A Topological Schema for Noun Phrases in German

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1. Introduction

In syntax, topology is a descriptive account of word order phenomena. Phrases are described as instances of schemata, with a schema being a continuous succession of a certain number of slots, i.e., fields or positions. A slot is defined by the restrictions the expressions filling the slot have to comply with. On the basis of topological schemata, a topological theory makes predictions concerning the word order of phrases.

Topology forces one to tackle very elementary questions. With respect to the syntax of noun phrases, these include: What is a determiner? What kinds of determiners can be distinguished? What is a pronoun? What kinds of pronouns can be distinguished? Are there expressions of the syntactic category Q(uantifier) and/or Num(ber)? How many different syntactic uses do expressions like *ein* ('a', 'one'), *viel* ('much') or *alle* ('all') have? What does the system of articles look like? Which syntactic features have to be assumed in the noun phrase? Etc., etc.

We do not conceive of topology as a rival to constituent structure, but as a chance to discuss elementary questions without committing ourselves (too much) to a certain syntactic framework. It seems to us that the unsettledness of these very elementary questions is one reason for the lack of unanimity among researchers concerning theconstitutent structure of noun phrases in German.

The following paper is structured as follows. After introducing the

topological schema and the three outstanding generalizations it is based on, we discuss three slots of the schema in some detail: the initial field, the position of the elements marking the noun phrase as definite or indefinite, and the position of the central noun in the noun phrase.

2.   The Topological Schema and its Restrictions

In topological schema (1), we distinguish two kinds of slots: fields and positions. A position is filled by one and only one simple or complex syntactic word (X^0-element), whereas a field can filled by one or more syntactic phrases (XP-elements).

(1)   *Topological schema of German noun phrases*

Z   Def   X   Nom   Y

Z =   Z-field: *n*-many XPs (n≥0) out of the set:
{focus particle, negation particle, adverb, (a certain use of) *all-*, PP, *deren*, ...}

Def =   Definiteness position: one X^0-element out of the set:
{article, demonstrative, possessive, interrogative, quantity expression, prenominal genitive, combinations of article and adjective or of two determiners, demonstrative pronoun *der*, possessive pronoun *meiner*, *deiner*, etc., indefinite pronoun *einer*, ...}

X =   X-field: *n*-many APs (n≥0)

Nom =   Nominal position: one noun and optionally left or right narrow appositions

Y =   Y-field: *n*-many XPs (n≥0) out of the set:
{genitive phrase, PP, AdvP, diverse types of embedded clauses, ...}

As mentioned before, the nature of the slots in a topological schema is determined by the restrictions the elements filling the slots have to comply with. These restrictions determine the number and nature of the schema's slots. We will discuss in detail the restrictions concerning Z, Def, and Nom, which are formulated as three generalizations (see page 164).

(2) *Applications of (1)*

Z	Def	X	Nom	Y
nur *only*	der *the*	große *great*	Bach *Bach*	
nicht einmal *not even*	der *the*	berühmte *famous*	Komponist *composer*	des wohltemperierten Klaviers *the well-tempered clavier*
nicht *not*	jede *every*		Fuge *fugue*	von Johann Sebastian Bach *of Johann Sebastian Bach*
	die *the*	vielen *many*	Kantaten *cantatas*	von Johann Sebastian Bach *of Johann Sebastian Bach*
	viel *much*		Kirchenmusik *religious music*	
	die selben *the same*	schönen zwei *beautiful two*	Sonaten *sonatas*	
	die meisten *the most*		Präludien *preludes*	
	Bachs *Bach's*		Kantaten *cantatas*	aus der Leipziger Zeit *from the Leipzig time* 'from his time in Leipzig'
	wessen *whose*		Kantaten *cantatas*	gestern *yesterday*
	dessen *whose*	uns allen bekannte *us all known* 'who is known to us all'	Kantaten *cantatas*	dessen Werke wir so schätzen *whose work we so much admire*
	welcher *which*		Komponist *composer*	
	welch ein *what a*	berühmter *famous*	Komponist *composer*	
selbst/sogar *even*	der *the*	berühmte *famous*	Thomaskantor Johann Sebastian Bach *Thomas-cantor Johann Sebastian Bach*	
	(des) *of the*		Herrn Prof. Dr. Johann Sebastian Bach *Mr. Prof. Dr Johann Sebastian Bach*	
	die *the*		Feststellung *statement*	dass Bach noch lebt *that Bach still lives*
	die *the*		Frage *question*	ob Bach noch lebt *whether Bach still lives*

Generalization I: The Z-field is filled by syntactic phrases which can be dislocated from the rest of the noun phrase.

Generalization II: The definiteness position (Def) is filled by one simple or complex determiner which marks the noun phrase with ±DEFINITE.

Generalization III: The nominal position (Nom) is filled by one simple or complex nominal X^0-constituent with linear precedence inside this constituent being as follows:[1]

   nomen varians* > nomen invarians* > N > nomen (/adjectivum) invarians*

Our topological theory of German noun phrases is inspired by the most successful topological theory of German sentences, the Herling-Erdmann-Höhle system (Höhle (1986)), which has its roots in the work of Herling and Erdmann in the nineteenth century – see Höhle (1986) for references. The topological schema we use bears some resemblance to the schema proposed in Duden-Grammatik (^{3}1973) – "Artikelwort-Mittelfeld-Kern-Nachfeld" – which has never been worked out in greater detail, as far as we know. Our topological schema differs crucially from the schema proposed by Engel (1977; 1988), which Zifonun et al. (1997, 2069) is based on:

(3)

Vorfeld		Kern	Nachfeld				
nomen inv.		Sub	gen. phrase	PP_K PP_S	Adv	NS	APP
nomen var.							
prenom. gen.	AP		nomen inv.	*als-*			
Det			nomen var.	phrase			

None of these three slots – Vorfeld, Kern, Nachfeld – is identical to any slot in our schema. The elements filling the Vorfeld slot (nomen (in)varians, determiner, prenominal genitive, AP) belong to three different slots in our account. The Kern slot can be filled by one noun only; narrow appositions, i.e., nomen and adjectivum (in)varians, belong to Vorfeld or Nachfeld. The reason for not relying on schema (3) is that we believe that only a theory based on a topological schema like (1) is able to supply insightful general restrictions for filling the slots, makes accurate predictions, and allows the establishment of analogies to the structure of sentences.

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[1] ">" means precedence, "*" means *n*-many (n≥0), and "(in)varians" means that the noun or adjective is (not) inflected.

3. Z-Field

As indicated, focus and negation particles can be located in Z. They can be simple like *nur* ('only'), *sogar* ('even'), or *nicht* ('not') (see (4-a)) or complex like *nicht einmal* ('not even'), *nicht nur* ('not only'), or *selbst nicht* ('not even') (see (4-b)).[2]

(4) a. *nur (/sogar, nicht, ...) der Autor*
         'only (/even, not, ...) the author'

    b. *nicht einmal (/nicht nur, selbst nicht, ...) ein Gerhard Schröder*
         'not even (/not only, not even, ...) a Gerhard Schröder'

The quantity expression *alle* ('all') is located in Z if it is used as in (4-cd), where a demonstrative or a possessive follows the quantity expression. Compare this to Reis & Vater (1980), where *alle* is located in the "pre-Det position". (For further uses of *alle*, see below.)

(4) c. *alle* diese Politiker   'all these politicians'

    d. *alle* unsere Freunde   'all our friends'

The aforementioned particles and the quantity expression *alle* are the stylistically unmarked Z-elements. As a stylistically marked option, attributive PPs and adverbs can be located in Z:

(4) e. *vom Fritz* der Bruder   'Fritz's brother'

    f. *aus Porzellan* eine Vase   'a vase (made) of china'

    g. *dort* der Herr   'the gentleman over there'

A further interesting case is (4-h), *deren viele*, as it occurs in a sentence like *Es gibt deren viele* ('There are many of this kind'). Here *deren viele* means something like "many of such and such a kind".

(4) h. *deren* viele   'many of this kind'

Deren is not a prenominal genitive as in *Deren Geduld möchte ich haben* ('I would like to have their patience'). Firstly, *deren viele* is an indefinite noun phrase, while *deren Geduld* is a definite one. Secondly, the prenominal genitive cannot be separated from the noun, as seen in (5) and (6).

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[2] Z-elements can be iterated: *selbst nicht einmal Kanzler Schröder* ('Not even Chancellor Schröder'), *selbst alle diese Politiker* ('even all these politicans'), *nur dort das Haus* ('only the house there').

(5) a. *Deren* Geduld möchte ich haben.
     b. **Deren* möchte ich Geduld haben.

(6) a. *Deren* viele gibt es nicht.
     b. *Deren* gibt es nicht viele.

For the elements in Z, we propose the following generalization:

(7) *Generalization I:*
     The Z-field is filled by syntactic phrases which can be dislocated from
     the rest of the noun phrase.

See (8) to (10), where the two sentences can have the same (focus) reading:

(8) a. *Nur* der AUtor kann das wissen.
     b. Der AUtor kann das *nur* wissen.
         'Only the author can know that.'

(9) a. *Alle* diese Politiker sind unfähig.
     b. Diese Politiker sind *alle* unfähig.
         'These politicians are all incompetent.'

(10) a. *Vom Fritz* der Bruder ist da.
     b. *Vom Fritz* ist der Bruder da.
         'Fritz's brother is here.'

The dislocation of the unmarked Z-elements seems to be quite unrestricted.
Quantifier floating as in (9-b), for instance, is known to be much less re-
stricted than NP and *was für* split (cf. Pafel (1995)). The dislocation of the
marked Z-elements, however, is severely restricted.

There is a challenge to this view on Z-elements, however. Jacobs (1983)
argues that the strings at the beginning of the sentences in (11) are not com-
plex noun phrases introduced by a focus particle, because basically these
strings cannot occur as the complement of a preposition, as can be observed
in (12).

(11) a. Nur Gerda erscheint in Peters Träumen.
         'Only Gerda appears in Peter's dreams.'
     b. Nur schöne Frauen erscheinen in Peters Träumen.
         'Only beautiful women appear in Peter's dreams.'
     c. Nur Macht und Reichtum erscheinen dem Peter erstrebenswert.
         'Only power and wealth appear worth striving for to Peter.'

(12) *Peter träumt von nur Gerda (/schönen Frauen, Macht und Reichtum)
     'Peter dreams only of Gerda (/beautiful women, power and wealth).'

But Jacobs admits that there are noun phrases introduced by focus particles,
as in (13-ab). It seems that this primarily occurs when a cardinal is narrowly
focussed. He assumes that in this instance the focus particle is adjoined to the
cardinal (but not adjoined to the noun phrase as such – see the topological
description in (14)).

(13) a. von nur einem Täter
     b. von nur zwei (/wenigen) Tätern
     c. ?von nur einigen Tätern
     d. *von nur dem Täter
     e. *von nur beiden Tätern   (Jacobs (1983, 69f.))
         'of only one (/two, few, some, the, both) culprit(s)'

(14) von <u>nur zwei</u> <u>Tätern</u>
         Def   Nom

If Jacobs is right, it is surprising that in these cases the focus particle can be
dislocated from the noun phrase as in (15-b) (cf. (8)) or in *nur von EInem
Täter*, since it seems unlikely that a subpart of a complex determiner can be
extracted (cf. section 4.2, where we will see true complex determiners, whose
components cannot be separated from one another).

(15) a. *Nur* ZWEI Täter hat er geschnappt.
     b. ZWEI Täter hat er *nur* geschnappt.
         'He has caught only two culprits.'

Thus, scepticism seems warranted. What is most puzzling about Jacobs's
view is that according to him, one would have to analyze the sentences in
(11) as V3-sentences, not as V2-sentences. Instead of modifying the topolog-
ical theory of sentences by admitting V3-sentences, one could try to explain
the ungrammaticality of (12) by relying on the conditions internal to PPs.
Further evidence against Jacobs's view comes from the fact that *nur*-phrases
behave like (negative) quantifiers – they are sensitive to negation, as quan-
tifiers typically are, and show regular relative and absolute scope behavior
(there is a long tradition starting with Geach [1962][3] (1980) which takes *only*-
phrases to be (negative) quantifiers). The sentences in (16) are not logically

equivalent with respect to the statement made, which clearly indicates that the *nur*-phrase is a quantifier.

(16) a. Von uns war nur MOritz nicht da.
        'Of us, only Moritz was not here.'
        Statement: Except for Moritz, everyone of us was here.
        Presupposition: Moritz was not here.
     b. Es ist nicht der Fall, dass von uns nur MOritz da war.
        'It is not the case that of us only Moritz was here.'
        Statement: Besides Moritz, someone else of us was here.
        Presupposition: Moritz was here.

For an illustration of the relative scope behavior of *nur*-phrases, see the sentences in (17). Whereas (17-a) is unambiguous with wide scope of the *nur*-phrase, sentence (17-b) is ambiguous: Besides the wide-scope reading of the universal quantifier ('Every problem is such that only Mary could solve it'), which one gets only with some effort, it exhibits the reading with wide scope of the *nur*-phrase ('Only Mary is such that she could solve every problem').

(17) a. Nur die Marie hat jede Aufgabe lösen können.
        'Only Mary could solve every problem.'
     b. Jede Aufgabe hat nur die Marie lösen können.
        'Every problem, only Mary could solve.'

Looking at *nur*-phrases in more detail, it becomes obvious that their scope behavior can be predicted quite accurately if one regards them as negative existential quantifiers (see Pafel forthcoming: section 2.6.2).

4. Definiteness Position

As for the definiteness position, we propose the following generalization:

(18) *Generalization II*:
      The definiteness position (Def) is filled by one simple or complex determiner which marks the noun phrase with ±DEFINITE.

In order to work with Generalization II, we have to know, above all, what determiners are. There seems to be no agreed upon answer to this question; assumptions concerning the extension of the class of determiners vary considerably. We attempt to single out determiners with the help of two criteria:

a topological and a morphological one. On the one hand, determiners follow the elements in Z and precede the elements in X (the topological criterion); on the other hand, determiners exhibit a certain inflection pattern – modulo irregularities (the morphological criterion).

4.1. Determiner Inflection

The paradigm of determiner inflection is as follows:[3]

(19) *Determiner inflection*

	singular			plural
	masc	neut	fem	masc/neut/fem
nom	*-er*	*-es*	*-e*	*-e*
acc	*-en*	*-es*	*-e*	*-e*
dat	*-em*	*-em*	*-er*	*-en*
gen	*-es*	*-es*	*-er*	*-er*

This is the paradigm of inflectional suffixes of *dieser* ('this'), *jener* ('that'), *jeder* ('every'), *alle* ('all'), *mancher* ('many a', 'some'), *welcher* ('which'), as well as the indefinite pronoun *einer* ('someone') and the possessive pronoun *meiner* ('mine'), *deiner* ('yours'), etc.[4] With the exception of the GEN.SING.MASC and GEN.SING.NEUT suffix *-es*, this paradigm is identical to the strong inflection of adjectives (we will come back to these similarities in section 4.2).

As <e> in the paradigm of determiner inflection (19) corresponds to schwa, it is a small step to assume that all occurrences of schwa followed by a consonant in (19) are due to schwa epenthesis. In these cases, it is the consonant alone which is the proper inflectional suffix (cf. Bierwisch 1967,

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[3] Compare Bierwisch's (1967) and Eisenberg's (1998) "pronominal inflection" and Müller's (2002) "determiner inflection".

[4] In some cases (GEN.SING.MASC/NEUT of *dieser, jener,* and *jeder*) the genitive suffix *-es* can be replaced by *-en*:

(i) ein Haus *diesen* Typs / im Sommer *diesen* Jahres

(ii) im Dezember *jenen* Jahres   (only NEUT)

(iii) der Inhalt *jeden* Behälters / das Recht *jeden* Volkes

250f.). Thus, we get the following paradigm of determinative inflectional morphemes:

(20) *Determinative inflectional morphemes*

	singular			plural
	masc	neut	fem	masc/neut/fem
nom	-r	-s	-e	-e
acc	-n	-s	-e	-e
dat	-m	-m	-r	-n
gen	-s	-s	-r	-r

The definite and indefinite article, as well as the possessive, follow the pattern in (19) and (20) only up to a point. The obvious deviations are to be found in the nominative and accusative forms. We will interpret these deviations as irregularities supported by the fact that these words are expressions with a high token-frequency, which typically exhibit idiosyncrasies; frequently used expressions are stored as complete inflected word forms in the lexicon, and are thus not composed with the help of general inflectional rules (see Werner (1987a;b), Nübling (2000)). Let us take a look at the definite article first. It exhibits the regular inflectional morphemes – except for NOM/ACC.SING.FEM and NOM/ACC.PLU (phonologically, *die* (/di:/) does not end in a schwa).

(21) *Definite article*

	singular			plural
	masc	neut	fem	masc/neut/fem
nom	der	das	die	die
acc	den	das	die	die
dat	dem	dem	der	den
gen	des	des	der	der

The indefinite article *ein* ('a') (and *kein* ('no')) and the possessive *mein* ('my'), *dein* ('your'), etc., follow the pattern of determiner inflection – apart from three forms. These irregular forms (NOM.SING.MASC/NEUT and ACC.SING.NEUT) carry no inflectional ending.

(22) *Indefinite article and possessive*

	singular			singular		
	masc	neut	fem	masc	neut	fem
nom	ein	ein	ein-e	sein	sein	sein-e
acc	ein-en	ein	ein-e	sein-en	sein	sein-e
dat	ein-em	ein-em	ein-er	sein-em	sein-em	sein-er
gen	ein-es	ein-es	ein-er	sein-es	sein-es	sein-er

The existence of these forms can most likely be partially diachronically explained. In Old High German *ein* and the so-called possessive pronouns *mîn*, *dîn*, *sîn*, etc., possessed two variants of these forms – an inflected one and an uninflected one. The paradigm of the inflectional endings for the strong adjectival declension, the indefinite pronoun *ein* and the possessive pronouns in OHG is:

(23)

	singular		
	masc	neut	fem
nom	-ø, -er	-ø, -az	-ø, -iu
acc	-an	-ø, -az	-a
dat	-emu, -emo	-emu, -emo	-eru, -ero
gen	-es	-es	-era

As already mentioned, the pronominal counterparts of the indefinite article and the possessives in Modern German – i.e., the indefinite pronoun *einer* and the possessive pronouns *meiner*, *deiner*, etc. – follow the pattern in (19) exactly.

Incidentally, we make a terminological distinction between the possessive, which cannot constitute a noun phrase on its own, and the possessive pronoun, which can (cf. (24)). We take them to be two distinct determiners, which differ not only in inflection, but also syntactically. The possessive must be accompanied by an adjective and/or noun (in X/Nom), whereas the possessive pronoun does not allow such (overt) elements.

(24) *Possessive vs. possessive pronoun*

    a. *Mein* Exemplar ist verschlissen.   (possessive)
    b. **Mein* ist verschlissen.   (possessive)
    c. *Meines* ist verschlissen.   (possessive pronoun)
    d. **Meines* Exemplar ist verschlissen.   (possessive pronoun)
   'My copy is worn.'

Our approach, then, does not distinguish articles and pronouns as two kinds of syntactic categories, but distinguishes them as two kinds of determiners (see section 4.4 below for further discussion on pronouns). Consequently, there is no need for a distinction between pronominal inflection and article (or determiner) inflection as, e.g., in Eisenberg (1998).

4.2.   Simple and Complex Determiners

Besides the simple determiners we have discussed above, there are also complex ones of which two types can be distinguished. The first type consists of a determiner and an adjective, e.g., *das selbe* ('the same'), *das gleiche* ('the same'), *die meisten* ('most'), *ein jeder* ('every'). The first part is nothing more than the definite or indefinite article, the second part is an adjective inflecting in a fully regular manner. This is true even for *jeder* ('every') in combination with *ein* ('a'): *jeder* does not conform to the determiner pattern here – other than the simple determiner *jeder* (see (25)):[5]

(25)   a.   der Wunsch eines jeden (/*jedes) Genossen
       b.   der Wunsch jedes (/*jeden) Genossen
            'the wish of every comrade'

These complex determiners have the following structure (Pafel (1994)):

(26)

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          D
         / \
        D   A
        |   |
       das selbe
       die meisten
       eine jede
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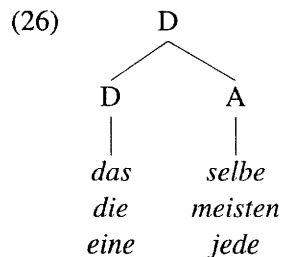
[5]Relying on the observation that the determiner *jed-* can bear the *-en*-suffix in the genitive if the noun is marked as genitive (e.g. *der Wunsch jeden Mannes*), one might think that the ungrammaticality of **der Wunsch eines jedes Genossen* is due to the fact that the noun phrase is marked as genitive by the indefinite article *eines*. But there is no constraint which prohibits more than one genitive marking in the noun phrase: *der Wunsch eines Mannes, der Wunsch jedes Mannes*. Thus, the reason for the ungrammaticality of **der Wunsch eines jedes Genossen* is nothing but the adjectival character of *jed-* in this usage.

The second type of complex determiner consists of two determiners, e.g., *welch ein* ('what a'), *solch ein* ('such a'), *all das* ('all that'), *alle beide* ('both'), *diese meine* ('these my').[6]

(27)

```
          D
         / \
        D   D
        |   |
      welch ein
       all  das
       alle beide
      diese meine
```
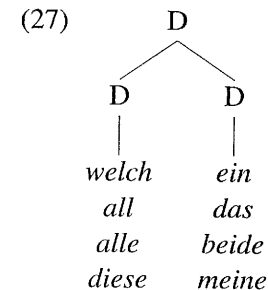
Thus we get the following picture:

(28)   simple D: *der, dieser, sein, jeder, welcher, dieser, seiner, einer, ...*

       complex D of type D+A: *das selbe, das gleiche, die meisten, ein jeder, ...*

       complex D of type D+D: *welch ein, solch ein, all das, alle beide, diese meine, ...*

Let us take a step back for a moment. We have mentioned that the pattern of determiner inflection is quite similar to the declension of strong adjectives apart from the ending in the GEN.SING.MASC and GEN.SING.NEUT. So why not take "determiners" to be adjectives following the strong declension pattern (cf. Gallmann (1990; 1996))? Now, if we take them to be adjectives, we must regard their ending in the GEN.SING.MASC/NEUT as irregular. Their topological behavior becomes irregular too, in comparison with the behavior of true adjectives. In addition, we must take the behavior of *jeder* in (25) as idiosyncratic. All these irregularities and idiosyncrasies can be dropped completely if we take "determiners" to really be determiners that follow the inflectional pattern in (19) and (20). This is ample reason to adopt the syntactic category D.

A clear distinction between determiners and adjectives contributes to a better account for some puzzling cases. *Viele* ('many', 'much') has two uses:

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[6]The highly idiomatic expression *unser aller* as in *unser aller Leben* ('the life of us all'/'all of our lives') might be a complex determiner too. It seems that neither part of this expression can be inflected.

It can be a quantificational determiner or an adjective. As a quantificational determiner, it carries no inflectional endings in the singular:

(29) a. Es ist viel von dem eingetreten, was sie vorhergesagt haben.
          'Much of what they predicted eventually happened.'
      b. Sie haben viel von dem erreicht, was sie sich vorgenommen haben.
          'They have accomplished much of what they set out to do.'

That we have a quantificational use of *viel-* here is shown by the fact that the *viel*-phrase is sensitive to negation, coordination and quantifier interaction (see Pafel (1994)). Here, we will demonstrate only its sensitivity to negation. Sentence (30-a), on the one hand, and sentences (30-b) and (30-c), on the other, are not logically equivalent.

(30) a. Doch ist viel von dem, was sie vorhergesagt haben, nicht einge-
          treten.
          'Yet much of what they predicted did not actually happen.'
      b. Es ist nicht der Fall, dass viel von dem eingetreten ist, was sie
          vorhergesagt haben.
          'It is not the case that much of what they predicted actually hap-
          pened.'
      c. Es ist nicht viel von dem eingetreten, was sie vorhergesagt haben.
          'Not much of what they predicted actually happened.'

This becomes obvious if one takes a situation in which some of the things predicted eventually happened, but also in which some of them did not happen. In such a situation, (a) is true, but (b) and (c) are false.

As an adjective, *viele* is located in the canonical adjectival position in the X-field, exhibits regular adjectival inflection (in plural and singular) and is not part of a quantificational phrase in phrases like *dieses viele Geld*.

Even more interesting is the case of *ein*. It seems that we have to distinguish three different uses:

(31) a. the indefinite article *ein*, which can be cliticized ('*ne Frau* 'a
          woman'), but not stressed;[7]
      b. the quantificational determiner *ein*, which cannot be cliticized
          (*'*ne von euch* 'one of you'), but can be stressed (*EIne von euch,
          EIne Frau*);
      c. the adjective *ein*, which cannot be cliticized (**die 'ne Frau* 'the
          one woman'), but can be stressed (*die EIne Frau*), inflects like an

adjective, and is located in the canonical adjectival position in the X-field.

A noun phrase introduced by the indefinite article does not behave like an ordinary quantifier, in contrast to a noun phrase introduced by the quantificational determiner *ein*. See, for instance, their differing sensitivity to negation; the sentences in (32) are logically equivalent, in striking contrast to the sentences in (33):

(32) a. 'ne Frage hat sie nicht gestellt. ($\neg\exists$)
          'A question, she didn't pose.'
      b. Es ist nicht der Fall, dass sie 'ne Frage gestellt hat. ($\neg\exists$)
          'It is not the case that she posed a question.'

(33) a. Eine von den Fragen hat sie nicht gestellt. ($\exists\neg$)
          'One of the questions, she didn't pose.'
      b. Es ist nicht der Fall, dass sie eine von den Fragen gestellt hat.
          'It is not the case that she posed one of the questions.' ($\neg\exists$)

The matter is more complicated than we can argue here (see Pafel (1998, sections 2.5, 6.2; forthcoming: section 4)). It goes without saying that the semantic type of a noun phrase containing the adjective *ein* does not depend directly on this adjective (cf. the case of the adjective *viele*).[8]

A further interesting case is the different uses of *alle*. We have already discussed the *alle* in the Z-field, i.e., *all-* preceding a demonstrative, possessive, etc. It seems that the same kind of *alle* can also be located in the Y-field if it is combined with certain pronouns:[9]

(34) Z/Y-*alle*
      a. *alle* diese Bücher 'all these books'
      b. *alles* das (/das *alles*) 'all that'
      c. ihr *alle* 'you all'

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[7] Apart from an emphatic use of *ein*.

[8] In several German dialects, the indefinite article is phonologically distinguished from the quantity expression *one* – in Swabian, e.g., the indefinite article is *a*, whereas the translation of *one* is *oĩn* (East-Swabian) or *oã* (West-Swabian).

[9] The use of *alles* in *wh*-clauses as in (i) shows similarities to the Z/Y-*alle*; it is located in Y and can easily be dislocated from the *wh*-phrase (cf. Pafel (1991, section 5.4), Reis (1992)).

(i)   Wen *alles* hast du dort besucht?   'Who all did you visit there?'
(ii) Wen hast du dort *alles* besucht?

The second use of *alle* is as an inflected quantificational determiner in Def:

(35)   Def-*alle*

    a.   *alle* Bücher 'all books'

    b.   *alle* 'all'

Thirdly, there is the uninflected quantificational *all* that is part of a complex determiner as in:

(36)   Def-*all*

    a.   *all diese* Bücher 'all these books'

    b.   *all das* Geld 'all that money'

    c.   *all das* 'all that'

We note in passing that only Z/Y-*alle* allows quantifier floating:

(37)   a.   Diese Bücher habe ich *alle* gelesen.   [Z/Y-*alle*]

      b.   *Bücher habe ich *alle* gelesen.   [Def-*alle*]

      c.   *Diese Bücher habe ich *all* gelesen.   [Def-*all*]

It has been argued that quantificational elements are of a peculiar syntactic category, Q(uantifier) – see, for German, Vater (1986) and Giusti (1991) among others. Our discussion of simple and complex determiners and of the quantificational and non-quantificational uses of *ein* and *viele* make it clear that it is unnecessary to introduce into syntax the syntactic category Q – D and A are sufficient. It seems especially needless to assume with Vater (1986) that quantificational elements form a syntactic category of their own, i.e., Q(uantifier), despite the fact that they differ in their position in the noun phrase and in their inflectional and semantic properties.

4.3.   Definiteness

We characterized all the elements in the Def-position as elements which mark the noun phrase as ±DEFINITE. We take the noun phrases in (38) to be +DEFINITE and the ones in (39) to be −DEFINITE: (the element in Def is in italics and it is underlined if the head-element is covert)

(38)   *Definite noun phrases*

    a.   *der* bunte Schmetterling   'the colorful butterfly'

    b.   *dieser* komische Kauz   'this strange guy'

    c.   __ Augustus   'Augustus'

    d.   *der* weise Augustus   '(the) wise Augustus'

    e.   *Prosperos* wertvolle Bücher   'Prospero's valuable books'

    f.   *seine* wertvollen Bücher   'his valuable books'

    g.   *mancher* bunte Vogel   'many a colorful bird'

    h.   *jeder* bunte Vogel   'every colorful bird'

    i.   *beide* römischen Feldherren   'both Roman commanders'

    j.   *alle* römischen Feldherren   'all Roman commanders'

    k.   *welches* wertvolle Buch   'which valuable book'

    l.   *der selbe* bunte Schmetterling 'the same colorful butterfly'

    m.   *die meisten* bunten Luftballons 'most colorful balloons'

    n.   *diese meine* ersten beiden Bücher 'my first two books here'

(39)   *Indefinite noun phrases*

    a.   *ein* bunter Luftballon   'a colorful balloon'

    b.   *kein* bunter Luftballon   'no colorful balloon'

    c.   __ süßer Honig   'sweet honey'

    d.   __ bunter Vögel [gen.]   'of colorful birds'

    e.   *vieler* römischer, skrupelloser Feldherren [gen.]

             'of many unscrupulous Roman commanders'

    f.   *einiger* römischer, skrupelloser Feldherren [gen.]

             'of some unscrupulous Roman commanders'

    g.   *wie vieler* wertvoller Bücher [gen.] 'of how many valuable books'

    h.   __ was für wertvoller Bücher [gen.][10]

             'of what kind of valuable books'

We take definiteness to be a syntactic feature which has no immediate semantic or pragmatic interpretation. Looking at the two groups, we see that the definite as well as the indefinite group contain referential as well as quantificational phrases, and discourse-bound as well as non-discourse-bound phrases. Thus, it is questionable whether the two groups can be distinguished on a purely semantic or pragmatic basis (cf. Pafel (1994), Lyons (1999)).

The strongest evidence for assuming syntactic definiteness in (38) and (39) is the fact that the determination of the strong/weak alternation of adjectives can be explained, to a certain degree, by the fact that the elements in Def are definite or indefinite. See the generalization in (40) proposed in Pafel (1994):

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[10]See Pafel (1996) for arguments that there is an empty D-head in *was für* phrases.

(40)   a.   If Def is [+DEFINITE], then A is weak.
           der, dieser, jener, jeder, alle, beide, mancher [SING],
           welcher, die meisten, ...

       b.   If Def is [−DEFINITE], then A is strong.
           viele, wenige, einige, mehrere, etliche, manche [PLU], ...

Compare (38-ab), with the weak masculine nominative singular suffix *-e*, to (39-ab), with the strong one *-er*. Here the relation between definiteness and strong/weak seems obvious. In other cases in (38) and (39), this relation is more interesting and significant. But the reality is not as neat as the two generalizations suggest; the behavior of the adjectives following *ein, kein*, and the possessives is more complicated and contradicts the generalizations in (40). Here one speaks of mixed adjectival inflection. Looking at strong/weak from the perspective of *ein, kein*, and the possessives, the adjectives's declension seems to be determined "morphologically": If the determiner has a strong suffix, the adjective is weak, if the determiner has a weak suffix, the adjective is strong (cf. Demske (2001, section 2.1.2)). If these generalizations are adopted, the behavior of adjectives following indefinite determiners (40-b) becomes idiosyncratic. As it seems impossible to have both sets of generalizations, it appears to be more appropriate to locate the idiosyncrasies with *ein, kein* and the possessives: Expressions which have a high token-frequency are sensitive to idiosyncrasies (see above; cf. Pafel 1994).

4.4.   Pronouns

We will divide the pronouns into three classes – D-pronouns, N-pronouns, and D/N-pronouns. Inflection and distribution are the two criteria which this classification is based on. The prototypical D-pronoun exhibits determiner inflection and allows no overt D-, A-, or N-element. The prototypical N-pronoun is uninflected and allows no overt D-, A-, or N-element. The prototypical D/N-pronoun can, but must not exhibit determiner inflection, and can allow overt adjectives, but neither an overt D- nor an N-element. Let us look at these classes one by one.

We have taken the indefinite pronoun *einer* and the possessive pronouns *meiner* etc. to be determiners, as they satisfy the morphological criterion of a determiner, i.e., the pattern of determiner inflection. These pronouns cannot be combined with D-, A- and N-elements, but with elements in Z and

Y (*nur einer, einer von uns*). Thus, the topological criterion of a determiner is not applicable. But minimizing the difference between indefinite and possessive pronouns, on the one hand, and their non-pronominal counterparts, on the other, suggests that the former are D-elements occupying Def. If the topological schema is suitable for both non-pronominal and pronominal noun phrases, filling X and Nom with overt material must be prohibited. One way to do this is to assume that there is a covert noun located in Nom, which prohibits the insertion of an overt noun. Independent evidence for a covert noun are expressions of the type pronoun+genitive (e.g., *einer unserer Freunde* ('one of our friends')), as it is common to assume that the genitive is assigned by an adjacent N.[11]

The demonstrative pronoun *der/das/die*, which differs from the article *der/das/die* with respect to the dative plural form and the genitive forms, is a D-pronoun too. The forms of the interrogative and indefinite pronoun *wer* (*wen, wem, wessen*) are similar to the demonstrative pronoun *der*; therefore *wer* will be classified as a D-pronoun.

A more controversial topic is that of the personal pronouns. Regarding the personal deictics – *ich, du, wir, ihr, Sie* – it has been argued convincingly (e.g., by Lawrenz (1993, section 6)) that they can have overt X- and Nom-elements (*wir begeisterten Bachfans* ('we enthusiastic Bach fans'), *ich dummer Idiot* ('I stupid idiot')). It seems that *ich* and *du* and their plurals can have a covert noun or an "emotionally marked" noun in Nom, whereas *wir* and *ihr* additionally allow neutral nouns.

(41)   a.   wir
       b.   wir dummen Idioten
       c.   wir begeisterten Bachfans

(42)   a.   ich
       b.   ich dummer Idiot
       c.   *ich begeisterter Bachfan

These pronouns' syntactic behavior and their form, which at least partially conforms to the determiner inflection, leads us to the conclusion that the per-

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[11] There are clear differences between partitive genitive noun phrases (*unserer Freunde*) and partitive *von*-PPs (*von unseren Freunden*). The *von*-PP can be quite freely extracted and extraposed, whereas the genitive noun phrase cannot be extracted and can hardly be extraposed (cf. Pafel (1995), where it is argued that this difference can be explained by assuming that the genitive noun phrase is the complement of N and the *von*-PP is adjoined to DP).

sonal deictics are D-pronouns. Finally, the anaphoric pronouns (*er/es/sie$_{sing}$*, *sie$_{plu}$*) bear some relation to the determiner inflection too, but do not allow any overt Nom-element.

N-pronouns show no variation in form and allow no overt D-, A-, or N-element. This class contains the interrogative pronoun *was*, the reflexive pronoun *sich* and the reciprocal pronoun *einander*. Therefore, we hesitate to locate them in Def. Before we proceed, we must add that the case of *was* is controversial. Often it is assumed that the paradigm of *was* is *was* (nom), *was* (acc), *wem* (dat), *wessen* (gen) (cf. Eisenberg (1980, 65; 1986, 333)). But it is obvious that there is also a dative *was* (at least in colloquial speech):

(43)   Vor was$_{dative}$ fürchtest du dich?
        'What are you afraid of?'

The case of the genitive *was* is more difficult. But sentences like (44) seem to show that *was* can be a genitive form too:

(44)   a.   [$_{genitive}$ Was für eines Verbrechens] wird er beschuldigt?
              'What kind of crime is he being charged with?'
        b.   [$_{genitive}$ Aufgrund was für eines Vorfalls] ist er verhindert?
              'Because of what kind of incident is he absent?'

In Pafel (1996, section 4.3), there is an elaborate argument to the effect that the properties of *was für*-phrases can be best accounted for if *was* is viewed as an N-element (the extraction behavior of *was* being the decisive piece of evidence). Thus, we propose that the interrogative pronoun *was*, the reflexive pronoun *sich*, and the reciprocal pronoun *einander* be analyzed as pronouns located in Nom.

The third class of pronouns is the D/N-pronouns. Their characteristic feature is their ability to be combined with a so-called substantivized adjective. This class contains *jemand, niemand, etwas, nichts, alles*, and the indefinite *was*.

(45)   a.   *Jemand* Neues (ist gekommen).   'Someone new (came).'
        b.   *Nichts* Aufregendes (ist passiert). 'Nothing exciting (happened).'
        c.   *Was* Neues (gibt es nicht zu berichten).
                                                     'Something new (cannot be reported).'

The adjectives that these pronouns can be combined with are true adjectives (the orthographic convention of capitalizing them is deceptive), since they

can be iterated and modified like adjectives and are inflected like adjectives. However, the adjective cannot be combined with a noun (**Jemand Neues Person ist gekommen*). These properties can be accounted for if one assumes that we are dealing here with an instance of an N-to-D-movement of the pronoun, as has been argued by Haider (1992, 319) and Pafel (1995, 174, note 23) (cf. Kishimoto (2000) for English).

4.5.   Prenominal Genitive and Prenominal Dative

There are several kinds of possessive constructions in German:

(46)   a.   *Seine* Kantaten sind weltberühmt.   [bare possessive]
        b.   Die Kantaten *von Bach* sind weltberühmt.   [*von*-PP]
        c.   Die Kantaten *Bachs* sind weltberühmt.   [postnominal genitive]
        d.   *Bachs* Kantaten sind weltberühmt.   [prenominal genitive]
        e.   *Dem Bach seine* Kantaten sind weltberühmt.
                                        [prenominal dative plus possessive]
              'Bach's (/his) cantatas are world-famous.'

The topological analysis of the first three is straightforward. The constructions in (46-de), however, are more interesting. The prenominal dative construction is wide-spread in German dialects and colloquial German.[12] One might suppose that the dative is located in the Z-field. But this cannot be right if one takes Generalization I into account: The dative cannot be dislocated from the rest of the noun phrase.

(47)   a.   **Seine Kantaten* sind *dem Bach* weltberühmt.
        b.   **Dem Bach* sind *seine Kantaten* weltberühmt.

These sentences are unacceptable taking the dative as a possessor, i.e., in the reading of (46-e). If the dative is not a Z-element, it must be part of Def – together with the possessive *seine*. This follows the logic of the proposed topo-

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[12] During the federal elections in Germany in 2002, a slogan which attained some popularity was based on a double prenominal DP plus possessive construction:

(i)   Ich wähl Doris ihrem Mann seine Partei.
       'I'm voting for Doris's husband's party.'

(ii)   {$_D$[$_{DP}$ ($_D$[$_{DP}$ Doris] ihrem) Mann] seine} Partei

logical account if the possessive is an element of Def. Furthermore, according to Generalization II, the dative and possessive should form a determiner together. The possessive would be the head of the complex determiner with the dative adjoined to it.[13]

(48)

```
            D
          /   \
        DP      D
       /  \     |
  dem Bach     seine
```
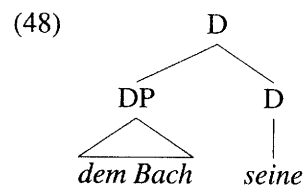
This is not a standard structure as usually words adjoin to words (X^0 to Y^0) and phrases adjoin to phrases (XP to YP). It is obvious that the dative in this kind of construction cannot be assigned in a canonical way like the postnominal genitive. It is idiosyncratic to this construction.

In this construction, there is a transparent distribution between the possessor, i.e., the dative DP, which is a referential expression and can be assigned a thematic role, and the possessive description operator, i.e., the possessive, which makes the headed DP into a definite description. The "agreement" between the dative and the possessive in number, gender and person should not be implemented by agreement between the features of the dative and the possessive, as this would result in feature clashes (*seine* in (46-e) would be PLURAL as well as SINGULAR). It seems more reasonable to treat the "agreement" as a selection requirement on number, gender, and person which is imposed on the dative by the possessive.

A similiar account may be given of the prenominal genitive. It cannot occupy the Z-field, as it cannot be dislocated. Since it is not adjectival in character,[14] it cannot be located in the X-field either. Therefore, it must be

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[13]Because uninflected *all* is part of a complex determiner (see above), the following quite acceptable noun phrase indicates that dative plus possessive does indeed have determiner status:

(i)   all dem Bach seine Kantaten (cf. all seine Kantaten, *all Bachs Kantaten)

The reason for the ungrammaticality of *all Bachs Kantaten* might be that *all* as an uninflected element can only be combined with determiners exhibiting determiner inflection.

[14]For the following reasons: (i) APs cannot precede the genitive; (ii) the genitive cannot be modified like an adjective; (iii) there are genitive phrases which definitely are not adjectives (e.g., *des Kaisers (neue Kleider)* ('the emperor's new clothes')); (iv) the genitive does not exhibit strong/weak alternation; and (v) there is no evidence for *-s* being an adjectivizing suffix (pace Gallmann (1997)).

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located in Def. One might take a prenominal genitive like *Bachs* to be a determiner (cf. Lattewitz (1994)), but, firstly, it does not show any indication of determiner inflection, and, secondly, the "determiner" *Bachs* would have to be plural in *Bachs Kantaten* in order to agree with the noun. It seems more sensible to stipulate an empty determiner that the genitive is adjoined to.

(49)

```
            D
          /   \
        DP      D
       /  \     |
    Bachs      ∅
```
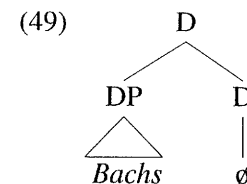
The genitive is the possessor and the empty definite D is the possessive description operator, which carries the noun phrase-internal agreement features. The genitive can be regarded as idiosyncratic to this construction or as a requirement of the empty D on the possessor. The restriction to proper names in the genitive is another peculiarity of this construction.

Incidentally, with the help of the superlative construction, it can be shown that the prenominal genitive has the status of a determiner. See the following pattern of acceptable and unacceptable phrases:

(50) a.   der beste Freund der Marie   'Mary's best friend'
      b.   ihr bester Freund   'her best friend'
      c.   Maries bester Freund   'Mary's best friend'
      d.   *bester Freund (von Marie)   'Mary's best friend'
      e.   *von Marie bester Freund   'Mary's best friend'

This pattern suggests that an overt definite determiner must accompany the superlative. But if that is the case, the prenominal genitive must have the status of a definite determiner. Alternatively, one might divide the genitive into the noun stem as constituting the DP and the genitive *-s* as the determiner (cf. Olsen 1991). However, such a violation of the integrity of words in syntax seems unnecessary.

Looking from this perspective at the bare possessive construction, an analysis in accordance with the prenominal dative and prenominal genitive construction presents itself.

(51)

```
         D
        / \
      DP    D
      |     |
      ø    seine
```
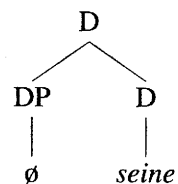
Here we also have a complex determiner, consisting of an empty pronominal as the possessor, and the overt possessive as the possessive description operator. The empty pronominal behaves just like an overt pronominal: It can be either a referential term (co-referential with its antecedent) or a variable.

5. Nominal Position

Not only a simple N^0-constituent can be located in the nominal position (Nom), but a complex N^0-constitutent can as well. An example of a complex N^0 is *Herrn Prof. Dr. Johann Sebastian Bach*, as in (52).

(52) Wir alle kennen [den *berühmten*
                      Def   X
      Herrn Prof. Dr. Johann Sebastian Bach]
                      Nom
      'We all know the famous Mr. Prof. Dr Johann Sebastian Bach.'

The nouns *Herr, Professor, Doktor*, as well as the first names *Johann* and *Sebastian*, can be analyzed as enlargement nouns, as narrow appositions. The succession of these expressions is determined by a relatively strict rule expressed in Generalization III:

(53) *Generalization III*:
      The nominal position (Nom) is filled by one simple or complex nominal X^0-constituent with linear precedence inside this constituent being as follows:
      nomen varians* > nomen invarians* > N > nomen (/adjectivum) invarians*

The structure of Nom in (52) is as follows:

(54) *Herrn   Prof.   Dr.   Johann   Sebastian* Bach
      $N_{varians}$ $N_{invarians}$ $N_{invarians}$ $N_{invarians}$ $N_{invarians}$ N

Usually narrow appositions remain uninflected ("invarians"), but there are some exceptions, i.e., "nomina varians", like *Herr* ('Mr.'), *Genosse* ('comrade'), *Kollege* ('colleague', 'coworker'). It seems obvious that these nouns are not situated in the X-field, since they are not adjectival in character and cannot be located in front of an attributive adjective:

(55) *Wir alle kennen den Herrn Prof. Dr. Johann Sebastian berühmten Bach

Additionally, elements in the X-field are inflected if possible, but as we have just mentioned, enlargement nouns are often uninflected.

Narrow appositions can also be postposed. Here only the uninflected form is possible. Cf. (56):

(56) Wir alle kennen den *Kirchenmusiker Johann Sebastian Bach*
      'We all know the clerical musician Johann Sebastian Bach.'

(57) Kirchenmusiker *Johann   Sebastian Bach*
            N $N_{invarians}$ $N_{invarians}$ $N_{invarians}$

That in (56) *Johann Sebastian Bach* is the apposition and not *Kirchenmusiker* is obvious in Standard German, as the article is not only possible, but obligatory.

(58) Wir alle kennen *(den) Kirchenmusiker Johann Sebastian Bach.

This is expected if the singular count noun *Kirchenmusiker* is the head noun, because an overt determiner must introduce singular count nouns in argument positions, but not proper names.

(59) a. *Wir alle kennen Kirchenmusiker$_{singular}$
      b. Wir alle kennen Johann Sebastian Bach.

If, in addition, the nominal element is genitive, the head noun, but not the narrow apposition is inflected:

(60) a. die Beförderung [des Kirchenmusikers *J.S. Bach*]
      b. *die Beförderung [des Kirchenmusiker *J.S. Bachs*]
          'the promotion of the clerical musician J.S. Bach'

A further type of narrow apposition occurs with uninflected adjectives as in

(61) a. Forelle *blau*
      b. Wahlkampf *pur*

c.   Schnitzel *paniert*

We consider narrow appositions to represent X^0-elements which adjoin to an N^0-constituent (cf. Gallmann (1999), Dürscheid (2002)).[15]

6.   Final Remarks

The topological theory for noun phrases in German can be formulated as follows: A noun phrase in German is well formed with respect to word order iff it is constructed in accordance with schema (1) and its restrictions.

In this paper, we have discussed the restrictions for the Z-field, Def-position, and Nom-position in some detail, without going into the word order restrictions for the X- and Y-field. But of course, in order to make the theory descriptively more adequate, the topological schema must be supplemented with the suitable restrictions for X and Y.

References

Bierwisch, Manfred
1967   Syntactic Features in Morphology: General Problems of So-Called Pronomi-
             nal Inflection in German. In *To Honor Roman Jakobson. Vol. 1*, 239-270. The
             Hague/Paris: Mouton.
Demske, Ulrike
2001   *Merkmale und Relationen. Diachrone Studien zur Nominalphrase im
             Deutschen*. Berlin/New York: de Gruyter.
Duden-Grammatik
^{3}1973   *Grammatik der deutschen Gegenwartssprache*. Bearbeitet von Paul Grebe.
             Mannheim: Bibliographisches Institut.
Dürscheid, Christa
2002   "Polemik satt und Wahlkampf pur" – das postnominale Adjektiv im
             Deutschen. *Zeitschrift für Sprachwissenschaft* 21, 57-81.
Eisenberg, Peter
1980   Das Deutsche und die Universalien: Wenn der Kasus zurückschlägt. Be-
             merkungen zu J.R. Ross "Wem der Kasus schlägt" (LB 63). *Linguistische
             Berichte* 67, 63-67.
1986   *Grundriß der deutschen Grammatik*. Stuttgart: Metzler.
1998   *Grundriß der deutschen Grammatik. Das Wort*. Stuttgart/Weimar: Metzler.

Engel, Ulrich
1977   *Syntax der deutschen Gegenwartssprache*. Berlin: Schmidt.
1988   *Deutsche Grammatik*. Heidelberg: Groos.
Gallmann, Peter
1990   *Kategoriell komplexe Wortformen: das Zusammenwirken von Morphologie
             und Syntax bei der Flexion von Nomen und Adjektiv*. Tübingen: Niemeyer.
1996   Die Steuerung der Flexion in der DP. *Linguistische Berichte* 164. 283-314.
1997   Zu Morphosyntax und Lexik der w-Wörter. *Arbeitspapiere des SFB 340,
             Bericht Nr. 107*. Stuttgart/Tübingen.
1999   Wortbegriff und Nomen-Verb-Verbindungen. *Zeitschrift für Sprachwis-
             senschaft* 18, 269-304.
Geach, Peter Thomas
[1962]^{3}1980 *Reference and Generality. An Examination of some Medieval and Modern
             Theories*. Ithaca: Cornell University Press.
Giusti, Giuliana
1991   The Categorial Status of Quantified Nominals. *Linguistische Berichte* 136,
             438-454.
Haider, Hubert
1992   Die Struktur der Nominalphrase – Lexikalische und funktionale Strukturen. In
             Ludger Hoffmann (ed.), *Deutsche Syntax: Ansichten und Aussichten*, 304-333.
             Berlin/New York: de Gruyter.
Höhle, Tilman N.
1986   Der Begriff "Mittelfeld". Anmerkungen über die Theorie der topologischen
             Felder. In Walter Weiß, Herbert Ernst Wiegand & Marga Reis (eds.), *Ak-
             ten des VII. Linguistischen Kongresses der Internationalen Vereinigung für
             germanistische Sprach- und Literaturwissenschaft. Göttingen 1985*, 329-340.
             Tübingen: Niemeyer.
Jacobs, Joachim
1983   *Fokus und Skalen: zur Syntax und Semantik der Gradpartikeln im Deutschen*.
             Tübingen: Niemeyer.
Kishimoto, Hideki
2000   Indefinite Pronouns and Overt N-Raising. *Linguistic Inquiry* 31, 557-566.
Lattewitz, Karen
1994   Eine Analyse des deutschen Genitivs. *Linguistische Berichte* 150. 118-146.
Lawrenz, Birgit
1993   *Apposition. Begriffsbestimmung und syntaktischer Status*. Tübingen: Narr.
Lyons, Christopher
1999   *Definiteness*. Cambridge: Cambridge University Press.
Müller, Gereon
2002   Remarks on Nominal Inflection in German. In Ingrid Kaufmann & Barbara
             Stiebels (eds.), *More than Words: A Festschrift for Dieter Wunderlich*. 113-
             145. Berlin: Akademie Verlag.
Nübling, Damaris
2000   *Prinzipien der Irregularisierung: eine kontrastive Analyse von zehn Verben in
             zehn germanischen Sprachen*. Tübingen: Niemeyer.

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[15]Dürscheid's (2002) arguments for a distinction between N^0-adjuncts and N'-adjuncts are unconvincing to us.

Olsen, Susan
    1991   Die deutsche Nominalphrase als "Determinansphrase". In Susan Olsen & Gisbert Fanselow (eds.), *DET, COMP und INFL: Zur Syntax funktionaler Kategorien und grammatischer Funktionen*, 35-56. Tübingen: Niemeyer.
Pafel, Jürgen
    1991   Zum relativen Skopus von w- und Q-Phrasen (w/Q-Interaktion). In Marga Reis & Inger Rosengren (eds.), *Fragesätze und Fragen*, 145-173. Tübingen: Niemeyer.
    1994   Zur syntaktischen Struktur nominaler Quantoren. *Zeitschrift für Sprachwissenschaft* 13, 236-275.
    1995   Kinds of Extraction from Noun Phrases. In Uli Lutz & Jürgen Pafel (eds.), *On Extraction and Extraposition in German*, 145-177. Amsterdam/Philadelphia: Benjamins.
    1996   Die syntaktische und semantische Struktur von *was für*-Phrasen. *Linguistische Berichte* 161, 37-67.
    1998   Skopus und logische Struktur. Studien zum Quantorenskopus im Deutschen. *Arbeitspapiere des SFB 340, Bericht Nr. 129*. Stuttgart/Tübingen.
    forthcoming *Quantifier Scope in German*. Amsterdam: Benjamins.
Reis, Marga
    1992   The Category of invariant "alles" in wh-Clauses. In Rosemary Tracy (ed.), *Who Climbs the Grammar Tree?*, 465-492. Tübingen: Niemeyer.
Reis, Marga & Heinz Vater
    1980   "Beide". In Gunter Brettschneider & Christian Lehmann (eds.), *Wege zur Universalienforschung. Sprachwissenschaftliche Beiträge zum 60. Geburtstag von Hansjakob Seiler*, 360-386. Tübingen: Narr.
Vater, Heinz
    1986   Zur Abgrenzung der Determinantien und Quantoren. In Heinz Vater (ed.), *Zur Syntax der Determinantien*, 13-31. Tübingen: Narr.
Werner, Otmar
    1987a   The Aim of Morphological Change is a Good Mixture – Not a Uniform Language Type. In Anna Giacalone Ramat *et al.* (eds.), *Papers from the 7th International Conference on Historical Linguistics*, 591-606. Amsterdam.
    1987b   Natürlichkeit und Nutzen morphologischer Irregularität. In Norbert Boretzky *et al.* (eds.), *Beiträge zum 3. Essener Kolloquium über "Sprachwandel und seine bestimmenden Faktoren"*, 289-316. Bochum: Brockmeyer.
Zifonun, Gisela *et al.*
    1997   *Grammatik der deutschen Sprache*. Berlin/New York: de Gruyter.