necessarily in morphological number. The relevant structures will be illustrated here again but in a simplified way.

In the context of capacity readings, I discussed DPs that involve *als* ‘as’ and its null counterpart ALS. To recapitulate, the *als*-nominal in (37a) involves adjunction where *als* is the head of ModP, and the role noun *Arzt* ‘doctor’ is an NP complement. I proposed that the adjoined nominal does not contain NumP, and as such the number mismatch with a plural pronoun is only apparent (the plural interpretation follows from the presence of a distributivity operator). In contrast, while the structure in (37b) also contains a ModP, this construction does exhibit concord. I suggested that the ALS-nominal must contain NumP and that it is located in the specifier of AgrP:

- (37) a. *ihr* [<sub>ModP</sub> *als*<sub>Mod</sub> *Arzt* ]  
           you(PL) as     doctor  
           ‘you as doctors’
- b. (*vielleicht*) *ein* [<sub>ModP</sub> *ALS*<sub>Mod</sub> *Landwirt* ] Agr *e<sub>N</sub>*  
           really     a                     farmer  
           ‘(really) some farmer’

Let us consider two more nominals.

Indefinite pronoun constructions also involve complex structures (38a). As in the first two cases, it also involves a ModP. This phrase was argued to involve right adjunction. However, unlike the adjunction case in (37a), this nominal exhibits concord. In view of the presence of an inflected adjective and a null noun, REL must be present and thus NumP. Finally, I discussed a case of morphological dis-agreement but semantic agreement (38b). Given the figuratively extended meaning of the noun, I argued for the presence of REL and thus NumP. I proposed that the dis-agreeing nominal is embedded in the specifier of DisP:

- (38) a. *jemand* [<sub>ModP</sub>  $\emptyset$ <sub>Mod</sub> *ander-er* *e<sub>N</sub>* ]  
           somebody             different-ST  
           ‘somebody different’

- b.     *Sie* [NumP *Bauer* ] Dis *e<sub>N</sub>*  
           you       peasant  
           ‘you peasant’

Let me summarize the properties of these different cases in Table 1. Note that the *als*-capacity construction is provided again with a role noun in the singular (with a kind noun or in the plural more generally, NumP is present):

Table 1: Summary of the Constructions and Their Properties

| Construction                    | Structure  | Agreement b/w nominals                             | NumP                            | Head                      |
|---------------------------------|------------|----------------------------------------------------|---------------------------------|---------------------------|
| <i>als</i> -capacity            | adjunction | apparent morphological and semantic dis-agreement  | no NumP (but distributivity OP) | <i>als</i> <sub>Mod</sub> |
| ALS-capacity                    | specifier  | morphological and semantic agreement               | NumP                            | ALS <sub>Mod</sub>        |
| Indefinite pronoun construction | adjunction | morphological and semantic agreement               | NumP                            | Ø <sub>Mod</sub>          |
| DisP                            | specifier  | morphological dis-agreement but semantic agreement | NumP                            | -                         |

It is interesting to note that all four constructions agree in semantic number, either mediated through NumP or a distributivity operator. As for morphological concord, agreement in phi-features is not an issue if NumP is absent in the embedding (*als*-capacity). Such agreement holds though if NumP is present (ALS-capacity, indefinite pronoun construction). The only true exception is DisP. The latter involves NumP but does not show morphological agreement. Let me briefly speculate why this might be so.

It is clear that the position of the embedded nominal *per se* cannot account for these agreement patterns as both specifiers and adjuncts may exhibit concord or the absence thereof. Rather, it seems to be a property of the head of the embedded nominal that determines the agreement properties. In particular, ALS<sub>Mod</sub> and Ø<sub>Mod</sub> could be taken to mediate concord. I also argued that *als*<sub>Mod</sub> is an operator that may take a NP complement, as in the case in (37a), but it may also embed a NumP complement, as in the case of kind or plural nouns. With NumP present, the *als*-capacity construction also shows agreement.

Note now that unlike the first three cases, the nominal embedded in Spec,DisP does not contain the head Mod. Thus, while I cannot provide the details of the relevant mechanism here, I would like to suggest that all three Mod heads mediate concord between the two nominals provided NumP is present. Due to the absence of such a head in the nominal inside Spec,DisP, the latter does not have to undergo concord with the matrix nominal.

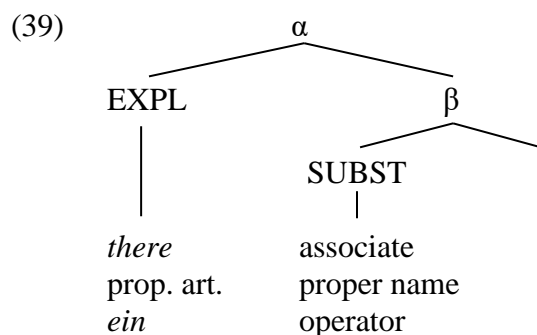
### 3.2. Expletive Elements more Generally

In the introduction, I discussed *there* in existential constructions and definite articles in the context of proper names. I followed the literature in assuming that *there* and proprial articles are expletive elements. Chomsky (1995) pointed out that these types of elements seem to violate the Principle of Full Interpretation. He suggested that the associate noun phrase in existential constructions moves at LF to license the expletive. In other words, a substantive element moves

to license a vacuous one. Longobardi (1994) suggested something similar for the second case. To motivate the movement of the proper name to the article, let me follow Chomsky by claiming that all expletives are deficient elements (Chomsky takes *there* to be a LF-affix).

Making this more general, this means that adjectival inflections and *ein* also need to be licensed by a contentful element. For adjectives, I suggested in Chapter 2 that the adjective stem moves to provide a host for the inflection. As to *ein*, I tentatively assume that the relevant operator moves to license *ein*. In other words, *ein* makes an operator visible but gets licensed by it at the same time. Recall also that one of the conclusions of this book is that adjectival inflections and *ein* make different abstract structures visible. Again, let me suggest that this is a general property of all expletives. In other words, I would like to claim that both *there* and the proprial article also indicate abstract structure. Consider this point in more detail.

Above, I made a distinction between supporting and flagging. Starting with the latter, this mechanisms seems to exhibit certain similarities to what is involved in existential constructions and proper names preceded by articles. Specifically, in all these cases, the expletive element is a free, unbound morpheme (at least in the overt component of the derivation). Let me observe now that the expletives and the contentful elements involve two different positions. Note that expletives are higher in the structure than the substantive elements:



The contentful licensors are merged lower in the structure due to semantico-syntactic factors; that is, they are base-generated low for independent reasons. Specifically, the associate is at the bottom of existential constructions given local theta-role assignment (40a); nouns including proper names form the bottom of their extended projections (40b); and semantic operators like REL turn nouns into predicates before they can combine with other elements (40c). Notice now that the expletives and their licensors are not linearly adjacent in their positions as other elements can intervene:

- (40)
- a. [ There ] is [ a man ] in the garden.
  - b. [ der ] alte [ Peter ]  
the old Peter  
'Peter, who is old'
  - c. [ ein ] netter [ REL ] Freund  
a nice friend  
'a nice friend'



Given these data, I propose that these expletives and their licensors are related by movement. Recall that the substantive elements are in a lower position for independent reasons. Now, as syntactic movement only proceeds upwards, we have the beginnings of an explanation as to why these expletives must be in the higher position (and not the lower one).

The mechanism of supporting is partially different. It, too, makes operators visible but combines the two relevant elements under adjacency. This involves the composite *ein*-words and inflected adjectives. Note that while possessive articles and inflected adjectives also involve the expletive parts, *ein* and the adjectival inflection, in the higher position in the underlying base structure, the expletive and the licenser surface in the reverse order as the possessive component and the inflectional suffix need to be supported. Thus, before both elements combine, the contentful part also undergoes movement just like with flagging:

- (41) a. [DP *m<sub>i</sub>-ein Auto t<sub>i</sub>*]  
           POSS-a car  
           ‘my car’
- b. *das* [InflP *groß<sub>i</sub>-e t<sub>i</sub>*] *Auto*  
      the     big-INFL car  
      ‘the big car’

This means that with flagging movement occurs in LF, but with supporting movement takes place earlier. This leaves the negative article *kein* ‘no’ and the singularity numeral *EIN* ‘one’ to be discussed. Now, whereas the first element involves the contentful part NEG in a position outside the DP proper and thus seems to be generally different, the second appears to involve the contentful part  $\emptyset_{EIN}$  in a higher position than expletive *ein* (i.e., Spec,CardP vs. Card). Currently, I have no interesting solution to offer other than suggesting that numerals including  $\emptyset_{EIN}$  are actually base-generated in Spec,NumP and then move to Spec,CardP.<sup>12</sup>

To sum up these tentative remarks, I can list five general traits of pleonastic elements: (i) expletives need to be licensed by a contentful element, (ii) expletives and their licensors are in two different positions, (iii) expletives are (usually) in positions higher than their licensors, (iv) these two positions are related by movement, and (v) the higher position is always visible. With this in mind, I would like to propose that these traits facilitate the acquisition of abstract structure and covert elements (although this is presumably not the main *raison d’être*). Now, given the specific details laid out here, this is, as far as I know, a novel claim. It goes without saying that it needs to be put to the test, something I cannot do here. Languages other than German could be

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<sup>12</sup> Yiddish has approximative constructions involving *a* ‘(a =) about’ (for the discussion of English approximatives, see Klockmann 2020: 23f). In this context, numerals can appear in a high or low surface positions (both examples are from Lockwood 1995: 112):

- (i) a. *a tsvantsik man* (Yiddish)  
       a twenty man  
       ‘about twenty men’
- b. *a man tsvantsik*  
       a man twenty  
       ‘about twenty men’

If one assumes that the head noun moves higher than NumP in these constructions, then (ib) might provide some evidence that numerals originate in Spec,NumP.

revealing in this respect. Depending on what we will find, we may, for now, continue claiming that semantically vacuous elements are not an imperfection of language.

## Appendix: Examples of Plural *ein*

The examples are presented in the following order: *so (ei)ne*, *so (ei)ne* with adjective, *was für (ei)ne*, and *was für (ei)ne* with adjective. First, examples retrieved by google are presented, next examples from Twitter are provided, and finally examples from Facebook are given.

### 1.1. Googled: *so (ei)ne* without adjective

**So eine Ferien** könnten darauf deuten, dass sie wünscht, sich selbst zu erholen.

Das Personal war sehr unfreundlich. Ich hatte noch nie **so eine Ferien**.

Nich schön, **so ne Ferien**.

ich hab mal **so'ne ferien** in den alpen mit ner jugendgruppe gemacht

### 1.2. Googled: *so (ei)ne* with adjective

und denn kommen dir **so ne geilen Typen** entgegen gestolpert

ihr macht **so ne geilen lieder**

Hahahahah **so ne geilen vids** hahahah.

**So ne geilen Leute** echt jeder auf seiner Art so sympathisch!!

**drei so ne geilen Mädels**

Wie kommt man auf **so ne geilen Ideen**?

Hi,wie kriegen die **so ne geilen Lichteffekte** hin?

Dass es hier auf dieser Seite **so ne geilen Schlampen** wie mich gibt?

Ich hoffe die TranX macht dann auch **so ne geilen Geräusche**.

warum die Phiole Rechts im Bild nicht **so ne geilen Reflection Effekte** hat wie die in der Mitte

Herzlichen Glückwunsch und macht weiter **so ne geilen Videos**!

Neue Sounddesigner und dann **so'ne geilen Kisten**?

ich finde ihr solltet **so ne geilen partys** mal am samstag machen

Und nur **so ne geilen Antworten**

textlich hat der **so ne geilen dinger** dabei das ich manchmal mit grinsendem gesicht dasitze und denke "geil".

wieso gibts **so'ne geilen typen** nur in japan

Mushido hat immer **so ne geilen Beats** :D

**So ne geilen Geländewagen** find ich richtig geil

es gibt ja im BC bei den ganzen objekten **so ne geilen schilder** wie "berlin Gasthof"

die hat **so ne geilen Beine**

wenn da **so ne geilen Sachen** Rauskommen

woher kriegsten du **so ne geilen witze**?

jetzt nutze ich **so ne geilen dinger** für den PC

Man würd' **so 'ne süßen Sachen** natürlich niemals tun.

Och **so ne süßen Katzis**... :-)

**So'ne süßen Dreckspätze** und selbst bei so einem. Mistwetter macht Doris noch ne tolle Geschichte draus.

Unsere Sabine macht immer **so ne süßen Geschenke**.

Ihr seid doch alles **so ne süßen Krümels**

das sind **so ne süßen hundewelpen**

**So ne süßen kleinen Pfoten**

Ja, ja, **so'ne süßen kleinen Löckenwölfe** sind schon entzückend!

mit ihm **so 'ne süßen Momente** zu haben

als ich schwanger war (was ja auch noch nicht sooo lang her ist) gabs **so ne süßen teile** leider nicht

1.3. *Googled: was für (ei)ne without adjective*

Tomboy - Junge, **was für eine Mädchen!** [DVD]

"**Was für eine Idioten**" sagte Liam

"**Was für eine Arschlöcher.**" waren meine letzten worte und somit verschwand ich auch.

**WAS FÜR NE VÖGEL ALTER SCHWEDE !!!!**

**Was für ne Vögel...**aber Glück für dich eben. 😊

**Was für ne Vögel** habts denn da aufgetrieben?

**Was für'ne Idioten...!!!**

Oh gott, **was für ne idioten**, es gibt klar ne menge websiten,

So nun rief er beim Freundlichen an, **was für ne Idioten** sie sind, den Ölkühler zu wechseln und kein Öl nachzufüllen,

wenn du da bist dann würde ich denen (besser nach dem kauf der siebchen) sagen **was für ne idioten** das sind

Da fragte ich mich auch, **was für ne Idioten**, vorallem hatte ich immer Luft in der Anlage.

Also beim MM in Lübeck gabs gestern noch genug laptops von Samsung... liegt wohl auch daran das die das ding falsch ausgeschildert haben, denn dort steht 1,8 Ghz auf dem Schild vom Despina. Und das Devin verkaufen sie zum gleichen Preis.... **was für ne idioten**

Gute Idee aber du beschimpfst jeden und flames **was für ne Idioten** sie sind da machts kein Spaß dir zuzuckuken

die wollten das wir die Linke oder die NPD wählen,aber sie sagten die Linke währe für sie besser...lol **was für ne Idioten...**

**Was für ne Spinner** bei Lyon,

**Was für ne Spinner** gibts hier eigentlich?

Die zwei hab' ich auch gesehen. **Was für ne Spinner**. Der Typ der das mamor im Auto hatte

...ach gott wie lustig, **was für ne Typen** es hier so gibt .... :-) o.T.

Dass muss man sich mal überlegen, **was für ne Schweine** dass sind.

hm ...**was für ne zicken...** !!! 😊

1.4. *Googled: was für (ei)ne with adjective*

Auf **was für ne‘ coolen Ideen** kommt ihr denn noch! LG

NFU und NFSU2 (**was für ne dummen Abkürzungen**)

Ich empfand dieses ignorante Verhalten als sehr unverschämt und beleidigend auf meine Person bezogen und bin gegangen!!! **Was für eine dummen Hühner** dort ;).

**Was für eine hübschen Jungs** kennst du? Namen?

Woow **was für eine schönen Beine** hast du wirklich Frau 😊

**Was für eine geilen Bilder** wer hat die bloß gemacht

**Was für ne geilen Threads** ey!

**was** hast du immer **für ne krassen anfälle** im voice :d

**Was** mach ich heut **für ne krassen Fehler** LOL

**was** meine Unachtsamkeit **für ne krassen Folgen** hat

Wow heftig dass ist voll komisch zu sehen **was für ne krassen Menschen** albanische Wurzeln haben

**Was** denn **für ne verdammten Ringe?**

2.1. *Twitter: so (ei)ne without adjective (but with numeral)*

ach man wir sind schon **so ne zwei wärmflaschen**

und **so ne zwei Kämpfer** die alles umpflügen,

**So 'ne zwei Bubis...** Denken auch ich halt mein maul ...

2.2. *Twitter: so (ei)ne with adjective*

Selten **so ne geilen Livebands** gehört.

"wir sind **so ne geilen Socken**"

Wir haben hier **so 'ne geilen Lehrer-Praktikanten**.

**So ne geilen Bilder...**

Ich bins als Dorfkind ja nicht gewohnt **so ne geilen läden** zu habn

aber als ich in meiner emo-phase war hab ich mir immer **so'ne geilen stories** ausgedacht und muss heute noch dran denken 8)

Ich will **so ne geilen smileys** BEI DER TASTATUR DABEI

und dann noch **so'ne geilen schuhe!!**

wie kommt man sonst auf **so'ne geilen Ideen?!**

Aber wie können die **so ne geilen Tänzer** rauswerfen???

woa cheng **so ne geilen weißen schuhe** hab ich ja noch nie gesehen xd das strahlt richtig

Kann ja nicht jeder **so ne geilen Videos** machen wie du :D

Aber du hast doch auch ohne den Anzug ein Sixpack und **so'ne geilen Muskeln!**

wo bekommt man den **so ne geilen Lollys?**

Doch, der Tag war okay. Nur hatte ich bisher nicht **so ne geilen Nachrichten** gehört

Das kommt jetzt mega weird..aber so'n Stripper als Freund.....also weil die machen immer **so ne geilen Bewegungen**, weißt du...

Du machst immer **so ne geilen Verlosungen !**

**so'ne geilen Tage** muss es auch mal geben

uf **so ne geilen ideen** kommst auch nur du!

ey ich schwör Dir Freitag und Montag werden **so 'ne geilen Tage !!**

und immer **so ne geilen sachen ;)**

hör auf hier **so'ne geilen Bands** aufzuzählen,sonst muss ich leider kurz ausflippen,verdammte Axxxt.

Und dann auch immer **so ne geilen Argumente** bringen, wie "FRÜHER war das auch nicht so"

Alter **irgend so ne dummen Hunde** haben direkt neben mir n Böller gezündet

**so ne dummen aufgaben** kann sich auch nur klaas ausdenken

als ob brendon jetzt ernsthaft VON DER QUEERCOMMUNITY **so'ne dummen kommentare** dafür abbekommt dass er sich als pan geouted hat

komm jetzt noch mehr **so ne dummen machosprüche** von dir?

"Selbst schuld, wenn du immer **so'ne dummen Kommentare** gibst."

Ich war eben kurz davor **so 'ne dummen Kinder** zu fragen,

Warum passieren mir immer **so ne dummen Sachen**?!

Klar, streut noch **so 'ne dummen Gerüchte**. :O

Da waren heute **2 so'ne dummen Weiber** beim Zumba-Kurs, die schrien ständig wie **so'ne Fangirls**. - \_\_\_\_ - Das hat genervt!

Gestern so um 23 Uhr waren **so'ne dummen Jugendlichen** vor meinem Febster und haben laut Musik gespielt + laut geredet.

Sollte ich öfter machen, dann krieg ich auch nicht **so 'ne dummen Nachrichten** von Mitschülern.

ich hab ja früher **so ne dummen Digitalzeichnungen** gemacht

komm jetzt nicht noch auf **so'ne dummen Ideen**... ;o)

Boa. **So ne dummen Eltern** hätte ich auch gern.

ich schon **so ne dummen Vögel** von der CDU können mir gestohlen bleiben

Ich wer dir **so ne dummen Sprüche** noch austreiben !

**so'ne dummen Menschen!**

Wieso gibt es **so ne dummen, bescheuerten Leute** die sowas machen?? D:

hahaha und **so ne dummen leute** am tisch ehy

es gibt halt **so ne dummen und abgehobenen leute**

ach **so 'ne dummen** gibt es öfter. xD



2.3. *Twitter: was für (ei)ne without adjective*

**Was für eine Idioten** leben hier? Wahnsinn!

Was glaubst Du denn, **was** da **für eine Leute** wohnen?

**was** das **für eine Leute** sind, mit denen sich die Polizei auseinandersetzen muss.

**Was** sind das denn jetzt **für ne Leute**, die

**Was** waren denn das **für ne Leute** eben auf Periscope. Schlimm.

man man man **was für ne idioten** es dich gibt

**Was für ne Idioten** und danke

**Was für ne idioten** seit ihr eigentlich habt ihr noch alle tassen im schrank

**Was für eine Idioten** wohnen nur in Sachsen-Anhalt? Ich explodierte.

**was für eine Idioten!** Die Bude aber noch an den größeren Deppen Fratzenbuch für 16 Milliarden zu verkaufen, ist Realsatire

Gerade gesehen... **was für eine Idioten**, die so Aufmerksamkeit wollen

**Was für eine Idioten**, wir können in Deutschland gar keine Schraube drehen.

**Was** sind denn das **für ne vögel** am alex? Oo [Berlin]

**wat für ne spinner**

**was für ne spinner**

Lateline man **was für eine spinner** von Anrufer

**Was für eine spinner** er hätte sich lieber ne andere Sportart suchen sollen

DPA, **was für eine Arschlöcher** seid ihr denn?

**Was** sind das **für ne Arschlöcher**, die IMMER NOCH megalaute Böller zünden?

**Wat für ne Kunden**

Die sind ja picky. **Was für ne Säcke.** :D

**Was für ne Säcke** sind das denn bitte? WTF? D:

viel spass mit deiner Familie, yaaa. **was fuer eine Ferien!** Hier habe ich auch schoene Ferien. :D

Ferien???????????????????? **Was für ne Ferien**????????????????????

**was für ne ferien** habt ihr!? :o

**was für ne ferien ?**

**wat fuer ne spasten.** das ergibt doch keinen sinn xd

echt jetzt?? **Was für ne spasten** sind das bitte -.- arghhh

2.4. *Twitter:* was für (ei)ne *with adjective*

Ich wurde auf Twitch gebannt weil ich geschrieben hab: Schöne achseln diggah!? **was für eine dummen mods?!**

Community schrumpft 60%...lol...**was für ne verdammten idioten...**

**Wat für ne furchtbaren Trikots**

**Was für eine bescheuerten Haufen** sitzen in unsere Ministerien.

3.1. *Facebook:* so (ei)ne *with adjective*

**so ne dummen Schweine !!!** wie kann man so bloß mit den Tieren umgehen !!!! HASS !!!!!!!!!

Hey Schnitzel, hoffe du bist bald wieder wohl auf. **So ne dummen idioten** ey.....

Wie kann man nur **so ne dummen Idioten** wählen.....

Bitte blockiert endlich **so ne blöden Tussen!!!** Wir sind hier nicht beim Werbe-Flohmarkt!  
[Hamburg]

Ich treffe täglich auf **so ne ekelhaften Leute** ohne Achtung...

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